UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 40-F

[Check one]

¨ REGISTRATION STATEMENT PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

OR

x ANNUAL REPORT PURSUANT TO SECTION 13(a) OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended October 31, 2012 Commission File Number 001-13928

ROYAL BANK OF CANADA

(Exact name of Registrant as specified in its charter)

Canada	6029	Not Applicable
(Province or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number (if applicable))	(I.R.S. Employer Identification Number (if applicable))

200 Bay Street
Royal Bank Plaza
Toronto, Ontario
Canada M5J 2J5
Attention: Carol J. McNamara
Vice-President, Associate General Counsel & Secretary
(416) 974-5151
(Address and telephone number of Registrant's principal executive offices)

Royal Bank of Canada
3 World Financial Center
200 Vesey Street
New York, New York 10281
Attention: Daniel L. Torbenson
Chief Counsel, U.S. Regulatory and Corporate Services
(212) 437-9264
(Name, address (including zip code) and telephone number (including area code) of agent for service in the United States)

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Canada M5J 2J5
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New York, New York
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Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of each class	Name of each exchange on which registered
Common Shares	New York Stock Exchange

Securities registered or to be registered pursuant to Section 12(g) of the Act.

Not Applicable
(Title of Class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

Not Applicable
(Title of Class)

For annual reports, indicate by check mark the information filed with this Form:

x Annual information form x Audited annual financial statements

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

Common Shares	1,445,302,600
First Preferred Shares	
Series W	12,000,000
Series AA	12,000,000
Series AB	12,000,000
Series AC	8,000,000
Series AD	10,000,000
Series AE	10,000,000
Series AF	8,000,000
Series AG	10,000,000
Series AH	8,500,000
Series AJ	16,000,000
Series AL	12,000,000
Series AN	9,000,000
Series AP	11,000,000
Series AR	14,000,000
Series AT	11,000,000
Series AV	16,000,000
Series AX	13,000,000

Indicate by check mark whether the Registrant by filing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934 (the "Exchange Act"). If "Yes" is marked, indicate the file number assigned to the Registrant in connection with such Rule.

Yes ¨ No x

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days.

Yes x No ¨

CONTROLS AND PROCEDURES

Information about disclosure controls and procedures and on internal control over financial reporting can be found under “Controls and procedures” on page 80 of our management’s discussion and analysis, and in “Management’s Report on Internal Control over Financial Reporting” which can be found on page 90 of our Financial Review which is set forth in Exhibit 2.

AUDIT COMMITTEE FINANCIAL EXPERTS

The Registrant’s board of directors has determined that it has five audit committee financial experts serving on its audit committee. David F. Denison, Timothy J. Hearn, Alice D. Laberge, J. Pedro Reinhard and Victor L. Young have been determined to be such audit committee financial experts and are independent, as that term is defined by the New York Stock Exchange’s listing standards applicable to the Registrant. The SEC has indicated that the designation of David F. Denison, Timothy J. Hearn, Alice D. Laberge, J. Pedro Reinhard and Victor L. Young as audit committee financial experts does not make any of them an “expert” for any purpose, impose any duties, obligations or liability on David F. Denison, Timothy J. Hearn, Alice D. Laberge, J. Pedro Reinhard and Victor L. Young that are greater than those imposed on members of the audit committee and board of directors who do not carry this designation or affect the duties, obligations or liability of any other member of the audit committee.

CODE OF ETHICS

The Registrant has adopted a code of ethics (the “Code of Conduct”) that applies to all employees and officers, including its principal executive officer, principal financial officer and principal accounting officer. The full text of the Code of Conduct is set forth in Exhibit 4 and is also available on our website at rbc.com.

PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information about principal accountant fees and services and a brief description of our pre-approval policies and procedures can be found under “Audit Committee” beginning on page 20 of our annual information form, which section is incorporated by reference. A copy of our pre-approval policies and procedures can be found in Appendix D of our annual information form, which section is incorporated by reference.

OFF-BALANCE SHEET ARRANGEMENTS

Information about off-balance sheet arrangements can be found under “Off-balance sheet arrangements” beginning on page 43 of our management’s discussion and analysis, which section is incorporated by reference.

TABULAR DISCLOSURE OF CONTRACTUAL OBLIGATIONS

Tabular disclosure of contractual obligations can be found under “Risk management – Liquidity and funding management” beginning on page 62 of our management’s discussion and analysis, which section is incorporated by reference.

IDENTIFICATION OF THE AUDIT COMMITTEE

Information about identification of the audit committee can be found under “Audit Committee” beginning on page 20 of our annual information form, which section is incorporated by reference.

UNDERTAKING

Registrant undertakes to make available, in person or by telephone, representatives to respond to inquiries made by the Commission staff, and to furnish promptly, when requested to do so by the Commission staff, information relating to: the securities in relation to which the obligation to file an annual report on Form 40-F arises or transactions in said securities.

SUMMARY OF SIGNIFICANT DIFFERENCES FROM NYSE CORPORATE GOVERNANCE RULES

A summary of significant ways corporate governance practices followed by Royal Bank of Canada differ from corporate governance practices required to be followed by U.S. Domestic Companies under the New York Stock Exchange's listing standards (disclosure required by section 303A.11 of the NYSE Listed Company Manual) is available on the Registrant's corporate governance website at rbc.com/governance.

SIGNATURES

Pursuant to the requirements of the Exchange Act, the Registrant certifies that it meets all of the requirements for filing on Form 40-F and has duly caused this annual report to be signed on its behalf by the undersigned, thereto duly authorized.

ROYAL BANK OF CANADA

By: /s/ Gordon M. Nixon
Name: Gordon M. Nixon
Title: President and Chief Executive Officer

Date: November 29, 2012

EXHIBITS

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Royal Bank of Canada Annual Information Form dated November 28, 2012	1
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ROYAL BANK OF CANADA

ANNUAL INFORMATION FORM

November 28, 2012

CAUTION REGARDING FORWARD-LOOKING STATEMENTS

From time to time, we make written or oral forward-looking statements within the meaning of certain securities laws, including the "safe harbour" provisions of the *United States Private Securities Litigation Reform Act of 1995* and any applicable Canadian securities legislation. We may make forward-looking statements in this Annual Information Form, in other filings with Canadian regulators or the U.S. Securities and Exchange Commission (SEC), in reports to shareholders and in other communications. Forward-looking statements in this document include, but are not limited to, statements relating to our financial performance objectives, our vision and strategic goals, the economic, market and regulatory review and outlook for Canadian, U.S., European and global economies, the outlook and priorities for each of our business segments, and the risk environment including our liquidity and funding management as set out in the 2012 Management's Discussion and Analysis. The forward-looking information contained in this Annual Information Form is presented for the purpose of assisting the holders of our securities and financial analysts in understanding our financial position and results of operations as at and for the periods ended on the dates presented, our financial performance objectives, vision and strategic goals and may not be appropriate for other purposes. Forward-looking statements are typically identified by words such as "believe", "expect", "foresee", "forecast", "anticipate", "intend", "estimate", "goal", "plan" and "project" and similar expressions of future or conditional verbs such as "will", "may", "should", "could" or "would".

By their very nature, forward-looking statements require us to make assumptions and are subject to inherent risks and uncertainties, which give rise to the possibility that our predictions, forecasts, projections, expectations or conclusions will not prove to be accurate, that our assumptions may not be correct and that our financial performance objectives, vision and strategic goals will not be achieved. We caution readers not to place undue reliance on these statements as a number of risk factors could cause our actual results to differ materially from the expectations expressed in such forward-looking statements. These factors – many of which are beyond our control and the effects of which can be difficult to predict – include: credit, market, liquidity and funding, operational, legal and regulatory compliance, insurance, reputation and strategic risks and other risks discussed in the Risk management and Overview of other risks sections of our 2012 Management's Discussion and Analysis; the impact of changes in laws and regulations, including relating to the *Dodd-Frank Wall Street Reform and Consumer Protection Act* and the regulations issued and to be issued thereunder, the Basel Committee on Banking Supervision's global standards for capital and liquidity reform, over-the-counter derivatives reform, the payments system in Canada, consumer protection measures and regulatory reforms in the U.K. and Europe; general business and economic market conditions in Canada, the United States and certain other countries in which we operate, including the effects of the European sovereign debt crisis, and the high levels of Canadian household debt; cybersecurity; the effects of changes in government fiscal, monetary and other policies; the effects of competition in the markets in which we operate; our ability to attract and retain employees; the accuracy and completeness of information concerning our clients and counterparties; judicial or regulatory judgments and legal proceedings; development and integration of our distribution networks; and the impact of environmental issues.

We caution that the foregoing list of risk factors is not exhaustive and other factors could also adversely affect our results. When relying on our forward-looking statements to make decisions with respect to us, investors and others should carefully consider the foregoing factors and other uncertainties and potential events. Material economic assumptions underlying the forward-looking statements contained in this Annual Information Form are set out in our 2012 Management's Discussion and Analysis under the heading Overview and outlook and for each business segment under the heading Outlook and priorities. Except as required by law, we do not undertake to update any forward-looking statement, whether written or oral, that may be made from time to time by us or on our behalf.

Additional information about these and other factors can be found in the Risk management and Overview of other risks sections of our 2012 Management's Discussion and Analysis.

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*Notes 20, 22 and 27 to the 2012 Annual Consolidated Financial Statements for Royal Bank of Canada are incorporated by reference herein.

INFORMATION IS AT OCTOBER 31, 2012, UNLESS OTHERWISE NOTED.

CORPORATE STRUCTURE

NAME, ADDRESS AND INCORPORATION[1]

Royal Bank of Canada is a Schedule I Bank under the *Bank Act* (Canada), which constitutes its charter. The Bank was created as Merchants Bank in 1864 and was incorporated under the "Act to Incorporate the Merchants' Bank of Halifax" assented to June 22, 1869. The Bank changed its name to The Royal Bank of Canada in 1901 and to Royal Bank of Canada in 1990.

The Bank's corporate headquarters are located at Royal Bank Plaza, 200 Bay Street, Toronto, Ontario, Canada and its head office is located at 1 Place Ville-Marie, Montreal, Quebec, Canada.

INTERCORPORATE RELATIONSHIPS

Information about intercorporate relationships with principal subsidiaries, including place of incorporation and percentage of securities owned by the Bank, is provided in Appendix A.

GENERAL DEVELOPMENT OF THE BUSINESS

THREE YEAR HISTORY

Over the last three years, through our business strategies and actions we have pursued our vision of "Always earning the right to be our clients' first choice." We aspire to be a top performing diversified financial institution that delivers sustainable, profitable growth and top quartile results for our shareholders. The following strategic goals reflect this aspiration:

- In Canada, to be the undisputed leader in financial services;
- Globally, to be a leading provider of capital markets and wealth management solutions; and
- In targeted markets, to be a leading provider of select financial services complementary to our core strengths.

Although 2009 presented a challenging market environment, economic conditions improved in 2010, particularly in the early part of the year. However, general uncertainty still lingered over global markets, particularly in the U.S. and Europe. Over the course of 2010, we experienced continued growth in Canadian Banking, continued restructuring our banking operations in the U.S., advanced a number of initiatives focused on enhancing sales and service productivity, made a number of acquisitions and continued to focus on expanding our teams in Wealth Management and Capital Markets.

Canada's strong economic growth in early 2011 was impacted by the earthquake in Japan and reduced manufacturing activity, but saw improvement in the latter part of the year. Global capital markets were also impacted by a weakening economic environment, particularly in the U.S. and Europe. To better reflect how we manage our business, in 2011, we realigned our Capital Markets segment into three units: Global Markets, Corporate and Investment Banking and Other, and completed a number of organizational changes in Wealth Management. In December 2010, we acquired BlueBay Asset Management plc (BlueBay) and in April 2011 we sold Liberty Life Insurance Company (Liberty Life), the U.S. life insurance business of RBC Insurance. As a result of the divestiture, we realigned our Insurance segment into two lines of business, Canadian Insurance and International & Other. In June 2011, we announced that we were refocusing our U.S. growth strategy by entering into an agreement to sell our U.S. regional retail banking operations to PNC Financial Services Group, Inc. The disposition closed on March 2, 2012.

[1] When we say "we", "us", "our", or "RBC", we mean Royal Bank of Canada and its subsidiaries, as applicable. References to "the Bank" mean Royal Bank of Canada without its subsidiaries.

While the Canadian economy slowed in the fourth calendar quarter of 2011, it showed moderate improvement in 2012. Global capital markets were strengthened in the first half of the year before losing momentum in the third fiscal quarter in response to fresh concerns over the European sovereign debt crisis. Despite the challenging economic and global capital market conditions in 2012, the strength and diversity of our business enabled us to continue to build strong competitive positions and invest in our business for long-term growth. By focusing on our long-term strategy and maintaining strict risk and cost discipline we successfully extended our leadership position in Canada while strategically building on our momentum outside of our domestic market. Our results in 2012 were driven by record results in Personal & Commercial Banking, Capital Markets and Insurance.

On May 31, 2012, we completed the acquisition of the Latin American, Caribbean and African private banking business of Coutts, the wealth division of The Royal Bank of Scotland Group. The business includes clients who reside in Latin America, the Caribbean and Africa, as well as key private banking staff based primarily in Geneva, Switzerland along with a team in the Cayman Islands.

On July 27, 2012 we completed the acquisition of the remaining 50 per cent stake in the joint venture RBC Dexia Investor Services Limited (RBC Dexia IS) that RBC did not already own from Banque Internationale à Luxembourg S.A. With this transaction, RBC became the sole owner of the top 10 global custodian by client assets under administration, which was rebranded RBC Investor Services.

On October 23, 2012, we announced that we have entered into an agreement to acquire the Canadian auto finance and deposit business of Ally Financial Inc. (Ally Canada) for a net investment of approximately $1.4 billion after deducting excess capital. The acquisition aligns with our key strategic priority to be the leading provider of financial services in Canada. The combination of Ally Canada with our existing business will create a leading player in Canadian auto financing. The transaction is subject to regulatory approvals and other customary closing conditions, and is expected to be completed in the first calendar quarter of 2013.

Effective October 31, 2012, certain business segments were strategically realigned to better serve and grow our global institutional client base and to leverage our domestic banking expertise across our international operations. We eliminated the International Banking segment and created a new Investor & Treasury Services segment which includes RBC Investor Services, formerly a business under International Banking, and we moved correspondent banking and treasury services from Capital Markets into this new segment. Concurrently, we created a Personal & Commercial Banking segment which includes the former Canadian Banking segment and expanded it to include our banking businesses in the Caribbean and U.S. From a reporting perspective there were no changes to our Wealth Management or Insurance segments.

For additional information about the changes to our business segments, please see the “About Royal Bank of Canada” section of our 2012 Management’s Discussion and Analysis.

Throughout 2012 we continued to respond to global regulatory developments such as the *Dodd-Frank Wall Street Reform and Consumer Protection Act* enacted in the U.S. in July 2010 and related rulemaking and the revised capital framework for major banking institutions (Basel III) announced by the Basel Committee on Banking Supervision in September 2010. In Canada, the Office of the Superintendent of Financial Institutions (OSFI) expects deposit-taking institutions to meet the minimum 2019 Basel III capital requirements for Common Equity Tier 1 in the first quarter of 2013. We will continue to monitor these and other developments and are working to ensure business impacts, if any, are minimized.

Our acquisitions and dispositions that have influenced the general development of our business over the past three years are summarized in the following table:

BUSINESS SEGMENT	ACQUISITION/DISPOSITION	KEY CHARACTERISTICS
Personal & Commercial Banking	U.S. regional banking operations (2012)	• Sold to PNC Financial Services Group, Inc. • Disposition allowed us to refocus our U.S. efforts on continuing to grow our largest U.S. businesses, RBC Wealth Management and RBC Capital Markets.
Wealth Management	Latin American, Caribbean and African private banking business of RBS Coutts, the wealth division of The Royal Bank of Scotland Group (2012)	• Acquisition increased our market share with high net worth and ultra high net worth clients in key high growth markets.
	BlueBay Asset Management plc (2011)	• Acquisition furthered our strategy to leverage our position as a top 10 global wealth manager, and to continue to expand our asset management solutions globally.
	Fortis Wealth Management Hong Kong Limited's wealth management business (2011)	• Acquisition expanded Wealth Management's presence in Asia, a market that has been identified as a key priority.
	J.P. Morgan Securities' Third Party Registered Investment Adviser Servicing Business (2010)	• This acquisition expanded Wealth Management's presence in the U.S. and became part of RBC Advisor Services which specializes in providing custody and clearing services to high performing third-party registered investment advisers.
Insurance	Liberty Life Insurance Company (2011)	• As a result of the divestiture, we realigned Insurance into two lines of business, Canadian Insurance and International & Other.
Investor & Treasury Services	RBC Dexia Investor Services Limited (RBC Dexia) (2012)	• Acquisition of the remaining 50 per cent stake in the joint venture RBC Dexia making RBC the sole owner of the top 10 global custodian by client assets under administration, which was rebranded RBC Investor Services.
	Unione di Banche Italiane Scpa (2010)	• Acquisition by RBC Investor Services (formerly RBC Dexia IS) making it the second largest third-party fund administration company and the fifth largest depositary bank in the Italian market.

Additional information about our three year history can also be found under the "Overview and outlook" section beginning on page 10 of our 2012 Management's Discussion and Analysis, which section is incorporated by reference herein.

DESCRIPTION OF THE BUSINESS

GENERAL SUMMARY

The Bank and its subsidiaries operate under the master brand name RBC. We are one of Canada's largest banks as measured by assets and market capitalization, and are among the largest banks in the world, based on market capitalization. We are one of North America's leading diversified financial services companies, and provide personal and commercial banking, wealth management services, insurance, investor services and wholesale banking on a global basis. We employ approximately 80,000 full- and part-time employees who serve more than 15 million personal, business, public sector and institutional clients through offices in Canada, the U.S. and 49 other countries.

Our reporting segments are Personal & Commercial Banking, Wealth Management, Insurance, Investor & Treasury Services, Capital Markets and Corporate Support. Additional information about our business and each segment (including segment results) can be found under "Overview and outlook" beginning on page 10 and under "Business segment results" beginning on page 18 of our 2012 Management's Discussion and Analysis, which sections are incorporated by reference herein.

SEASONALITY

Information about seasonality is provided under "Quarterly financial information" beginning on page 39 of our 2012 Management's Discussion and Analysis, which section is incorporated by reference herein.

COMPETITION

As we expand into new lines of business, our competition has grown to include other banks, credit unions and companies that offer products and services traditionally offered by financial institutions, investment dealers, self-directed brokers, mutual fund companies, money managers, custody service providers, insurance companies, virtual banks and specialty financial service providers. Key competitive factors include the range and features of financial products offered, pricing, distribution, and service quality. Additional information about our competition can be found under "Business segment results" beginning on page 18 of our 2012 Management's Discussion and Analysis, which section is incorporated by reference herein.

GOVERNMENT SUPERVISION AND REGULATION – CANADA

The Bank is a "Schedule I" Bank under the *Bank Act* (Canada) (Bank Act), and, as such, is a federally regulated financial institution. Its Canadian trust, loan and insurance subsidiaries are also federally regulated financial institutions governed by (respectively) the *Trust and Loan Companies Act* (Canada) and the *Insurance Companies Act* (Canada). The activities of the Bank's Canadian trust, loan and insurance subsidiaries are also regulated under provincial and territorial laws in respect of their activities in the provinces and territories. In certain provinces, some of the Bank's capital markets activities are regulated under provincial securities laws (which are administered and enforced by securities regulatory authorities).

OSFI reports to the Minister of Finance (the Minister) for the supervision of the Bank, as well as its Canadian federally regulated trust, loan and insurance subsidiaries. OSFI is required, at least once a year, to examine the affairs and business of each institution for the purpose of determining whether statutory requirements are duly observed and the institution is in sound financial condition, and report to the Minister. The Bank is also required to make periodic reports to OSFI.

The Bank and its Canadian trust, loan and insurance subsidiaries are also subject to regulation under the *Financial Consumer Agency of Canada Act* (FCAC Act).[2] The Financial Consumer Agency of Canada (Agency), among other things, enforces consumer-related provisions of the federal statutes which govern these financial institutions. The Commissioner of the Agency must report to the Minister on all matters connected with the administration of the FCAC Act and consumer provisions of other federal statutes, including the Bank Act, *Trust and Loan Companies Act* and *Insurance Companies Act*.

The Bank and its subsidiaries, Royal Trust Corporation of Canada, The Royal Trust Company, Royal Bank Mortgage Corporation and RBC Investor Services Trust are member institutions of the Canada Deposit Insurance Corporation (CDIC). CDIC insures certain deposits held at the member institutions.

Under the Bank Act, the Bank is prohibited from engaging in or carrying on any business other than the business of banking, except as permitted. The Bank can provide, amongst other services, any financial services, investment counselling services and portfolio management services, act as a financial agent and issue and operate payment, credit or charge card plans.

The Bank has broad powers to invest in securities, but is limited in making "substantial investments" or in controlling certain types of entities. A "substantial investment" will arise through direct or indirect beneficial ownership of voting shares carrying more than 10 per cent of the voting rights attached to all outstanding voting shares of a corporation, shares representing more than 25 per cent of the shareholders' equity in a corporation, or interests representing more than 25 per cent of the ownership interests in any unincorporated entity.

[2] For the Bank's trust subsidiaries, only their retail deposit taking activities are subject to regulation under the FCAC Act.

The Bank can, however, make controlling, and in certain circumstances, non-controlling substantial investments in Canadian banks, trust or loan companies, insurance companies, cooperative credit societies and entities primarily engaged in dealing in securities; in foreign regulated entities which are primarily engaged outside Canada in a business that if carried on in Canada would be the business of banking, the business of a cooperative credit society, the business of insurance, the business of providing fiduciary services or the business of dealing in securities; and in factoring, finance, financial leasing, specialized financing and financial holding entities. Certain substantial investments may be made only with the prior approval of the Minister or the Superintendent of Financial Institutions (the Superintendent).

The Bank and its Canadian trust, loan and insurance subsidiaries are also required to maintain, in relation to operations, adequate capital and liquidity and OSFI may direct financial institutions to increase capital and/or to provide additional liquidity.

The *Proceeds of Crime (Money Laundering) and Terrorist Financing Act* (the Act) is applicable to all of our businesses in Canada. The Act implements specific measures designed to detect and deter money laundering and the financing of terrorist activities. Further, the Act sets out obligations related to deterring and detecting money laundering and terrorist financing from a global perspective, in order to minimize the possibility that RBC could become a party to these activities. RBC has enterprise-wide anti-money laundering policies and procedures which assist in reducing the risk of facilitating money laundering and terrorist financing activities.

Broker-Dealer/Investment Subsidiaries

The activities of the Bank's subsidiaries, such as RBC Dominion Securities Inc., RBC Direct Investing Inc., Royal Mutual Funds Inc., RBC Global Asset Management Inc. and RBC Phillips, Hager & North Investment Counsel Inc., which act as securities dealers (including investment dealers, mutual fund dealers and exempt market dealers) or portfolio managers and investment fund managers are regulated in Canada under provincial and territorial securities laws (which are administered and enforced by securities regulatory authorities) and, in some cases, by the rules of the applicable self regulatory organization (the Investment Industry Regulatory Organization of Canada for investment dealers and the Mutual Fund Dealers Association of Canada for mutual fund dealers).

Insurance

The activities of the Bank's regulated Canadian insurance subsidiaries, RBC Life Insurance Company (RBC Life), RBC General Insurance Company (RBC General) and RBC Insurance Company of Canada (RICC), are federally governed by the *Insurance Companies Act* and by provincial legislation in each province and territory in which they carry on business. In addition, the Bank is federally governed by the Bank Act for any insurance activities it is permitted to carry out. The Bank may administer, promote and provide advice in relation to certain authorized types of insurance and is also permitted to conduct any aspect of the business of insurance, other than the underwriting of insurance, outside Canada and in respect of risks outside Canada. However, in Canada, the Bank may not act as agent for any person in the placing of insurance. The Bank can promote an insurance company, agent or broker or non-authorized types of insurance (e.g. life and home and automobile insurance) to certain prescribed groups where the promotion takes place outside bank branches.

RBC Life, RBC General and RICC are also subject to regulation under the FCAC Act. The Agency, among other things, enforces consumer-related provisions of the federal statutes which govern financial institutions.

RBC Life is a member of Assuris which is a not for profit organization that protects Canadian life insurance policyholders against loss of benefits due to the financial failure of a member company. RICC and RBC General are members of the Property and Casualty Insurance Compensation Corporation which is the corporation protecting Canadian property and casualty policyholders against loss of benefits due to the financial failure of a member company.

GOVERNMENT SUPERVISION AND REGULATION – UNITED STATES

Banking

In the U.S., the Bank is characterized as a foreign banking organization (FBO). Generally, the operations of a FBO and its U.S. subsidiaries and offices are subject to the same comprehensive regulatory regime that governs the operations of U.S. domestic banking organizations. The Bank's U.S. businesses are subject to supervision and oversight by various U.S. authorities, including federal and state regulators, as well as self-regulatory organizations.

In 2000, the Bank became a U.S. "financial holding company" (FHC), as authorized by the Board of Governors of the Federal Reserve System (Federal Reserve). Pursuant to the *Gramm-Leach-Bliley Act*, an FHC may engage in, or acquire companies engaged in, a broader range of financial and related activities than are permitted to banking organizations that do not maintain FHC status. To qualify as an FHC, a FBO must meet certain capital requirements and must be deemed to be "well managed" for U.S. bank regulatory purposes. In addition, any U.S. depository institution subsidiaries of the FBO must also meet certain capital requirements and be deemed to be "well managed" and must have at least a "satisfactory" rating under the *Community Reinvestment Act of 1977*.

In order to maintain "well managed" status for U.S. bank regulatory purposes, a FBO must have received at least a "satisfactory" composite regulatory rating of its U.S. branch, agency and commercial lending company operations in its last examination, the FBO's home country supervisor must consent to it expanding its activities in the U.S. to include activities permissible for an FHC and the FBO's management must meet standards comparable to those required of a U.S. bank subsidiary of an FHC. In addition, each U.S. depository institution subsidiary of the FBO must be deemed to be "well managed", which requires both a "satisfactory" composite regulatory rating and a satisfactory rating on the "management" component in its last examination.

Under the *International Banking Act of 1978* (IBA), all of the Bank's U.S. banking operations are subject to supervision and regulation by the Federal Reserve. Under the IBA and related regulations of the Federal Reserve, the Bank generally may not open a branch, agency or representative office in the U.S., nor acquire five per cent or more of the voting stock of any U.S. bank or bank holding company, without notice to or prior approval of the Federal Reserve.

The Federal Reserve is the U.S. "umbrella regulator" responsible for regulatory oversight of the whole of the Bank's U.S. activities. The Federal Reserve consults with and obtains information from other functional U.S. regulators that exercise supervisory authority over the Bank's various U.S. operations. Reports of financial condition and other information relevant to the Bank's U.S. businesses are regularly filed with the Federal Reserve.

On July 21, 2010, the *Dodd-Frank Wall Street Reform and Consumer Protection Act* (Dodd-Frank) was enacted. The statute requires significant changes to U.S. financial regulations, with material cross-border implications. Some provisions of Dodd-Frank have taken effect automatically. Other provisions require adoption of rules by one or more U.S. regulatory authorities to become operative and are in various stages of completion.

For further information on certain developments relating to Dodd-Frank, see the "Risk management" section beginning on page 45 of our 2012 Management's Discussion and Analysis, which section is incorporated by reference herein.

The Bank maintains branches in New York (three) and Miami, which are licensed and supervised as federal branches by the Office of the Comptroller of the Currency (Office of the Comptroller), the U.S. supervisor of national banks. In general, the Bank's branches may exercise the same rights and privileges, and are subject to the same restrictions, as would apply to a U.S. national bank at the same location(s). However, the Bank's branches may not take U.S. domestic retail deposits, but may accept wholesale deposits. Deposits in the Bank's branches are not insured by the Federal Deposit Insurance Corporation (FDIC).

The Office of the Comptroller examines and supervises the Bank's U.S. branch office activities and annually examines and assesses their operations. In addition, the Bank's U.S. branches are required to maintain certain liquid assets on deposit in their state(s) of residence, which deposits are pledged to the Office of the Comptroller. Furthermore, the Bank is subject to supervisory guidance based on the examiners' assessment of risk management, operational controls, compliance, and asset quality.

The Bank also maintains two state-licensed agencies in Texas and state-licensed representative offices in California, Delaware, Texas and Washington (where it is called an alien bureau). In general, the activities conducted at the Bank's agencies include a broad range of banking powers, including lending, maintaining credit balances and cashing cheques, but agencies are limited in their ability to accept deposits from citizens or residents of the United States. Agencies may have further limitations on activities based on state laws. The activities conducted at the Bank's representative offices are limited to representational and administrative functions; such representative offices do not have authority to make credit decisions and may not solicit or contract for any deposit or deposit-like liability. The Bank's representative offices are examined and assessed by both the Federal Reserve and state regulators and are required to adhere to any applicable state regulations.

Banking activities are also conducted at RBC Bank (Georgia), National Association (RBC Bank), a national banking association chartered by the Office of the Comptroller. RBC Bank is a member of the Federal Reserve System. The primary federal regulator of RBC Bank is the Office of the Comptroller. As a U.S. bank, RBC Bank is allowed to take retail deposits, and it conducts retail banking including credit card and mortgage lending primarily to Canadian cross-border clients across the U.S. and U.S. Wealth Management clients. These services were previously conducted through the Bank's North Carolina state-chartered bank, RBC Bank (USA), which the Bank sold to PNC Financial Services Group, Inc. on March 2, 2012. RBC Bank is subject to capital requirements, dividend restrictions, limitations on investments and subsidiaries, limitations on transactions with affiliates (including the Bank and its branches), deposit reserve requirements and other requirements administered by the Office of the Comptroller and the Federal Reserve. Deposits at RBC Bank are FDIC-insured to the extent permissible.

Trust company activities are conducted at RBC Trust Company (Delaware) Limited (RBC Trust), the Bank's U.S. trust company subsidiary. RBC Trust is a Delaware trust company chartered and supervised by the Delaware State Banking Commission and, as a subsidiary of a bank holding company, is subject to oversight by the Federal Reserve. RBC Trust is subject to dividend restrictions, limitations on investments and other applicable state banking law requirements.

The *USA PATRIOT Act*, which amends the *Bank Secrecy Act*, requires U.S. banks and foreign banks with U.S. operations to maintain appropriate policies, procedures and controls relating to anti-money laundering compliance, suspicious activity and currency transaction reporting and due diligence on customers to prevent, detect and report individuals and entities involved in money laundering and the financing of terrorism.

Broker-Dealer Activities and Broker-Dealer Subsidiaries

Other securities brokerage, trading, advisory and investment banking activities are conducted in the following two U.S.-registered broker-dealer subsidiaries:

- RBC Capital Markets, LLC (RBC CM LLC), and
- RBC Capital Markets Arbitrage S.A. (RBC CMA).

The U.S. Securities and Exchange Commission (SEC), state securities regulators, the Financial Industry Regulatory Authority (FINRA) and other self-regulatory organizations regulate these broker-dealer subsidiaries. Certain activities of RBC CM LLC and RBC CMA are also subject to regulation by the U.S. Commodity Futures Trading Commission and the National Futures Association. Certain activities of RBC CM LLC are subject to regulation by the Municipal Securities Rulemaking Board.

Investment Management and Other Fiduciary Activities

The Bank's New York branches, under their fiduciary powers, conduct investment management and custody activities for certain customers. In addition, other affiliates are involved in the business of investment management. In many cases, these activities require that the affiliates be registered with the SEC as investment advisers under the *U.S. Investment Advisers Act of 1940* (Advisers Act). The Advisers Act and related rules regulate the registration and activities of investment advisers. Although the regulatory regime for investment managers is similar to that of broker-dealers, the standard of conduct is higher due to the managers' status as fiduciaries. This status as a fiduciary limits the investment adviser's ability to make use of affiliates and requires that it avoid or manage and disclose conflicts of interests with respect to the conduct of its business.

The following entities are the Bank's subsidiaries that are registered as "investment advisers" with the SEC:

- RBC CM LLC,
- RBC Alternative Asset Management Inc.,
- RBC Global Asset Management (U.S.) Inc. (GAMS),
- Royal Bank of Canada Investment Management (USA) Limited,
- RBC Private Counsel (USA), Inc.,
- BlueBay Asset Management Ltd., and
- RBC Investment Advisors SA.

GAMS is also the adviser to several U.S. mutual funds sponsored by it. The *U.S. Investment Company Act of 1940* and related rules regulate the registration of mutual funds and the activities of the funds' advisers and certain other service providers, and their affiliates.

ERISA and the Internal Revenue Code

The *U.S. Employee Retirement Income Security Act of 1974* , as amended (ERISA), and the related rules regulate the activities of the financial services industry with respect to pension plan clients. Similarly, the U.S. Internal Revenue Code and the regulations thereunder impose requirements with respect to such clients and also individual retirement accounts (IRAs). Brokers, dealers and investment advisers to pension plans and IRAs must conduct their business in compliance with both ERISA and applicable tax regulations.

RISK FACTORS

A discussion of risks affecting us and our businesses appears under the headings "Risk management" and "Overview of other risks" beginning on pages 45 and 68, respectively, of our 2012 Management's Discussion and Analysis for the year ended October 31, 2012, which discussions are incorporated by reference herein.

ENVIRONMENTAL POLICIES

Our first corporate environmental policy was developed in 1991 and since then we have been committed to environmental management and continuous improvement. In 2007, we published the RBC Environmental Blueprint that articulates our corporate environmental policy, priorities and objectives. It establishes our approach to environmental matters pertaining to operations, business activities, products and services, employees, compliance, reporting transparency and partnerships. In 2012, we updated the RBC Environmental Blueprint with a number of new environmental commitments and targets that we plan to operationalize and achieve over the next five years.

Underpinning the RBC Environmental Blueprint is our Enterprise-wide Environmental & Social Risk Management Policy, which applies to all of our activities, including those outside of our primary business of financing. The purpose of the policy is to ensure that the impact of environmental and social factors is considered in all RBC activities. The Enterprise-wide Environmental & Social Risk Management Policy is complemented by a suite of environmental risk management policies that require enhanced due diligence on transactions and business activities where environmental and social issues may give rise to credit, legal or reputational risk. We regularly update these policies and procedures to address regulatory changes, emerging and evolving issues, and international best practices. Environmental and social risk management policies have been established for:

- Residential mortgage lending in Canada,
- Small business and commercial loans and mortgages for Canada,
- Agriculture lending in Canada,
- Corporate lending and investment banking globally,
- Large project financing (Equator Principles) globally,
- Public sector lending in Canada, and
- Environmental investigations (use of third party consultants) in Canada and the U.S.

We also have an enterprise-wide responsible procurement policy that is intended to ensure that we gather the appropriate environmental and social information regarding prospective suppliers and the products and services they offer, and incorporate that information in procurement decisions. Additional information about our environmental policies and environmental risks can be found under “Overview of other risks – Environmental risk” on page 68 of our 2012 Management’s Discussion and Analysis, which section is incorporated by reference herein.

DESCRIPTION OF CAPITAL STRUCTURE

GENERAL DESCRIPTION

The Bank’s authorized share capital consists of an unlimited number of common shares without nominal or par value and an unlimited number of first preferred shares and second preferred shares without nominal or par value, issuable in series, which classes may be issued for a maximum consideration of $20 billion and $5 billion, respectively. The following summary of share capital is qualified in its entirety by the Bank’s by-laws and the actual terms and conditions of such shares.

Common Shares

The holders of the Bank’s common shares are entitled to vote at all meetings of shareholders, except meetings at which only holders of a specified class, other than common shares, or series of shares are entitled to vote. The holders of common shares are entitled to receive dividends as and when declared by the board of directors, subject to the preference of the preferred shares. After payment to the holders of the preferred shares of the amount or amounts to which they may be entitled, and after payment of all outstanding debts, the holders of the common shares will be entitled to receive any remaining property upon liquidation, dissolution or winding-up.

Preferred Shares

First preferred shares may be issued, from time to time, in one or more series with such rights, privileges, restrictions and conditions as the board of directors may determine, subject to the Bank Act and to the Bank's by-laws. Currently, Non-Cumulative First Preferred Shares Series W, AA, AB, AC, AD, AE, AF, AG, AH, AJ, AL, AN, AP, AR, AT, AV and AX are outstanding.

The Non-Cumulative First Preferred Shares Series W are, subject to the consent of the Superintendent, the requirements of the Bank Act and the approval of the Toronto Stock Exchange, redeemable or exchangeable by the Bank into common shares. The first preferred shares are entitled to preference over the second preferred shares and common shares and over any other shares ranking junior to the first preferred shares with respect to the payment of dividends and in the distribution of property in the event of liquidation, dissolution or winding-up.

Second preferred shares may be issued, from time to time, in one or more series with such rights, privileges, restrictions and conditions as the board of directors may determine, subject to the Bank Act and to the Bank's by-laws. There are no second preferred shares currently outstanding. Second preferred shares would rank junior to the first preferred shares. Second preferred shares would be entitled to preference over the common shares and over any other shares ranking junior to the second preferred shares with respect to the payment of dividends and in the distribution of property in the event of our liquidation, dissolution or winding-up.

Holders of the first and second preferred shares are not entitled to any voting rights as a class except as provided under the Bank Act or the Bank's by-laws. Under the Bank Act, the Bank may not create any other class of shares ranking equal with or superior to a particular class of preferred shares, increase the authorized number of, or amend the rights, privileges, restrictions or conditions attaching to such class of preferred shares, without the approval of the holders of that class of preferred shares.

Any approval to be given by the holders of the first and second preferred shares may be given in writing by the holders of not less than all of the outstanding preferred shares of each class or by a resolution carried by the affirmative vote of not less than 66 2/3 per cent of the votes cast at a meeting of holders of each class of preferred shares at which a quorum is represented. A quorum at any meeting of holders of each class of preferred shares is 51 per cent of the shares entitled to vote at such meeting, except that at an adjourned meeting there is no quorum requirement.

Additional information about the Bank's share capital can be found under the "Capital management" section beginning on page 69 of our 2012 Management's Discussion and Analysis, which section is incorporated by reference herein.

PRIOR SALES

For information about the Bank's issuances of subordinated debentures since October 31, 2011, see the "Capital management" section beginning on page 69 of our 2012 Management's Discussion and Analysis and "Subordinated debentures" in Note 20 on page 158 of our 2012 Annual Consolidated Financial Statements for the year ended October 31, 2012, which section and note are incorporated by reference herein.

CONSTRAINTS

The Bank Act contains restrictions (which are subject to any orders that may be issued by the Governor in Council) on the issue, transfer, acquisition, beneficial ownership and voting of all shares of a chartered bank. The following is a summary of such restrictions.

Subject to certain exceptions contained in the Bank Act, no person may be a major shareholder of a bank having equity of $12 billion or more (which includes the Bank). A person is a major shareholder if:

(a) the aggregate of the shares of any class of voting shares of the bank beneficially owned by that person, by entities controlled by that person and by any person associated or acting jointly or in concert with that person is more than 20 per cent of that class of voting shares, or

(b) the aggregate of shares of any class of non-voting shares of the bank beneficially owned by that person, by entities controlled by that person and by any person associated or acting jointly or in concert with that person is more than 30 per cent of that class of non-voting shares.

Additionally, no person may have a significant interest in any class of shares of a bank (including the Bank) unless the person first receives the approval of the Minister of Finance. For purposes of the Bank Act, a person has a significant interest in a class of shares of a bank where the aggregate of any shares of the class beneficially owned by that person, by entities controlled by that person and by any person associated or acting jointly or in concert with that person exceeds 10 per cent of all of the outstanding shares of that class of shares of such bank.

Subject to any orders that may be issued by the Governor in Council, the Bank Act also prohibits the registration of a transfer or issue of any shares of a Canadian bank to any government or governmental agency of Canada or any province of Canada, or to any government of any foreign country, or any political subdivision, or agency of any foreign country. Under the Bank Act, the Bank cannot redeem or purchase any shares for cancellation unless the prior consent of the Superintendent has been obtained.

RATINGS

Each of our debt and preferred share ratings as at November 28, 2012 received from an approved rating agency are listed below:

RATING AGENCY	RATING OUTLOOK		OUTLOOK	RANK[1]	RATING
Moody's Investors Service	Long-term Senior Debt	Aa3	Stable	4 of 21	Short term Debt P-1
(New York)	Bank Subordinated Debt	A1	Stable	5 of 20	
Standard & Poor's	Long-term Senior Debt	AA-	Negative	4 of 22	Short term Debt A-1+
(New York)	Bank Subordinated Debt	A	Stable	6 of 22	
	Preferred Stock	A	Stable	4 of 20	
Fitch Ratings	Long-term Senior Debt	AA	Stable	3 of 24	Short term Debt F1+
(New York)	Bank Subordinated Debt	AA-	Stable	3 of 23	
DBRS	Long-term Senior Debt	AA	Stable	3 of 26	Short term Debt R-1 (high)
(Toronto)	Bank Subordinated Debt	AA (low)	Stable	3 of 26	
	Preferred Stock	Pfd-1 (low)	Stable	3 of 16	

[1]Rank out of all assignable ratings for each debt/share class (in descending order beginning with 1 as the highest).

A definition of the categories of each rating as at November 28, 2012 has been obtained from the respective rating agency's website and is outlined in Appendix B, and a more detailed explanation may be obtained from the applicable rating agency.

On June 21, 2012, Moody's Investors Service announced that it had revised our senior long-term debt rating to Aa3 from Aa1.

On July 27, 2012, Standard & Poor's (S&P) announced that it had revised the outlook for RBC to negative from stable based on its evolving views of economic risk and industry risk for banks operating in Canada. S&P affirmed its ratings on RBC, including its AA- long-term and A-1+ short term counterparty credit ratings.

On October 26, 2012, Moody's placed the long term debt ratings for subordinated debt of RBC on review for possible downgrade. Moody's reaffirmed all of our other ratings. The review will consider the removal of systemic support from the ratings of all Canadian banks' subordinated debt instruments that benefit from support uplift.

Credit ratings, including stability or provisional ratings (collectively, Ratings) are not recommendations to purchase, sell or hold a security in as much as they do not comment on market price or suitability for a particular investor. Ratings may not reflect the potential impact of all risks on the value of securities. In

addition, real or anticipated changes in the rating assigned to a security will generally affect the market value of that security. Ratings are subject to revision or withdrawal at any time by the rating organization. Each Rating listed in the chart above should be evaluated independently of any other Rating applicable to our debt and preferred shares. As is customary, RBC pays rating agencies to assign ratings for both the parent company as well as our subsidiaries, and for certain other services.

Our ability to access unsecured funding markets and to engage in certain collateralized business activities on a cost-effective basis is primarily dependent upon maintaining competitive credit ratings. Our credit ratings are largely determined by the quality of our earnings, the adequacy of our capital and the effectiveness of our risk management programs. There can be no assurance that our credit ratings and rating outlooks will not be lowered or that ratings agencies will not issue adverse commentaries about us, potentially resulting in adverse consequences for our funding capacity or access to capital markets. A lowering of our credit ratings may also affect our ability, and the cost, to enter into normal course derivative or hedging transactions and may require us to post additional collateral under certain contracts. However, we estimate, based on periodic reviews of ratings triggers embedded in our existing businesses and of our funding capacity sensitivity, that a minor downgrade would not materially influence our liability composition, funding access, collateral usage and associated costs.

Additional information about Ratings is provided under “Risk management – Liquidity and funding management – Credit ratings” on pages 64-65 of our 2012 Management’s Discussion and Analysis, which pages are incorporated by reference herein.

MARKET FOR SECURITIES

TRADING PRICE AND VOLUME

The Bank’s common shares are listed on the Toronto Stock Exchange (TSX) in Canada, the New York Stock Exchange (NYSE) in the U.S. and the SIX Swiss Exchange (SIX) in Switzerland. Preferred shares are listed on the TSX. The following table sets out the price range and trading volumes of the common shares on the TSX and the NYSE for the periods indicated. Prices are based on the reported amounts from the TSX Historical Data Access (HDA) and NYSE Euronext.

	Common Shares (TSX)			Common Shares (NYSE)		
MONTH	High ($)	Low ($)	Volume	High (US$)	Low (US$)	Volume
Oct. 2012	58.78	56.23	45,350,568	59.83	56.83	3,416,848
Sept. 2012	56.90	54.66	48,788,162	58.43	55.40	4,538,691
Aug. 2012	55.79	50.45	57,903,877	56.56	50.21	4,867,359
July 2012	54.00	50.18	43,901,225	53.20	49.19	5,487,363
June 2012	53.23	48.70	63,369,878	52.23	46.80	9,324,211
May 2012	57.09	49.87	55,747,057	57.96	48.74	9,639,972
Apr. 2012	58.74	55.67	47,571,710	59.24	55.45	6,317,515
Mar. 2012	59.13	55.39	74,590,221	59.60	55.31	7,315,142
Feb. 2012	55.97	52.45	60,613,483	56.65	52.48	6,911,812
Jan. 2012	54.87	51.34	78,624,211	54.47	50.10	6,772,375
Dec. 2011	52.00	46.13	89,947,883	51.15	45.29	10,900,060
Nov. 2011	47.74	43.30	81,434,956	47.25	41.40	12,038,895

The following tables provide the price range and trading volumes of the First Preferred Shares on the TSX for the periods indicated. Prices are based on the reported amounts from the TSX HDA.

	Series W			Series AA		
MONTH	High ($)	Low ($)	Volume	High ($)	Low ($)	Volume
Oct. 2012	25.79	25.35	109,558	26.10	25.52	115,444
Sept. 2012	25.79	25.50	164,631	25.88	25.65	120,636
Aug. 2012	25.85	25.50	106,654	26.24	25.75	110,228
July 2012	26.00	25.50	74,224	25.95	25.50	400,349
June 2012	25.51	25.20	125,767	25.86	25.35	167,718
May 2012	25.49	25.25	198,367	25.90	25.45	347,777
Apr. 2012	25.55	25.12	302,605	25.85	25.44	256,145
Mar. 2012	25.89	25.28	144,836	25.90	25.34	198,536
Feb. 2012	25.99	25.40	133,873	26.20	25.40	255,835
Jan. 2012	25.89	25.40	166,967	26.26	25.30	388,068
Dec. 2011	25.82	25.05	208,013	26.09	25.01	237,793
Nov. 2011	25.19	24.87	321,186	25.29	24.85	354,331

	Series AB			Series AC			Series AD		
MONTH	High ($)	Low ($)	Volume	High ($)	Low ($)	Volume	High ($)	Low ($)	Volume
Oct. 2012	26.11	25.62	93,490	26.15	25.74	137,367	25.99	25.57	492,157
Sept. 2012	26.00	25.64	87,243	26.07	25.66	149,255	25.90	25.57	60,033
Aug. 2012	26.08	25.75	80,535	26.08	25.68	73,836	25.97	25.65	58,496
July 2012	26.09	25.65	74,186	26.05	25.61	106,435	26.23	25.58	98,801
June 2012	25.89	25.50	345,325	25.79	25.55	172,529	25.69	25.33	116,685
May 2012	26.12	25.75	178,123	25.89	25.61	68,515	25.89	25.49	163,740
Apr. 2012	26.20	25.80	169,522	25.95	25.61	61,058	25.93	25.50	116,254
Mar. 2012	26.17	25.55	414,408	26.10	25.51	68,565	25.99	25.45	214,217
Feb. 2012	26.49	25.80	285,560	26.28	25.61	262,999	26.15	25.46	252,213
Jan. 2012	26.59	25.90	183,253	26.30	25.70	82,591	26.39	25.75	103,402
Dec. 2011	26.15	25.20	132,554	26.24	25.10	64,500	26.23	25.06	151,521
Nov. 2011	25.52	25.15	174,584	25.39	24.92	94,624	25.35	24.97	248,409

	Series AE			Series AF			Series AG		
MONTH	High ($)	Low ($)	Volume	High ($)	Low ($)	Volume	High ($)	Low ($)	Volume
Oct. 2012	26.06	25.63	90,152	26.10	25.63	92,884	26.00	25.52	547,043
Sept. 2012	25.86	25.60	80,184	26.03	25.86	32,885	25.95	25.59	27,581
Aug. 2012	25.98	25.63	71,563	26.10	25.65	94,740	25.98	25.75	57,047
July 2012	26.06	25.55	120,959	26.70	25.61	136,428	26.17	25.62	67,846
June 2012	25.70	25.38	212,602	25.77	25.55	155,729	25.86	25.40	77,182
May 2012	25.90	25.60	237,267	25.94	25.60	209,182	25.90	25.48	130,030
Apr. 2012	25.80	25.49	154,681	25.80	25.40	116,504	25.80	25.46	105,163
Mar. 2012	25.95	25.41	237,505	25.87	25.41	200,642	25.91	25.35	82,186
Feb. 2012	26.10	25.46	444,738	26.35	25.35	244,108	26.35	25.47	192,370
Jan. 2012	26.50	25.74	255,956	26.48	25.70	246,615	26.58	25.78	90,274
Dec. 2011	25.97	25.05	212,933	26.18	24.92	236,895	26.00	25.01	133,755
Nov. 2011	25.20	24.95	329,633	25.25	24.95	153,055	25.79	24.97	134,279

MONTH	Series AH			Series AJ			Series AL		
	High ($)	Low ($)	Volume	High ($)	Low ($)	Volume	High ($)	Low ($)	Volume
Oct. 2012	27.00	26.51	68,747	26.10	25.54	221,027	26.44	25.89	196,717
Sept. 2012	27.05	26.81	143,784	25.82	25.70	373,821	26.35	25.95	305,597
Aug. 2012	26.96	26.61	132,830	25.83	25.50	515,623	26.12	25.93	133,746
July 2012	27.40	26.76	71,400	25.99	25.40	205,346	26.48	25.91	42,906
June 2012	26.92	26.56	48,561	25.85	25.51	481,370	26.26	25.91	134,528
May 2012	27.24	26.52	83,979	26.14	25.54	139,778	26.40	26.01	166,717
Apr. 2012	27.23	26.83	104,038	26.40	25.80	116,225	26.85	26.05	71,037
Mar. 2012	27.35	26.85	67,008	26.45	25.85	159,894	26.70	26.20	114,063
Feb. 2012	27.54	26.50	102,726	26.52	26.07	149,397	26.80	26.30	195,422
Jan. 2012	27.99	26.90	306,583	26.54	26.05	352,764	26.99	26.29	264,313
Dec. 2011	27.30	26.56	204,881	26.34	26.00	533,281	26.88	26.31	162,706
Nov. 2011	26.98	26.43	205,428	26.38	26.00	274,625	26.76	26.30	177,389

MONTH	Series AN			Series AP			Series AR		
	High ($)	Low ($)	Volume	High ($)	Low ($)	Volume	High ($)	Low ($)	Volume
Oct. 2012	26.76	26.21	323,363	26.75	26.25	261,541	26.79	26.27	190,220
Sept. 2012	26.62	26.35	238,925	26.62	26.35	115,299	26.70	26.30	109,730
Aug. 2012	26.63	26.21	84,701	26.45	26.22	290,695	26.63	26.30	72,084
July 2012	27.00	26.21	39,196	26.78	26.25	203,980	26.84	26.29	79,698
June 2012	26.64	26.26	487,575	26.59	26.30	120,594	26.70	26.30	581,150
May 2012	26.61	26.23	227,038	26.55	26.02	121,642	26.75	26.30	254,835
Apr. 2012	26.90	26.30	78,949	26.86	26.25	55,579	26.89	26.13	239,520
Mar. 2012	26.98	26.46	246,542	27.03	26.48	104,185	27.00	26.49	121,770
Feb. 2012	26.99	26.53	122,360	27.10	26.55	125,141	27.09	26.70	190,211
Jan. 2012	27.30	26.76	53,600	27.35	26.88	82,312	27.76	26.85	162,326
Dec. 2011	27.19	26.60	72,975	27.30	26.72	192,529	27.29	26.76	168,311
Nov. 2011	27.14	26.71	147,393	27.22	26.75	169,789	27.15	26.70	229,323

MONTH	Series AT			Series AV			Series AX		
	High ($)	Low ($)	Volume	High ($)	Low ($)	Volume	High ($)	Low ($)	Volume
Oct. 2012	27.25	26.70	160,467	27.25	26.72	248,672	27.35	26.89	231,188
Sept. 2012	27.09	26.65	306,940	27.13	26.70	213,324	27.23	26.75	255,049
Aug. 2012	26.93	26.63	81,260	26.97	26.61	134,750	27.07	26.80	72,728
July 2012	27.28	26.65	194,415	27.30	26.71	240,863	27.29	26.75	112,094
June 2012	26.94	26.63	437,265	26.98	26.63	170,544	26.99	26.71	222,837
May 2012	26.97	26.60	253,052	26.99	26.62	323,037	27.06	26.70	419,572
Apr. 2012	27.30	26.60	158,436	27.30	26.62	369,259	27.38	26.60	136,400
Mar. 2012	27.35	26.67	136,896	27.30	26.81	136,162	27.40	26.89	256,078
Feb. 2012	27.66	27.05	116,070	27.54	27.02	223,349	27.75	27.08	272,886
Jan. 2012	27.74	27.09	124,482	28.39	27.09	184,073	27.83	27.10	121,031
Dec. 2011	27.50	27.10	83,636	27.50	27.01	147,709	27.56	27.15	245,158
Nov. 2011	27.43	27.00	125,141	27.50	27.05	413,389	27.51	27.10	270,759

ESCROWED SECURITIES

Pursuant to the merger agreement (FBW Merger Agreement) governing our acquisition of Ferris, Baker Watts Incorporated (FBW), 1,943 common shares of the Bank are being held in escrow by U.S. Bank National Association for reimbursement of the former FBW shareholders' representative's costs and expenses related to this role. Shares remaining in escrow will be released to the former FBW shareholders after final resolution of unresolved claims involving the shareholder representative.

The following is a summary of the Bank common shares held in escrow as at October 31, 2012 pursuant to the FBW Merger Agreement.

Designation of Class	Number of Securities Held in Escrow	Percentage of Class
Common shares	1,943 common shares held in escrow	.00013%

DIVIDENDS

The Bank has had an uninterrupted history of paying dividends on its common shares and on each of its outstanding series of first preferred shares. Information about the Bank's dividends paid or payable per share on the common shares and each outstanding series of first preferred shares in each of the three most recently completed years appears under the heading "Share capital" in Note 22 beginning on page 160 of our 2012 Annual Consolidated Financial Statements for the year ended October 31, 2012, which note is incorporated by reference herein.

The declaration amount and payment of future dividends will be subject to the discretion of the Bank's board of directors, and will be dependent upon the Bank's results of operations, financial condition, cash requirements and future prospectus regulatory restrictions on the payment of dividends and other factors deemed relevant by the board of directors. Information about our dividends and our dividend payout ratio (common share dividends as a percentage of net income less preferred share dividends) is provided under the "Capital management" section beginning on page 69 of our 2012 Management's Discussion and Analysis, which section is incorporated by reference herein.

DIRECTORS AND EXECUTIVE OFFICERS

DIRECTORS

The following are the Bank's directors as at November 28, 2012:

Name, and Year Elected	Province/State and Country of Residence	Occupation
W. Geoffrey Beattie (2001)	Ontario, CAN	President and Chief Executive Officer, The Woodbridge Company Limited Deputy Chairman, Thomson Reuters Corporation
David F. Denison (2012)	Ontario, CAN	Corporate Director
The Hon. Paule Gauthier (1991)	Quebec, CAN	Senior Partner, Stein Monast L.L.P.
Richard L. George (2012)	Alberta, CAN	Partner, Novo Investment Group
Timothy J. Hearn (2006)	Alberta, CAN	Chairman, Hearn & Associates

Name, and Year Elected	Province/State and Country of Residence	Occupation
Alice D. Laberge (2005)	British Columbia, CAN	Corporate Director
Jacques Lamarre (2003)	Quebec, CAN	Strategic Advisor, Heenan Blaikie LLP
Brandt C. Louie (2001)	British Columbia, CAN	Chairman and Chief Executive Officer, H.Y. Louie Co. Limited Chairman of the Board, London Drugs Limited
Michael H. McCain (2005)	Ontario, CAN	President and Chief Executive Officer, Maple Leaf Foods Inc.
Heather Munroe-Blum (2011)	Quebec, CAN	Principal and Vice-Chancellor and Professor of Medicine, McGill University
Gordon M. Nixon (2001)	Ontario, CAN	President and Chief Executive Officer, Royal Bank of Canada
David P. O'Brien (1996)	Alberta, CAN	Chairman of the Board, Royal Bank of Canada Chairman of the Board, Encana Corporation
J. Pedro Reinhard (2000)	Florida, U.S.A.	President, Reinhard & Associates
Edward Sonshine (2008)	Ontario, CAN	Chief Executive Officer, RioCan Real Estate Investment Trust
Kathleen P. Taylor (2001)	Ontario, CAN	President and Chief Executive Officer, Four Seasons Hotels and Resorts
Bridget A. van Kralingen (2011)	New Jersey, U.S.A.	Senior Vice-President, IBM Global Business Services, IBM Corporation
Victor L. Young (1991)	Newfoundland and Labrador, CAN	Corporate Director

Directors are elected annually and hold office until the next annual meeting of shareholders. Since November 1, 2007, the directors have held the principal occupations described above, except for the following:

Mr. David F. Denison was President and Chief Executive Officer of the Canada Pension Plan Investment Board prior to July 2012.

Mr. Richard L. George was Chief Executive Officer of Suncor Energy Inc. prior to May 2012 and President and Chief Executive Officer of Suncor Energy Inc. prior to December 2011.

Mr. Timothy J. Hearn was Chairman and Chief Executive Officer of Imperial Oil Limited prior to April 2008 and Chairman, President and Chief Executive Officer of Imperial Oil Limited prior to January 2008.

Mr. Jacques Lamarre was President and Chief Executive Officer of SNC-Lavalin Group Inc. prior to May 2009.

Ms. Kathleen P. Taylor was President and Chief Operating Officer of Four Seasons Hotels and Resorts prior to August 1, 2010 and President, Worldwide Business Operations of Four Seasons Hotels Inc. prior to January 2007.

Ms. Bridget A. van Kralingen was General Manager of IBM North America from 2010 to January 2012, General Manager of IBM Global Business Services, North East Europe, Middle East and Africa prior to 2010, and Global Managing Partner of IBM's Business Consulting Services – Financial Services Sector prior to 2007.

COMMITTEES OF THE BOARD

Audit Committee: V.L. Young (Chair), D.F. Denison, T.J. Hearn, A.D. Laberge, J. Lamarre, B.C. Louie, J.P. Reinhard and K.P. Taylor

Risk Committee: W.G. Beattie (Chair), D.F. Denison, R.L. George, J. Lamarre, M.H. McCain, H. Munroe-Blum, E. Sonshine, B.A. van Kralingen and V.L. Young

Corporate Governance and Public Policy Committee : D.P. O'Brien (Chair), W.G. Beattie, P. Gauthier, R.L. George, T. J. Hearn, B.C. Louie, M.H. McCain, H. Munroe-Blum and E. Sonshine

Human Resources Committee: K.P. Taylor (Chair), P. Gauthier, A.D. Laberge, D.P. O'Brien, J.P. Reinhard and B.A. van Kralingen

EXECUTIVE OFFICERS

The following are the Bank's executive officers as at November 28, 2012 [(1)]:

Name	**Province/State and Country of Residence**	**Title**
Morten N. Friis	Ontario, CAN	Chief Risk Officer
Janice R. Fukakusa	Ontario, CAN	Chief Administrative Officer and Chief Financial Officer
Zabeen Hirji	Ontario, CAN	Chief Human Resources Officer
M. George Lewis	Ontario, CAN	Group Head, Wealth Management and Insurance
A. Douglas McGregor	Ontario, CAN	Co-Group Head, Capital Markets and Investor & Treasury Services
David I. McKay	Ontario, CAN	Group Head, Personal & Commercial Banking
Gordon M. Nixon	Ontario, CAN	President and Chief Executive Officer
Mark A. Standish	New York, U.S.A.	Co-Group Head, Capital Markets and Investor & Treasury Services

(1) W. James Westlake will retire as a Group Head of RBC effective November 30, 2012.

Mr. Friis was appointed to Group Executive in his role as Chief Risk Officer of Royal Bank of Canada in January 2009. Prior to his current role, he was appointed Executive Vice-President and Chief Risk Officer in February 2005.

Ms. Fukakusa was appointed to Chief Administrative Officer and Chief Financial Officer of Royal Bank of Canada in January 2009. Ms. Fukakusa was appointed to Group Executive in her role as Executive Vice-President and Chief Financial Officer in January 2007.

Ms. Hirji was appointed to Group Executive in her role as Chief Human Resources Officer in June 2010. Prior to her current role, Ms. Hirji was Executive Vice-President, Human Resources of Royal Bank of Canada since February 2007.

Mr. Lewis was appointed to Group Executive in his role as Group Head, Wealth Management in March 2007 and effective October 31, 2012 was appointed as Group Head, Wealth Management and Insurance. From July 2000 to May 2008, Mr. Lewis was Chief Executive Officer of RBC Asset Management Inc., our Canadian mutual fund and asset management business. From 2003 to 2007, Mr. Lewis was also Head of Products for Royal Bank of Canada's Canadian Personal and Commercial Banking (including Wealth Management).

Mr. McGregor was appointed to Group Executive in his role as Co-Group Head, Capital Markets in November 2008 and effective October 31, 2012 was appointed Co-Group Head, Capital Markets and Investor & Treasury Services. From November 2004, Mr. McGregor was Head of Global Investment Banking and Equity Markets in our Capital Markets business and was appointed Co-President of Capital Markets in February 2007.

Mr. McKay was appointed to Group Executive in his role as Group Head, Canadian Banking in April 2008 and effective October 31, 2012 was appointed Group Head, Personal & Commercial Banking. From October 2005 until April 2008, Mr. McKay was Executive Vice-President of Personal Financial Services of Royal Bank of Canada.

Mr. Nixon was appointed President of Royal Bank of Canada in April 2001 and Chief Executive Officer in August 2001.

Mr. Standish was appointed to Group Executive in his role as Co-Group Head, Capital Markets in November 2008 and effective October 31, 2012 was appointed Co-Group Head, Capital Markets and Investor & Treasury Services. From December 2002, Mr. Standish was Head of Global Markets in our Capital Markets business and was appointed Co-President of Capital Markets in February 2007.

OWNERSHIP OF SECURITIES

To our knowledge, as at October 31, 2012, the directors and executive officers, as a group, beneficially own or exercise control or direction over less than one per cent (1%) of our common and preferred shares. None of our directors or executive officers holds shares of our subsidiaries except where required for qualification as a director of a subsidiary.

CEASE TRADE ORDERS, BANKRUPTCIES, PENALTIES OR SANCTIONS

To the best of our knowledge, no director or executive officer,

(a) is, as at November 28, 2012, or has been, within the 10 years before, a director, chief executive officer or chief financial officer of any company (including our company), that while that person was acting in that capacity,

  (i) was the subject of a cease trade or similar order or an order that denied the relevant company access to any exemption under securities legislation[3], for a period of more than 30 consecutive days, or

  (ii) was subject to an event that resulted, after the director or executive officer ceased to be a director, chief executive officer or chief financial officer, in the company being the subject of a cease trade or similar order or an order that denied the relevant company access to any exemption under securities legislation[3] for a period of more than 30 consecutive days, or

[3] National Instrument 14-101 restricts the meaning of "securities legislation" to Canadian provincial and territorial legislation and "securities regulatory authority" to Canadian provincial and territorial securities regulatory authorities.

(b) is, as at November 28, 2012 or has been, within the 10 years before, a director or executive officer of any company (including our company), that while that person was acting in that capacity or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets, or

(c) has, within the 10 years before November 28, 2012, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the director or executive officer,

Except for the following;

Mr. O'Brien was a director of Air Canada when it filed for protection under the *Companies' Creditors Arrangement Act* on April 1, 2003. Mr. O'Brien is no longer a director of Air Canada.

Mr. Reinhard became a director of Dow Corning Corporation in June 2000. The company sought protection under the reorganization provisions under Chapter 11 of the U.S. Bankruptcy Code in 1995 and emerged from Chapter 11 bankruptcy proceedings in 2004. Mr. Reinhard is no longer a director of Dow Corning Corporation.

To the best of our knowledge, none of our directors or executive officers have been subject to (a) any penalties or sanctions imposed by a court relating to securities legislation[4] or by a securities regulatory authority [4] or has entered into a settlement agreement with a securities regulatory authority[4], or (b) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

CONFLICTS OF INTEREST

To the best of our knowledge, no director or executive officer has an existing or potential material conflict of interest with us or any of our subsidiaries.

LEGAL PROCEEDING AND REGULATORY ACTIONS

In the ordinary course of our business, we are routinely involved in or parties to various ongoing, pending and threatened legal actions and proceedings.

A description of certain legal proceedings to which we are a party appears under the heading "Guarantees, commitments, pledged assets and contingencies – Litigation" in Note 27 on page 171 of our 2012 Annual Consolidated Financial Statements for the year ended October 31, 2012, which note is incorporated by reference.

Since October 31, 2011, (a) there have been no penalties or sanctions imposed against us by a court relating to securities legislation [4] or by a securities regulatory authority[4], (b) there have been no other penalties or sanctions imposed by a court or regulatory body against us that would likely be considered important to a reasonable investor in making an investment decision, and (c) we have not entered into any settlement agreements with a court relating to securities legislation[4] or with a securities regulatory authority [4].

[4] National Instrument 14-101 restricts the meaning of "securities legislation" to Canadian provincial and territorial legislation and "securities regulatory authority" to Canadian provincial and territorial securities regulatory authorities.

INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

To the best of our knowledge, there were no directors or executive officers or any associate or affiliate of a director or executive officer with a material interest in any transaction within the three most recently completed financial years or during the current financial year that has materially affected us or is reasonably expected to materially affect us.

TRANSFER AGENT AND REGISTRAR

For Canada and the Caribbean, Computershare Trust Company of Canada is the transfer agent and registrar for our common shares and our preferred shares. Their principal offices are in the cities of: Halifax, NS; Montreal, QC; Toronto, ON; Calgary, AB; and Vancouver, BC. In the U.S., Computershare Trust Company, N.A. is the co-transfer agent located in Golden, Colorado. In the U.K., Computershare Services PLC is the co-transfer agent located in Bristol, England.

EXPERTS

Deloitte & Touche LLP, independent registered chartered accountants, prepared the Report of Independent Registered Chartered Accountants in respect of our audited Annual Consolidated Financial Statements and the Report of Independent Registered Chartered Accountants in respect of our internal control over financial reporting.

AUDIT COMMITTEE

AUDIT COMMITTEE MANDATE

The mandate of the Audit Committee is attached as Appendix C to this Annual Information Form.

COMPOSITION OF AUDIT COMMITTEE

The Audit Committee consists of Victor L. Young (Chair), David F. Denison, Timothy J. Hearn, Alice D. Laberge, Jacques Lamarre, Brandt C. Louie, J. Pedro Reinhard and Kathleen P. Taylor. The board has determined that each member of the Audit Committee is independent under our Director Independence Policy, which incorporates the independence standards under applicable Canadian and U.S. laws and regulations and none receives, directly or indirectly, any compensation from us other than ordinary course compensation for service as a member of the board of directors and its committees or of a board of directors of one or more of our subsidiaries. All members of the Audit Committee are financially literate within the meaning of *National Instrument 52-110 – Audit Committees* and of the Corporate Governance Standards of the NYSE. In considering the criteria for determining financial literacy, the board of directors looks at the ability of a director to read and understand a balance sheet, an income statement and a cash flow statement of a financial institution. The board has determined that each of David F. Denison, Timothy J. Hearn, Alice D. Laberge, J. Pedro Reinhard and Victor L. Young qualifies as an “audit committee financial expert” as defined by the SEC.

RELEVANT EDUCATION AND EXPERIENCE OF AUDIT COMMITTEE MEMBERS

In addition to each member’s general business experience, the education and experience of each Audit Committee member that is relevant to the performance of his or her responsibilities as an Audit Committee member is as follows:

David F. Denison, B.Sc., B.Ed., F.C.A., is a graduate of the University of Toronto where he earned bachelor degrees in mathematics and education and is a Chartered Accountant and a Fellow of the Institute of Chartered Accountants of Ontario. Mr. Denison was President and Chief Executive Officer of the Canada Pension Plan Investment Board from 2005 to 2012. Mr. Denison has been a member of our Audit Committee since August 2012.

Timothy J. Hearn, B.Sc., earned his Bachelor of Science degree from the University of Manitoba. Mr. Hearn was Chairman, President and Chief Executive Officer of Imperial Oil Limited from 2002 to 2008 and is a director of ARC Resources Ltd., Tuckamore Capital Investment Company Inc., and Viterra Inc. Mr. Hearn has been a member of our Audit Committee since March 2006.

Alice D. Laberge, B.Sc., M.B.A., earned her Bachelor of Science degree from the University of Alberta and her M.B.A. from the University of British Columbia. Ms. Laberge was President and Chief Executive Officer of Fincentric Corporation until July 2005 and prior to December 2003, was its Chief Financial Officer. Ms. Laberge is a director of Potash Corporation of Saskatchewan and Russel Metals Inc. and has been a member of our Audit Committee since March 2006.

Jacques Lamarre, B.A., B.Sc., is a graduate of Laval University where he earned his Bachelor of Arts degree and Bachelor of Arts and Science degree in Civil Engineering. He has also completed Harvard University's Executive Development Program. Prior to May 2009, Mr. Lamarre served as President and Chief Executive Officer of SNC-Lavalin Group Inc. for 13 years. Mr. Lamarre is a director of Suncor Energy Inc. has been a member of our Audit Committee since February 2004.

Brandt C. Louie, *B.Comm., F.C.A.*, earned his Bachelor of Commerce degree from the University of British Columbia and is a Chartered Accountant and a Fellow of the Institute of Chartered Accountants of British Columbia. Mr. Louie is Chairman and Chief Executive Officer of H.Y. Louie Co. Limited and Chairman and a director of London Drugs Limited. Mr. Louie has been a member of our Audit Committee since March 2010.

J. Pedro Reinhard, M.B.A., earned his M.B.A. at the Escola de Administracão de Empresas Fundação Getulio Vargas (Sao Paulo) and attended post-graduate studies at the University of Cologne in Germany and Stanford University. Mr. Reinhard is the President of Reinhard & Associates and was Executive Vice-President and Chief Financial Officer of The Dow Chemical Company prior to October 2005. Mr. Reinhard is a director of Colgate-Palmolive Company and Sigma-Aldrich Corporation and is also a past chairman of the CFO Council Conference Board. Mr. Reinhard has been a member of our Audit Committee since May 2000.

Kathleen P. Taylor, B.A. (Hons.), L.L.B., M.B.A. , earned her Bachelor of Arts degree (Honours) from the University of Toronto, her law degree from Osgoode Hall Law School and her M.B.A. from the Schulich School of Business at York University. Ms. Taylor is the President and Chief Executive Officer of Four Seasons Hotels and Resorts. Ms. Taylor has been a member of our Audit Committee since November 2001.

Victor L. Young, B.Comm. (Hons.), M.B.A., earned his Bachelor of Commerce (Honours) degree from Memorial University and his M.B.A. from the University of Western Ontario. From 1984 to 2001, Mr. Young served as Chairman and Chief Executive Officer of Fishery Products International Limited. Mr. Young is a director of Imperial Oil Limited and McCain Foods Limited. Mr. Young has been a member of our Audit Committee since March 2007.

PRE-APPROVAL POLICIES AND PROCEDURES

The Audit Committee has adopted a policy that requires pre-approval by the Audit Committee of audit services and other services within permissible categories of non-audit services. The policy prohibits us from engaging the auditor for "prohibited" categories of non-audit services. A copy of our Pre-Approval Policies and Procedures can be found in Appendix D.

INDEPENDENT REGISTERED CHARTERED ACCOUNTANTS' FEES

Deloitte & Touche LLP (Deloitte) has served as one of our auditing firms since January 11, 1990 and became our sole auditor on September 23, 2003. Fees relating to the years ended October 31, 2012 and October 31, 2011 to Deloitte and its affiliates were $24.8 million and $23.0[1] million respectively and are detailed below. The nature of each category of fees is also described below.

	Year ended October 31, 2012 ($Millions)			**Year ended October 31, 2011[1]** ($Millions)		
	Bank and Subsidiaries	**Mutual Funds[2]**	**Total**	**Bank and Subsidiaries**	**Mutual Funds[2]**	**Total**
Audit fees	$19.1	$1.8	**$20.9**	$17.7	$1.8	**$19.5**
Audit-related fees	2.7	-	**2.7**	2.3	-	**2.3**
Tax fees	0.1	0.3	**0.4**	0.1	0.4	**0.5**
All other fees	0.4	0.4	**0.8**	0.3	0.4	**0.7**
	$22.3	$2.5	**$24.8**	$20.4	$2.6	**$23.0**

[1] The 2011 amounts have been updated to reflect additional approved services identified during 2012 which relate to the year ended October 31, 2011.
[2] The Mutual Funds category includes fees paid for professional services provided by Deloitte for certain Mutual Funds managed by subsidiaries of the Bank. In addition to other administrative costs, the subsidiaries are responsible for the auditors' fees for professional services rendered in connection with the annual audit, statutory and regulatory filings and other services for the Mutual Funds in return for a fixed administration fee.

Audit Fees

Audit fees were paid for professional services rendered by the auditor for the integrated audit of the Annual Consolidated Financial Statements of the Bank, including its audit of the effectiveness of our internal control over financial reporting, and any financial statement audits of our subsidiaries. In addition, audit fees were paid for services that generally only the Bank's independent auditor reasonably can provide including services provided in connection with statutory and regulatory filings related to prospectuses and other offering documents.

Audit-Related Fees

Audit-related fees were paid for assurance and related services that are reasonably related to the performance of the audit or review of our Annual Consolidated Financial Statements and are not reported under the audit fees item above. These services consisted of:

- special attest services traditionally performed by the Bank's independent auditor;
- reporting on the effectiveness of internal controls as required by contract or for business reasons;
- the audits of the financial statements of our various pension plans and charitable foundations;
- the audits of various trusts and limited partnerships; and
- the audits of certain special purpose vehicles relating to complex structured products.

Tax Fees

Tax fees were paid for tax compliance services including the review of original and amended tax returns, assistance with questions regarding tax audits and assistance in completing routine tax schedules and calculations.

All Other Fees

These services consist of French translation of financial statements and related continuous disclosure and other public documents containing financial information for us and certain of our subsidiaries as well as accounting research publications.

ADDITIONAL INFORMATION

Additional information, including directors' and officers' remuneration and indebtedness, principal holders of our securities, and securities authorized for issuance under equity compensation plans, where applicable, is contained in the Bank's Management Proxy Circular for the most recent annual meeting of shareholders. Additional financial information is provided in our Annual Consolidated Financial Statements and Management's Discussion and Analysis which are included in our 2012 Annual Report for the year ended October 31, 2012.

Copies of this Annual Information Form, our 2012 Annual Report and Management Proxy Circular in respect of the most recent annual meeting of shareholders may be obtained from Investor Relations at 200 Bay Street, North Tower, 4th Floor, Toronto, Ontario, M5J 2W7 (416-955-7802).

This Annual Information Form, the Annual Consolidated Financial Statements and Management's Discussion and Analysis for the year ended October 31, 2012, as well as additional information about us may be found on our website at rbc.com, on SEDAR, the Canadian Securities Administrators' website, at sedar.com, and on the EDGAR section of the SEC's website at sec.gov.

Information contained in or otherwise accessible through the websites mentioned in this Annual Information Form does not form a part of this Annual Information Form. All references in this Annual Information Form to websites are inactive textual references and are for your information only.

TRADEMARKS

Trademarks used in this Annual Information Form include the LION & GLOBE Symbol, ROYAL BANK OF CANADA, RBC, RBC BANK, RBC CAPITAL MARKETS, RBC ENVIRONMENTAL BLUEPRINT, RBC INSURANCE, RBC INVESTOR SERVICES and RBC WEALTH MANAGEMENT which are trademarks of Royal Bank of Canada used by Royal Bank of Canada and/or by its subsidiaries under license. All other trademarks mentioned in this annual information form, which are not the property of Royal Bank of Canada, are owned by their respective holders.

APPENDIX A – PRINCIPAL SUBSIDIARIES

PRINCIPAL SUBSIDIARIES

Principal subsidiaries (1)	Principal office address (2)	Voting equity interest owned by the bank in % (1)	Carrying value of voting shares owned by the bank (3)
Royal Bank Mortgage Corporation (4)	Toronto, Ontario, Canada	100%	$ 1,066
RBC Capital Trust	Toronto, Ontario, Canada	100%	1,281
RBC Dominion Securities Limited (4)	Toronto, Ontario, Canada	100%	4,982
RBC Dominion Securities Inc	Toronto, Ontario, Canada	100%	
RBC Wealth Management Financial Services Inc.	Toronto, Ontario, Canada	100%	
RBC Investment Services (Asia) Limited	Hong Kong, China	100%	
RBC Dominion Securities Global Limited	Lyford Cay, New Providence, Bahamas	100%	
Royal Trust Corporation of Canada	Toronto, Ontario, Canada	100%	230
The Royal Trust Company	Montreal, Quebec, Canada	100%	376
Royal Bank Holding Inc.	Toronto, Ontario, Canada	100%	31,929
Royal Mutual Funds Inc.	Toronto, Ontario, Canada	100%	
RBC Insurance Holdings Inc.	Mississauga, Ontario, Canada	100%	
RBC General Insurance Company	Mississauga, Ontario, Canada	100%	
RBC Insurance Company of Canada	Mississauga, Ontario, Canada	100%	
RBC Life Insurance Company	Mississauga, Ontario, Canada	100%	
RBC Direct Investing Inc.	Toronto, Ontario, Canada	100%	
RBC Phillips, Hager & North Investment Counsel Inc.	Toronto, Ontario, Canada	100%	
R.B.C. Holdings (Bahamas) Limited	Nassau, New Providence, Bahamas	100%	
RBC Caribbean Investments Limited	George Town, Grand Cayman	100%	
Royal Bank of Canada Insurance Company Limited	St. Michael, Barbados	100%	
Royal Bank of Canada Trust Company (Bahamas) Limited	Lyford Cay, New Providence, Bahamas	100%	
Investment Holdings (Cayman) Limited	George Town, Grand Cayman	100%	
RBC (Barbados) Funding Ltd.	St. Michael, Barbados	100%	
Royal Bank of Canada (Caribbean) Corporation	St. Michael, Barbados	100%	
Royal Bank of Canada Trust Company (Cayman) Limited	George Town, Grand Cayman	100%	
RBC Alternative Asset Management Inc. (2)	New York, New York, U.S.	100%	
RBC Capital Markets Arbitrage S.A.	Luxembourg, Luxembourg	100%	
Royal Bank of Canada (Asia) Limited	Singapore, Singapore	100%	
Capital Funding Alberta Limited	Calgary, Alberta, Canada	100%	
RBC Global Asset Management Inc.	Toronto, Ontario, Canada	100%	
RBC Investor Services Limited (2)	Luxembourg, Luxembourg	100%	
RBC (Barbados) Trading Bank Corporation	St. James, Barbados	100%	
Royal Bank of Canada Financial Corporation	St. Michael, Barbados	100%	6
RBC Finance S.à r.l./B.V.	Luxembourg, Luxembourg	100%	3,341
Royal Bank of Canada Holdings (U.K.) Limited	London, England	100%	
RBC Europe Limited	London, England	100%	
Royal Bank of Canada Investment Management (U.K.) Limited	London, England	100%	
Royal Bank of Canada Trust Corporation Limited	London, England	100%	
RBC Asset Management UK Limited	London, England	100%	
RBC Holdings (Luxembourg) S.A R.L.	Luxembourg, Luxembourg	100%	
RBC Holdings (Channel Islands) Limited	Jersey, Channel Islands	100%	
Royal Bank of Canada (Channel Islands) Limited	Guernsey, Channel Islands	100%	
RBC Treasury Services (CI) Limited	Jersey, Channel Islands	100%	
RBC Offshore Fund Managers Limited	Guernsey, Channel Islands	100%	
RBC Fund Services (Jersey) Limited	Jersey, Channel Islands	100%	
RBC Investment Solutions (CI) Limited	Guernsey, Channel Islands	100%	
RBC Investment Services Limited	Jersey, Channel Islands	100%	
RBC Regent Fund Managers Limited	Jersey, Channel Islands	100%	
RBC Trust Company (International) Limited	Jersey, Channel Islands	100%	
Regent Capital Trust Corporation Limited	Jersey, Channel Islands	100%	
RBC Trust Company (Jersey) Limited	Jersey, Channel Islands	100%	
RBC Trustees (Guernsey) Limited	Guernsey, Channel Islands	100%	
RBC Regent Tax Consultants Limited	Jersey, Channel Islands	100%	
RBC Wealth Planning International Limited	Jersey, Channel Islands	100%	
RBC cees Limited	Jersey, Channel Islands	100%	
RBC cees International Limited	Jersey, Channel Islands	100%	
RBC cees Guernsey Limited	Guernsey, Channel islands	100%	
RBC Fund Administration (CI) Limited	Jersey, Channel Islands	100%	
Royal Bank of Canada Trust Company (Asia) Limited	Hong Kong, China	100%	
RBC Reinsurance (Ireland) Limited	Dublin, Ireland	100%	
Royal Bank of Canada (Suisse) SA	Geneva, Switzerland	100%	
Roycan Trust Company S.A.	Geneva, Switzerland	100%	
RBC Investment Management (Asia) Limited	Hong Kong, China	100%	17
RBC Capital Markets (Japan) Ltd.	St. Michael, Barbados	100%	93
RBC Holdings (Barbados) Ltd.	St. Michael, Barbados	100%	2,694
RBC Financial (Caribbean) Limited	Port of Spain, Trinidad and Tobago	100%	
Bluebay Asset Management (Services) Ltd.	London, England	100%	1,632
RBC USA Holdco Corporation (2)	New York, New York, U.S.	100%	9,181
RBC Capital Markets, LLC (2)	New York, New York, U.S.	100%	
RBC Trust Company (Delaware) Limited	Wilmington, Delaware, U.S.	100%	
RBC Insurance Holdings (USA) Inc.	Wilmington, Delaware, U.S.	100%	
RBC Bank (Georgia), National Association (2)	Atlanta, Georgia, U.S.	100%	228

(1) The bank directly or indirectly owns 100% of the voting shares of each subsidiary.

(2) Each subsidiary is incorporated or organized under the laws of the state or country in which the principal office is situated, except for RBC USA Holdco Corporation, RBC Alternative Asset Management Inc. and RBC Bank (Georgia), National Association, which are incorporated under the laws of the State of Delaware, U.S., RBC Capital Markets, LLC, which is incorporated under the laws of the State of Minnesota, U.S., and RBC Investor Services Limited, which is incorporated under the laws of the England and Wales.

(3) The carrying value (in millions of dollars) of voting shares is stated as the bank's equity in such investments.

(4) The subsidiaries have outstanding non-voting shares of which the bank, directly or indirectly, owns 100%.

APPENDIX B – EXPLANATION OF RATING AND OUTLOOK

INSTITUTION	RATING	OUTLOOK
Moody's Investors Service	— Obligations rated 'Aa' are judged to be high quality, with "very low credit risk". — Issuers (or supporting institutions) rated between Aaa and A3 have a superior ability to repay short-term debt obligations. — The modifier 1 indicates that the obligation ranks in the higher end of its rating category.	A stable outlook indicates that a rating is not likely to change.
Standard & Poor's	— An obligation rated 'AA' has very strong capacity to meet its financial commitments. It differs from the highest-rated obligations only to a small degree. — An obligation rated 'A' has strong capacity to meet its financial commitments but is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher-rated categories. — The addition of a plus or minus sign shows the relative standing within the major rating categories.	A negative outlook indicates that a rating may be revised downwards.
Fitch Ratings	— 'AA' ratings denote expectations of very low credit risk and are judged to be of high credit quality. They indicate very strong capacity for payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events. — The modifiers "+" or "-" may be appended to a rating to denote relative status within major rating categories.	A stable outlook indicates that a rating is not likely to change.
DBRS	— An obligation rated 'AA' is of superior credit quality, and protection of interest and principal is considered high. In many cases they differ from obligations rated 'AAA' only to a small degree. — Preferred shares rated Pfd-1 are of superior credit quality, and are supported by entities with strong earnings and balance sheet characteristics. Pfd-1 securities generally correspond with companies whose senior bonds are rated in the AAA or AA categories. — Each rating category is denoted by the subcategories "high" and "low". The absence of either a "high" or "low" designation indicated the rating is in the middle of the category.	A stable outlook indicates that a rating is not likely to change.

WHAT THE RATINGS ADDRESS:

Long-term Senior Debt
Credit ratings are the current opinion of the rating agency on creditworthiness of an obligor with respect to fixed-income obligations whose original maturity is of a medium to long term nature. They address the possibility that a financial obligation will not be honoured as promised and reflect both the likelihood of default and any financial loss suffered in the event of default.

Subordinated Debt
Credit ratings are the current opinion of the rating agency on creditworthiness of an obligor with respect to a specific financial obligation and a specific class of financial obligation for a specific financial program. Ratings take into consideration the creditworthiness of guarantors, insurers, or other forms of credit enhancement on the obligation and takes into account the currency in which the obligation is denominated.

Preferred Stock
Preferred stock ratings address the issuer's capacity and willingness to pay dividends and principal, in case of limited life preferreds, on a timely basis. They address the likelihood of timely payment of dividends, notwithstanding the legal ability to pass on or defer a dividend payment.

Rating Outlook
Rating Outlook assesses the potential direction of a credit rating over the intermediate to longer term. In determining a Rating Outlook consideration is given to any changes in the economic and fundamental business conditions. An Outlook is not necessarily a precursor of a rating change.

APPENDIX C – AUDIT COMMITTEE MANDATE

ROYAL BANK OF CANADA
EXTRACT FROM THE ADMINISTRATIVE RESOLUTIONS ADOPTED BY THE
BOARD OF DIRECTORS OF ROYAL BANK OF CANADA
(hereinafter referred to as the "Bank")
December 2, 2010

2.1 Audit Committee

2.1.1 Establishment of Committee and Procedures

a) Establishment of Committee
A committee of the directors to be known as the "Audit Committee" (hereinafter the "Committee") is hereby established.

b) Composition of Committee
The Committee shall be composed of not less than five directors. Each member shall be financially literate, as the Board of Directors interprets such qualification in its business judgment, or must become financially literate within a reasonable period of time after appointment to the Committee. At least one member shall have accounting or related financial management expertise, as the Board of Directors interprets such qualification in its business judgment and in accordance with applicable regulatory requirements. No member of the Committee may serve on the audit committees of more than two other public companies, unless the Board of Directors determines that this simultaneous service would not impair the ability of the member to serve effectively on the Committee.

c) Independence of Committee Members
As required by the *Bank Act*, none of the members of the Committee shall be an officer or employee of the Bank or of an affiliate of the Bank. All of the members of the Committee shall be "unaffiliated", as determined by regulations made under the *Bank Act*. All of the members of the Committee shall be independent, as determined by director independence standards adopted by the Board in accordance with applicable regulatory requirements.

d) Appointment of Committee Members
Members shall be appointed or reappointed at the annual organizational meeting of the directors and in the normal course will serve a minimum of three years. Each member shall continue to be a member until a successor is appointed, unless the member resigns, is removed or ceases to be a director. The Board of Directors may fill a vacancy that occurs in the Committee at any time.

e) Committee Chairman and Secretary
The Board of Directors or, in the event of its failure to do so, the members of the Committee, shall appoint or reappoint, at the annual organizational meeting of the directors, a Chairman from among their number. The Chairman shall not be a former employee of the Bank or of an affiliate. The Committee shall also appoint a Secretary who need not be a director.

f) Time and Place of Meetings
Meetings may be called by any member of the Committee, or by the external auditors. The time and place of and the procedure at meetings shall be determined from time to time by the members, provided that:

i) a quorum for meetings shall be three members, a majority of whom must be "resident Canadian" except as otherwise provided by the *Bank Act*;
ii) the Committee shall meet at least quarterly;
iii) the Committee may request any officer or employee of the Bank or the Bank's outside counsel or external auditors to attend a meeting of the Committee or to meet with any members of, or consultants to, the Committee;
iv) notice of the time and place of every meeting shall be given in writing or by telephone, facsimile, email or other electronic communication to each member of the Committee and to the external auditors at least 24 hours prior to the time fixed for such meeting, provided, however, that business referred to in paragraph 2.1.3.f)(iv) below may be transacted at a meeting of which at least one hour prior notice is given as aforesaid, and that a member may in any manner waive notice of a meeting; and attendance of a member at a meeting is a waiver of notice of the meeting, except where a member attends a meeting for the express purpose of objecting to the transaction of any business on the grounds that the meeting is not lawfully called; and
v) a resolution in writing signed by all the members entitled to vote on that resolution at a Committee meeting, other than a resolution of the Committee carrying out its duties under subsection 194(3) of the *Bank Act*, shall be as valid as if it had been passed at a meeting of the Committee.

g) Reporting to the Board of Directors
i) The Committee shall report to the Board of Directors following each meeting with respect to its activities and with such recommendations as are deemed desirable in the circumstances.
ii) Prior to approval by the directors, the Committee will also report to the Board on the annual statement and returns that must be approved by the directors under the *Bank Act*.

h) Access to Management and External Advisors

i) In fulfilling its responsibilities, the Committee shall have unrestricted access to management and employees of the Bank. The Committee is also empowered to investigate any matter with full access to all books, records, facilities, management and employees of the Bank and the authority to select, retain, terminate and approve the fees of outside counsel or other experts for this purpose.

ii) The Committee shall, as it deems necessary to carry out it duties, select, retain, terminate and approve the fees of any independent legal, accounting or other advisor or consultant.

i) Private Meetings

At least quarterly, the Committee shall meet with no members of management present and shall have separate private meetings with the external auditors, and each of the chief internal auditor, the chief financial officer, the general counsel, and the chief compliance officer, to discuss any matters that the Committee or these groups believe should be discussed.

j) Evaluation of Effectiveness and Review of Mandate

The Committee shall annually review and assess the adequacy of its mandate and evaluate its effectiveness in fulfilling its mandate.

2.1.2 General Scope of Responsibilities and Purpose of the Committee

Management is responsible for the preparation, presentation and integrity of the Bank's financial statements and for maintaining appropriate accounting and financial reporting principles and policies and internal controls and procedures designed to ensure compliance with accounting standards and applicable laws and regulations.

The external auditors are responsible for planning and carrying out, in accordance with professional standards, an audit of the Bank's annual financial statements and internal control over financial reporting, and reviews of the Bank's quarterly financial information.

The Committee's purpose is to review the adequacy and effectiveness of these activities and to assist the Board in its oversight of:

(i) the integrity of the Bank's financial statements;
(ii) the external auditors' qualifications and independence;
(iii) the performance of the Bank's internal audit function and external auditors;
(iv) the adequacy and effectiveness of internal controls; and
(v) the Bank's compliance with legal and regulatory requirements.

The Committee is also responsible for preparing any report from the Committee that may be required to be included in the Bank's annual proxy statement or that the Board elects to include on a voluntary basis.

The Committee shall meet every fiscal quarter, or more frequently at the discretion of the Committee if circumstances dictate, to discuss with management the annual audited financial statements and quarterly financial statements.

2.1.3 Specific Responsibilities

a) Documents and Reports

The Committee shall review:

i) prior to review and approval by the Board and public disclosure: the annual statement of the Bank, which includes the annual audited financial statements; the quarterly financial statements of the Bank; the annual information form; the quarterly and annual management's discussion and analysis; and earnings press releases;

ii) the types of financial information and earnings guidance provided and types of presentations made to analysts and rating agencies, and shall be satisfied that adequate procedures are in place for the review of the Bank's public disclosure of financial information extracted or derived from the Bank's financial statements and shall periodically assess the adequacy of these procedures;

iii) such returns as the Superintendent of Financial Institutions may specify and other periodic disclosure documentation and reports as may be required under applicable law;

iv) such investments and transactions that could adversely affect the well-being of the Bank as the external auditors or any officer of the Bank may bring to the attention of the Committee;

v) prospectuses relating to the issuance of securities of the Bank;

vi) an annual report on any litigation matters which could significantly affect the financial statements; and

vii) an annual report from the chief compliance officer on regulatory compliance matters.

b) Internal Control

The Committee shall;

i) require management to implement and maintain appropriate systems of internal control, including internal controls over financial reporting and for the prevention and detection of fraud and error;

ii) review, evaluate and approve systems of internal control and meet with the chief internal auditor and with management to assess the adequacy and effectiveness of these systems of internal control and to obtain on a regular basis reasonable assurance that the organization is in control;

iii) receive reports from the Chief Executive Officer and the Chief Financial Officer as to the existence of any significant deficiency or material weakness in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Bank's ability to record, process, summarize and report financial information and as to the existence of any fraud, whether or not material, that involves management or other employees who have a significant role in the Bank's internal control over financial reporting;

iv) review and approve the Bank's disclosure policy and review reports on the effectiveness of the Bank's disclosure controls and procedures; and

v) review the process relating to and the certifications of the Chief Executive Officer and the Chief Financial Officer, including certifications on the design and effectiveness of the Bank's disclosure controls and procedures and internal control over financial reporting, and the integrity of the Bank's quarterly and annual financial statements.

c) Oversight of Independent Control Functions

The Committee shall oversee the finance, compliance and internal audit functions, having regard to their independence from the businesses whose activities they review, by:

Finance function

i. reviewing and approving the appointment or removal of the chief financial officer;
ii. reviewing and approving on a regular basis the mandate of the chief financial officer and of the finance function;
iii. reviewing and approving on a regular basis the organizational structure of the finance function;
iv. annually reviewing and approving the function's budget and resources;
v. annually assessing the effectiveness of the chief financial officer and the finance function; and
vi. on a periodic basis reviewing the results of independent reviews of the finance function;

Compliance function

i. reviewing and approving the appointment or removal of the chief compliance officer;
ii. reviewing and approving on a regular basis the mandate of the chief compliance officer and of the compliance function;
iii. reviewing and approving on a regular basis the organizational structure of the compliance function;
iv. annually reviewing and approving the function's budget and resources;
v. annually assessing the effectiveness of the chief compliance officer and the compliance function; and
vi. on a periodic basis reviewing the results of independent reviews of the compliance function;

Internal Audit function

i. reviewing and approving the appointment or removal of the chief internal auditor;
ii. reviewing and approving on a regular basis the mandate of the chief internal auditor and of the internal audit function;
iii. reviewing and approving on a regular basis the organizational structure of the internal audit function;
iv. annually reviewing and approving the function's budget and resources;
v. annually assessing the effectiveness of the chief internal auditor and the internal audit function; and
vi. on a periodic basis reviewing the results of independent reviews of the internal audit function;

d) Internal Auditor

The Committee shall:

i) meet with the chief internal auditor to review the results of internal audit activities, including any significant issues reported to management by the internal audit function and management's responses and/or corrective actions;

ii) meet with the chief internal auditor to review the status of identified control weaknesses;

iii) review representations from the chief internal auditor, based on audit work done, on the adequacy and degree of compliance with the Bank's systems of internal control;

iv) review with the chief internal auditor any issues that may be brought forward by the chief internal auditor, including any difficulties encountered by the internal audit function, such as audit scope, information access, or staffing restrictions.

e) External Auditors

The Committee shall have the authority and responsibility to recommend the appointment and the revocation of the appointment of any registered public accounting firm (including the external auditors) engaged for the purpose of preparing or issuing an audit report or performing other audit, review or attest services, and to fix their remuneration, subject to the powers conferred on the shareholders by the *Bank Act*. The Committee shall be responsible for the oversight of the work of each such accounting firm, including resolution of disagreements between management and the accounting firm regarding financial reporting, and each such firm shall report directly to the Committee. The Committee shall:

i) meet with the external auditors to review and discuss the annual audit plan, the results of the audit, their report with respect to the annual statement and the returns and transactions referred to in subsection 194(3) of the *Bank Act*, and the report required to be provided to the Committee by the external auditors pursuant to Rule 2-07 of the U.S. Securities and Exchange Commission's Regulation S-X;

ii) have the sole authority to approve all audit engagement fees and terms, as well as the provision and the terms of any legally permissible non-audit services to be provided by the external auditors to the Bank, with such approval to be given either specifically or pursuant to preapproval policies and procedures adopted by the committee;

iii) review with the external auditors any issues that may be brought forward by the external auditors, including any audit problems or difficulties, such as restrictions on their audit activities or access to requested information, and management's response;

iv) annually review with the external auditors their qualifications, independence and objectivity, including formal written statements delineating all relationships between the external auditors and the Bank that may impact such independence and objectivity;

v) discuss with the external auditors and with management the annual audited financial statements and quarterly financial statements, including the disclosures contained in the annual and quarterly management's discussion and analysis;

vi) review hiring policies concerning partners, employees and former partners and employees of the present and former external auditors;

vii) review and evaluate the qualifications, performance and independence of the lead partner of the external auditors and discuss the timing and process for implementing the rotation of the lead audit partner, the concurring audit partners and any other active audit engagement team partner;

viii) at least annually, obtain and review a report by the external auditors describing: the external auditors' internal quality-control procedures; to the extent permitted under the relevant review process, any material issues raised by the most recent internal quality-control review, or peer review, of the external auditors, or by any inquiry or investigation by governmental or professional authorities, within the preceding five years, respecting one or more independent audits carried out by the external auditors, and any steps taken to deal with any such issues; and

ix) take into account the opinions of management and the Bank's internal auditors in assessing the qualifications, performance and independence of the external auditors.

f) Capital Management

The Committee:

i) shall review and approve at least once a year the capital management policies recommended by management;

ii) shall review on a regular basis the capital position and capital management processes;

iii) shall obtain on a regular basis reasonable assurance that the Bank's capital management policies are being adhered to;

iv) as provided in the relevant standing resolutions of the Board of Directors, may designate and authorize the issue of First Preferred Shares and the issue of securities qualifying as Tier 2A capital under capital adequacy guidelines issued by the Superintendent of Financial Institutions; and

v) in connection with the exercise of the power delegated to senior management to authorize and approve issues of subordinated indebtedness of the Bank, shall review and approve the Draft Securities Disclosure Document as provided in the relevant standing resolution of the Board of Directors.

g) Other

i) The Committee shall discuss major issues regarding accounting principles and financial statement presentations, including significant changes in the Bank's selection or application of accounting principles, analyses prepared by management or the external auditors setting forth significant financial reporting issues and judgments made in connection with the preparation of the financial statements, including analyses of the effect on the financial statements of alternative methods of applying Canadian or U.S. generally accepted accounting principles, of regulatory and accounting initiatives and of off-balance sheet structures;

ii) The Committee shall establish procedures for the receipt, retention, treatment and resolution of complaints received by the Bank regarding accounting, internal accounting controls or auditing matters, as well as procedures for the confidential and anonymous submission by employees of concerns regarding accounting or auditing matters;

iii) The Committee shall review and discuss any reports concerning material violations submitted to it by Bank attorneys or counsel pursuant to the attorney professional responsibility rules of the U.S. Securities and Exchange Commission, the Bank's attorney reporting policy, or otherwise;

iv) The Committee shall discuss the major financial risk exposures of the Bank and the steps management has taken to monitor and control such exposures; and

v) Subject to the laws applicable to the subsidiary, the Committee may perform for and on behalf of a subsidiary the functions of an audit committee of the subsidiary.

APPENDIX D – PRE-APPROVAL POLICIES AND PROCEDURES

POLICIES AND PROCEDURES

FOR THE PRE-APPROVAL OF SERVICES

TO BE PERFORMED BY PUBLIC ACCOUNTING FIRMS

(EFFECTIVE OCTOBER 11, 2012)

Mandate

1. The mandate of the Audit Committee established by the Board of Directors confers on the Committee the authority and responsibility (among other things) to pre-approve all audit and any legally permissible non-audit services to be provided by the external auditors and all audit, review and attest services provided by any other public accounting firm, with such approval to be given either specifically or pursuant to pre-approval policies and procedures adopted by the Committee.

Purpose

2. These Policies and Procedures are intended:

    a) to specify the methods by which the Audit Committee may pre-approve the provision of audit, review and attest services by any public accounting firm to the Bank and its subsidiaries;

    b) to specify the methods by which the Audit Committee may pre-approve the provision of non-audit services to the Bank and its subsidiaries by the Bank's external auditors and their affiliates (the "auditors") that do not impair the independence of the auditors under applicable laws and professional standards, including the rules of the Canadian Institute of Chartered Accountants, the Public Company Accounting Oversight Board ("PCAOB"), the Canadian Securities Administrators and the U.S. Securities and Exchange Commission;

    c) to set forth procedures designed to ensure that any services to be provided by the auditors and that any audit, review or attestation services to be performed by any other public accounting firm have been properly authorized and pre-approved under the authority of the Audit Committee, and that the Committee is promptly informed of each service; and

    d) to ensure that the Audit Committee's responsibilities under applicable law are not delegated to management.

Required Approval of Audit and Non-Audit Services

3. The Audit Committee shall pre-approve all engagements of the auditors by:

    a) the Bank; or

    b) any subsidiary.

4. The Audit Committee shall pre-approve engagements of any public accounting firm to provide audit, review or attest services to:

    a) the Bank; or

    b) any subsidiary.

5. The Audit Committee shall evidence its pre-approval by resolution of the Committee or through the exercise of delegated authority in accordance with these Policies and Procedures.

6. “Subsidiary” has the meaning set forth in Rule 1-02(x) of the U.S. Securities and Exchange Commission’s Regulation S-X.

7. For the purpose of these Policies and Procedures and any pre-approval:

   a) “Audit services” include services that are a necessary part of the audit process and any activity that is a necessary procedure used by the accountant in reaching opinions on the financial statements and on internal control over financial reporting as is required under applicable auditing standards (“AAS”), including technical reviews to reach an audit judgment on complex accounting issues;

   b) The term “audit services” is broader than those services strictly required to perform an audit pursuant to AAS and include such services as:
      i) the issuance of comfort letters and consents in connection with offerings of securities;
      ii) the performance of domestic and foreign statutory audits;
      iii) attest services required by statute or regulation; and
      iv) assistance with and review of documents filed with the Office of the Superintendent of Financial Institutions, Canadian securities administrators, the Securities and Exchange Commission, the Board of Governors of the Federal Reserve Board and other regulators having jurisdiction over the activities of the Bank and its subsidiaries, and responding to comments from such regulators;

   c) “Audit-related” services are assurance and related services traditionally performed by the principal accountant and that are reasonably related to the performance of the audit or review of financial statements and not categorized under “audit fees” for disclosure purposes.

      “Audit-related services” include:
      i) employee benefit plan audits, including audits of employee pension plans,
      ii) due diligence related to mergers and acquisitions,
      iii) consultations and audits in connection with acquisitions, including evaluating the accounting treatment for proposed transactions;
      iv) internal control reviews;
      v) attest services not required by statute or regulation; and
      vi) consultations regarding financial accounting and reporting standards.

      Non-financial operational audits are not “audit-related” services;

   d) “Review services” are services applied to unaudited financial statements and consist of the inquiry and analytical procedures that provide the accountant with a reasonable basis for expressing limited assurance that there are no material modifications that should be made to financial statements for them to be in conformity with International Financial Reporting Standards or, if applicable, any other comprehensive basis of accounting;

   e) “Attest” services are those engagements where the accountant issues an examination, a review, or an agreed-upon procedures report on a subject matter, or an assertion about the subject matter that is the responsibility of another party. Examples of the subject matter of an “attest” engagement include: examinations (i.e., audits) of financial forecasts and projections; reviews of pro-forma financial information; reporting on a company’s internal control over financial reporting; and examinations of compliance with contractual arrangements or laws and regulations.

Delegation

8. The Audit Committee may from time to time delegate to one or more of its members who are “independent” (within the meanings of applicable law and the rules or policies of a securities commission having jurisdiction, and the NYSE) the power to pre-approve from time to time:

   a) audit, review or attest services to be provided by any public accounting firm (including the auditors) that have not been otherwise approved by the Committee;

   b) permissible non-audit services to be provided by the auditors that have not otherwise been approved by the Committee, and

c) changes in the scope of pre-approved engagements and the maximum estimated fees for engagements that have been pre-approved by the Committee.

9. The member(s) exercising such delegated authority must report at the next regularly scheduled meeting of the Audit Committee any services that were pre-approved under this delegated authority since the date of the last regularly scheduled meeting.

10. The member(s) exercising delegated authority may evidence his or her approval by signing an instrument in writing that describes the engagement with reasonable specificity, or by signing an engagement letter containing such a description.

11. In addition, member(s) exercising delegated authority may pre-approve an engagement orally, if any such oral approval is promptly confirmed in writing. Such written confirmation may be given by fax or e-mail and must describe the engagement with reasonable specificity.

Responsibilities of External Auditors

12. To support the independence process, the external auditors shall:

a) confirm in engagement letters that performance of the work will not impair independence;

b) satisfy the Audit Committee that they have in place comprehensive internal policies and processes to ensure adherence, world-wide, to independence requirements, including robust monitoring and communications;

c) provide regular communication and confirmation to the Committee on independence;

d) provide for Committee approval, in connection with each annual audit engagement, a detailed scope of services outlining each individual audit to be performed and a detailed description of audit-related services;

e) utilize the assigned tracking numbers in all fee billings and correspondence provide detailed annual fee reporting and review management's detailed quarterly fee reporting.

f) Communicate to the Audit Committee all matters required to be communicated by the Canadian Public Accountability Board and U.S. Public Company Accounting Oversight Board.

g) maintain certification by the Canadian Public Accountability Board and registration with the U.S. Public Company Accounting Oversight Board; and

h) review their partner rotation plan and advise the Committee on an annual basis.

Engagements

13. The Audit Committee will not, as a general rule, pre-approve a service more than one year prior to the time at which it is anticipated that the firm of accountants will be engaged to provide the service.

14. Engagements will not be considered to be revolving in nature and may not operate from year-to-year.

15. All audit and non-audit services to be provided by the auditors and all audit, review or attest services to be provided by any public accounting firm shall be provided pursuant to an engagement letter that shall:

a) be in writing and signed by the auditors or public accounting firm;

b) specify the particular services to be provided;

c) specify the period in which the services will be performed;

d) specify the maximum total fees to be paid; and

e) in the case of engagements of the auditors, include a confirmation by the auditors that the services are not within a category of services the provision of which would impair their independence under applicable law and Canadian and U.S. generally accepted auditing standards.

16. Management shall, before signing and delivering an engagement letter on behalf of the Bank or a subsidiary and before authorizing the commencement of an engagement:

    a) obtain an engagement letter in accordance with the foregoing;

    b) confirm that the services are described in the engagement letter accurately and with reasonable specificity;

    c) obtain confirmation from the auditors that they have conducted an analysis that supports their conclusion that performance of the services will not impair their independence;

    d) with respect to engagements for the provision of services other than audit and audit-related services, obtain confirmation from legal counsel for the Bank that performance of the services will not impair independence; and

    e) verify that the performance of the services has been specifically approved by the Audit Committee or a member in accordance with authority delegated by the Committee.

All engagement letters entered into pursuant to these Policies and Procedures shall be made available to the Audit Committee.

Tax Services

17. The Audit Committee, and any member in the exercise of delegated power, shall consider the provision of tax services by the auditors on an engagement-by-engagement basis.

18. The Audit Committee shall not pre-approve, and any member of the Audit Committee may not exercise delegated power to engage the auditors to provide, tax services to the Bank or a subsidiary:

    a) to represent the Bank or a subsidiary before a tax or other court;

    b) if the provision of the services would be prohibited, as prescribed by paragraph 22 of these Policies and Procedures; or

    c) related to marketing, planning or opinion in favour of the tax treatment of (1) a transaction offered under conditions of confidentiality and for which a fee has been or will be paid by the Bank; or (2) a transaction that was initially recommended directly or indirectly, by the accountant and a significant purpose of which is tax avoidance, unless the proposed tax treatment is at least more likely than not to be allowable under applicable tax laws.

19. The Audit Committee shall not pre-approve, and any member of the Audit Committee may not exercise delegated power to engage the auditors to provide tax services to a person in a financial oversight role at the Bank, or an immediate family member of such a person, except as would be permitted by the PCAOB rules.

Other Non-Audit Services

20. The Audit Committee, and any member in the exercise of delegated power, shall consider the provision of other non-audit services (non-audit services other than audit-related services and tax services, and including non-audit services relating to internal control, business recovery services and due diligence or comfort letter type services legally required or customarily provided by an issuer's accountants in the United Kingdom, at the issuer's expense, pursuant to an arrangement letter between an accountant, the issuer and a lender or investment bank) by the auditors on an engagement-by-engagement basis. Any approval of non-audit services relating to internal control must be preceded by a discussion with the auditors of the potential effects of the services on independence as required by the rules of the PCAOB.

Value-Added Services

21. The Audit Committee recognizes and approves of the fact that the auditors from time to time provide, without charge or commitment, value added services to the Bank and its subsidiaries that do not involve an engagement of the auditors. Such value added services may include surveys, educational sessions, benchmarking studies, and monitoring of contest draws as an independent observer. The Audit Committee receives and reviews periodic reports from management and the auditors providing

representative examples of such services as part of its monitoring of the Bank's overall relationship with the auditors.

Prohibited Services

22. The Audit Committee shall not pre-approve, and any member may not exercise delegated power to engage the auditors to provide any services, including tax services or business recovery services, that (i) provide for a contingency or commission fee arrangement; or (ii) involve the auditors performing any of the non-audit services set forth in paragraph (c)(4) of Rule 2-01 of the U.S. Securities and Exchange Commission's Regulation S-X, which include:
    a. providing bookkeeping or other services related to the accounting records or financial statements of the Bank or any of its subsidiaries,
    b. providing financial information systems design and implementation to the Bank or any of its subsidiaries,
    c. providing actuarial services to the Bank or any of its subsidiaries,
    d. providing internal audit outsourcing services to the Bank or any of its subsidiaries,
    e. providing human resources services to the Bank or any of its subsidiaries,
    f. providing broker-dealer, investment adviser, or investment banking services to the Bank or any of its subsidiaries,
    g. functioning in the role of management for the Bank or any of its subsidiaries,
    h. auditing their own work in relation to the Bank or any of its subsidiaries,
    i. providing appraisal or valuation services, contribution in kind reports or fairness opinions to the Bank or any of its subsidiaries,
    j. serving in an advocacy role for the Bank or any of its subsidiaries,
    k. providing legal services to the Bank or any of its subsidiaries,
    l. providing services that fall within the category of "expert" services that are prohibited by applicable law to the Bank or any of its subsidiaries, or
    m. providing services to the Bank or any of its subsidiaries that would otherwise compromise their independence under applicable regulatory guidance.

For the purposes of the Prohibited Services listed in this Section 22 above, a "subsidiary" includes any entity for which the Bank equity accounts that is material to the Bank. Therefore, the Audit Committee is not permitted to pre-approve the provision of the prohibited services listed above by the auditors to these entities.

Timely Reporting to the Audit Committee

23. Management shall provide a quarterly written report to the Audit Committee of services performed and related fees, at the scheduled meeting of the Committee held following the end of each fiscal quarter end.

No Delegation to Management

24. Nothing in these Policies and Procedures shall be interpreted as a delegation to management of the Audit Committee's responsibilities under applicable law.

Effective Date

25. These updated Policies and Procedures are effective as and from October 11, 2012.

Disclosure

26. The Bank shall disclose these Policies and Procedures in its periodic filings, as required by applicable law.

Review

27. The Audit Committee shall review and reassess the adequacy of these Policies and Procedures on a bi-annual basis.

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Exhibit 2

MANAGEMENT'S DISCUSSION AND ANALYSIS

Management's Discussion and Analysis (MD&A) is provided to enable a reader to assess our results of operations and financial condition for the fiscal year ended October 31, 2012, compared to the preceding two years. This MD&A should be read in conjunction with our 2012 Annual Consolidated Financial Statements and related notes and is dated November 28, 2012. All amounts are in Canadian dollars, unless otherwise specified, and are based on financial statements prepared in accordance with International Financial Reporting Standards (IFRS), unless otherwise noted.

Additional information about us, including our 2012 Annual Information Form, is available free of charge on our website at rbc.com/investorrelations, on the Canadian Securities Administrators' website at sedar.com and on the EDGAR section of the U.S. Securities and Exchange Commission's (SEC) website at sec.gov.

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See our Glossary for definitions of terms used throughout this document

Caution regarding forward-looking statements

From time to time, we make written or oral forward-looking statements within the meaning of certain securities laws, including the "safe harbour" provisions of the *United States Private Securities Litigation Reform Act of 1995* and any applicable Canadian securities legislation. We may make forward-looking statements in this 2012 Annual Report, in other filings with Canadian regulators or the SEC, in other reports to shareholders and in other communications. Forward-looking statements in this document include, but are not limited to, statements relating to our financial performance objectives, vision and strategic goals, the economic, market and regulatory review and outlook for Canadian, U.S., European and global economies, the outlook and priorities for each of our business segments, and the risk environment including our liquidity and funding management. The forward-looking information contained in this document is presented for the purpose of assisting the holders of our securities and financial analysts in understanding our financial position and results of operations as at and for the periods ended on the dates presented and our financial performance objectives, vision and strategic goals, and may not be appropriate for other purposes. Forward-looking statements are typically identified by words such as "believe", "expect", "foresee", "forecast", "anticipate", "intend", "estimate", "goal", "plan" and "project" and similar expressions of future or conditional verbs such as "will", "may", "should", "could" or "would".

By their very nature, forward-looking statements require us to make assumptions and are subject to inherent risks and uncertainties, which give rise to the possibility that our predictions, forecasts, projections, expectations or conclusions will not prove to be accurate, that our assumptions may not be correct and that our financial performance objectives, vision and strategic goals will not be achieved. We caution readers not to place undue reliance on these statements as a number of risk factors could cause our actual results to differ materially from the expectations expressed in such forward-looking statements. These factors – many of which are beyond our control and the effects of which can be difficult to predict – include: credit, market, liquidity and funding, operational, legal and regulatory compliance, insurance, reputation and strategic risks and other risks discussed in the Risk management and Overview of other risks sections; the impact of changes in laws and regulations, including relating to the *Dodd-Frank Wall Street Reform and Consumer Protection Act* and the regulations issued and to be issued thereunder, the Basel Committee on Banking Supervision's global standards for capital and liquidity reform, over-the-counter derivatives reform, the payments system in Canada, consumer protection measures and regulatory reforms in the U.K. and Europe; general business and economic market conditions in Canada, the United States and certain other countries in which we operate, including the effects of the European sovereign debt crisis, and the high levels of Canadian household debt; cybersecurity; the effects of changes in government fiscal, monetary and other policies; the effects of competition in the markets in which we operate; our ability to attract and retain employees; the accuracy and completeness of information concerning our clients and counterparties; judicial or regulatory judgments and legal proceedings; development and integration of our distribution networks; and the impact of environmental issues.

We caution that the foregoing list of risk factors is not exhaustive and other factors could also adversely affect our results. When relying on our forward-looking statements to make decisions with respect to us, investors and others should carefully consider the foregoing factors and other uncertainties and potential events. Material economic assumptions underlying the forward looking statements contained in this 2012 Annual Report are set out in the Overview and outlook section and for each business segment under the heading Outlook and priorities. Except as required by law, we do not undertake to update any forward-looking statement, whether written or oral, that may be made from time to time by us or on our behalf.

Additional information about these and other factors can be found in the Risk management and Overview of other risks sections.

Information contained in or otherwise accessible through the websites mentioned does not form part of this report. All references in this report to websites are inactive textual references and are for your information only.

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Overview and outlook

Selected financial and other highlights

Table 1

(Millions of Canadian dollars, except per share, number of and percentage amounts)	IFRS 2012	IFRS 2011	Canadian GAAP 2010	2012 vs. 2011 Increase (decrease)	
Continuing operations					
Total revenue	**$ 29,772**	$ 27,638	$ 26,082	**$ 2,134**	**7.7%**
Provision for credit losses (PCL)	**1,301**	1,133	1,240	**168**	**14.8%**
Insurance policyholder benefits, claims and acquisition expense (PBCAE)	**3,621**	3,358	3,546	**263**	**7.8%**
Non-interest expense	**15,160**	14,167	13,469	**993**	**7.0%**
Net income before income taxes	**9,690**	8,980	7,827	**710**	**7.9%**
Income from continuing operations	**7,590**	6,970	5,732	**620**	**8.9%**
Net loss from discontinued operations	**(51)**	(526)	(509)	**475**	**n.m.**
Net income	**$ 7,539**	$ 6,444	$ 5,223	**$ 1,095**	**17.0%**
Segments – net income from continuing operations					
Personal & Commercial Banking	**$ 4,088**	$ 3,740	$ 3,099	**$ 348**	**9.3%**
Wealth Management	**763**	811	669	**(48)**	**(5.9)%**
Insurance	**714**	600	491	**114**	**19.0%**
Investor & Treasury Services	**85**	230	222	**(145)**	**(63.0)%**
Capital Markets	**1,581**	1,292	1,462	**289**	**22.4%**
Corporate Support	**359**	297	(211)	**62**	**20.9%**
Net income from continuing operations	**$ 7,590**	$ 6,970	$ 5,732	**$ 620**	**8.9%**
Selected information					
Earnings per share (EPS) – basic	**$ 4.98**	$ 4.25	$ 3.49	**$ 0.73**	**17.2%**
– diluted	**4.93**	4.19	3.46	**0.74**	**17.7%**
Return on common equity (ROE) (1), (2)	**19.3%**	18.7%	14.9%	**n.m.**	**60 bps**
Selected information from continuing operations					
EPS – basic	**$ 5.01**	$ 4.62	$ 3.85	**$ 0.39**	**8.4%**
– diluted	**4.96**	4.55	3.82	**0.41**	**9.0%**
ROE (1), (2)	**19.5%**	20.3%	16.5%	**n.m.**	**(80)bps**
PCL on impaired loans as a % of average net loans and acceptances	**.35%**	.33%	.40%	**n.m.**	**2 bps**
Gross impaired loans (GIL) as a % of loans and acceptances	**.58%**	.65%	.95%	**n.m.**	**(7)bps**
Capital ratios and multiples (3)					
Tier 1 capital ratio	**13.1%**	13.3%	13.0%	**n.m.**	**(20)bps**
Total capital ratio	**15.1%**	15.3%	14.4%	**n.m.**	**(20)bps**
Assets-to-capital multiple	**16.7 X**	16.1X	16.5X	**n.m.**	**n.m.**
Tier 1 common ratio (2)	**10.5%**	10.6%	9.8%	**n.m.**	**(10)bps**
Selected balance sheet and other information					
Total assets	**$ 825,100**	$ 793,833	$ 726,206	**$ 31,267**	**3.9%**
Securities	**161,611**	167,022	183,519	**(5,411)**	**(3.2)%**
Loans (net of allowance for loan losses)	**378,244**	347,530	273,006	**30,714**	**8.8%**
Derivative related assets	**91,293**	99,650	106,155	**(8,357)**	**(8.4)%**
Deposits	**508,219**	479,102	414,561	**29,117**	**6.1%**
Common equity	**39,453**	34,889	34,140	**4,564**	**13.1%**
Average common equity (1)	**37,150**	32,600	33,250	**4,550**	**14.0%**
Risk-weighted assets (RWA) (3)	**280,609**	267,780	260,456	**12,829**	**4.8%**
Assets under management (AUM)	**343,000**	308,700	264,700	**34,300**	**11.1%**
Assets under administration (AUA) – RBC (4)	**764,100**	699,800	683,800	**64,300**	**9.2%**
– RBC Investor Services (5)	**2,886,900**	2,744,400	2,779,500	**142,500**	**5.2%**
Common share information					
Shares outstanding (000s) – average basic	**1,442,167**	1,430,722	1,420,719	**11,445**	**0.8%**
– average diluted	**1,468,287**	1,471,493	1,433,754	**(3,206)**	**(0.2)%**
– end of period	**1,445,303**	1,438,376	1,424,922	**6,927**	**0.5%**
Dividends declared per share	**$ 2.28**	$ 2.08	$ 2.00	**$ 0.20**	**9.6%**
Dividend yield (6)	**4.5%**	3.9%	3.6%	**n.m.**	**60 bps**
Common share price (RY on TSX)	**$ 56.94**	$ 48.62	$ 54.39	**$ 8.32**	**17.1%**
Market capitalization (TSX)	**82,296**	69,934	77,502	**12,362**	**17.7%**
Business information from continuing operations (number of)					
Employees (full-time equivalent) (FTE)	**74,377**	68,480	67,147	**5,897**	**8.6%**
Bank branches	**1,361**	1,338	1,336	**23**	**1.7%**
Automated teller machines (ATMs)	**5,065**	4,626	4,557	**439**	**9.5%**
Period average US$ equivalent of C$1.00 (7)	**$ .997**	$ 1.015	$ .959	**$ (.018)**	**(1.8)%**
Period-end US$ equivalent of C$1.00	**$ 1.001**	$ 1.003	$ .980	**$ (.002)**	**(0.2)%**

(1) Average amounts are calculated using methods intended to approximate the average of the daily balances for the period. This includes ROE and Average common equity. For further details, refer to the How we measure and report our business segments section.
(2) These measures may not have a standardized meaning under generally accepted accounting principles (GAAP) and may not be comparable to similar measures disclosed by other financial institutions. For further details, refer to the How we measure and report our business segments section and the Key performance and non-GAAP measures section.
(3) Capital ratios and multiples for 2010 and 2011 comparative amounts in the MD&A were determined under Canadian GAAP.
(4) RBC AUA includes $38.4 billion (2011 – $36.0 billion, 2010 – $33.5 billion) of securitized mortgages and credit card loans.
(5) RBC Investor Services, formerly RBC Dexia, AUA represented the total AUA of the entity, of which we had a 50% ownership interest prior to July 27, 2012.
(6) Defined as dividends per common share divided by the average of the high and low share price in the relevant period.
(7) Average amounts are calculated using month-end spot rates for the period.

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About Royal Bank of Canada

Royal Bank of Canada (RY on TSX and NYSE) and its subsidiaries operate under the master brand name RBC. We are Canada's largest bank as measured by assets and market capitalization, and among the largest banks in the world, based on market capitalization. We are one of North America's leading diversified financial services companies, and provide personal and commercial banking, wealth management services, insurance, investor services and wholesale banking on a global basis. We employ approximately 80,000 full- and part-time employees who serve more than 15 million personal, business, public sector and institutional clients through offices in Canada, the U.S. and 49 other countries. For more information, please visit rbc.com.

Effective October 31, 2012, certain business segments were strategically realigned to better serve and grow our global institutional client base and to leverage our domestic banking expertise across our international operations. We eliminated the International Banking segment and created a new Investor & Treasury Services segment which includes RBC Investor Services, formerly a business under International Banking, and we moved correspondent banking and treasury services from Capital Markets into this new segment. Concurrently, we created a Personal & Commercial Banking segment which includes the former Canadian Banking segment and expanded it to include our banking businesses in the Caribbean and the U.S. From a reporting perspective there were no changes to our Wealth Management or Insurance segments. Our business segments are described below.

Personal & Commercial Banking comprises our personal and business banking operations, as well as certain investment businesses in Canada, the Caribbean and the U.S.

Wealth Management serves affluent, high net worth and ultra high net worth clients in Canada, U.S., U.K., Europe, and Emerging Markets with a comprehensive suite of investment, trust, banking, credit and other wealth management solutions. We also provide asset management products and services directly to institutional and individual clients as well as through RBC distribution channels and third-party distributors.

Insurance offers insurance products and services through our proprietary distribution channels, comprised of the field sales force which includes retail insurance branches, our field sales representatives, call centers and online, as well as through independent insurance advisors and travel agencies in Canada. Outside North America, we operate in reinsurance markets globally.

Investor & Treasury Services serves the needs of institutional investing clients and provides custodial, advisory, financing and other services for clients to safeguard assets, maximize liquidity and manage risk in multiple jurisdictions around the world. We also provide short-term funding for the enterprise.

Capital Markets comprises the majority of our global wholesale banking businesses providing public and private companies, institutional investors, governments and central banks with a wide range of products and services. In North America, we offer a full suite of products and services which include corporate and investment banking, equity and debt origination and distribution, and structuring and trading. Outside North America, we offer a diversified set of capabilities in our key sectors of expertise such as energy, mining and infrastructure.

Our business segments are supported by Corporate Support, which consists of Technology & Operations and Functions. Technology & Operations provides the technological and operational foundation required to effectively deliver products and services to our clients, while Functions includes our finance, human resources, risk management, corporate treasury, internal audit and other functional groups.

ROYAL BANK OF CANADA

Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets
i Canadian Banking i Caribbean & U.S. Banking	i Canadian Wealth Management i U.S. & International Wealth Management i Global Asset Management	i Canadian Insurance i International & Other Insurance		i Global Markets i Corporate and Investment Banking i Other

Corporate Support

i Technology & Operations i Functions

Vision and strategic goals

Our business strategies and actions are guided by our vision of " **Always earning the right to be our clients' first choice.**" Our strategic goals are:

- In Canada, to be the undisputed leader in financial services;
- Globally, to be a leading provider of capital markets and wealth management solutions; and
- In targeted markets, to be a leading provider of select financial services complementary to our core strengths.

For our progress in 2012 against these goals, refer to the Business segment results section.

Overview and outlook

Economic and market review and outlook – data as at November 28, 2012

Canada

The Canadian economy is estimated to grow at 2.2% during calendar 2012, down from our estimate of 2.5% as at December 1, 2011. Economic growth continues to be driven by moderate consumer spending, as labour markets stabilized, and solid business investment supported by the low interest rate environment. Housing market activity is moderating from recent elevated levels. Household debt-to-income ratios remain high causing concerns about the ability to manage the debt if interest rates were to increase. Although the Canadian economy continues to grow at a moderate pace, the Bank of Canada (BoC) maintained the overnight rate at 1.0% reflecting concern about ongoing global economic uncertainty throughout the year and the related softening of global demand.

In calendar 2013, the Canadian economy is expected to grow by 2.4%, mainly driven by consumer spending, business investment, and improved net exports. However, given the continued global uncertainty, the BoC is expected to maintain the overnight rate at 1.0% until global factors restraining the Canadian economy ease. Modest and gradual withdrawal of the BoC stimulus measures is expected to begin in the second half of 2013.

U.S.

The U.S. economy is estimated to grow at 2.2% during calendar 2012, down from our estimate of 2.5% as at December 1, 2011, largely reflecting moderate consumer spending and business investment. An improvement in the housing market is also providing some lift to growth in 2012. Weaker growth in the second calendar quarter of the year reflected heightened uncertainty about the domestic fiscal outlook and U.S. election, as well as increased worries about the impact of slowing global activity. Growth is moderately improving in the latter half of calendar 2012 as the Federal Reserve (Fed), in addition to maintaining interest rates at exceptionally low levels, also extended the policy stimulus aimed at generating an improvement in the labour market conditions.

In calendar 2013, growth in the U.S. economy is expected at a modestly improved rate of 2.3% mainly driven by slightly higher consumer spending, continued business investment and improvement in the housing market. We expect growth in 2013 will be restrained by fiscal policy tightening. In order to mitigate some of the impact of fiscal tightening the Fed is expected to maintain interest rates at historically low levels through mid-2015 and continue to engage in non-traditional policies until there is evidence of a sustained improvement in labour market conditions.

Europe

The Euro area economy is estimated to contract by (0.4)% during calendar 2012 led by deep declines in the member countries that have been seeing financial conditions worsen and access to funding restrained. Actions by the European Central Bank (ECB), including recently announced programs designed to boost liquidity in the weak financial system, are helping to moderately improve investor confidence. In addition, the ECB further decreased interest rates during the year by 25 basis points (bps) to 0.75%.

In calendar 2013, Eurozone growth is expected to improve to 0.1% as governments implement policy measures to address the Eurozone structural issues and restore confidence. The outlook on growth will therefore depend on the effectiveness of policy actions. Improvement in the economic growth rate is expected to be mainly driven by increased net exports and supported by the low interest rate environment. Consumer and government spending are expected to further decrease reflecting weak labour market conditions and fiscal austerity measures implemented to ensure sovereign debt sustainability. While inflation remains elevated, we believe that interest rates will be maintained at 0.75% for calendar 2013 to provide continued stimulus to the economy.

Financial markets

Global capital markets strengthened in the first half of the year, although uncertainty continued throughout the year due to renewed concerns over the European sovereign debt crisis. Aggressive actions taken by policymakers in Europe and the U.S. to revive the ailing global economy helped to ease those concerns. In turn, investors' risk appetite increased and capital markets improved in the final months of fiscal 2012. Debt issuances were stronger as clients took advantage of the record-low interest rate environment and narrower credit spreads, largely in the latter half of the year.

However, throughout the year, uncertain global growth prospects weighed on capital markets, with the economic recovery in the U.S. continuing at a gradual but slowing pace. Trading volatility remained elevated in response to investor uncertainty, and equity issuances were subdued throughout the year due to weak demand.

In 2013, we expect the current economic headwinds to curb activity in capital markets until there is improvement in the global economy and resolution of European sovereign debt issues. Markets will also be closely watching whether U.S. policymakers will avert the "fiscal cliff" – the delayed tax increases and spending cuts expected to be implemented over the next decade due to come into effect in January 2013. If an agreement is not reached, the U.S. economy could be negatively impacted, which in turn could adversely impact global economic recovery.

The predictions and forecasts in this section are based on information and assumptions from sources we consider reliable. If this information or these assumptions are not accurate, actual economic outcomes may differ materially from the outlook presented in this section.

For details on risk factors from general business and economic conditions that may affect our business and financial results, refer to the Risk management – Top and emerging risks section.

Regulatory environment

We continue to monitor and prepare for global and domestic regulatory developments such as the Volcker Rule under the U.S. *Dodd-Frank Wall Street Reform and Consumer Protection Act* and other Dodd-Frank initiatives, changes to capital and liquidity requirements under the Basel Committee on Banking Supervision's global standards (Basel III), Over-the-Counter (OTC) derivatives reform, and other financial reforms. For a discussion of regulatory developments which may affect our business and financial results, refer to the Risk management – Top and emerging risks section. For details on our framework and activities to manage risks, refer to the Risk management and Capital management sections.

Defining and measuring success through Total Shareholder Returns (TSR)

Our focus is to maximize total shareholder returns through the achievement of top quartile performance over the medium term (3-5 years) which we believe reflects a longer term view of strong and consistent financial performance.

TSR aligns to our three strategic goals and we believe represents the most appropriate measure of shareholder value creation. TSR is a concept used to compare the performance of our common shares over a period of time, reflecting share price appreciation and dividends paid to common shareholders. The absolute size of the TSR will vary depending on market conditions and the relative position reflects the market's perception of our overall performance relative to our peers over a period of time.

Financial performance objectives are used to measure progress against our medium-term TSR objectives. We review and revise these financial performance objectives as economic, market and regulatory environments change. By focusing on our medium-term objectives in our decision-making, we believe we will be well positioned to provide sustainable earnings growth and solid returns to our common shareholders.

On both a continuing operations and consolidated basis, we compared favourably to all our financial performance objectives in 2012. The following table provides a summary of our performance against our financial performance objectives on a continuing and consolidated basis in 2012:

Financial performance objectives — Table 2

	2012 results		
	Continuing operations	Consolidated	Achieved
Diluted EPS growth of 7% +	**9.0%**	**17.7%**	**ü**
ROE of 18% +	**19.5%**	**19.3%**	**ü**
Strong capital ratios (Tier 1 capital, Common Equity Tier 1) (1), (2)	**n.a.**	**13.1%, 10.5%**	**ü**
Dividend payout ratio 40% – 50%	**45%**	**46%**	**ü**

(1) For further details on Tier 1 capital ratio and Common Equity Tier 1 ratio, refer to the Capital management and Key performance and non-GAAP measures sections, respectively.
(2) Effective November 1, 2012, we will evaluate our Common Equity Tier 1 ratio under the new Basel III framework and remove the Tier 1 capital ratio from our objectives. For further details, refer to the Capital management section.

For 2013, our current financial performance objectives will remain unchanged and we will evaluate our strong capital ratios objective under the new Basel III framework.

Medium-term objectives – three and five year TSR vs. peer group average — Table 3

	three year TSR (1)	five year TSR (1)
Royal Bank of Canada	5% 2nd Quartile	5% Top Quartile
Peer group average (excluding RBC) (2)	1%	(5)%

(1) The three and the five year average annual TSR are calculated based on our common share price appreciation plus reinvested dividend income for the period October 31, 2009 to October 31, 2012 and October 31, 2007 to October 31, 2012 respectively, based on information as disclosed by Bloomberg L.P.
(2) We compare our TSR to that of a global peer group approved by our Board of Directors and consisting of the following 20 financial institutions: seven large Canadian financial institutions in addition to us (Bank of Montreal, Canadian Imperial Bank of Commerce, Manulife Financial Corporation, National Bank of Canada, Power Financial Corporation, The Bank of Nova Scotia and The Toronto-Dominion Bank), five U.S. financial institutions (Bank of America Corporation, JPMorgan Chase & Co., The Bank of New York Mellon Corporation, U.S. Bancorp and Wells Fargo & Company), five European financial institutions (Banco Bilbao Vizcaya Argentaria Group (BBVA), Barclays PLC, BNP Paribas, Credit Suisse Group AG and Deutsche Bank Group) and two Australian financial institutions (National Australia Bank and Westpac Banking Corporation).

Our three and five year average annual TSR of 5% ranked us in the second quartile for the three year period and top quartile for the five year period within our global peer group. The three year and five year average annual TSR for our global peer group was 1% and (5)% respectively.

Common share and dividend information — Table 4

For the year ended October 31	2012	2011	2010	2009	2008
Common share price (RY on TSX) – close, end of period	**$ 56.94**	$ 48.62	$ 54.39	$ 54.80	$ 46.84
Dividends paid per share	**2.22**	2.04	2.00	2.00	2.00
Increase (decrease) in share price	**17.1%**	(10.6)%	(0.7)%	17.0%	(16.4)%
Total shareholder return	**22.0%**	(6.7)%	2.9%	22.7%	(12.8)%

Key corporate events of 2012

Canadian auto finance and deposit business of Ally Financial Inc.
On October 23, 2012, we announced that we have entered into a definitive agreement to acquire the Canadian auto finance and deposit business of Ally Financial Inc. for a $1.4 billion investment net of excess capital. Subject to certain closing adjustments and including the excess capital, this will result in total consideration of $3.1 to $3.8 billion, depending on the size of the dividend taken out by the seller prior to closing. The transaction is subject to regulatory approvals and other customary closing conditions and is expected to be completed in the first calendar quarter of 2013.

Acquisition of the remaining 50% stake in RBC Dexia Investor Services Limited (RBC Dexia)
On July 27, 2012, we completed the acquisition of the remaining 50% stake in the joint venture RBC Dexia from Banque Internationale à Luxembourg S.A. (formerly Dexia Banque Internationale à Luxembourg S.A.) for total consideration of €837.5 million ($1 billion) in cash. As a result of this transaction, we own 100% of RBC Dexia which has been rebranded RBC Investor Services. In our disclosure, we refer to the acquired entity as RBC Investor Services, except when referring to the acquisition transaction or acquisition related costs, for which we use RBC Dexia.

As a result of the agreement to acquire the remaining 50% stake in RBC Dexia, we completed an impairment test. The results indicated that our investment was impaired and we recorded impairment losses of $168 million (before- and after-tax). Also, as part of the agreement, RBC Dexia sold €1.4 billion ($1.9 billion) in securities issued by Dexia Group back to the Dexia Group and acquired approximately an equivalent amount of U.S. dollar-denominated securities. The sale of securities and subsequent trading losses on the securities purchased resulted in a loss to RBC Dexia. Our proportionate share of the loss was $36 million ($26 million after-tax). In addition, we recognized other costs related to our acquisition of $20 million ($19 million after-tax). In total, the loss amounted to $224 million ($213 million after-tax).

Latin American, Caribbean and African Private Banking Business of Coutts (Coutts)
On May 31, 2012, we completed the acquisition of the Latin American, Caribbean and African private banking business of Coutts, the wealth division of The Royal Bank of Scotland Group plc, with client assets of approximately US$2 billion. The business includes clients who reside in Latin America, the Caribbean and Africa, as well as key private banking staff based primarily in Geneva, Switzerland along with a team in the Cayman Islands.

U.S. regional retail banking operations
On March 2, 2012, we completed the disposition of our U.S. regional retail banking operations to PNC Financial Services Group, Inc. As a result, effective the third quarter of 2012, we no longer have discontinued operations.

For further details related to the acquisitions and dispositions noted above, refer to Note 12 of our 2012 Annual Consolidated Financial Statements.

Financial performance

Adoption of IFRS
Our 2012 Annual Consolidated Financial Statements have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB). It reflects the first time that we have prepared our annual results in accordance with IFRS, with corresponding comparative IFRS financial information presented for the year ended or as at October 31, 2011. All amounts for 2010 are based on Canadian generally accepted accounting principles (Canadian GAAP).

As our 2011 results are prepared in accordance with IFRS and 2010 results are prepared in accordance with Canadian GAAP, our analysis of the variance of our results from 2011 to 2010 is not directly comparable. Accordingly, our discussion related to our 2011 results compared to our 2010 results focuses on the drivers of the changes and also highlights where there are differences in accounting principles.

For further details on the impacts of the adoption of IFRS including the description of accounting policies selected, refer to the Accounting and control matters section and Notes 2 and 3 of our 2012 Annual Consolidated Financial Statements.

Overview

2012 vs. 2011
We reported net income of $7,539 million, up $1,095 million or 17% from a year ago. Diluted earnings per share (EPS) of $4.93 increased $0.74 and return on common equity (ROE) of 19.3% increased 60 bps, despite holding higher capital levels in anticipation of Basel III capital requirements, driven by strong earnings growth in Canadian Banking and Capital Markets. As well, our prior year results were unfavourably impacted by a net loss related to the sale of our U.S. regional retail banking operations. Our Tier 1 capital ratio was 13.1%, down 20 bps from last year. For further details on our Tier 1 capital ratio, refer to the Capital management section.

Continuing operations
2012 vs. 2011
Net income from continuing operations of $7,590 million increased $620 million or 9% from a year ago. Diluted EPS from continuing operations of $4.96 increased $0.41 and ROE from continuing operations was 19.5%, down 80 bps from the prior year. The increase in net income was driven by higher fixed income trading and corporate and investment banking results, reflecting improved market conditions compared to the challenging market conditions in the latter half of 2011, and strong volume growth across most of our domestic banking businesses. Lower claims costs in Insurance, higher funding and liquidity trading in Investor & Treasury Services, increased average fee-based client assets in Wealth Management resulting from capital appreciation and net sales, and cost reductions resulting from our cost management program also contributed to the increase. In addition, our current year net income was favourably impacted by a release of $128 million of tax uncertainty provisions and interest income of $72 million ($53 million after-tax) related to a refund of taxes paid due to the settlement of several tax matters with the Canada Revenue Agency (CRA) and an adjustment related to a change in estimate of mortgage prepayment interest of $125 million ($92 million after-tax). These factors were partially offset by higher costs in support of business growth, increased provision for credit losses (PCL) in Capital Markets and our Caribbean portfolio, and lower transaction volumes in Wealth Management reflecting continued investor uncertainty. A loss of $224 million ($213 million after-tax) related to the acquisition of the remaining 50% stake in RBC Dexia also negatively impacted our results. While our earnings have increased, our ROE was down as a result of holding higher common equity in anticipation of Basel III capital requirements.

Discontinued operations
2012 vs. 2011
Net loss from discontinued operations was $51 million compared to a net loss of $526 million a year ago, primarily related to a loss on sale of our U.S. regional retail banking operations in the prior year. The current year only included four months of operating losses related to our U.S. regional retail banking operations compared to a full year of results in 2011.

Summary of 2011 vs. 2010
Our net income from continuing operations was higher in 2011 as compared to 2010, largely due to strong business growth in Canadian Banking and Insurance, higher average fee-based client assets in Wealth Management as well as growth in our corporate and investment banking businesses in Capital Markets. Lower PCL and a decrease in income tax expense, reflecting a lower effective tax rate also contributed to the increase. These factors were partially offset by higher costs in support of business growth and lower trading revenue reflecting challenging market conditions. In addition, our 2011 net income from continuing operations was higher under IFRS than Canadian GAAP. For further details on the differences between IFRS and Canadian GAAP, refer to Note 3 of our Annual Consolidated Financial Statements.

In 2011, net loss from discontinued operations increased from 2010, primarily reflecting a loss on sale of our U.S. regional retail banking operations largely offset by a loss on sale related to Liberty Life in 2010 and lower write-offs in our U.S. commercial and builder finance portfolios.

Estimated impact of foreign currency translation on our consolidated financial results
Our foreign currency-denominated results are impacted by exchange rate fluctuations. Revenue, PCL, insurance policyholder benefits, claims and acquisition expense (PBCAE), non-interest expense and net income denominated in foreign currency are translated at the average rates of exchange for the year. The impact of the foreign currency translation on our results was not significant in 2012 as compared to 2011.

Changes in the relevant average exchange rates that impact our business are shown in the following table:

Table 5

(Average foreign currency equivalent of Canadian dollar 1.00) (1)	**2012**	2011	2010
U.S. dollar	**.997**	1.015	.959
British pound	**.630**	.631	.617
Euro	**.771**	.727	.713

(1) Average amounts are calculated using month-end spot rates for the period.

Certain of our business segment results are impacted by fluctuations in the exchange rates in the previous table. For further details, refer to the Business segment results section.

Results from continuing operations

The following provides a discussion of our reported results from continuing operations:

Total revenue

Table 6

	IFRS		Canadian GAAP
(Millions of Canadian dollars)	**2012**	2011	2010
Interest income	**$20,852**	$20,813	$ 17,746
Interest expense	**8,354**	9,456	7,408
Net interest income	**12,498**	11,357	10,338
Investments (1)	**5,375**	5,305	4,616
Insurance (2)	**4,897**	4,474	4,485
Trading	**1,298**	655	1,333
Banking (3)	**3,799**	3,596	3,071
Underwriting and other advisory	**1,434**	1,485	1,193
Other (4)	**471**	766	1,046
Non-interest income	**$17,274**	$16,281	$ 15,744
Total revenue	**$29,772**	$27,638	$ 26,082
Additional information			
Total trading revenue			
Net interest income	**$ 1,532**	$ 1,377	$ 1,443
Non-interest income	**1,298**	655	1,333
Total trading revenue	**$ 2,830**	$ 2,032	$ 2,776
Total trading revenue by product			
Interest rate and credit	**$ 1,923**	$ 1,218	$ 1,990
Equities	**516**	463	371
Foreign exchange and commodities	**391**	351	415
Total trading revenue	**$ 2,830**	$ 2,032	$ 2,776
Trading revenue (teb) by product			
Interest rate and credit	**$ 1,923**	$ 1,218	$ 1,990
Equities	**945**	920	858
Foreign exchange and commodities	**391**	351	415
Total trading revenue (teb)	**$ 3,259**	$ 2,489	$ 3,263
Trading revenue (teb) by product – Capital Markets			
Interest rate and credit	**$ 1,584**	$ 968	$ 1,707
Equities	**925**	906	883
Foreign exchange and commodities	**323**	289	344
Total Capital Markets trading revenue (teb)	**$ 2,832**	$ 2,163	$ 2,934

(1) Includes securities brokerage commissions, investment management and custodial fees, and mutual fund revenue.
(2) Includes premiums and investment and fee income. Investment income includes the change in fair value of investments backing policyholder liabilities and is largely offset in PBCAE.
(3) Includes service charges, foreign exchange revenue other than trading, card service revenue and credit fees.
(4) Includes other non-interest income, net gain (loss) on available-for-sale (AFS) securities and share of profit in associates.

2012 vs. 2011
Total revenue increased $2,134 million or 8% from last year, mainly due to strong trading revenue reflecting improved market conditions compared to the unfavourable conditions last year and strong growth in lending and increased loan syndication activity in our corporate and investment banking businesses. Strong volume growth across most of our Canadian banking businesses, higher average fee-based client assets in Wealth Management, and a full quarter of revenue related to our additional 50% ownership of RBC Investor Services also contributed to the increase. Volume growth across most insurance products, and the change in fair value of investments backing our policyholder liabilities, which was largely offset in PBCAE, also contributed to the increase. These factors were partially offset by losses compared to gains in the prior year as noted below in Other revenue and lower transaction volumes mainly in Wealth Management.

Net interest income increased $1,141 million or 10%, mainly due to strong volume growth across most Canadian banking businesses, higher trading-related net interest income and growth in our lending business in Capital Markets. The mortgage prepayment interest adjustment of $125 million in Canadian Banking and interest income of $72 million related to a refund of taxes paid due to the announced settlement of several tax matters with the CRA in Corporate Support also contributed to the increase.

Investment-related revenue increased $70 million or 1%, mainly due to higher average fee-based client assets and a full quarter of revenue related to our additional 50% ownership of RBC Investor Services, partially offset by lower transaction volumes.

Insurance revenue increased $423 million or 9%, mainly due to volume growth across most products and the change in fair value of investments backing our policyholder liabilities, which was largely offset in PBCAE.

Trading revenue in Non-interest income increased $643 million. Total trading revenue, which comprises trading-related revenue recorded in Net interest income and Non-interest income, was $2,830 million, up $798 million, or 39%, mainly due to higher fixed income trading primarily driven by improved market conditions mainly in the U.S. as compared to the challenging market conditions in the latter half of the prior year.

Banking revenue increased $203 million or 6%, mainly due to strong client growth in our loan syndication business in Capital Markets, higher service fee revenue and credit card transaction volume.

Underwriting and other advisory revenue decreased $51 million or 3%, mainly due to lower mergers and acquisitions (M&A) activity, largely in Canada.

Other revenue decreased $295 million or 39%, mainly due to losses compared to gains in the prior year on credit default swaps used to economically hedge our corporate loan portfolio in Capital Markets, and losses compared to gains in the prior year related to the change in fair value of certain derivatives used to economically hedge our funding activities.

2011 vs. 2010
Total revenue for 2011 was higher as compared to 2010, primarily due to solid volume growth across most of our Canadian banking businesses, higher average fee-based client assets and higher transaction volumes in Wealth Management, strong growth in our corporate and investment banking businesses, higher debt origination activity in our global markets businesses and solid volume growth in Insurance. These factors were partially offset by significantly lower trading revenue reflecting challenging market conditions in the latter half of 2011 and the unfavourable impact of the stronger Canadian dollar. There were also favourable impacts resulting from differences between IFRS and Canadian GAAP. For further details, refer to Note 3 of our Annual Consolidated Financial Statements.

Provision for credit losses
2012 vs. 2011
Total PCL increased $168 million or 15% from a year ago, mainly due to higher provisions related to Capital Markets and our Caribbean portfolios. Higher average loan balances reflecting volume growth in Canadian home equity products also contributed to the increase. These factors were partially offset by lower PCL in our Canadian credit card portfolio.

2011 vs. 2010
Total PCL for 2011 was lower as compared to 2010, largely reflecting lower provisions in our Caribbean and Canadian business portfolios, a recovery as compared to PCL in 2010 in our corporate portfolio in Capital Markets, lower write-offs in our Canadian credit card portfolio and lower provisions in our Canadian unsecured personal lending portfolio. There were also unfavourable impacts resulting from differences between IFRS and Canadian GAAP. For further details, refer to Note 3 of our Annual Consolidated Financial Statements.

Insurance policyholder benefits, claims and acquisition expense
2012 vs. 2011
PBCAE increased $263 million or 8% from a year ago, mainly due to the change in fair value of investments backing our policyholder liabilities, largely offset in revenue, and volume growth across most products. These factors were partially offset by lower claims costs in Canadian insurance products and a reduction of policy acquisition cost-related liabilities.

2011 vs. 2010
PBCAE for 2011 was lower as compared to 2010, primarily due to the change in fair value of investments mainly backing our Canadian life policyholder liabilities, largely offset in revenue, lower claims costs in our reinsurance, auto and disability products and favourable actuarial adjustments reflecting management actions and assumption changes. These factors were partially offset by higher costs due to solid volume growth across all insurance businesses. There were no significant impacts resulting from differences between IFRS and Canadian GAAP.

Non-interest expense

Table 7

(Millions of Canadian dollars)	IFRS 2012	IFRS 2011	Canadian GAAP 2010
Salaries	**$ 4,313**	$ 4,074	$ 3,777
Variable compensation	**3,650**	3,300	3,335
Benefits and retention compensation	**1,185**	1,099	1,132
Share-based compensation	**139**	188	186
Human resources	**$ 9,287**	$ 8,661	$ 8,430
Impairment of goodwill and other intangibles	**168**	–	–
Equipment	**1,083**	1,010	944
Occupancy	**1,107**	1,026	960
Communications	**764**	746	750
Professional and other external services	**949**	958	850
Other expenses	**1,802**	1,766	1,535
Non-interest expense	**$15,160**	$ 14,167	$ 13,469

2012 vs. 2011
Non-interest expense increased $993 million or 7%, primarily due to higher variable compensation, largely driven by improved results in Capital Markets and increased commission-based revenue in Wealth Management. Higher costs in support of business and volume growth and the impact of a full quarter of non-interest expense related to our additional 50% ownership of RBC Investor Services also contributed to the increase. In addition, our non-interest expense this year was negatively impacted by an impairment loss of $168 million related to our acquisition of the remaining 50% stake in RBC Dexia. The increase in non-interest expense was partially offset by cost reductions resulting from our cost management program.

2011 vs. 2010
Non-interest expense was higher in 2011 as compared to 2010, mainly due to higher costs in support of business growth including the initiatives in our corporate and investment banking businesses, our BlueBay acquisition, and increased staff levels in most businesses. Infrastructure investments in Capital Markets, higher variable compensation in Wealth Management, professional fees and sundry losses also contributed to the increase. These factors were partially offset by lower variable compensation in Capital Markets, the impact of a stronger Canadian dollar and our ongoing focus on cost management. In addition, our 2011 non-interest expense was lower under IFRS than Canadian GAAP. For further details on the differences between IFRS and Canadian GAAP, refer to Note 3 of our Annual Consolidated Financial Statements.

Income and other taxes

Table 8

(Millions of Canadian dollars, except percentage amounts)	IFRS 2012	IFRS 2011	Canadian GAAP 2010
Income taxes	**$ 2,100**	$ 2,010	$ 1,996
Other taxes			
Goods and services sales taxes	**$ 343**	$ 338	$ 250
Payroll taxes	**371**	349	317
Capital taxes	**80**	75	133
Property taxes	**124**	107	105
Insurance premium taxes	**50**	49	46
Business taxes	**21**	18	9
	$ 989	$ 936	$ 860
Total income and other taxes	**$ 3,089**	$ 2,946	$ 2,856
Net income before income taxes from continuing operations	**$ 9,690**	$ 8,980	$ 7,827
Effective income tax rate from continuing operations	**21.7%**	22.4%	25.5%
Effective total tax rate (1)	**28.9%**	29.7%	32.9%

(1) Total income and other taxes as a percentage of net income before income and other taxes.

Our 2012 results included the release of $128 million of tax uncertainty provisions and interest income of $72 million ($53 million after-tax) related to a refund of taxes paid due to the settlement of several tax matters with the CRA in the current year.

2012 vs. 2011
Income tax expense increased $90 million or 4% from a year ago, mainly due to higher earnings before income taxes. The effective income tax rate of 21.7% decreased 70 bps from 22.4% in the prior year, mainly due to a reduction in statutory Canadian corporate income tax rates and the release of the tax uncertainty provisions noted above. These factors were partially offset by a loss related to our acquisition of the remaining 50% stake in RBC Dexia, which was not deductible for tax purposes.

Other taxes increased $53 million or 6% from 2011, mainly due to higher payroll and property taxes. In addition to the income and other taxes reported in our Consolidated Statements of Income, we recorded income taxes of $72 million in 2012 (2011 – $434 million) in shareholders' equity, a decrease of $362 million, primarily reflecting decreased unrealized foreign currency translation gains, net of hedging activities, and decreased gains on derivatives designated as cash flow hedges, net of increased unrealized gains in our available-for-sale (AFS) portfolio.

2011 vs. 2010

Income taxes for 2011 were higher as compared to 2010, largely due to higher earnings before income taxes in 2011. The effective tax rate decreased from the prior year, mainly due to a reduction in Canadian corporate income tax rates, and more favourable tax adjustments in 2011. For further details on the differences between IFRS and Canadian GAAP, refer to Note 3 of our Annual Consolidated Financial Statements.

Our other taxes for 2011 were higher as compared to 2010, due to the full year impact of the Harmonized Sales Tax (HST) in Ontario and British Columbia introduced on July 1, 2010 and higher payroll taxes. The increase was partially offset by lower capital taxes reflecting lower capital tax rates.

Business segment results

Results by business segment — Table 9

	IFRS								Canadian GAAP
	2012							2011	2010
(Millions of Canadian dollars, except percentage amounts)	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets (1)	Corporate Support (1)	Total	Total	Total
Net interest income	$ 9,061	$ 393	$ –	$ 668	$ 2,559	$ (183)	$ 12,498	$ 11,357	$ 10,338
Non-interest income	3,582	4,442	4,897	657	3,629	67	17,274	16,281	15,744
Total revenue	$ 12,643	$ 4,835	$ 4,897	$ 1,325	$ 6,188	$ (116)	$ 29,772	$ 27,638	$ 26,082
PCL	1,167	(1)	–	–	135	–	1,301	1,133	1,240
PBCAE	–	–	3,621	–	–	–	3,621	3,358	3,546
Non-interest expense	5,932	3,796	515	1,134	3,746	37	15,160	14,167	13,469
Net income before income taxes	$ 5,544	$ 1,040	$ 761	$ 191	$ 2,307	$ (153)	$ 9,690	$ 8,980	$ 7,827
Income tax	1,456	277	47	106	726	(512)	2,100	2,010	1,996
Net income from continuing operations	$ 4,088	$ 763	$ 714	$ 85	$ 1,581	$ 359	$ 7,590	$ 6,970	$ 5,831
Non-controlling interest in net income of subsidiaries	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	99
Net income from continuing operations – Canadian GAAP	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	5,732
Loss from discontinued operations	–	–	–	–	–	–	(51)	(526)	(509)
Net income	$ 4,088	$ 763	$ 714	$ 85	$ 1,581	$ 359	$ 7,539	$ 6,444	$ 5,223
ROE from continuing operations	31.5%	14.1%	46.8%	4.3%	13.5%	n.m.	19.5%	20.3%	16.5%
ROE							19.3%	18.7%	14.9%
Average assets	$ 331,500	$ 20,900	$ 11,500	$ 73,600	$ 349,200	$ 15,300	$810,600	$778,900	$ 683,000

(1) Net interest income, total revenue and net income before income taxes are presented in Capital Markets on a taxable equivalent basis (teb). The taxable equivalent basis adjustment is eliminated in the Corporate Support segment. For a further discussion, refer to the How we measure and report our business segments section.

How we measure and report our business segments

Our management reporting framework is intended to measure the performance of each business segment as if it were a stand-alone business and reflect the way that the business segment is managed. This approach is intended to ensure that our business segments' results include all applicable revenue and expenses associated with the conduct of their business and depicts how management views those results. The following highlights the key aspects of how our business segments are managed and reported:

- Personal & Commercial Banking reported results include securitized Canadian residential mortgage and credit card loans and related amounts for income and provisions for credit losses on impaired loans.
- Wealth Management reported results also include disclosure in U.S. dollars as we review and manage the results of certain business lines largely in U.S. dollars.
- Insurance reported results include the change in fair value of investments mainly backing our Canadian life policyholder liabilities recorded as revenue, which is largely offset in PBCAE.
- Capital Markets results are reported on a taxable equivalent basis (teb), which grosses up net interest income from certain tax-advantaged sources (Canadian taxable corporate dividends) to their effective taxable equivalent value with a corresponding offset recorded in the provision for income taxes. We record the elimination of the teb adjustments in Corporate Support. We believe these adjustments are useful and reflect how Capital Markets manages its business, since it enhances the comparability of revenue and related ratios across taxable revenue and our principal tax-advantaged source of revenue. The use of teb adjustments and measures may not be comparable to similar GAAP measures or similarly adjusted amounts disclosed by other financial institutions.
- Corporate Support results include all enterprise-level activities that are undertaken for the benefit of the organization that are not allocated to our five business segments, including residual asset liability management results, impact from income tax adjustments and net charges associated with unattributed capital.

- PCL are recorded to recognize estimated losses on impaired loans, as well as losses that have been incurred but are not yet identified in our loans portfolio. This portfolio includes on-balance sheet exposures, such as loans and acceptances, and off-balance sheet items such as letters of credit, guarantees and unfunded commitments. PCL on impaired loans are included in the results of each business segment to fully reflect the appropriate expenses related to the conduct of each business segment. PCL on loans not yet identified as impaired are included in Corporate Support, as Group Risk Management effectively controls this through its monitoring and oversight of various lending portfolios throughout the enterprise.

Key methodologies
The following outlines the key methodologies and assumptions used in our management reporting framework. These are periodically reviewed by management to ensure they remain valid.

Expense allocation
To ensure that our business segments' results include expenses associated with the conduct of their business, we allocate costs incurred or services provided by Technology & Operations and Functions, which were directly undertaken or provided on the business segments' behalf. For other costs not directly attributable to our business segments, including overhead costs and other indirect expenses, we use our management reporting framework for allocating these costs to each business segment in a manner that reflects the underlying benefits.

Capital attribution
Our framework also determines the attribution of capital to our business segments in a manner that is intended to consistently measure and align economic costs with the underlying benefits and risks associated with the activities of each business segment. The amount of capital assigned to each business segment is referred to as attributed capital. Unattributed capital and associated net charges are reported in Corporate Support. For further information, refer to the Capital management section.

On November 1, 2011, we prospectively revised our capital allocation methodology to further align our allocation processes with evolving increased regulatory capital requirements. The revised methodology replaced the pro-rata allocation of unallocated capital that was used in 2011 and the impacts were phased-in over 2012 in anticipation of our requirement to report under Basel III in 2013. The revised methodology resulted in a reduction in our attributed capital for Personal & Commercial Banking and an increase in attributed capital for Capital Markets.

Funds transfer pricing
A funds transfer pricing methodology is used to allocate interest income and expense by product to each business segment. This allocation considers the interest rate risk, liquidity and funding risk and regulatory requirements of each of our business segments. We base transfer pricing on external market costs and each business segment fully absorbs the costs of running its business. Our business segments may retain certain interest rate exposures subject to management approval that would be expected in the normal course of operations.

Net interest margin
We report net interest margin (NIM) for Personal & Commercial Banking and our Canadian banking businesses based on average earning assets which includes only those assets that give rise to net interest income including deposits with other banks, certain securities and loans.

Changes made in 2012
Effective October 31, 2012, we realigned our business segments. For further details on the realignment, refer to the About Royal Bank of Canada section and Note 30 of our 2012 Annual Consolidated Financial Statements.

Key performance and non-GAAP measures

Performance measures

Return on common equity
We measure and evaluate the performance of our consolidated operations and each business segment using a number of financial metrics such as net income and ROE. We use ROE, at both the consolidated and business segment levels, as a measure of return on total capital invested in our business. The business segment ROE measure is viewed as a useful measure for supporting investment and resource allocation decisions because it adjusts for certain items that may affect comparability between business segments and certain competitors.

Our consolidated ROE calculation is based on net income available to common shareholders divided by total average common equity for the period. Business segment ROE calculations are based on net income available to common shareholders divided by average attributed capital for the period. For each segment, average attributed capital includes the capital required to underpin various risks as described in the Capital Management section and amounts invested in goodwill and intangibles.

The attribution of capital and risk capital involves the use of assumptions, judgments and methodologies that are regularly reviewed and revised by management as necessary. Changes to such assumptions, judgments and methodologies can have a material effect on the segment ROE information that we report. Other companies that disclose information on similar attributions and related return measures may use different assumptions, judgments and methodologies.

The following table provides a summary of our ROE calculations:

Calculation of ROE — Table 10

(Millions of Canadian dollars, except percentage amounts)	IFRS 2012 Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets	Corporate Support	Total	Canadian GAAP 2011 Total	Canadian GAAP 2010 Total
Net income available to common shareholders from continuing operations	**$ 3,996**	**$ 727**	**$ 702**	**$ 71**	**$ 1,503**	**$ 236**	**$ 7,235**	$ 6,611	$ 5,474
Loss to common shareholders from discontinued operations							**(51)**	(526)	(509)
Net income available to common shareholders	**$ 3,996**	**$ 727**	**$ 702**	**$ 71**	**$ 1,503**	**$ 236**	**$ 7,184**	$ 6,085	$ 4,965
Average common equity from continuing operations (1), (2)	**$ 12,700**	**$ 5,150**	**$ 1,500**	**$ 1,700**	**$ 11,150**	**$ 4,550**	**$ 36,750**	$ 29,800	$ 29,450
Average common equity from discontinued operations (1)							**400**	2,800	3,800
Total average common equity	**$ 12,700**	**$ 5,150**	**$ 1,500**	**$ 1,700**	**$ 11,150**	**$ 4,550**	**$ 37,150**	$ 32,600	$ 33,250
ROE from continuing operations	**31.5%**	**14.1%**	**46.8%**	**4.3%**	**13.5%**	**n.m.**	**19.5%**	20.3%	16.5%
ROE							**19.3%**	18.7%	14.9%

(1) Average common equity represent rounded figures. ROE is based on actual balances before rounding.
(2) The amounts for the segments are referred to as attributed capital or economic capital.
n.m. not meaningful

Tier 1 common ratio (consolidated basis)

We use the Tier 1 common ratio prepared under the Basel II framework in conjunction with regulatory capital ratios to evaluate our capital adequacy specifically related to common equity. We believe that it is a useful supplemental measure of capital adequacy. The Tier 1 common ratio does not have a standardized meaning under GAAP and may not be comparable to similar measures disclosed by other financial institutions. The following table provides a calculation of our Tier 1 common ratio.

Tier 1 common ratio — Table 11

(Millions of Canadian dollars, except percentage amounts)	IFRS 2012	Canadian GAAP 2011	Canadian GAAP 2010
Tier 1 capital	**$ 36,807**	$ 35,713	$ 33,972
Less:			
Qualifying other NCI in subsidiaries	**34**	30	351
Innovative Tier 1 capital instruments (1)	**2,580**	2,582	3,327
Non-cumulative First Preferred shares (1)	**4,814**	4,810	4,810
Tier 1 common capital	**$ 29,379**	$ 28,291	$ 25,484
Risk-weighted assets	**$ 280,609**	$ 267,780	$ 260,456
Tier 1 common ratio	**10.5%**	10.6%	9.8%

(1) Net of treasury shares.

Embedded value

Embedded value is a measure of shareholder value embedded in the balance sheet of our Insurance segment, excluding any value from future new sales. We use the change in embedded value between reporting periods as a measure of the value created by the insurance operations during the period.

We define embedded value as the value of equity held in our Insurance segment and the value of in-force business (existing policies). The value of in-force business is calculated as the present value of future expected earnings on in-force business less the present value of capital required to support in-force business. We use discount rates that are consistent with other insurance companies. Required capital uses the capital frameworks in the jurisdictions in which we operate.

Key drivers affecting the change in embedded value from period to period are new sales, investment performance, claims and policyholder experience, change in actuarial assumptions, changes in foreign exchange rates and changes in shareholder equity arising from transfers in capital.

Embedded value does not have a standardized meaning under GAAP and may not be directly comparable to similar measures disclosed by other companies. Given that this measure is specifically used for our Insurance segment and involves the use of discount rates to present value the future expected earnings and capital required for the in-force business, reconciliation to financial statements information is not applicable.

Non-GAAP measures

Economic profit on a continuing operations basis

Economic profit is net income from continuing operations excluding the after-tax effect of amortization of other intangibles and goodwill and intangibles writedown less a capital charge for use of attributed capital. It measures the return generated by our businesses in excess of our cost of capital, thus enabling users to identify relative contributions to shareholder value. Economic profit is a non-GAAP measure and does not have a standardized meaning under GAAP and may not be comparable to similar measures disclosed by other financial institutions.

The capital charge includes a charge for common equity and preferred shares. We prospectively revised our cost of equity in the first quarter of 2012 to 9.5% from 10% in 2011.

The following table provides a summary of our Economic profit on a continuing basis:

Economic profit from continuing operations — Table 12

	IFRS							Canadian GAAP	
	2012							2011	2010
(Millions of Canadian dollars)	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets	Corporate Support	Total	Total	Total
Net income from continuing operations	$ 4,088	$ 763	$ 714	$ 85	$ 1,581	$ 359	$ 7,590	$ 6,970	$ 5,732
add: Non-controlling interests	(3)	–	–	(1)	(1)	(92)	(97)	(101)	n.a.
After-tax effect of amortization of other intangibles	17	66	–	28	2	(1)	112	123	127
Goodwill and intangibles writedown	–	–	–	168	–	–	168	–	–
Adjusted net income	$ 4,102	$ 829	$ 714	$ 280	$ 1,582	$ 266	$ 7,773	$ 6,992	$ 5,859
less: Capital charge	1,306	532	155	173	1,147	431	3,744	3,213	3,318
Economic profit from continuing operations	$ 2,796	$ 297	$ 559	$ 107	$ 435	$ (165)	$ 4,029	$ 3,779	$ 2,541

Results excluding a loss related to the acquisition of the remaining 50% stake in RBC Dexia in Investor & Treasury Services

Our Investor & Treasury Services results have been impacted by a loss related to the acquisition of the remaining 50% stake in RBC Dexia as noted in the following table. We believe that excluding this item is more reflective of our ongoing operating results, will provide readers with a better understanding of management's perspective on our performance, and should enhance the comparability of the financial performance for the fiscal year ended October 31, 2012. These measures are non-GAAP, do not have a standardized meaning under GAAP and may not be comparable to similar measures disclosed by other financial institutions.

The following table provides calculations of our results excluding the loss related the acquisition of the remaining 50% stake in RBC Dexia:

Investor & Treasury Services — Table 13

	2012		
(Millions of Canadian dollars)	As reported	Loss related to the acquisition of the remaining 50% stake in RBC Dexia (1)	Adjusted
Revenue	$ 1,325	$ 36	$ 1,361
Non-interest expense	1,134	(188)	946
Net income before income taxes	$ 191	$ 224	$ 415
Income taxes	106	11	117
Net income	$ 85	$ 213	$ 298

(1) For further details, refer to the Key corporate events of 2012 section.

Personal & Commercial Banking

Effective October 31, 2012, we created a Personal & Commercial Banking segment which includes the former Canadian Banking segment and expanded it to include our banking businesses in the Caribbean and the U.S.

Personal & Commercial Banking comprises our personal and business banking operations as well as certain retail investment businesses and is operated through four business lines: Personal Financial Services, Business Financial Services and Cards and Payment Solutions (collectively Canadian Banking), and Caribbean & U.S. Banking. We serve 13 million individual, business and institutional clients across Canada, the Caribbean and the U.S. In Canada, we provide a broad suite of financial products and services through our extensive branch, automated teller machine (ATM), online and telephone banking networks, as well as through a large number of proprietary sales professionals. In the Caribbean, we offer a broad range of financial products and services to individuals, business clients and public institutions in their respective markets. In the U.S., our cross-border banking business serves the needs of Canadian clients within the U.S.

The landscape in which our banking-related operations compete in the Canadian financial services industry consists of other Schedule I banks, independent trust companies, foreign banks, credit unions and caisses populaires. In this competitive environment, we have top rankings in market share for most retail financial product categories, the largest branch network, the most ATMs and the largest mobile sales network across Canada. In the Caribbean, we compete against banks, trust companies and investment management companies serving retail, corporate and institutional customers. We are the second largest bank as measured by assets in the English Caribbean, with 121 branches in 19 countries and territories. In the U.S., we compete primarily with other Canadian banking institutions with operations in the U.S., along with traditional U.S. retail banking institutions and U.S. wealth management firms with integrated banking and brokerage capabilities.

Economic and market review

During the year, the Canadian economy grew at a modest pace, driven by moderate consumer spending, stable labour markets, and solid business investment, supported by the low interest rate environment. These factors resulted in strong volume growth across most of our Canadian banking businesses, despite the impact of moderating housing market activity and continued spread compression. Overall, credit conditions remained stable throughout the year resulting in improved credit loss rates in our credit card portfolio. In the Caribbean, unfavourable economic conditions continued to negatively impact our results through higher credit losses, spread compression and lower loan volumes.

Year in review

- We were named “Best Retail Bank in North America” by Retail Banker International in 2012, the only Canadian bank to be recognized.
- We expanded our sales capacity by increasing commercial and mobile career sales forces and invested in our retail distribution capabilities by opening 27 new stores in Canada, and converting 16 branches to our new innovative retail store concept offering merchandising areas and interactive digital technologies which redesign and simplify the customer shopping experience.
- We launched a co-branded RBC Shoppers Optimum banking account, debit card and credit card with enhanced Shoppers Optimum rewards, and expanded distribution into the retail environment with in-store ATMs located in Shoppers Drugmart stores.
- We introduced innovative banking solutions including RBC My Project MasterCard, combining the convenience of a credit card and the features of a loan, RBC Virtual Visa Debit, enabling customers to pay online with funds directly from their bank account, and Travelocity online booking tool, allowing customers to book their next vacation using RBC Rewards points.
- We entered into an agreement to acquire the Canadian auto finance and deposit business of Ally Financial Inc., which would give us the top market position in Canada for the consumer auto financing market and a leadership position in commercial auto financing.
- In the Caribbean, we continued to integrate our operations onto a common banking platform as well as implement improved banking practices across the region.
- We successfully transitioned our clients to our new banking platform in the U.S., designed to meet the needs of clients following the sale of our U.S. regional retail banking operations.

Outlook and priorities

Financial conditions in Canada are expected to remain favourable, and we expect continued volume growth across most of our products. However, due to moderated housing market activity and elevated consumer debt ratios, growth in our home equity products and personal loans is expected to slow. We anticipate our business lending will remain strong as business investment is expected to improve further, reflecting favourable credit conditions. Spread compression related to the continued low interest rate and highly competitive environment is expected to continue to pressure our net interest margins.

In the Caribbean, challenging market conditions and a slow economic recovery continue to constrain our outlook. Net interest margins will likely remain challenged by strong competition and spread compression. However, as we leverage a new common operating model in our Caribbean platforms, efficiency is expected to improve and result in volume growth as well as a reduction in expenses.

For further details on our general economic review and outlook, refer to the Economic and market review and outlook section.

Key strategic priorities for 2013

In Canada, our priorities are to continue to:

- Deliver a superior client experience and advice to drive industry leading volume growth in Canada.
- Build our sales capabilities and strategic partnerships, to grow our client base and deepen our relationships across our distribution network.
- Explore and develop partnerships and new delivery opportunities in the emerging payments space.
- Simplify the way we do business by redesigning our processes with customers to drive efficiency improvements.

In the Caribbean and the U.S., we are focused on:

- Leveraging the new common operating model implemented across all of our Caribbean businesses to become an undisputed leader in financial services by simplifying business processes and improving efficiency while delivering an enhanced client experience through a strong focus on proactive sales and relationship-based financial advice, development of our people and strengthening their engagement, optimizing distribution of our products and sustainably improving compliance and risk management.
- Supporting our U.S. growth strategy through retaining and growing the high value cross-border business and serving the banking product needs of our U.S. wealth management client base.

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Personal & Commercial Banking financial highlights — Table 14

(Millions of Canadian dollars, except number of and percentage amounts and as otherwise noted)	IFRS 2012	IFRS 2011	Canadian GAAP 2010
Net interest income	**$ 9,061**	$ 8,515	$ 8,095
Non-interest income	**3,582**	3,510	3,306
Total revenue	**12,643**	12,025	11,401
PCL	**1,167**	1,142	1,333
Non-interest expense	**5,932**	5,682	5,600
Net income before income taxes	**5,544**	5,201	4,468
Net income	**$ 4,088**	$ 3,740	$ 3,099
Revenue by business			
Canadian Banking	**11,815**	11,199	10,555
Caribbean & U.S. Banking	**828**	826	846
Key ratios			
ROE	**31.5%**	30.9%	28.0%
NIM (1)	**2.86%**	2.86%	2.86%
Efficiency ratio (2)	**46.9%**	47.3%	49.1%
Operating leverage	**0.7%**	n.a.	1.8%
Selected average balance sheet information			
Total assets	**$ 331,500**	$ 310,700	$ 295,200
Total earning assets (3)	**316,400**	297,200	283,000
Loans and acceptances (3)	**315,400**	294,800	277,900
Deposits	**243,900**	221,200	203,600
Attributed capital	**12,700**	11,800	10,800
Other information			
AUA (4)	**$ 179,200**	$ 165,900	$ 156,000
AUM	**3,100**	2,700	2,600
Number of employees (FTE) (5)	**38,213**	38,216	38,328
Effective income tax rate	**26.3%**	28.1%	30.6%
Credit information			
Gross impaired loans as a % of average net loans and acceptances	**.58%**	.70%	.77%
PCL on impaired loans as a % of average net loans and acceptances	**.37%**	.39%	.48%

(1) NIM is calculated as Net interest income divided by Average total earning assets.
(2) Efficiency ratio is calculated as Non-interest expense divided by Total revenue.
(3) Average total earning assets and average loans and acceptances include average securitized residential mortgages and credit card loans for the year of $44.9 billion and $7.3 billion, respectively (2011 – $42.0 billion and $4.0 billion; 2010 – $37.0 billion and $3.0 billion).
(4) AUA includes securitized residential mortgages and credit card loans as at October 31, 2012 of $31.0 billion and $7.4 billion respectively (October 31, 2011 – $32.1 billion and $3.9 billion; October 31, 2010 – $30.2 billion and $3.3 billion).
(5) FTE numbers for 2010 were restated to account for the transfer of Canadian banking operations from Corporate Support into Personal & Commercial Banking during 2011.

Financial performance

2012 vs. 2011

Net income increased $348 million or 9%, reflecting strong volume growth across most of our domestic businesses, a lower effective tax rate in Canada and a mortgage prepayment interest adjustment (prepayment adjustment) of $125 million ($92 million after-tax) that favourably impacted our results this year. These factors were partially offset by higher costs in support of business growth and continued spread compression in Canada as well as higher PCL in the Caribbean.

Total revenue increased $618 million or 5% from the previous year, reflecting strong volume growth in Canada in personal deposits, residential mortgages, business deposits and loans and personal loans. The favourable impact of the prepayment adjustment as well as higher credit card transaction volumes also contributed to the increase.

Net interest margin remained flat as the favourable impact of the prepayment adjustment was largely offset by spread compression reflecting the continuing low interest rate environment.

PCL increased $25 million or 2%, mainly due to higher provisions in our Caribbean portfolio and higher PCL in our Canadian secured retail and business lending portfolios. These factors were partially offset by lower write-offs related to our Canadian credit card portfolio.

Non-interest expense increased $250 million or 4%, mainly due to higher costs in support of business growth in Canada. Higher staff costs in the Caribbean and set-up costs in our U.S. cross border banking business also contributed to the increase. These factors were partially offset by our ongoing focus on cost management. In addition, the prior year included net stamp tax and accounting adjustments in Caribbean banking, which favourably impacted our results in that year.

Average loans and acceptances increased $21 billion or 7%, mainly due to continued growth in Canada in home equity and business and personal lending products. Average deposits were up $23 billion or 10%, primarily in Canada, reflecting solid growth in personal and business deposits.

For further details on the prepayment adjustment, refer to the Accounting and control matters section.

2011 vs. 2010

Net income increased from 2010, largely reflecting solid volume growth across most of our Canadian businesses and lower PCL. These factors were partially offset by higher costs in support of business growth.

Total revenue increased from 2010 largely reflecting solid volume growth in home equity products, personal loans and personal deposits. Higher mutual fund distribution fees mostly reflecting net sales of long-term funds and higher credit card transaction volumes also contributed to the increase. These factors were partly offset by lower revenue in Caribbean and U.S. banking due to lower volumes in business loans reflecting unfavourable economic conditions and spread compression in Caribbean banking.

Net interest margin remained relatively flat compared to 2010 as the favourable impact of changes in product mix in our Canadian portfolio was largely offset by increased competitive pricing on mortgages as well as spread compression.

PCL decreased as compared to 2010 reflecting lower write-offs in our Canadian credit card portfolio reflecting fewer bankruptcies and lower provisions in our Canadian business lending and unsecured personal lending portfolios. Lower provisions in our Caribbean business portfolio also contributed to the decrease.

Non-interest expense increased moderately from 2010 due to increased costs in support of business growth and the unfavourable impact from the implementation of the HST in Ontario and British Columbia in July 2010. These factors were largely offset by the favourable impact of our election to recognize all deferred actuarial gains and losses on our employee benefit plans on transition to IFRS which reduced pension expenses in subsequent periods relative to Canadian GAAP. For further details on the differences between IFRS and Canadian GAAP, refer to Note 3 of our Annual Consolidated Financial Statements.

In Canada, we operate through three business lines: Personal Financial Services, Business Financial Services and Cards and Payment Solutions. The following provides a discussion of our consolidated Canadian Banking results.

Canadian Banking financial highlights — **Table 15**

(Millions of Canadian dollars, except number of and percentage amounts and as otherwise noted)	IFRS		Canadian GAAP
	2012	2011	2010
Net interest income	**$ 8,483**	$ 7,960	$ 7,488
Non-interest income	**3,332**	3,239	3,067
Total revenue	**11,815**	11,199	10,555
PCL	**1,017**	1,033	1,191
Non-interest expense	**5,258**	5,082	4,995
Net income before income taxes	**5,540**	5,084	4,369
Net income	**$ 4,085**	$ 3,664	$ 3,044
Revenue by business			
Personal Financial Services	**$ 6,591**	$ 6,192	$ 5,760
Business Financial Services	**2,894**	2,750	2,557
Cards and Payment Solutions	**2,330**	2,257	2,238
Key ratios			
ROE	**39.3%**	38.0%	35.6%
NIM (1)	**2.78%**	2.77%	2.75%
Efficiency ratio (2)	**44.5%**	45.4%	47.3%
Operating leverage	**2.0%**	n.a.	1.1%
Selected average balance sheet information			
Total assets	**$315,400**	$296,100	$ 279,900
Total earning assets (3)	**305,300**	287,200	272,100
Loans and acceptances (3)	**307,900**	287,300	269,500
Deposits	**230,300**	208,600	191,400
Attributed capital	**10,200**	9,450	8,350
Other information			
AUA (4)	**$171,100**	$158,000	$ 148,200
Number of employees (FTE) (5)	**31,769**	31,607	31,900
Effective income tax rate	**26.3%**	27.9%	30.3%
Credit information			
Gross impaired loans as a % of average net loans and acceptances	**.37%**	.44%	.52%
PCL on impaired loans as a % of average net loans and acceptances	**.33%**	.36%	.44%

(1) NIM is calculated as Net interest income divided by Average total earning assets.
(2) Efficiency ratio is calculated as Non-interest expense divided by Total revenue.
(3) Average total earning assets and average loans and acceptances include average securitized residential mortgages and credit card loans for the year of $44.9 billion and $7.3 billion, respectively (2011 – $42.0 billion and $4.0 billion; 2010 – $37.0 billion and $3.0 billion).
(4) AUA includes securitized residential mortgages and credit card loans as at October 31, 2012 of $31.0 billion and $7.4 billion respectively (October 31, 2011 – $32.1 billion and $3.9 billion; October 31, 2010 – $30.2 billion and $3.3 billion).
(5) FTE numbers for 2010 were restated to account for the transfer of Canadian banking operations from Corporate Support into Personal & Commercial Banking during 2011.

Financial performance
2012 vs. 2011

Net income increased $421 million or 11%, reflecting strong volume growth across most of our businesses, a lower effective tax rate and the favourable prepayment adjustment noted above. These factors were partially offset by higher costs in support of business growth and spread compression.

Total revenue increased $616 million or 6% from the previous year, reflecting strong volume growth in personal deposits, residential mortgages, business deposits and loans and personal loans. The favourable prepayment adjustment and higher credit card transaction volumes also contributed to the increase. These factors were partially offset by spread compression.

Net interest margin increased 1 bp mainly due to the prepayment adjustment and a favourable change in product mix, largely offset by spread compression reflecting the continuing low interest rate environment.

PCL decreased $16 million or 2%, mainly due to lower write-offs related to our credit card portfolio, partially offset by higher provisions in our secured retail and business lending portfolios.

Non-interest expense increased $176 million or 3%, mainly due to higher costs in support of business growth, partially offset by our ongoing focus on cost management.

Average loans and acceptances increased $21 billion or 7%, mainly due to continued growth in home equity, business and personal lending products. Average deposits were up $22 billion or 10%, reflecting solid growth in personal and business deposits.

2011 vs. 2010

Net income increased from 2010, largely reflecting solid volume growth across most of our businesses and lower PCL. These factors were partially offset by higher costs in support of business growth.

Total revenue increased from 2010 largely reflecting solid volume growth in home equity products, personal loans and personal deposits. Higher mutual fund distribution fees mostly reflecting net sales of long-term funds and higher credit card transaction volumes also contributed to the increase.

Net interest margin remained relatively flat compared to 2010 as the favourable impact of changes in product mix in our Canadian portfolio was largely offset by increased competitive pricing on mortgages.

PCL decreased as compared to 2010 due to lower write-offs in our credit card portfolio reflecting fewer bankruptcies and lower provisions in our business lending and unsecured personal lending portfolios.

Non-interest expense increased modestly from 2010 due to increased costs in support of business growth and the unfavourable impact from the implementation of the HST in Ontario and British Columbia in July 2010. These factors were largely offset by the favourable impact of our election to recognize all deferred actuarial gains and losses on our employee benefit plans on transition to IFRS which reduced pension expenses in subsequent periods relative to Canadian GAAP. For further details on the differences between IFRS and Canadian GAAP, refer to Note 3 of our Annual Consolidated Financial Statements.

Business line review

Personal Financial Services

Personal Financial Services focuses on meeting the needs of our individual Canadian clients at every stage of their lives through a wide range of financing and investment products and services, including home equity financing, personal lending, deposit accounts, mutual funds and self-directed brokerage accounts, GICs and Canadian private banking. We rank first or second in market share for most personal banking products and our retail banking network is the largest in Canada with 1,239 branches and 4,724 ATMs.

Financial performance

Total revenue increased $399 million or 6% compared to the prior year, reflecting strong volume growth in home equity products and personal deposits and loans. The favourable mortgage prepayment interest adjustment and higher mutual fund distribution fees also contributed to the increase. These factors were partially offset by lower brokerage volumes and lower spreads on deposits.

Average residential mortgages were up 7% over last year supported by the continued low interest rate environment and moderating but solid housing market activity. Average personal loans grew by 8% from last year largely due to strong growth in our home equity products and our consumer and auto finance businesses reflecting the continued low interest rate environment. Average personal deposits grew by 16% from last year reflecting strong growth through our advisory channel, as new and existing clients continued to use savings and other deposit products, due to ongoing uncertainty in global markets.

Selected highlights — **Table 16**

(Millions of Canadian dollars, except number of)	IFRS 2012	IFRS 2011	Canadian GAAP 2010
Total revenue	**$ 6,591**	$ 6,192	$ 5,760
Other information (average)			
Residential mortgages	**170,400**	159,700	151,000
Personal loans	**76,300**	70,500	63,700
Personal deposits	**87,300**	75,200	63,700
Personal GICs	**59,100**	56,900	58,300
Branch mutual fund balances (1)	**82,300**	74,500	70,100
AUA – Self-directed brokerage (1)	**48,900**	45,500	42,400
New deposit accounts opened (thousands)	**1,204**	1,158	968
Number of:			
Branches	**1,239**	1,214	1,209
ATM	**4,724**	4,293	4,227

(1) Represents year-end spot balances.



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Business Financial Services

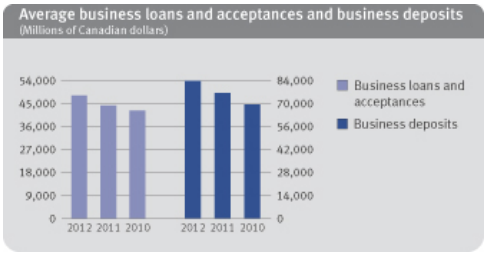
Business Financial Services offers a wide range of lending, leasing, deposit, investment, foreign exchange, cash management and trade products and services to small, medium-sized and commercial businesses, agriculture and agribusiness clients across Canada. Our extensive business banking network includes over 100 business banking centers and over 2,000 business account managers. Our strong commitment to our clients has resulted in our leading market share in business loans and deposits.

Financial performance
Total revenue increased $144 million or 5% compared to the prior year, reflecting strong volume growth in business deposits and business loans, partially offset by lower spreads.
Average business deposits were up 10% and average loans increased 9% mainly reflecting increased volumes due to an expansion of our sales force.

Selected highlights — Table 17

	IFRS		Canadian GAAP
(Millions of Canadian dollars)	**2012**	2011	2010
Total revenue	**$ 2,894**	$ 2,750	$ 2,557
Other information (average)			
Business loans and acceptances	**48,300**	44,200	42,400
Business deposits (1)	**83,900**	76,500	69,400

(1) Includes GIC balances.



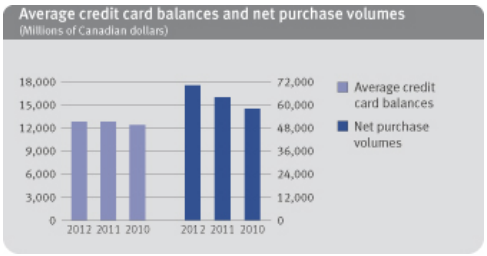
Cards and Payment Solutions

Cards and Payment Solutions provides a wide array of convenient and customized credit cards and related payment products and solutions within Canada. We have over 6 million credit card accounts and have approximately 21% market share of Canada's credit card purchase volume.
In addition, this business line includes our 50% interest in Moneris Solutions, Inc., our merchant card processing joint venture with the Bank of Montreal.

Financial performance
Total revenue increased $73 million or 3%, compared to the prior year reflecting higher credit card transaction volumes and higher spreads. The prior year included a gain on sale of Canadian Banking's remaining Visa shares of $29 million which favourably impacted revenue in that year.
Average credit card balances were flat. Strong net purchase volume growth of 10% was driven by strong loyalty programs and new product launches.

Selected highlights — Table 18

	IFRS		Canadian GAAP
(Millions of Canadian dollars)	**2012**	2011	2010
Total revenue	**$ 2,330**	$ 2,257	$ 2,238
Other information			
Average credit card balances	**12,900**	12,900	12,500
Net purchase volumes	**70,500**	64,300	58,400



Caribbean & U.S. Banking

Our Caribbean banking business offers a comprehensive suite of banking products and services, as well as international financing and trade promotion services through an extensive branch and ATM network, and online banking.
Our U.S. retail banking operations include our cross-border banking business which serves the needs of our Canadian clients within the U.S., offering a broad range of financial products and services to individuals across all 50 states.

Financial performance
Total revenue was relatively flat compared to the prior year as the favourable impact from the weaker Canadian dollar was largely offset by lower loans and transaction volumes in our Caribbean business reflecting unfavourable economic conditions in the region.
Average loans and acceptances were flat compared to last year, as the favourable impact of the weaker Canadian dollar was largely offset by lower loan balances in the Caribbean as noted above. Average deposits increased $1.0 billion or 8%, mainly due to deposit growth in our U.S. banking business.

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Selected highlights — Table 19

(Millions of Canadian dollars)	IFRS 2012	IFRS 2011	Canadian GAAP 2010
Total revenue	**$ 828**	$ 826	$ 846
Other information			
Net interest margin	**5.21%**	5.52%	5.60%
Average loans and acceptances	**7,500**	7,500	8,400
Average deposits	**13,600**	12,600	12,200
AUA	**8,100**	7,900	7,800
AUM	**3,100**	2,700	2,600
Average AUA	**8,000**	7,500	7,600
Average AUM	**2,800**	2,600	2,800
Number of:			
Branches	**121**	123	127
ATM	**341**	333	330



Wealth Management

Wealth Management comprises Canadian Wealth Management, U.S. & International Wealth Management and Global Asset Management. We serve affluent, high net worth and ultra high net worth clients in Canada, the U.S., the U.K., Europe, and Emerging Markets with a comprehensive suite of investment, trust, banking, credit and other wealth management solutions. We also provide asset management products and services directly to institutional and individual clients as well as through RBC distribution channels and third-party distributors. Our competitive environment is discussed below in each business.

Economic and market review

Global capital markets conditions improved in the early half of 2012 as compared to the challenging market conditions in the latter half of last year, driving higher average fee-based client assets reflecting capital appreciation and net sales. However, investor confidence remained uncertain and negatively impacted our transaction volumes throughout the year, reflecting the weakening global economy and the deteriorating economic conditions in certain European countries particularly in the latter half of the year. The continued low interest rate environment resulted in spread compression and money market fee waivers.

Year in review

- We have completed two years of the five-year transformation of our business to deliver integrated global wealth management advice, solutions and services to high net worth and ultra high net worth clients. In 2012 we were recognized as a top 10 global wealth manager, ranking sixth globally by assets for the second consecutive year in Scorpio Partnership's 2012 Global Private Banking KPI Benchmark. We also received numerous Canadian, U.S. and international awards, reflecting the strength of our global capabilities and commitment to client service. In June 2012, we announced our partnership with Capgemini with the launch of the 2012 World Wealth Report and the 2012 Asia-Pacific Wealth Report, widely considered as the global benchmarks in wealth management thought leadership. This partnership further strengthens our brand and reputation globally.
- In Canada, we extended our market share leadership in our retail asset management business to 14.6% as well as in our full service wealth management business, where we lead the industry in high net worth market share.
- In the U.S., client assets grew by 8% and we continued our focus on improving advisor productivity and efficiency although the challenging environment continued to impact transaction volumes.
- On May 31, 2012, we completed the acquisition of the Latin American, Caribbean and African private banking business of Coutts, the wealth division of The Royal Bank of Scotland Group plc, with client assets of approximately US$2 billion. The business includes key private banking staff based primarily in Geneva, Switzerland along with a team in the Cayman Islands.
- We leveraged our leading fixed income and Emerging Markets expertise of BlueBay Asset Management through the launch of multiple funds in Canada and the U.S., as well as the addition of BlueBay offshore funds to platforms in the U.K. and Emerging Markets.

Outlook and priorities

Global market volatility, investor uncertainty and low interest rates are expected to continue in the early half of 2013 due to the impact of the European sovereign debt crisis, resulting in ongoing pressure on our transaction volumes. As the low interest rate environment is expected to continue in 2013, we anticipate continuing money market fund fee waivers in the U.S. and ongoing spread compression. Despite the overall economic uncertainty and uncertain equity markets, we expect global growth in private wealth will be driven by high net worth individuals, particularly in Emerging Markets. To capitalize on this growth, we will continue to build in the U.K. and Emerging Markets. For further details on our general economic review and outlook, refer to the Economic and market review and outlook section.

Key strategic priorities for 2013

- Continue to organically and through selective acquisitions build a high-performing global asset management business that is complementary to and coordinated with our geographic wealth businesses.
- In our wealth business: (i) extend our industry-leading share of high net worth client assets in Canada and expand share globally through recruiting and by delivering an integrated approach to wealth management; (ii) improve advisor and professional productivity and operating efficiencies in our U.S. wealth management and Global Trust businesses; and (iii) continue our long-term build in the U.K. and key Emerging Markets, particularly in Hong Kong, Singapore, Switzerland and Brazil.
- Deliver best-in-class service and support to our client-facing professionals through our global support teams, accelerate our operations and technology investments to achieve global operating efficiencies, leverage segment and enterprise capabilities to deliver value to our clients and maintain a disciplined approach to cost management.
- Continue to capitalize on our strength and stability and Canadian heritage through continued investment in our global brand to drive further growth in our wealth and asset management businesses in Canada and globally.

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Wealth Management financial highlights — Table 20

(Millions of Canadian dollars, except number of and percentage amounts and as otherwise noted)	IFRS 2012	IFRS 2011	Canadian GAAP 2010
Net interest income	**$ 393**	$ 365	$ 305
Non-interest income			
Fee-based revenue	**2,964**	2,821	2,362
Transactional and other revenue	**1,478**	1,522	1,521
Total revenue	**4,835**	4,708	4,188
PCL	**(1)**	–	3
Non-interest expense	**3,796**	3,586	3,295
Net income before income taxes	**1,040**	1,122	890
Net income	**$ 763**	$ 811	$ 669
Revenue by business			
Canadian Wealth Management	**$ 1,741**	$ 1,724	$ 1,502
U.S. & International Wealth Management	**1,977**	1,948	1,949
U.S. & International Wealth Management (US$ millions)	**1,973**	1,980	1,878
Global Asset Management	**1,117**	1,036	737
Key ratios			
ROE	**14.1%**	15.9%	17.6%
Pre-tax margin (1)	**21.5%**	23.8%	21.3%
Selected average balance sheet information			
Total assets	**$ 20,900**	$ 20,900	$ 18,400
Loans and acceptances	**9,900**	8,200	6,800
Deposits	**29,200**	28,200	29,000
Attributed capital	**5,150**	4,850	3,650
Risk capital	**1,400**	1,200	1,000
Other information			
Revenue per advisor (000s) (2)	**$ 793**	$ 784	$ 703
AUA	**577,800**	527,200	521,600
AUM	**339,600**	305,700	261,800
Average AUA	**554,800**	532,300	505,300
Average AUM	**322,500**	302,800	251,900
Number of employees (FTE)	**10,670**	10,564	10,107
Number of advisors (3)	**4,388**	4,281	4,188

Estimated impact of U.S. translation on key income statement items	**2012 vs. 2011**
Increase (decrease):	
Total revenue	**20**
Non-interest expense	**25**
Percentage change in average US$ equivalent of C$1.00	**(2)%**

(1) Pre-tax margin is defined as net income before income taxes divided by total revenue.
(2) Represents investment advisors and financial consultants of our Canadian and U.S. full-service wealth businesses.
(3) Represents client-facing advisors across all our wealth management businesses.

Financial performance

2012 vs. 2011

Net income decreased $48 million or 6% from a year ago, mainly due to lower transaction volumes partially offset by higher average fee-based client assets and a lower effective tax rate. In addition, our current year results included the unfavourable impact of certain regulatory and legal matters of $29 million ($21 million after-tax) and the prior year results included favourable accounting and tax adjustments of $39 million after-tax.

Total revenue increased $127 million or 3%, mainly due to higher average fee-based client assets across all business lines resulting from capital appreciation and net sales, and volume growth in loans and deposits. The increase in fair value of our U.S. share-based compensation plan and the favourable impact of the weaker Canadian dollar also contributed to the increase. These factors were partially offset by lower transaction volumes.

Non-interest expense increased $210 million or 6%, mainly due to higher staff levels and infrastructure investments in support of business growth. The unfavourable impact of certain regulatory and legal matters noted above and the unfavourable impact of the weaker Canadian dollar also contributed to the increase. In addition, our prior year results included favourable accounting adjustments related to our deferred compensation plan of $42 million.

2011 vs. 2010

Net income increased as compared to 2010 mainly due to higher average fee-based client assets and increased transaction volumes. These factors were partially offset by higher costs in support of business growth.

Total revenue increased mainly due to higher average fee-based client assets resulting from capital appreciation, net sales and the inclusion of our BlueBay acquisition. Higher transaction volumes reflecting improved market conditions and investor confidence in the first half of the year also contributed to the increase. These factors were partially offset by the impact of a stronger Canadian dollar.

Non-interest expense increased mainly due to higher costs in support of business growth, largely reflecting the inclusion of our BlueBay acquisition and higher variable compensation driven by higher commission-based revenue. These factors were partially offset by accounting adjustments related to our deferred compensation liability and the impact of a stronger Canadian dollar.

Business line review

Canadian Wealth Management

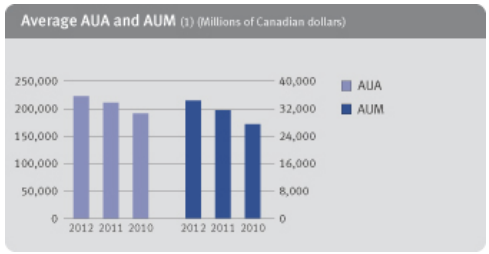
Canadian Wealth Management includes our full-service Canadian wealth advisory business, which is the largest as measured by AUA, with over 1,500 investment advisors providing comprehensive advice-based financial solutions to affluent, high and ultra high net worth clients. Additionally, we provide discretionary investment management and estate and trust services to our clients through close to 60 investment counsellors and close to 120 trust professionals in locations across Canada. We also serve international clients through a team of over 25 private bankers in key centres across Canada.

We compete with domestic banks and trust companies, investment counselling firms, bank-owned full service brokerages and boutique brokerages, mutual fund companies and global private banks. In Canada, bank-owned wealth managers continue to be the major players.

Financial performance
Revenue increased $17 million or 1%. The 10% increase in AUA from a year ago reflecting capital appreciation and net sales was offset by lower transaction volumes.

Selected highlights — Table 21

	IFRS		Canadian GAAP
(Millions of Canadian dollars)	**2012**	2011	2010
Total revenue	**$ 1,741**	$ 1,724	$ 1,502
Other information			
AUA	**230,400**	209,700	201,200
AUM	**36,100**	31,700	29,700
Average AUA	**222,100**	210,900	191,600
Average AUM	**34,400**	31,500	27,400
Total assets under fee-based programs	**120,700**	109,000	102,000



(1) Represents average balances, which are more representative of the impact client balances have upon our revenue.

U.S. & International Wealth Management

U.S. Wealth Management includes our private client group, which is the 7th largest full-service wealth advisory firm in the U.S., as measured by number of advisors, with close to 2,000 financial advisors. It also serves international clients through a team of more than 70 financial advisors and private bankers in key centres across the U.S. Additionally, our correspondent and advisor services businesses deliver clearing and execution services for small to mid-sized independent broker-dealers and registered investment advisor firms. In the U.S., we operate in a fragmented and extremely competitive industry. There are approximately 4,500 registered broker-dealers in the U.S., comprising independent, regional and global players.

International Wealth Management includes Global Trust, Wealth Management – U.K., and Wealth Management – Emerging Markets. We provide customized and integrated trust, banking, credit, and investment solutions to high and ultra high net worth clients and corporate clients with over 1,500 employees located in 18 countries around the world. Competitors in International Wealth Management comprise global wealth managers, traditional offshore private banks, domestic wealth managers and U.S. investment-led private client operations.

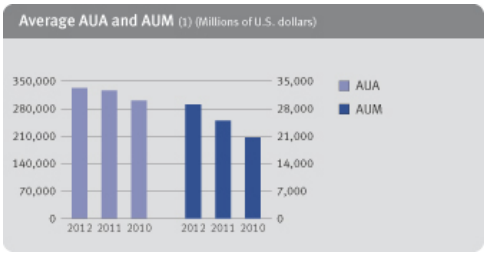
Financial performance
Revenue increased $29 million or 1% from a year ago. In U.S. dollars, revenue was relatively flat as volume growth in loans, the 9% increase in assets under administration reflecting capital appreciation and the increase in the fair value of our U.S. share-based compensation plan were largely offset by lower transaction volumes.

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Selected highlights — Table 22

(Millions of Canadian dollars)	IFRS 2012	IFRS 2011	Canadian GAAP 2010
Total revenue	**$ 1,977**	$ 1,948	$ 1,949
Other Information (US $ millions)			
Total revenue	**1,973**	1,980	1,878
Total loans, guarantees and letters of credit (1)	**10,200**	8,800	7,500
Total deposits (1)	**17,200**	17,400	17,500
AUA	**347,800**	318,600	314,000
AUM	**31,300**	26,900	22,500
Average AUA	**331,700**	326,500	300,700
Average AUM	**29,000**	24,900	20,600
Total assets under fee-based programs (2)	**71,700**	66,900	62,900

(1) Represents an average amount, which is calculated using methods intended to approximate the average of the daily balances for the period.
(2) Represents amounts related to our U.S. wealth management businesses.



(1) Represents average balances, which are more representative of the impact client balances have upon our revenue.

Global Asset Management

Global Asset Management provides global investment management services and solutions for individual and institutional investors in Canada, the U.S., U.K., Europe and Emerging Markets. We provide a broad range of investment management services through mutual, pooled and hedge funds, fee-based accounts and separately managed portfolios. We distribute our investment solutions through a broad network of bank branches, our self-directed and full-service wealth advisory businesses, independent third party advisors and directly to individual clients. We also provide investment solutions directly to institutional clients, including pension plans, endowments and foundations.

We are the largest retail fund company in Canada as well as a leading institutional asset manager. We face competition in Canada from major banks, insurance companies, asset management organizations and boutique firms. The Canadian fund management industry is large and mature, but still a relatively fragmented industry.

In the U.S., our asset management business offers investment management solutions and services primarily to institutional investors and competes with independent asset management firms, as well as those that are part of national and international banks, insurance companies and boutique asset managers.

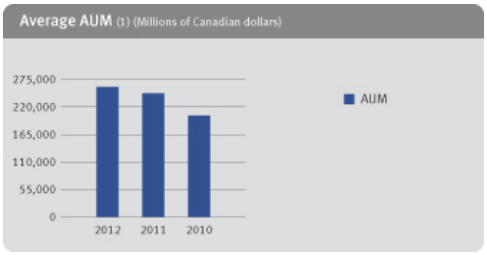
Internationally, through our leading global capabilities of U.K.-based BlueBay Asset Management, we offer investment management solutions for institutions and, through private banks including RBC Wealth Management, to high net worth and ultra high net worth investors. We face competition from asset managers that are part of international banks as well as national, regional and boutique asset managers in the geographies where we serve clients.

Financial performance
Total revenue increased $81 million or 8% from a year ago, mainly due to the 10% increase in AUM reflecting capital appreciation and net sales.

Selected highlights — Table 23

(Millions of Canadian dollars)	IFRS 2012	IFRS 2011	Canadian GAAP 2010
Total revenue (1)	**$ 1,117**	$ 1,036	$ 737
Other information			
Canadian net long-term mutual fund sales	**7,906**	7,300	6,400
Canadian net money market mutual fund (redemptions) sales	**(1,981)**	(3,400)	(8,700)
AUM	**272,200**	247,200	209,200
Average AUM	**259,100**	246,700	203,000

(1) Includes BlueBay results which are reported on a one-month lag.



(1) Represents average balances, which are more representative of the impact client balances have upon our revenue.

Insurance

Insurance comprises our insurance operations in Canada and globally and operates under two business lines: Canadian Insurance and International & Other. In Canada, we offer our products and services through our proprietary distribution channels, comprised of the field sales force which includes retail insurance branches, our field sales representatives, call centers and online, as well as through independent insurance advisors and travel agencies. Outside North America, we operate in reinsurance markets globally. Our competitive environment is discussed below in each business.

Economic and market review
Low interest rates, global market conditions and changes in the regulatory environment continued to impact the insurance marketplace resulting in price increases, product withdrawals and competitors exiting certain lines of business. These factors have impacted our businesses; however, product and pricing actions taken in the current and prior years, conservative investment practices and diversified mix of business have mitigated this challenging environment and enabled continued earnings growth.

Year in review

- In Canada, we continued to improve our distribution efficiency through the integration of our retail insurance branches and career sales force into our new field sales channel. This new integrated channel facilitates the delivery of advice-based solutions, enhances the overall client experience and increases cross-sell opportunities.
- During the third quarter, the Canadian Life and Health business suspended sales of certain life and health products in response to overall economic conditions, including the prolonged low interest rate environment. These actions continued to shift our sales mix toward higher margin products that align with our profitability targets.
- Ontario auto reforms, which were first introduced in September 2010, resulted in improved auto claims experience during the year. The reforms, coupled with pricing actions and fraud management, resulted in strong earnings growth in our Home and Auto businesses.
- In the U.S., we began to wind down our U.S. travel insurance business, while maintaining key cross-border relationships.
- Internationally, we continued to work well with our existing partners and added new counterparties to grow our diversified business, reflecting our strong credit rating and our expertise.

Outlook and priorities

In 2013, as a result of product and pricing actions taken and investments in our proprietary channels, we expect continued profitable growth. In particular, the low interest rate environment continues to adversely impact margins on sales of certain life insurance products and interest rate related actuarial assumptions. We expect the product and pricing actions taken, increasing volumes through our growing proprietary channels and execution of cost management initiatives will mitigate this challenging environment. The positive claims trend resulting from Ontario Auto Reforms and various initiatives across our claims operations are expected to continue. For further details on our general economic review and outlook, refer to the Economic and market review and outlook section.

Key strategic priorities for 2013

- Leverage the field sales force through implementation of performance management processes, while continuing to deliver a variety of insurance products and services to our clients through advice-based cross-sell strategies.
- Deepen client relationships by continuing to provide our customers with a comprehensive suite of insurance products and services based on their unique family needs.
- Actively manage our Life & Health product portfolios to ensure the adverse impact of the interest rate environment is addressed through product mix and pricing decisions.
- Continue to simplify the way we do business by streamlining all business processes to ensure that clients find it easy to do business with us, while diligently managing our expenses.
- Pursue select international niche opportunities, within our risk appetite, with the aim of continuing to grow our core reinsurance business.

Insurance financial highlights — **Table 24**

	IFRS		Canadian GAAP
(Millions of Canadian dollars, except percentage amounts and as otherwise noted)	**2012**	2011	2010
Non-interest income			
Net earned premiums	**$ 3,705**	$ 3,533	$ 3,313
Investment income (1)	**929**	703	928
Fee income	**263**	239	248
Total revenue	**4,897**	4,475	4,489
Insurance policyholder benefits and claims (1)	**3,055**	2,757	2,989
Insurance policyholder acquisition expense	**566**	601	557
Non-interest expense	**515**	498	468
Net income before income taxes	**761**	619	475
Net income	**$ 714**	$ 600	$ 491
Revenue by business line			
Canadian Insurance	**$ 2,992**	$ 2,676	$ 2,756
International & Other Insurance	**1,905**	1,799	1,733
Key ratios			
ROE	**46.8%**	37.6%	37.2%
Selected average balance sheet information			
Total assets	**$11,500**	$10,500	$ 9,900
Attributed capital	**1,500**	1,550	1,300
Risk capital	**1,350**	1,400	1,150
Other information			
Premiums and deposits (2)	**$ 4,849**	$ 4,701	$ 4,457
Canadian Insurance	**2,362**	2,355	2,191
International & Other Insurance	**2,487**	2,346	2,266
Insurance claims and policy benefit liabilities	**$ 7,921**	$ 7,119	$ 6,273
Fair value changes on investments backing policyholder liabilities (1)	**410**	214	389
Embedded value (3)	**5,861**	5,327	5,466
AUM	**300**	300	300
Number of employees (FTE)	**2,744**	2,859	2,724

(1) Investment income can experience volatility arising from fluctuation in the fair value of Fair Value Through Profit or Loss (FVTPL) assets. The investments which support actuarial liabilities are predominantly fixed income assets designated as FVTPL. Consequently changes in the fair values of these assets are recorded in investment income in the consolidated statements of income and are largely offset by changes in the fair value of the actuarial liabilities, the impact of which is reflected in insurance policyholder benefits and claims.
(2) Premiums and deposits include premiums on risk-based insurance and annuity products, and individual and group segregated fund deposits, consistent with insurance industry practices.
(3) Embedded value is defined as the sum of value of equity held in our Insurance segment and the value of in-force business (existing policies). For further details, refer to the Key performance and non-GAAP measures section.

Financial performance
2012 vs. 2011
Net income increased $114 million or 19%, mainly due to lower claims costs in disability, home and auto products and the reduction of policy acquisition cost-related liabilities of $33 million ($24 million after-tax) reflecting changes to our proprietary distribution channel. Higher net investment gains and volume growth in our reinsurance products also contributed to the increase. These factors were partially offset by higher claims costs in our reinsurance products.

Total revenue increased $422 million or 9%, mainly due to volume growth across reinsurance, life and home and auto products and the change in fair value of investments backing our policyholder liabilities, which was largely offset in PBCAE.

PBCAE increased $263 million or 8%, mainly due to the change in fair value of investments backing our policyholder liabilities, largely offset in revenue, and volume growth across reinsurance, life, home and auto products. These factors were partially offset by lower claims costs in disability, home and auto products and the reduction of policy acquisition cost-related liabilities as noted above.

Non-interest expense increased $17 million or 3%, mainly due to higher costs in support of business growth, partially offset by our ongoing focus on cost management.

Premiums and deposits were up $148 million or 3%, reflecting volume growth, mainly in International & Other and strong client retention.

Embedded value increased $534 million or 10%, reflecting favourable experience adjustments and the impact of declining discount rates. These factors were partially offset by the transfer of capital from our insurance businesses through dividend payments. For further details, refer to the Key performance and non-GAAP measures section.

2011 vs. 2010
Net income increased from 2010 mainly due to lower claims costs in our reinsurance, auto and disability products, solid volume growth across all businesses and favourable actuarial adjustments. These factors were partially offset by lower net investment gains in 2011.

Total revenue decreased as solid volume growth across all businesses was more than offset by the change in fair value of investments mainly backing our Canadian life policyholder liabilities, lower net investment gains and the impact of the stronger Canadian dollar. The change in fair value of investments was largely offset in PBCAE.

PBCAE decreased primarily due to the change in fair value of investments as noted above, lower claims costs in our reinsurance, auto and disability products and favourable actuarial adjustments reflecting management actions and assumption changes. These factors were partially offset by higher costs due to solid volume growth across all businesses.

Non-interest expense increased mainly in our Canadian businesses in support of business growth and strategic initiatives.

Business line review

Canadian Insurance

We offer life, health, property and casualty insurance products as well as wealth accumulation solutions, to individual and group clients across Canada. Our life and health portfolio includes universal life, term life, critical illness, disability, long-term care insurance and group benefits. We offer a wide range of property and casualty products including home, auto and travel insurance. Our travel products include out of province/country medical coverage, trip cancellation insurance and interruption insurance.

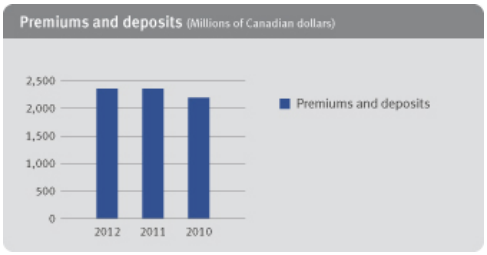
In Canada, we compete against over 200 insurance companies, with the majority of the organizations specializing in either life and health, or property and casualty products. We hold a leading market position in travel insurance products, have a significant presence in life and health products, and have a growing presence in the home and auto markets.

Financial performance
Total revenue increased $316 million or 12% from last year, mainly due to the change in fair value of investments backing our policyholder liabilities, largely offset in PBCAE, and volume growth across most products.

Premiums and deposits were relatively flat as sales growth in home, auto, life, and health and continued strong client retention were mostly offset by lower sales in travel products.

Selected highlights — Table 25

	IFRS		Canadian GAAP
(Millions of Canadian dollars)	**2012**	2011	2010
Total revenue	**$2,992**	$2,676	$ 2,756
Other information			
Premiums and deposits			
Life and health	**1,280**	1,274	1,249
Property and casualty	**965**	962	859
Annuity and segregated fund deposits	**117**	119	83
Fair Value changes on investments backing policyholder liabilities	**408**	209	382



International & Other Insurance

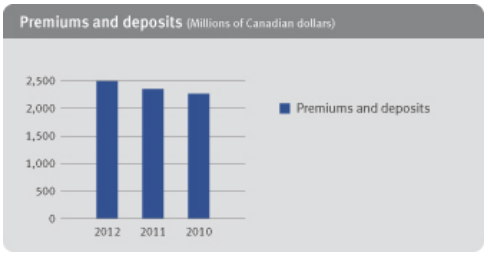
International & Other Insurance is primarily comprised of our reinsurance businesses which insure risks of other insurance and reinsurance companies. We offer life and health, accident, annuity and trade credit reinsurance products.

The global reinsurance market is dominated by a few large players, with significant presence in the U.S., U.K. and Eurozone. The reinsurance industry is competitive but barriers to entry remain high.

Financial performance
Total revenue increased $106 million or 6%, mainly due to volume growth in our U.K. annuity and European life products.
Premiums and deposits increased $141 million, or 6% reflecting volume growth in our major reinsurance product lines as noted above.

Selected highlights — Table 26

	IFRS		Canadian GAAP
(Millions of Canadian dollars)	**2012**	2011	2010
Total revenue	**$1,905**	$1,799	$ 1,733
Other information			
Premiums and deposits			
Life and health	**1,980**	1,969	1,895
Property and casualty	**56**	38	50
Annuity	**451**	339	321



Investor & Treasury Services

Investor & Treasury Services offers global custody and fund administration, as well as an integrated suite of products and services to institutional investors worldwide. We also provide cash management, correspondent banking and trade finance services to financial institutions globally and funding and liquidity management for RBC as well as other select institutions. We are a top 10 global custodian by assets under administration with a worldwide network of offices in 15 countries. While we compete against the world's largest global custodians, we remain a specialist service provider and our correspondent banking business competes primarily with major Canadian banks.

Economic and market review
Although global capital markets improved in the first half of 2012 as compared to the challenging market conditions in the latter half of last year, investor confidence remained uncertain reflecting ongoing concerns related to European sovereign debt. As a result, our transaction volumes were negatively impacted throughout the year.

Year in review
- On July 27, 2012, we completed the acquisition of the remaining 50% stake in RBC Dexia and the business was rebranded RBC Investor Services. Full ownership of RBC Investor Services should deliver key synergies that we believe will enable us to leverage our leadership in capital markets and wealth management globally to access new business and increase cross-sell opportunities. Our current year includes three months of results reflecting full ownership of RBC Investor Services.
- With the acquisition, we also reorganized our investor services, correspondent banking and treasury services businesses under our newly created Investor & Treasury Services segment to better align our operating structure with our enhanced focus on financial institutions and institutional investing clients.
- In 2012, we continued to rank among the top 10 global custodians by assets under administration. We were also ranked best custodian overall (Global Investor) and custodian of the year in Canada (Custody Risk Americas Awards).

Outlook and priorities
In 2013, we expect to leverage our strong reputation, brand and financial strength to provide custody, treasury and payment services. We anticipate that uncertainty in global markets will continue due to ongoing concerns related to the European sovereign debt crisis which will negatively impact our business through lower transaction volumes. However, we believe there are strong long-term prospects for our business, largely due to the importance of global custody and related services in a low interest rate environment. This newly created segment will allow us to offer various benefits to our clients that stem from our ability to provide seamless and integrated product offerings. For further details on our general economic review and outlook, refer to the Economic and market review and outlook section.

Key strategic priorities for 2013
- Continue to capitalize on our wholesale deposit gathering and liability origination strategies aligned with our enterprise funding and liquidity requirements.
- Grow revenue in our correspondent banking business by increasing our focus on fee generation to offset the unfavourable impact of the low interest rate environment.
- Evolve our capabilities in custodial, fund administration, financing and other services to deliver a globally integrated client experience.
- Integrate and streamline our cash, collateral and excess liquidity management processes for our businesses and our clients in order to improve efficiency.

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Investor & Treasury Services financial highlights — Table 27

(Millions of Canadian dollars, except percentage amounts and as otherwise noted)	IFRS 2012	IFRS 2011	Canadian GAAP 2010
Net interest income	**$ 668**	$ 573	$ 498
Non-interest income	**657**	569	623
Total revenue	**1,325**	1,142	1,121
PCL	**–**	–	15
Non-interest expense	**1,134**	821	783
Net income before income taxes and NCI in subsidiaries	**191**	321	323
Net income	**$ 85**	$ 230	$ 222
Key ratios			
ROE	**4.3%**	18.4%	19.7%
Selected average balance sheet information			
Total assets	**$ 73,600**	$ 70,000	$ 60,400
Deposits	**102,200**	103,200	93,100
Attributed capital	**1,700**	1,200	1,050
Other information			
Economic profit (1)	**$ 107**	$ 133	$ 131
AUA	**2,886,900**	2,744,400	2,779,500
Average AUA	**2,781,800**	2,825,100	2,544,500
Number of employees (FTE) (2)	**6,084**	112	108

(1) Economic profit is a non-GAAP measure. For further details, refer to the Key performance and non-GAAP measures section.
(2) On July 27, 2012, we completed our acquisition of the remaining 50% stake in RBC Dexia. Prior to this acquisition, FTE numbers do not include our RBC Dexia joint venture.

Financial performance

2012 vs. 2011

Net income decreased $145 million or 63%, driven by a loss of $224 million ($213 million after-tax) related to the acquisition of the remaining 50% stake in RBC Dexia. Excluding this loss, net income increased $68 million or 30%. The increase was mainly due to higher funding and liquidity trading results reflecting improved market conditions. This was partially offset by lower foreign exchange revenue and decreased custodial fees resulting from lower margins.

Total revenue increased $183 million or 16% which included our proportionate share of the loss of $36 million ($26 million after-tax) recorded by RBC Dexia from the securities exchange with Dexia Group and trading losses on the sale of a majority of the securities received in the exchange. Excluding this loss, total revenue increased $219 million or 19%, largely related to higher funding and liquidity trading revenue across all geographies, driven by improved market liquidity, tightening credit spreads, and favourable market conditions as compared to the challenging conditions in the latter half of last year. Higher interest income on assets held for liquidity purposes and a full quarter of revenue related to our additional 50% ownership of RBC Investor Services, partially offset by lower foreign exchange revenue and decreased custodial fees resulting from lower margins, also contributed to the increase. The increase in revenue was partially offset by the unfavourable impact of the depreciation of the Euro against the Canadian dollar.

Non-interest expense increased $313 million or 38% which included an impairment loss related to our investment in RBC Dexia and other costs related to this acquisition of $188 million ($187 million after-tax). Excluding these costs, non-interest expense increased $125 million or 15%, mainly due to a full quarter of costs related to our additional 50% ownership of RBC Investor Services. Higher staff costs, including increased variable compensation on improved results also contributed to the increase. These factors were partially offset by the depreciation of the Euro against the Canadian dollar.

Results excluding the loss related to the acquisition of the remaining 50% stake in RBC Dexia noted above are non-GAAP measures. For further details, including a reconciliation, refer to the Key performance and non-GAAP measures section.

2011 vs. 2010

Net income increased from the prior year mainly related to higher earnings in our custodial services business, primarily driven by increased transaction volumes and higher average fee-based client assets. Higher volumes in our correspondent banking business also contributed to the increase. These factors were partially offset by losses on certain of our European and U.S. money market securities and lower fair values on our non-trading derivatives.

Total revenue was higher in 2011 as compared to 2010, largely reflecting business growth and improved spreads on client cash deposits in our custodial services. A favourable adjustment in 2011 related to a change in our allocation of long-term funding costs and higher cash management fees also contributed to the increase. These factors were partially offset by losses on certain of our money market securities, lower fair values on our non-trading derivatives, and the unfavourable impact of the stronger Canadian dollar.

In 2011, there was no provision for credit losses as compared to a provision on certain accounts in 2010.

Non-interest expense increased mainly due to higher costs in support of infrastructure spend for growth and control initiatives, partially offset by lower variable compensation and the impact of the stronger Canadian dollar.

Capital Markets

Capital Markets comprises the majority of our global wholesale banking businesses providing public and private companies, institutional investors, governments and central banks with a wide range of products and services across our two main business lines, Global Markets and Corporate and Investment Banking. Our legacy portfolio is grouped under Other, as discussed in our Other section below. As part of our announced reorganization, we transferred our correspondent banking and treasury services businesses from Capital Markets to our Investor & Treasury Services segment. For details on the reorganization, refer to the About Royal Bank of Canada section.

In North America, we offer a full suite of products and services which include corporate and investment banking, equity and debt origination and distribution, and structuring and trading. Outside North America, we have a select presence in the U.K. and Europe and Asia Pacific, where we offer a diversified set of capabilities in our key sectors of expertise such as energy, mining and infrastructure.

In Canada, we compete mainly with Canadian banks where we are the premier global investment bank and market leader with a strategic presence in all lines of wholesale business. In the U.S., we have full industry sector coverage and investment banking product range and compete with large U.S. and global investment banks as well as smaller regional firms. In the U.K. and Europe, we compete in our key sectors of expertise with global and regional investment banks. In Asia Pacific, we compete with global and regional investment banks in select products, including fixed income distribution and currencies trading and investment banking.

Economic and market review

Global capital markets improved in the first half of 2012 primarily reflecting stabilizing market conditions particularly in the U.S. and Canada as compared to the challenging market conditions in the latter half of last year. Generally, European market conditions remained volatile as sovereign debt issues persisted.

Fixed income trading businesses strengthened largely in the U.S. and Canada, primarily due to higher client volumes, greater market liquidity and tightening credit spreads. Improvements in the U.S. market led to higher client activity and the low interest rate environment led to strong issuance activity throughout most of the year. Our corporate and investment banking businesses in the U.S. performed well, driven by higher lending, loan syndication, and debt and equity origination.

Year in review

- We continued to focus on rebalancing our corporate and investment banking and global markets businesses by redeploying capital from trading to lending and other investment banking businesses, and managing risks by narrowing our focus of trading products and reducing trading inventory positions particularly in the early part of the year, largely in our fixed income business. We also phased in Basel III ahead of many of our global peers and actively managed our businesses in compliance with the new capital requirements. Given this phase in, we increased our attributed capital by 39% and we delivered a ROE of 13.5%.
- In Canada, we extended our market leadership by winning new clients, strengthening our existing client relationships, and offering a full suite of global capabilities. We were named Best Investment Bank in Canada by Euromoney Magazine for the 5th consecutive year and we continued to win significant mandates including acting as financial advisor to Glencore on their $7.5 billion proposed acquisition of Viterra.
- In the U.S., as a result of our key strategic investments made in recent years to expand our corporate and investment banking businesses, we developed new lending relationships and focused on our origination and client flow businesses. We continued to gain market share and won several significant mandates including lead financial and technical advisor to the Apollo Global Management led consortium on their $7.2 billion acquisition of El Paso's exploration and production assets.
- In the U.K. and Europe, after selectively expanding our investment banking businesses in recent years in our key sectors of expertise, we focused on gaining new clients and increasing our market positions. Despite challenging market conditions, we continued to win new mandates, including acting as financial advisor on the €3.2 billion acquisition of Open Grid Europe, our largest U.K. cross-border M&A deal.
- In Asia Pacific, we continued to focus on our fixed income trading distribution and foreign exchange trading capabilities. We also selectively grew our corporate and investment banking business in mining, energy and infrastructure and were ranked number one in Australia's M&A Advisor League table for the first half of 2012.
- As a result of our successes in each of our regions, we were ranked globally as the 10th largest investment bank by fees (Dealogic – published October 2, 2012), up from 12th for the same period last year.

Outlook and priorities

In 2013, as a result of strategic investments in our investment banking businesses in the U.S. in recent years, we expect continued growth in our lending, loan syndication, origination and advisory businesses, while remaining committed to our cost management initiatives. However, our overall growth may be impacted by increased competition in select markets and global economic uncertainties reflecting the U.S. fiscal cliff and European sovereign debt concerns.

Any growth in our trading businesses will be dependent on improved investor confidence and resolutions on several macroeconomic issues. We anticipate that global market volatility will continue to exist in the early half of 2013, as concerns surrounding the U.S. fiscal cliff and European sovereign debt will continue to persist. We further anticipate that certain regulatory reforms will unfavourably impact growth in our trading businesses.

For further details refer to our Risk management – Top and emerging risks section. For further details on our general economic outlook, refer to the Economic and market review and outlook section.

Key strategic priorities for 2013

- Extend our leading market position in Canada by focusing on execution and long-term client relationships, increasing our market share with small and medium sized companies and leveraging our global capabilities.
- Build on our momentum in the U.S. by leveraging industry sector coverage and deepening our client lending relationships to increase market share and drive fee-based revenues, while improving margins.
- Capitalize on our investments in the U.K. and Europe in both Corporate and Investment Banking and Global Markets.
- Continue to expand our distribution capabilities across Asia Pacific and selectively grow corporate and investment banking in our sectors of expertise.
- Deepen client relationships, optimize capital and effectively manage risk within the new regulatory and macroeconomic environment and leverage our recent investments in infrastructure and governance to drive efficiencies.

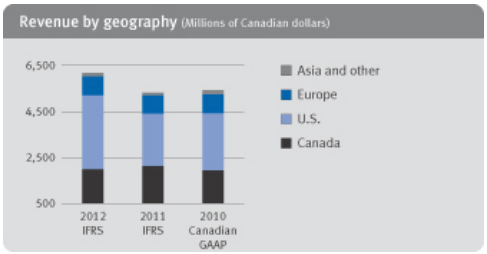
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Capital Markets financial highlights — Table 28

(Millions of Canadian dollars, except percentage amounts and as otherwise noted)	IFRS 2012	IFRS 2011	Canadian GAAP 2010
Net interest income (1)	**$ 2,559**	$ 2,197	$ 2,283
Non-interest income	**3,629**	3,127	3,140
Total revenue (1)	**6,188**	5,324	5,423
PCL	**135**	(14)	5
Non-interest expense	**3,746**	3,487	3,242
Net income before income taxes and NCI in subsidiaries	**2,307**	1,851	2,176
Net income	**$ 1,581**	$ 1,292	$ 1,462
Revenue by business			
Global Markets	**$ 3,635**	$ 3,143	$ 3,495
Corporate and Investment Banking	**2,533**	2,371	1,952
Other	**20**	(190)	(24)
Key ratios			
ROE	**13.5%**	15.2%	18.3%
Selected average balance sheet information			
Total assets	**$ 349,200**	$322,000	$ 277,400
Trading securities	**90,400**	112,300	102,600
Loans and acceptances	**47,000**	35,300	25,400
Deposits	**30,900**	26,500	16,400
Attributed capital	**11,150**	8,000	7,650
Other information			
Number of employees (FTE)	**3,533**	3,510	3,291
Credit information			
Gross impaired loans as a % of average net loans and acceptances	**0.83%**	0.65%	1.48%
PCL on impaired loans as a % of average net loans and acceptances	**0.29%**	(0.04)%	0.02%

Estimated impact of U.S., British pound and Euro translation on key income statement items	**2012 vs. 2011**
Increase (decrease):	
Total revenue (pre-tax)	**$ 65**
Non-interest expense (pre-tax)	**25**
Net income	**20**
Percentage change in average US$ equivalent of C$1.00	**(2)%**
Percentage change in average British pound equivalent of C$1.00	**(0)%**
Percentage change in average Euro equivalent of C$1.00	**6%**

(1) The teb adjustment for 2012 was $431 million (2011 – $459 million, 2010 – $489 million). For further discussion, refer to the How we measure and report our business segments section.



Financial performance

2012 vs. 2011

Net income increased $289 million or 22%, driven primarily by our global markets businesses due to higher fixed income trading results reflecting improved market conditions as compared to the challenging market conditions in the latter half of the prior year. Strong growth in our corporate and investment banking results driven by higher lending and increased loan syndication activity primarily in the U.S. also contributed to the increase. These factors were partially offset by higher PCL, as compared to recoveries in the prior year and a higher effective tax rate reflecting increased earnings in higher tax jurisdictions.

Total revenue increased $864 million or 16%, largely due to higher fixed income trading primarily driven by improved market conditions mainly in the U.S. as compared to the challenging market conditions in the latter half of the prior year, resulting in increased client activity, greater market liquidity and tightening credit spreads. In our corporate and investment banking businesses, strong client growth in lending and increased loan syndication activity, mainly in the U.S. also contributed to the increase.

PCL of $135 million compared to a recovery of $14 million in the prior year, largely reflected higher provisions on a few accounts in the current year.

Non-interest expense increased $259 million or 7%, mainly due to higher variable compensation on improved results. Higher costs in support of business growth, primarily in our corporate and investment banking businesses in the U.S. and U.K., and higher regulatory costs also contributed to the increase. This increase was partially offset by our ongoing focus on cost management activities.

2011 vs. 2010

Our net income for 2011 of $1,292 million decreased by $170 million or 12% as compared to 2010, mainly due to significantly lower fixed income trading results reflecting challenging market conditions, higher costs in support of infrastructure investments and business growth and the unfavourable impact of the stronger Canadian dollar. These factors were partially offset by strong growth in our corporate and investment banking businesses and higher debt origination activity in our global markets businesses. A recovery in PCL as compared to PCL expense in 2010 also partially offset the decrease. In addition, upon migration to IFRS accounting, our trading results were impacted in 2011 by a loss of $99 million ($65 million after-tax) on the consolidation of a special purpose entity and the unfavourable impact of $56 million ($41 million after-tax) translating foreign currency securities upon the transfer from held for trading under Canadian GAAP to AFS under IFRS.

For further details on the differences between IFRS and Canadian GAAP, refer to Note 3 of our Annual Consolidated Financial Statements.

Business line review

Global Markets

Global Markets comprises our fixed income, foreign exchange, equity sales and trading, repos and secured financing and commodities businesses. For debt and equity origination, revenues are allocated between Global Markets and Corporate and Investment Banking based on the contribution of each group in accordance with an established agreement.

Financial performance

Total revenue of $3,635 million increased $492 million or 16% as compared to the prior year.

Revenue in our Fixed income, currencies and commodities business increased $468 million or 30%, largely due to significantly higher fixed income trading revenue mainly in the U.S. from improved market conditions as compared to the challenging conditions in the latter half of the prior year, which resulted in higher client volumes, greater market liquidity and tightening credit spreads. These factors were partially offset by losses on fair value adjustments on certain RBC debt, resulting from the narrowing of our credit spreads as compared to gains in the prior year. In addition, the prior year was favourably impacted by gains related to MBIA of $102 million ($49 million after-tax and compensation adjustments).

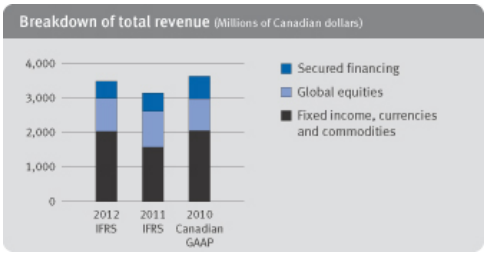
Revenue in our Global equities business decreased $106 million or 10%, largely reflecting reduced fees and an industry-wide decrease in volumes impacting our cash equities and electronic trading businesses.

Revenue in our Repo and secured financing business increased $130 million or 25% mainly due to higher trading revenue reflecting wider spreads and increased client activity.

Selected highlights — **Table 29**

(Millions of Canadian dollars, except number of amounts)	IFRS 2012	IFRS 2011	Canadian GAAP 2010
Total revenue (1)	**$ 3,635**	$ 3,143	$ 3,495
Breakdown of revenue (1)			
Fixed income, currencies and commodities	**2,052**	1,584	2,033
Global equities	**927**	1,033	960
Repo and secured financing (2)	**656**	526	502
Other information			
Average assets	**311,700**	278,500	227,600
FTE	**1,452**	1,498	1,476

(1) The teb adjustment for 2012 was $421 million (2011 – $439 million, 2010 – $465 million). For further discussion, refer to the How we measure and report our business segments section.
(2) Repo and secured financing comprises our secured funding businesses for internal businesses and external clients.



Corporate and Investment Banking

Corporate and Investment Banking comprises our debt and equity origination, mergers and acquisitions advisory services, loan syndication, research, private equity, as well as corporate lending, client securitization, and global credit businesses.

Financial performance

Corporate and Investment Banking revenue of $2,533 million increased $162 million or 7%, as compared to the prior year.

Investment banking revenue increased $32 million or 2%, mainly in the U.S. driven by strong client growth in our loan syndication business and higher debt and equity origination reflecting solid issuance activity. Higher M&A activity largely reflecting increased mandates primarily in the U.S. and Asia Pacific also contributed to the increase. These factors were largely offset by lower debt origination and M&A activity in Canada.

Lending and other revenue increased $130 million or 12%, mainly due to strong volume growth in our U.S. lending portfolio. This was partially offset by losses instead of gains in the prior year on credit default swaps used to economically hedge our corporate loan portfolio.

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Selected highlights — Table 30

(Millions of Canadian dollars, except number of amounts)	IFRS 2012	IFRS 2011	Canadian GAAP 2010
Total revenue (1)	**$ 2,533**	$ 2,371	$ 1,952
Breakdown of revenue (1)			
Investment banking	**1,338**	1,306	1,021
Lending and other (2)	**1,195**	1,065	931
Other information			
Average assets	**33,800**	21,300	19,100
FTE	**1,845**	1,793	1,590

(1) The teb adjustment for 2012 was $10 million (2011 – $20 million, 2010 – $24 million). For further discussion, refer to the How we measure and report our business segments section.
(2) Lending and other comprises our corporate lending, client securitization, and global credit businesses.



Other

Other comprises our legacy portfolio. In recent years, we have significantly reduced our legacy portfolio including our bank-owned life insurance (BOLI) stable value products, U.S. commercial mortgage-backed securities and U.S. auction rate securities (ARS).

Financial performance
Revenue of $20 million compared to a loss of $190 million last year, reflecting gains on BOLI stable value products as compared to losses in the prior year and a loss in the prior year related to a consolidated special purpose entity (SPE) from which we exited all transactions in the first quarter of 2012.

Corporate Support

Corporate Support comprises Technology & Operations and Functions. Our Technology & Operations teams provide the technological and operational foundation required to effectively deliver products and services to our clients, while Functions includes our finance, human resources, risk management, corporate treasury, internal audit and other functional groups. Reported results for Corporate Support mainly reflect certain activities related to monitoring and oversight of enterprise activities which are not allocated to business segments. Included within Corporate Support is our Corporate Treasury function that performs Asset Liability Management of our non-trading interest rate risk for our retail banking portfolios within specified risk limits. These results, for the most part, are largely allocated to Personal & Commercial Banking. For further details, refer to the How we measure and report our business segments section.

Selected highlights — Table 31

(Millions of Canadian dollars, except number of)	IFRS 2012	IFRS 2011	Canadian GAAP 2010
Net interest (loss) (1)	**$ (183)**	$ (293)	$ (843)
Non-interest income	**67**	257	303
Total revenue (1)	**(116)**	(36)	(540)
PCL	**–**	5	(116)
Non-interest expense	**37**	93	81
Income taxes (recoveries) (1)	**(512)**	(431)	(386)
Non-controlling interest	**n.a.**	n.a.	92
Net income (loss) (2)	**$ 359**	$ 297	$ (211)
Other information			
Number of employees (FTE)	**13,133**	13,219	12,589

(1) Teb adjusted.
(2) Net income reflects income attributable to both shareholders and NCI under IFRS. Net income attributable to NCI for the year ended October 31, 2012 was $92 million (October 31, 2011 – $92 million).

Due to the nature of activities and consolidated adjustments reported in this segment, we believe that a comparative period analysis is not relevant. The following identifies material items affecting the reported results in each period.

Net interest income (loss) and income taxes (recoveries) in each period in Corporate Support include the deduction of the teb adjustments related to the gross-up of income from Canadian taxable corporate dividends recorded in Capital Markets. The amount deducted from net interest income (loss) was offset by an equivalent increase in income taxes (recoveries). The teb amount for the year ended October 31, 2012 was $431 million as compared to $459 million in the prior year and $489 million for the year ended October 31, 2010. For further discussion, refer to the How we measure and report our business segments section.

In addition to the teb impacts noted above, the following identifies the other material items affecting the reported results in each period.

2012
Net income was $359 million largely reflecting the settlement of several tax matters with the CRA which resulted in the release of $128 million of tax uncertainty provisions and interest income of $72 million ($53 million after-tax) related to a refund of taxes paid and asset/liability management activities.

2011
Net income was $297 million largely due to asset/liability management activities and gains related to the change in fair value of certain derivatives used to economically hedge our funding activities.

2010
Net loss was $211 million largely reflecting net unfavourable tax and accounting adjustments and losses of $21 million on both a before-and after-tax basis attributed to an equity accounted for investment.

Quarterly financial information

Fourth quarter 2012 performance

Q4 2012 vs. Q4 2011
Fourth quarter net income was $1,911 million, up $340 million or 22% from the prior year.

Continuing operations
Fourth quarter net income from continuing operations of $1,911 million, increased $302 million or 19% from last year driven by higher fixed income trading results reflecting improved market conditions as compared to the challenging market conditions in the prior year and solid volume growth across most of our Canadian banking businesses. Lower claims cost in Insurance, higher funding and liquidity trading in Investor & Treasury Services and increased average fee-based client assets resulting from capital appreciation and net sales and improved transaction volumes in Wealth Management also contributed to the increase. These factors were partially offset by higher PCL in Capital Markets reflecting a single account and our Canadian business lending portfolio and higher costs in support of business growth.

Total revenue increased $826 million or 12%, mainly due to higher fixed income trading revenue in Capital Markets, solid volume growth across all of our Canadian banking businesses, higher funding and liquidity trading revenue in Investor & Treasury Services, and higher equity origination and loan syndication activities in Capital Markets. Higher average fee-based client assets and transaction volumes in Wealth Management, as well as a full quarter of revenue related to our additional 50% ownership of RBC Investor Services also contributed to the increase. These factors were partially offset by lower insurance revenue reflecting the change in fair value of investments backing our policyholder liabilities, largely offset in PBCAE.

Total PCL increased $86 million or 31% from a year ago, mainly due to increased provisions in Capital Markets and our Canadian business lending portfolios, partially offset by lower PCL in our Canadian credit card portfolio.

PBCAE decreased $97 million or 11%, mainly due to the change in fair value of investments backing our policyholder liabilities, largely offset in revenue. This factor was partially offset by higher costs due to volume growth across most products.

Non-interest expense increased $343 million or 10%, primarily reflecting increased variable compensation in Capital Markets and Wealth Management commensurate with higher revenue. A full quarter of costs related to our additional 50% ownership of RBC Investor Services and higher costs in support of business growth, including increased staff costs, also contributed to the increase. These factors were partially offset by our ongoing focus on cost management.

Discontinued operations
We no longer have discontinued operations as the sale of our U.S. regional retail banking operations closed in the second quarter of 2012. Net loss from discontinued operations was $38 million in the prior year, primarily related to our U.S. builder finance loans portfolio and U.S. regional retail banking operations.

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Results and trend analysis

Our quarterly earnings, revenue and expenses are impacted by a number of trends and recurring factors, which include seasonality, general economic and market conditions, and fluctuations in foreign exchange rates. The following table summarizes our results for the last eight quarters (the period):

Quarterly results (1) **Table 32**

.	2012				2011			
(Millions of Canadian dollars, except per share and percentage amounts)	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Continuing operations								
Net interest income	**$ 3,175**	**$ 3,289**	**$ 3,031**	**$ 3,003**	$ 2,957	$ 2,889	$ 2,716	$ 2,795
Non-interest income	**4,343**	**4,467**	**3,893**	**4,571**	3,735	4,008	4,115	4,423
Total revenue	**$ 7,518**	**$ 7,756**	**$ 6,924**	**$ 7,574**	$ 6,692	$ 6,897	$ 6,831	$ 7,218
PCL	**362**	**324**	**348**	**267**	276	320	273	264
PBCAE	**770**	**1,000**	**640**	**1,211**	867	1,081	843	567
Non-interest expense	**3,873**	**3,759**	**3,857**	**3,671**	3,530	3,417	3,551	3,669
Net income before income taxes	**$ 2,513**	**$ 2,673**	**$ 2,079**	**$ 2,425**	$ 2,019	$ 2,079	$ 2,164	$ 2,718
Income taxes	**602**	**433**	**516**	**549**	410	396	482	722
Net income from continuing operations	**$ 1,911**	**$ 2,240**	**$ 1,563**	**$ 1,876**	$ 1,609	$ 1,683	$ 1,682	$ 1,996
Net loss from discontinued operations	**–**	**–**	**(30)**	**(21)**	(38)	(389)	(51)	(48)
Net income	**$ 1,911**	**$ 2,240**	**$ 1,533**	**$ 1,855**	$ 1,571	$ 1,294	$ 1,631	$ 1,948
EPS – basic	**$ 1.26**	**$ 1.49**	**$ 1.00**	**$ 1.23**	$ 1.03	$ 0.84	$ 1.08	$ 1.30
– diluted	**1.25**	**1.47**	**0.99**	**1.22**	1.02	0.83	1.06	1.27
EPS from continuing operations – basic	**$ 1.26**	**$ 1.49**	**$ 1.02**	**$ 1.24**	$ 1.06	$ 1.11	$ 1.12	$ 1.34
– diluted	**1.25**	**1.47**	**1.01**	**1.23**	1.05	1.10	1.10	1.31
Segment net income (loss) from continuing operations								
Personal & Commercial Banking	**$ 1,034**	**$ 1,102**	**$ 940**	**$ 1,012**	$ 947	$ 882	$ 924	$ 987
Wealth Management	**207**	**156**	**212**	**188**	179	192	227	213
Insurance	**194**	**179**	**151**	**190**	200	141	123	136
Investor & Treasury Services	**72**	**51**	**(121)**	**83**	40	53	70	67
Capital Markets	**410**	**429**	**371**	**371**	125	230	353	584
Corporate Support	**(6)**	**323**	**10**	**32**	118	185	(15)	9
Net income from continuing operations	**$ 1,911**	**$ 2,240**	**$ 1,563**	**$ 1,876**	$ 1,609	$ 1,683	$ 1,682	$ 1,996
Net income – total	**$ 1,911**	**$ 2,240**	**$ 1,533**	**$ 1,855**	$ 1,571	$ 1,294	$ 1,631	$ 1,948
Effective income tax rate	**24.0%**	**16.2%**	**24.8%**	**22.6%**	20.3%	19.0%	22.3%	26.6%
Period average US$ equivalent of C$1.00	**$ 1.011**	**.982**	**1.008**	**.987**	.992	1.039	1.039	.992

(1) Fluctuations in the Canadian dollar relative to other foreign currencies have affected our consolidated results over the period.

Seasonality

Seasonal factors impact our results in most quarters. The first quarter is seasonally stronger for our capital markets businesses. The second quarter has fewer days than the other quarters, generally resulting in a decrease in net interest income and certain expense items. The third and fourth quarters include the summer months during which market activity generally tends to slow, negatively impacting the results of our capital markets, investor services, brokerage and investment management businesses.

Notable items affecting our consolidated results

- In the third quarter of 2012, our results included a release of $128 million of tax uncertainty provisions and interest income of $72 million ($53 million after-tax) related to a refund of taxes paid due to the settlement of several tax matters with the CRA.
- In the third quarter of 2012, our results included an adjustment related to a change in estimate of mortgage prepayment interest of $125 million ($92 million after-tax).
- In the second quarter of 2012, our results included a loss of $212 million ($202 million after-tax) related to the acquisition of the remaining 50% stake in RBC Dexia. The third quarter of 2012 included an additional loss related to the acquisition of $12 million ($11 million after-tax).
- In the third quarter of 2011, our results included a net loss of $389 million from discontinued operations largely related to our U.S. regional retail banking operations. This was comprised of the loss on sale of those operations of $310 million and a net operating loss of $79 million. The sale closed on March 2, 2012.
- In the first quarter of 2011, our results included a gain of $102 million ($49 million after-tax and compensation adjustments) due to a legal settlement with MBIA on the termination of our direct monoline insurance protection with them.

Continuing operations

Trend analysis

Economic conditions in Canada and U.S. moderately improved over the period, although capital market conditions remained uncertain, reflecting continued European sovereign debt concerns and weakening global growth prospects.

Earnings were solid over the last eight quarters mainly reflecting strong volume growth in Canadian Banking as well as solid results in our capital markets businesses, mainly in 2012. Results in Wealth Management fluctuated over the period as they were impacted by lower transaction volumes reflecting investor uncertainty over the last several quarters.

Revenue generally trended up with some fluctuations over the past eight quarters. Trading revenue fluctuated over the period with solid results experienced in 2012. Over the period revenue was positively impacted by solid volume growth in our Canadian banking businesses, improvement in our corporate and investment banking businesses and higher average fee-based client assets in Wealth Management. Changes to the fair value of investments backing our policyholder liabilities in Insurance, largely offset in PBCAE, contributed to fluctuations in revenue. Net interest income generally trended up over the period, mainly due to strong volume growth across most of our Canadian banking businesses, although it was unfavourably impacted by spread compression in our banking and wealth management businesses due to the continued low interest rate environment.

PCL has been generally stable throughout the period, although trended upward in the last three quarters mainly due to higher provisions related to Capital Markets and our Canadian business lending and Caribbean portfolios, while PCL in our Canadian retail portfolio decreased in the last two quarters due to lower write-offs in our credit card portfolio.

PBCAE has been subject to quarterly fluctuations. Over the period there have been changes to the fair value of investments backing our policyholder liabilities, largely offset in revenue. PBCAE has also been impacted by higher costs due to volume growth as well as actuarial liability adjustments and generally lower claims costs.

Non-interest expense generally trended upward mainly due to higher costs in support of business growth and overall higher variable compensation driven by improved results in Capital Markets and increased commission-based revenue in Wealth Management. Generally the growth rate of non-interest expense was favourably impacted by our cost management program.

Our effective income tax rate fluctuated over the period, reflecting a varying portion of income being reported by our subsidiaries operating in jurisdictions with differing income tax rates, a fluctuating level of income from tax-advantaged sources (Canadian taxable corporate dividends), and various tax adjustments. The reduction in statutory Canadian corporate income tax rates over the period generally lowered our effective tax rate. In the third quarter of 2012, our effective income tax rate decreased significantly, as it was impacted by certain items as mentioned above.

Results by geographic segment (1)

Table 33

	IFRS								Canadian GAAP			
	2012				2011				2010			
(Millions of Canadian dollars)	Canada	U.S.	Other International	Total	Canada	U.S.	Other International	Total	Canada	U.S.	Other International	Total
Continuing operations												
Net interest income	**$ 10,413**	**$ 1,308**	**$ 777**	**$ 12,498**	$ 9,641	$1,091	$ 625	$11,357	$ 8,417	$1,106	$ 815	$10,338
Non-interest income	**9,378**	**3,564**	**4,332**	**17,274**	9,270	2,815	4,196	16,281	8,910	3,080	3,754	15,744
Total revenue	**$ 19,791**	**$ 4,872**	**$ 5,109**	**$ 29,772**	$18,911	$3,906	$ 4,821	$27,638	$17,327	$4,186	$ 4,569	$26,082
PCL	**1,021**	**90**	**190**	**1,301**	1,016	(12)	129	1,133	1,026	57	157	1,240
PBCAE	**2,320**	**16**	**1,285**	**3,621**	2,124	21	1,213	3,358	2,343	20	1,183	3,546
Non-interest expense	**8,809**	**3,404**	**2,947**	**15,160**	8,376	3,159	2,632	14,167	7,981	3,211	2,277	13,469
Non-controlling interest in net income of subsidiaries	**n.a.**	**n.a.**	**n.a.**	**n.a.**	n.a.	n.a.	n.a.	n.a.	96	2	1	99
Income taxes	**1,600**	**519**	**(19)**	**2,100**	1,728	259	23	2,010	1,640	266	90	1,996
Net income from continuing operations	**$ 6,041**	**$ 843**	**$ 706**	**$ 7,590**	$ 5,667	$ 479	$ 824	$ 6,970	$ 4,241	$ 630	$ 861	$ 5,732
Net loss from discontinued operations	**–**	**(51)**	**–**	**(51)**	–	(526)	–	(526)	–	(509)	–	(509)
Net income	**$ 6,041**	**$ 792**	**$ 706**	**$ 7,539**	$ 5,667	$ (47)	$ 824	$ 6,444	$ 4,241	$ 121	$ 861	$ 5,223

(1) For geographic reporting, our segments are grouped into Canada, U.S. and Other International. For further details, refer to Note 30 of our 2012 Annual Consolidated Financial Statements.

Continuing operations

2012 vs. 2011

Net income in Canada was up $374 million or 7% from the prior year, mainly due to strong volume growth across most of our Canadian banking businesses, a settlement of several tax matters with the CRA which resulted in the release of $128 million of tax uncertainty provisions and interest income of $72 million ($53 million after-tax), a lower effective tax rate due to a reduction in statutory Canadian corporate income tax rates, and a favourable adjustment related to a change in estimate of mortgage prepayment interest of $125 million ($92 million after-tax). These factors were partially offset by increased costs in support of business growth partially offset by cost reductions resulting from our cost management program, an impairment loss related to our acquisition of the remaining 50% stake in RBC Dexia of which $105 million (before- and after-tax) was recorded in our Canadian operations.

U.S. net income was up $364 million or 76% from the prior year, largely due to higher trading results, reflecting improved market conditions as compared to the challenging market conditions in the latter half of the prior year. Strong growth in our corporate and investment banking results driven by client growth in our lending, loan syndication and origination businesses also contributed to the increase. These factors were partially offset by higher PCL in Capital Markets.

Other International net income was down $118 million or 14% from the previous year, largely due to the impairment loss related to RBC Dexia as noted above of which $63 million (before- and after-tax) was recorded in our Other International operations, and higher PCL in Caribbean banking. These factors were partially offset by higher fixed income trading results in Capital Markets. In addition, the prior year included a gain related to MBIA which favourably impacted results in that year.

U.S. net loss from discontinued operations

2012 vs. 2011

Net loss from discontinued operations was $51 million compared to a net loss of $526 million a year ago, primarily related to a loss on sale of our U.S. regional retail banking operations. The current year also included only four months of operating losses related to our U.S. regional retail banking operations compared to a full year in 2011.

Continuing operations
2011 vs. 2010
Net income in Canada for 2011 was higher as compared to 2010, largely due to solid volume growth across most of our Canadian banking businesses and higher average-fee based client assets in Wealth Management. Strong growth in origination and M&A activity in Capital Markets and a lower effective tax rate also contributed to the increase. These factors were partially offset by increased staff costs and higher costs in support of business growth.

Net income in the U.S. for 2011 was lower as compared to 2010, primarily due to significantly lower trading results in our fixed income businesses. The unfavourable impact of a stronger Canadian dollar and higher costs in support of infrastructure investments and business growth in Capital Markets also contributed to the decrease. These factors were partially offset by strong growth in our corporate and investment banking businesses including higher M&A activity and lower PCL.

Other International net income for 2011 was lower as compared to 2010, mainly due to higher costs in support of business growth and lower trading results in our fixed income businesses. These factors were mostly offset by higher earnings in Investor Services driven by increased transaction volumes and higher average fee-based client assets, strong growth in our corporate and investment banking businesses including higher M&A activity. Lower reinsurance claim costs and lower PCL in Caribbean banking also contributed to the increase.

For further details on the differences between IFRS and Canadian GAAP, refer to Note 3 of our Annual Consolidated Financial Statements.

U.S. net loss from discontinued operations
2011 vs. 2010
In 2011, net loss from discontinued operations increased from 2010, primarily reflecting a loss on sale of our U.S. regional retail banking operations largely offset by a loss on sale related to Liberty Life in 2010 and lower write-offs in our U.S. commercial and builder finance portfolios.

Financial condition

Condensed balance sheets (1) — **Table 34**

As at October 31 (Millions of Canadian dollars)	2012	2011
Assets		
Cash and due from banks	**$ 12,617**	$ 12,428
Interest-bearing deposits with banks	**10,255**	6,460
Securities	**161,611**	167,022
Assets purchased under reverse repurchase agreements and securities borrowed	**112,257**	84,947
Loans		
Retail	**301,185**	284,745
Wholesale	**79,056**	64,752
Allowance for loan losses	**(1,997)**	(1,967)
Investments for account of segregated fund holders	**383**	320
Other – Derivatives	**91,293**	99,650
– Assets of discontinued operations (2)	**–**	27,152
– Other	**58,440**	48,324
Total assets	**$ 825,100**	$ 793,833
Liabilities		
Deposits	**$ 508,219**	$ 479,102
Insurance and investment contracts for account of segregated fund holders	**383**	320
Other – Derivatives	**96,761**	100,522
– Liabilities of discontinued operations (2)	**–**	20,076
– Other	**165,194**	142,707
Subordinated debentures	**7,615**	8,749
Trust capital securities	**900**	894
Total liabilities	**779,072**	752,370
Equity attributable to shareholders	**44,267**	39,702
Non-controlling interests	**1,761**	1,761
Total equity	**46,028**	41,463
Total liabilities and equity	**$ 825,100**	$ 793,833

(1) Foreign currency-denominated assets and liabilities are translated to Canadian dollars.
(2) Balance sheet adjustments related to discontinued operations are made prospectively from the date of classification as discontinued operations. The classification of our U.S. retail banking operations as discontinued operations was reflected beginning the third quarter ending July 31, 2011. Effective the third quarter of 2012, we have no more discontinued operations due to the sale of our U.S. regional retail banking operations which closed on March 2, 2012.

2012 vs. 2011
Total assets were up $31 billion or 4% from the previous year.

Interest-bearing deposits with banks increased by $4 billion or 59% largely reflecting the acquisition of the remaining 50% stake in RBC Dexia.

Securities were down $5 billion or 3% compared to the prior year, primarily due to a reduction in our government and corporate debt instruments as part of our management of market and interest rate risk, partially offset by an increase in certain equity trading positions.

Assets purchased under reverse repurchase agreements (reverse repos) and securities borrowed increased by $27 billion or 32%, mainly attributable to higher client activity and new business activity.

Loans were up $31 billion or 9%, predominantly due to strong volume growth in Canadian home equity products and growth in wholesale loans.

Derivative assets were down $8 billion or 8%, mainly attributable to higher netting of interest rate swaps and foreign exchange forward contracts. Lower fair values on foreign exchange forward contracts and cross currency interest rate swaps also contributed to the decrease. These factors were partially offset by higher fair values on interest rate swaps.

Other assets were up $10 billion or 21%, primarily reflecting an increase in cash collateral requirements due to market volatility.

Total liabilities were up $27 billion or 4% from the previous year.

Deposits increased $29 billion or 6%, mainly reflecting growth in business deposits and demand for our high-yield savings accounts and other product offerings in our retail business. These factors were partially offset by a decrease in fixed term deposits due to the use of business deposits for internal funding.

Derivative liabilities were down $4 billion or 4%, primarily attributable to higher netting of interest rate swaps and foreign exchange forward contracts. This was partially offset by higher fair values on interest rate swaps and cross currency interest rate swaps.

Other liabilities increased by $22 billion or 16%, mainly resulting from an increase in repurchase agreements due to an increase in funding requirements related to higher reverse repo activity as described above. This was partially offset by a decrease in obligations related to securities sold short.

Total equity increased by $5 billion or 11%, largely reflecting earnings, net of dividends.

Off-balance sheet arrangements

In the normal course of business, we engage in a variety of financial transactions that, for accounting purposes, are not recorded on our Consolidated Balance Sheets. Off-balance sheet transactions are generally undertaken for risk, capital and funding management purposes which benefit us and our clients. These include transactions with SPEs, may include issuance of guarantees, and give rise to, among other risks, varying degrees of market, credit, liquidity and funding risk, which are discussed in the Risk management section.

We use SPEs to securitize our financial assets as well as assist our clients in securitizing their financial assets. These entities are not operating entities, typically have no employees, and may or may not be recorded on our Consolidated Balance Sheets.

Securitizations of our financial assets

Securitization can be used as a cost-effective fund raising technique compared to the relative cost of issuing unsecured wholesale debt.

We periodically securitize our credit card receivables, residential and commercial mortgage loans and bond participation certificates primarily to diversify our funding sources, enhance our liquidity position and for capital purposes. We also securitize residential and commercial mortgage loans for sales and trading activities.

Under IFRS, the majority of our securitization activities are recorded on our Consolidated Balance Sheets. We securitize our credit card receivables, on a revolving basis, through a consolidated SPE. We securitize residential mortgage loans under the National Housing Act Mortgage-Backed Securities (NHA MBS) program and the mortgages transferred under this program are not derecognized from our Consolidated Balance Sheets. For details of our residential mortgage and credit card securitization activities, including the nature of our financial interests and the related risks, refer to Note 7 and Note 8 to our 2012 Annual Consolidated Financial Statements.

We also securitize residential mortgage loans through the Canadian social housing program which are derecognized from our Consolidated Balance Sheets when sold to third party investors. During 2012, we securitized and sold $21 million of Canadian social housing mortgages.

In prior years, we securitized commercial mortgages by selling them in collateral pools, which met certain diversification, leverage and debt coverage criteria, to SPEs, one of which is sponsored by us. We also participated in bond securitization activities where we purchased government, government related and corporate bonds and repackaged those bonds in participation certificates, which were sold to third party investors. Securitized commercial mortgage loans and bond participation certificates are derecognized from our Consolidated Balance Sheets as we have transferred substantially all of the risk and rewards of ownership of the securitized assets. Our continuing involvement with the transferred assets is limited to servicing the underlying bonds and the commercial mortgages sold to our sponsored SPE. As at October 31, 2012, there were $1.4 billion of commercial mortgages (2011 – $1.5 billion) and $661 million of bond participation certificates (2011 – $735 million) outstanding related to these prior period securitization activities. We did not securitize commercial mortgages or bond participation certificates during the year.

Involvement with unconsolidated special purpose entities

In the normal course of business, we engage in a variety of financial transactions with SPEs to support our customers' financing and investing needs, including securitization of client financial assets, creation of investment products, and other types of structured financing. Refer to Note 8 to 2012 Annual Consolidated Financial Statements for a description of the activities of significant unconsolidated SPEs, the nature of our financial interests and the associated risks. The following table summarizes SPEs in which we have significant financial interests, but have not consolidated.

Special Purpose Entities — **Table 35**

As at October 31 (Millions of Canadian dollars)	2012												2011	
			Total assets by credit ratings			Total assets by average maturities				Total assets by geographic location of borrowers				
	Total assets (1)	Maximum exposure (1)(2)	Investment grade (3)	Non-investment grade (3)	Not Rated	Under 1 year	1 to 5 years	Over 5 years	Not applicable	Canada	U.S.	Other International	Total assets (1)	Maximum exposure
Unconsolidated SPEs														
Multi-seller conduits (4)	$ 29,582	$ 30,029	$ 29,422	$ 160	$ –	$ 4,167	$ 23,198	$ 2,217	$ –	$ 5,021	$ 21,990	$ 2,571	$ 24,271	$ 24,614
Structured finance	4,840	1,663	4,253	584	3	–	–	4,840	–	–	4,840	–	4,988	1,340
SPEs Investment funds	1,584	1,082	–	–	1,584	–	–	–	1,584	27	68	1,489	1,374	1,125
Credit investment product SPEs	146	17	–	146	–	–	–	146	–	–	–	146	253	17
Third party securitization vehicles	5,429	1,266	–	574	4,855	–	–	1,511	3,918	–	1,614	3,815	1,090	214
Other	368	103	–	–	368	–	–	–	368	46	303	19	242	60
	$ 41,949	$ 34,160	$ 33,675	$ 1,464	$6,810	$ 4,167	$ 23,198	$ 8,714	$ 5,870	$ 5,094	$ 28,815	$ 8,040	$ 32,218	$ 27,370

(1) Total assets and maximum exposure to loss correspond to disclosures provided in Note 8 to our 2012 Annual Consolidated Financial Statements. Total asset amounts may differ from those presented in Note 8 due to certain entities, primarily mutual and pooled funds, which we sponsor but where we do not hold a significant financial interest.

(2) The maximum exposure to loss resulting from significant financial interests in these SPEs consists mostly of investments, loans, liquidity and credit enhancement facilities and fair value of derivatives. The maximum exposure to loss may exceed the total assets in the multi-seller conduits, as our liquidity facilities may sometimes be extended for up to 102% of the total value of the assets in the conduits.

(3) Our internal risk ratings for major counterparty types approximate those of public rating agencies. Ratings of AAA, AA, A, and BBB represent investment grade ratings and ratings of BB or lower represent non-investment grade ratings.

(4) Represents multi-seller conduits that we administer.

We have the ability to use credit mitigation tools such as third party guarantees, credit default swaps, and collateral to mitigate risks assumed through securitization and re-securitization exposures. The process in place to monitor the credit quality of our securitization and re-securitization exposures involves, among other things, reviewing the performance data of the underlying assets. We affirm our ratings each quarter and formally confirm or assign a new rating at least annually. For further details on our activities to manage risks, refer to the Risk management section.

Approximately 81% of assets in unconsolidated SPEs in which we have significant financial interests were internally rated A or above, compared to 91% in the prior year. The decrease compared to the prior year is primarily related to our investments in certain third party securitization vehicles whose underlying assets are not individually rated. For multi-seller conduits, 99% of assets were internally rated A or above, consistent with the prior year. All transactions funded by the unconsolidated multi-seller conduits are internally rated using a rating system which is largely consistent with that of the external rating agencies.

The assets in unconsolidated SPEs as at October 31, 2012 have varying maturities and a remaining expected weighted average life of approximately 3.7 years.

RBC-administered multi-seller conduits

We administer multi-seller conduits which are used primarily for the securitization of our clients' financial assets. We are involved in these conduit markets because our clients value these transactions. Our clients primarily utilize multi-seller conduits to diversify their financing sources and to reduce funding costs by leveraging the value of high-quality collateral. The conduits offer us a favourable revenue stream, risk-adjusted return and cross-selling opportunities.

We provide services such as transaction structuring, administration, backstop liquidity facilities and partial credit enhancements to the multi-seller conduits. Fee revenue for all such services amounted to $146 million during the year (2011 – $147 million). We do not maintain any ownership or retained interests in these multi-seller conduits and have no rights to, or control of, their assets.

Our total commitment to the conduits in the form of backstop liquidity and credit enhancement facilities is shown below. The total committed amount of these facilities exceeds the total amount of the maximum assets that may have to be purchased by the conduits under the purchase agreements. As a result, the maximum exposure to loss attributable to our backstop liquidity and credit enhancement facilities is less than the total committed amounts of these facilities.

Liquidity and credit enhancement facilities — **Table 36**

	2012				2011			
As at October 31 (Millions of Canadian dollars)	**Notional of committed amounts** (1)	**Allocable notional amounts**	**Outstanding loans** (2)	**Total maximum exposure to loss**	Notional of committed amounts (1)	Allocable notional amounts	Outstanding loans (2)	Total maximum exposure to loss
Backstop liquidity facilities	**$ 30,143**	**$ 25,935**	**$ 1,391**	**$ 27,326**	$ 24,726	$ 20,874	$ 1,413	$ 22,287
Credit enhancement facilities	**2,703**	**2,703**	**–**	**2,703**	2,327	2,327	–	2,327
Total	**$ 32,846**	**$ 28,638**	**$ 1,391**	**$ 30,029**	$ 27,053	$ 23,201	$ 1,413	$ 24,614

(1) Based on total committed financing limit.
(2) Net of allowance for loan losses and write-offs.

As at October 31, 2012, the notional amount of backstop liquidity facilities we provide increased by $5.4 billion or 22% from the prior year. Total loans extended to the multi-seller conduits under the backstop liquidity facilities decreased by $22 million from the prior year primarily due to principal repayments. The partial credit enhancement facilities we provide increased by $376 million from the prior year. The increase in the amount of backstop liquidity facilities and partial credit enhancement facilities provided to the multi-seller conduits compared to the prior year primarily reflects an expansion of the outstanding securitized assets of the multi-seller conduits in support of our clients' securitization needs.

Maximum exposure to loss by client type — **Table 37**

	2012			2011		
As at October 31 (Millions)	**(US$)**	**(C$)**	**Total ($C)**	(US$)	(C$)	Total ($C)
Outstanding securitized assets						
Credit cards	**$ 7,410**	**$ 510**	**$ 7,912**	$ 5,898	$ 510	$ 6,389
Auto loans and leases	**7,903**	**2,193**	**10,087**	6,596	1,668	8,242
Student loans	**2,429**	**–**	**2,427**	2,435	–	2,427
Trade receivables	**2,290**	**112**	**2,400**	2,188	112	2,293
Asset-backed securities	**1,454**	**–**	**1,453**	1,601	–	1,596
Equipment receivables	**1,275**	**–**	**1,274**	1,020	–	1,017
Consumer loans	**1,020**	**–**	**1,019**	765	–	762
Electricity market receivables	**–**	**255**	**255**	–	255	255
Dealer floor plan receivables	**587**	**561**	**1,147**	586	576	1,160
Fleet finance receivables	**310**	**265**	**575**	225	122	346
Insurance premiums	**87**	**–**	**87**	–	–	–
Corporate loan receivables	**101**	**–**	**101**	127	–	127
Residential mortgages	**–**	**1,020**	**1,020**	–	–	–
Transportation finance	**272**	**–**	**272**	–	–	–
Total	**$ 25,138**	**$ 4,916**	**$ 30,029**	$ 21,441	$ 3,243	$ 24,614
Canadian equivalent	**$ 25,113**	**$ 4,916**	**$ 30,029**	$ 21,371	$ 3,243	$ 24,614

Our overall exposure increased 22% compared to the prior year reflecting improved business conditions which led to an expansion of the outstanding securitized assets of the multi-seller conduits. Correspondingly, total assets of the multi-seller conduits increased by $5.4 billion or 22% over the prior year, primarily in the Credit cards, Auto loans and leases, and Residential mortgages asset classes.

Multiple independent debt rating agencies review all of the transactions in the multi-seller conduits. Transactions financed in the U.S. multi-seller conduits are reviewed by Moody's Investors Service (Moody's), Standard & Poor's (S&P) and Fitch Ratings (Fitch). Transactions in the Canadian multi-seller conduits are also reviewed by Dominion Bond Rating Services (DBRS). Each applicable rating agency also reviews ongoing transaction performance on a monthly basis and may publish reports detailing portfolio and program information related to the conduits.

As at October 31, 2012, the total asset-backed commercial paper (ABCP) issued by the conduits amounted to $17.1 billion, an increase of $820 million or 5% since the prior year. The rating agencies that rate the ABCP rated 71% of the total amount issued within the top ratings category and the remaining amount in the second highest ratings category compared with 68% in the prior year. The increase in the amount of ABCP issued by the multi-seller conduits compared to the prior year is primarily due to increased client usage.

We sometimes purchase ABCP issued by the multi-seller conduits in our capacity as a placement agent in order to facilitate overall program liquidity. As at October 31, 2012, the fair value of our inventory was $26 million, a decrease of $85 million from the prior year. The fluctuations in inventory held reflect normal trading activity. This inventory is classified as Securities – Trading on our Consolidated Balance Sheets.

Structured finance SPEs

We invest in ARS of entities which fund their long-term investments in student loans by issuing short-term senior and subordinated notes. As at October 31, 2012, the total assets of the unconsolidated ARS trusts in which we have significant investments were $3.9 billion (2011 – $4.9 billion). Our maximum exposure to loss in these ARS trusts as at October 31, 2012 was $1.1 billion (2011 – $1.3 billion). The decrease in total assets and our maximum exposure to loss is primarily related to the sale, redemption or defeasement of the underlying ARS investment securities. As at October 31, 2012, approximately 75% of these investments were AAA rated. Interest income from the ARS investments, which is reported in Net-interest income was $19 million during the year (2011 – $24 million).

We also provide liquidity facilities to certain municipal bond Tender Option Bond (TOB) programs in which we have a significant interest but do not consolidate because the residual certificates are held by third parties. As at October 31, 2012, the total assets of these unconsolidated municipal bond TOB trusts were $856 million (2011 – $67 million) and our maximum exposure to loss was $552 million (2011 – $35 million). The increase in total assets of these TOB trusts and our maximum exposure to loss is primarily related to our investor base increasing their exposure to leverage in their funds by utilizing our TOB program and an increase in our TOB Funding Limits. Fee revenue from provision of liquidity facilities to these entities reported in Non-interest income was $2 million during the year (2011 – $nil).

Investment funds

We enter into fee-based equity derivative transactions with third parties including mutual funds, unit investment trusts and other investment funds. These transactions provide their investors with the desired exposure to the referenced funds, and we economically hedge our exposure from these derivatives by investing in those third party managed referenced funds. Our maximum exposure as at October 31, 2012, which is primarily related to our investments in the reference funds, decreased by $43 million relative to the prior year due to a reduction in derivative positions and transactions. The total assets held in the unconsolidated reference funds as at October 31, 2012 increased by $210 million due to certain unconsolidated reference funds taking a greater ownership interest in underlying investment funds, causing our financial interest to become significant.

Third-party securitization vehicles

We hold significant interests in certain unconsolidated third-party securitization vehicles, which are SPEs. We, as well as other financial institutions, are obligated to provide funding to these SPEs up to our maximum commitment level and are exposed to credit losses on the underlying assets after various credit enhancements. Total assets of these funds increased by $4.3 billion and our maximum exposure to loss increased by $1.1 billion relative to the prior year primarily due to new investments made during the first two quarters of 2012. Interest income earned in respect of these investments reported in Net-interest income was $25 million.

Credit investment product SPEs and Others

We use SPEs to create customized credit products to meet investors' specific requirements and created tax credit funds. Refer to Note 8 to our 2012 Annual Consolidated Financial Statements for more detail on these SPEs.

Guarantees, retail and commercial commitments

We provide guarantees and commitments to our clients that expose us to liquidity and funding risks. Our maximum potential amount of future payments in relation to our commitments and guarantee products as at October 31, 2012 amounted to $204 billion compared to $170 billion in the prior year. The increase compared to the prior year relates primarily to higher backstop liquidity facilities and other commitments to extend credit. Refer to Liquidity and Funding Management and Note 27 to our 2012 Annual Consolidated Financial Statements for details regarding our guarantees and commitments.

Risk management

Overview

Our diversified business activities expose us to a wide variety of risks in virtually all aspects of our operations. Our ability to manage these risks is a key competency within RBC, and is supported by a strong risk management culture and an effective risk management approach.

We manage our risks by seeking to ensure that business activities and transactions provide an appropriate balance of return for the risks assumed and remain within our Risk Appetite, which is collectively managed throughout RBC, through adherence to our Enterprise Risk Appetite Framework. These risks include credit, market and liquidity and funding risk. In addition, we are faced with risks that we consider top and emerging. Other risks that may impact our business include operational, legal and regulatory compliance, insurance, reputation, and strategic risk. For further details, refer to the respective risk sections.

Top and emerging risks

Our view of risks is not static. An important component of our enterprise risk management approach is to ensure that top risks which are evolving or emerging risks are appropriately identified, managed, and incorporated into existing enterprise risk management assessment, measurement, monitoring and escalation processes.

These practices ensure management is forward-looking in its assessment of risks to the organization. Identification of top and emerging risks occurs in the course of businesses developing and pursuing approved strategies and as part of the execution of risk oversight responsibilities by Group Risk Management (GRM), Finance, Corporate Treasury, Global Compliance and other control functions.

Risk oversight activities which can lead to identification of new, evolving or emerging risks include control mechanisms (e.g. approval of new products, transactions, projects or initiatives), business strategy development, stress testing, portfolio level measurement, monitoring and reporting activities, and the ongoing assessment of industry and regulatory developments.

Details of the top and emerging risks we are facing are discussed below.

Regulatory developments

Certain regulatory reforms have the potential to impact the way in which we operate, both in Canada and abroad. We continue to respond to these and other developments and are working to minimize any potential business or economic impact.

Dodd-Frank – Volcker rule

Implementation rules relating to the proposed Volcker rule have not yet been finalized by U.S. federal financial regulators. In anticipation of final rule issuance, we continue to analyze our trading activities, compliance and risk management programs. However, the full extent to which we will be affected remains unclear. As currently drafted, the rule's extraterritorial reach will impact our capital markets activities and will apply globally to the bank and each of our subsidiaries and affiliates. Under the proposal, certain activities may be permitted to continue in their current form, while others may be permitted if conducted in accordance with certain prescriptive exemptions from the regulation. Some activities may not be permitted to continue. Depending on the manner in which the Volcker Rule is ultimately implemented, these prohibitions may have an adverse impact on our results of operations.

Basel Committee on Banking Supervision global standards for capital and liquidity reform (Basel III)

The Basel Committee's new standards for capital and liquidity establish minimum requirements for common equity, increased capital requirements for counterparty credit exposures, a new global leverage ratio and measures to promote the build up of capital that can be drawn down in periods of stress. Banks around the world are preparing to implement these new standards (commonly referred to as Basel III).

In Canada, the Office of the Superintendent of Financial Institutions Canada (OSFI) expects deposit-taking institutions to meet the minimum 2019 Basel III capital requirements for Common Equity Tier 1 (CET 1) in the first quarter of 2013. We continue to be well capitalized by global standards and our capital ratios remain strong. For further details, refer to the Capital management section.

While the Basel III liquidity standards have not been finalized, we continue to measure our liquidity position and make adjustments that we believe are appropriate in anticipation of the Basel Committee's implementation schedule.

Domestic-Systemically Important Banks (D-SIBs)

The Financial Stability Board and the Basel Committee on Banking Supervision have finalized a principles-based framework to guide national authorities in establishing principles for dealing with D-SIBs. National authorities will begin to apply minimum requirements to banks identified as D-SIBs beginning January 2016. OSFI has not communicated formally on a Canadian D-SIB regime, although we expect one to be put forward. The implementation of a D-SIB regime in Canada may result in us being subject to additional capital and disclosure requirements.

Over-the-Counter Derivatives Reform

Reforms in the over-the-counter (OTC) derivatives markets continue on a global basis, with the governments of the G20 nations proceeding with plans to transform the capital regimes, national regulatory frameworks and infrastructures in which we and other market participants operate. We, along with other Canadian banks, will experience changes in our wholesale banking business, some of which will impact our client- and trading-related derivatives revenues in Capital Markets.

In July 2012, the U.S. Commodity Futures Trading Commission (CFTC) released proposed cross-border guidance regarding the application of U.S. swaps rules to international banks, including requirements to register with the CFTC as a swap dealer. While it awaits finalization of the cross-border guidance and additional rules, the industry continues to urge the CFTC to provide much needed clarification of its rules prior to requiring any institution to register as a swap dealer. In addition, there is a lack of international coordination that may lead to duplication and confusion across the global swaps markets.

The Payments System in Canada

The independent task force appointed by the Federal government completed their review of Canada's payments system in the spring of 2012. Based on the recommendations of the Task Force, the Federal government has announced three initiatives: the establishment of an advisory committee to review payments systems issues; a review of the Code of Conduct for the credit and debit card industry in Canada to determine applicability to emerging mobile payment systems; and a review (over a longer time frame) of the governance framework for the payments sector. The eventual outcome of these reviews could alter the way in which we and other Canadian financial institutions process payment transactions on behalf of consumers. This carries implications for the use of technology, degree of regulatory oversight, and our interactions with global payment systems.

In addition, challenges to payment network rules before the Competition Tribunal, class actions in British Columbia and Ontario regarding the setting of interchange, and the class actions in Quebec regarding the application of Quebec's *Consumer Protection Act* to certain credit card practices continue to have the potential to negatively impact the business practices and revenues of Canadian financial institutions, and could have an adverse impact on our financial performance.

Consumer Protection Measures

Regulators continue to focus on enhancing consumer protection measures, such as increased disclosure requirements and regulation of fees and pricing. In Canada, changes to negative options billing, mortgage prepayment penalties, four day cheque holds, and current dispute resolution processes, along with expanded powers for the Financial Consumer Agency of Canada, were introduced as part of the 2010 Federal Budget. Further changes have been proposed to regulations for mortgage insurance, the Electronic Transaction Code, rules relating to insurance on bank websites, and electronic documents regulations. In addition, the 2011 Federal Budget included announcements about new rules for prepaid cards and for unsolicited credit card cheques. As will be the case for all of the Canadian banks, these and other developments are likely to impact current practices in Canadian Banking and Insurance, including disclosure, documentation, process and system changes.

Regulatory Reform in the U.K. and Europe

The regulatory framework in the U.K. and Europe continues to undergo significant reform and reorganization. Effective the spring of 2013, the Financial Policy Committee (FPC), within the Bank of England, will be responsible for protecting the stability of the financial system as a whole

and for macro-prudential regulation. The new Prudential Regulation Authority (PRA), a subsidiary of the Bank of England, will prudentially supervise digital systems, deposit takers, insurers and a small number of significant investment firms. The Financial Conduct Authority (FCA) will be responsible for regulating conduct in retail and wholesale markets, supervising the trading infrastructure that supports those markets, and for the prudential regulation of firms not prudentially regulated by the PRA. As a result, there may be changes to our existing compliance and operating practices for certain of our regulated entities in the U.K.

We continue to monitor developments in connection with recommendations of the Independent Commission on Banking, endorsed by the U.K. government in June 2012. As currently proposed, our U.K. entities would be exempt from the requirement to separate our retail banking and investment banking activities, by virtue of meeting prescribed *de minimis* thresholds. We expect to be required to comply with the proposed 3% leverage ratio. Given the relatively small size of our U.K. retail banking operations, these changes are not expected to materially impact our global operations or financial results and may lead to some potential benefits for us as U.K. banks restructure and retrench from the investment banking business.

Reforms also continue throughout the European Union. Effective the first half of 2013, the European Market Infrastructure Regulation (EMIR) will require firms to clear certain OTC standardized derivative contracts through central counterparties, establish risk mitigation controls for OTC derivatives transactions that cannot be cleared, and report both cleared and non-cleared contracts to trade repositories. The review of Markets in Financial Instruments Directive (MiFID) is a key initiative seeking to achieve greater trade transparency, enhanced investor protection and more oversight of OTC derivatives and fixed income products, primarily through the introduction of new types of regulated trading platforms and increased governance over certain trading activities. At this time, we expect to incur higher operational and system costs and potential changes in the types of products and services we (and other firms) can offer to clients as a result of these reforms.

Other Dodd-Frank Initiatives

Subsequent to the 2008 financial crisis, U.S. regulators have been enhancing their approach to supervising the largest, most complex banking organizations. As a result, certain of the reforms introduced by Dodd-Frank, the "Enhanced Supervision Rules", set forth in Sections 165 and 166 of the statute, will when finalized, impose capital, liquidity, leverage and similar prudential requirements at the holding company level. Foreign banks, including RBC, which operate in the U.S., outside of a holding company structure, will also be subject to enhanced supervision rules still to be published by the Federal Reserve. The international banking community is emphasizing the appropriateness of deferring to home country prudential oversight.

European debt crisis

Continued instability in the Eurozone and the possibility for contagion from the peripheral to core Eurozone countries increases the risk of sovereign and counterparty default and of a Eurozone member departing the currency union. We continue to follow market events very closely, and manage our exposure accordingly. Compared to the prior year, our exposure to Europe did not change significantly as reductions primarily related to securities were largely offset by the acquisition of the remaining 50% stake in RBC Dexia. Overall, we continue to transact business in a prudent manner and remain comfortable with our exposures in Europe, which are with well-rated counterparties mainly located in core European countries. For further details, refer to the Credit risk section.

In addition to our net exposure to Europe mentioned above, we are also subject to indirect exposure. We have implemented processes to monitor and mitigate indirect credit risk including specific controls related to the management of derivative and repo-style transaction exposures. Indirect market risk related to increased volatility resulting from European sovereign debt concerns are monitored through regular market risk stress testing and hypothetical scenario analysis. From an operational risk perspective, we have implemented contingency planning in the event of a crisis in the Eurozone economy.

Given the potential for a country departing the currency union, we have carried out scenario analysis to assess the related redenomination risk. Potential impacts arising from contracts and balances with peripheral Eurozone countries have been assessed. We are progressing with action plans to mitigate these potential exposures.

Our analysis indicates that further deterioration in the Eurozone economies will result in adverse effects which are within our ability to manage as established through our stress testing, balance sheet analysis and operational assessments.

Business and economic conditions

Our earnings are significantly affected by the general business and economic conditions in the geographic regions in which we operate. These conditions include consumer saving and spending habits as well as consumer borrowing and repayment patterns, business investment, government spending, the level of activity and volatility of the capital markets and inflation. For example, an economic downturn may result in high unemployment and lower family income, corporate earnings, business investment and consumer spending, and could adversely affect the demand for our loan and other products and result in higher provision for credit losses. Given the importance of our Canadian operations, an economic downturn in Canada or in the U.S. impacting Canada would largely affect our personal and business lending activities in our Canadian banking businesses, and could significantly impact our results of operations.

Our earnings are also sensitive to changes in interest rates. A continued low interest rate environment in Canada, the U.S. and globally would result in net interest income being unfavourably impacted by spread compression largely in Personal & Commercial Banking and Wealth Management. While an increase in interest rates would benefit our businesses that are currently impacted by spread compression, a significant increase in interest rates could also adversely impact household balance sheets. This could result in credit deterioration which might negatively impact our financial results, particularly in some of our Personal & Commercial Banking businesses. For further details on economic and market factors which may impact our financial performance, refer to the Personal & Commercial Banking and Wealth Management sections.

Capital Markets and Investor & Treasury Services would be negatively impacted if global capital markets deteriorate resulting in lower client volumes and trading volatility. In Wealth Management, weaker investor confidence and weaker market conditions would lead to lower average fee-based client assets and transaction volumes. Worsening of financial and credit market conditions may adversely affect our ability to access capital markets on favourable terms and could negatively affect our liquidity, resulting in increased funding costs and lower transaction volumes in Capital Markets and Investor & Treasury Services. For further details on economic and market factors which may impact our financial performance, refer to the Wealth Management, Investor & Treasury Services and Capital Markets sections.

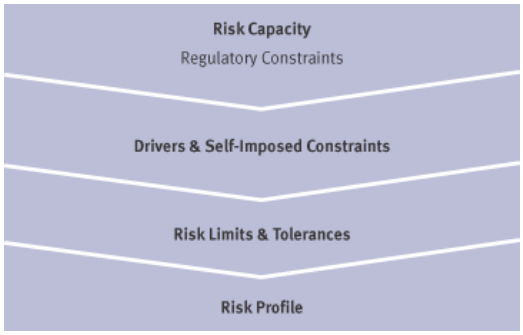
High levels of Canadian household debt

Growing Canadian household debt levels and elevated housing prices are resulting in increasing vulnerability to external risk factors. Growth in consumer debt has been driven by rising housing prices and high debt levels could amplify the effect of an external shock to the Canadian economy. When interest rates start increasing the debt service capacity of Canadian consumers will be negatively impacted. This will be more challenging for consumers with floating rate debt or impending mortgage renewals. The combination of increasing unemployment, rising interest rates, and a downturn in real estate markets would pose a risk to the credit quality of our retail lending portfolio. We actively manage our lending portfolios and stress test them against various scenarios. Our stress testing shows that the vast majority of our mortgage clients have sufficient capacity to absorb interest rate increases in the ranges currently forecast. For further discussion relating to our retail portfolio, refer to the Credit risk section.

Cybersecurity
Given our reliance on digital technologies to conduct our operations and grow digital interconnectedness around the globe, we are increasingly exposed to risks related to cybersecurity and cyber incidents. Such incidents may include unauthorized access to our digital systems for purposes of misappropriating assets, gaining access to sensitive information, corrupting data, or causing operational disruption. Although our computer systems continue to be subject to cyber attacks, we have not previously experienced a material breach of cybersecurity. Such an event could compromise our confidential information as well as that of our clients and third parties with whom we interact with and may result in negative consequences, including remediation costs, loss of revenue, additional regulatory scrutiny, litigation and reputational damage. We continue to focus on enhancing technologies, processes and practices designed to protect our networks, systems, computers and data from attack, damage or unauthorized access. We will continue to actively monitor developments, reviewing best practices and implementing additional controls to mitigate losses from these risks.

Risk framework

Risk Appetite
Our Risk Appetite is the amount and type of risk we are able and willing to accept in the pursuit of our business objectives. Our Risk Appetite Framework has four major components as illustrated below:



The framework provides a structured approach to:
1. Define our **Risk Capacity** by identifying regulatory constraints that restrict our ability to accept risk.
2. Establish and regularly confirm our Risk Appetite, comprised of **Drivers** that are the business objectives which include risks we must accept to generate desired financial returns, and **Self-Imposed Constraints** that limit or otherwise influence the amount of risk undertaken. Our Self-Imposed Constraints include:
   - maintaining a “AA” rating or better,
   - ensuring capital adequacy by maintaining capital ratios in excess of rating agency and regulatory thresholds,
   - maintaining low exposure to stress events,
   - maintaining stability of earnings,
   - ensuring sound management of liquidity and funding risk,
   - maintaining sound management of regulatory compliance risk and operational risk, and
   - maintaining a Risk Profile that is no riskier than that of our average peer.
3. Set **Risk Limits and Tolerances** to ensure that risk taking activities are within Risk Appetite.
4. Regularly measure and evaluate our **Risk Profile**, representing the risks we are exposed to, relative to our Risk Appetite, and ensure appropriate action is taken prior to Risk Profile surpassing Risk Appetite.

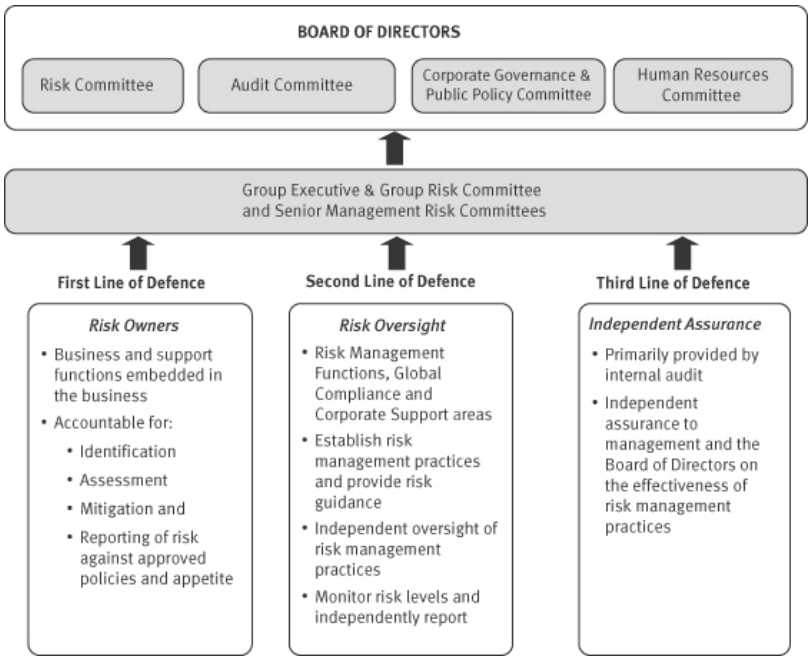
The Risk Appetite Framework is structured in such a way that it can be applied at the enterprise, business segment, business unit, and legal entity levels. Risk Appetite is integrated into our business strategies and capital plan. As part of strategic planning, each business segment’s Risk Posture is assessed to anticipate the impact of strategic priorities and growth objectives on Risk Profile. We also ensure that the business strategy aligns with the enterprise and business segment level Risk Appetite.

Risk management principles
The following principles guide our enterprise-wide management of risk:

1. **Effective balancing of risk and reward** by aligning Risk Appetite with business strategy, diversifying risk, pricing appropriately for risk, mitigating risk through preventive and detective controls and transferring risk to third parties.
2. **Shared responsibility for risk management** as business segments are responsible for active management of their risks, with direction and oversight provided by GRM and other corporate functions groups.
3. **Business decisions are based on an understanding of risk** as we perform rigorous assessment of risks in relationships, products, transactions and other business activities.
4. **Avoid activities that are not consistent with our Values, Code of Conduct or Policies** , which contributes to the protection of our reputation.
5. **Proper focus on clients reduces our risks** by knowing our clients and ensuring that all products and transactions are suitable for, and understood by our clients.
6. **Use of judgment and common sense** in order to manage risk throughout the organization.

Risk governance

Our overall risk governance structure shown below illustrates our Three Lines of Defence governance model.



The Board of Directors provides oversight and carries out its risk management mandate primarily through its committees which include the Risk Committee, the Audit Committee, the Corporate Governance & Public Policy Committee and the Human Resources Committee. The Board of Directors has responsibility for approving our Risk Appetite.

The purpose of the Risk Committee is to oversee our risk management program. The Risk Committee's oversight role is designed to ensure that the risk management function is adequately independent from the businesses whose activities it reviews, and that the policies, procedures and controls used by management are sufficient to keep risks within our risk framework and appetite.

The Audit Committee also has a risk oversight role through its responsibilities to review our internal controls and the control environment, and to ensure that policies related to capital management and adequacy are in place and effective. The Audit Committee regularly reviews reporting on legal and regulatory compliance risks including significant litigation issues and regulatory compliance matters.

In addition, the following board committees have specific reputation risk oversight responsibilities:

- Corporate Governance & Public Policy Committee monitors the effectiveness of our corporate governance, reviews policies and programs, reviews our efforts to understand and meet changing public values and expectations, and identifies, assesses and advises management on public affairs issues related to our image and reputation.
- Human Resources Committee, along with the Risk Committee, is jointly responsible for our Code of Conduct, and actively oversees the design and operation of our compensation system.

The Group Executive (GE) is comprised of our senior management team and is led by the President and Chief Executive Officer (CEO). GE is responsible for our strategy and its execution and establishing the "tone at the top". The GE actively shapes and recommends our Risk Appetite for approval by the Risk Committee of the board. The GE's risk oversight role is executed primarily through the mandate of the Group Risk Committee (GRC). GRC with the assistance of its supporting senior management risk committees is responsible for ensuring that our overall Risk Profile is consistent with our strategic objectives and Risk Appetite and there is ongoing, appropriate and effective risk management processes.

The **First Line of Defence** is provided by the business as well as support functions embedded in the business. The First Line of Defence has ownership and accountability for:

- Risk identification, assessment, mitigation, control and reporting in accordance with established enterprise risk policies; and
- Alignment of business and operational strategies with corporate risk culture and Risk Appetite.

The **Second Line of Defence** is provided by functions with independent oversight accountabilities such as GRM, Global Compliance, and other corporate support areas. The Second Line of Defence:

- Establishes the enterprise level risk management frameworks and policies, and provides risk guidance,
- Provides oversight of the effectiveness of First Line risk management practices, and
- Monitors and independently reports on the level of risk against established appetite.

The Chief Risk Officer and GRM have overall responsibility for promoting our risk culture; monitoring our Risk Profile relative to our Risk Appetite; and maintaining our enterprise-wide program for identifying, measuring, controlling and reporting the significant risks that we face. The Chief Compliance Officer and Global Compliance are responsible for our policies and processes designed to mitigate and manage regulatory compliance risk. Corporate Treasury manages and oversees our capital position, structural interest rate risk and liquidity and funding risks.

The **Third Line of Defence** is primarily provided by internal audit. The Third Line of Defence provides independent assurance to senior management and the Board of Directors on the effectiveness of risk management policies, processes and practices in all areas of our organization.

The roles of the various stakeholders in our enterprise risk management program are described further in the discussion of specific risks in the following pages.

Risk measurement

Our ability to measure risks is a key component of our enterprise-wide risk and capital management processes. Certain measurement methodologies are common to a number of risk types, while others only apply to a single risk type. While quantitative risk measurement is important, we also place reliance on qualitative factors. Our measurement models and techniques are continually subject to independent assessment for appropriateness and reliability. For those risk types that are difficult to quantify, we place greater emphasis on qualitative risk factors and assessment of activities to gauge the overall level of risk to ensure that they are within our Risk Appetite.

Quantifying expected loss

Expected loss represents losses that are statistically expected to occur in the normal course of business in a given period of time. For credit risk, the key parameters used to measure our exposure to expected loss are probability of default, loss given default, and exposure at default. For market risk, a statistical technique known as Value-at-Risk (VaR) is used to measure losses under normal market conditions.

Quantifying unexpected loss and economic capital

Unexpected loss is a statistical estimate of the amount by which actual losses can exceed expected loss over a specified time horizon, measured at a specified level of confidence. We hold economic capital to withstand these unexpected losses, should they occur. For further information, refer to the Capital management section.

Stress testing as a risk measurement technique

Stress testing is a risk measurement technique that examines the potential effects on an organization's financial condition resulting from adverse economic, liquidity, credit and/or financial market developments. Stress testing supports overall risk management, capital adequacy assessment processes, and recovery and resolution planning.

Our enterprise-wide stress testing program utilizes stress scenarios featuring a range of severities based on exceptional but plausible adverse events. These stress scenarios are evaluated across the organization, and results are integrated to develop an enterprise-wide view of the impacts on our financial results and capital requirements. The exercise involves various teams, including GRM, Corporate Treasury, Finance and Economics. Scenarios may include events such as severe recession, real estate downturns, crisis in critical countries or geographies, and a sovereign debt crisis.

Enterprise-wide stress testing outcomes are reviewed by senior management and the Board of Directors and are used to enhance our understanding of our Risk Profile and its alignment with our Risk Appetite, and to support strategic decision making including planning. Results are explicitly incorporated into our Internal Capital Adequacy Assessment Process (ICAAP) and Capital Plan. This process ensures we are adequately capitalized given our Risk Profile.

In addition to the enterprise-wide program, we engage in a broad range of stress testing activities that are specific to a particular line of business, portfolio or risk type including market risk, liquidity risk, structural interest rate risk, retail and wholesale credit risk, and insurance risk. Test results may be used in a variety of decision-making processes including making adjustments to risk limits, portfolio composition, or business implementation strategies.

Validation of measurement models

We widely use models for many purposes, including validation of financial products and the measurement and management of different types of risk. Models are subject to validation by qualified employees that are sufficiently independent of model design and development, or by approved external parties. Model validation is a comprehensive independent review of a model that checks the applicability of the model's logic, its assumptions and theoretical underpinnings, the appropriateness of input data sources, and provides an interpretation of the model results and the strategic use of the model outputs. By reviewing and evaluating a model's assumptions as well as its limitations, initial and ongoing model validation help ensure the model incorporates current market developments and industry trends. Our model validation process is designed to ensure that all underlying model risk factors are identified and successfully mitigated.

Risk control

Our enterprise-wide risk management approach is supported by a comprehensive set of risk controls. The controls are anchored by our Enterprise Risk Management and Risk-Specific Frameworks. These frameworks lay the foundation for the development and communication of policies, establishment of formal risk review and approval processes, and the establishment of delegated authorities and limits. The implementation of robust risk controls enables the optimization of risk and return on both a portfolio and a transactional basis.

Our risk management frameworks and policies are organized into the following five levels:

Level 1: Enterprise Risk Management Framework provides an overview of our enterprise-wide program for identifying, measuring, controlling and reporting on the significant risks we face. The Risk Appetite Framework underpins this framework.

Level 2: Risk-Specific Frameworks elaborate on each specific risk type and the mechanisms for identifying, measuring, monitoring and reporting of risks; key policies; and roles and responsibilities.

Level 3: Enterprise Risk Policies articulate minimum requirements, within which businesses and employees must operate.

Level 4: "Multi-risk" Enterprise Risk Policies govern activities such as product risk review and approval, stress testing, risk limits, risk approval authorities and model risk management.

Level 5: Business Segments and Corporate Support; Specific Policies and Procedures are established to manage the risks that are unique to their operations.

Risk review and approval processes

Risk review and approval processes are established by GRM based on the nature, size, and complexity of the risk involved. In general, the risk review and approval process involves a formal review and approval by an individual, group or committee that is independent from the originator. The approval responsibilities are governed by delegated authorities based on the following categories: transactions, structured credit, projects and initiatives, and new products and services.

Authorities and limits
The Risk Committee of the Board of Directors delegates credit, market, and insurance risk authorities to the President and CEO and CRO. These delegated authorities allow these officers to approve single name, geographic (country and region) and industry sector exposures within defined parameters to reduce concentration risk, establish underwriting and inventory limits for trading and investment banking activities and set market risk tolerances.

The Board of Directors also delegates liquidity risk authorities to the President and CEO, Chief Administrative Officer and Chief Financial Officer, and the CRO. These limits act as a key risk control designed to ensure that reliable and cost-effective sources of cash are available to satisfy our current and prospective commitments.

Reporting
Enterprise level risk monitoring and reporting are critical components of our enterprise risk management program and support the ability of senior management and the Board of Directors to effectively perform their risk management and oversight responsibilities. On a quarterly basis, we provide to senior management and the Board of Directors the Enterprise Risk Report which includes a comprehensive review of our Risk Profile relative to our Risk Appetite and focuses on a range of risks we face along with analysis of the related issues and trends. In addition to our regular risk monitoring, other risk specific presentations are provided to and discussed with senior management and the Board of Directors on emerging risk issues or significant changes in our level of risk.

The shaded texts along with the tables specifically marked with an asterisk(*) in the following sections of the MD&A represent our disclosures on credit, market and liquidity and funding risks in accordance with IFRS 7, *Financial Instruments: Disclosures*, and include discussion on how we measure our risks and the objectives, policies and methodologies for managing these risks. Therefore, these shaded texts and tables represent an integral part of our 2012 Annual Consolidated Financial Statements for the years ended October 31, 2012 and October 31, 2011.

Credit risk

Credit risk is the risk of loss associated with an obligor's potential inability or unwillingness to fulfill their contractual obligations. Credit risk may arise directly from the risk of default of a primary obligor (e.g. issuer, debtor, counterparty, borrower or policyholder), or indirectly from a secondary obligor (e.g. guarantor or reinsurer).

The failure to effectively manage credit risk across all our products, services and activities can have a direct, immediate and material impact on our earnings and reputation.

We balance our risk and return by:
- Ensuring credit quality is not compromised for growth.
- Diversifying credit risks in transactions, relationships and portfolios.
- Using our credit risk rating and scoring systems or other approved credit risk assessment or rating methodologies, policies and tools.
- Pricing appropriately for the credit risk taken.
- Applying consistent credit risk exposure measurements.
- Mitigating credit risk through preventive and detective controls.
- Transferring credit risk to third parties, where appropriate, through approved credit risk mitigation techniques, including hedging activities and insurance coverage.
- Ongoing credit risk monitoring and administration.

Risk measurement

We quantify credit risk, at both the individual obligor and portfolio levels, to manage expected credit losses and minimize unexpected losses in order to limit earnings volatility.

We employ different risk measurement processes for our wholesale and retail credit portfolios. The wholesale portfolio comprises businesses, sovereigns, public sector entities, banks and other financial institutions, and certain individuals and small businesses that are managed on an individual client basis. The retail portfolio is comprised of residential mortgages and personal, credit card and small business loans, which are managed on a pooled basis. Credit risk rating systems are designed to assess and quantify the risk inherent in credit activities in an accurate and consistent manner.

In measuring credit risk and setting regulatory capital under Basel II, two principal approaches are available: Advanced Internal Ratings Based (AIRB) and Standardized. Most of our credit risk exposure is measured under the AIRB Approach.

Economic capital, which is our internal quantification of risks, is used extensively for performance measurement, limit setting and internal capital adequacy.

The key parameters that form the basis of our credit risk measures for both regulatory and economic capital are:
- Probability of default (PD): An estimated percentage that represents the likelihood of default within a one-year period of an obligor for a specific rating grade or for a particular pool of exposure.
- Exposure at default (EAD): An amount expected to be owed by an obligor at the time of default.
- Loss given default (LGD): An estimated percentage of EAD that is not expected to be recovered during the collections and recovery process.

These parameters are determined based on historical experience from internal credit risk rating systems in accordance with supervisory standards, and are independently validated and updated on a regular basis.

Under the Standardized Approach, used primarily for RBC Investor Services and our Caribbean and U.S. banking operations, risk weights prescribed by OSFI are used to calculate risk-weighted assets (RWA) for credit risk exposure.

Wholesale credit portfolio

The wholesale credit risk rating system is designed to measure the credit risk inherent in our wholesale lending activities along two dimensions.

First, each obligor is assigned a borrower risk rating (BRR), reflecting an assessment of the credit quality of the obligor. Each BRR has a PD assigned to it. The BRR differentiates the riskiness of obligors and represents our evaluation of the obligor's ability and willingness to meet its contractual obligations during adverse or stressed business conditions, troughs in the business cycle, economic downturns or unexpected events that may occur. The assignment of BRRs is based on the evaluation of obligors' business risk and financial risk based on fundamental credit analysis supplemented by quantitative models.

Our rating system is largely consistent with that of external rating agencies. The following table maps our 22-grade internal risk ratings compared to ratings by external rating agencies.

Internal ratings map **Table 38**

Ratings	Standard & Poor's (S&P)	Moody's Investors Service (Moody's)	Description
1 to 4	AAA to AA-	Aaa to Aa3	Investment Grade
5 to 7	A+ to A-	A1 to A3	
8 to 10	BBB+ to BBB-	Baa1 to Baa3	
11 to 13	BB+ to BB-	Ba1 to Ba3	Non-investment Grade
14 to 16	B+ to B-	B1 to B3	
17 to 20	CCC+ to CC	Caa1 to Ca	
21 to 22	D to Bankruptcy	C to Bankruptcy	Impaired/Default

Second, each credit facility is assigned an LGD rate. LGD rates are largely driven by factors such as seniority of debt, collateral security, product type, the industry sector in which the obligor operates and market environment.

EAD is estimated based on the current exposure to the obligor and the possible future changes of that exposure driven by factors such as credit quality of the obligor and type of credit commitment.

These ratings and risk measurements are used in the determination of our expected losses and unexpected losses as well as economic and regulatory capital, setting of risk limits, portfolio management and product pricing.

Retail credit portfolio

Credit scoring is the primary risk rating system for assessing obligor and transaction risk for retail exposures. Credit scores along with decision strategies are employed in the acquisition of new clients (acquisition) and management of existing clients (behavioural).

Criteria used to pool exposures for risk quantification include behavioural score, product type (mortgages, credit cards, lines of credit and instalment loans), collateral type (chattel, liquid assets and real estate), loan to value, and the delinquency status (performing, delinquent and default) of the exposure. Regular monitoring and periodic adjustments and alignments are conducted to ensure that this process provides for a meaningful differentiation of risk. Migration between the pools is considered when assessing credit quality.

The pools are also assessed based on credit risk parameters (PD, EAD and LGD) which consider borrower and transaction characteristics, including behavioural credit score, product type and delinquency status. The LGD is estimated based on transaction specific factors, including product, loan to value and collateral types. Our risk ratings are reviewed and updated on a regular basis.

The following table maps PD bands to various risk levels:

Internal ratings map **Table 39**

PD bands	Description
0.0% – 1.0%	Low Risk
1.1% – 6.4%	Medium Risk
6.5% – 99.99%	High Risk
100.00%	Impaired/Default

Risk control

The Board of Directors and its committees, GE, GRC and other senior management risk committees work together to ensure a Credit Risk Framework and supporting policies, processes and procedures exist to manage credit risk and approve related credit risk limits. Reports are distributed to the Board of Directors, GRC, and senior executives to keep them informed of our Risk Profile, including trending information and significant credit risk issues and shifts in exposures to ensure appropriate actions can be taken where necessary. Our enterprise-wide credit risk policies set out the minimum requirements for the management of credit risk in a variety of borrower, transactional and portfolio management contexts.

Credit policies are an integral component of our Credit Risk Management Framework and set out the minimum requirements for the management of credit risk as follows:

Credit risk assessment

- Mandatory use of credit risk rating and scoring systems.
- Consistent credit risk assessment criteria.
- Standard content requirements in credit application documents.

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Credit risk mitigation

Structuring of transactions

- Specific credit policies and procedures set out the requirements for structuring transactions. Risk mitigants include the use of guarantees, seniority, loan-to-value requirements and covenants. Product-specific guidelines set out appropriate product structuring as well as client and guarantor criteria. The third-party guarantors that we deal with are primarily sovereign-sponsored agencies.

Collateral

- We often require obligors to pledge collateral as security when we advance credit. The extent of risk mitigation provided by collateral depends on the amount, type and quality of the collateral taken. Specific requirements relating to collateral valuation and management are documented in our credit risk management policies.

Credit derivatives

- Used as a tool to mitigate industry sector concentration and single-name exposure. For a more detailed description of the types of credit derivatives we enter into and how we manage related credit risk, refer to Note 9 of our 2012 Annual Consolidated Financial Statements.

Product approval

- Proposals for credit products and services are comprehensively reviewed and approved under a risk assessment framework.

Credit portfolio management

- Limits are used to ensure our portfolio is well diversified, reduce concentration risk and remain within our Risk Appetite. Limits are reviewed on a regular basis taking into account the business, economic, financial and regulatory environments.
- Our credit limits are established at the following levels: single name limits (notional and economic capital), underwriting risk limits, geographic (country and region) limits, industry sector limits (notional and economic capital), and product and portfolio limits, where deemed necessary.

Our credit risk objectives, policies, and methodologies have not changed materially from 2011.

Gross credit risk exposure

Gross credit risk exposure is calculated based on the definitions provided under the Basel II framework. Under this method, risk exposure is calculated before taking into account any collateral and inclusive of an estimate of potential future changes to that credit exposure. Gross credit risk is categorized into lending-related and other, and trading-related.

Lending-related and other includes:

- Loans and acceptances outstanding, undrawn commitments, and other exposures including contingent liabilities such as letters of credit and guarantees, AFS debt securities and deposits with financial institutions. Undrawn commitments represent an estimate of the contractual amount that may be drawn upon at the time of default of an obligor.

Trading-related credit includes:

- Repo-style transactions include repurchase and reverse repurchase agreements and securities lending and borrowing transactions. For repo-style transactions, gross exposure represents the amount at which securities were initially financed, before taking into account collateral.
- Over-the-counter (OTC) derivatives gross exposure amount represents the credit equivalent amount, which is defined by OSFI as the replacement cost plus an amount for potential future credit exposure.

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Gross (excluding allowance for loan losses) credit risk exposure by portfolio and sector* — Table 40

(Millions of Canadian dollars)	2012 Lending-related and other: Loans and acceptances: Outstanding	2012 Lending-related and other: Loans and acceptances: Undrawn commitments	2012 Lending-related and other: Other	2012 Trading-related: Repo-style transactions	2012 Trading-related: Over-the-counter derivatives (1)	2012 Total exposure (2)	2011 Lending-related and other: Loans and acceptances: Outstanding	2011 Lending-related and other: Loans and acceptances: Undrawn commitments	2011 Lending-related and other: Other	2011 Trading-related: Repo-style transactions	2011 Trading-related: Over-the-counter derivatives (1)	2011 Total exposure (2)
Residential mortgages	$ 198,324	$ –	$ –	$ –	$ –	$ 198,324	$ 190,303	$ 13	$ 9	$ –	$ –	$ 190,325
Personal (3)	86,697	70,274	39	–	–	157,010	85,227	75,314	49	–	–	160,590
Credit cards	13,661	18,036	–	–	–	31,697	13,151	27,079	–	–	–	40,230
Small business (4)	2,503	3,933	40	–	–	6,476	2,481	4,168	42	–	–	6,691
Retail	$ 301,185	$ 92,243	$ 79	$ –	$ –	$ 393,507	$ 291,162	$ 106,574	$ 100	$ –	$ –	$ 397,836
Business (4)												
Agriculture	$ 5,202	$ 659	$ 29	$ –	$ 29	$ 5,919	$ 4,990	$ 609	$ 26	$ –	$ 19	$ 5,644
Automotive	3,585	3,219	240	–	546	7,590	3,344	2,500	176	–	380	6,400
Consumer goods	5,432	3,510	467	–	224	9,633	6,064	3,053	504	–	179	9,800
Energy	8,802	17,229	2,762	29	1,598	30,420	6,487	14,363	2,484	36	1,688	25,058
Non-bank financial services	3,895	6,954	11,149	124,925	6,051	152,974	2,103	6,100	10,371	88,900	7,383	114,857
Forest products	811	398	97	–	11	1,317	775	437	102	–	19	1,333
Industrial products	3,938	2,727	292	–	197	7,154	3,930	2,399	314	–	157	6,800
Mining & metals	965	2,630	681	91	113	4,480	1,152	1,880	667	114	109	3,922
Real estate & related	20,650	4,531	1,366	–	337	26,884	19,851	3,376	1,055	–	320	24,602
Technology & media	4,203	4,922	242	2	359	9,728	3,034	3,294	175	335	425	7,263
Transportation & environment	5,221	2,515	1,069	–	976	9,781	5,145	2,131	1,151	–	613	9,040
Other	20,554	8,575	7,783	25,807	3,964	66,683	21,034	7,226	5,965	15,030	5,235	54,490
Sovereign (4)	4,193	5,026	33,021	20,130	7,868	70,238	4,050	3,606	28,475	10,474	9,392	55,997
Bank (4)	990	406	66,878	85,164	21,868	175,306	1,324	398	52,656	75,582	32,043	162,003
Wholesale	$ 88,441	$ 63,301	$ 126,076	$ 256,148	$ 44,141	$ 578,107	$ 83,283	$ 51,372	$ 104,121	$ 190,471	$ 57,962	$ 487,209
Total exposure	$ 389,626	$ 155,544	$ 126,155	$ 256,148	$ 44,141	$ 971,614	$ 374,445	$ 157,946	$ 104,221	$ 190,471	$ 57,962	$ 885,045

* This table represents an integral part of our 2012 Annual Consolidated Financial Statements.

(1) Credit equivalent amount after factoring in master netting agreements. Derivative exposure is measured at fair value.

(2) Gross credit risk exposure is before allowance for loan losses and represents consolidated (combined continuing and discontinued) operations. Exposure under Basel II asset classes of qualifying revolving retail and other retail are largely included within Personal and Credit cards, while home equity lines of credit are included in Personal.

(3) Home equity lines of credit reported primarily in Canadian Banking comprised $44 billion or 51% of our outstanding personal loan portfolio as at October 31, 2012 (2011 – $41 billion or 48%). More than 97% of home equity lines of credit (2011 – 95%) are secured by a first lien on real estate. Of the clients that have home equity lines of credit, less than 7% (2011 – 7%), pay the scheduled interest payment only.

(4) Refer to Note 6 of our 2012 Annual Consolidated Financial Statements for the definition of these terms.

2012 vs. 2011

Total gross credit risk exposure increased $87 billion or 10% from the prior year, largely reflecting an increase related to repo-style transactions and the acquisition of the remaining 50% stake in RBC Dexia.

Retail exposure decreased $4 billion or 1%, largely driven by the implementation of updated risk parameters for undrawn commitments reflecting recent credit experience and the sale of our U.S. regional retail banking operations, partially offset by strong volume growth in Canadian residential mortgages. The use of guarantees and collateral represents an integral part of our credit risk mitigation in our retail portfolio. Insured mortgages accounted for 42% of our residential mortgage portfolio as at October 31, 2012, unchanged from the prior year. Secured personal lending represented 55% of personal loans outstanding as at October 31, 2012, compared to 56% in the prior year.

Wholesale exposure increased $91 billion or 19%, largely due to an increase in repo-style transactions resulting from higher client activity and new business activity, and the acquisition of the remaining 50% stake in RBC Dexia. Other exposure increased by $22 billion or 21%, primarily related to an increase in guarantees to banks provided in relation to our securities lending business, mainly due to the acquisition of RBC Dexia. Wholesale loans and acceptances outstanding increased by $5 billion or 6%, with the largest increases in the energy, non-bank financial services and technology & media sectors. Undrawn commitments increased by $12 billion or 23%, with the largest increase in the energy sector. Loan utilization is at 37%, a decrease from 40% in the prior year due to an increase in undrawn commitments.

Gross (excluding allowance for loan losses) credit risk exposure by geography* — Table 41

(Millions of Canadian dollars)	2012 Lending-related and other: Loans and acceptances: Outstanding	2012 Lending-related and other: Loans and acceptances: Undrawn commitments	2012 Lending-related and other: Other	2012 Trading-related: Repo-style transactions	2012 Trading-related: Over-the-counter derivatives (1)	2012 Total exposure (2)	2011 Total exposure (2)
Canada	$ 346,834	$ 117,797	$ 55,548	$ 81,691	$ 9,820	$ 611,690	$ 561,269
U.S.	20,219	28,172	19,088	92,056	10,157	169,692	147,324
Europe	10,679	7,705	36,139	65,329	19,941	139,793	129,212
Other International	11,894	1,870	15,380	17,072	4,223	50,439	47,240
Total exposure (3)	$ 389,626	$ 155,544	$126,155	$ 256,148	$ 44,141	$ 971,614	$ 885,045

* This table represents an integral part of our 2012 Annual Consolidated Financial Statements.

(1) Credit equivalent amount after factoring in master netting agreements. Derivative exposure is measured at fair value.

(2) Gross credit risk exposure is before allowance for loan losses and represents consolidated (combined continuing and discontinued) operations. Exposure under Basel II asset classes of qualifying revolving retail and other retail are largely included within Personal and Credit cards, while home equity lines of credit are included in Personal.

(3) Geographic profile is based on country of residence of the borrower.

2012 vs. 2011

The geographic mix of our gross credit risk exposure did not change significantly from the prior year with Canada, U.S., Europe and Other International reflecting 63%, 18%, 14% and 5% of our exposure, respectively. The increase of $87 billion in our gross credit exposure reflected higher exposure in Canada, U.S., Europe and Other International of $51 billion, $22 billion, $11 billion and $3 billion, respectively. The increase in Canada largely related to increases in loans and acceptances outstanding, repo-style transactions and higher guarantee exposures related to our securities lending business. The increase in the U.S. was mainly due to repo-style transactions, partially offset by a reduction in loans and acceptances outstanding largely reflecting the sale of our U.S. regional retail banking operations. The increase in Europe mainly reflected higher guarantee exposures in our investor services business and repo-style transactions.

European exposure — Table 42

	2012						2011
	Loans and acceptances		Other				
(Millions of Canadian dollars)	Outstanding	Undrawn commitments (1)	Securities (2)	Letters of credit and guarantees	Repo-style transactions	Over-the-counter derivatives (3)	Total European exposure	Total European exposure
Gross exposure to Europe	**$ 10,679**	**$ 7,705**	**$ 16,063**	**$ 20,076**	**$ 65,329**	**$ 19,941**	**$ 139,793**	$ 129,212
Less: Collateral held against repo-style transactions	**–**	**–**	**–**	**–**	**63,887**	**–**	**63,887**	58,379
Potential future credit exposure add-on amount	**–**	**–**	**–**	**–**	**–**	**10,536**	**10,536**	18,329
Undrawn commitments	**–**	**7,705**	**–**	**20,076**	**–**	**–**	**27,781**	15,616
Gross drawn exposure to Europe (4)	**$ 10,679**	**$ –**	**$ 16,063**	**$ –**	**$ 1,442**	**$ 9,405**	**$ 37,589**	$ 36,888
Less: Collateral applied against derivatives	**–**	**–**	**–**	**–**	**–**	**6,495**	**6,495**	5,461
Add: Trading securities	**–**	**–**	**11,742**	**–**	**–**	**–**	**11,742**	11,826
Net exposure to Europe (5), (6)	**$ 10,679**	**$ –**	**$ 27,805**	**$ –**	**$ 1,442**	**$ 2,910**	**$ 42,836**	$ 43,253

(1) Comprised of undrawn commitments of $5.8 billion to corporate entities, $1.5 billion to financial entities and $0.4 billion to sovereign entities. On a country basis, exposure is comprised of $3.3 billion to U.K., $1.7 billion to France, $0.6 billion to Germany, $139 million to Ireland, $98 million to Spain, with the remaining $1.9 billion related to Other Europe. Of the undrawn commitments, over 90% are to investment grade entities.
(2) Securities include $11.7 billion of trading securities (2011 – $11.8 billion), $9.3 billion of deposits (2011 – $10.4 billion) and $6.8 billion of AFS securities (2011 – $9.5 billion).
(3) Derivative exposures are measured at fair value.
(4) Based on our interpretation of gross funded exposures as reported by certain U.S. banks, which excludes undrawn commitments, potential future credit exposure amount and collateral.
(5) Excludes $0.6 billion (2011 – $1.5 billion) of exposures to supra-national agencies.
(6) Excludes $1.9 billion (2011 – $1.4 billion) of exposures to trade credit reinsurance.

As noted above, our gross credit risk exposure is calculated based on the definitions provided under the Basel II framework whereby risk exposure is calculated before taking into account any collateral and inclusive of an estimate of potential future changes to that credit exposure. On that basis, our total European exposure as at October 31, 2012 was $140 billion. Our gross drawn exposure to Europe was $38 billion, after taking into account collateral held against repo-style transactions of $64 billion, letters of credit and guarantees, and undrawn commitments for loans of $28 billion and potential future credit exposure to OTC derivatives of $10 billion. Our net exposure to Europe was $43 billion, after taking into account $7 billion of collateral, primarily in cash, we hold against OTC derivatives and the addition of trading securities of $12 billion held in our trading book. Our net exposure to Europe also reflected $0.2 billion of mitigation through credit default swaps, which are largely used to hedge single name exposures and market risk.

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Net European exposure — Table 43

(Millions of Canadian dollars)	2012 Loans outstanding	Securities (1)	Repo-style transactions	Over-the-counter derivatives (2)	Total	2011 Total
U.K.	$ 6,469	$ 3,036	$ 981	$ 1,183	$ 11,669	$ 15,339
Germany	411	5,779	189	436	6,815	6,918
France	537	2,865	77	307	3,786	4,189
Total U.K., Germany, France	$ 7,417	$ 11,680	$ 1,247	$ 1,926	$ 22,270	$ 26,446
Greece	$ –	$ 14	$ –	$ –	$ 14	$ 13
Ireland	195	165	27	111	498	456
Italy	48	92	–	17	157	241
Portugal	–	–	–	1	1	28
Spain	393	386	12	12	803	701
Total Peripheral (3)	$ 636	$ 657	$ 39	$ 141	$ 1,473	$ 1,439
Luxembourg	$ 905	$ 5,911	$ –	$ 84	$ 6,900	$ 2,086
Netherlands	112	2,804	6	361	3,283	3,789
Norway	156	1,449	–	27	1,632	921
Sweden	–	1,265	61	45	1,371	2,260
Switzerland	652	2,478	70	33	3,233	2,787
Other	801	1,561	19	293	2,674	3,525
Total Other Europe	$ 2,626	$ 15,468	$ 156	$ 843	$ 19,093	$ 15,368
Total exposure to Europe (4), (5)	$ 10,679	$ 27,805	$ 1,442	$ 2,910	$ 42,836	$ 43,253

(1) Securities include $11.7 billion of trading securities (2011 – $11.8 billion), $9.3 billion of deposits (2011 – $10.4 billion) and $6.8 billion of AFS securities (2011 – $9.5 billion).
(2) Derivative exposure is measured at fair value.
(3) Gross credit risk exposure to peripheral Europe is comprised of $nil to Greece (2011 – $nil), Ireland $3.8 billion (2011 – $3.4 billion), Italy $0.2 billion (2011 – $0.6 billion), Portugal $0.1 billion (2011 – $0.1 billion), and Spain $1.1 billion (2011 – $1.2 billion).
(4) Excludes $0.6 billion (2011 – $1.5 billion) of exposures to supra-national agencies.
(5) Geographic profile is based on country of risk, which reflects our assessment of the geographic risk associated with a given exposure. Typically, this is the residence of the borrower.

2012 vs. 2011

Net credit risk exposure to Europe did not change significantly as reductions primarily related to securities were largely offset by the acquisition of the remaining 50% stake in RBC Dexia.

With respect to country exposure, our net exposure to peripheral Europe including Greece, Ireland, Italy, Portugal and Spain remained minimal with total outstanding exposure of $1 billion as at October 31, 2012, unchanged from the prior year. This exposure was predominantly investment grade, with limited direct sovereign exposure. Our net exposure to larger European countries including the U.K., Germany and France, primarily relate to our capital markets, wealth management and investor services businesses, particularly in fixed income, treasury services, derivatives, and corporate and individual lending. These are client-driven businesses where we transact with a range of European financial institutions, corporations and individuals. In addition, we engage in primary dealer activities in a number of jurisdictions, including the U.K., Germany and France, where we participate in auctions of government debt and act as a market maker and provide liquidity to clients. Exposures to other European countries are largely related to securities which include deposits, trading securities and AFS securities. The increase in our exposure to Luxembourg is largely due to increased deposits primarily related to the acquisition of the remaining 50% stake in RBC Dexia.

Securities consisted of $12 billion in trading securities, $9 billion in deposits, and $7 billion in AFS securities. Our trading securities are related to both client market making activities and our funding and liquidity management needs. All of our trading securities are marked-to-market on a daily basis. Deposits primarily included deposits with central banks or financial institutions and also included deposits related to our wealth management business in the Channel Islands. AFS securities largely comprised of Organization of Economic Co-operation and Development government and corporate debt. Our European corporate loan book is run on a global basis and the underwriting standards for this loan book reflect the same conservative approach to the use of our balance sheet as we have applied in both Canada and the U.S. The portfolio quality of this loan book remains sound and we had minimal credit losses of $34 million on this portfolio for the year ended October 31, 2012. The PCL on impaired loans as a percentage of average net loans and acceptances ratio and GIL ratio of this loan book were both at 0.39%.

Net European exposure by client type — Table 44

(Millions of Canadian dollars)	2012 U.K.	Germany	France	Total U.K., Germany, France	Greece	Ireland	Italy	Portugal	Spain	Total Peripheral	Other Europe	Total Europe	2011 Total Europe
Financials	$ 5,140	$ 4,679	$ 2,180	$ 11,999	$ –	$ 147	$ 44	$ 1	$ 116	$ 308	$ 9,637	$21,944	$ 27,256
Sovereign	433	1,327	815	2,575	–	64	34	–	247	345	6,523	9,443	7,150
Corporate	6,096	809	791	7,696	14	287	79	–	440	820	2,933	11,449	8,847
Total (1)	$11,669	$ 6,815	$ 3,786	$ 22,270	$ 14	$ 498	$157	$ 1	$ 803	$ 1,473	$19,093	$42,836	$ 43,253

(1) Geographic profile is based on country of risk, which reflects our assessment of the geographic risk associated with a given exposure. Typically, this is the residence of the borrower.

2012 vs. 2011

Our net exposure to Financials decreased $5 billion, largely in the U.K. due to a reduction in securities. Our net exposure to Sovereign increased $2 billion primarily due to higher deposits resulting from the acquisition of the remaining 50% stake in RBC Dexia. These deposits largely relate to amounts placed with the central bank of Luxembourg. Our net exposure to Corporate increased $3 billion, partially reflecting increased exposure to loans in the U.K.

Credit quality performance – continuing operations basis

Provision for (recovery of) credit losses — Table 45

(Millions of Canadian dollars)	2012	2011
Personal & Commercial Banking	$1,167	$ 1,142
Capital Markets	135	(14)
Corporate Support and Other (1)	(1)	5
Total PCL	$1,301	$ 1,133
Canada (2)		
Residential mortgages	$ 34	$ 25
Personal	413	408
Credit cards	391	448
Small business	43	35
Retail	881	916
Wholesale	209	102
PCL on impaired loans	1,090	1,018
United States (2)		
Retail	$ 4	$ 4
Wholesale	29	(19)
PCL on impaired loans	33	(15)
Other International (2)		
Retail	$ 64	$ 43
Wholesale	116	85
PCL on impaired loans	180	128
Total PCL on impaired loans	1,303	1,131
PCL on loans not yet identified as impaired	(2)	2
Total PCL	$1,301	$ 1,133

(1) PCL in Corporate Support and Other primarily comprised of PCL from continuing operations for loans not yet identified as impaired. For further information, refer to the How we measure and report our business segments section

(2) Geographic information is based on residence of borrower.

2012 vs. 2011

Total PCL increased $168 million, or 15%, from a year ago.

PCL in Personal & Commercial Banking increased $25 million or 2%, mainly due to higher PCL in our Caribbean portfolio and higher PCL in our Canadian secured retail lending and business lending portfolios, partially offset by lower write-offs related to our credit card portfolio reflecting improved credit quality.

PCL in Capital Markets of $135 million compared to a recovery of $14 million in the prior year, mainly due to higher provisions on a few accounts, compared to recoveries in the prior year.

Gross impaired loans (GIL) — Table 46

(Millions of Canadian dollars)	2012	2011
Personal & Commercial Banking	$1,820	$ 2,055
Capital Markets	389	230
Corporate Support and Other	41	42
Total GIL	$2,250	$ 2,327
Canada (1)		
Retail	$ 715	$ 795
Wholesale	641	513
GIL	1,356	1,308
United States (1)		
Retail	$ 7	$ 6
Wholesale	162	116
GIL	169	122
Other International (1)		
Retail	$ 258	$ 247
Wholesale	467	650
GIL	$ 725	$ 897
Total GIL	$2,250	$ 2,327

(1) Geographic information is based on residence of borrower.

2012 vs. 2011

Total GIL decreased $77 million or 3% from a year ago.

GIL in Personal & Commercial Banking decreased $235 million or 11%, mainly due to lower impaired loans in our Caribbean, Canadian residential mortgage and business lending portfolios.

GIL in Capital Markets increased $159 million or 69%, primarily due to higher impaired loans in the technology & media sectors, partially offset by lower impaired loans in the energy and transportation & environment sectors.

Retail GIL in Canada decreased $80 million, primarily due to lower impaired loans in our residential mortgage portfolio while wholesale GIL increased $128 million mainly due to higher impaired loans in the technology & media sector, partially offset by lower impaired loans in the energy and automotive sectors. U.S. wholesale GIL increased $46 million mainly due to higher impaired loans in the industrial products sector. Other International wholesale GIL decreased $183 million mainly due to lower impaired loans in the real estate & related sectors.

Allowance for credit losses (ACL) — Table 47

(Millions of Canadian dollars)	2012	2011
Allowance for impaired loans		
Personal & Commercial Banking	**$ 507**	$ 500
Capital Markets	**126**	70
Corporate Support and Other	**4**	35
Total allowance for impaired loans	**637**	605
Canada (1)		
Retail	**$ 142**	$ 150
Wholesale	**239**	179
Allowance for impaired loans	**381**	329
United States (1)		
Retail	**$ 1**	$ 1
Wholesale	**38**	25
Allowance for impaired loans	**39**	26
Other International (1)		
Retail	**$ 96**	$ 80
Wholesale	**121**	170
Allowance for impaired loans	**217**	250
Total allowance for impaired loans	**637**	605
Allowance for loans not yet identified as impaired	**1,451**	1,453
Total ACL	**$ 2,088**	$ 2,058

(1) Geographic information is based on residence of borrower.

2012 vs. 2011

Total ACL increased $30 million or 1% from a year ago, mainly related to the increase in ACL in Capital Markets.

Market risk

Market risk is defined as the potential loss in value of the firm due to changes in market prices and rates including interest rates, credit spreads, equity prices, foreign exchange rates and commodity prices. Market risk has a direct impact on earnings for those positions that are marked-to-market for financial reporting purposes and impacts the economic value of the firm for structural interest rate risk and banking book assets.

At RBC, most of the market risk that has a direct impact on earnings results from our trading activities. In our trading operations, RBC acts primarily as a market maker, executing transactions that meet the financial requirements of our clients and transferring the market risks to the broad financial market. Our trading activities are conducted over-the-counter and on exchanges in the spot, forward, futures and options markets, and we offer structured derivative transactions.

The Board of Directors, upon the recommendation of the Risk Committee, approves the overall market risk appetite for RBC. Group Risk Management (GRM) creates and manages the control structure that ensures that business is conducted consistent with Board requirements. The Market and Trading Credit Risk function within GRM is responsible for creating and managing the controls and governance procedures for managing market risk at RBC. These controls include limits on:

- Market risk positions;
- Probabilistic measures of potential loss such as Value-at-Risk (VaR) and Stressed Value-at-Risk defined below, and;
- Scenario based stress tests which utilize both actual historical market scenarios such as the global financial crisis of 2008 and hypothetical scenarios designed to be more forward looking. These stress tests use severe and long duration market stresses.

Value-at-Risk (VaR) – VaR is a statistical measure of potential loss for a financial portfolio computed at a given level of confidence and over a defined holding period. We measure VaR at the 99 th percentile confidence level for price movements over a 1 day holding period using historic simulation of the last two years of equally weighted historic market data. These calculations are updated daily with current risk positions with the exception of CVA and certain other positions which are updated weekly.

To ensure VaR effectively captures our market risk, we continuously monitor and enhance our methodology. Daily back-testing serves to compare profit or loss against the VaR to monitor the statistical validity of 99% confidence level of the daily VaR measure. VaR models and market risk factors are independently reviewed periodically to further ensure accuracy and reliability.

Stressed Value-at-Risk (SVaR) – is calculated in an identical manner as VaR with the exception that a fixed historical one year period of extreme volatility and its inverse are used rather than the last two year history. The stress period used is the interval from September 2008 through August 2009. Stressed VaR is calculated weekly for all portfolios.

VaR and SVaR are statistical measures based on historical market events and will not be predictive of future losses if future market movements differ significantly from those historical periods used to compute them. As a result, VaR and Stressed VaR are not estimates of the worst case one day trading loss. Furthermore, the use of a one-day horizon VaR for risk measurement implies that the position could be unwound or hedged within a day, but this may be unrealistic for positions that are significantly larger than daily market liquidity. For this reason, we have an active and well-developed stress testing program.

Stress Tests – Our stress testing program is meant to identify and control risk from large changes in market prices and rates. We employ historical and hypothetical scenarios and we invest considerable effort in the creation and examination of our scenarios. Our historical scenarios are taken from actual market events over the last 30 years and range in duration up to 90 days. Examples include the equity market crash of 1987 and the global financial crisis of 2008. Hypothetical scenarios are designed to be forward looking at potential future market stresses, and are designed to be severe but plausible. We are constantly evaluating and refining these scenarios as market conditions change. Stress results are calculated assuming an instantaneous revaluation of our positions.

These key risk control measures are applied to all positions which are marked-to-market for financial reporting purposes, with the exception of those in a designated hedging relationship and certain others [(1)]. Prior to June 2012, we applied these measures separately to positions in the trading book, and positions not considered part of the trading book [(2)] such as Credit Valuation Adjustments (CVA), Credit Default swap hedges on the loan book and the risk associated with fair valued liabilities. In June of 2012, we enhanced our limit structure to combine both sources of fair value market risk under these measures. This change was made in order to have greater consistency between the positions subject to market risk controls and the positions whose market risk directly impacts our revenues. The key risk measures (Market Risk VaR) reported in the tables and charts below reflect this change.

(1) Committed loan syndications which are derivatives under IFRS, and certain positions held within RBC insurance are not included in these measures.
(2) The trading book as defined in Section 8.5 of OSFI's Capital Adequacy Requirements (January 2012).

VaR and Stress VaR (2012)
The table below presents our Market risk VaR and Market risk Stressed VaR figures for 2012.

Market risk VaR* **Table 48**

	2012			
	As at	For the year ended October 31		
(Millions of Canadian dollars)	Oct. 31	Average	High	Low
Equity	$ 10	$ 11	$ 21	$ 5
Foreign exchange	2	4	7	1
Commodities	3	2	4	1
Interest rate	50	50	65	34
Credit specific (1)	10	9	12	7
Diversification	(28)	(24)	(41)	(13)
Market risk VaR (2)	$ 47	$ 52	$ 66	$ 43
Market risk Stressed VaR	$ 79	$ 78	$107	$ 62

* This table represents an integral part of our 2012 Annual Consolidated Financial Statements.
(1) General credit spread risk is measured under interest rate VaR while credit specific risk captures issuer-specific credit spread volatility.
(2) Market risk VaR results from prior to June 2012 have been estimated.

Average Market risk VaR of $52 million in 2012 was down $1 million compared to Management VaR in the prior year. We lowered average VaR through the ongoing risk reduction activities that began last year, particularly in our credit trading portfolio. The decrease in average VaR was also driven by the decrease in credit specific risk largely as a result of a methodology change related to Basel 2.5 used to capture single name credit spread risk, which was implemented in the first quarter of 2012. The decrease in average VaR was offset by the inclusion of positions that were formerly not included in our VaR measure as described above. Prior periods were not restated to reflect this change.

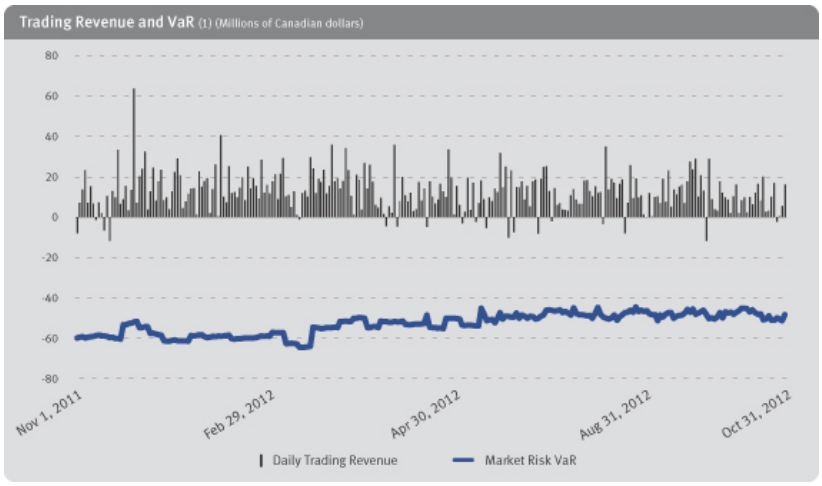
In order to present a comparison between Market risk VaR and Management VaR, the following table contains the 2012 VaR figures as though the enhancements to our limit structure described above had not been made. As at October 31, 2012, the addition of the positions not included in the trading book increased VaR by $10 million while Stressed VaR increased by $3 million. On average for 2012, the addition of these positions increased VaR by $15 million and Stress VaR by $17 million, with the credit valuation adjustment risk being the most significant contribution to the increase. The impact in 2011 would have been similar to that experienced in 2012 if we had made these changes in the prior year, with overall levels of risk as measured by Market risk VaR declining from the average levels in 2011, through the ongoing risk reductions that began last year, particularly in our credit trading portfolio.

Management VaR (1) **Table 49**

	2012				2011			
	As at	For the year ended October 31			As at	For the year ended October 31		
(Millions of Canadian dollars)	Oct. 31	Average	High	Low	Oct. 31	Average	High	Low
Equity	$ 10	$ 11	$ 21	$ 5	$ 7	$ 11	$ 21	$ 5
Foreign exchange	2	4	7	1	5	2	8	1
Commodities	3	2	4	1	3	3	6	1
Interest rate	36	34	45	29	36	45	61	32
Credit specific	10	9	12	7	15	19	24	15
Diversification	(24)	(23)	(36)	(13)	(22)	(27)	(40)	(20)
Management VaR	$ 37	$ 37	$ 48	$ 31	$ 44	$ 53	$ 67	$ 36
Management Stressed VaR (2)	$ 76	$ 61	$ 77	$ 48	n.a.	n.a.	n.a.	n.a.

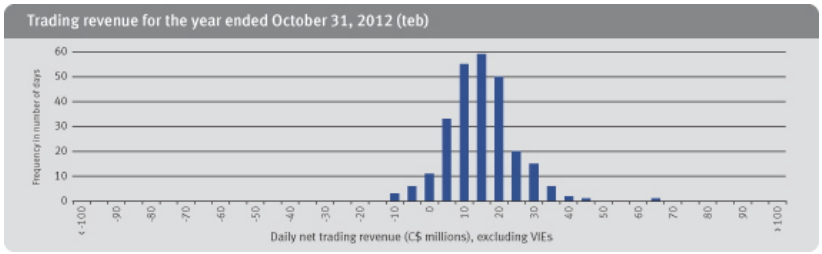
(1) Management VaR includes all positions in the trading book. CVA and products that are not considered part of the trading book are not captured under the Management VaR.
(2) Stressed VaR was implemented in the first quarter of 2012 and hence prior year information is not available.

The following chart graphically displays a bar chart of our daily trading profit and loss and a line chart of our daily Market risk VaR for 2012. We incurred net trading losses on 20 days in the course of the year and none of the losses exceeded VaR. This is down from 2011, when there were 48 days with net trading losses, largely due to the more favourable trading environment in 2012.



(1) Market Risk VaR results from prior to June 2012 have been estimated.

The following chart displays the distribution of daily trading profit and loss in 2012. The largest daily reported loss was $12 million and largest reported profit was $64 million with an average daily profit of $12 million. The largest loss of $12 million was largely due to the narrowing of credit spreads on RBC debt. The largest gain of $64 million was driven by month-end credit valuation adjustments, including tighter counterparty credit spreads and a widening in RBC credit spread. The gain was also due to a favourable foreign exchange impact and movements in interest rates.



Market risk measures – Non-trading banking activities

Traditional non-trading banking activities, such as deposit taking and lending, expose us to market risk, of which interest rate risk is the largest component.

Our goal is to manage the interest rate risk of the non-trading balance sheet to a target level. We modify the risk profile of the balance sheet through proactive hedging to achieve the target level. Key sources of interest rate risk include exposures due to maturity and re-pricing characteristics of bank loans, investments, liabilities, derivatives and off-balance sheet items, as well as embedded options such as interest rate caps and floors, and prepayment options in products.

For additional information regarding interest rate risk and the use of derivatives in asset and liability management, refer to the Off-balance sheet arrangements section and Notes 9 and 28 of our 2012 Annual Consolidated Financial Statements.

Risk measurement

We continually evaluate opportunities to adopt leading practices in instrument valuation, econometric modelling and hedging techniques. Assessment of our practices range from the evaluation of traditional asset/liability management processes to implementation of recent developments in quantitative methods. Risk positions are measured daily, weekly or monthly depending on the size and complexity of the portfolio. Measurement of risk is based on rates charged to clients as well as funds transfer pricing rates. Key rate analysis is performed to provide us with an assessment of the sensitivity of the exposure of our economic value of equity to instantaneous changes in individual points on the yield curve. The economic value of equity is equal to the net present value of our assets, liabilities and off-balance sheet instruments.

We supplement our assessment by measuring interest rate risk for a range of dynamic and static market scenarios. Dynamic scenarios simulate our interest income in response to various combinations of business and market factors. Business factors include assumptions about future pricing strategies and volume and mix of new business, whereas market factors include assumed changes in interest rate levels and changes in the shape of the yield curve. Static scenarios supplement dynamic scenarios and are employed for assessing the risks to the value of equity and net interest income.

As part of our monitoring process, the effectiveness of our interest rate risk mitigation activity is assessed on value and earnings bases, and model assumptions are validated against actual client behaviour.

Risk control

The Asset Liability Committee (ALCO) provides oversight over non-trading market risk policies, limits, and operating standards. Interest rate risk reports are reviewed regularly by ALCO, GRC, the Risk Committee of the Board and the Board of Directors. The structural interest rate risk policy defines the management standards and approved limits within which risks to net interest income over a 12-month horizon, and the economic value of equity, are to be contained. These ranges are based on immediate and sustained ±100 basis points (bps) parallel shifts of the yield curve. The limit for net interest income risk is 3.50% of projected net interest income, and for economic value of equity risk, the limit is 3.25% of shareholder's equity. Interest rate risk limits are reviewed and approved annually by the Board of Directors.

The following table provides the potential before-tax impact of an immediate and sustained 100 basis point and 200 basis point increase or decrease in interest rates on net interest income and economic value of equity of our non-trading portfolio, assuming that no further hedging is undertaken. These measures are based upon assumptions made by senior management and validated by empirical research. All interest rate risk measures are based upon interest rate exposures at a specific time and continuously change as a result of business activities and our risk management actions. Over the course of 2012, our interest rate risk exposure was well within our target level.

Market risk measures – Non-trading banking activities* **Table 50**

	IFRS								Canadian GAAP	
	2012						2011		2010	
	Economic value of equity risk			Net interest income risk (2)			Economic value of equity risk	Net interest income risk (2)	Economic value of equity risk	Net interest income risk (2)
(Millions of Canadian dollars)	Canadian dollar impact	U.S. dollar impact (1)	Total	Canadian dollar impact	U.S. dollar impact (1)	Total				
Before-tax impact of:										
100bp increase in rates	**$ (497)**	**$ –**	**$ (497)**	**$ 387**	**$ 10**	**$ 397**	$ (454)	$ 307	$ (484)	$ 93
100bp decrease in rates	**406**	**(1)**	**405**	**(322)**	**–**	**(322)**	412	(161)	425	(98)
Before-tax impact of:										
200bp increase in rates	**(1,001)**	**(4)**	**(1,005)**	**818**	**24**	**842**	(925)	708	(1,003)	232
200bp decrease in rates	**651**	**–**	**651**	**(370)**	**–**	**(370)**	615	(189)	735	(95)

* This table represents an integral part of our 2012 Annual Consolidated Financial Statements.
(1) Represents the impact on the non-trading portfolios held in our U.S. banking operations.
(2) Represents the 12-month Net interest income exposure to an instantaneous and sustained shift in interest rates.

Non-trading foreign exchange rate risk

Foreign exchange rate risk is the potential adverse impact on earnings and economic value due to changes in foreign currency rates. Our revenue, expenses and income denominated in currencies other than the Canadian dollar are subject to fluctuations as a result of changes in the value of the average Canadian dollar relative to the average value of those currencies. Our most significant exposure is to the U.S. dollar due to our level of operations in the U.S., and other activities conducted in U.S. dollars. Other significant exposures are to the British pound and the Euro due to our activities conducted internationally in these currencies. A strengthening or weakening of the Canadian dollar compared to the U.S. dollar, British pound and the Euro could reduce or increase, as applicable, the translated value of our foreign currency denominated revenue, expenses and earnings and could have a significant effect on the results of our operations. We are also exposed to foreign exchange rate risk arising from our investments in foreign operations. For un-hedged equity investments, when the Canadian dollar appreciates against other currencies, the unrealized translation losses on net foreign investments decreases our shareholders' equity through the other components of equity and decreases the translated value of the RWA of the foreign currency-denominated operations. The reverse is true when the Canadian dollar depreciates against other currencies. Consequently, we consider these impacts in selecting an appropriate level of our investments in foreign operations to be hedged.

Our overall trading and non-trading market risk objectives, policies and methodologies have not changed significantly from 2011.

Liquidity and funding management

Liquidity and funding risk (liquidity risk) is the risk that we may be unable to generate or obtain sufficient cash or its equivalent in a timely and cost-effective manner to meet our commitments as they come due. The nature of banking services inherently exposes us to various types of liquidity risk. The most common sources of liquidity risk arise from mismatches in the timing and value of cash inflows and outflows, both from on and off-balance sheet exposures.

Our liquidity position is established to satisfy our current and prospective commitments in normal business conditions while also contributing, in conjunction with our capital position, to our safety and soundness in times of stress. To achieve these goals, we operate under a comprehensive liquidity management framework and employ key liquidity risk mitigation strategies that include the maintenance of:

- An appropriate balance between the level of exposure allowed under our risk appetite and the cost of its mitigation, taking into account the potential impact of extreme but plausible events.
- Broad funding access, including preserving and promoting a reliable base of core client deposits, continual access to diversified sources of wholesale funding and demonstrated capacities to monetize specific asset classes.
- A comprehensive enterprise-wide liquidity contingency plan that is supported by unencumbered marketable securities, including an earmarked contingency pool that provides assured access to cash and is available to supplement other sources of cash in a crisis.
- Appropriate and transparent liquidity transfer pricing and cost allocation.

Our liquidity management policies, practices and processes reinforce these risk mitigation strategies. In managing liquidity risk, we favour a centralized management approach but various considerations outlined in this section influence the extent to which this can be pursued.

In 2010, OSFI introduced a regulatory enterprise liquidity metric, Net Cumulative Cash Flow. Limits are applicable for both Canadian dollars and foreign currencies and on an all currency basis and we submit a formal compliance report on a monthly basis. We also continue to prepare for prospective regulatory reforms (Basel III) led by the Basel Committee on Banking Supervision (BCBS) and supported by OSFI. Guidelines for liquidity risk include two new regulatory measures, the Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) scheduled for implementation in 2015 and 2018 respectively. We currently monitor LCR and NSFR for internal and regulatory reporting purposes. We submit regular reports to OSFI and these submissions include a list of various asset and liability-driven action plans we could implement to ensure compliance with the LCR metric by 2015. Updates from the BCBS related to LCR rules are expected by early calendar 2013.

Our liquidity and funding risk objectives, policies and methodologies have not changed materially from 2011. However, certain limits and risk practices have been modified as a result of market conditions and to align with local regulatory developments and to position ourselves for the prospective Basel III regulatory liquidity standards. We continue to maintain liquidity and funding that is appropriate for the execution of our strategy. Liquidity and funding risk remain well within our risk appetite. However, as regulatory requirements continue to evolve, our liquidity management policies, practices and processes will be modified if and when appropriate.

Risk measurement

A variety of limit-based measures and metrics have been established to monitor and control risk within appropriate tolerances using a variety of time horizons and severity of stress levels. Risk methodologies and underlying assumptions are periodically reviewed and validated to ensure alignment with our operating environment, expected economic and market conditions, rating agency preferences, regulatory requirements and accepted practices. We measure and manage our liquidity position from three risk perspectives as follows:

Structural (longer-term) liquidity risk
We use cash capital and other structural metrics, which focus on mismatches in effective maturity between all assets and liabilities, to measure and control balance sheet risk and to assist in the determination of our term funding strategy. Stressed conditions are considered, including a protracted loss of unsecured wholesale deposits that fund illiquid assets.

Tactical (shorter-term) liquidity risk
We apply net cash flow limits in Canadian dollar and foreign currencies for key short-term time horizons (overnight to nine weeks) under various stages of stress and assign a risk-adjusted limit to our aggregate pledging exposure and individual limits by types of pledging activities to measure our shorter-term liquidity exposures. Net cash flow positions reflect known and anticipated cash flows for all material unencumbered assets, liabilities and off-balance sheet activities. Pledged assets are not considered a source of available liquidity. We also control this risk by adhering to various group-wide and unit-specific prescribed regulatory standards.

Contingency liquidity risk
Contingency liquidity risk management assesses the impact of and our intended responses to sudden stressful events. Our liquidity contingency plan, maintained and administered by Corporate Treasury, guides our actions and responses to liquidity crises. The Liquidity Crisis Team, consisting of senior representatives with relevant subject matter expertise from key business segments and Corporate Support, contributes to the development of stress tests and funding plans and meets regularly to assess our liquidity status, conduct stress tests and review liquidity contingency preparedness.

Our stress testing exercises, which include elements of scenario and sensitivity testing, are based on models that measure our potential exposure to global, country-specific or RBC-specific events (or a combination thereof), consider both historical and hypothetical events and cover a nine week period consistent with our key tactical liquidity risk measure and our view of the most critical time span for such events. Different levels of severity are considered for each type of crisis with some scenarios including multiple notch downgrades to our credit ratings. Key tests are run monthly, while others are run quarterly. The frequency of review is determined by considering a combination of likelihood and impact.

In a particularly acute short-term crisis or if a crisis was to extend over a number of months, actions would be taken to supplement liquidity available from our earmarked contingency asset pool by limiting cash and collateral outflows and by accessing new sources of liquidity and funding; for example, through sales of liquid assets and securitization and/or sales of core assets. As well, in light of our current credit ratings and well-developed market relationships and access, it is expected that even under extreme but plausible scenarios, we would continue to be able to access wholesale funding markets, albeit possibly at reduced overall capacity, higher costs and for shorter average maturities.

While we also have potential access to various normal course and emergency central bank lending facilities in Canada, the U.S. and Europe, such facilities are not considered a source of funding in our contingency planning for scenarios identified as extreme but plausible.

After reviewing test results, the liquidity contingency plan and other liquidity and funding risk management practices and limits may be modified accordingly. The risk of more prolonged crises is addressed through our measures of structural liquidity risk that assume a stressed environment.

Our liquid assets are primarily a diversified pool of highly rated and liquid marketable securities and include segregated portfolios (in both Canadian and U.S. dollars) of contingency liquidity assets to address potential on- and off-balance sheet liquidity exposures (such as deposit erosion, loan drawdowns and higher collateral demands), that have been sized through models we have developed or by the scenario analyses and stress tests we conduct periodically. These portfolios are subject to minimum asset quality levels and, as appropriate, other strict eligibility guidelines (e.g., maturity, diversification and eligibility for central bank advances) to maximize ready access to cash in emergencies. Examples of assets held in these portfolios include U.S. and Canadian federal government treasury bills and bonds, U.S. Agency bonds, U.S. and Canadian government guaranteed and sponsored entity bonds, other highly rated foreign sovereign bonds and their guaranteed debt, supranational bonds and Canadian provincial bonds. These assets represent a small portion of the total pool of liquid assets on our balance sheet, which would also be available during times of crisis as sources of liquidity, either via outright sale or using them to obtain secured funding, whether these other liquid assets are held as supplemental liquidity resources for more normal business conditions, or for investment or trading purposes.

Risk Profile

Liquid assets comprise 37% of our total assets and include cash, reverse repos and securities. Of the total liquid assets of $309 billion, $276 billion are highly liquid, consisting predominantly of Canadian, U.S. and Other OECD government securities, retained NHA MBS and cash equivalents. The remaining liquid assets are mostly hedged equities and high grade corporate debt with good market liquidity and secured funding markets. Refer to Note 4 of our 2012 Annual Consolidated Financial Statements for the balances of these securities and Note 7 for the securitization of our own assets for funding purposes.

As at October 31, 2012 and throughout the quarter ended October 31, 2012, we held $5.3 billion in US dollar and $4.5 billion in Canadian dollar earmarked contingency liquidity assets, respectively. We also held a derivatives pledging liquid asset buffer of US $1.3 billion as at October 31, 2012 to mitigate the volatility of our net pledging requirements for derivatives trading. This buffer averaged US $1.2 billion during the quarter ended October 31, 2012.

Relationship-based deposits constitute 54% of total funding or $329 billion out of $613 billion as at October 31, 2012 and are the primary source of funding for retail loans and mortgages. Our main source of funding for highly liquid assets consists primarily of short term wholesale funding that matches the expected monetization period of these assets. This wholesale funding is comprised of unsecured and secured (repurchase agreements and short sales) liabilities, and respectively represented 14% and 17% of total funding or $84 billion and $105 billion as at October 31, 2012. Long term wholesale funding is mostly utilized to fund less liquid wholesale assets. Additional quantitative information is provided in the Funding section below.

For more details on the maturity of our assets and liabilities, refer to Note 33 of our 2012 Annual Consolidated Financial Statements.

Risk control

The Board of Directors annually approves delegation of liquidity risk authorities to senior management. The Risk Committee of the Board annually approves the liquidity management framework and is responsible for its oversight. The Board of Directors and the Risk Committee also review, on a regular basis, reporting on our enterprise-wide liquidity position and status. Group Risk Committee (GRC) and ALCO share management oversight responsibility and review all liquidity documents prepared for the Board of Directors or its committees. ALCO annually approves the liquidity management framework's key supporting documents and provides strategic direction and primary management oversight to Corporate Treasury, GRM, other functions and business platforms in the area of liquidity risk management. To maximize funding and operational efficiencies, we monitor and manage our liquidity position on a consolidated basis and for key units while considering market, legal, regulatory, tax, operational and any other applicable restrictions that may impede transferability of liquidity between RBC units. This includes analyzing our ability to lend or borrow funds between branches and subsidiaries, and converting funds between currencies. The outcome of this analysis is considered, as applicable, in liquidity metrics and our Recovery Plan.

Policies

Our principal liquidity policies define risk tolerance parameters. They authorize senior management committees or Corporate Treasury to approve more detailed policies and limits that govern management, measurement and reporting requirements for specific businesses and products.

Authorities and limits

Limits for our structural liquidity risk positions are approved at least annually and monitored regularly. Net cash flow limits are approved at least annually. Depending on the significance of each reporting entity, net cash flow limits are monitored daily or weekly by major currency, branches, subsidiaries and geographic locations. Any potential exceptions to established limits are reported immediately to Corporate Treasury and GRM, who provide or arrange for approval after reviewing remedial action plans.

The liquidity factors for cash flow assets and liabilities under varying conditions are reviewed periodically by Corporate Treasury, GRM and the business segments to determine if they remain valid or changes to assumptions and limits are required. Through this process, we ensure that a close link is maintained between the management of liquidity and funding risk, market liquidity risk and credit risk, including GRM approval of credit lines between entities. In response to our experience during the volatile markets of the past five years, we have modified the liquidity treatment of certain asset classes to reflect that market liquidity for these products has significantly changed. Where required, limits have been reduced in consideration of the results of updated stress tests.

Funding

Funding strategy

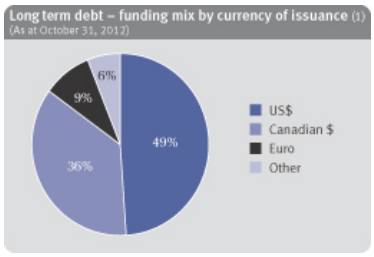
Core funding, comprising capital, longer-term wholesale liabilities and a diversified pool of personal and, to a lesser extent, commercial and institutional deposits, is the foundation of our structural liquidity position.

Our wholesale funding activities are well diversified by geographic origin, investor segment, instrument, currency, structure and maturity. We maintain an ongoing presence in different funding markets, which allows us to constantly monitor market developments and trends, identify opportunities and risks and take appropriate and timely actions. We operate longer-term debt issuance registered programs. The following table summarizes these programs with their authorized limits by geography.

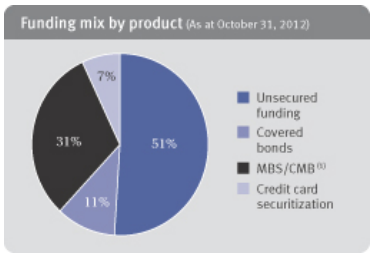
Programs by geography — **Table 51**

Canada	U.S.	Europe/Asia
• Canadian Shelf – $15 billion	• SEC Registered – US$25 billion	• European Debt Issuance Program – US$40 billion
	• SEC Registered Covered Bonds – US$12 billion	• Covered Bond Program – EUR 15 billion
		• Japanese Issuance Programs – JPY 1 trillion

We also raise long term funding using Canadian Deposit Notes, Canadian National Housing Act Mortgage-Backed Securities, Canada Mortgage Bonds, credit card receivable backed securities, Kangaroo Bonds (issued in the Australian domestic market by foreign firms) and Yankee Certificates of Deposit (issued in the US domestic market by foreign firms). We continuously evaluate expansion into new markets and untapped investor segments against relative issuance costs since diversification expands our wholesale funding flexibility and minimizes funding concentration and dependency, and generally reduces financing costs. As presented in the following charts, our current long term debt profile is well diversified by geography as well as by type of long term funding products. Maintaining competitive credit ratings is also critical to cost-effective funding.



(1) Includes unsecured term funding and Covered Bonds.



(1) Mortgage-backed securities and Canadian Mortgage Bonds.

Credit ratings

Our ability to access unsecured funding markets and to engage in certain collateralized business activities on a cost-effective basis is primarily dependent upon maintaining competitive credit ratings. A lowering of our credit rating may have potentially adverse consequences for our funding capacity or access to the capital markets, may also affect our ability, and the cost, to enter into normal course derivative or hedging transactions and may require us to post additional collateral under certain contracts. However, we estimate, based on periodic reviews of ratings triggers embedded in our existing businesses and of our funding capacity sensitivity, that a minor downgrade would not significantly influence our liability composition, funding access, collateral usage and associated costs.

On June 21, 2012, Moody's revised our senior long-term debt rating to Aa3 from Aa1. This action was expected, consistent with the Moody's announcement in February 2012 that it was reviewing the ratings of 17 firms with global capital markets activities, including RBC. On October 26, 2012, Moody's placed under review for possible downgrade our subordinated debt ratings, along with all other Canadian banks. Moody's reaffirmed all our other ratings as they were addressed by the rating actions in June 2012. During this review Moody's will consider the removal of systematic support from the ratings of all Canadian bank's subordinated debt instruments.

On July 27, 2012, S&P revised its outlook of seven Canadian financial institutions, including RBC, to negative from stable. The outlook revisions are linked to S&P's evolving view of economic risk and industry risk for banks operating in Canada. Systemic factors are incorporated into S&P's rating methodology primarily through its Banking Industry Country Risk Assessment (BICRA). While S&P affirmed the ratings of RBC and the other six financial institutions on July 27, 2012, should their review result in a lowering of Canada's BICRA score, this could result in a downgrade to RBC and the other financial institutions.

The following table presents our major credit ratings and outlooks as at November 28, 2012:

Credit ratings — Table 52

	As at November 28, 2012 (1)		
	Short-term debt	**Senior long-term debt**	**Outlook**
Moody's	**P-1**	**Aa3**	**stable**
Standard & Poor's	**A-1+**	**AA-**	**negative**
Fitch Ratings	**F1+**	**AA**	**stable**
Dominion Bond Rating Services	**R-1(high)**	**AA**	**stable**

(1) Credit ratings are not recommendations to purchase, sell or hold a financial obligation inasmuch as they do not comment on market price or suitability for a particular investor. Ratings are determined by the rating agencies based on criteria established from time to time by them, and are subject to revision or withdrawal at any time by the rating organization.

Deposit profile

We continued to focus on aggressively building our core deposit base in Canada.

Our personal deposit franchise constitutes our principal source of reliable funding while certain commercial and institutional client groups also maintain relational balances with low volatility profiles. Taken together, these clients represent a highly stable supply of core deposits in most conceivable environments as they typically are less responsive to market developments than transactional lenders and investors due to the impact of deposit insurance and extensive and, at times, exclusive relationships with us. Core deposits, consisting of our own statistically derived estimates of the highly stable portions of all of our relational personal, commercial and institutional balances (demand, notice and fixed-term) together with wholesale funds maturing beyond one year have increased by 20% during the year and represent 68% of our total deposits, up from 62% last year. The increase of 20% largely reflected the impact of our adoption of IFRS which resulted in securitized assets and associated liabilities that were previously off-balance sheet being recorded on balance sheet. The remaining increase in core deposits of 4% partially reflected the acquisition of the remaining 50% stake in RBC Dexia.

During 2012, we continued to experience more favourable wholesale funding access and pricing compared to global peers. RBC issued the first SEC-registered covered bond in September 2012.

Term funding sources* — Table 53

		IFRS	
(Millions of Canadian dollars)	**2012**	2011	2010
Unsecured long-term funding	**$ 59,661**	$ 56,523	$ 56,008
Secured long-term funding (1)	**50,321**	46,165	36,676
Commercial mortgage-backed securities sold	**1,434**	1,531	1,705
Subordinated debentures	**7,416**	8,429	7,323
	$ 118,832	$ 112,648	$ 101,712

* This table represents an integral part of our 2012 Annual Consolidated Financial Statements.

(1) Secured long-term funding includes credit card receivables financed through notes issued by a securitization special purpose entity (SPE), covered bonds and secured borrowing that relates to NHA MBS transferred to a SPE.

During 2012, we continued to expand our long-term funding base by selectively issuing, either directly or through our subsidiaries, $30.1 billion of term funding in various currencies and markets. Total long-term funding outstanding increased by $6.2 billion. There is no outstanding senior debt containing ratings triggers.

Other liquidity and funding sources

We use residential mortgage and credit card receivable-backed securitization programs as alternative sources of funding and for liquidity and asset/liability management purposes. We hold retained interests in our residential mortgage and credit card securitization programs. Our total outstanding mortgage backed securities sold increased year over year by $2.1 billion. Our credit card receivables, which are financed through notes issued by a securitization special purpose entity increased year over year by $3.3 billion. For further details, refer to the Off-balance sheet arrangements section.

Contractual obligations

In the normal course of business, we enter into contracts that may give rise to commitments of future minimum payments that would affect our liquidity. Depending on the nature of these commitments, the obligation may be recorded on- or off-balance sheet. The following table provides a summary of our potential future funding commitments for these contractual obligations. Details of contractual maturities and commitments to extend funds form an important source of information for the management of liquidity risk since it is used (among other purposes) as the basis for modelling a behavioural balance sheet based on effective maturities and estimates for extension of funds as discussed above in the 'Risk Measurement' section.

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Contractual obligations* — Table 54

	As at October 31, 2012					
	On demand	**Within 1 year**	**1 to 3 years**	**3 to 5 years**	**Over 5 years**	**Total**
Financial liabilities						
Deposits (1)	**$ 237,109**	**$ 136,778**	**$ 73,722**	**$ 39,326**	**$ 19,902**	**$ 506,837**
Other						
Acceptances	**–**	**5,198**	**1,907**	**2,167**	**113**	**9,385**
Obligations related to securities sold short	**–**	**40,756**	**–**	**–**	**–**	**40,756**
Obligations related to assets sold under repurchase agreements and securities loaned	**–**	**64,032**	**–**	**–**	**–**	**64,032**
Other liabilities	**1,876**	**32,596**	**869**	**117**	**3,465**	**38,923**
Subordinated debentures	**–**	**–**	**199**	**–**	**7,217**	**7,416**
Trust capital securities	**–**	**–**	**900**	**–**	**–**	**900**
	238,985	**279,360**	**77,597**	**41,610**	**30,697**	**668,249**
Off balance sheet items						
Financial guarantees (2)	**11,406**	**2,965**	**291**	**20**	**1**	**14,683**
Operating leases	**–**	**688**	**1,246**	**856**	**1,258**	**4,048**
Commitments to extend credit (2)	**128,239**	**170**	**–**	**–**	**–**	**128,409**
	139,645	**3,823**	**1,537**	**876**	**1,259**	**147,140**
Total financial liabilities and off balance-sheet items	**$ 378,630**	**$ 283,183**	**$ 79,134**	**$ 42,486**	**$ 31,956**	**$ 815,389**

	As at October 31, 2011					
	On demand	Within 1 year	1 to 3 years	3 to 5 years	Over 5 years	Total
Financial liabilities						
Deposits (1)	$ 209,826	$ 128,837	$ 78,614	$ 42,097	$ 18,173	$ 477,547
Other						
Acceptances	–	4,756	1,717	1,149	67	7,689
Obligations related to securities sold short	–	44,284	–	–	–	44,284
Obligations related to assets sold under repurchase agreements and securities loaned	–	42,752	–	–	–	42,752
Other liabilities	1,627	31,454	649	72	3,655	37,457
Subordinated debentures	–	–	–	200	8,229	8,429
Trust capital securities	–	–	894	–	–	894
	211,453	252,083	81,874	43,518	30,124	619,052
Off balance sheet items						
Financial guarantees (2)	9,000	3,042	96	1	–	12,139
Operating leases	–	586	924	629	1,027	3,166
Commitments to extend credit (2)	100,326	159	–	–	–	100,485
	109,326	3,787	1,020	630	1,027	115,790
Total financial liabilities and off balance-sheet items	$ 320,779	$ 255,870	$ 82,894	$ 44,148	$ 31,151	$ 734,842

	As at November 1, 2010					
	On demand	Within 1 year	1 to 3 years	3 to 5 years	Over 5 years	Total
Financial liabilities						
Deposits (1)	$ 196,674	$ 140,940	$ 71,526	$ 40,624	$ 17,134	$ 466,898
Other						
Acceptances	–	4,547	2,552	217	55	7,371
Obligations related to securities sold short	–	46,597	–	–	–	46,597
Obligations related to assets sold under repurchase agreements and securities loaned	–	36,006	–	–	–	36,006
Other liabilities	1,465	32,035	502	40	2,536	36,578
Subordinated debentures	–	–	–	199	7,124	7,323
Trust capital securities	–	727	–	900	–	1,627
	198,139	260,852	74,580	41,980	26,849	602,400
Off balance sheet items						
Financial guarantees (2)	8,506	2,971	118	15	7	11,617
Operating leases	–	616	969	691	1,124	3,400
Commitments to extend credit (2)	80,620	213	–	–	–	80,833
	89,126	3,800	1,087	706	1,131	95,850
Total financial liabilities and off balance-sheet items	$ 287,265	$ 264,652	$ 75,667	$ 42,686	$ 27,980	$ 698,250

* This table represents an integral part of our 2012 Annual Consolidated Financial Statements.

(1) A major portion of relationship-based deposits are repayable on demand or at short notice on a contractual basis while, in practice, these customer balances form a core base, as explained in the preceding Deposit Profile section, for our operations and liquidity needs.

(2) We believe that it is highly unlikely that all or substantially all of these guarantees and commitments will be drawn or settled within one year, and contracts may expire without being drawn or settled. The management of the liquidity risk associated with potential extensions of funds is outlined in the preceding Contingency liquidity risk section.

Operational risk

Operational risk is the risk of loss or harm resulting from inadequate or failed internal processes, people and systems or from external events.

Operational risk is embedded in all our activities, including the practices and controls used to manage other risks. Failure to manage operational risk can result in direct or indirect financial loss, reputational impact, regulatory censure, or failure in the management of other risks such as credit or market risk.

We have put in place an Operational Risk Framework which is founded on the principles of our Enterprise Risk Management Framework and sets out the elements that support these principles with respect to the management of operational risk. This framework is dynamic, articulating our strategy regarding management, measurement and reporting of operational risk. Its foundation is the Three Lines of Defence risk governance model as responsibility for risk management is shared across the organization. This model encompasses the practices, requirements, roles and responsibilities for a fully comprehensive, coordinated enterprise-wide approach for the management of operational risk.

Operational risk is difficult to measure in a complete and precise manner, given that exposure to operational risk is often implicit, bundled with other risks, or otherwise not taken on intentionally. In the banking industry, measurement tools and methodologies continue to evolve. The two options available to us under Basel II are the Advanced Measurement Approach and the Standardized Approach. We continue to adopt the Standardized Approach for operational risk and expect to implement the Advanced Measurement Approach in 2013.

Operational risk is managed through our infrastructure, controls, systems and people, complemented by central groups focusing on enterprise-wide management of specific operational risks such as fraud, privacy, outsourcing, and business disruption, as well as people and systems risks. Specific programs, policies, standards and methodologies have been developed to support the management of Operational risk. These programs are (i) Risk and Control Assessment and monitoring of business environment and control factors with Key Risk indicators, (ii) Operational Risk Event data collection and analysis, (iii) External Event – Industry loss analysis, and (iv) Scenario Analysis.

Legal and regulatory compliance risk

Legal and regulatory compliance risk is the risk of potential non-conformance with laws, rules, regulations, prescribed practices, or ethical standards in any jurisdiction in which we operate. Issues regarding compliance with laws and regulations can arise in a number of areas in a large complex financial institution like us, and are often the result of inadequate or failed internal processes, people or systems.

Laws and regulations are in place to protect the financial and other interests of our clients, investors and the public. Changes to laws, including tax laws, regulations or regulatory policies, as well as the changes in how they are interpreted, implemented or enforced, could adversely affect us, for example by lowering barriers to entry in the businesses in which we operate or increasing our costs of compliance. Further, there is no assurance that we always will be or will be deemed to be in compliance with laws, regulations or regulatory policies. Accordingly, it is possible that we could receive a judicial or regulatory judgment or decision that results in fines, damages, and other costs or injunctions or loss of licenses or registrations that would damage our reputation and negatively impact our earnings. In addition, we are subject to litigation arising in the ordinary course of our business and the adverse resolution of any litigation could have a material adverse effect on our results or could give rise to significant reputational damage, which in turn could impact our future business prospects.

Compliance has developed an internal risk management framework, (the Regulatory Compliance Management Framework) consistent with regulatory expectations from OSFI and other regulators. The framework is designed to manage and mitigate the risks associated with failing to comply with, or adapt to, current and changing laws and regulations in the jurisdictions in which we operate. Within the framework there are five elements that form a cycle by which all regulatory compliance risk management programs are developed, implemented and maintained. The first element ensures our regulatory compliance programs evolve alongside our business activities and operations. The second element ensures regulatory compliance risks are identified and assessed appropriately so regulatory compliance programs are designed in a manner to most effectively meet regulatory requirements. The third element relates to the design and implementation of specific controls. The fourth element ensures appropriate monitoring and oversight of the effectiveness of the controls. Lastly, the fifth element ensures the timely escalation and resolution of issues, and clear and transparent reporting. This is a critical step in enabling senior management and the Board of Directors to effectively perform their management and oversight responsibilities.

We have a strong ethical culture of compliance grounded in our Code of Conduct. The Code of Conduct broadly addresses a variety of ethical and legal concerns that face our employees on a daily basis. We regularly review and update the Code of Conduct to ensure that it continues to meet the expectations of regulators and other stakeholders. All our employees must reconfirm their understanding of and commitment to comply with the Code of Conduct at least every two years, and employees in certain key roles, such as GE members and others in financial oversight roles, must do so annually.

Our Code of Conduct is supported by a number of global and regional compliance policies, training programs, online tools, job aids, and new employee orientation materials, as well as direction of senior management. We also have several other core ethics and compliance courses that apply across the organization to a significant number of businesses globally including but not limited to anti-money laundering and anti-terrorist financing, anti-bribery and anti-corruption, and privacy and information risk management.

Insurance risk

Insurance risk refers to the potential financial loss that may arise where the amount, timing and/or frequency of benefit payments under insurance contracts is different than expected. Insurance risk does not include other risks covered by other parts of our risk management framework (e.g., credit, market and operational risk) where those risks are ancillary to the risk transfer.

We have put in place an Insurance Risk Framework designed to identify, manage, and report on the insurance risks that face the organization. Insurance risk is managed through our infrastructure, systems, controls, and monitoring. Specific risk management policies, methodologies, and programs have been developed to support the management of risk including: delegated risk approval authorities and limits, a product risk review and approval process, and experience study analysis.

Reputation risk

Reputation risk is the risk that an activity undertaken by an organization or its representatives will impair its image in the community or lower public confidence in it, resulting in the loss of business, legal action or increased regulatory oversight.

Reputation risk can arise from a number of events and primarily occurs in connection with credit risk, regulatory, legal and operational risks. Operational failures and non-compliance with laws and regulations can have a significant reputational impact on us.

We have put in place a Reputation risk framework which provides an overview of our approach to the management of this risk. It focuses on our organizational responsibilities, and controls in place to mitigate reputation risks.

The following principles guide our management of reputation risk:

- We must operate with integrity at all times in order to sustain a strong and positive reputation.
- Protecting our reputation is the responsibility of all our employees, including senior management and extends to all members of the Board of Directors.

Strategic risk

Strategic risk is the risk that the enterprise or particular business areas will make inappropriate strategic choices, or will be unable to successfully implement selected strategies or related plans and decisions.

Responsibility for selecting and successfully implementing business strategies is mandated to the individual heads of the businesses. Oversight of strategic risk is the responsibility of the heads of the business segments, the Enterprise Strategy Office, GE, and the Board of Directors. Management of strategic risk is supported by the Enterprise Strategy Group through the use of an enterprise strategy framework.

Overview of other risks

In addition to the risks described in the Risk Management section, there are other risk factors, described below, which may adversely affect our businesses and financial results. The following discussion is not exhaustive as other factors could also adversely affect our results.

Government fiscal, monetary and other policies
Our businesses and earnings are affected by the fiscal, monetary or other policies that are adopted by the Bank of Canada and various other Canadian regulatory authorities, the Board of Governors of the Federal Reserve System in the U.S. and other U.S. government authorities, as well as those adopted by international regulatory authorities and agencies, in jurisdictions in which we operate. As well, such policies can adversely affect our clients and counterparties in Canada, the United States and internationally, which may increase the risk of default by such clients and counterparties.

Level of competition
The competition for clients among financial services companies in the markets in which we operate is intense. Client loyalty and retention can be influenced by a number of factors, including new technology used or services offered by our competitors, relative service levels, the prices and attributes of our products or services, our reputation and actions taken by our competitors. Other financial services companies, such as insurance companies and non-financial companies, are increasingly offering services traditionally provided by banks. Such competition could also reduce net interest income, fee revenue and adversely affect our earnings.

Ability to attract and to retain employees
Competition for qualified employees is intense within the financial services industry and from non-financial industries looking to recruit. Although our goal is to retain and attract qualified employees, there is no assurance that we will be able to do so.

Accuracy and completeness of information on clients and counterparties
When deciding to extend credit or enter into other transactions with clients and counterparties, we may rely on information provided by or on behalf of clients and counterparties, including audited financial statements and other financial information. We also may rely on representations of clients and counterparties as to the completeness and accuracy of that information. Our financial results could be adversely impacted if the financial statements and other financial information relating to clients and counterparties on whom we rely do not comply with GAAP or are materially misleading.

Development and integration of our distribution networks
Although we regularly explore opportunities to expand our distribution networks, either through acquisitions or organically by adding, for example, new bank branches, insurance offices, online savings accounts and ATMs in high-growth, receptive markets, if we are not able to develop or integrate these distribution networks effectively, our results of operations and financial condition may be negatively affected.

Environmental risk
Environmental risk is the risk of loss to financial, operational or reputational value resulting from the impact of environmental issues. It arises from our business activities and our operations. For example, the environmental issues associated with our clients' purchase and sale of contaminated property or development of large-scale projects may give rise to credit and reputation risk. Operational and legal risks may arise from environmental issues at our branches, offices or data processing centers.

Corporate Environmental Affairs (CEA) sets enterprise-wide policy requirements for the identification, assessment, control, monitoring and reporting of environmental risk. Oversight is provided by GE and the CG&PPC of the Board of Directors. Business segments and Corporate Functions are responsible for incorporating environmental risk management requirements and controls within their operations. The CEA Group also provides advisory services and support to business segments on the management of specific environmental risks in business transactions.

Periodically, we verify that our environmental risk management policies and processes are operating as intended. On an annual basis, and more frequently as required, environmental risk management activities, issues, and trends are reported to GE and to the CG&PPC of the Board of Directors. Failure to adequately manage environmental risk could adversely impact our results and/or significantly impact our reputation.

We report on the full extent of environmental management annually in the Corporate Responsibility Report and Public Accountability Statements.

Other factors
Other factors that may affect actual results include changes in government trade policy, changes in accounting standards, including their effect on our accounting policies, estimates and judgements, the timely and successful development of new products and services, our ability to cross-sell more products to customers, technological changes and our reliance on third parties to provide components of our business infrastructure, the failure of third parties to comply with their obligations to us and our affiliates as such obligations relate to the handling of personal information, fraud by internal or external parties, the possible impact on our business from disease or illness that affects local, national or global economies, disruptions to public infrastructure, including transportation, communication, power and water, international conflicts and other political developments including those relating to the war on terrorism, and our success in anticipating and managing the associated risks.

We caution that the foregoing discussion of risk factors, many of which are beyond our control, is not exhaustive and other factors could also adversely affect our results. Forward-looking statements in this document include, but are not limited to, statements relating to our financial performance objectives, our vision and strategic goals, the Economic, market and regulatory review and outlook for the Canadian, U.S. and European economies, the outlook and priorities for each of our business segments and in our Liquidity and funding risk section. When relying on our forward-looking statements to make decisions with respect to us, investors and others should carefully consider the foregoing factors and the other factors discussed in the Risk Management section , other uncertainties and potential events, and other industry- and bank-specific factors that may adversely affect our future results and the market valuation placed on our common shares. Unless required by law, we do not undertake to update any forward-looking statement, whether written or oral, that may be made from time to time by us or on our behalf.

Capital management

We actively manage our capital to maintain strong capital ratios and high ratings while providing strong returns to our shareholders. We consider the regulators' requirements, the expectation of rating agencies, depositors and shareholders, as well as our business plans, stress tests, peer comparisons and our internal capital ratio targets. Our goal is to optimize our capital usage and structure, and provide support for our business segments and clients and better returns for our shareholders, while protecting depositors and senior creditors.

Capital management framework

Our capital management framework provides the policies and processes for defining, measuring, raising and investing all types of capital in a co-ordinated and consistent manner. We manage and monitor capital from several perspectives, including regulatory capital, economic capital and subsidiary capital.

Within our capital management framework, we have an internal capital adequacy assessment process (ICAAP) that sets internal capital targets and defines strategies for achieving those targets consistent with our risk appetite, business plans and operating environment.

As part of this process, we have implemented a program of enterprise-wide stress testing to evaluate the income and capital (economic and regulatory) impacts of several potential stress events. This exercise involves various teams, including GRM, Corporate Treasury, Finance and Economics. Results are a key input into our capital planning process and are used in setting appropriate internal capital targets.

The Board of Directors is responsible for the ultimate oversight of capital management, including the annual review and approval of our Capital Plan and ICAAP. The Audit Committee is responsible for the governance of capital management, which includes approval of capital management policies, regular review of our capital position and management processes, approval of ICAAP, as well as ongoing review of internal controls over financial reporting.

The Asset and Liability Committee (ALCO) and Group Executive (GE) share management oversight responsibility for capital management and receive regular reports detailing compliance with established limits and guidelines.

Basel II

The top corporate entity to which Basel II applies at the consolidated level is Royal Bank of Canada.

Under Basel II, banks select from among alternative approaches to calculate their minimum regulatory capital required to underpin credit, market and operational risks.

Effective November 1, 2007, we adopted the Basel II Advanced Internal Ratings Based (AIRB) approach to calculate credit risk capital for consolidated regulatory reporting purposes. While the majority of our credit risk exposures are reported under the Basel II AIRB Approach for regulatory capital purposes, certain portfolios considered non-material from a consolidated perspective continue to use the Basel II Standardized Approach for credit risk (for example, our Caribbean banking operations). For consolidated regulatory reporting of operational risk capital, we continue to use the Standardized Approach. For consolidated regulatory reporting of market risk capital, we use both Internal Models-based and Standardized Approaches.

Commencing the first quarter of 2012, OSFI implemented changes to the market risk framework as outlined in the Basel Committee on Banking Supervision (BCBS), *"Revisions to the Basel II market risk framework (July 2009)"*. OSFI also implemented capital requirements for securitization transactions as outlined in the BCBS *"Enhancements to the Basel II framework (July 2009)"* . These regulatory capital changes, commonly referred to as Basel 2.5, contributed to higher RWA and lower capital ratios.

Also effective the first quarter of 2012 was the application of the Basel II 50% Tier 1 and 50% Tier 2 capital deduction for investments in insurance entities that have been held since prior to January 1, 2007. As a Basel II transition measure, OSFI delayed the implementation of this rule change until 2012 and prior to this change had allowed banks to deduct investments in insurance from Tier 2 capital only.

Basel III

Following the revisions to the Basel II market risk framework in 2009, the BCBS issued " *Basel III: A global regulatory framework for more resilient banks and banking systems"* in December 2010, with the objective of promoting financial stability and sustainable economic growth. The Basel III capital rules, which aim to raise the quality, consistency and transparency of the capital base across banks, strengthen the risk coverage of the capital framework, limit the build up of excessive leverage and reduce procyclicality in the banking sector, will be phased in over the period from 2013 to 2019. The BCBS also released non-viability contingent capital (NVCC) requirements in January 2011 to ensure loss absorbency of regulatory capital instruments at the point of non-viability. In addition, the BCBS issued the frameworks for dealing with global systemically important banks (G-SIBs) in November 2011 and domestic systemically important banks (D-SIBs) in October 2012 with an effort to limit unintended consequences on the global/domestic financial systems and economies associated with systemic banking institutions.

To provide Basel III implementation guidance, OSFI published the draft revised version of " *Capital Adequacy Requirements (CAR) Guidelines"* in August 2012, where it sets the "all-in" Common Equity Tier 1 (CET1) ratio at a 4.5% minimum, but is expecting Canadian banks to meet the "all-in" target CET1 ratio of at least 7% by the first quarter of 2013. In addition, OSFI expects banks to meet the "all-in" target Tier 1 capital ratio of 8.5% and Total capital ratio of 10.5% by the first quarter of 2014. The "all-in" methodology is defined as capital calculated to include all regulatory adjustments that will be required by 2019 but retaining the phase-out rules for non-qualifying capital instruments. OSFI also issued an advisory on NVCC in August 2011 that outlines NVCC principles and requirements, which become effective the first quarter of 2013.

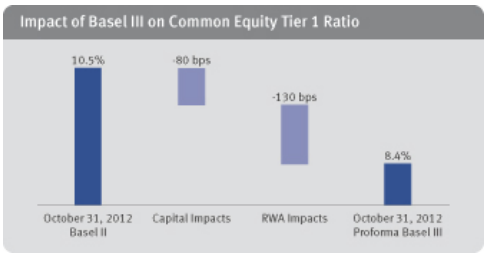
We expect the Basel III rules will result in lower CET1 capital and higher RWA as compared to Basel II. As at October 31, 2012, our estimated pro-forma Basel III CET1 ratio on an "all-in" basis would be approximately 8.4%. We will meet the "all-in" target Tier 1 and Total capital ratios requirements under Basel III for the first quarter of 2014. Our pro-forma estimations assume full implementation of Basel III 2019 capital requirements, while the current non-qualifying Tier 1 and Tier 2 capital instruments are included in total regulatory capital and phased out over a ten-year period starting in 2013.

The following table provides a summary of OSFI regulatory target ratios under Basel III and our proforma ratios as at October 31, 2012.

Basel III – Proforma ratios — **Table 55**

Basel III Capital Ratios	OSFI regulatory targets under Basel III			Proforma as of October 31, 2012	OSFI target requirements as of
	Minimum	Capital Conservation Buffer	Minimum including Capital Conservation Buffer		
Common Equity Tier 1 (%)	>4.5%	2.5%	>7.0%	**8.4%**	**2013**
Tier 1 capital (%)	>6.0%	2.5%	>8.5%	**10.7%**	**2014**
Total capital (%)	>8.0%	2.5%	>10.5%	**13.1%**	**2014**

Compared to Basel II, our pro-forma Basel III CET1 capital as at October 31, 2012 would be lower by approximately $2 billion primarily reflecting full deduction of intangibles, defined benefit pension fund assets and other adjustments, which would reduce the CET1 capital ratio by approximately 80 bps based on our current estimates. Our pro-forma Basel III RWA as of October 31, 2012 would increase by approximately $43 billion mainly reflecting higher counterparty credit risk RWA and risk weighting of securitization exposures, which would lower the CET1 ratio by approximately 130 basis points.



The following provides a discussion on our Basel II regulatory capital, RWA and capital ratios on a consolidated basis.

Basel II – regulatory capital, risk-weighted assets (RWA) and capital ratios — **Table 56**

	IFRS	Canadian GAAP
As at October 31 (Millions of Canadian dollars, except percentage and multiple amounts)	**2012**	2011
Capital		
Tier 1 capital	**$ 36,807**	$ 35,713
Total capital	**42,347**	41,021
Risk-weighted assets		
Credit risk	**$209,559**	$ 205,182
Market risk	**30,109**	21,346
Operational risk	**40,941**	40,283
Transitional adjustment prescribed by OSFI (1)	**–**	969
Total risk-weighted assets	**$280,609**	$ 267,780
Capital ratios and multiples		
Tier 1 capital ratio	**13.1%**	13.3%
Total capital ratio	**15.1%**	15.3%
Assets-to-capital multiple (2)	**16.7X**	16.1X
Gross-adjusted assets ($ billions) (2)	**740.8**	684.6
Tier 1 common ratio (3)	**10.5%**	10.6%

(1) Transitional adjustment as prescribed by OSFI Capital Adequacy Requirements guideline Section 1.7. For further details, refer to Note 32 of our 2012 Annual Consolidated Financial Statements.
(2) As part of the IFRS transition, for the Assets-to-capital multiple (ACM) calculation, Gross-adjusted assets (GAA) excludes mortgages sec uritized through the CMHC program up to and including March 31, 2010 as approved by OSFI.
(3) Tier 1 common ratio does not have a standardized meaning under GAAP and may not be comparable to similar measures disclosed by other financial institutions. For further details, refer to the Key performance and non-GAAP measures section.

Basel II regulatory capital and capital ratios

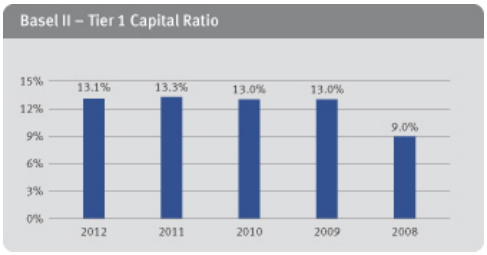
Capital levels for Canadian banks are regulated pursuant to guidelines issued by OSFI, based on standards issued by the Bank for International Settlements. Regulatory capital is allocated into two tiers: Tier 1 and Tier 2. Tier 1 capital is comprised of high quality capital and is a core measure of a bank's financial strength. It consists of more permanent components of capital, is free of mandatory fixed charges against earnings and has a subordinate legal position to the rights of depositors and other creditors of the financial institution. Tier 2 capital is composed of supplementary capital instruments that contribute to the overall strength of a financial institution as a going concern. Total capital is defined as the sum of these two tiers. The components of Tier 1 and Tier 2 capital are listed in Table 57. For further details on the terms and conditions of the various capital components, refer to the Selected share data section and Notes 20, 21 and 22 of our 2012 Annual Consolidated Financial Statements.

Regulatory capital ratios are calculated by dividing Tier 1 and Total capital by RWA. OSFI formally establishes risk-based capital targets for deposit-taking institutions in Canada. These targets are Tier 1 capital ratio greater than or equal to 7% and a Total capital ratio of greater than or equal to 10%. Canadian banks are also required to ensure that their assets-to-capital multiple, which is calculated by dividing gross adjusted assets by Total capital, does not exceed a maximum level prescribed by OSFI.

Basel II – Regulatory Capital **Table 57**

	IFRS	Canadian GAAP
As at October 31 (Millions of Canadian dollars, except percentage and multiple amounts)	**2012**	2011
Tier 1 common and Tier 1 regulatory capital		
Common shares	**$14,354**	$ 13,977
Contributed surplus (1)	**n.a.**	212
Retained earnings	**24,270**	24,282
Adjustment for transition to IFRS	**444**	n.a.
Net after tax fair value losses arising from changes in institutions' own credit risk	**(30)**	(47)
Foreign currency translation adjustments	**195**	(1,663)
Net after-tax unrealized loss on available-for-sale equity securities	**–**	–
Goodwill	**(7,485)**	(7,703)
Substantial investments	**(52)**	(101)
Securitization-related deductions	**(448)**	(517)
Investment in insurance subsidiaries	**(1,562)**	(67)
Expected loss in excess of allowance – AIRB Approach	**(306)**	(72)
Other	**(1)**	(10)
Total Tier 1 common	**29,379**	28,291
Non-cumulative preferred shares	**4,814**	4,810
Innovative Capital Instruments	**2,580**	2,582
Other non-controlling interests in subsidiaries	**34**	30
Total Tier 1 regulatory capital	**36,807**	35,713
Tier 2 regulatory capital		
Permanent subordinated debentures	**809**	837
Non-permanent subordinated debentures (2)	**6,686**	6,832
Innovative Capital Instruments (excess over 15% of Tier 1)	**–**	–
Excess of non-cumulative preferred shares	**–**	–
Net after-tax unrealized gain on available-for-sale equity securities	**221**	11
Trust subordinated notes	**–**	1,027
Allowance against non-impaired loans	**191**	430
Excess allowance (re IRB Approach)	**–**	–
Substantial investments	**(52)**	(101)
Investment in insurance subsidiaries	**(1,561)**	(3,154)
Securitization-related deductions	**(449)**	(490)
Expected loss in excess of allowance – AIRB approach	**(305)**	(72)
Other	**–**	(12)
Total Tier 2 regulatory capital	**$ 5,540**	$ 5,308
Total regulatory capital	**$42,347**	$ 41,021

(1) Under IFRS, we record items related to Contributed surplus directly to Retained earnings.
(2) Subordinated debentures that are within five years of maturity are subject to straight-line amortization to zero during their remaining term and, accordingly, are included at their amortized value.



2012 vs. 2011

Our capital position remained strong throughout the year and our capital ratios remain well above OSFI regulatory targets.

As at October 31, 2012, our Tier 1 capital ratio was 13.1% and our Total capital ratio was 15.1%.

Our Tier 1 capital ratio was down 20 bps from last year largely due to higher RWA partially offset by an increase in Tier 1 capital.

Tier 1 capital was up $1,094 million largely due to internal capital generation, partially offset by a higher Tier 1 deduction for investments in insurance entities compared to last year, and the phase-in of the transition impact of IFRS.

Our Total capital ratio was down 20 bps from last year largely due to higher RWA partially offset by the increase in Total capital.

Total capital was up $1,326 million mainly due to internal capital generation, partially offset by the phase-in of IFRS and the redemption of $1 billion of Innovative Tier 2 capital instruments (Trust Subordinated Notes Series A) in the second quarter of 2012.

As at October 31, 2012, our Assets-to-capital multiple was 16.7 times compared to 16.1 times a year ago largely due to higher gross adjusted assets from business growth and the inclusion of the 100% ownership of RBC Investor Services, partially offset by the sale of our U.S. regional retail operations and an increase in Total Capital.

Basel II RWA

Under Basel II, OSFI requires banks to meet minimum risk-based capital requirements for exposures to credit risk, operational risk, and, where they have significant trading activity, market risk. RWA is calculated for each of these risk types and added together to determine total RWA. Moreover, as a Basel II transitional arrangement, OSFI requires the minimum risk-based capital to be no less than 90% of the capital requirements as calculated under the Basel I standards. If the capital requirement is less than 90%, a transitional adjustment to RWA must be applied as prescribed by OSFI Capital Adequacy Requirements.

Basel II – Risk-weighted assets — **Table 58**

	IFRS						Canadian GAAP
	2012						2011
			Risk-weighted assets				
As at October 31 (Millions of Canadian dollars, except percentage amount)	Exposure (1)	Average of risk weights (2)	Standardized approach	Advanced approach	Other	Total	Total
Credit risk							
Lending-related and other							
Residential mortgages	$ 173,207	5%	$ 978	$ 7,735	$ –	$ 8,713	$ 6,869
Other retail	199,820	19%	2,104	36,529	–	38,633	42,429
Business	173,652	58%	16,509	83,848	–	100,357	92,250
Sovereign	49,355	7%	1,324	1,942	–	3,266	1,799
Bank	73,314	7%	2,169	2,632	–	4,801	4,723
Total lending-related and other	$ 669,348	23%	$ 23,084	$ 132,686	$ –	$155,770	$ 148,070
Trading-related							
Repo-style transactions	$ 256,148	1%	$ 78	$ 2,157	$ –	$ 2,235	$ 2,309
Over-the-counter derivatives	44,141	27%	1,221	10,687	–	11,908	15,986
Total trading-related	$ 300,289	5%	$ 1,299	$ 12,844	$ –	$ 14,143	$ 18,295
Total lending-related and other and trading-related	$ 969,637	18%	$ 24,383	$ 145,530	$ –	$169,913	$ 166,365
Bank book equities	1,211	100%	–	1,206	–	1,206	1,336
Securitization exposures	41,664	16%	206	6,378	–	6,584	6,951
Regulatory scaling factor	n.a.	n.a.	n.a.	9,187	–	9,187	7,982
Other assets	36,038	63%	n.a.	n.a.	22,669	22,669	22,548
Total credit risk	$ 1,048,550	20%	$ 24,589	$ 162,301	$ 22,669	$209,559	$ 205,182
Market risk							
Interest rate			$ 4,646	$ 1,901	$ –	$ 6,547	$ 4,358
Equity			482	1,434	–	1,916	1,650
Foreign exchange			1,634	70	–	1,704	866
Commodities			833	11	–	844	896
Specific risk			5,903	3,792	–	9,695	13,576
Incremental risk charge			–	9,403	–	9,403	–
Total market risk			$ 13,498	$ 16,611	$ –	$ 30,109	$ 21,346
Operational risk			$ 40,941	n.a.	n.a.	$ 40,941	$ 40,283
Transitional Adjustment prescribed by OSFI					$ –	$ –	$ 969
Total risk-weighted assets	$ 1,048,550		$ 79,028	$ 178,912	$ 22,669	$280,609	$ 267,780

(1) Total exposure represents exposure at default which is the expected gross exposure upon the default of an obligor. This amount is before any allowance against impaired loans or partial write-offs and does not reflect the impact of credit risk mitigation and collateral held.

(2) Represents the average of counterparty risk weights within a particular category.

2012 vs. 2011

During the year, RWA increased by $12.8 billion, mainly due to increases in wholesale and retail exposures, the impact of Basel 2.5 implementation, the inclusion of the 100% ownership of RBC Investor Services in the third quarter of 2012, partially offset by the sale of our U.S. regional retail operations which closed in the second quarter of 2012.

The following table provides our selected capital management activity for the year ended October 31, 2012.

Selected capital management activity — Table 59

As at October 31 (Millions of Canadian dollars, except number of amounts)	2012 Issuance or redemption date	2012 Number of shares (000s)	2012 Amount
Tier 1			
Common shares issued			
Dividend reinvestment plan (DRIP) (1)		**3,752**	**$ 187**
Stock options exercised (2)		**3,175**	**126**
Tier 2			
Redemption of April 30, 2017 Trust Subordinated Notes – Series A (3)	**April 30, 2012**		**1,000**

(1) The requirements of our DRIP were satisfied through treasury shares for the first three quarters of 2012 and through open market share purchases for the last quarter of 2012.
(2) Amounts include cash received for stock options exercised during the period and the fair value adjustments to stock options.
(3) For further details, refer to Note 21 of our 2012 Annual Consolidated Financial Statements.

Dividends

Our common share dividend policy reflects our earnings outlook, payout ratio objective and the need to maintain adequate levels of capital to fund business opportunities. Our dividend payout ratio target is 40% to 50%. In 2012, on a continuing operations basis, our dividend payout ratio was 45%, which met our dividend payout ratio target. The dividend payout ratio on a consolidated basis was 46%, down from 49% in 2011. In the second quarter of 2012, we increased our common share dividend by 3 cents per share or 6% to $0.57 per share, and in the fourth quarter of 2012, we further increased our common share dividend by 3 cents per share or 5% to $0.60 per share. Common share dividends paid during the year were $3.3 billion.

Selected share data (1) — Table 60

(Millions of Canadian dollars, except number of shares)	2012 Number of shares (000s)	2012 Amount	2012 Dividends declared per share	2011 Number of shares (000s)	2011 Amount	2011 Dividends declared per share	2010 Number of shares (000s)	2010 Amount	2010 Dividends declared per share
Common shares outstanding	**1,445,303**	**$14,323**	**$ 2.28**	1,438,376	$14,010	$ 2.08	1,424,922	$13,378	$ 2.00
First preferred shares outstanding									
Non-cumulative Series W (2)	**12,000**	**300**	**1.23**	12,000	300	1.23	12,000	300	1.23
Non-cumulative Series AA	**12,000**	**300**	**1.11**	12,000	300	1.11	12,000	300	1.11
Non-cumulative Series AB	**12,000**	**300**	**1.18**	12,000	300	1.18	12,000	300	1.18
Non-cumulative Series AC	**8,000**	**200**	**1.15**	8,000	200	1.15	8,000	200	1.15
Non-cumulative Series AD	**10,000**	**250**	**1.13**	10,000	250	1.13	10,000	250	1.13
Non-cumulative Series AE	**10,000**	**250**	**1.13**	10,000	250	1.13	10,000	250	1.13
Non-cumulative Series AF	**8,000**	**200**	**1.11**	8,000	200	1.11	8,000	200	1.11
Non-cumulative Series AG	**10,000**	**250**	**1.13**	10,000	250	1.13	10,000	250	1.13
Non-cumulative Series AH	**8,500**	**213**	**1.41**	8,500	213	1.41	8,500	213	1.41
Non-cumulative Series AJ (3)	**16,000**	**400**	**1.25**	16,000	400	1.25	16,000	400	1.25
Non-cumulative Series AL (3)	**12,000**	**300**	**1.40**	12,000	300	1.40	12,000	300	1.40
Non-cumulative Series AN (3)	**9,000**	**225**	**1.56**	9,000	225	1.56	9,000	225	1.56
Non-cumulative Series AP (3)	**11,000**	**275**	**1.56**	11,000	275	1.56	11,000	275	1.56
Non-cumulative Series AR (3)	**14,000**	**350**	**1.56**	14,000	350	1.56	14,000	350	1.56
Non-cumulative Series AT (3)	**11,000**	**275**	**1.56**	11,000	275	1.56	11,000	275	1.56
Non-cumulative Series AV (3)	**16,000**	**400**	**1.56**	16,000	400	1.56	16,000	400	1.56
Non-cumulative Series AX (3)	**13,000**	**325**	**1.53**	13,000	325	1.53	13,000	325	1.53
Treasury shares – preferred	**42**	**1**		(6)	–		(86)	(2)	
Treasury shares – common	**543**	**30**		146	8		(1,719)	(81)	
Exchangeable shares of									
RBC PH&N Holdings Inc. (4)	**–**	**–**		–	–		6,750	324	
Stock options									
Outstanding	**12,304**			14,413			15,659		
Exercisable	**6,544**			8,688			10,170		
Dividends									
Common		**3,291**			2,979			2,843	
Preferred		**258**			258			258	

(1) For further details about our capital management activity, refer to Note 22 of our Annual Consolidated Financial Statements.
(2) Effective February 24, 2010, we have the right to convert into common shares at our option, subject to certain restrictions.
(3) Dividend rate will reset every five years.
(4) On May 2, 2011, we exercised our call right on the Class B exchangeable shares of RBC PH&N Holdings Inc. and issued RBC common shares in exchange.

On October 26, 2012, we announced that the Toronto Stock Exchange approved our normal course issuer bid ("NCIB") to purchase up to 30 million of our common shares. Purchases were permitted to commence on November 1, 2012 and may continue until October 31, 2013. Purchases may be made through the Toronto Stock Exchange as well as through other designated exchanges and published markets, in both Canada and the U.S. The price paid for any repurchased shares will be the prevailing market price at the time of acquisition. We determine the amount and timing of the purchases under the NCIB, subject to prior consultation with OSFI. As at November 23, 2012, we have not purchased any shares under the NCIB.

As at November 23, 2012, the number of outstanding common shares and stock options was 1,445,335,492 and 12,271,263, respectively. As at November 23, 2012, the number of Treasury shares – preferred and Treasury shares – common was (26,105) and (913,862), respectively.

Attributed capital

Effective the first quarter of 2012, we prospectively revised our capital allocation methodology to further align our allocation processes with evolving increased regulatory capital requirements. For further details, refer to the How we measure and report our business segments section.

Our attributed capital methodology is based on the alignment of Economic Capital to Basel III Regulatory requirements; where Economic Capital is our internal quantification of risks associated with business activities which is the capital required to remain solvent under extreme market conditions, reflecting our objective to maintain a debt rating of at least AA. The aligned Economic and Regulatory capital is attributed to each business segment in proportion to management's assessment of the risks. It allows for comparable performance measurements among our business segments through ROE as described in the Key performance and non-GAAP measures section, and also aids senior management in determining resource allocation in conjunction with other factors.

Attributed capital is also used to assess the adequacy of our capital base. Our policy is to maintain a level of available capital, defined as common equity and other capital instruments with equity-like permanence and loss absorption features such as preferred shares and Innovative Tier 1 instruments that exceed Economic capital with a comfortable cushion.

Attributed capital is calculated and attributed on a wider array of risks than those for Basel II Pillar I regulatory capital, which is calibrated predominantly to target credit, market (trading) and operational risk measures. Economic capital is calculated based on credit, market (trading and non-trading), operational, business and fixed asset, and insurance risks and includes capital attribution for goodwill and other intangibles. The common risks between the two frameworks are aligned to reflect increased regulatory requirements.

- Business risk is the risk of loss or harm due to variances in volumes, prices and costs caused by competitive forces, regulatory changes, reputation and strategic risks.
- Fixed asset risk is defined as the risk that the value of fixed assets will be less than their book value at a future date.

For further discussion on credit, market, operational and insurance risks, refer to the Risk management section.

The calculation and attribution of attributed capital involves a number of assumptions and judgments by management which are monitored to ensure that the economic capital framework remains comprehensive and consistent. The models are benchmarked to leading industry practices via participation in surveys, reviews of methodologies and ongoing interaction with external risk management industry professionals.

The following provides a discussion of our attributed capital from continuing operations.

Attributed capital — **Table 61**

	IFRS	
(Millions of Canadian dollars)	**2012**	2011
Credit risk	**$ 9,550**	7,800
Market risk (trading and non-trading)	**3,800**	3,200
Operational risk	**3,750**	3,400
Business and fixed asset risk	**2,750**	2,400
Insurance risk	**450**	400
Goodwill and intangibles	**9,800**	9,450
Regulatory capital allocation	**4,100**	2,400
Attributed capital	**$ 34,200**	29,050
Under attribution of capital	**2,550**	750
Average common equity from discontinued operations	**400**	2,800
Average common equity	**$ 37,150**	32,600

2012 vs. 2011

Attributed capital increased $5.2 billion, largely due to an increase in credit risk as the result of business growth, higher market risk, operational risk and business and fixed asset risk due to an increase in revenue growth. A higher allocation of capital to align with regulatory capital also contributed to the increase. Goodwill and intangibles risk increased due to the acquisition of the remaining 50% stake in RBC Dexia. These factors were partially offset by the sale of our U.S. regional retail operations on March 2, 2012.

We remain well capitalized with current levels of available capital exceeding the attributed capital required to underpin all of our material risks. Unattributed capital increased from the prior year as we consider the potential additional capital requirements by OSFI for D-SIB.

Subsidiary capital

Our capital management framework includes the management of our subsidiary capital. We invest capital across the enterprise to meet local regulators' capital adequacy requirements and maximize returns to our shareholders. We invest in our subsidiaries as appropriate during the year. We set guidelines for defining capital investments in our subsidiaries and manage the relationship between capital invested in subsidiaries and our consolidated capital base to ensure that we can access capital recognized in our consolidated regulatory capital measurements.

Each of our subsidiaries has responsibility for maintaining its compliance with local regulatory capital adequacy requirements, which may include restrictions on the transfer of assets in the form of cash, dividends, loans or advances. Concurrently, Corporate Treasury provides centralized oversight and consolidated capital management across all subsidiary entities.

Other considerations affecting capital

Capital treatment for equity investments in other entities is determined by a combination of accounting and regulatory guidelines based on the size or nature of the investment. Three broad approaches apply as follows:

- Consolidation: entities in which we have a controlling interest are fully consolidated on our Consolidated Balance Sheets, and joint ventures are consolidated on a pro rata basis.
- Deduction: certain holdings are deducted in full from our regulatory capital. These include all unconsolidated "substantial investments," as defined by the *Bank Act* (Canada), as well as all investments in insurance subsidiaries.
- Risk weighting: unconsolidated equity investments that are not deducted from capital are risk weighted at a prescribed rate for determination of capital charges.

Regulatory capital approach for securitization exposures

For our securitization exposures, we use an internal assessment approach (IAA) for exposures related to our asset-backed commercial paper (ABCP) business, and for other securitization exposures we use a combination of approaches including a ratings-based approach and the standardized approach.

While our IAA rating methodologies are based in large part on criteria that are published by External Credit Assessment Institutions (ECAIs) such as S&P and therefore are similar to the methodologies used by these institutions, they are not identical. Our ratings process includes a comparison of the available credit enhancement in a securitization structure to a stressed level of projected losses. The stress level used is determined by the desired risk profile of the transaction. As a result, we stress the cash flows of a given transaction at a higher level in order to achieve a higher rating. Conversely, transactions that only pass lower stress levels achieve lower ratings.

Most of the other securitization exposures (non-ABCP) carry external ratings and we use the lower of our own rating or the lowest external rating for determining the proper capital allocation for these positions. We periodically compare our own ratings to the ECAIs ratings to ensure that the ratings provided by ECAIs are reasonable.

Group risk management (GRM) has responsibility for providing risk assessments for capital purposes in respect of all our banking book exposures. GRM is independent of the business originating the securitization exposures and performs its own analysis, sometimes in conjunction with but always independent of the applicable business. GRM has developed asset class specific criteria guidelines which provide the rating methodologies for each asset class. The guidelines are reviewed periodically and are subject to the ratings replication process mandated by Pillar I of Basel II rules.

Regulatory capital approach for market risk (Internal models-based approach)

The following table shows VaR and stressed VaR for trading activities that have a capital requirement under the Basel II internal models-based approach, for which we have been granted approval by OSFI. Regulatory capital for market risk is allocated based on VaR and stressed VaR only for those trading positions that have approval to use the internal models based approach.

Internal models-based approach — **Table 62**

	2012				2011			
		For the year ended October 31				For the year ended October 31		
(Millions of Canadian dollars)	As at Oct. 31	Average	High	Low	As at Oct. 31	Average	High	Low
Equity	$ 6	$ 8	$ 16	$ 4	$ 4	$ 16	$ 28	$ 3
Foreign exchange	1	3	6	1	5	2	8	1
Commodities	1	2	3	–	3	2	4	–
Interest rate	19	19	24	12	22	27	41	19
Credit specific	11	9	13	7	15	19	24	15
Diversification	(17)	(22)	(32)	(14)	(23)	(30)	(52)	(21)
VaR	$ 21	$ 19	26	$ 14	$ 26	$ 36	$ 49	$ 22
Stressed VaR	$ 36	$ 34	45	$ 23	$ n.a.	$ n.a.	$n.a.	$ n.a.

Incremental risk charge (IRC)

Effective in the first quarter of 2012, as part of the revisions to the Basel 2.5 framework, we implemented a market risk capital requirement based on the IRC. The IRC is a supplemental market risk capital charge that is intended to capture the credit rating migration and default risk of held for trading positions. We calculate the IRC for all cash and credit derivative positions that attract models-based regulatory capital including sovereign issuers. The implementation of the IRC increased RWA and reduced capital ratios compared to the prior year.

Incremental risk capital charge — **Table 63**

	2012			
		For the year ended October 31		
(Millions of Canadian dollars)	As at Oct. 31	Average	High	Low
Internal models-based approach	$753	$ 731	$1,022	$ 517

Additional financial information

Exposures to selected financial instruments

Net exposure to U.S. subprime and Alt-A through RMBS, CDOs and mortgages — Table 64

As at October 31 (Millions of Canadian dollars)	2012 Subprime RMBS	2012 Alt-A RMBS	2012 CDOs that may contain subprime or Alt-A	2012 Total	2011 Subprime RMBS	2011 Alt-A RMBS	2011 CDOs that may contain subprime or Alt-A	2011 Total
Fair value of securities before hedging	**$ 467**	**$ 119**	**$ 17**	**$ 603**	$ 279	$ 285	$ 17	$ 581
Fair value of securities net of hedging by rating								
AAA	**$ 48**	**$ –**	**$ –**		$ 7	$ 45	$ –	
AA	**52**	**26**	**–**		50	14	–	
A	**42**	**5**	**–**		27	40	–	
BBB	**17**	**–**	**–**		18	27	–	
Below BBB-	**308**	**88**	**17**		177	159	17	
Total	**$ 467**	**$ 119**	**$ 17**	**$ 603**	$ 279	$ 285	$ 17	$ 581
Fair value of securities net of hedging by vintage								
2003 (or before)	**$ 8**	**$ 11**	**$ –**		$ 23	$ 7	$ –	
2004	**43**	**15**	**–**		58	62	–	
2005	**149**	**48**	**17**		157	82	17	
2006	**161**	**14**	**–**		41	36	–	
2007 and greater	**106**	**31**	**–**		–	98	–	
Total	**$ 467**	**$ 119**	**$ 17**	**$ 603**	$ 279	$ 285	$ 17	$ 581
Amortized cost of subprime/Alt-A mortgages (whole loans)	**$ 7**	**46**	**$ –**	**$ 53**	$ 161	$ 664	$ –	$ 825
Total subprime and Alt-A exposures, net of hedging	**$ 474**	**$ 165**	**$ 17**	**$ 656**	$ 440	$ 949	$ 17	$1,406
Sensitivities of fair value of securities, net of hedging, to changes in assumptions:								
100bp increase in credit spread	**$ (14)**	**$ (3)**						
100bp increase in interest rates	**5**	**(2)**						
20% increase in default rates	**(20)**	**(7)**						
25% decrease in prepayment rates	**(3)**	**(1)**						

Exposure to U.S. subprime and Alt-A residential Mortgage-backed securities (RMBS), and Collateralized Debt Obligations (CDOs) and mortgages

Certain activities and transactions we enter into expose us to the risk of default of U.S. subprime and Alt-A residential mortgages. Our net exposures to U.S. subprime and Alt-A residential mortgages represented 0.1% of our total assets as at October 31, 2012, compared to 0.2% in the prior year due to the sale of our U.S. regional retail banking operations which closed in the second quarter of 2012.

2012 vs. 2011

Our total holdings of RMBS may be exposed to U.S. subprime risk. As at October 31, 2012, our U.S. subprime RMBS exposure increased $188 million or 67% compared to the prior year, primarily due to the purchase of certain securities reflecting anticipated improvements in the U.S. housing market. Of the exposure, over 30% of our related holdings are rated A and above, relatively unchanged from the prior year. As at October 31, 2012, U.S. subprime RMBS holdings rated AAA, comprised of 10% of total U.S. subprime RMBS holdings compared with 3% in the prior year. As at October 31, 2012, our exposure to U.S. subprime loans of $7 million decreased $154 million compared to the prior year, primarily reflecting the sale of our U.S. regional retail banking operations which closed in the second quarter of 2012.

Of our total holdings of RMBS, holdings with a fair value of $119 million may be exposed to U.S. Alt-A risk. U.S. Alt-A exposures decreased $166 million from the prior year mainly due to the sale of certain holdings during 2012. Approximately 38% of these RMBS were issued during 2006 and onwards, compared to 47% in the prior year. As at October 31, 2012, our exposure to U.S. Alt-A loans of $46 million decreased $618 million compared to the prior year, reflecting the sale of our U.S. regional retail banking operations.

Of our total holdings of CDOs, holdings of $17 million may be exposed to U.S. subprime or Alt-A risk, which is unchanged from the prior year. As at October 31, 2012, the fair value of our Corporate CDOs, which are predominately comprised of Corporate Collateralized Loan Obligations, of $2.1 billion decreased $0.2 billion compared to the prior year.

Off-balance sheet arrangements

For our off-balance sheet arrangements including multi-seller conduits, structured investment vehicles and other variable interest entities as at October 31, 2012, refer to the Off-balance sheet arrangements section.

Leveraged finance

Leveraged finance comprises infrastructure finance, essential services and other types of finance. It excludes investment grade financing and non-investment grade financing where there is no private equity sponsor involvement. As at October 31, 2012, our total commitments, combined funded and unfunded of $12.1 billion, increased $6.0 billion compared to the prior year, reflecting an increase in client volumes. As at October 31, 2012, our total commitments, combined funded and unfunded represented 1.5% of our total assets compared to 0.8% in the prior year.

Commercial mortgage-backed securities disclosure
The fair value of our total direct holdings of commercial mortgage-backed securities was $120 million as at October 31, 2012.

Assets and liabilities measured at fair value
There were significant transfers in or out of levels 1, 2 or 3 in the current year, as classified by the fair value hierarchy set out in IFRS 7, *Financial Instruments – Disclosures*.

For further details, refer to Note 4 of our 2012 Annual Consolidated Financial Statements.

Assets and liabilities measured at fair value — Table 65

	As at October 31, 2012				
(Millions of Canadian dollars, except percentage amounts)	**Fair value** (1)	**Level 1** (1)	**Level 2** (1)	**Level 3** (1)	**Total**
Financial assets					
Securities at FVTPL	**$ 120,783**	**43%**	**56%**	**1%**	**100%**
Available-for-sale	**40,302**	**17%**	**66%**	**17%**	**100%**
Loans – Wholesale	**1,232**	**0%**	**67%**	**33%**	**100%**
Derivatives	**123,262**	**1%**	**98%**	**1%**	**100%**
Other assets	**705**	**56%**	**42%**	**2%**	**100%**
Financial liabilities					
Deposits	**$ 59,027**	**0%**	**84%**	**16%**	**100%**
Derivatives	**128,549**	**1%**	**96%**	**3%**	**100%**

(1) Fair value of assets and liabilities as a percentage of total assets and liabilities measured at fair value on a recurring basis for categories presented in the table above and does not reflect the impact of netting.

Accounting and control matters

Critical accounting policies and estimates

Application of critical accounting policies and estimates
Our significant accounting policies are described in Note 2 to our 2012 Annual Consolidated Financial Statements. Certain of these policies, as well as estimates made by management in applying such policies, are recognized as critical because they require us to make particularly subjective or complex judgments about matters that are inherently uncertain and because of the likelihood that significantly different amounts could be reported under different conditions or using different assumptions. Our critical accounting policies and estimates relate to the fair value of financial instruments, allowance for credit losses, goodwill and other intangible assets, employee benefits, special purpose entities, derecognition of financial assets, and income taxes. Our critical accounting policies and estimates have been reviewed and approved by our Audit Committee, in consultation with management, as part of their review and approval of our significant accounting policies, estimates and judgments.

Fair value of financial instruments
Financial instruments classified or designated as at FVTPL and AFS are measured at fair value. Unrealized gains and losses on the instruments classified or designated as at FVTPL are recorded as Trading revenue in Non-interest income, and those of the AFS securities are included in Other components of equity. Changes in foreign exchange rates for AFS equity securities are recognized in Other components of equity, while changes in foreign exchange rates for AFS debt securities are recognized in Foreign exchange revenue, other than trading in Non-interest income. For actively traded financial instruments, including derivative instruments, fair value is determined based on quoted market prices or readily observable model input parameters that require minimal subjectivity. For financial instruments with no active market, fair values are determined using valuation models that require the use of inputs which are either observable or unobservable. Observable inputs to valuation models include certain prices and rates for shorter dated G7 (Canada, U.S., U.K., Italy, France, Germany and Japan) and non-G7 interest-rate-yield curves, currency rates and price and rate volatilities. Unobservable inputs include certain prices and rates for longer dated G7 and non-G7 interest-rate-yield curves, prepayment rates, credit spreads, probability of defaults, recovery rates, equity volatility and correlations of probability of defaults or baskets of common stock.

Significant judgment is required in determining fair value for financial instruments where an active market does not exist. The valuation techniques, input selected and models employed may not fully reflect the amount we expect to realize on sale. Valuations are therefore adjusted, where appropriate, to allow for additional factors, including model risk, liquidity risk and credit risk. For models where unobservable inputs are selected, model and parameter valuation adjustments are made to reflect the valuation uncertainty in order to determine fair value based on the assumptions that market participants would use in pricing the financial instrument. For some securities that are not traded in an active market, we may record valuation adjustments for liquidity when we believe that the amount realized on sale may be less than the estimated fair value due to insufficient liquidity in the market . For our derivative portfolios, credit valuation adjustments are made to account for our own creditworthiness and that of our counterparties, the current and potential future mark-to-market of the transactions, and the effects of credit mitigants such as master netting agreements and collateral agreements.

In determining fair value, management judgment is required in the selection and application of inputs and assumption, in particular, when no market data is available. Inputs and assumptions are determined by assessing historical data, interpolation and proxy information gained from transactions with similar risk profile.

Our valuation methodologies and the calculation of valuation adjustments are reviewed by GRM and Finance on an ongoing basis, to ensure appropriateness of valuation methodologies. All significant financial valuation models are also strictly controlled and regularly recalibrated and vetted to provide an independent perspective.

IFRS requires us to classify our financial instruments measured at fair value into three levels based on the transparency of the inputs used to measure the fair values of the instruments. As at October 31, 2012, we have $302 billion of financial assets (80.9% of our total financial assets at fair value) (2011 – $291 billion and 80.2%) and $246 billion of financial liabilities (85.5% of our total financial liabilities at fair value) (2011 – $219 billion and 83.4%), which fair values are based on observable inputs (Level 2 instruments). We also have $10 billion of financial assets (2.7% of our total financial assets at fair value) (2011 – $11 billion and 3.1%) and $13 billion of financial liabilities (4.5% of our total financial liabilities at fair value) (2011 – $10 billion and 3.9%), which valuations include significant unobservable inputs (Level 3 instruments).

At each reporting date or more frequently when conditions warrant, we evaluate our AFS securities to determine whether there is any objective evidence of impairment, such as a significant or prolonged decline in the fair value of the security below its cost or when an adverse effect on future cash flows from the security can be reliably estimated. When assessing impairment for debt instruments we primarily considered counterparty ratings and security-specific factors, including collateral, external ratings, subordination and other market factors. For complex debt instruments including U.S. non-agency MBS, ABS and other structured products, we also use cash flow projection models which incorporate actual and projected cash flows for each security using a number of assumptions and inputs that are based on security specific factors. The inputs and assumptions used such as default, prepayment and recovery rates are based on updated market data. For U.S. non-agency MBS, recovery rates are largely dependent upon forecasted property prices which were assessed at the municipal level, provided by a third-party vendor. In addition, we also consider the transaction structure and credit enhancement for the structured securities. If the result indicates that we will not be able to recover the entire principal and interest amount, we do a further review of the security in order to assess whether a loss would ultimately be realized. As equity securities do not have contractual cash flows, they are assessed differently than debt securities. In assessing whether there is any objective evidence that suggests that the security is impaired we consider factors which include the length of time and extent the fair value has been below the cost and the financial condition and near term prospects of the issuer. We also consider the estimated recoverable value and the period of recovery. We conduct further analysis for securities where the fair value had been below cost for greater than twelve months. If an AFS security is impaired, the cumulative unrealized losses previously recognized in Other components of equity are recognized directly in income under Non-interest income. As at October 31, 2012, our gross unrealized losses on AFS securities were $359 million (2011 – $487 million). Refer to Note 5 to our 2012 Annual Consolidated Financial Statements for more information.

Allowance for credit losses

We maintain allowance for credit losses relating to on-balance sheet exposures, such as loans and acceptances, and off-balance sheet items such as letters of credit, guarantees and unfunded commitments, at levels that management considers appropriate to cover credit related losses incurred as at the balance sheet date.

Allowances are determined individually for loans that are individually significant, and collectively for loans that are not individually significant and loans which are significant but for which there is no objective evidence of impairment, using current and historical credit information in both quantitative and qualitative assessments. For further information on allowance for credit losses, refer to Note 6 to our 2012 Annual Consolidated Financial Statements.

Individually assessed loans

Loans which are individually significant are assessed individually for objective indicators of impairment. A loan is considered impaired when management determines that it will not be able to collect all amounts due according to the original contractual terms or the equivalent value.

Credit exposures of individually significant loans are evaluated based on factors including the borrower's overall financial condition, resources and payment record, and where applicable, the realizable value of any collateral. If there is evidence of impairment leading to an impairment loss, then the amount of the loss is recognized in income and is determined as the difference between the carrying amount of the loan, including accrued interest, and the estimated recoverable amount. The estimated recoverable amount is measured as the present value of expected future cash flows discounted at the loan's original effective interest rate, including cash flows that may result from the realization of collateral less costs to sell.

Collectively assessed loans

Loans which are not individually significant, or which are individually assessed and not determined to be impaired, are collectively assessed for impairment. For the purposes of a collective evaluation of impairment, loans are grouped on the basis of similar risk characteristics, taking into account loan type, industry, geographic location, collateral type, past due status and other relevant factors.

The collective impairment allowance is determined by reviewing factors including: (i) historical loss experience in portfolios of similar credit risk characteristics, and (ii) management's judgment on the level of impairment losses based on historical experience relative to the actual level as reported at the balance sheet date, taking into consideration the current portfolio credit quality trends, business and economic and credit conditions, the impact of policy and process changes, and other supporting factors. Future cash flows for a group of loans are collectively evaluated for impairment on the basis of the contractual cash flows of the assets in the group and historical loss experience for assets with credit risk characteristics similar to those in the group. Historical loss experience is adjusted based on current observable data to reflect the effects of current conditions that did not affect the period on which the historical loss experience is based and to remove the effects of conditions in the historical period that do not currently exist. The methodology and assumptions used for estimating future cash flows are reviewed regularly to reduce any differences between loss estimates and actual loss experience.

Write-off of loans

Loans and the related impairment allowance accounts are written off, either partially or in full, when there is no realistic prospect of recovery. Where loans are secured, they are generally written off after receipt of any proceeds from the realization of the collateral. In circumstances where the net realizable value of any collateral has been determined and there is no reasonable expectation of further recovery, write off may be earlier. For credit cards, the balances and related allowances are written off when payment is 180 days in arrears. Personal loans are generally written off at 150 days past due.

Total allowance for credit losses

Based on the procedures discussed above, management believes that the total allowance for credit losses of $2,088 million is adequate to absorb estimated credit losses incurred in the lending portfolio as at October 31, 2012 (2011 – $2,058 million). This amount includes $91 million (2011 – $91 million) classified in Provisions under Other liabilities on our Consolidated Balance Sheets, which relates to letters of credit and guarantees and unfunded commitments.

Goodwill and other intangible assets

We allocate goodwill to groups of cash-generating units (CGU). Goodwill is not amortized and is tested for impairment on an annual basis, or more frequently if there are indications that impairment may have occurred. We test for impairment by comparing the recoverable amount of a CGU with its carrying amount. A CGU's recoverable amount is the higher of its fair value less cost to sell and its value in use. The carrying amount of a CGU comprises the carrying amount of its net assets, including goodwill. When the carrying value of a CGU exceeds its recoverable amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the CGU and then to the other assets of the CGU proportionally based on the carrying amount of each asset. Any impairment charge is recognized in income in the period it is identified. Subsequent reversals of goodwill impairment are prohibited.

We estimate the value in use and fair value less costs to sell of our CGUs primarily using a discounted cash flow approach which incorporates each CGU's internal forecasts of revenues and expenses. Significant management judgment is applied in the determination of expected future cash flows (uncertainty in timing and amount), discount rates (based on CGU-specific risks) and terminal growth rates. CGU-specific risks include country risk, business/operational risk, geographic risk (including political risk, devaluation risk and government regulation), currency risk and price risk (including product pricing risk and inflation). If the forecast earnings and other assumptions in future periods deviate significantly from the current amounts used in our impairment testing, the value of our goodwill could become impaired.

Other intangible assets with a finite life are amortized on a straight-line basis over their estimated useful lives, generally not exceeding 10 to 20 years, and are tested for impairment when there is an indication that an asset may be impaired. An impairment test is performed by comparing the carrying amount of the intangible asset to its recoverable amount. Where it is not possible to estimate the recoverable amount of an individual asset, we estimate the recoverable amount of the CGU to which the asset belongs. If the recoverable amount of the asset (or CGU) is less than its carrying amount, the carrying amount of the intangible asset is written down to its recoverable amount as an impairment loss. An impairment loss recognized previously is reversed if there is a change in the estimates used to determine the recoverable amount of the asset (or CGU) since the last impairment loss recognized. Significant judgment is applied in estimating the useful lives and recoverable amounts of our intangible assets and assessing whether certain events or circumstances constitute objective evidence of impairment. We do not have any intangible assets with indefinite lives.

As at October 31, 2012, we had $7.5 billion of goodwill (2011 – $7.6 billion) and $2.7 billion of other intangible assets (2011 – $2.1 billion). For further details, refer to Notes 2 and 11 to our 2012 Annual Consolidated Financial Statements.

Employee benefits

We sponsor a number of benefit programs to eligible employees, including registered pension plans, supplemental pension plans, health, dental, disability and life insurance plans.

The calculation of defined benefit expenses and obligations depends on various assumptions such as discount rates, expected rates of return on assets, healthcare cost trend rates, projected salary increases, retirement age, and mortality and termination rates. The discount rate assumption is determined using spot rates from a derived Aa corporate bond yield curve for our Canadian pension and other post-employment plans, and spot rates from an Aa corporate bond yield curve for our U.S. pension and other post-employment plans. All other assumptions are determined by management, applying significant judgment, and are reviewed by the actuaries. Actual experience that differs from the actuarial assumptions will affect the amounts of benefit obligations and expenses that we recognize. As at October 31, 2012, the unrecognized net actuarial losses of our pension and other post-employment plans were $1,345 million and $134 million (2011 – $365 million and $12 million), respectively. The weighted average assumptions used and the sensitivity of key assumptions are presented in Note 18 to our 2012 Annual Consolidated Financial Statements.

Special Purpose Entities

A special purpose entity is an entity created to accomplish a narrow and well-defined objective with limited decision-making powers and pre-established or limited activities. We are required to consolidate an SPE if an assessment of the relevant factors indicates that we control the SPE. Relevant factors include: (i) whether the activities of the SPE are conducted on our behalf according to our specific business needs so that we obtain benefits from the SPE's operation; (ii) whether we have the decision-making powers to obtain a majority of the benefits; (iii) whether we will obtain the majority of the benefits of the activities of the SPE; and (iv) whether we retain the majority of the residual ownership risks related to the assets or SPE in order to obtain the benefits from its activities.

We consider a number of factors in determining whether an entity is an SPE and, if required, analyzing whether we control the SPE. Our approach is generally focused on identifying the significant activities that impact the financial results of the SPE, and determining which party has substantive rights to control the decision making over those activities, and is also exposed to a majority of the SPE's risks and rewards. In certain instances, conditions considered in isolation may indicate control or lack of control over an SPE, but when considered together require a significant degree of judgment to reach a conclusion. For further information on our involvement with SPEs, refer to the Off-balance sheet arrangements section and Note 8 to our 2012 Annual Consolidated Financial Statements.

Derecognition of financial assets

We periodically enter into transactions in which we transfer financial assets such as loans or packaged mortgage-backed securities (MBS) to special purpose entities (SPEs) or trusts that issue securities to investors. We derecognized the assets when our contractual rights to the cash flows from the assets have expired, when we retain the rights to receive the cash flows but assume an obligation to pay those cash flows to a third party subject to certain pass-through requirements, or when we transfer our contractual rights to receive the cash flows and substantially all of the risks and rewards of the assets have been transferred. When we retain substantially all of the risks and rewards of the transferred assets, the transferred assets are not derecognized from our Consolidated Balance Sheets and are accounted for as secured financing transactions. When we neither retain nor transfer substantially all risks and rewards of ownership of the assets, we derecognize the assets if control over the assets is relinquished. If we retain control over the transferred assets, we continue to recognize the transferred assets to the extent of our continuing involvement. Management's judgment is applied in determining whether we have transferred or retained substantially all risk and rewards of ownership of the transferred financial asset.

The majority of assets transferred under repurchase agreements, securities lending agreements, and in our Canadian residential mortgage securitization transactions do not qualify for derecognition; as a result, we continue to record the associated transferred assets on our Consolidated Balance Sheets and no gains or losses are recognized for these securitization activities. Otherwise, a gain or loss is recognized on securitization by comparing the carrying amount of the transferred asset with its fair value at the date of the transfer. As at October 31, 2012, the carrying and fair values of the transferred assets that fail derecognition were $110 billion and $110 billion, respectively (2011 – $88 billion and $89 billion), and the carrying and fair values of the associated liabilities totalled $110 billion and $111 billion, respectively (2011 – $88 billion and $90 billion). For further information on derecognition of financial assets, refer to Note 7 to our 2012 Annual Consolidated Financial Statements.

Income taxes
We are subject to income tax laws in various jurisdictions where we operate, and the complex tax laws are potentially subject to different interpretations by us and the relevant taxation authority. Management's judgment is applied in the interpretation of the relevant tax laws and in the estimation of the provision for current and deferred income taxes, including the expected timing and amount of the realization. A deferred tax asset or liability is determined for each temporary difference based on the tax rates that are expected to be in effect in the period that the asset is realized or the liability is settled. Where the temporary differences will not reverse in the foreseeable future, no deferred tax amount is recognized.

On a quarterly basis, we review whether it is probable that the benefits associated with our deferred tax assets will be realized, using both positive and negative evidence. Refer to Note 25 to our 2012 Annual Consolidated Financial Statements for further information.

Change in accounting estimate – Mortgage prepayment interest
During the third quarter of 2012, we conducted a review of the cash flows that we include in the effective interest rate for mortgages. We determined that the prepayment interest expected to be collected over the term of the mortgages cannot be reliably estimated at the origination date. Therefore, we have revised our methodology to determine the effective interest rates as impacted by prepayment interest. Instead of estimating prepayment interest upon origination of a mortgage, we will defer and amortize the actual receipt of prepayment interest over the expected term of the mortgage if the mortgage is renewed. Otherwise, the prepayment interest will be recognized immediately in income at the prepayment date. This change has been applied as a change in accounting estimate and the cumulative impact increased Net interest income by $125 million this year.

Future changes in accounting policies and disclosure

Amendments to IAS 12 Income Taxes (IAS 12)
In December 2010, the IASB issued *Deferred Taxes, Recovery of Underlying Assets (amendments to IAS 12),* which will be effective for us on November 1, 2012 . The amendments provide an exception to the general principle in IAS 12 that the measurement of deferred tax assets and deferred tax liabilities should reflect the tax consequences that would follow from the manner in which the carrying amount of an asset is expected to be recovered. The amendments include a rebuttable presumption that the deferred tax on investment property measured using the fair value model in *IAS 40 Investment Property* should be determined on the basis that its carrying amount will be recovered through sale. The amendments also include a requirement that deferred tax on non-depreciable assets, measured using the revaluation model in *IAS 16 Property, Plant and Equipment* should always be measured on a sale basis.

Amendments to IAS 1 Presentation of Financial Statements (IAS 1)
In June 2011, the IASB issued amendments to *IAS 1 Presentation of Financial Statements (amendments to IAS 1)*, which will be effective for us on November 1, 2012. The amendments change the requirement to group the items presented in other comprehensive income (OCI). Items that could be reclassified to profit or loss at a future point in time would be presented separately from items which will never be reclassified.

Controls and procedures

Disclosure controls and procedures
Our disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed by us in reports filed or submitted under Canadian and U.S. securities laws is recorded, processed, summarized and reported within the time periods specified under those laws and include controls and procedures that are designed to ensure that information is accumulated and communicated to management, including the President and Chief Executive Officer, and the Chief Administrative Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure.

As of October 31, 2012, management evaluated, under the supervision of and with the participation of the President and Chief Executive Officer and the Chief Administrative Officer and Chief Financial Officer, the effectiveness of our disclosure controls and procedures as defined under rules adopted by the United States Securities and Exchange Commission. Based on that evaluation, the President and Chief Executive Officer and the Chief Administrative Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of October 31, 2012.

Internal control over financial reporting
Management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP. However, because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements on a timely basis. See Management's Report on Internal Control over Financial Reporting and the Report of Independent Registered Chartered Accountants.

No changes were made in our internal control over financial reporting during the year ended October 31, 2012, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Related party transactions

In the ordinary course of business, we provide normal banking services, operational services, and enter into other transactions with associated and other related corporations, including our joint venture entities, on terms similar to those offered to non-related parties. We grant loans to directors, officers and other employees at rates normally accorded to preferred clients. In addition, we offer deferred share and other plans to non-employee directors, executives and certain other key employees. For further information, refer to Notes 13 and 29 of our 2012 Annual Consolidated Financial Statements.

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Supplementary information

Net interest income on average assets and liabilities – on a continuing operations basis — Table 66

(Millions of Canadian dollars, except for percentage amounts)	IFRS Average balances 2012	IFRS Average balances 2011	Canadian GAAP Average balances 2010	IFRS Interest 2012	IFRS Interest 2011	Canadian GAAP Interest 2010	IFRS Average rate 2012	IFRS Average rate 2011	Canadian GAAP Average rate 2010
Assets									
Deposits with other banks (1)									
Canada	**$ 193**	$ 1,437	$ 1,377	**$ 30**	$ 21	$ 14	**15.54%**	1.46%	1.02%
United States	**899**	305	4,140	**8**	8	12	**0.90**	2.62	0.29
Other International	**7,081**	4,786	4,529	**23**	62	33	**0.32**	1.30	0.73
	8,173	6,528	10,046	**61**	91	59	**0.75%**	1.39%	0.59%
Securities									
Trading	**122,606**	148,307	147,702	**3,028**	3,910	3,729	**2.47**	2.64	2.52
Available-for-sale	**39,638**	41,551	38,890	**846**	840	990	**2.13**	2.02	2.55
	162,244	189,858	186,592	**3,874**	4,750	4,719	**2.39**	2.50	2.53
Asset purchased under reverse repurchase agreements and securities borrowed	**104,465**	82,353	57,508	**945**	736	474	**0.90**	0.89	0.82
Loans (1) (2)									
Canada									
Retail	**292,899**	272,999	204,592	**11,681**	11,672	9,138	**3.99**	4.28	4.47
Wholesale	**37,778**	30,583	30,716	**2,468**	1,548	1,035	**6.53**	5.06	3.47
	330,677	303,582	235,308	**14,149**	13,220	10,173	**4.28**	4.35	4.32
United States	**18,802**	13,329	14,171	**702**	895	500	**3.73**	6.71	3.53
Other International	**14,251**	13,337	15,243	**1,121**	1,121	1,821	**7.87**	8.41	11.95
	363,730	330,248	264,722	**15,972**	15,236	12,494	**4.39**	4.61	4.72
Total interest-earning assets	**638,612**	608,987	518,868	**20,852**	20,813	$ 17,746	**3.27**	3.42	3.42
Non-interest-bearing deposits with other banks	**9,520**	6,665	5,923	**–**	–	–	**–**	–	–
Customers' liability under acceptances	**8,617**	7,547	7,983	**–**	–	–	**–**	–	–
Other assets (1)	**153,851**	155,701	150,226	**–**	–	–	**–**	–	–
Total assets	**$810,600**	$778,900	$683,000	**$ 20,852**	$ 20,813	$ 17,746	**2.57%**	2.67%	2.60%
Liabilities and shareholders' equity									
Deposits (1) (3)									
Canada	**351,205**	307,663	177,830	**5,318**	5,318	2,646	**1.51%**	1.73%	1.49%
United States	**36,430**	41,638	39,464	**210**	232	160	**0.58**	0.56	0.41
Other International	**45,139**	52,942	126,460	**489**	784	2,111	**1.08**	1.48	1.67
	432,774	402,243	343,754	**6,017**	6,334	4,917	**1.39**	1.57	1.43
Obligations related to securities sold short	**43,080**	56,603	47,689	**1,584**	2,168	1,749	**3.68**	3.83	3.67
Obligations related to assets sold under repurchase agreements and securities loaned	**55,369**	49,724	42,458	**330**	473	356	**0.60**	0.95	0.84
Subordinated debentures	**8,156**	8,821	6,321	**360**	399	307	**4.41**	4.52	4.86
Other interest-bearing liabilities	**311**	601	946	**63**	82	79	**20.26**	13.65	8.35
Total interest-bearing liabilities	**539,690**	517,992	441,168	**8,354**	9,456	7,408	**1.55**	1.83	1.68
Non-interest-bearing deposits	**63,406**	63,074	48,005	**–**	–	–	**–**	–	–
Acceptances	**8,617**	7,547	7,983	**–**	–	–	**–**	–	–
Other liabilities (1)	**157,355**	152,215	147,885	**–**	–	–	**–**	–	–
Total liabilities	**$769,068**	$740,828	$645,041	**$ 8,354**	$ 9,456	$ 7,408	**1.09%**	1.28%	1.15%
Shareholders' equity									
Preferred	**4,388**	5,499	4,718	**–**	–	–	**–**	–	–
Common	**37,144**	32,573	33,241	**–**	–	–	**–**	–	–
Total liabilities and shareholders' equity	**$810,600**	$778,900	$683,000	**$ 8,354**	$ 9,456	$ 7,408	**1.03%**	1.21%	1.08%
Net interest income and margin	**$810,600**	$778,900	$683,000	**$ 12,498**	$ 11,357	$ 10,338	**1.54%**	1.46%	1.51%
Net interest income and margin (average earning assets)									
Canada	**$442,585**	$416,817	$333,546	**$ 10,952**	$ 9,693	$ 8,405	**2.47%**	2.33%	2.52%
United States	**87,845**	73,404	69,877	**957**	1,093	1,079	**1.09**	1.49	1.54
Other International	**108,182**	118,766	115,445	**589**	571	854	**0.54**	0.48	0.74
Total	**$638,612**	$608,987	$518,868	**$ 12,498**	$ 11,357	$ 10,338	**1.96%**	1.86%	1.99%

(1) During the year, we reclassified cash collateral for 2012 and 2011 paid from Interest bearing deposits with banks and Loans-wholesale to Other assets and cash collateral received from Deposits to Other liabilities.

(2) Interest income includes loan fees of $467 million (2011 – $434 million; 2010 – $390 million).

(3) Deposits include savings deposits with average balances of $109 billion (2011 – $97 billion; 2010 – $83 billion), interest expense of $.6 billion (2011 – $.6 billion; 2010 – $.4 billion) and average rates of .6% (2011 – .6%; 2010 – .4%). Deposits also include term deposits with average balances of $294 billion (2011 – $245 billion; 2010 – $230 billion), interest expense of $4.6 billion (2011 – $3.4 billion; 2010 – $3.8 billion) and average rates of 1.58% (2011 – 1.40%; 2010 – 1.64%).

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Change in net interest income (1) **– on a continuing operations basis** — **Table 67**

(Millions of Canadian dollars)	IFRS 2012 vs. 2011 Increase (decrease) due to changes in Average volume (2)	Average rate (2)	Net change	Canadian GAAP 2011 vs. 2010 Increase (decrease) due to changes in Average volume (2)	Average rate (2)	Net change
Assets						
Deposits with other banks (3)						
Canada	**$ (33)**	**$ 42**	**9**	11	(6)	5
U.S.	**8**	**(8)**	**–**	1	(5)	(4)
Other international	**21**	**(60)**	**(39)**	–	31	31
Securities						
Trading	**(646)**	**(236)**	**(882)**	427	22	449
Available-for-sale	**(40)**	**46**	**6**	(45)	(5)	(50)
Asset purchased under reverse repurchase agreements and securities borrowed	**200**	**9**	**209**	219	43	262
Loans (3)						
Canada						
Retail	**821**	**(812)**	**9**	636	(506)	130
Wholesale	**412**	**508**	**920**	21	19	40
U.S.	**289**	**(482)**	**(193)**	40	362	402
Other international	**74**	**(74)**	**–**	72	(163)	(91)
Total interest income	**$ 1,106**	**$ (1,067)**	**$ 39**	$ 1,382	$ (208)	$ 1,174
Liabilities						
Deposits (3)						
Canada	**703**	**(703)**	**–**	258	7	265
U.S.	**(30)**	**8**	**(22)**	25	47	72
Other international	**(105)**	**(190)**	**(295)**	47	(59)	(12)
Obligations related to securities sold short	**(500)**	**(84)**	**(584)**	334	85	419
Obligations related to assets sold under repurchase agreements and securities loaned	**49**	**(192)**	**(143)**	79	83	162
Subordinated debentures	**(30)**	**(9)**	**(39)**	69	(23)	46
Other interest-bearing liabilities	**(48)**	**29**	**(19)**	(24)	(16)	(40)
Total interest expense	**$ 39**	**$ (1,141)**	**$ (1,102)**	$ 788	$ 124	$ 912
Net interest income	**$ 1,067**	**$ 74**	**$ 1,141**	$ 594	$ (332)	$ 262

(1) Geographic classification for selected assets and liabilities is based on the domicile of the booking point of the subject assets and liabilities.
(2) Volume/rate variance is allocated on the percentage relationship of changes in balances and changes in rates to the total net change in net interest income.
(3) During the year, we reclassified cash collateral for 2012 and 2011 paid from Interest bearing deposits with banks and Loans—wholesale to Other assets and cash collateral received from Deposits to Other liabilities.

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Loans and acceptances by geography – 2012 to 2009 on a continuing operations basis — Table 68

	IFRS		Canadian GAAP		
As at October 31 (Millions of Canadian dollars)	**2012**	2011	2010	2009	2008(1)
Canada					
Residential mortgages	**$ 195,552**	$ 185,620	$ 124,064	$ 117,292	$ 117,690
Personal	**80,897**	75,668	69,291	60,493	48,780
Credit cards	**13,422**	12,723	9,704	8,285	8,538
Small business	**2,503**	2,481	2,712	2,851	2,804
Retail	**292,374**	276,492	205,771	188,921	177,812
Business	**50,319**	45,186	45,217	47,110	53,775
Sovereign	**3,751**	3,304	2,785	1,394	1,544
Bank	**390**	747	808	1,096	978
Wholesale	**$ 54,460**	$ 49,237	$ 48,810	$ 49,600	$ 56,297
	$ 346,834	$ 325,729	$ 254,581	$ 238,521	$ 234,109
United States					
Retail	**3,138**	3,101	4,230	4,163	12,931
Wholesale	**17,081**	11,094	7,584	9,310	30,943
	20,219	14,195	11,814	13,473	43,874
Other International					
Retail	**5,673**	5,152	4,936	4,625	4,712
Wholesale	**16,900**	12,110	11,084	12,964	20,345
	22,573	17,262	16,020	17,589	25,057
Total loans and acceptances	**$ 389,626**	$ 357,186	$ 282,415	$ 269,583	$ 303,040
Total allowance for loan losses	**(1,997)**	(1,967)	(2,038)	(2,164)	(2,215)
Total loans and acceptances, net of allowance for loan losses	**$ 387,629**	$ 355,219	$ 280,377	$ 267,419	$ 300,825

(1) On a consolidated basis

Loans and acceptances by portfolio and sector – 2012 to 2009 on a continuing operations basis — Table 69

	IFRS		Canadian GAAP		
As at October 31 (Millions of Canadian dollars)	**2012**	2011	2010	2009	2008(1)
Residential mortgages	**$ 198,324**	$ 188,406	$ 126,790	$ 119,945	$ 122,991
Personal	**86,697**	80,921	75,519	66,405	60,727
Credit cards	**13,661**	12,937	9,916	8,508	8,933
Small business	**2,503**	2,481	2,712	2,851	2,804
Retail	**$ 301,185**	$ 284,745	$ 214,937	$ 197,709	$ 195,455
Business					
Agriculture	**5,202**	4,880	4,705	4,967	5,305
Automotive	**3,585**	3,025	3,228	3,282	3,999
Consumer goods	**5,432**	5,341	5,202	5,323	7,389
Energy	**8,802**	6,394	5,869	6,984	8,146
Non-bank financial services	**3,895**	2,007	4,593	3,345	8,788
Forest products	**811**	698	726	761	1,152
Industrial products	**3,938**	3,381	3,143	3,331	5,033
Mining & metals	**965**	1,122	587	1,746	3,947
Real estate & related	**20,650**	15,569	12,651	13,308	22,978
Technology & media	**4,203**	2,712	2,257	2,307	3,206
Transportation & environment	**5,221**	4,927	3,546	4,184	4,239
Other (2)	**20,554**	17,011	15,290	17,041	25,623
Sovereign	**4,193**	4,050	3,765	2,779	2,496
Bank	**990**	1,324	1,916	2,516	5,284
Wholesale	**$ 88,441**	$ 72,441	$ 67,478	$ 71,874	$ 107,585
Total loans and acceptances	**$ 389,626**	$ 357,186	$ 282,415	$ 269,583	$ 303,040
Total allowance for loan losses	**(1,997)**	(1,967)	(2,038)	(2,164)	(2,215)
Total loans and acceptances, net of allowance for loan losses	**$ 387,629**	$ 355,219	$ 280,377	$ 267,419	$ 300,825

(1) On a consolidated basis

(2) Other in 2012 related to other services, $7.0 billion; financing products, $4.3 billion; holding and investments, $4.6 billion; health, $3.8 billion; and other, $.9 billion.

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Impaired loans by portfolio and geography – 2012 to 2009 on a continuing operations basis — Table 70

As at October 31 (Millions of Canadian dollars, except for percentage amounts)	IFRS 2012	IFRS 2011	Canadian GAAP 2010	Canadian GAAP 2009	Canadian GAAP 2008 (1)
Residential mortgages	**$ 674**	$ 719	$ 691	$ 533	$ 340
Personal	**273**	289	278	290	348
Small business	**33**	40	49	59	40
Retail	**980**	1,048	1,018	882	728
Business					
Agriculture	**$ 52**	$ 75	$ 74	$ 79	$ 95
Automotive	**17**	38	97	36	20
Consumer goods	**83**	91	91	111	57
Energy	**2**	33	104	100	80
Non-bank financial services	**5**	13	28	197	25
Forest products	**30**	27	49	47	25
Industrial products	**88**	38	102	143	194
Mining & metals	**2**	4	8	18	7
Real estate & related	**353**	464	560	422	1,137
Technology & media	**251**	47	68	114	45
Transportation & environment	**73**	105	52	20	10
Other (2)	**312**	311	385	514	500
Sovereign	**–**	–	9	10	–
Bank	**2**	33	34	62	–
Wholesale	**1,270**	1,279	1,661	1,873	2,195
Total impaired loans (3)	**$ 2,250**	$ 2,327	$ 2,679	$ 2,755	$ 2,923
Canada					
Residential mortgages	**$ 475**	$ 567	$ 544	$ 441	$ 238
Personal	**206**	188	174	173	150
Small business	**34**	40	49	59	40
Retail	**715**	795	767	673	428
Business					
Agriculture	**44**	62	71	77	95
Automotive	**11**	30	87	27	17
Consumer goods	**34**	48	53	53	43
Energy	**–**	25	65	5	5
Non-bank financial services	**3**	1	1	1	3
Forest products	**12**	7	11	20	22
Industrial products	**34**	26	99	140	174
Mining & metals	**2**	2	4	6	6
Real estate & related	**153**	164	177	232	50
Technology & media	**238**	43	55	88	10
Transportation & environment	**22**	12	42	17	10
Other	**88**	93	106	173	94
Sovereign	**–**	–	–	–	–
Bank	**–**	–	–	–	–
Wholesale	**641**	513	771	839	529
Total	**$ 1,356**	$ 1,308	$ 1,538	$ 1,512	$ 957
United States					
Retail	**$ 7**	$ 6	$ –	$ –	$ 133
Wholesale	**162**	116	364	719	1,526
Total	**$ 169**	$ 122	$ 364	$ 719	$ 1,659
Other International					
Retail	**$ 258**	$ 247	$ 251	$ 209	$ 167
Wholesale	**467**	650	526	315	140
Total	**$ 725**	$ 897	$ 777	$ 524	$ 307
Total impaired loans	**$ 2,250**	$ 2,327	$ 2,679	$ 2,755	$ 2,923
Allowance against impaired loans	**(637)**	(605)	(721)	(863)	(767)
Net impaired loans	**$ 1,613**	$ 1,722	$ 1,958	$ 1,892	$ 2,156
Gross impaired loans as a % of loans and acceptances					
Residential mortgages	**.34%**	.38%	.54%	.44%	.28%
Personal	**.31%**	.36%	.37%	.44%	.57%
Small business	**1.32%**	1.61%	1.81%	2.07%	1.43%
Retail	**.33%**	.37%	.47%	.45%	.37%
Wholesale	**1.44%**	1.77%	2.46%	2.61%	2.04%
Total	**.58%**	.65%	.95%	1.02%	.96%
Allowance against impaired loans as a % of gross impaired loans	**28.33%**	26.00%	26.91%	31.32%	26.24%

(1) On a consolidated basis.
(2) Other in 2012 is related to other, $109 million; financing products, $51 million; other services, $97 million; holding and investments, $38 million; and health, $17 million.
(3) Past due loans greater than 90 days not included in impaired loans were $393 million in 2012 (2011 – $525 million; 2010 – $180 million; 2009 – $312 million; 2008 – $347 million).

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Provision for credit losses by portfolio and geography – 2012 to 2009 on a continuing operations basis — Table 71

	IFRS	Canadian GAAP			
(Millions of Canadian dollars, except for percentage amounts)	**2012**	2011	2010	2009	2008 (1)
Residential mortgages	**$ 67**	$ 42	$ 25	$ 22	$ 16
Personal	**445**	438	457	494	445
Credit cards	**394**	448	399	393	270
Small business	**43**	35	45	55	46
Retail	**$ 949**	$ 963	$ 926	$ 964	$ 777
Business					
Agriculture	**$ 8**	$ 7	$ 18	$ 18	$ 5
Automotive	**(2)**	(4)	15	21	10
Consumer goods	**27**	14	29	38	19
Energy	**(11)**	(20)	(6)	13	21
Non-bank financial services	**1**	(11)	(34)	264	–
Forest products	**5**	5	3	11	2
Industrial products	**32**	3	(6)	38	95
Mining & metals	**–**	–	(1)	7	2
Real estate & related	**82**	66	184	124	345
Technology & media	**102**	(3)	5	94	21
Transportation & environment	**47**	29	10	8	3
Other (2)	**63**	82	76	296	130
Sovereign	**–**	–	–	–	–
Bank	**–**	–	15	20	–
Wholesale	**$ 354**	$ 168	$ 308	$ 952	$ 653
Total provision for credit losses on impaired loans	**$ 1,303**	$ 1,131	$ 1,234	$ 1,916	$ 1,430
Canada					
Residential mortgages	**$ 34**	$ 25	$ 7	$ 18	$ 8
Personal	**413**	408	444	467	352
Credit cards	**391**	448	399	393	266
Small business	**43**	35	45	55	46
Retail	**$ 881**	$ 916	$ 895	$ 933	$ 672
Business					
Agriculture	**8**	7	18	18	5
Automotive	**(2)**	(3)	15	17	10
Consumer goods	**13**	13	17	26	13
Energy	**(11)**	(9)	3	(4)	(3)
Non-bank financial services	**1**	–	(1)	36	–
Forest products	**5**	4	3	9	2
Industrial products	**12**	3	(4)	36	78
Mining & metals	**–**	1	2	2	1
Real estate & related	**43**	31	35	52	12
Technology & media	**98**	6	(6)	33	4
Transportation & environment	**10**	5	10	7	3
Other	**32**	44	30	204	27
Sovereign	**–**	–	–	–	–
Bank	**–**	–	–	–	–
Wholesale	**$ 209**	$ 102	$ 122	$ 436	$ 152
Total	**$ 1,090**	$ 1,018	$ 1,017	$ 1,369	$ 824
United States					
Retail	**4**	4	–	–	84
Wholesale	**29**	(19)	62	455	494
	$ 33	$ (15)	$ 62	$ 455	$ 578
Other International					
Retail	**64**	43	31	31	21
Wholesale	**116**	85	124	61	7
	$ 180	$ 128	$ 155	$ 92	$ 28
Total provision for credit losses on impaired loans	**$ 1,303**	$ 1,131	$ 1,234	$ 1,916	$ 1,430
Total provision for credit losses on non-impaired loans	**(2)**	2	6	251	165
Total provision for credit losses	**1,301**	1,133	1,240	2,167	1,595
Provision for credit losses as a % of average net loans and acceptances	**.35%**	0.33%	.40%	.72%	.53%

(1) On a consolidated basis.
(2) Other in 2012 is related to financing products, $3 million; other services, $(3) million; holdings and investments, $(1) million; and other, $64 million.

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Allowance for credit losses by portfolio and geography – 2012 to 2009 on a continuing operations basis — Table 72

(Millions of Canadian dollars, except percentage amounts)	IFRS 2012	IFRS 2011	Canadian GAAP 2010	Canadian GAAP 2009 (1)	Canadian GAAP 2008 (2)
Allowance at beginning of year	**$ 2,058**	$ 2,966	$ 2,264	$ 1,734	$ 1,572
Allowance at beginning of year – discontinued operations		(854)			
Impairment losses	**1,301**	1,133	1,240	2,167	1,595
Write-offs by portfolio					
Residential mortgages	**(31)**	(16)	(11)	(9)	(9)
Personal	**(499)**	(515)	(538)	(535)	(504)
Credit cards	**(497)**	(545)	(463)	(445)	(319)
Small business	**(50)**	(45)	(56)	(54)	(44)
Retail	**$(1,077)**	$(1,121)	$(1,068)	$ (1,043)	$ (876)
Business	**$ (291)**	$ (226)	$ (478)	$ (805)	$ (435)
Sovereign	**–**	(9)	–	–	–
Bank	**(32)**	–	–	–	–
Wholesale	**$ (323)**	$ (235)	$ (478)	$ (805)	$ (435)
Total write-offs by portfolio	**$(1,400)**	$(1,356)	$(1,546)	$ (1,848)	$ (1,311)
Recoveries by portfolio					
Residential mortgages	**$ 1**	$ 1	$ 1	$ 1	$ 1
Personal	**83**	79	79	65	76
Credit cards	**102**	97	63	52	49
Small business	**8**	7	7	5	7
Retail	**$ 194**	$ 184	$ 150	$ 123	$ 133
Business	**$ 39**	$ 60	$ 51	$ 126	$ 29
Sovereign	**–**	–	–	–	–
Bank	**–**	–	–	–	–
Wholesale	**$ 39**	$ 60	$ 51	$ 126	$ 29
Total recoveries by portfolio	**$ 233**	$ 244	$ 201	$ 249	$ 162
Net write-offs	**$(1,167)**	$(1,112)	$(1,345)	$ (1,599)	$ (1,149)
Adjustments (3), (4)	**(104)**	(75)	(33)	(38)	281
Total allowance for credit losses at end of year	**$ 2,088**	$ 2,058	$ 2,126	$ 2,264	$ 2,299
Allowance against impaired loans					
Canada					
Residential mortgages	**$ 41**	$ 47	$ 47	$ 39	$ 23
Personal	**89**	88	88	94	79
Small business	**12**	15	18	22	17
Retail	**$ 142**	$ 150	$ 153	$ 155	$ 119
Business					
Agriculture	**$ 9**	$ 13	$ 14	$ 10	$ 13
Automotive	**7**	15	27	6	5
Consumer goods	**14**	17	20	18	12
Energy	**1**	3	10	1	2
Non-bank financial services	**–**	–	1	–	9
Forest products	**6**	3	4	8	4
Industrial products	**10**	12	36	63	49
Mining & metals	**1**	1	1	1	1
Real estate & related	**45**	47	36	44	9
Technology & media	**107**	20	12	32	6
Transportation & environment	**8**	5	6	7	5
Other	**31**	43	40	72	23
Sovereign	**–**	–	–	–	–
Bank	**–**	–	–	–	–
Wholesale	**$ 239**	$ 179	$ 207	$ 262	$ 138
	$ 381	$ 329	$ 360	$ 417	$ 257
United States					
Retail	**$ 1**	$ 1	$ –	$ –	$ 21
Wholesale	**38**	25	85	251	375
	$ 39	$ 26	$ 85	$ 251	$ 396
Other International					
Retail	**$ 96**	$ 80	$ 83	$ 74	$ 68
Wholesale	**121**	170	193	121	46
	$ 217	$ 250	$ 276	$ 195	$ 114
Total allowance against impaired loans	**$ 637**	$ 605	$ 721	$ 863	$ 767
Allowance against non-impaired loans					
Residential mortgages	**$ 48**	$ 41	$ 26	$ 24	$ 20
Personal	**392**	412	480	449	461
Credit cards	**403**	415	365	313	270
Small business	**60**	60	60	47	47
Retail	**$ 903**	$ 928	$ 931	$ 833	$ 798
Wholesale	**$ 457**	$ 434	$ 386	$ 468	$ 650
Off-balance sheet and other items	**$ 91**	$ 91	$ 88	$ 100	$ 84
Total allowance against non-impaired loans	**$ 1,451**	$ 1,453	$ 1,405	$ 1,401	$ 1,532
Total allowance for credit losses	**$ 2,088**	$ 2,058	$ 2,126	$ 2,264	$ 2,299
Key ratios					
Allowance for credit losses as a % of loans and acceptances	**.54%**	.57%	.75%	.84%	.76%
Net write-offs as a % of average net loans and acceptances	**.31%**	.33%	.49%	.60%	.42%

(1) Opening allowance for credit losses as at November 1, 2008 has been restated due to the implementation of amendments to CICA section 3855.
(2) On a consolidated basis.
(3) Under IFRS, other adjustments include $110 million of unwind of discount and $(6) million of changes in exchange rate (2011 – $78 million and $3 million). For further details, refer to Note 6 of our 2012 Annual Consolidated Financial Statements.
(4) Under Canadian GAAP, other adjustments include primarily foreign exchange translations on non-Canadian dollar-denominated allowance for credit losses and acquisition adjustments for RBTT Financial Group $25 million in 2008; and Alabama National BanCorporation $50 million in 2008.

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Credit quality information by Canadian province – 2012 to 2009 on a continuing operations basis — Table 73

	IFRS		Canadian GAAP		
(Millions of Canadian dollars)	**2012**	2011	2010	2009	2008 (1)
Loans and acceptances					
Atlantic provinces (2)	**$ 19,000**	$ 17,752	$ 13,942	$ 12,709	$ 11,446
Quebec	**41,725**	36,683	31,396	28,739	32,908
Ontario	**154,774**	152,956	112,559	106,957	105,410
Prairie provinces (3)	**70,093**	64,504	51,563	47,654	43,884
B.C. and territories (4)	**61,242**	53,834	45,121	42,462	40,461
Total loans and acceptances in Canada	**$346,834**	$325,729	$254,581	$238,521	$ 234,109
Gross impaired loans					
Atlantic provinces (2)	**$ 67**	$ 66	$ 72	$ 57	$ 66
Quebec	**180**	135	162	190	122
Ontario	**502**	398	598	647	504
Prairie provinces (3)	**338**	404	429	300	158
B.C. and territories (4)	**269**	305	277	318	107
Total gross impaired loans in Canada	**$ 1,356**	$ 1,308	$ 1,538	$ 1,512	$ 957
Provision for credit losses on impaired loans					
Atlantic provinces (2)	**$ 62**	$ 54	$ 50	$ 56	$ 43
Quebec	**96**	63	85	90	63
Ontario	**706**	686	659	942	610
Prairie provinces (3)	**120**	107	146	138	60
B.C. and territories (4)	**106**	108	77	143	48
Total provision for credit losses on impaired loans in Canada	**$ 1,090**	$ 1,018	$ 1,017	$ 1,369	$ 824

(1) On a consolidated basis.
(2) Comprises Newfoundland and Labrador, Prince Edward Island, Nova Scotia and New Brunswick.
(3) Comprises Manitoba, Saskatchewan and Alberta.
(4) Comprises British Columbia, Nunavut, Northwest Territories and Yukon.

Small business loans and acceptances in Canada by sector – 2012 to 2009 on a continuing operations basis — Table 74

	IFRS		Canadian GAAP		
As at October 31 (Millions of Canadian dollars)	**2012**	2011	2010	2009	2008 (1)
Agriculture	**$ 334**	$ 302	$ 332	$ 304	$ 261
Automotive	**662**	684	643	666	636
Consumer goods	**2,415**	2,448	2,367	2,261	2,234
Energy	**525**	465	393	367	384
Non-bank financial services	**77**	71	73	66	84
Forest products	**309**	300	305	316	346
Industrial products	**1,849**	1,830	1,712	1,696	1,672
Mining & metals	**125**	140	113	102	100
Real estate & related	**3,569**	3,439	3,205	3,053	3,052
Technology & media	**344**	304	318	318	316
Transportation & environment	**1,137**	1,039	941	961	940
Other (2)	**6,083**	5,674	5,360	5,013	4,687
Total small business loans	**$17,429**	$16,696	$15,762	$15,123	$ 14,712

(1) On a consolidated basis.
(2) Other sector in 2012 related primarily to other services, $3.3 billion; health, $2,158 million; holding and investment, $550 million; and financing products, $79 million.

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Management's responsibility for financial reporting

The accompanying consolidated financial statements of Royal Bank of Canada were prepared by management, which is responsible for the integrity and fairness of the information presented, including the many amounts that must of necessity be based on estimates and judgments. These consolidated financial statements were prepared in accordance with the *Bank Act* (Canada) and International Financial Reporting Standards. Financial information appearing throughout our Management's Discussion and Analysis is consistent with these consolidated financial statements.

Our internal controls are designed to provide reasonable assurance that transactions are authorized, assets are safeguarded and proper records are maintained. These controls include quality standards in hiring and training of employees, policies and procedures manuals, a corporate code of conduct and accountability for performance within appropriate and well-defined areas of responsibility.

The system of internal controls is further supported by a compliance function, which is designed to ensure that we and our employees comply with securities legislation and conflict of interest rules, and by an internal audit staff, which conducts periodic audits of all aspects of our operations.

The Board of Directors oversees management's responsibilities for financial reporting through an Audit Committee, which is composed entirely of independent directors. This Committee reviews our consolidated financial statements and recommends them to the Board for approval. Other key responsibilities of the Audit Committee include reviewing our existing internal control procedures and planned revisions to those procedures, and advising the directors on auditing matters and financial reporting issues. Our Chief Compliance Officer and Chief Internal Auditor have full and unrestricted access to the Audit Committee.

The Office of the Superintendent of Financial Institutions Canada (OSFI) examines and inquires into our business and affairs as deemed necessary to determine whether the provisions of the *Bank Act* are being complied with, and that we are in sound financial condition. In carrying out its mandate, OSFI strives to protect the rights and interests of our depositors and creditors.

Deloitte & Touche LLP, Independent Registered Chartered Accountants appointed by our shareholders upon the recommendation of the Audit Committee and Board, have performed an independent audit of the consolidated financial statements and their report follows. The auditors have full and unrestricted access to the Audit Committee to discuss their audit and related findings.

Gordon M. Nixon
President and Chief Executive Officer

Janice R. Fukakusa
Chief Administrative Officer and Chief Financial Officer

Toronto, November 28, 2012

Report of Independent Registered Chartered Accountants

To the Shareholders of Royal Bank of Canada

We have audited the accompanying consolidated financial statements of Royal Bank of Canada and subsidiaries (the "Bank"), which comprise the consolidated balance sheets as at October 31, 2012, October 31, 2011 and November 1, 2010, and the consolidated statements of income, comprehensive income, statements of changes in equity, and statements of cash flows for the years ended October 31, 2012 and October 31, 2011, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards and the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the balance sheet of Royal Bank of Canada and subsidiaries as October 31, 2012, October 31, 2011 and November 1, 2010 and their financial performance and cash flows for the years ended October 31, 2012 and October 31, 2011 in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Other Matter

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Bank's internal control over financial reporting as of October 31, 2012 based on the criteria established in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated November 28, 2012 expressed an unqualified opinion on the Bank's internal control over financial reporting.

Deloitte & Touche LLP
Independent Registered Chartered Accountants
Licensed Public Accountants
Toronto, Canada
November 28, 2012

Management's Report on Internal Control over Financial Reporting

Management of Royal Bank of Canada is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed by, or under the supervision of, the President and Chief Executive Officer and the Chief Administrative Officer and Chief Financial Officer and effected by the Board of Directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. It includes those policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions related to and dispositions of our assets
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and our receipts and expenditures are made only in accordance with authorizations of our management and directors
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on our financial statements.

Due to its inherent limitations, internal control over financial reporting may not prevent or detect misstatements on a timely basis. Also, projections of any evaluation of the effectiveness of internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management evaluated, under the supervision of and with the participation of the President and Chief Executive Officer and the Chief Administrative Officer and Chief Financial Officer, the effectiveness of our internal control over financial reporting as of October 31, 2012, based on the criteria set forth in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on that evaluation, management concluded that, as of October 31, 2012, internal control over financial reporting was effective based on the criteria established in the *Internal Control – Integrated Framework*. Also, based on the results of our evaluation, management concluded that there were no material weaknesses that have been identified in internal control over financial reporting as of October 31, 2012.

Our internal control over financial reporting as of October 31, 2012 has been audited by Deloitte & Touche LLP, Independent Registered Chartered Accountants, who also audited our Consolidated Financial Statements for the year ended October 31, 2012, as stated in the Report of Independent Registered Chartered Accountants, which report expressed an unqualified opinion on the effectiveness of our internal control over financial reporting.

Gordon M. Nixon
President and Chief Executive Officer

Janice R. Fukakusa
Chief Administrative Officer and Chief Financial Officer

Toronto, November 28, 2012

Report of Independent Registered Chartered Accountants

To the Shareholders of Royal Bank of Canada

We have audited the internal control over financial reporting of Royal Bank of Canada and subsidiaries (the "Bank") as of October 31, 2012, based on the criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Bank's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Bank's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Bank maintained, in all material respects, effective internal control over financial reporting as of October 31, 2012, based on the criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with Canadian generally accepted auditing standards and the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements as of and for the year ended October 31, 2012 of the Bank and our report dated November 28, 2012 expressed an unqualified opinion on those consolidated financial statements.

Deloitte & Touche LLP
Independent Registered Chartered Accountants
Licensed Public Accountants
Toronto, Canada
November 28, 2012

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Consolidated Balance Sheets

(Millions of Canadian dollars)	October 31 2012	October 31 2011	November 1 2010
Assets			
Cash and due from banks	**$ 12,617**	$ 12,428	$ 8,536
Interest-bearing deposits with banks	**10,255**	6,460	7,241
Securities (Note 5)			
Trading	**120,783**	128,128	129,839
Available-for-sale	**40,828**	38,894	49,244
	161,611	167,022	179,083
Assets purchased under reverse repurchase agreements and securities borrowed	**112,257**	84,947	72,698
Loans (Note 6)			
Retail	**301,185**	284,745	271,927
Wholesale	**79,056**	64,752	67,597
	380,241	349,497	339,524
Allowance for loan losses (Note 6)	**(1,997)**	(1,967)	(2,867)
	378,244	347,530	336,657
Investments for account of segregated fund holders (Note 17)	**383**	320	257
Other			
Customers' liability under acceptances	**9,385**	7,689	7,371
Derivatives (Note 9)	**91,293**	99,650	106,109
Premises and equipment, net (Note 10)	**2,691**	2,490	2,501
Goodwill (Note 11)	**7,485**	7,610	6,553
Other intangibles (Note 11)	**2,686**	2,115	1,925
Assets of discontinued operations (Note 12)	**—**	27,152	5,723
Investments in associates (Note 13)	**125**	142	131
Prepaid pension benefit cost (Note 18)	**1,049**	311	266
Other assets (Note 14)	**35,019**	27,967	30,321
	149,733	175,126	160,900
Total assets	**$ 825,100**	$ 793,833	$ 765,372
Liabilities and equity			
Deposits (Note 15)			
Personal	**$ 179,502**	$ 166,030	$ 161,693
Business and government	**312,882**	297,511	287,535
Bank	**15,835**	15,561	19,285
	508,219	479,102	468,513
Insurance and investment contracts for account of segregated fund holders (Note 17)	**383**	320	257
Other			
Acceptances	**9,385**	7,689	7,371
Obligations related to securities sold short	**40,756**	44,284	46,597
Obligations related to assets sold under repurchase agreements and securities loaned	**64,032**	42,735	36,006
Derivatives (Note 9)	**96,761**	100,522	108,077
Insurance claims and policy benefit liabilities (Note 16)	**7,921**	7,119	6,867
Liabilities of discontinued operations (Note 12)	**—**	20,076	5,012
Accrued pension and other post-employment benefit expense (Note 18)	**1,729**	1,639	1,576
Other liabilities (Note 19)	**41,371**	39,241	38,318
	261,955	263,305	249,824
Subordinated debentures (Note 20)	**7,615**	8,749	7,676
Trust capital securities (Note 21)	**900**	894	1,627
Total liabilities	**779,072**	752,370	727,897
Equity attributable to shareholders (Note 22)			
Preferred shares	**4,813**	4,813	4,813
Common shares (shares issued - 1,445,302,600, 1,438,376,317 and 1,424,921,817)	**14,323**	14,010	13,378
Treasury shares – preferred (shares held – (41,632), 6,341 and 86,400)	**1**	—	(2)
– common (shares held – (543,276), (146,075) and 1,719,092)	**30**	8	(81)
Retained earnings	**24,270**	20,381	17,287
Other components of equity	**830**	490	(14)
	44,267	39,702	35,381
Non-controlling interests (Note 22)	**1,761**	1,761	2,094
Total equity	**46,028**	41,463	37,475
Total liabilities and equity	**$ 825,100**	$ 793,833	$ 765,372

The accompanying notes are an integral part of these Consolidated Financial Statements.

Gordon M. Nixon
President and Chief Executive Officer

Victor L. Young
Director

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Consolidated Statements of Income

(Millions of Canadian dollars, except per share amounts)	For the year ended October 31 2012	October 31 2011
Interest income		
Loans	**$ 15,972**	$ 15,236
Securities	**3,874**	4,750
Assets purchased under reverse repurchase agreements and securities borrowed	**945**	736
Deposits	**61**	91
	20,852	20,813
Interest expense		
Deposits	**6,017**	6,334
Other liabilities	**1,977**	2,723
Subordinated debentures	**360**	399
	8,354	9,456
Net interest income	**12,498**	11,357
Non-interest income		
Insurance premiums, investment and fee income (Note 16)	**4,897**	4,474
Trading revenue	**1,298**	655
Investment management and custodial fees	**2,074**	1,999
Mutual fund revenue	**2,088**	1,975
Securities brokerage commissions	**1,213**	1,331
Service charges	**1,376**	1,323
Underwriting and other advisory fees	**1,434**	1,485
Foreign exchange revenue, other than trading	**655**	684
Card service revenue	**920**	882
Credit fees	**848**	707
Net gain on available-for-sale securities (Note 5)	**120**	104
Share of profit (loss) in associates	**24**	(7)
Securitization revenue	**(1)**	—
Other	**328**	669
Non-interest income	**17,274**	16,281
Total revenue	**29,772**	27,638
Provision for credit losses (Note 6)	**1,301**	1,133
Insurance policyholder benefits, claims and acquisition expense (Note 16)	**3,621**	3,358
Non-interest expense		
Human resources (Note 18 and 23)	**9,287**	8,661
Equipment	**1,083**	1,010
Occupancy	**1,107**	1,026
Communications	**764**	746
Professional fees	**695**	692
Outsourced item processing	**254**	266
Amortization of other intangibles (Note 11)	**528**	481
Impairment of goodwill and other intangibles (Notes 11 and 12)	**168**	—
Other	**1,274**	1,285
	15,160	14,167
Income before income taxes from continuing operations	**9,690**	8,980
Income taxes (Note 25)	**2,100**	2,010
Net income from continuing operations	**7,590**	6,970
Net loss from discontinued operations (Note 12)	**(51)**	(526)
Net income	**$ 7,539**	$ 6,444
Net income attributable to:		
Shareholders	**$ 7,442**	$ 6,343
Non-controlling interests	**97**	101
	$ 7,539	$ 6,444
Basic earnings per share (in dollars) (Note 26)	**$ 4.98**	$ 4.25
Basic earnings per share from continuing operations (in dollars)	**5.01**	4.62
Basic loss per share from discontinued operations (in dollars)	**(.03)**	(.37)
Diluted earnings per share (in dollars) (Note 26)	**4.93**	4.19
Diluted earnings per share from continuing operations (in dollars)	**4.96**	4.55
Diluted loss per share from discontinued operations (in dollars)	**(.03)**	(.36)
Dividends per common share (in dollars)	**2.28**	2.08

The accompanying notes are an integral part of these Consolidated Financial Statements.

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Consolidated Statements of Comprehensive Income

(Millions of Canadian dollars)	For the year ended October 31 2012	October 31 2011
Net income	**$ 7,539**	$ 6,444
Other comprehensive income (loss), net of taxes (Note 25)		
Net change in unrealized gains (losses) on available-for-sale securities		
Net unrealized gains (losses) on available-for-sale securities	**193**	(30)
Reclassification of net (gains) losses on available-for-sale securities to income	**(33)**	13
	160	(17)
Foreign currency translation adjustments		
Unrealized foreign currency translation gains (losses)	**113**	(625)
Net foreign currency translation gains from hedging activities	**—**	717
Reclassification of losses (gains) on foreign currency translation to income	**11**	(1)
	124	91
Net change in cash flow hedges		
Net gains on derivatives designated as cash flow hedges	**32**	298
Reclassification of losses on derivatives designated as cash flow hedges to income	**25**	132
	57	430
Total other comprehensive income, net of taxes	**341**	504
Total comprehensive income	**$ 7,880**	$ 6,948
Total comprehensive income attributable to:		
Shareholders	**$ 7,782**	$ 6,847
Non-controlling interests	**98**	101
	$ 7,880	$ 6,948

The accompanying notes are an integral part of these Consolidated Financial Statements.

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Consolidated Statements of Changes in Equity

(Millions of Canadian dollars)	Preferred shares	Common shares	Treasury shares – preferred	Treasury shares – common	Retained earnings	Other components of equity: Available-for-sale securities	Other components of equity: Foreign currency translation	Other components of equity: Cash flow hedges	Total Other components of equity	Equity attributable to Shareholders	Non-controlling interests	Total equity
Balance at November 1, 2010	$ 4,813	$ 13,378	$ (2)	$ (81)	$ 17,287	$ 277	$ (20)	$ (271)	$ (14)	$ 35,381	$ 2,094	$ 37,475
Changes in equity												
Issues of share capital	–	632	–	–	–	–	–	–	–	632	–	632
Sales of treasury shares	–	–	97	6,074	–	–	–	–	–	6,171	–	6,171
Purchases of treasury shares	–	–	(95)	(5,985)	–	–	–	–	–	(6,080)	(324)	(6,404)
Share-based compensation awards	–	–	–	–	(33)	–	–	–	–	(33)	–	(33)
Dividends	–	–	–	–	(3,237)	–	–	–	–	(3,237)	(93)	(3,330)
Other	–	–	–	–	21	–	–	–	–	21	(14)	7
Net income	–	–	–	–	6,343	–	–	–	–	6,343	101	6,444
Other components of equity												
Net change in unrealized gains (losses) on available-for-sale securities	–	–	–	–	–	(18)	–	–	(18)	(18)	(2)	(20)
Foreign currency translation adjustments	–	–	–	–	–	–	91	–	91	91	(1)	90
Net change in cash flow hedges	–	–	–	–	–	–	–	431	431	431	–	431
Balance at October 31, 2011	$ 4,813	$ 14,010	$ –	$ 8	$ 20,381	$ 259	$ 71	$ 160	$ 490	$ 39,702	$ 1,761	$ 41,463
Changes in equity												
Issues of share capital	–	313	–	–	–	–	–	–	–	313	–	313
Sales of treasury shares	–	–	98	5,186	–	–	–	–	–	5,284	–	5,284
Purchases of treasury shares	–	–	(97)	(5,164)	–	–	–	–	–	(5,261)	–	(5,261)
Share-based compensation awards	–	–	–	–	(1)	–	–	–	–	(1)	–	(1)
Dividends	–	–	–	–	(3,549)	–	–	–	–	(3,549)	(92)	(3,641)
Other	–	–	–	–	(3)	–	–	–	–	(3)	(6)	(9)
Net income	–	–	–	–	7,442	–	–	–	–	7,442	97	7,539
Other components of equity												
Net change in unrealized gains (losses) on available-for-sale securities	–	–	–	–	–	160	–	–	160	160	1	161
Foreign currency translation adjustments	–	–	–	–	–	–	124	–	124	124	–	124
Net change in cash flow hedges	–	–	–	–	–	–	–	56	56	56	–	56
Balance at October 31, 2012	**$ 4,813**	**$ 14,323**	**$ 1**	**$ 30**	**$ 24,270**	**$ 419**	**$ 195**	**$ 216**	$ 830	**$ 44,267**	**$ 1,761**	**$ 46,028**

The accompanying notes are an integral part of these Consolidated Financial Statements.

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Consolidated Statements of Cash Flows

(Millions of Canadian dollars)	For the year ended October 31 2012	October 31 2011
Cash flows from operating activities		
Net income	**$ 7,539**	$ 6,444
Adjustments for non-cash items and others		
Provision for credit losses	**1,418**	1,459
Depreciation	**437**	412
Deferred income taxes	**123**	(124)
Impairment and amortization of goodwill and other intangibles	**716**	546
Loss on sale of premises and equipment	**25**	106
Gain on securitizations	**(9)**	(15)
Gain on available-for-sale securities	**(194)**	(278)
Writedown of available-for-sale securities	**55**	247
Share of profit in associates	**(23)**	8
Adjustments for net changes in operating assets and liabilities		
Insurance claims and policy benefit liabilities	**802**	(139)
Net change in accrued interest receivable and payable	**(161)**	(115)
Current income taxes	**(826)**	807
Derivative assets	**8,462**	6,373
Derivative liabilities	**(3,884)**	(7,551)
Trading securities	**6,818**	(905)
Proceeds from securitizations	**356**	1,074
Change in loans, net of securitizations	**(29,208)**	(27,285)
Change in assets purchased under reverse repurchase agreements and securities borrowed	**(25,060)**	(12,249)
Change in deposits	**15,850**	29,059
Change in obligations related to assets sold under repurchase agreements and securities loaned	**20,914**	7,166
Change in obligations related to securities sold short	**(3,528)**	(2,313)
Net change in brokers and dealers receivable and payable	**599**	22
Other	**(3,295)**	1,730
Net cash (used in) from operating activities	**(2,074)**	4,479
Cash flows from investing activities		
Change in interest-bearing deposits with banks	**457**	781
Proceeds from sale of available-for-sale securities	**10,915**	14,549
Proceeds from maturity of available-for-sale securities	**47,420**	37,882
Proceeds from maturity of held-to-maturity securities	**190**	1,179
Purchases of available-for-sale securities	**(55,448)**	(45,942)
Purchases of held-to-maturity securities	**(242)**	(935)
Net acquisitions of premises and equipment and other intangibles	**(1,351)**	(1,452)
Proceeds from dispositions	**2,677**	440
Cash used in acquisitions	**(853)**	(1,300)
Net cash from investing activities	**3,765**	5,202
Cash flows from financing activities		
Redemption of RBC Trust Capital Securities	**—**	(750)
Issue of subordinated debentures	**—**	1,500
Repayment of subordinated debentures	**(1,006)**	(404)
Issue of common shares	**126**	152
Sales of treasury shares	**5,284**	6,171
Purchase of treasury shares	**(5,261)**	(6,080)
Dividends paid	**(3,272)**	(3,032)
Dividends/distributions paid to non-controlling interests	**(92)**	(93)
Change in short-term borrowings of subsidiaries	**21**	(615)
Net cash used in financing activities	**(4,200)**	(3,151)
Effect of exchange rate changes on cash resources	**(18)**	76
Net change in cash resources	**(2,527)**	6,606
Cash resources at beginning of year (1)	**15,144**	8,538
Cash resources at end of year (1)	**$ 12,617**	$ 15,144
Cash and due from banks	**$ 12,617**	$ 12,428
Cash and due from banks included in Assets of discontinued operations	**—**	2,716
Cash resources at end of year (1)	**$ 12,617**	$ 15,144
Cash flows from operating activities include:		
Amount of interest paid	**$ 7,872**	$ 9,234
Amount of interest received	**19,674**	20,471
Amount of dividend received	**1,316**	1,350
Amount of income taxes paid	**2,926**	1,512

(1) We are required to maintain balances with central banks and other regulatory authorities. The total balances were $2.1 billion as at October 31, 2012 (October 31, 2011 – $2.0 billion; November 1, 2010 – $1.8 billion).

The accompanying notes are an integral part of these Consolidated Financial Statements.

Note 1 General information

Royal Bank of Canada and its subsidiaries operate under the master brand name RBC. We provide diversified financial services including personal and commercial banking, wealth management, insurance, corporate and investment banking and transaction processing on a global basis. Refer to Note 30 for further details on our business segments.

The parent bank, Royal Bank of Canada, is a Schedule I Bank under the *Bank Act* (Canada) incorporated and domiciled in Canada. Our corporate headquarters are located at Royal Bank Plaza, 200 Bay Street, Toronto, Ontario, Canada and our head office is located at 1 Place Ville-Marie, Montreal, Quebec, Canada. We are listed on the Toronto Stock Exchange and New York Stock Exchange with the ticker symbol RY.

Our Consolidated Financial Statements are prepared in compliance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB). The Consolidated Financial Statements are stated in Canadian dollars and have been prepared in accordance with all IFRS issued and in effect as at October 31, 2012. Tabular information is stated in millions of dollars, except per share amounts and percentages. These Consolidated Financial Statements also comply with Subsection 308 of the *Bank Act* (Canada), which states that, except as otherwise specified by the Office of the Superintendent of Financial Institutions (OSFI), our Consolidated Financial Statements are to be prepared in accordance with IFRS.

These Consolidated Financial Statements are our first annual financial statements prepared in accordance with IFRS. Previously, our Consolidated Financial Statements were prepared under Canadian generally accepted accounting principles (GAAP). IFRS 1, *First-time Adoption of International Reporting Standards* (IFRS 1), has been applied. The accounting policies outlined in Note 2 have been consistently applied to all periods presented, including our consolidated balance sheet as at November 1, 2010 (the Transition date) for the purpose of transition to IFRS as required by IFRS 1. The main differences between our IFRS and Canadian GAAP accounting policies, relevant exceptions and exemptions, and reconciliations on how our transition to IFRS from Canadian GAAP has affected our assets, liabilities, equity, comprehensive income and cash flows are included in Note 3.

On November 28, 2012, the Board of Directors authorized the Consolidated Financial Statements for issue.

Note 2 Summary of significant accounting policies, estimates and judgments

The significant accounting policies used in the preparation of these Consolidated Financial Statements, including the accounting requirements prescribed by OSFI, are summarized below. These accounting policies conform, in all material respects, to IFRS.

General

Use of estimates and assumptions

In preparing our Consolidated Financial Statements, management is required to make subjective estimates and assumptions that affect the reported amount of assets, liabilities, net income and related disclosures. Estimates made by management are based on historical experience and other assumptions that are believed to be reasonable. Key sources of estimation uncertainty include: consolidation of special purpose entities (SPEs), securities impairment, determination of fair value of financial instruments, the allowance for credit losses, derecognition of financial assets, insurance claims and policy benefit liabilities, pensions and other post-employment benefits, income taxes, carrying value of goodwill and other intangible assets, litigation provisions, and deferred revenue under the credit card customer loyalty reward program. Accordingly, actual results may differ from these and other estimates thereby impacting our future Consolidated Financial Statements. Refer to the relevant accounting policies in this Note for details on our use of estimates and assumptions.

Significant judgments

In preparation of these Consolidated Financial Statements, management is required to make significant judgments that affect the carrying amounts of certain assets and liabilities, and the reported amounts of revenues and expenses recorded during the period. Significant judgments have been made in the following areas and discussed as noted in the Consolidated Financial Statements:

Special purpose entities	Note 2 – page 98 Note 8 – page 133
Fair value of financial instruments	Note 2 – page 99 Note 4 – page 115
Allowance for credit losses	Note 2 – page 101 Note 6 – page 129
Employee benefits	Note 2 – page 103 Note 18 – page 154
Goodwill and other intangibles	Note 2 – page 105 Note 11 – page 145 Note 12 – page 147
Securities impairment	Note 2 – page 98 Note 5 – page 125
Application of the effective interest method	Note 2 – page 101
Derecognition of financial assets	Note 2 – page 102 Note 7 – page 132
Income taxes	Note 2 – page 104 Note 25 – page 165
Provisions	Note 2 – page 106 Note 27 – page 167

Basis of consolidation

Our Consolidated Financial Statements include the assets and liabilities and results of operations of the parent company, Royal Bank of Canada, and its subsidiaries including certain SPEs, after elimination of intercompany transactions, balances, revenues and expenses.

Continuing operations

As described in Note 12, during the second quarter in 2011, we completed the sale of Liberty Life Insurance Company (Liberty Life), our U.S. life insurance business. During the third quarter in 2011, we announced the sale of substantially all of our U.S. regional retail banking operations and completed this sale in the second quarter of 2012.

The sale of Liberty Life is reflected as discontinued operations on our Consolidated Balance Sheets and Consolidated Statements of Income for all periods presented. The sale of our U.S. regional retail banking operations and other assets are reflected as discontinued operations on our Consolidated Balance Sheets as at October 31, 2012 and October 31, 2011 and in our Consolidated Statements of Income for all periods presented.

Note 2 Summary of significant accounting policies, estimates and judgments (continued)

Non-current assets held for sale and discontinued operations
Non-current assets (and disposal groups) are classified as held for sale if their carrying amounts will be recovered principally through a sale transaction rather than through continuing use. This condition is satisfied when the asset is available for immediate sale in its present condition, management is committed to the sale, and it is highly probable to occur within one year. Non-current assets (and disposal groups) classified as held for sale are measured at the lower of their previous carrying amount and fair value less costs to sell and are presented separately from other assets on our Consolidated Balance Sheets.

A disposal group is classified as a discontinued operation if it meets the following conditions: (i) it is a component that can be distinguished operationally and financially from the rest of our operations, and (ii) it represents either a separate major line of business or is part of a single co-ordinated plan to dispose of a separate major line of business or geographical area of operations. Disposal groups classified as discontinued operations are presented separately from our continuing operations in our Consolidated Statements of Income.

Subsidiaries and SPEs
Subsidiaries are those entities over which we have control, where control is defined as the power to govern the financial and operating policies so as to obtain benefits from the entity's activities. We consolidate our subsidiaries from the date control is transferred to us, and cease consolidation when they are no longer controlled by us.

SPEs are entities created to accomplish a narrow and well-defined objective with limited decision-making powers and pre-established or limited activities. These include SPEs that are sponsored for various reasons, including those which were formed to allow clients to invest in alternative assets, for asset securitization transactions, and for buying and selling credit protection.

We consolidate SPEs when an assessment of the relevant factors indicates that we control the SPE. In some circumstances, different factors and conditions may indicate that various parties may control an SPE depending on whether the factors and conditions are assessed in isolation or in totality. Significant judgment is applied by management in assessing these factors and any related conditions in totality when determining whether we control a SPE. Relevant factors include: (i) whether the activities of the SPE are conducted according to our specific business needs so that we obtain the benefits from the SPE's operations, (ii) whether we have the decision-making powers to obtain the majority of the benefits, (iii) whether we will obtain the majority of the benefits of the activities of the SPE, and (iv) whether we retain the majority of the residual ownership risks related to the assets or SPE in order to obtain the benefits from its activities. Our approach generally focuses on identifying the significant activities that impact the financial results of the SPE. We then determine, in light of all relevant facts and circumstances, which party has substantive rights to control the decision making authority over those activities and who is exposed to the majority of risks and rewards resulting from those decisions. Our consolidation conclusions affect the classification and amount of assets, liabilities, revenue and expenses reported in our Consolidated Financial Statements.

Non-controlling interests in subsidiaries and SPEs that we consolidate are shown on our Consolidated Balance Sheets as a separate component of equity which is distinct from our shareholders' equity. The net income attributable to non-controlling interests is separately disclosed in our Consolidated Statements of Income.

Investments in associates
The equity method is used to account for investments in associated corporations and limited partnerships over which we have significant influence. Under the equity method of accounting, investments are initially recorded at cost, and the carrying amount is increased or decreased to recognize our share of the investee's net profit or loss (including net profit or loss recognized directly in equity) subsequent to the date of acquisition.

Interests in joint ventures
The proportionate consolidation method is used to account for our interests in jointly controlled entities, whereby our pro rata share of assets, liabilities, income and expenses is consolidated.

Financial instruments – Recognition and measurement
Securities
Securities are classified at inception, based on management's intention, as at fair value through profit or loss (FVTPL), available-for-sale (AFS) or held-to-maturity. Certain debt securities with fixed or determinable payments and which are not quoted in an active market may be classified as loans and receivables.

Trading securities include securities purchased for sale in the near term which are classified as at FVTPL by nature and securities designated as at FVTPL under the fair value option. Obligations to deliver trading securities sold but not yet purchased are recorded as liabilities and carried at fair value. Realized and unrealized gains and losses on these securities are recorded as Trading revenue in Non-interest income. Dividends and interest income accruing on Trading securities are recorded in Interest income. Interest and dividends accrued on interest-bearing and equity securities sold short are recorded in Interest expense.

AFS securities include: (i) securities which may be sold to meet liquidity needs, in response to or in anticipation of changes in interest rates and resulting prepayment risk, changes in foreign currency risk, changes in funding sources or terms, and (ii) loan substitute securities which are client financings that have been structured as after-tax investments rather than conventional loans in order to provide the clients with a borrowing rate advantage. AFS securities are measured at fair value. Unrealized gains and losses arising from changes in fair value are included in Other components of equity. Changes in foreign exchange rates for AFS equity securities are recognized in Other components of equity, while changes in foreign exchange rates for AFS debt securities are recognized in Foreign exchange revenue, other than trading in Non-interest income. When the security is sold, the cumulative gain or loss recorded in Other components of equity is included as Net gain (loss) on AFS securities in Non-interest income. Purchase premiums or discounts on AFS debt securities are amortized over the life of the security using the effective interest method and are recognized in Net interest income.

At each reporting date, and more frequently when conditions warrant, we evaluate our AFS securities to determine whether there is any objective evidence of impairment. Such evidence includes: for debt instruments, when an adverse effect on future cash flows from the asset or group of assets can be reliably estimated; for equity securities, when there is a significant or prolonged decline in the fair value of the investment below its cost.

When assessing impairment for debt instruments we primarily consider counterparty ratings and security-specific factors, including subordination, external ratings, and the value of any collateral held, for which there may not be a readily accessible market. Significant judgment is required in assessing impairment as management is required to consider all available evidence in determining whether objective evidence of impairment exists and whether the principal and interest on the AFS debt security can be fully recovered. For complex debt instruments we use

cash flow projection models which incorporate actual and projected cash flows for each security based on security specific factors using a number of assumptions and inputs that involve management judgment, such as default, prepayment and recovery rates. Due to the subjective nature of choosing these inputs and assumptions, the actual amount of the future cash flows and their timing may differ from the estimates used by management and consequently may cause a different conclusion as to the recognition of impairment or measurement of impairment loss.

In assessing whether there is any objective evidence that suggests that equity securities are impaired, we consider factors which include the length of time and extent the fair value has been below cost, along with management's assessment of the financial condition, business and other risks of the issuer. Management weighs all these factors to determine the impairment but to the extent that management judgment may differ from the actual experience of the timing and amount of the recovery of the fair value, the estimate for impairment could change from period to period based upon future events that may or may not occur, the conclusion for the impairment of the equity securities may differ.

If an AFS security is impaired, the cumulative unrealized loss previously recognized in Other components of equity is removed from equity and recognized in Net gain (loss) on AFS securities under Non-interest income. This amount is determined as the difference between the cost/amortized cost and current fair value of the security less any impairment loss previously recognized. Subsequent to impairment, further declines in fair value are recorded in Non-interest income, while increases in fair value are recognized in Other components of equity until sold. For AFS debt securities, reversal of previously recognized impairment losses is recognized in our Consolidated Statements of Income if the recovery is objectively related to a specific event occurring after recognition of the impairment loss.

Held-to-maturity securities are debt securities where we have the intention and the ability to hold the investment until its maturity date. These securities are initially recorded at fair value and are subsequently measured at amortized cost using the effective interest method, less any impairment losses which we assess using the same impairment model as for loans. Interest income and amortization of premiums and discounts on debt securities are recorded in Net interest income. We hold a nominal amount of held-to-maturity securities. All held-to-maturity securities have been included with AFS securities on our Consolidated Balance Sheets.

We account for all of our securities using settlement date accounting and changes in fair value between the trade date and settlement date are reflected in income for securities classified or designated as at FVTPL, and changes in the fair value of AFS securities between the trade and settlement dates are recorded in Other comprehensive income (OCI) except for changes in foreign exchange rates on debt securities, which are recorded in Non-interest income.

Fair value option

A financial instrument can be designated as at FVTPL (the fair value option) on its initial recognition even if the financial instrument was not acquired or incurred principally for the purpose of selling or repurchasing it in the near term. An instrument that is designated as at FVTPL by way of this fair value option must have a reliably measurable fair value and satisfy one of the following criteria: (i) it eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise from measuring assets or liabilities, or recognizing gains and losses on them on a different basis; (ii) it belongs to a group of financial assets or financial liabilities or both that are managed, evaluated, and reported to senior management on a fair value basis in accordance with our risk management strategy, and we can demonstrate that significant financial risks are eliminated or significantly reduced or (iii) there is an embedded derivative in the financial or non-financial host contract and the derivative is not closely related to the host contract.

Financial instruments designated as at FVTPL are recorded at fair value and any unrealized gain or loss arising due to changes in fair value is included in Trading revenue or Other. These instruments cannot be reclassified out of the FVTPL category while they are held or issued.

To determine the fair value adjustments on our debt designated as at FVTPL, we calculate the present value of the instruments based on the contractual cash flows over the term of the arrangement by using our effective funding rate at the beginning and end of the period with the change in present value recorded in Trading revenue or Other.

Determination of fair value

The fair value of a financial instrument is the amount at which the financial instrument could be exchanged in an arm's-length transaction between knowledgeable and willing parties under no compulsion to act. Fair values of identical instruments traded in active markets are determined by reference to last quoted prices in the most advantageous active market for that instrument. In the absence of an active market, we determine fair values based on quoted prices for instruments with similar characteristics and risk profiles.

Fair values of financial instruments not traded in active markets are determined using valuation models that require the use of inputs, transaction values derived from models, and input assumptions sourced from pricing services. Valuation model inputs are either observable or unobservable. We look to external, readily observable market inputs, when available. Observable inputs to valuation models for financial instruments include certain prices and rates for shorter dated G7 (Canada, U.S., U.K., Italy, France, Germany and Japan) and non-G7 interest-rate-yield curves, currency rates and price and rate volatilities. Unobservable inputs include certain prices and rates for longer dated G7 and non-G7 interest-rate-yield curves, prepayment rates, credit spreads, probability of defaults, recovery rates, equity volatility and correlations of probability of defaults or baskets of common stock. For certain securities that are not quoted in an active market, we may record valuation adjustments for liquidity when we believe that the amount realized on sale may be less than the estimated fair value due to insufficient liquidity in the market over a reasonable amount of time.

All of our derivative transactions are accounted for on a fair value basis. Fair values of exchange-traded derivatives are based on last exchange prices. Over-the-counter derivatives are valued using either industry standard or internally developed valuation models. Where we determine that there is a difference between the transaction price and its fair value on the trade date, the unrealized gain or loss is deferred and recognized only when the unobservable market inputs become observable, or the financial instrument is derecognized.

We also make valuation adjustments for the credit risk of our derivative portfolios in order to arrive at their fair values. These (credit valuation) adjustments take into account the creditworthiness of our counterparties as well as our own, the current and potential future mark-to-market of the transactions, and the effects of credit mitigants such as master netting agreements and collateral agreements. Calculations are derived from estimates of exposure at default, probability of default, recovery rates on a counterparty basis, and market and credit factor correlations. Exposure at default is the amounts of expected derivative related assets and liabilities at the time of default, estimated through modeling using underlying risk factors. Probability of default and recovery rate are generally implied from the market prices for credit protection and credit ratings of the counterparty. Correlation is the measure of how credit and market factors may move relative to one another. Factors can move in the same general direction, opposite general direction or independently. Correlation is estimated using historical data and market data where available. Credit valuation adjustments are frequently updated due to the changes in derivative values and counterparty credit risk. Changes to credit valuation adjustments are recorded in current-period income.

For financial liabilities, including deposits designated as at FVTPL, fair values are based on present value of the instruments' contractual cash flows discounted at the appropriate market interest rates. Appropriate market interest rates comprise observable benchmark interest rates and credit spreads which are either observable or unobservable.

Note 2 Summary of significant accounting policies, estimates and judgments (continued)

For instruments not traded in an active market, fair value is determined, when possible, using a valuation technique that maximizes the use of observable market inputs. For more complex or illiquid instruments, significant judgment is required in the determination of the model used, the selection of model inputs, and in some cases the application of valuation adjustments to the model value or quoted price for inactively traded financial instrument to arrive at the fair value, as the selection may be subjective and the inputs may be unobservable. Unobservable inputs are inherently uncertain as there is little or no market data available from which to determine the level at which an arm's length transaction would occur under normal business circumstances. When the valuation technique and inputs selected do not fully reflect our expectation as to the amount that could be received in a market transaction, valuation adjustments are made to incorporate model and parameter risk, liquidity risk and credit risk in the fair value calculation. These adjustments may be subjective as they require significant judgment in the input selection, such as probability of default and recovery rate, but are intended to arrive at fair value that is determined based on the assumptions that market participants would use in pricing the financial instrument. The realized price for a transaction previously valued using management judgment may be different than its recorded value, and will therefore impact unrealized gains and losses recognized in Non-interest income.

We have documented our internal policies that detail our processes for determining fair value, including the methodologies used in establishing our valuation adjustments. These methodologies are consistently applied and periodically reviewed by Finance and Group Risk Management.

A breakdown of fair values of financial instruments measured on the basis of quoted market prices in active markets (Level 1), valuation techniques reflecting market observable inputs (Level 2), and valuation techniques reflecting significant non-market-observable inputs (Level 3) is provided in Note 4. A discussion of the aspects of valuation that require the most significant judgments, including changes in our fair value hierarchy, developing our reasonably possible alternative assumptions, and unrealized gains and losses on AFS securities is included in Note 4 and Note 5.

Transaction costs

Transaction costs are expensed as incurred for financial instruments classified or designated as at FVTPL. For other financial instruments, transaction costs are capitalized on initial recognition. For financial assets and financial liabilities measured at amortized cost, capitalized transaction costs are amortized through Net income over the estimated life of the instrument using the effective interest method. For AFS financial assets measured at fair value that do not have fixed or determinable payments and no fixed maturity, capitalized transaction costs are recognized in Net income when the asset is derecognized or becomes impaired.

Assets purchased under reverse repurchase agreements and sold under repurchase agreements

We purchase securities under agreements to resell (reverse repurchase agreement) and take possession of these securities. Reverse repurchase agreements are treated as collateralized lending transactions whereby we monitor the market value of the securities purchased and additional collateral is obtained when appropriate. We have the right to liquidate the collateral held in the event of counterparty default. We also sell securities under agreements to repurchase (repurchase agreements), which are treated as collateralized borrowing transactions. The securities received under reverse repurchase agreements and securities delivered under repurchase agreements are not recognized on, or derecognized from, our Consolidated Balance Sheets, respectively, unless the risks and rewards of ownership are obtained or relinquished.

Reverse repurchase agreements and repurchase agreements are carried on our Consolidated Balance Sheets at the amounts at which the securities were initially acquired or sold, except when they are designated as at FVTPL and are recorded at fair value. Interest earned on reverse repurchase agreements is included in Interest income, and interest incurred on repurchase agreements is included in Interest expense in our Consolidated Statements of Income. Changes in fair value for reverse repurchase agreements and repurchase agreements designated as at FVTPL are included in Trading revenue or Other in Non-interest income.

Acceptances

Acceptances are short-term negotiable instruments issued by our clients to third parties which we guarantee. The potential liability under acceptances is reported in Other – Acceptances on our Consolidated Balance Sheets. The recourse against our clients in the case of a call on these commitments is reported as a corresponding asset of the same amount in Other – Customers' liability under acceptances. Fees earned are reported in Non-interest income.

Derivatives

Derivatives are primarily used in sales and trading activities. Derivatives are also used to manage our exposure to interest, currency, credit and other market risks. The most frequently used derivative products are interest rate swaps, interest rate futures, forward rate agreements, interest rate options, foreign exchange forward contracts, currency swaps, foreign currency futures, foreign currency options, equity swaps and credit derivatives. All derivative instruments are recorded on our Consolidated Balance Sheets at fair value, including those derivatives that are embedded in financial or non-financial contracts and are not closely related to the host contracts.

When derivatives are embedded in other financial instruments or host contracts, such combinations are known as hybrid instruments with the effect that some of the cash flows of a hybrid instrument vary in a way similar to a stand-alone derivative. If the host contract is not carried at fair value with changes in fair value reported in our Consolidated Statements of Income, the embedded derivative is generally required to be separated from the host contract and accounted for separately as at FVTPL if the economic characteristics and risks of the embedded derivative are not closely related to those of the host contract. All embedded derivatives are presented on a combined basis with the host contracts although they are separated for measurement purposes when conditions requiring separation are met.

When derivatives are used in sales and trading activities, the realized and unrealized gains and losses on these derivatives are recognized in Trading revenue in Non-interest income. Derivatives with a positive fair value are reported as Derivative assets and derivatives with a negative fair value are reported as Derivative liabilities. In accordance with our policy for offsetting financial assets and financial liabilities, as outlined below, the net fair value of certain derivative assets and liabilities are reported as an asset or liability, as appropriate. Market and credit valuation adjustments, and premiums paid are also included in Derivative assets, while premiums received are shown in Derivative liabilities.

When derivatives are used to manage our own exposures, we determine for each derivative whether hedge accounting can be applied, as discussed in the Hedge accounting section below.

Hedge accounting

We use derivatives and non-derivatives in our hedging strategies to manage our exposure to interest rate, currency, credit and other market risks. Where hedge accounting can be applied, a hedge relationship is designated and documented at inception to detail the particular risk management objective and the strategy for undertaking the hedge transaction. The documentation identifies the specific asset, liability or

anticipated cash flows being hedged, the risk that is being hedged, the type of hedging instrument used and how effectiveness will be assessed. We assess, both at the inception of the hedge and on an ongoing basis, whether the hedging instruments have been 'highly effective' in offsetting changes in the fair value or cash flows of the hedged items. A hedge is regarded as highly effective only if the following criteria are met: (i) at inception of the hedge and throughout its life, the hedge is expected to be highly effective in achieving offsetting changes in fair value or cash flows attributable to the hedged risk, and (ii) actual results of the hedge are within a pre-determined range. In the case of hedging a forecast transaction, the transaction must have a high probability of occurring and must present an exposure to variations in cash flows that could ultimately affect the reported net profit or loss. Hedge accounting is discontinued when it is determined that the hedging instrument is no longer effective as a hedge, the hedging instrument is terminated or sold, upon the sale or early termination of the hedged item, or when the forecast transaction is no longer deemed highly probable. Refer to Note 9 for the fair value of derivatives and non-derivative instruments categorized by their hedging relationships, as well as derivatives that are not designated in hedging relationships.

Fair value hedges
In a fair value hedging relationship, the carrying value of the hedged item is adjusted for changes in fair value attributable to the hedged risk and recognized in Non-interest income. Changes in fair value of the hedged item, to the extent that the hedging relationship is effective, are offset by changes in the fair value of the hedging derivative, which are also recognized in Non-interest income. When hedge accounting is discontinued, the carrying value of the hedged item is no longer adjusted and the cumulative fair value adjustments to the carrying value of the hedged items are amortized to Net income over the remaining life of the hedged items.

We predominantly use interest rate swaps to hedge our exposure to the changes in a fixed interest rate instrument's fair value caused by changes in interest rates.

Cash flow hedges
In a cash flow hedging relationship, the effective portion of the change in the fair value of the hedging derivative, net of taxes, is recognized in OCI while the ineffective portion is recognized in Non-interest income. When hedge accounting is discontinued, the cumulative amounts previously recognized in Other components of equity are reclassified to Net interest income during the periods when the variability in the cash flows of the hedged item affects Net interest income. Unrealized gains and losses on derivatives are reclassified immediately to Net income when the hedged item is sold or terminated early, or when the forecast transaction is no longer expected to occur.

We predominantly use interest rate swaps to hedge the variability in cash flows related to a variable-rate asset or liability.

Net investment hedges
In hedging a foreign currency exposure of a net investment in a foreign operation, the effective portion of foreign exchange gains and losses on the hedging instruments, net of applicable taxes, is recognized in OCI and the ineffective portion is recognized in Non–interest income. The amounts, or a portion thereof, previously recognized in Other components of equity are recognized in Net income on the disposal, or partial disposal, of the foreign operation.

We use foreign exchange contracts and foreign currency-denominated liabilities to manage our foreign currency exposures to net investments in foreign operations having a functional currency other than the Canadian dollar.

Loans
Loans are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market and which are not classified as AFS. Loans are initially recognized at fair value. When loans are issued at a market rate, fair value is represented by the cash advanced to the borrowers plus direct and incremental costs. Loans are subsequently measured at amortized cost using the effective interest method less impairment, unless we intend to sell them in the near future upon origination or they have been designated as at FVTPL, in which case they are carried at fair value.

We assess at each balance sheet date whether there is objective evidence that the loans are impaired. Evidence of impairment may include indications that the borrower is experiencing significant financial difficulty, probability of bankruptcy or other financial reorganization, as well as a measurable decrease in the estimated future cash flows evidenced by the adverse changes in the payments status of the borrower or economic conditions that correlate with defaults. Whenever a payment is 90 days past due, loans other than credit card balances and loans guaranteed or insured by a Canadian government (Federal or Provincial) or a Canadian government agency (collectively, Canadian government) are classified as impaired unless they are fully secured and collection efforts are reasonably expected to result in repayment of debt within 180 days of the loans becoming past due. Credit card balances are written off when a payment is 180 days in arrears. Loans guaranteed by a Canadian government are classified as impaired when the loan is contractually 365 days in arrears.

Assets acquired to satisfy loan commitments are recorded at their fair value less costs to sell. Fair value is determined based on either current market value where available or discounted cash flows. Any excess of the carrying value of the loan over the recorded fair value of the assets acquired is recognized by a charge to Impairment losses on loans and other off-balance sheet items.

Interest on loans is included in Interest income – Loans and is recognized on an accrual basis. Fees that relate to activities such as originating, restructuring or renegotiating loans are deferred and recognized as Interest income over the expected term of such loans using the effective interest method. Where there is a reasonable expectation that a loan will result, commitment and standby fees are also recognized as interest income over the expected term of the resulting loans using the effective interest method. Otherwise, such fees are recorded as other liabilities and amortized into Non-interest income over the commitment or standby period. Significant judgment is applied in estimating the effective interest rate due to uncertainty in the timing and amount of future cash flows with respect to prepayment interest. This revenue is generated when a client prepays their existing mortgage by paying an interest amount equal to the greater of three-month interest or interest rate differential (contractual versus market rates) for the remainder of the term. This amount is unknown when the mortgage is originated and has to be estimated using variables such as prepayment behavior, outstanding mortgage balances and prevailing mortgage interest rates at the time of prepayment. Management determined that the prepayment interest expected to be collected over the term of the mortgages cannot be reliably estimated at the origination date. Therefore, instead of estimating prepayment interest upon origination of a mortgage, we defer and amortize the actual receipt of prepayment interest as Interest income upon renewal of a mortgage over the expected term of such loan using the effective interest method. If the mortgage is not renewed, the prepayment interest is recognized immediately in Interest income at the prepayment date.

Allowance for credit losses
An allowance for credit losses is established if there is objective evidence that we will be unable to collect all amounts due on our loans portfolio according to the original contractual terms or the equivalent value. This portfolio includes on-balance sheet exposures, such as loans and acceptances, and off-balance sheet items such as letters of credit, guarantees and unfunded commitments.

The allowance is increased by the impairment losses recognized and decreased by the amount of write-offs, net of recoveries. The allowance for credit losses for on-balance sheet items is included as a reduction to assets, and the allowance relating to off-balance sheet items is included in Provisions under Other Liabilities.

Note 2 Summary of significant accounting policies, estimates and judgments (continued)

We assess whether objective evidence of impairment exists individually for loans that are individually significant and collectively for loans that are not individually significant. If we determine that no objective evidence of impairment exists for an individually assessed loan, whether significant or not, the loan is included in a group of loans with similar credit risk characteristics and collectively assessed for impairment. Loans that are individually assessed for impairment and for which an impairment loss is recognized are not included in a collective assessment of impairment.

Allowance for credit losses represent management's best estimates of losses incurred in our loan portfolio at the balance sheet date. Management's judgment is required in making assumptions and estimations when calculating loan impairment allowances on both individually and collectively assessed loans. Any changes in the underlying assumptions and estimates used for both individually and collectively assessed loans can change from period to period and significantly affect our results of operations.

Individually assessed loans

Loans which are individually significant are assessed individually for objective indicators of impairment. A loan is considered impaired when management determines that it will not be able to collect all amounts due according to the original contractual terms or the equivalent value.

Credit exposures of individually significant loans are evaluated based on factors including the borrower's overall financial condition, resources and payment record, and where applicable, the realizable value of any collateral. If there is evidence of impairment leading to an impairment loss, then the amount of the loss is determined as the difference between the carrying amount of the loan, including accrued interest, and the estimated recoverable amount. The estimated recoverable amount is measured as the present value of expected future cash flows discounted at the loan's original effective interest rate, including cash flows that may result from the realization of collateral less costs to sell. Individually-assessed impairment losses reduce the carrying amount of the loan through the use of an allowance account and the amount of the loss is recognized in Provision for credit losses in our Consolidated Statements of Income. Following impairment, interest income is recognized on the unwinding of the discount from the initial recognition of impairment.

Significant judgment is required in assessing evidence of impairment and estimation of the amount and timing of future cash flows when determining the impairment loss. When assessing objective evidence of impairment we primarily consider specific factors such as the financial condition of the borrower, borrower's default or delinquency in interest or principal payments, local economic conditions and other observable data. In determining the estimated recoverable amount we consider discounted expected future cash flows at the effective interest rate inherent in the loan using a number of assumptions and inputs. Management judgment is involved when choosing these inputs and assumptions used such as the expected amount of the loan that will not be recovered and the cost of time delays in collecting principal and/or interest, and when estimating the value of any collateral held for which there may not be a readily accessible market. Changes in the amount expected to be recovered would have a direct impact on the Provision for credit losses and may result in a change in the Allowance for credit losses.

Collectively assessed loans

Loans which are not individually significant, or which are individually assessed and not determined to be impaired, are collectively assessed for impairment. For the purposes of a collective evaluation of impairment, loans are grouped on the basis of similar risk characteristics, taking into account loan type, industry, geographic location, collateral type, past due status and other relevant factors.

The collective impairment allowance is determined by reviewing factors including: (i) historical loss experience in portfolios of similar credit risk characteristics, and (ii) management's judgment on the level of impairment losses based on historical experience relative to the actual level as reported at the balance sheet date, taking into consideration the current portfolio credit quality trends, business and economic and credit conditions, the impact of policy and process changes, and other supporting factors. Future cash flows for a group of loans are collectively evaluated for impairment on the basis of the contractual cash flows of the assets in the group and historical loss experience for assets with credit risk characteristics similar to those in the group. Historical loss experience is adjusted based on current observable data to reflect the effects of current conditions that did not affect the period on which the historical loss experience is based and to remove the effects of conditions in the historical period that do not currently exist. The methodology and assumptions used for estimating future cash flows are reviewed regularly to reduce any differences between loss estimates and actual loss experience. Collectively-assessed impairment losses reduce the carrying amount of the aggregated loan position through an allowance account and the amount of the loss is recognized in Provision for credit losses. Following impairment, interest income is recognized on the unwinding of the discount from the initial recognition of impairment.

The methodology and assumptions used to calculate collective impairment allowances are subject to uncertainty, in part because it is not practicable to identify losses on an individual loan basis due to the large number of individually insignificant loans in the portfolio. Significant judgment is required in assessing historical loss experience, the loss identification period and its relationship to current portfolios including delinquency and loan balances; and current business, economic and credit conditions including industry specific performance, unemployment and country risks. Changes in these assumptions would have a direct impact on the Provision for credit losses and may result in changes in the related Allowance for credit losses.

Write–off of loans

Loans and the related impairment allowance accounts are written off, either partially or in full, when there is no realistic prospect of recovery. Where loans are secured, they are generally written off after receipt of any proceeds from the realization of the collateral. In circumstances where the net realizable value of any collateral has been determined and there is no reasonable expectation of further recovery, write off may be earlier. For credit cards, the balances and related allowances are written off when payment is 180 days in arrears. Personal loans are generally written off at 150 days past due.

Derecognition of financial assets

Our various securitization activities generally consist of the transfer of financial assets such as loans or packaged mortgage-backed securities (MBS) to independent SPEs or trusts that issue securities to investors.

Financial assets are derecognized from our Consolidated Balance Sheets when our contractual rights to the cash flows from the assets have expired, when we retain the rights to receive the cash flows of the assets but assume an obligation to pay those cash flows to a third party subject to certain pass-through requirements or when we transfer our contractual rights to receive the cash flows and substantially all of the risk and rewards of the assets have been transferred. When we retain substantially all of the risks and rewards of the transferred assets, the transferred assets are not derecognized from our Consolidated Balance Sheets and are accounted for as secured financing transactions. When we neither retain nor transfer substantially all risks and rewards of ownership of the assets, we derecognize the assets if control over the assets is relinquished. If we retain control over the transferred assets, we continue to recognize the transferred assets to the extent of our continuing involvement.

Management's judgment is applied in determining whether the contractual rights to the cash flows from the transferred assets have expired or whether we retain the rights to receive cash flows on the assets but assume an obligation to pay those cash flows. We derecognize transferred financial assets if we transfer substantially all the risk and rewards of ownerships assets. When assessing whether we have transferred substantially all of the risk and rewards of the transferred assets, management considers the entity exposure before and after the transfer with the variability in the amount and timing of the net cash flows of the transferred assets. In transfers that we retain the servicing rights, management has applied judgment in assessing the benefits of servicing against market expectations. When the benefits of servicing are greater than fair market value, a servicing asset is recognized in Other assets in our Consolidated Balance Sheets. When the benefits of servicing are less than fair market value, a servicing liability is recognized in Other liabilities in our Consolidated Balance Sheets.

Derecognition of financial liabilities
We derecognize a financial liability from our Consolidated Balance Sheets when our obligation specified in the contract expires, or is discharged or cancelled. We recognize the difference between the carrying amount of a financial liability transferred and the consideration paid in our Consolidated Statements of Income.

Guarantees
Financial guarantee contracts are contracts that contingently require us to make specified payments (in cash, other assets, our own shares or provision of services) to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the original or modified terms of a debt instrument. Liabilities are recognized on our Consolidated Balance Sheets at the inception of a guarantee for the fair value of the obligation undertaken in issuing the guarantee. Financial guarantees are subsequently remeasured at the higher of (i) the amount initially recognized and (ii) our best estimate of the present value of the expenditure required to settle the present obligation at the end of the reporting period.

If the financial guarantee meets the definition of a derivative, it is measured at fair value at each balance sheet date and reported under Derivatives on our Consolidated Balance Sheets.

Offsetting financial assets and financial liabilities
Financial assets and financial liabilities are presented net when we have a legally enforceable right to set off the recognized amounts and intend to either settle on a net basis or to realize the asset and settle the liability simultaneously.

Insurance and segregated funds
Premiums from long-duration contracts, primarily life insurance, are recognized when due in Non-interest income – Insurance premiums, investment and fee income. Premiums from short-duration contracts, primarily property and casualty, and fees for administrative services are recognized in Insurance premiums, investment and fee income over the related contract period. Unearned premiums of the short-duration contracts, representing the unexpired portion of premiums, are reported in Other liabilities. Investments made by our insurance operations are classified as AFS or loans and receivables, except for investments supporting the policy benefit liabilities on life and health insurance contracts and a portion of property and casualty contracts. These are designated as at FVTPL with changes in fair value reported in Insurance premiums, investment and fee income.

Insurance claims and policy benefit liabilities represent current claims and estimates for future insurance policy benefits. Liabilities for life insurance contracts are determined using the Canadian Asset Liability Method (CALM), which incorporates assumptions for mortality, morbidity, policy lapses and surrenders, investment yields, policy dividends, operating and policy maintenance expenses, and provisions for adverse deviation. These assumptions are reviewed at least annually and updated in response to actual experience and market conditions. Liabilities for property and casualty insurance represent estimated provisions for reported and unreported claims. Liabilities for life and property and casualty insurance are included in Insurance claims and policy benefit liabilities. Changes in Insurance claims and policy benefit liabilities are included in the Insurance policyholder benefits, claims and acquisition expense in our Consolidated Statements of Income in the period in which the estimates change.

Premiums ceded for reinsurance and reinsurance recoveries on policyholder benefits and claims incurred are reported in income and expense as appropriate. Reinsurance recoverables, which relate to paid benefits and unpaid claims, are included in Other assets.

Acquisition costs for new insurance business consist of commissions, premium taxes, certain underwriting costs and other costs that vary with the acquisition of new business. Deferred acquisition costs for life insurance products are implicitly recognized in insurance claims and policy benefit liabilities by CALM. For property and casualty insurance, these costs are classified as Other assets and amortized over the policy term.

Segregated funds are lines of business in which we issue an insurance contract where the benefit amount is directly linked to the market value of the investments held in the underlying fund. The contractual arrangement is such that the underlying segregated fund assets are registered in our name but the segregated fund policyholders bear the risks and rewards of the funds' investment performance. Liabilities for these contracts are calculated based on contractual obligations using actuarial assumptions and are at least equivalent to the surrender or transfer value calculated by reference to the value of the relevant underlying funds or indices. Segregated funds' assets and liabilities are separately presented on our Consolidated Balance Sheets. Fee income from segregated funds includes management fees, mortality, policy, administration and surrender charges. We provide minimum death benefit and maturity value guarantees on segregated funds. The liability associated with these minimum guarantees is recorded in Insurance claims and policy benefit liabilities.

Liability adequacy tests are performed for all insurance contract portfolios at each balance sheet date to ensure the adequacy of insurance contract liabilities. Current best estimates of future contractual cash flows, claims handling and administration costs, and investment returns from the assets backing the liabilities are taken into account in the tests. When the test results indicate that there is a deficiency in liabilities, the deficiency is charged immediately to our Consolidated Statements of Income by writing down the deferred acquisition costs in Other assets and/or increasing Insurance claims and policy benefit liabilities.

Employee benefits – Pensions and other post-employment benefits
We offer a number of benefit programs which provide pension and other benefits to eligible employees. These plans include registered defined benefit pension plans, supplemental pension plans, defined contribution plans, health, dental, disability and life insurance plans.

Investments held by the pension funds primarily comprise equity and fixed income securities and are valued at fair value. Defined benefit pension costs and the present value of accrued pension and other post-employment benefit obligations are calculated by the plans' actuaries using the Projected Unit Credit Method. Our defined benefit pension expense, which is included in Non-interest expense – Human resources, consists of the cost of employee pension benefits for the current year's service, interest cost on the liability, and expected return on plan assets. Actuarial gains and losses are recognized in profit or loss using the deferral (corridor) approach. Past service costs are charged immediately to income to the extent that the benefits have vested, and are otherwise recognized on a straight-line basis over the average period until the benefits vest. Gains and losses on curtailment or settlement of defined benefit plans are recognized in income when the curtailment or settlement occurs.

Note 2 Summary of significant accounting policies, estimates and judgments (continued)

For each defined benefit plan, we recognize the present value of our defined benefit obligations less the fair value of the plan, together with adjustments for any unrecognized actuarial gains and losses and unrecognized past service costs, as a defined benefit liability reported in Accrued pension and other post-employment benefits on our Consolidated Balance Sheets. For plans where there is a net defined benefit asset, the amount is reported as an asset in Prepaid pension benefit cost. The measurement of the asset is limited to the lower of (i) the defined benefit asset and (ii) the sum of actuarial losses and past service costs not yet recognized, and the present value of any refunds from the plan or reductions in the future contributions to the plan.

The calculation of defined benefit expenses and obligations requires significant judgment as the recognition is dependent on discount rates, expected rates of return on assets, and various actuarial assumptions such as healthcare cost trend rates, projected salary increases, retirement age, and mortality and termination rates. Due to the long-term nature of these plans, such estimates and assumptions are subject to inherent risks and uncertainties. For our pension and other post-employment plans, the discount rate is determined by reference to market yields on high quality corporate bonds. Since the discount rate is based on currently available yields, and involves management's assessment of market liquidity, it is only a proxy for future yields. Management judgment is also required in estimating the expected rate of return on assets, because of possible changes to our asset allocation and the inherent risks in predicting future investment returns. The expected rate of return on assets is a weighted average of expected long-term asset return by asset class and is selected from a range of possible future asset returns. Actuarial assumptions, set in accordance with current practices in the respective countries of our plans, may differ from actual experience as country specific statistics is only an estimate for future employee behaviour. These assumptions are determined by management and are reviewed by actuaries at least annually. Changes to any of the above assumptions may affect the amounts of benefits obligations and expenses that we recognize.

Our contributions to defined contribution plans are expensed when employees have rendered services in exchange for such contributions, generally in the year of contribution. Defined contribution plan expense is included in Non-interest expense – Human resources.

Share-based compensation

We offer share-based compensation plans to certain key employees and to our non-employee directors.

To account for stock options granted to employees, compensation expense is recognized over the applicable vesting period with a corresponding increase in equity. Fair value is determined by using option valuation models, which take into account the exercise price of the option, the current share price, the risk free interest rate, the expected volatility of the share price over the life of the option and other relevant factors. When the options are exercised, the exercise price proceeds together with the amount initially recorded in equity are credited to common shares. Our other compensation plans include performance deferred share plans and deferred share unit plans for key employees (the Plans). The obligations for the Plans are accrued over their vesting periods. The Plans are settled in cash.

For cash-settled awards, our accrued obligations are adjusted to their fair value at each balance sheet date. For share-settled awards, our accrued obligations are based on the fair value of our common shares at the date of grant. Changes in our obligations, net of related hedges, are recorded as Non-interest expense – Human resources in our Consolidated Statements of Income with a corresponding increase in Other liabilities for cash settled awards and in Retained earnings for share-settled awards.

The compensation cost attributable to options and awards granted to employees who are eligible to retire or will become eligible to retire during the vesting period, is recognized immediately if the employee is eligible to retire on the grant date or over the period between the grant date and the date the employee becomes eligible to retire.

Our contributions to the employee savings and share ownership plans are expensed as incurred.

Income taxes

Income tax comprises current tax and deferred tax and is recognized in our Consolidated Statements of Income except to the extent that it relates to items recognized directly in equity, in which case it is recognized in equity.

Current income tax payable on profits is recognized as an expense based on the applicable tax laws in each jurisdiction in the period in which profits arise, calculated using tax rates enacted or substantively enacted by the balance sheet date. Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities for accounting purposes compared with tax purposes. A deferred income tax asset or liability is determined for each temporary difference, except for earnings related to our subsidiaries, branches, associates and interests in joint ventures where the temporary differences will not reverse in the foreseeable future and we have the ability to control the timing of reversal. Deferred tax assets and liabilities are determined based on the tax rates that are expected to be in effect in the period that the asset is realized or the liability is settled, based on tax rates and tax laws that have been enacted or substantively enacted at the balance sheet date. Current tax assets and liabilities are offset when they are levied by the same taxation authority on either the same taxable entity or different taxable entities within the same tax reporting group (which intends to settle on a net basis), and when there is a legal right to offset. Deferred tax assets and liabilities are offset when the same conditions are satisfied. Our Consolidated Statements of Income include items that are non-taxable or non-deductible for income tax purposes and, accordingly, this causes the income tax provision to be different from what it would be if based on statutory rates.

Deferred income taxes accumulated as a result of temporary differences and tax loss carryfowards are included in Other assets and Other liabilities. On a quarterly basis, we review our deferred income tax assets to determine whether it is probable that the benefits associated with these assets will be realized; this review involves evaluating both positive and negative evidence.

We are subject to income tax laws in various jurisdictions where we operate, and the complex tax laws are potentially subject to different interpretations by us and the relevant taxation authorities. Significant judgment is required in the interpretation of the relevant tax laws, and the determination of our tax provision which includes our best estimate of tax positions that are under audit or appeal by relevant taxation authorities. We perform a review on a quarterly basis to incorporate our best assessment based on information available, but additional liability and income tax expense could result based on decisions made by the relevant tax authorities.

The determination of our deferred tax asset or liability also requires significant management judgment as the recognition is dependant on our projection of future taxable profits and tax rates that are expected to be in effect in the period the asset is realized or the liability is settled. Any changes in our projection will result in changes in deferred tax assets or liabilities on our Consolidated Balance Sheets, and also deferred tax expense on our Consolidated Statements of Income.

Business combinations, goodwill and other intangibles

All business combinations are accounted for using the acquisition method. Identifiable intangible assets are recognized separately from goodwill and included in Other intangibles. Goodwill represents the excess of the price paid for the business acquired over the fair value of the net identifiable assets acquired on the date of acquisition.

Goodwill

Goodwill is allocated to cash-generating units or groups of cash-generating units (CGU) for the purpose of impairment testing, which is undertaken at the lowest level at which goodwill is monitored for internal management purposes. Impairment testing is performed annually as at August 1, or more frequently if there are indications that impairment may have occurred, by comparing the recoverable amount of a CGU with its carrying amount. The recoverable amount of a CGU is the higher of its value in use and its fair value less costs to sell. Value in use is the present value of the expected future cash flows from a CGU.

Significant judgment is involved in estimating the model inputs used to determine the recoverable amount of our CGU, in particular future cash flows, discount rates and terminal growth rates, due to the uncertainty in the timing and amount of cash flows and the forward-looking nature of these inputs. Future cash flows are based on financial plans agreed by management which are estimated based on forecast results, business initiatives, planned capital investments and returns to shareholders. Discount rates are based on the bank-wide cost of capital, adjusted for CGU-specific risks and currency exposure as reflected by differences in historical and expected inflation. CGU-specific risks include country risk, business/operational risk, geographic risk (including political risk, devaluation risk, and government regulation), currency risk, and price risk (including product pricing risk and inflation). Terminal growth rates reflect the gross domestic product and inflation for the countries within which the CGU operates. Changes in these assumptions may impact the amount of impairment loss recognized in Non-interest expense.

The carrying amount of a CGU includes the carrying amount of assets and goodwill allocated to the CGU. If the recoverable amount is less than the carrying value, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the CGU and then to the other non-financial assets of the CGU proportionately based on the carrying amount of each asset. Any impairment loss is charged to income in the period in which the impairment is identified. Goodwill is stated at cost less accumulated impairment losses. Subsequent reversals of goodwill impairment are prohibited.

Upon disposal of a portion of a CGU, the carrying amount of goodwill relating to the portion of the CGU sold is included in the determination of gains or losses on disposal. The carrying amount is determined based on the relative fair value of the disposed portion to the total CGU.

Other intangibles

Intangible assets are recognized separately from goodwill when they are separable or arise from contractual or other legal rights, and their fair value can be measured reliably. Intangible assets with a finite life are amortized on a straight-line basis over their estimated useful lives, generally from 10 to 20 years, and are assessed for indicators of impairment at each reporting period.

If there is an indication that a finite-life intangible asset may be impaired, an impairment test is performed by comparing the carrying amount of the intangible asset to its recoverable amount. Where it is not possible to estimate the recoverable amount of an individual asset, we estimate the recoverable amount of the CGU to which the asset belongs. If the recoverable amount of the asset (or CGU) is less than its carrying amount, the carrying amount of the intangible asset is written down to its recoverable amount as an impairment loss.

An impairment loss recognized previously is reversed if there is a change in the estimates used to determine the recoverable amount of the asset (or CGU) since the last impairment loss was recognized. If an impairment loss is subsequently reversed, the carrying amount of the asset (or CGU) is revised to the lower of its recoverable amount and the carrying amount that would have been determined (net of amortization) had there been no prior impairment. Due to the subjective nature of these estimates, significant judgment is required in determining the useful lives and recoverable amounts of our intangible assets, and assessing whether certain events or circumstances constitute objective evidence of impairment. To make these estimates, management relies on sales projections, allocated costs and risk-adjusted discount rates that take into consideration the market environment and our business objectives. Changes in these assumptions may impact the amount of impairment loss recognized in Non-interest expense. We do not have any intangible assets with indefinite lives.

Other

Translation of foreign currencies

Monetary assets and liabilities denominated in foreign currencies are translated into Canadian dollars at rates prevailing at the balance sheet date. Foreign exchange gains and losses resulting from the translation and settlement of these items are recognized in Non-interest income in the Consolidated Statements of Income.

Non-monetary assets and liabilities that are measured at historical cost are translated into Canadian dollars at historical rates. Non-monetary financial assets classified as AFS securities, such as equity instruments, that are measured at fair value are translated into Canadian dollars at rates prevailing at the balance sheet date, and the resulting foreign exchange gains and losses are recorded in Other components of equity until the asset is sold or becomes impaired.

Assets and liabilities of our foreign operations with functional currencies other than Canadian dollars are translated into Canadian dollars at rates prevailing at the balance sheet date, and income and expenses of these foreign operations are translated at average rates of exchange for the reporting period.

Unrealized gains or losses arising as a result of the translation of our foreign operations along with the effective portion of related hedges are reported in Other components of equity on an after-tax basis. Upon disposal or partial disposal of a foreign operation, an appropriate portion of the accumulated net translation gains or losses is included in Non-interest income.

Premises and equipment

Premises and equipment includes land, buildings, leasehold improvements, computer equipment, furniture, fixtures and other equipment, and are stated at cost less accumulated depreciation and accumulated impairment losses. Cost comprises the purchase price, any costs directly attributable to bringing the asset to the location and condition necessary for its intended use, and the initial estimate of any disposal costs. Depreciation is recorded principally on a straight-line basis over the estimated useful lives of the assets, which are 25 to 50 years for buildings, 3 to 10 years for computer equipment, and 7 to 10 years for furniture, fixtures and other equipment. The amortization period for leasehold improvements is the lesser of the useful life of the leasehold improvements or the lease term plus the first renewal period, if reasonably assured of renewal, up to a maximum of 10 years. Land is not depreciated. Gains and losses on disposal are recorded in Non-interest income.

Premises and equipment are assessed for indicators of impairment at each reporting period. If there is an indication that an asset may be impaired, an impairment test is performed by comparing the asset's carrying amount to its recoverable amount. Where it is not possible to estimate the recoverable amount of an individual asset, we estimate the recoverable amount of the CGU to which the asset belongs and test for impairment at the CGU level. An impairment charge is recorded to the extent the recoverable amount of an asset (or CGU), which is the higher of fair value less costs to sell and value in use, is less than its carrying amount. Value in use is the present value of the future cash flows expected to be derived from the asset (or CGU).

After the recognition of impairment, the depreciation charge is adjusted in future periods to reflect the asset's revised carrying amount. If an impairment is later reversed, the carrying amount of the asset is revised to the lower of the asset's recoverable amount and the carrying amount that would have been determined (net of depreciation) had there been no prior impairment loss. The depreciation charge in future periods is adjusted to reflect the revised carrying amount.

Note 2 Summary of significant accounting policies, estimates and judgments (continued)

Provisions
Provisions are liabilities of uncertain timing or amount. Provisions are recognized when we have a present legal or constructive obligation as a result of a past event, it is probable that an outflow of resources will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. We record provisions related to litigation, asset retirement obligations, and the allowance for off-balance sheet and other items. In recording provisions, we are required to estimate the results of ongoing legal proceedings, expenses to be incurred to dispose of capital assets, and credit losses on undrawn commitments and guarantees. The forward-looking nature of these estimates requires us to use a significant amount of judgment in projecting the timing and amount of future cash flows. We record our provisions on the basis of all available information at the end of the reporting period and make adjustments on a quarterly basis to reflect current expectations. Should actual results differ from our expectations, we may incur expenses in excess of the amounts provided for. Provisions are reflected under Other liabilities on our Consolidated Balance Sheets.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, such as an insurer, a separate asset is recognized if it is virtually certain that reimbursement will be received.

Interest, commissions and fees
Interest
Interest is recognized in Interest income and Interest expense in the Consolidated Statements of Income for all interest bearing financial instruments using the effective interest method.

Commission and fee income
Portfolio management and other management advisory and service fees are recognized based on the applicable service contracts. Fees related to provision of services including asset management, wealth management, financial planning and custody services that cover a specified service period, are recognized over the period in which the service is provided. Fees such as underwriting fees and brokerage fees that are related to the provision of specific transaction type services are recognized when the service has been completed.

Dividend income
Dividend income is recognized when the right to receive payment is established. This is the ex-dividend date for listed equity securities, and usually the date when shareholders have approved the dividend for unlisted equity securities.

Leasing
A lease is an agreement whereby the lessor conveys to the lessee the right to use an asset for an agreed upon period of time in return for a payment or series of payments. A finance lease is a lease that transfers substantially all the risks and rewards incidental to ownership of the leased asset to the lessee, where title may or may not eventually be transferred. An operating lease is a lease other than a finance lease.

Operating leases
When we are the lessee in an operating lease, we record rental payments on a straight-line basis over the lease term in Non-interest expense.

Finance leases
When we are the lessee in a finance lease, we initially record both the leased asset and the related lease obligation in Premises and equipment, Other intangibles and Other Liabilities on our Consolidated Balance Sheets at an amount equal to the fair value of the leased asset or, if lower, the present value of the minimum lease payments, each determined at the date of inception of the lease. Initial direct costs directly attributed to the lease are recognized as an asset under the finance lease.

Earnings per share
Earnings per share is computed by dividing Net income available to common shareholders by the weighted average number of common shares outstanding for the period. Net income available to common shareholders is determined after deducting dividend entitlements of preferred shareholders, any gain (loss) on redemption of preferred shares net of related income taxes and the net income attributable to non-controlling interests.

Diluted earnings per share reflects the potential dilution that could occur if additional common shares are assumed to be issued under securities or contracts that entitle their holders to obtain common shares in the future, to the extent such entitlement is not subject to unresolved contingencies. For contracts that may be settled in cash or in common shares at our option, diluted earnings per share is calculated based on the assumption that such contracts will be settled in shares. Income and expenses associated with these types of contracts are excluded from the Net income available to common shareholders, and the additional number of shares that would be issued is included in the diluted earnings per share calculation. These contracts include our convertible Preferred Shares and Trust Capital Securities. For stock options whose exercise price is less than the average market price of our common shares, they are assumed to be exercised and the proceeds are used to repurchase common shares at the average market price for the period. The incremental number of common shares issued under stock options and repurchased from proceeds is included in the calculation of diluted earnings per share.

Share capital
We classify a financial instrument that we issue as a financial asset, financial liability or an equity instrument in accordance with the substance of the contractual arrangement.

Our common shares held by us are classified as treasury shares in equity and accounted for at weighted average cost. Upon the sale of treasury shares, the difference between the sale proceeds and the cost of the shares is recognized in Retained earnings. Financial instruments issued by us are classified as equity instruments when there is no contractual obligation to transfer cash or other financial assets. Incremental costs directly attributable to the issue of equity instruments are included in equity as a deduction from the proceeds, net of tax. Financial instruments that will be settled by a variable number of our common shares upon their conversion by the holders as well as the related accrued distributions are classified as liabilities on our Consolidated Balance Sheets. Dividends and yield distributions on these instruments are classified as Interest expense in our Consolidated Statements of Income.

Future accounting changes
We are currently assessing the impact of adopting the following standards on our consolidated financial statements:

IAS 12 *Income Taxes* (IAS 12)
In December 2010, the IASB issued amendments to IAS 12 regarding deferred tax and the recovery of underlying assets. The amendments are effective for us starting November 1, 2012.

IAS 1 *Presentation of Financial Statements* (IAS 1)
In June 2011, the IASB issued amendments to IAS 1 regarding the presentation of OCI. The amendments are effective for us starting November 1, 2012.

IFRS 7 *Financial Instruments: Disclosures* (IFRS 7)
In December 2011, the IASB issued amendments to IFRS 7 regarding disclosure of offsetting financial assets and financial liabilities. The amendments are intended to help investors and other users to better assess the effect or potential effect of offsetting arrangements on a company's financial position. The amendments will be effective for us on November 1, 2013.

Consolidation and disclosure standards
In May 2011, the IASB issued IFRS 10, *Consolidated Financial Statements* (IFRS 10), IFRS 11, *Joint Arrangements* (IFRS 11), and IFRS 12, *Disclosure of Interests in Other Entities* (IFRS 12). IFRS 10 replaces the consolidation requirements in SIC-12 *Consolidation – Special Purpose Entities* (SIC-12) and amends IAS 27 *Consolidated and Separate Financial Statements* (IAS 27). IFRS 10 builds on existing principles by identifying the concept of control as the determining factor in whether an entity should be included within the consolidated financial statements of the parent company and establishes principles for the presentation and preparation of consolidated financial statements when an entity controls one or more other entities. IFRS 11 focuses on the classification of joint arrangements based on the rights and obligations of the arrangement, rather than its legal form, and addresses reporting inconsistencies by requiring a single method (equity method) to account for interests in joint ventures. IFRS 12 is a new and comprehensive standard on disclosure requirements for all forms of interests in other entities, including subsidiaries, joint arrangements, associates and unconsolidated structured entities. As a consequence of these new IFRSs, the IASB also issued amended and retitled IAS 27, *Separate Financial Statements* and IAS 28 *Investments in Associates and Joint Ventures*. The new requirements will be effective for us on November 1, 2013.

IFRS 13 *Fair Value Measurement* (IFRS 13)
In May 2011, the IASB issued IFRS 13, which defines fair value and sets out a framework for measuring fair value in a single IFRS. IFRS 13 also requires disclosures about fair value measurements for non-financial assets. The measurement and disclosure requirements of IFRS 13 apply when another IFRS requires or permits the item to be measured at fair value with limited exceptions. IFRS 13 will be effective for us on November 1, 2013.

IAS 19 *Employee Benefits* (IAS 19)
In June 2011, the IASB issued amendments to IAS 19 regarding the recognition and measurement of defined benefit pension expense and termination benefits, including the elimination of the deferral and amortization of net actuarial gains or losses, and the disclosures for all employee benefits. The amendments will be effective for us on November 1, 2013.

IAS 32 *Financial Instruments: Presentation* (IAS 32)
In December 2011, the IASB issued amendments to IAS 32 which clarify the existing requirements for offsetting financial assets and financial liabilities. The amendments will be effective for us on November 1, 2014.

IFRS 9 *Financial Instruments* (IFRS 9)
In November 2009, the IASB issued IFRS 9 as part of its plan to replace IAS 39, *Financial Instruments: Recognition and Measurement* (IAS 39). IFRS 9 requires financial assets, including hybrid contracts, to be measured at either fair value or amortized cost, on the basis of the entity's business model for managing the financial asset and the contractual cash flow characteristics of the financial asset. A financial asset that is held by an entity for the purpose of collecting contractual cash flows on specified dates per contractual terms should be measured at amortized cost. All other financial assets should be measured at fair value. When the entity changes its business model, which is expected to be an infrequent occurrence, it is required to reclassify the affected financial assets prospectively. For equity instruments, management has an option on initial recognition to irrevocably designate on an instrument-by-instrument basis to present the changes in their fair value directly in equity. There is no subsequent recycling of fair value gains and losses from equity to our Consolidated Statements of Income; however, dividends from such equity investments will continue to be recognized in profit or loss.

In October 2010, the IASB added to IFRS 9 the requirements for classification and measurement of financial liabilities previously included in IAS 39. IFRS 9 also eliminated the exception from fair value measurement for derivative liabilities that are linked to and must be settled by delivery of an unquoted equity instrument, and require the changes in own credit risk for financial liabilities designated as at FVTPL to be reported in other comprehensive income. In December 2011, the IASB amended the effective date of IFRS 9 to annual periods beginning on or after January 1, 2015. Accordingly, IFRS 9 will be effective for us on November 1, 2015.

Note 3 First time adoption of IFRS

Transition to IFRS
The Canadian Accounting Standards Board has replaced Canadian GAAP with IFRS for all publically accountable enterprises for interim and annual financial statements relating to annual periods beginning on or after January 1, 2011. We have adopted IFRS effective November 1, 2011 and the date of transition is November 1, 2010.

Our accounting policies presented in Note 2 have been applied in preparing the Consolidated Financial Statements for the current year ended October 31, 2012, the comparative information for the previous year ended October 31, 2011 and the opening IFRS financial statements as at November 1, 2010. In our transition from Canadian GAAP to IFRS, we followed the provisions of IFRS 1. The effects of transition to IFRS were recognized directly through retained earnings, or another category of equity, where appropriate as presented in this note. References below in parentheses (Ref. x) refer to the corresponding columns in our reconciliations of our Consolidated Balance Sheets, and Consolidated Statements of Income between Canadian GAAP and IFRS, presented below.

Note 3 First time adoption of IFRS (continued)

Principal exemptions under IFRS 1

IFRS 1 provides guidance to first-time adopters of IFRS on how to account for items on transition to IFRS. Generally, IFRS 1 requires an entity to apply IFRS retrospectively upon transition. It also offers some exemptions and requires certain exceptions from retrospective application. Our first-time adoption decisions regarding the exemptions are discussed below. Other exemptions available under IFRS 1, which are not discussed here, are either not material or not relevant to our business.

Mandatory exceptions

Derecognition

The derecognition requirements of IAS 39 have been applied prospectively to transactions occurring on or after January 1, 2004.

Hedge accounting

Hedge accounting has been applied from the Transition date only to hedging relationships that satisfy the hedge accounting criteria in IAS 39, as described in Note 2, at that date.

Estimates

Estimates made in accordance with IFRS at the Transition date are consistent with estimates previously made under Canadian GAAP.

Optional exemptions

Designation of previously recognized financial instruments (Ref. 1)

On adoption of IFRS, an entity is required to retrospectively apply IAS 39 and classify its financial instruments as of the date that the financial instrument was originally acquired. Alternatively, an entity is permitted to designate a previously recognized financial asset or financial liability as a financial asset or financial liability as at FVTPL or a financial asset as AFS at the Transition date. Differences between the fair value and carrying value are recorded in opening Retained earnings. We have applied this election using criteria described in Note 2 defining financial assets as AFS and financial liabilities as at FVTPL and designated the following financial assets and financial liabilities at transition.

(Millions of Canadian dollars)	Fair value at Transition date	Classifications as previously reported	Carrying value as previously reported
Financial assets designated as available-for-sale	$ 7,297	Held-for-trading	$ 7,297
Financial assets designated as available-for-sale	3,232	Held-for-trading using fair value option	3,232
Financial assets designated as available-for-sale	564	Loans and receivables	629
Financial liabilities designated as at fair value through profit or loss	128	Non-trading liabilities	138

Employee benefits (Ref. 2)

IFRS 1 provides the option to recognize cumulative actuarial gains and losses on employee benefit plans that are deferred under Canadian GAAP in opening Retained earnings at the Transition date. We have elected this option for all our employee defined pension benefit plans and other post-retirement benefits plans at the Transition date which results in a decrease to our opening Retained earnings of $1.36 billion. Our cumulative actuarial gains and losses is the sum of our unrecognized net actuarial loss, transitional (asset) obligation and prior service cost.

Cumulative foreign currency translation differences (Ref. 3)

IFRS 1 provides the option to reset the cumulative foreign currency translation gains and losses recorded in equity related to foreign subsidiaries to zero at the Transition date. We have elected this option and reset all the cumulative foreign currency translation gains and losses which arose from translation of our foreign operations to zero at the Transition date, with the impact recognized as a decrease to our opening Retained earnings of $1.66 billion.

Business combinations

IFRS 1 provides the option to apply IFRS 3, *Business Combinations* (IFRS 3), from any date up to and including the Transition date. Applying IFRS 3 from a date prior to the Transition date would require restatement of all business combinations that occurred between that date and the Transition date. We have elected to apply IFRS 3 prospectively from the Transition date; accordingly, business combinations completed prior to the Transition date have not been restated. This election has no impact on our opening Retained earnings.

Insurance contracts

IFRS 1 provides the option to apply the transitional provisions in IFRS 4, *Insurance Contracts* (IFRS 4), which restricts changes in accounting policies for insurance contracts, including changes made by a first-time adopter of IFRS. We have elected to apply the transitional provisions in IFRS 4 which allow us to follow our previous Canadian GAAP accounting policies with respect to our insurance-related activities. This election has no impact on our opening Retained earnings.

Impact on transition to IFRS

A summary of the material differences that are applicable to us is presented below.

Item	Canadian GAAP	IFRS	Impact on transition
Ref. 4	**Goodwill** IAS 36, *Impairment of Assets*		
	Goodwill is allocated to reporting units (RU) that are expected to benefit from the synergies of the business combination from which it arose. A RU is defined as an identified operating segment or one level below an identified operating segment. We had eight RU under Canadian GAAP. For impairment testing purposes, goodwill is assessed first by comparing a RU's carrying amount to its fair value. If the carrying value of a RU exceeds its fair value, the fair value of the RU's goodwill is imputed by determining the fair value of the assets and liabilities of the RU and allocating the residual fair value to goodwill. An impairment loss is recorded to the extent that the carrying value of a RU's goodwill exceeds its imputed fair value. There is no reversal of an impairment loss.	Goodwill is allocated to CGU that are expected to benefit from the synergies of the business combination from which it arose. We have 10 CGU under IFRS. Goodwill is impaired when the carrying value of a CGU exceeds its recoverable amount. Impairment cannot be reversed. An impairment test must be performed as at the date of transition to IFRS.	Our goodwill allocation under Canadian GAAP, which was presented in Note 10 to our 2011 Annual Consolidated Financial Statements, was realigned to the new CGU we have identified. Our International Banking RU resides in two CGU, U.S. Banking and Caribbean Banking. Our Global Asset Management RU also resides in two CGU: Canadian Wealth Management and Global Asset Management. We performed our impairment test as at the Transition date on the basis of the CGU identified. The results of this test indicated that the carrying amount of our U.S. Banking CGU exceeded its recoverable amount as determined using a 5-year discounted cash flow value-in-use model. Key inputs to the model included a discount rate of 10.5% and a terminal growth rate of 3.5%. Accordingly, the goodwill in our U.S. Banking CGU was written down to zero, which reduced our opening Retained earnings by $1.26 billion and reduced our loss on sale of our U.S. regional retail banking operations under IFRS, which occurred in the third quarter of 2011. See Note 12.
Ref. 5	**Securitization (derecognition)** IAS 39		
	Derecognition of financial assets is primarily based on the legal form of the transaction and an analysis of whether the seller retains control of the assets and whether the assets are legally isolated from the seller and its creditors, even in the event of a bankruptcy.	Derecognition is based on transfer of risks and rewards; control is only considered when substantially all risks and rewards have been neither transferred nor retained.	Most assets transferred in our securitization transactions do not qualify for derecognition. As a result, the assets and associated liabilities are recognized on our Consolidated Balance Sheets. The gains previously recognized under Canadian GAAP were recorded as a transition adjustment which decreased our opening Retained earnings by $415 million. Although this policy change significantly impacts our opening IFRS balance sheets and reduces our opening Retained earnings, we will recognize the net income generated by the assets over their remaining lives.
Ref. 6	**Consolidation of special purpose entities** IAS 27, SIC-12		
	Consolidation is based on a controlling financial interest model. For variable interest entities (VIEs), consolidation is assessed based on an analysis of economic risks and rewards. VIEs are consolidated by the party that absorbs a majority of the entity's expected losses or has the right to receive a majority of the expected residual returns.	SPEs created to accomplish a narrow and well-defined objective are consolidated based on a control model, which is broader than the concepts applied under Canadian GAAP. Control encompasses both decision making ability and the economic consequence of those abilities (i.e. benefits and risks). IFRS does not have a concept of VIEs.	Certain entities which we previously did not consolidate are consolidated and others which we consolidated have been deconsolidated. The associated assets and liabilities were adjusted on our Consolidated Balance Sheets and the profits (losses) previously recognized or unrecognized were included as a transition adjustment which decreased our opening Retained earnings by $226 million.

Note 3 First time adoption of IFRS (continued)

Item	Canadian GAAP	IFRS	Impact on transition
Ref. 7	**Insurance contracts** IFRS 4		
	Financial statements of an insurance company must exclude the assets, liabilities, revenues and expenses of segregated funds, but include the fee income earned and the cost of any guarantees or other contract holder benefits borne by the insurer from the administration of those accounts. Life and health insurance providers are required to net reinsurance premiums, reinsurance paid claims and reinsurance recoverable against the premium incomes, paid claims and actuarial liabilities.	Investments held in segregated funds are recognized as assets of the insurance company as they are legally owned and are kept in a separate account. The insurance company also has a liability to the policy holders to sell the underlying assets and repay the policyholders when they redeem the segregated accounts. Insurers should not offset reinsurance assets against the related insurance liabilities, and similarly, should not offset income/expense from reinsurance against the expense/income from related insurance contracts.	Investments held in segregated funds, which were not recognized under Canadian GAAP, are recorded on our Consolidated Balance Sheets with a corresponding liability to the policy holders. Reinsurance recoverable and the related policy benefit liabilities, which were offset under Canadian GAAP, are presented as assets and liabilities, respectively, on our Consolidated Balance Sheets. These policy changes affect the presentation of assets and liabilities on our Consolidated Balance Sheets but do not impact our opening Retained earnings.
Ref. 8	**Discontinued operations** IFRS 5, *Non-current Assets Held-for-Sale and Discontinued Operations*		
	The results of discontinued operations are reported as a separate component of income or loss for both current and prior periods. The assets and liabilities of a disposal group classified as held for sale or that has been sold, are presented separately in the asset and liability sections, respectively, of the balance sheet for the current and all comparative periods.	Restatement of prior period balance sheets as a result of discontinued operations is not permitted. Balance sheet adjustments related to discontinued operations are made prospectively from the date of classification as discontinued operations. The results of discontinued operations are reported as a separate component of income or loss for both current and all comparative periods.	To reconcile our IFRS Consolidated Balance Sheets to Canadian GAAP as at November 1, 2010, we reversed the impact of discontinued operations related to the sale of our U.S. regional retail operations announced during the third quarter of 2011 for which prior period results were adjusted in accordance with Canadian GAAP at the time of the announcement. Under IFRS, the classification of our U.S. regional retail banking operations and other assets as discontinued operations is reflected on our Consolidated Balance Sheets beginning in the quarter ended July 31, 2011. The sale of Liberty Life Insurance Company announced in October 2010 is reflected on our Consolidated Balance Sheets as discontinued operations under IFRS from the Transition date.
Ref. 9	**Hedging** IAS 39		
	In a qualifying hedge relationship, all or a portion of a recognized asset or liability can be designated as the hedged item. A portion of the hedged item is defined as either (a) a percentage of the entire recognized asset or liability, (b) all or a percentage of one or more selected cash flows, or (c) an embedded derivative that is not accounted for separately.	A portion of the cash flows of a financial asset or liability can be designated as the hedged item only if the selected cash flows are less than the total cash flows of the asset or liability. For liabilities whose effective interest rate is below the benchmark interest rate, we are not permitted to select benchmark-based cash flows as the hedged item because these cash flows would be greater than the total cash flows of the liability.	Hedge accounting has been applied only to hedging relationships that satisfy the hedge accounting criteria in IAS 39 at the Transition date. Certain cash flow hedges which qualify for hedge accounting under Canadian GAAP do not qualify under IFRS because the hedged items are portions of deposit liabilities whose cash flows are below the benchmark interest rate. The amounts accumulated in equity relating to these hedges have been reduced to zero with the impact recognized as a reduction to our opening Retained earnings of approximately $350 million. Although this policy change significantly impacts our opening IFRS balance sheet and reduces our opening Retained earnings, the amortization of losses previously deferred in OCI will no longer be recognized in net income in future periods.

Other presentation differences

Non-controlling Interest

Under Canadian GAAP, the portion of income attributable to non-controlling interests of subsidiaries (NCI) is deducted prior to the presentation of net income from continuing operations in our Consolidated Statements of Income. Under IFRS, net income from continuing operations reflects income attributable to both shareholders and NCI. Net income under IFRS is apportioned between our shareholders and NCI after the effects of all continuing and discontinued operations have been presented.

Changes in financial statement presentation during the year

Cash collateral

As presented in Note 14 and Note 19, during the second quarter of 2012, we retrospectively reclassified cash collateral paid from Interest bearing deposits with banks and Loans – Wholesale to Other assets and cash collateral received from Deposits to Other liabilities to better reflect the nature of the balances. The reclassification does not include cash collateral that is received or paid on securities borrowed and securities loaned, which is currently classified in Assets purchased under reverse repurchase agreements and securities borrowed and Obligations related to assets sold under repurchase agreements and securities loaned, respectively.

Reconciliations from Canadian GAAP to IFRS

The tables below show the reconciliations from Canadian GAAP to IFRS for our Consolidated Balance Sheets and Equity as at October 31, 2011 and November 1, 2010, and our Consolidated Statements of Income, Comprehensive Income, and Cash Flows for the year ended October 31, 2011.

Reconciliation of Canadian GAAP and IFRS – Consolidated Balance Sheet and Equity as at October 31, 2011

		IFRS 1 Elections			Other accounting policy differences						
(Millions of Canadian dollars)	Canadian GAAP	Classification of financial instruments (Ref. 1)	Employee benefits (Ref. 2)	Cumulative translation differences (Ref. 3)	Goodwill (Ref. 4)	Securitization (derecognition) (Ref. 5)	Special purpose entities (Ref. 6)	Insurance contracts (Ref. 7)	Hedging and other (Ref. 9)	Total impact	IFRS
Assets											
Cash and due from banks	$ 13,247	$ –	$ –	$ –	$ –	$ –	$ (66)	$ –	$ (753)	$ (819)	$ 12,428
Interest-bearing deposits with banks	12,181	–	–	–	–	–	–	–	(5,721)	(5,721)	6,460
Securities											
Trading	145,274	(4,713)	–	–	–	(12,644)	211	–	–	(17,146)	128,128
Available-for-sale	34,284	4,686	–	–	–	(830)	607	–	147	4,610	38,894
	179,558	(27)	–	–	–	(13,474)	818	–	147	(12,536)	167,022
Assets purchased under reverse repurchase agreements and securities borrowed	84,947	–	–	–	–	–	–	–	–	–	84,947
Loans											
Retail	228,484	–	–	–	–	53,751	2,658	–	(148)	56,261	284,745
Wholesale	69,758	(28)	–	–	–	–	(1,019)	–	(3,959)	(5,006)	64,752
	298,242	(28)	–	–	–	53,751	1,639	–	(4,107)	51,255	349,497
Allowance for loan losses	(1,958)	44	–	–	–	–	–	–	(53)	(9)	(1,967)
	296,284	16	–	–	–	53,751	1,639	–	(4,160)	51,246	347,530
Investments for account of segregated fund holders	–	–	–	–	–	–	–	320	–	320	320
Other											
Customers' liability under acceptances	7,689	–	–	–	–	–	–	–	–	–	7,689
Derivatives	100,013	–	–	–	–	32	(395)	–	–	(363)	99,650
Premises and equipment, net	2,490	–	–	–	–	–	–	–	–	–	2,490
Goodwill	7,703	–	–	–	22	–	–	–	(115)	(93)	7,610
Other intangibles	2,115	–	–	–	–	–	–	–	–	–	2,115
Assets of discontinued operations	27,143	(2)	11	–	–	–	–	–	–	9	27,152
Investment in associates	189	–	–	–	–	–	–	–	(47)	(47)	142
Prepaid pension benefit cost	1,697	–	(1,386)	–	–	–	–	–	–	(1,386)	311
Other assets	16,446	1	402	–	–	53	59	248	10,758	11,521	27,967
	165,485	(1)	(973)	–	22	85	(336)	248	10,596	9,641	175,126
Total assets	$ 751,702	$ (12)	$ (973)	$ –	$ 22	$ 40,362	$ 2,055	$ 568	$ 109	$ 42,131	$793,833
Liabilities											
Deposits											
Personal	$ 166,030	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$166,030
Business and government	258,494	–	–	–	–	44,348	1,176	–	(6,507)	39,017	297,511
Bank	19,657	–	–	–	–	–	–	–	(4,096)	(4,096)	15,561
	444,181	–	–	–	–	44,348	1,176	–	(10,603)	34,921	479,102
Insurance and investment contracts for account of segregated fund holders	–	–	–	–	–	–	–	320	–	320	320
Other											
Acceptances	7,689	–	–	–	–	–	–	–	–	–	7,689
Obligations related to securities sold short	44,284	–	–	–	–	–	–	–	–	–	44,284
Obligations related to assets sold under repurchase agreements and securities loaned	46,188	–	–	–	–	(3,453)	–	–	–	(3,453)	42,735
Derivatives	101,437	–	–	–	–	(915)	–	–	–	(915)	100,522
Insurance claims and policy benefit liabilities	6,875	–	–	–	–	–	–	244	–	244	7,119
Liabilities of discontinued operations	20,071	5	–	–	–	–	–	–	–	5	20,076
Accrued pension and other post-employment benefit expense	1,531	–	108	–	–	–	–	–	–	108	1,639
Other liabilities	28,049	(6)	86	–	–	778	(491)	4	10,821	11,192	39,241
	256,124	(1)	194	–	–	(3,590)	(491)	248	10,821	7,181	263,305
Subordinated debentures	7,749	–	–	–	–	–	1,000	–	–	1,000	8,749
Trust capital securities	–	–	–	–	–	–	894	–	–	894	894
Total liabilities	708,054	(1)	194	–	–	40,758	2,579	568	218	44,316	752,370
Non-controlling interest in subsidiaries	1,941										n.a.
Equity attributable to shareholders											
Preferred shares	4,813	–	–	–	–	–	–	–	–	–	4,813
Common shares	14,017	–	–	–	–	–	–	–	(7)	(7)	14,010
Treasury shares – preferred	–	–	–	–	–	–	–	–	–	–	–
– common	8	–	–	–	–	–	–	–	–	–	8
Retained earnings	24,494	(6)	(1,167)	(1,632)	22	(396)	(310)	–	(624)	(4,113)	20,381
Other components of equity	(1,625)	(5)	–	1,632	–	–	(34)	–	522	2,115	490
	41,707	(11)	(1,167)	–	22	(396)	(344)	–	(109)	(2,005)	39,702
Non-controlling interests	n.a.	–	–	–	–	–	(180)	–	–	(180)	1,761
Total equity	n.a.	(11)	(1,167)	–	22	(396)	(524)	–	(109)	(2,185)	41,463
Total liabilities and equity	$ 751,702	$ (12)	$ (973)	$ –	$ 22	$ 40,362	$ 2,055	$ 568	$ 109	$ 42,131	$793,833

n.a. Under IFRS, Non-controlling interests are presented as a component of Total equity.

Note 3 First time adoption of IFRS (continued)

Reconciliation of Canadian GAAP and IFRS – Consolidated Balance Sheet and Equity as at November 1, 2010

		IFRS 1 Elections			Other accounting policy differences							
(Millions of Canadian dollars)	Canadian GAAP	Classification of financial instruments (Ref. 1)	Employee benefits (Ref. 2)	Cumulative translation differences (Ref. 3)	Goodwill (Ref. 4)	Securitization (derecognition) (Ref. 5)	Special purpose entities (Ref. 6)	Insurance contracts (Ref. 7)	Discontinued operations (Ref. 8)	Hedging and other (Ref. 9)	Total impact	IFRS
Assets												
Cash and due from banks	$ 8,440	$ —	$ —	$ —	$ —	$ —	$ (30)	$ —	$ 888	$ (762)	$ 96	$ 8,536
Interest-bearing deposits with banks	13,254	—	—	—	—	—	—	—	(2)	(6,011)	(6,013)	7,241
Securities												
Trading	144,925	(3,274)	—	—	—	(12,550)	615	—	124	(1)	(15,086)	129,839
Available-for-sale	38,594	3,795	—	—	—	817	821	—	5,076	141	10,650	49,244
	183,519	521	—	—	—	(11,733)	1,436	—	5,200	140	(4,436)	179,083
Assets purchased under reverse repurchase agreements and securities borrowed	72,698	—	—	—	—	—	—	—	—	—	—	72,698
Loans												
Retail	214,937	—	—	—	—	48,311	1,920	—	6,892	(133)	56,990	271,927
Wholesale	60,107	(775)	—	—	—	—	(793)	—	12,789	(3,731)	7,490	67,597
	275,044	(775)	—	—	—	48,311	1,127	—	19,681	(3,864)	64,480	339,524
Allowance for loan losses	(2,038)	179	—	—	—	—	—	—	(958)	(50)	(829)	(2,867)
	273,006	(596)	—	—	—	48,311	1,127	—	18,723	(3,914)	63,651	336,657
Investments for account of segregated fund holders	—	—	—	—	—	—	—	279	(22)	—	257	257
Other												
Customers' liability under acceptances	7,371	—	—	—	—	—	—	—	—	—	—	7,371
Derivatives	106,155	—	—	—	—	(24)	(90)	—	68	—	(46)	106,109
Premises and equipment, net	2,139	—	—	—	—	—	—	—	362	—	362	2,501
Goodwill	6,660	—	—	—	(1,404)	—	—	—	1,404	(107)	(107)	6,553
Other intangibles	1,710	—	—	—	—	—	—	—	216	(1)	215	1,925
Assets of discontinued operations	34,364	—	—	—	—	—	—	—	(28,641)	—	(28,641)	5,723
Investment in associates	171	—	—	—	—	—	—	—	—	(40)	(40)	131
Prepaid pension benefit cost	1,992	—	(1,740)	—	—	—	—	—	—	14	(1,726)	266
Other assets	14,727	(19)	474	—	143	116	(22)	977	1,804	12,121	15,594	30,321
	$ 175,289	$ (19)	$ (1,266)	$ —	$ (1,261)	$ 92	$ (112)	$ 977	$ (24,787)	$ 11,987	$(14,389)	$160,900
Total assets	$ 726,206	$ (94)	$ (1,266)	$ —	$ (1,261)	$ 36,670	$ 2,421	$ 1,256	$ —	$ 1,440	$ 39,166	$765,372
Liabilities												
Deposits												
Personal	$ 151,347	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ 10,346	$ —	$ 10,346	$161,693
Business and government	239,233	—	—	—	—	42,820	2,568	—	7,964	(5,050)	48,302	287,535
Bank	23,981	—	—	—	—	—	—	—	162	(4,858)	(4,696)	19,285
	414,561	—	—	—	—	42,820	2,568	—	18,472	(9,908)	53,952	468,513
Insurance and investment contracts for account of segregated fund holders	—	—	—	—	—	—	—	279	(22)	—	257	257
Other												
Acceptances	7,371	—	—	—	—	—	—	—	—	—	—	7,371
Obligations related to securities sold short	46,597	—	—	—	—	—	—	—	—	—	—	46,597
Obligations related to assets sold under repurchase agreements and securities loaned	41,207	—	—	—	—	(5,577)	—	—	376	—	(5,201)	36,006
Derivatives	108,908	—	—	—	—	(843)	10	—	2	—	(831)	108,077
Insurance claims and policy benefit liabilities	6,273	—	—	—	—	—	—	977	(381)	(2)	594	6,867
Liabilities of discontinued operations	24,454	—	—	—	—	—	—	—	(19,442)	—	(19,442)	5,012
Accrued pension and other post-employment benefit expense	1,477	—	98	—	—	—	—	—	—	1	99	1,576
Other liabilities	26,743	(40)	—	—	—	758	(1,642)	—	995	11,504	11,575	38,318
	263,030	(40)	98	—	—	(5,662)	(1,632)	977	(18,450)	11,503	(13,206)	249,824
Subordinated debentures	6,681	—	—	—	—	—	995	—	—	—	995	7,676
Trust capital securities	727	—	—	—	—	—	900	—	—	—	900	1,627
Total liabilities	684,999	(40)	98	—	—	37,158	2,831	1,256	—	1,595	42,898	727,897
Non-controlling interest in subsidiaries	2,256											n.a.
Equity attributable to shareholders												
Preferred shares	4,813	—	—	—	—	—	—	—	—	—	—	4,813
Common shares	13,378	—	—	—	—	—	—	—	—	—	—	13,378
Treasury shares – preferred	(2)	—	—	—	—	—	—	—	—	—	—	(2)
– common	(81)	—	—	—	—	—	—	—	—	—	—	(81)
Retained earnings	22,942	(57)	(1,364)	(1,664)	(1,261)	(415)	(226)	—	—	(668)	(5,655)	17,287
Other components of equity	(2,099)	3	—	1,664	—	(73)	(29)	—	—	520	2,085	(14)
	38,951	(54)	(1,364)	—	(1,261)	(488)	(255)	—	—	(148)	(3,570)	35,381
Non-controlling interests	n.a.	—	—	—	—	—	(155)	—	—	(7)	(162)	2,094
Total equity	n.a.	(54)	(1,364)	—	(1,261)	(488)	(410)	—	—	(155)	(3,732)	37,475
Total liabilities and equity	$ 726,206	$ (94)	$ (1,266)	$ —	$ (1,261)	$ 36,670	$ 2,421	$ 1,256	$ —	$ 1,440	$ 39,166	$765,372

n.a. Under IFRS, Non-controlling interests are presented as a component of Total equity.

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Reconciliation of Canadian GAAP and IFRS – Consolidated Statement of Income for the year ended October 31, 2011

(Millions of Canadian dollars)	Canadian GAAP	IFRS 1 Elections: Classification of financial instruments (Ref. 1)	IFRS 1 Elections: Employee benefits (Ref. 2)	IFRS 1 Elections: Cumulative translation differences (Ref. 3)	Other accounting policy differences: Goodwill (Ref. 4)	Other accounting policy differences: Securitization (derecognition) (Ref. 5)	Other accounting policy differences: Special purpose entities (Ref. 6)	Other accounting policy differences: Hedging and other (Ref. 9)	Total impact	IFRS
Interest income										
Loans	$ 12,975	$ 10	$ —	$ —	$ —	$ 1,847	$ 335	$ 69	$2,261	$15,236
Securities	5,118	(5)	—	—	—	(359)	(10)	6	(368)	4,750
Assets purchased under reverse repurchase agreements and securities borrowed	736	—	—	—	—	—	—	—	—	736
Deposits with banks	91	—	—	—	—	—	—	—	—	91
	18,920	5	—	—	—	1,488	325	75	1,893	20,813
Interest expense										
Deposits	5,242	—	—	—	—	1,297	20	(225)	1,092	6,334
Other liabilities	2,725	—	—	—	—	(54)	52	—	(2)	2,723
Subordinated debentures	353	—	—	—	—	—	48	(2)	46	399
	8,320	—	—	—	—	1,243	120	(227)	1,136	9,456
Net interest income	10,600	5	—	—	—	245	205	302	757	11,357
Non-interest income										
Insurance premiums, investment and fee income	4,479	—	(1)	—	—	—	—	(4)	(5)	4,474
Mutual fund revenue	1,977	—	—	—	—	—	—	(2)	(2)	1,975
Trading revenue	800	9	—	—	—	(58)	(95)	(1)	(145)	655
Investment management and custodial fees	1,998	—	—	—	—	1	(1)	1	1	1,999
Securities brokerage commissions	1,329	—	—	—	—	2	—	—	2	1,331
Service charges	1,324	—	—	—	—	—	—	(1)	(1)	1,323
Underwriting and other advisory fees	1,489	—	—	—	—	—	(4)	—	(4)	1,485
Foreign exchange revenue, other than trading	683	—	—	—	—	(1)	—	2	1	684
Card service revenue	646	—	—	—	—	—	251	(15)	236	882
Credit fees	707	—	—	—	—	—	—	—	—	707
Securitization revenue	797	—	—	—	—	(416)	(382)	1	(797)	—
Net gain on available-for-sale securities	128	1	—	—	—	(2)	1	(24)	(24)	104
Share of loss in associates	—	—	—	—	—	—	(13)	6	(7)	(7)
Other	473	(3)	—	1	—	256	5	(63)	196	669
Non-interest income	16,830	7	(1)	1	—	(218)	(238)	(100)	(549)	16,281
Total revenue	27,430	12	(1)	1	—	27	(33)	202	208	27,638
Provision for credit losses	975	(4)	—	—	—	—	84	78	158	1,133
Insurance policyholder benefits, claims and acquisition expense	3,360	—	—	—	—	—	—	(2)	(2)	3,358
Non-interest expense										
Human resources	8,958	—	(337)	—	—	—	—	40	(297)	8,661
Equipment	1,011	—	—	—	—	—	—	(1)	(1)	1,010
Occupancy	1,027	—	—	—	—	—	—	(1)	(1)	1,026
Communications	745	—	—	—	—	—	—	1	1	746
Professional fees	683	—	—	—	—	11	(9)	7	9	692
Outsourced item processing	268	—	—	—	—	—	—	(2)	(2)	266
Amortization of other intangibles	480	—	—	—	—	—	—	1	1	481
Other	1,281	(3)	—	—	—	(4)	3	8	4	1,285
	14,453	(3)	(337)	—	—	7	(6)	53	(286)	14,167
Income before income taxes	8,642	19	336	1	—	20	(111)	73	338	8,980
Income taxes	1,888	(5)	91	—	—	3	(25)	58	122	2,010
Net income before non-controlling interest	6,754									n.a.
Non-controlling interest in net income of subsidiaries	104									n.a.
Net income from continuing operations	6,650	24	245	1	—	17	(86)	15	216	6,970
Net loss from discontinued operations	(1,798)	19	—	—	1,254	—	—	(1)	1,272	(526)
Net income	$ 4,852	$ 43	$ 245	$ 1	$ 1,254	$ 17	$ (86)	$ 14	$1,488	$ 6,444
Net income attributed to:										
Shareholders										$ 6,343
Non-controlling interests										101
										$ 6,444

n.a. Under IFRS, Non-controlling interests in net income of subsidiaries is included in the determination of Net income.

Note 3 First time adoption of IFRS (continued)

Reconciliation of Canadian GAAP and IFRS – Consolidated Statement of Comprehensive Income for the year ended October 31, 2011

(Millions of Canadian dollars)	Canadian GAAP	Reclassifications	Accounting policy differences: Available-for-sale securities	Accounting policy differences: Derivative designated as cash flow hedges	Accounting policy differences: Currency translation adjustments	Other	IFRS
Comprehensive income							
Net income	$ 4,852	$ –	$ –	$ –	$ –	$1,592	$6,444
Other comprehensive income, net of taxes							
Net change in unrealized losses on available-for-sale securities							
Net unrealized losses on available-for-sale securities	(128)	–	98	–	–	–	(30)
Reclassification of (gains) losses on available-for-sale securities to income	(7)	20	–	–	–	–	13
	(135)	20	98	–	–	–	(17)
Foreign currency translation adjustments							
Unrealized foreign currency translation losses	(695)	–	–	–	70	–	(625)
Net foreign currency translation gains from hedging activities	725	–	–	–	(8)	–	717
Reclassification of gains on foreign currency translation to income	(8)	7	–	–	–	–	(1)
	22	7	–	–	62	–	91
Net change in cash flow hedges							
Net gains on derivatives designated as cash flow hedges	309	–	–	(11)	–	–	298
Reclassification of losses on derivatives designated as cash flow hedges to income	278	(146)	–	–	–	–	132
	587	(146)	–	(11)	–	–	430
Other comprehensive income, net of taxes	474	(119)	98	(11)	62	–	504
Total comprehensive income	$ 5,326	$ (119)	$ 98	$ (11)	$ 62	$1,592	$6,948
Total comprehensive income attributable to:							
Shareholders							$6,847
Non-controlling interests							101
							$6,948

Significant adjustments to the Statement of Cash Flows

On transition to IFRS, the following lines have been reclassified in the Consolidated Statements of Cash Flows from investing activities to operating activities: Change in loans, net of securitizations; Proceeds from securitizations; and Change in assets purchased under reverse repurchase agreements and securities borrowed. Additionally, the following lines have been reclassified from financing activities to operating activities: Change in deposits; Change in obligations related to assets sold under repurchase agreements and securities loaned; and Change in obligations related to securities sold short. The effects of these reclassifications and other transition impacts on our net cash from (used in) operating, investing, and financing activities are presented in the table below.

Reconciliation of Canadian GAAP and IFRS – Consolidated Statement of Cash Flows for the year ended October 31, 2011

(Millions of Canadian dollars)	Canadian GAAP	Reclassification adjustments	Other transition impacts	IFRS
Net cash from (used in) operating activities	$ 10,338	$ (9,475)	$ 3,616	$ 4,479
Net cash (used in) from investing activities	(32,936)	41,823	(3,685)	5,202
Net cash from (used in) financing activities	29,174	(32,348)	23	(3,151)
Effect of exchange rate changes on cash resources	57	–	19	76
Net change in cash resources	6,633	–	(27)	6,606
Cash resources at beginning of year (1)	9,330	–	(792)	8,538
Cash resources at end of year	$ 15,963	$ –	$ (819)	$15,144

(1) Cash resources represent our total Cash and due from banks relating to continuing operations, as presented on our Consolidated Balance Sheets, and Cash and due from banks relating to discontinued operations.

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Note 4 Fair value of financial instruments

Carrying value and fair value of selected financial instruments
The following tables provide a comparison of the carrying and fair values for each classification of financial instruments.

	As at October 31, 2012							
	Carrying value and fair value			Carrying value	Fair value			
(Millions of Canadian dollars)	Financial instruments classified as at FVTPL	Financial instruments designated as at FVTPL	Available-for-sale instruments measured at fair value	Loans and receivables and non-trading liabilities at amortized cost	Loans and receivables and non-trading liabilities	Held-to-maturity investments measured at amortized cost	Total carrying amount	Total fair value
Financial assets								
Securities								
Trading	$ 111,114	$ 9,669	$ –	$ –	$ –	$ –	$ 120,783	$ 120,783
Available-for-sale	–	–	40,320	–	–	508	40,828	40,828
Total securities	111,114	9,669	40,320	–	–	508	161,611	161,611
Assets purchased under reverse repurchase agreements and securities borrowed	–	86,918	–	25,339	25,339	–	112,257	112,257
Loans								
Retail	–	–	–	300,043	297,490	–	300,043	297,490
Wholesale	–	1,232	–	76,969	76,506	–	78,201	77,738
Total loans	–	1,232	–	377,012	373,996	–	378,244	375,228
Other								
Derivatives	91,293	–	–	–	–	–	91,293	91,293
Other assets	–	705	–	36,600	36,600	–	37,305	37,305
Financial liabilities								
Deposits								
Personal	$ –	$ 7,167	$ –	$ 172,335	$ 172,625	$ –	$ 179,502	$ 179,792
Business and government (1)	–	49,336	–	263,546	263,909	–	312,882	313,245
Bank (2)	–	2,524	–	13,311	13,311	–	15,835	15,835
Total deposits	–	59,027	–	449,192	449,845	–	508,219	508,872
Other								
Obligations related to securities sold short	40,756	–	–	–	–	–	40,756	40,756
Obligations related to assets sold under repurchase agreements and securities loaned	–	58,709	–	5,323	5,323	–	64,032	64,032
Derivatives	96,761	–	–	–	–	–	96,761	96,761
Other liabilities	101	29	–	47,635	47,635	–	47,765	47,765
Subordinated debentures	–	122	–	7,493	7,405	–	7,615	7,527
Trust capital securities	–	–	–	900	941	–	900	941

Note 4 Fair value of financial instruments (continued)

(Millions of Canadian dollars)	As at October 31, 2011							
	Carrying value and fair value			Carrying value	Fair value			
	Financial instruments classified as at FVTPL	Financial instruments designated as at FVTPL	Available-for-sale instruments measured at fair value	Loans and receivables and non-trading liabilities at amortized cost	Loans and receivables and non-trading liabilities	Held-to-maturity investments measured at amortized cost	Total carrying amount	Total fair value
Financial assets								
Securities								
Trading	$ 117,986	$ 10,142	$ –	$ –	$ –	$ –	$128,128	$128,128
Available-for-sale	–		38,433	–	–	461	38,894	38,894
Total securities	117,986	10,142	38,433	—	—	461	167,022	167,022
Assets purchased under reverse repurchase agreements and securities borrowed	–	74,860	–	10,087	10,087	–	84,947	84,947
Loans								
Retail	–	–	–	283,586	282,277	–	283,586	282,277
Wholesale	139	1,375	–	62,430	60,735	–	63,944	62,249
Total loans	139	1,375	–	346,016	343,012	–	347,530	344,526
Other								
Derivatives	99,650	–	–	–	–	–	99,650	99,650
Other assets	–	516	–	29,074	29,074	–	29,590	29,590
Financial liabilities								
Deposits								
Personal	$ –	$ 3,615	$ –	$ 162,415	$ 162,949	$ –	$166,030	$166,564
Business and government (1)	–	55,452	–	242,059	242,460	–	297,511	297,912
Bank (2)	–	3,777	–	11,784	11,784	–	15,561	15,561
Total deposits	–	62,844	–	416,258	417,193	–	479,102	480,037
Other								
Obligations related to securities sold short	44,284	–	–	–	–	–	44,284	44,284
Obligations related to assets sold under repurchase agreements and securities loaned	–	35,442	–	7,293	7,293	–	42,735	42,735
Derivatives	100,522	–	–	–	–	–	100,522	100,522
Other liabilities	68	12	–	43,309	43,309	–	43,389	43,389
Subordinated debentures	–	111	–	8,638	8,514	–	8,749	8,625
Trust capital securities	–	–	–	894	958	–	894	958

(Millions of Canadian dollars)	As at November 1, 2010							
	Carrying value and fair value			Carrying value	Fair value			
	Financial instruments classified as at FVTPL	Financial instruments designated as at FVTPL	Available-for-sale instruments measured at fair value	Loans and receivables and non-trading liabilities at amortized cost	Loans and receivables and non-trading liabilities	Held-to-maturity investments measured at amortized cost	Total carrying amount	Total fair value
Financial assets								
Securities								
Trading	$ 120,322	$ 9,517	$ –	$ –	$ –	$ –	$129,839	$129,839
Available-for-sale	–	–	48,588	–	–	656	49,244	49,244
Total securities	120,322	9,517	48,588	–	–	656	179,083	179,083
Assets purchased under reverse repurchase agreements and securities borrowed	–	60,864	–	11,834	11,834	–	72,698	72,698
Loans								
Retail	–	–	–	270,370	269,950	–	270,370	269,950
Wholesale	–	1,363	–	64,924	63,453	–	66,287	64,816
Total loans	–	1,363	–	335,294	333,403	–	336,657	334,766
Other								
Derivatives	106,109	–	–	–	–	–	106,109	106,109
Other assets	–	296	–	28,952	28,952	–	29,248	29,248
Financial liabilities								
Deposits								
Personal	$ –	$ 3,237	$ –	$ 158,456	$ 159,255	$ –	$161,693	$162,492
Business and government (1)	–	61,038	–	226,497	226,665	–	287,535	287,703
Bank (2)	–	4,713	–	14,572	14,572	–	19,285	19,285
Total deposits	–	68,988	–	399,525	400,492	–	468,513	469,480
Other								
Obligations related to securities sold short	46,597	–	–	–	–	–	46,597	46,597
Obligations related to assets sold under repurchase agreements and securities loaned	–	25,695	–	10,311	10,311	–	36,006	36,006
Derivatives	108,077	–	–	—	—	–	108,077	108,077
Other liabilities	(509)	127	–	42,654	42,333	–	42,272	41,951
Subordinated debentures	–	119	–	7,557	7,522	–	7,676	7,641
Trust capital securities	–	–	–	1,627	1,734	–	1,627	1,734

(1) Business and government includes deposits from regulated deposit-taking institutions other than regulated banks.
(2) Bank refers to regulated banks.

The following tables present information on loans and receivables designated as at FVTPL, the maximum exposure to credit risk, the extent to which the risk is mitigated by credit derivatives and similar instruments, and changes in the fair value of these assets. We measure the change in the fair value of loans and receivables designated as at FVTPL due to changes in credit risk as the difference between the total change in the fair value of the instrument during the period and the change in fair value calculated using the appropriate risk-free yield curves.

Loans and receivables designated as at fair value through profit or loss

	As at October 31, 2012						
(Millions of Canadian dollars)	**Carrying amount of loans and receivables designated as at FVTPL**	**Maximum exposure to credit risk**	**Extent to which credit derivatives or similar instruments mitigate credit risk**	**Change in fair value for the year attributable to changes in credit risk**	**Cumulative change in fair value since initial recognition attributable to changes in credit risk** (1)	**Change in fair value of credit derivatives or similar instruments for the year**	**Cumulative change in fair value of credit derivatives or similar instruments** (1)
Interest-bearing deposits with banks	**$ 120**	**$ 120**	**$ –**	**$ –**	**$ –**	**$ –**	**$ –**
Assets purchased under reverse repurchase agreements and securities borrowed	**86,918**	**86,918**	**–**	**–**	**–**	**–**	**–**
Loans – Wholesale	**1,232**	**1,232**	**284**	**3**	**(12)**	**(2)**	**1**
Other Assets	**311**	**311**	**–**	**–**	**–**	**–**	**–**
Total	**$ 88,581**	**$ 88,581**	**$ 284**	**$ 3**	**$ (12)**	**$ (2)**	**$ 1**

	As at October 31, 2011						
(Millions of Canadian dollars)	Carrying amount of loans and receivables designated as at FVTPL	Maximum exposure to credit risk	Extent to which credit derivatives or similar instruments mitigate credit risk	Change in fair value for the year attributable to changes in credit risk	Cumulative change in fair value since initial recognition attributable to changes in credit risk (1)	Change in fair value of credit derivatives or similar instruments for the year	Cumulative change in fair value of credit derivatives or similar instruments (1)
Interest-bearing deposits with banks	$ 666	$ 666	$ –	$ –	$ –	$ –	$ –
Assets purchased under reverse repurchase agreements and securities borrowed	74,860	74,860	–	–	–	–	–
Loans – Wholesale	1,375	1,375	300	(15)	(15)	3	3
Other assets	177	177	–	–	–	–	–
Total	$ 77,078	$ 77,078	$ 300	$ (15)	$ (15)	$ 3	$ 3

	As at November 1, 2010		
(Millions of Canadian dollars)	Carrying amount of loans and receivables designated as at FVTPL	Maximum exposure to credit risk	Extent to which credit derivatives or similar instruments mitigate credit risk
Interest-bearing deposits with banks	$ 182	$ 182	$ –
Assets purchased under reverse repurchase agreements and securities borrowed	60,864	60,864	–
Loans – Wholesale	1,363	1,363	346
Total	$ 62,409	$ 62,409	$ 346

(1) The cumulative change is measured from the later of November 1, 2010, or the initial recognition of the credit derivative or similar instruments.

The following tables present the changes in the fair value of our financial liabilities designated as at FVTPL as well as their contractual maturity and carrying amounts.

Note 4 Fair value of financial instruments (continued)

Liabilities designated as at fair value through profit or loss

(Millions of Canadian dollars)	As at October 31, 2012 Contractual maturity amount	Carrying value	Difference between carrying value and contractual maturity amount	Changes in fair value for the year attributable to changes in RBC credit spread	Cumulative change in fair value attributable to changes in RBC credit spread (1)
Term deposits					
Personal	**$ 7,152**	**$ 7,167**	**$ 15**	**$ 1**	**$ (13)**
Business and government (2)	**49,264**	**49,336**	**72**	**33**	**(12)**
Bank (3)	**2,524**	**2,524**	**–**	**–**	**–**
Total term deposits	**58,940**	**59,027**	**87**	**34**	**(25)**
Obligations related to assets sold under repurchase agreements and securities loaned	**58,710**	**58,709**	**(1)**	**–**	**–**
Other liabilities	**29**	**29**	**–**	**–**	**–**
Subordinated debentures	**125**	**122**	**(3)**	**4**	**(3)**
Total	**$ 117,804**	**$117,887**	**$ 83**	**$ 38**	**$ (28)**

(Millions of Canadian dollars)	As at October 31, 2011 Contractual maturity amount	Carrying value	Difference between carrying value and contractual maturity amount	Changes in fair value for the year attributable to changes in RBC credit spread	Cumulative change in fair value attributable to changes in RBC credit spread (1)
Term deposits					
Personal	$ 3,598	$ 3,615	$ 17	$ (14)	$ (14)
Business and government (2)	55,623	55,452	(171)	(45)	(45)
Bank (3)	3,777	3,777	–	–	–
Total term deposits	62,998	62,844	(154)	(59)	(59)
Obligations related to assets sold under repurchase agreements and securities loaned	35,444	35,442	(2)	–	–
Other liabilities	12	12	–	–	–
Subordinated debentures	128	111	(17)	(7)	(7)
Total	$ 98,582	$98,409	$ (173)	$ (66)	$ (66)

(Millions of Canadian dollars)	As at November 1, 2010 Contractual maturity amount	Carrying value	Difference between carrying value and contractual maturity amount
Term deposits			
Personal	$ 3,300	$ 3,237	$ (63)
Business and government (2)	61,124	61,038	(86)
Bank (3)	4,713	4,713	–
Total term deposits	69,137	68,988	(149)
Obligations related to assets sold under repurchase agreements and securities loaned	25,697	25,695	(2)
Other liabilities	127	127	–
Subordinated debentures	127	119	(8)
Total	$ 95,088	$94,929	$ (159)

(1) The cumulative change is measured from the later of November 1, 2010, or the initial recognition of the liabilities designated as at FVTPL.
(2) Business and government includes deposits from regulated deposit-taking institutions other than regulated banks.
(3) Bank refers to regulated banks.

Fair value of assets and liabilities classified using the fair value hierarchy

The following tables present the financial instruments measured at fair value classified by the fair value hierarchy set out in IFRS 7. IFRS 7 requires that all financial instruments measured at fair value be categorized into one of three hierarchy levels, as described below, for disclosure purposes. Each level is based on the transparency of the inputs used to measure the fair values of assets and liabilities:

- Level 1 – inputs are unadjusted quoted prices of identical instruments in active markets.
- Level 2 – inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3 – one or more significant inputs used in a valuation technique are unobservable in determining fair values of the instruments.

Determination of fair value and the resulting hierarchy requires the use of observable market data whenever available. The classification of a financial instrument in the hierarchy is based upon the lowest level of input that is significant to the measurement of fair value.

(Millions of Canadian dollars)	As at October 31, 2012						As at October 31, 2011					
	Fair value measurements using (1)			Total gross fair value	Netting adjustments	Assets/ liabilities at fair value	Fair value measurements using (1)			Total gross fair value	Netting adjustments	Assets/ liabilities at fair value
	Level 1	Level 2	Level 3				Level 1	Level 2	Level 3			
Financial assets												
Interest bearing deposits with banks	$ —	$ 120	$ –	$ 120	$	$ 120	$ –	$ 666	$ —	$ 666	$	$ 666
Securities												
Trading												
Canadian government debt (2)												
Federal	8,158	7,234	–	15,392		15,392	8,165	9,267	–	17,432		17,432
Provincial and municipal	–	8,465	–	8,465		8,465	–	6,929	4	6,933		6,933
U.S. state, municipal and agencies debt (2)	2,287	18,364	99	20,750		20,750	2,270	17,195	86	19,551		19,551
Other OECD government debt (3)	3,781	7,754	375	11,910		11,910	6,204	11,854	47	18,105		18,105
Mortgage-backed securities (2)	–	693	55	748		748	–	371	45	416		416
Asset-backed securities												
CDOs (4)	–	–	59	59		59	–	–	371	371		371
Non-CDO securities	–	700	23	723		723	–	780	138	918		918
Corporate debt and other debt	62	21,972	397	22,431		22,431	101	24,149	720	24,970		24,970
Equities	37,924	2,079	302	40,305		40,305	36,431	2,649	352	39,432		39,432
	52,212	67,261	1,310	120,783		120,783	53,171	73,194	1,763	128,128		128,128
Available-for-sale (5)												
Canadian government debt (2)												
Federal	367	10,914	–	11,281		11,281	1,058	8,473	–	9,531		9,531
Provincial and municipal	–	1,785	–	1,785		1,785	–	1,561	–	1,561		1,561
U.S. state, municipal and agencies debt (2)	23	3,856	1,906	5,785		5,785	119	2,083	2,691	4,893		4,893
Other OECD government debt	6,081	3,744	–	9,825		9,825	4,017	3,016	–	7,033		7,033
Mortgage-backed securities (2)	–	263	–	263		263	–	126	184	310		310
Asset-backed securities												
CDOs	–	–	1,996	1,996		1,996	–	–	1,932	1,932		1,932
Non-CDO securities	–	180	645	825		825	–	322	673	995		995
Corporate debt and other debt	–	5,062	1,446	6,508		6,508	–	9,048	1,478	10,526		10,526
Equities	266	603	948	1,817		1,817	158	404	863	1,425		1,425
Loan substitute securities	192	25	–	217		217	187	35	–	222		222
	6,929	26,432	6,941	40,302		40,302	5,539	25,068	7,821	38,428		38,428
Asset purchased under reverse repurchase agreements and securities borrowed	–	86,918	–	86,918		86,918	–	74,860	–	74,860		74,860
Loans	–	829	403	1,232		1,232	–	951	563	1,514		1,514
Other												
Derivatives												
Interest rate contracts	5	99,062	842	99,909		99,909	5	85,150	666	85,821		85,821
Foreign exchange contracts	–	19,126	118	19,244		19,244	–	27,068	81	27,149		27,149
Credit derivatives	–	167	125	292		292	–	349	291	640		640
Other contracts	1,699	2,296	448	4,443		4,443	1,671	4,129	428	6,228		6,228
Valuation adjustments determined on a pooled basis	(23)	(321)	(282)	(626)		(626)	(48)	(249)	(451)	(748)		(748)
Total gross derivatives	1,681	120,330	1,251	123,262		123,262	1,628	116,447	1,015	119,090		119,090
Netting adjustments					(31,969)	(31,969)					(19,440)	(19,440)
Total derivatives						91,293						99,650
Other assets	394	297	14	705		705	340	176	–	516		516
	$ 61,216	$302,187	$ 9,919	$ 373,322	$ (31,969)	$341,353	$60,678	$291,362	$11,162	$363,202	$ (19,440)	$343,762
Financial Liabilities												
Deposits												
Personal	$ –	$ 327	$ 6,840	$ 7,167	$	$ 7,167	$ –	$ –	$ 3,615	$ 3,615	$	$ 3,615
Business and government	–	46,817	2,519	49,336		49,336	–	52,017	3,435	55,452		55,452
Bank	–	2,524	–	2,524		2,524	–	3,777	–	3,777		3,777
Other												
Obligations related to securities sold short	27,365	13,383	8	40,756		40,756	31,416	12,868	–	44,284		44,284
Obligations related to assets sold under repurchase agreements and securities loaned	–	58,709	–	58,709		58,709	–	35,442	–	35,442		35,442
Derivatives												
Interest rate contracts	2	91,180	1,329	92,511		92,511	2	78,275	841	79,118		79,118
Foreign exchange contracts	–	28,016	316	28,332		28,332	–	30,975	41	31,016		31,016
Credit derivatives	–	188	147	335		335	–	261	573	834		834
Other contracts	1,370	4,501	1,500	7,371		7,371	1,824	5,147	1,496	8,467		8,467
Total gross derivatives	1,372	123,885	3,292	128,549		128,549	1,826	114,658	2,951	119,435		119,435
Netting adjustments					(31,788)	(31,788)					(18,913)	(18,913)
Total derivatives						96,761						100,522
Other liabilities	–	29	101	130		130	–	12	68	80		80
Subordinated debentures	–	–	122	122		122	–	–	111	111		111
	$ 28,737	$245,674	$ 12,882	$ 287,293	$ (31,788)	$255,505	$33,242	$218,774	$10,180	$262,196	$ (18,913)	$243,283

Note 4 Fair value of financial instruments (continued)

(Millions of Canadian dollars)	As at November 1, 2010					
	Fair value measurements using (1)			Total gross fair value	Netting adjustments	Assets/ liabilities at fair value
	Level 1	Level 2	Level 3			
Financial assets						
Interest bearing deposits with banks	$ –	$ 182	$ –	$ 182	$	$ 182
Securities						
Trading						
Canadian government debt (2)						
Federal	–	16,974	14	16,988		16,988
Provincial and municipal	–	7,243	5	7,248		7,248
U.S. state, municipal and agencies debt (2)	–	12,353	41	12,394		12,394
Other OECD government debt (3)	–	17,899	42	17,941		17,941
Mortgage-backed securities (2)	–	10	416	426		426
Asset-backed securities						
CDOs (4)	–	–	2,460	2,460		2,460
Non-CDO securities	–	236	541	777		777
Corporate debt and other debt	30	31,108	1,482	32,620		32,620
Equities	35,767	845	2,373	38,985		38,985
	35,797	86,668	7,374	129,839		129,839
Available-for-sale (5)						
Canadian government debt (2)						
Federal	–	16,274	–	16,274		16,274
Provincial and municipal	–	1,536	–	1,536		1,536
U.S. state, municipal and agencies debt (2)	–	4,722	3,277	7,999		7,999
Other OECD government debt	1,451	3,629	–	5,080		5,080
Mortgage-backed securities (2)	–	–	1,545	1,545		1,545
Asset-backed securities						
CDOs	–	–	224	224		224
Non-CDO securities	–	480	736	1,216		1,216
Corporate debt and other debt	358	9,950	2,350	12,658		12,658
Equities	167	139	1,265	1,571		1,571
Loan substitute securities	–	228	–	228		228
	1,976	36,958	9,397	48,331		48,331
Asset purchased under reverse repurchase agreements and securities borrowed	–	60,864	–	60,864		60,864
Loans	–	771	592	1,363		1,363
Other						
Derivatives						
Interest rate contracts	3	66,737	779	67,519		67,519
Foreign exchange contracts	–	29,616	101	29,717		29,717
Credit derivatives	–	972	960	1,932		1,932
Other contracts	1,960	2,193	3,735	7,888		7,888
Valuation adjustments determined on a pooled basis	(1)	(210)	(482)	(693)		(693)
Total gross derivatives	1,962	99,308	5,093	106,363		106,363
Netting adjustments					(254)	(254)
Total derivatives						106,109
Other assets	286	10	–	296		296
	$ 40,021	$ 284,761	$ 22,456	$ 347,238	$ (254)	$ 346,984
Financial Liabilities						
Deposits						
Personal	$ –	$ –	$ 3,237	$ 3,237	$	$ 3,237
Business and government	–	57,658	3,380	61,038		61,038
Bank	–	4,713	–	4,713		4,713
Other						
Obligations related to securities sold short	14,780	31,577	240	46,597		46,597
Obligations related to assets sold under repurchase agreements and securities loaned	–	25,695	–	25,695		25,695
Derivatives						
Interest rate contracts	1	60,840	415	61,256		61,256
Foreign exchange contracts	–	34,967	27	34,994		34,994
Credit derivatives	–	1,112	608	1,720		1,720
Other contracts	1,203	3,743	5,415	10,361		10,361
Total gross derivatives	1,204	100,662	6,465	108,331		108,331
Netting adjustments					(254)	(254)
Total derivatives						108,077
Other liabilities	–	–	(382)	(382)		(382)
Subordinated debentures	–	–	119	119		119
	$ 15,984	$ 220,305	$ 13,059	$ 249,348	$ (254)	$ 249,094

(1) Transfer between Level 1 and Level 2 is dependant on whether fair value is obtained on the basis of quoted market prices in active markets. During the year ended October 31, 2012, certain government bonds of $496 million reported in Trading and AFS Canadian government debt – Federal and U.S. state, municipal and agencies debt, and $1,654 million included in Obligations related to securities sold short were transferred from Level 2 to the corresponding Level 1 balances. In addition, certain government bonds of $1,545 million reported in Trading and AFS Canadian government debt – Federal and U.S. state, municipal and agencies debt, and $253 million included in Obligations related to securities sold short were transferred from Level 1 to the corresponding Level 2 balances. For the year ended October 31, 2011, our most significant transfer to Level 1 was the transfer of $20 billion of G7 issued debt in the first quarter of 2011, from Level 2 Trading and AFS Canadian government debt – Federal, U.S. state, municipal and agencies debt, and Other OECD government debt, to the corresponding Level 1 balances.

(2) As at October 31, 2012, residential and commercial MBS included in Trading securities were $7,761 million and $78 million (October 31, 2011 – $7,190 million and $43 million; November 1, 2010 – $5,110 million and $96 million), respectively, and in AFS securities, $3,682 million and $42 million (October 31, 2011 – $740 million and $54 million; November 1, 2010 – $3,531 million and $152 million), respectively.

(3) OECD stands for Organisation for Economic Co-operation and Development.

(4) CDOs stand for Collateralized Debt Obligations.

(5) Excludes $18 million and $508 million of AFS and held-to-maturity securities (October 31, 2011 – $5 million and $461 million; November 1, 2010 – $257 million and $656 million), respectively, that are carried at cost.

Changes in fair value measurement for instruments categorized in Level 3

The following tables present the changes in fair value measurements for instruments included in Level 3 of the fair value hierarchy. In the tables below, transfers in and out of Level 3 are assumed to occur at the end of the period. For an asset or a liability that transfers into Level 3 during the period, the entire change in fair value for the period is excluded from the Total realized/unrealized gains (losses) included in earnings column of the reconciliation, whereas for transfers out of Level 3 during the period, the entire change in fair value for the period is included in the same column of the reconciliation.

	For the year ended October 31, 2012								
(Millions of Canadian dollars)	Fair value November 1, 2011	Total realized/ unrealized gains (losses) included in earnings	Total unrealized gains (losses) included in other comprehensive income (1)	Purchases of assets/ issuances of liabilities	Sales of assets/ settlements of liabilities and others (2)	Transfers into Level 3	Transfers out of Level 3	Fair value October 31, 2012	Changes in unrealized gains (losses) included in earnings for assets and liabilities for the year ended October 31, 2012 for positions still held
Assets									
Securities									
Trading									
Canadian government debt									
Federal	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ –
Provincial and municipal	4	–	–	1	(3)	1	(3)	–	–
U.S. state, municipal and agencies debt	86	(6)	–	140	(150)	84	(55)	99	–
Other OECD government debt	47	–	–	85	290	–	(47)	375	–
Mortgage-backed securities	45	–	(1)	38	(27)	–	–	55	–
Asset-backed securities									
CDOs	371	5	1	–	(318)	–	–	59	3
Non-CDO securities	138	–	–	2,421	(2,553)	46	(29)	23	(2)
Corporate debt and other debt	720	34	–	704	(1,069)	99	(91)	397	10
Equities	352	(30)	(2)	47	(106)	53	(12)	302	8
	1,763	3	(2)	3,436	(3,936)	283	(237)	1,310	19
Available-for-sale									
U.S. state, municipal and agencies debt	2,691	4	10	497	(940)	–	(356)	1,906	n.a
Other OECD government debt	–	–	–	–	–	–	–	–	n.a
Mortgage-backed securities	184	(1)	11	–	(38)	–	(156)	–	n.a
Asset-backed securities									
CDOs	1,932	6	66	–	(8)	–	–	1,996	n.a
Non-CDO securities	673	(4)	21	23	(68)	–	–	645	n.a
Corporate debt and other debt	1,478	–	–	633	(665)	–	–	1,446	n.a
Equities	863	10	73	97	(118)	69	(46)	948	n.a
	7,821	15	181	1,250	(1,837)	69	(558)	6,941	n.a
Loans – Wholesale	563	(34)	–	271	(397)	–	–	403	6
Other									
Derivatives, net of derivative related liabilities (3)	(1,936)	(258)	(15)	(33)	164	(4)	41	(2,041)	(513)
Other assets	–	2	–	–	12	–	–	14	11
	$ 8,211	$ (272)	$ 164	$ 4,924	$ (5,994)	$ 348	$ (754)	$ 6,627	$ (477)
Liabilities									
Deposits									
Personal	$ (3,615)	$ (258)	$ 81	$ (6,265)	$ 3,164	$ (6)	$ 59	$ (6,840)	$ (97)
Business and government	(3,435)	(62)	63	(754)	1,003	(443)	1,109	(2,519)	(57)
Bank	–	–	–	–	–	–	–	–	–
Other									
Obligations related to securities sold short	–	–	–	(2)	2	(8)	–	(8)	–
Other liabilities	(68)	(35)	1	–	1	–	–	(101)	(33)
Subordinated debentures	(111)	(13)	2	–	–	–	–	(122)	(12)
	$ (7,229)	$ (368)	$ 147	$ (7,021)	$ 4,170	$ (457)	$ 1,168	$ (9,590)	$ (199)

Note 4 Fair value of financial instruments (continued)

(Millions of Canadian dollars)	Fair value November 1, 2010	Less Level 3 assets related to discontinued operations	Total realized/ unrealized gains (losses) included in earnings	Total unrealized gains (losses) included in other comprehensive income (1)	Purchases of assets/ issuances of liabilities	Sales of assets/ settlements of liabilities and others (2)	Transfers into Level 3	Transfers out of Level 3	Fair value October 31, 2011	Changes in unrealized gains (losses) included in earnings for assets and liabilities for the year ended October 31, 2011 for positions still held
	For the year ended October 31, 2011									
Assets										
Securities										
Trading										
Canadian government debt										
Federal	$ 14	$ –	$ –	$ –	$ –	$ (10)	$ –	$ (4)	$ –	$ –
Provincial and municipal	5	–	–	–	1	(2)	7	(7)	4	–
U.S. state, municipal and agencies debt	41	–	1	–	304	(302)	158	(116)	86	–
Other OECD government debt	42	–	–	–	–	47	–	(42)	47	–
Mortgage-backed securities	416	–	(44)	(7)	1,975	(1,370)	62	(987)	45	(6)
Asset-backed securities										
CDOs	2,460	–	(76)	(55)	21	(1,979)	–	–	371	(3)
Non-CDO securities	541	–	(2)	(4)	3,027	(2,906)	87	(605)	138	–
Corporate debt and other debt	1,482	–	(83)	(18)	677	(1,134)	185	(389)	720	(79)
Equities	2,373	–	49	(40)	541	(68)	14	(2,517)	352	(22)
	7,374	–	(155)	(124)	6,546	(7,724)	513	(4,667)	1,763	(110)
Available-for-sale										
U.S. state, municipal and agencies debt	3,277	(97)	6	(227)	292	474	–	(1,034)	2,691	n.a.
Other OECD government debt	–	–	–	–	–	–	–	–	–	n.a.
Mortgage-backed securities	1,545	(1,039)	5	(2)	4	(135)	184	(378)	184	n.a.
Asset-backed securities										
CDOs	224	–	–	(70)	–	1,778	–	–	1,932	n.a.
Non-CDO securities	736	(46)	(25)	25	43	(56)	158	(162)	673	n.a.
Corporate debt and other debt	2,350	(76)	(1)	(63)	1,299	(2,052)	95	(74)	1,478	n.a.
Equities	1,265	(27)	(25)	14	80	(310)	28	(162)	863	n.a.
	9,397	(1,285)	(40)	(323)	1,718	(301)	465	(1,810)	7,821	n.a.
Loans – Wholesale	592	–	11	(13)	192	(302)	85	(2)	563	7
Other										
Derivatives, net of derivative related liabilities (3)	(1,372)	(67)	(436)	74	(54)	17	(378)	280	(1,936)	(224)
	$ 15,991	$ (1,352)	$ (620)	$ (386)	$ 8,402	$ (8,310)	$ 685	$ (6,199)	$ 8,211	$ (327)
Liabilities										
Deposits										
Personal	$ (3,237)	$ –	$ 131	$ 28	$ (3,091)	$ 2,554	$ –	$ –	$ (3,615)	$ 166
Business and government	(3,380)	–	138	43	(1,836)	1,543	–	57	(3,435)	214
Bank	–	–	–	–	–	–	–	–	–	–
Other										
Obligations related to securities sold short	(240)	–	(5)	1	(6)	64	–	186	–	–
Other liabilities	382	–	(71)	(18)	(2)	(358)	–	(1)	(68)	(52)
Subordinated debentures	(119)	–	9	–	–	(1)	–	–	(111)	9
	$ (6,594)	$ –	$ 202	$ 54	$ (4,935)	$ 3,802	$ –	$ 242	$ (7,229)	$ 337

(1) Includes the foreign currency translation gains or losses arising on consolidation of foreign subsidiaries relating to the Level 3 instruments, where applicable. The unrealized gains on AFS securities were $162 million for the year ended October 31, 2012 (October 31, 2011 – losses of $72 million), excluding the translation gains or losses arising on consolidation.

(2) Others include amortization of premiums or discounts recognized in net income.

(3) Net derivatives as at October 31, 2012 included derivative assets of $1,251 million (October 31, 2011 – $1,015 million; November 1, 2010 – $5,093 million) and derivative liabilities of $3,292 million (October 31, 2011 – $2,951 million; November 1, 2010 – $6,465 million).

During the year ended October 31, 2012, there were significant transfers of AFS securities from Level 3 to Level 2, mainly due to increase in price transparency of certain U.S. state, municipal and agencies debt. During the year, certain Business and government deposits were transferred out of Level 3 because their spreads became observable. Certain derivative assets and derivative liabilities were also transferred out of Level 3 in the same period. A majority of the transfers were related to derivatives for which maturity dates became shorter due to passage of time; hence pricing became observable.

For the year ended October 31, 2011, U.S. state municipal and agencies debt and Corporate debt and other debt within Trading securities were transferred into Level 3 due to lack of observable market inputs. During the prior year, there were significant transfers of Level 3 Trading securities to Level 2, consisting mainly of Equities that can be redeemable at net asset values (NAVs) and MBS for which pricing became observable. Significant transfers out of Level 3 in the prior year also included AFS securities, primarily due to the increased pricing transparency of certain U.S. state, municipal and agencies debt.

Positive and negative fair value movement of Level 3 financial instruments from using reasonably possible alternative assumptions

A financial instrument is classified as Level 3 in the fair value hierarchy if one or more of its unobservable inputs may significantly affect the measurement of the fair value. In preparing the financial statements, appropriate levels for these unobservable input parameters are chosen so that they are consistent with prevailing market evidence or management judgment. Due to the unobservable nature of the prices or rates, there may be uncertainty about valuation of these Level 3 financial instruments.

The following table summarizes the impact to fair values of Level 3 financial instruments using reasonably possible alternative assumptions. This sensitivity disclosure is intended to illustrate the potential impact of the relative uncertainty in the fair value of Level 3 financial instruments. In reporting the sensitivities below, we have considered offsetting balances in instances when: (i) the move in valuation factor caused an offsetting positive and negative fair value movement, (ii) both offsetting instruments are in Level 3, and (iii) when exposures are managed and reported on a net basis. With respect to overall sensitivity, it is unlikely in practice that all reasonably possible alternative assumptions would be simultaneously realized.

	As at October 31, 2012			As at October 31, 2011		
(Millions of Canadian dollars)	Level 3 fair value	Positive fair value movement from using reasonably possible alternatives	Negative fair value movement from using reasonably possible alternatives	Level 3 fair value	Positive fair value movement from using reasonably possible alternatives	Negative fair value movement from using reasonably possible alternatives
Securities						
Trading						
Canadian government debt	**$ –**	**$ –**	**$ –**	$ 4	$ –	$ –
U.S. state, municipal and agencies debt	**99**	**–**	**–**	86	–	–
Other OECD government debt	**375**	**–**	**–**	47	–	–
Mortgage-backed securities	**55**	**1**	**(1)**	45	–	–
Asset-backed securities	**82**	**3**	**(3)**	509	3	(3)
Corporate debt and other debt	**397**	**40**	**(32)**	720	20	(17)
Equities	**302**	**2**	**(2)**	352	–	–
Available-for-sale						
U.S. state, municipal and agencies debt	**1,906**	**25**	**(48)**	2,691	36	(78)
Mortgage-backed securities	**–**	**–**	**–**	184	3	(3)
Asset-backed securities	**2,641**	**29**	**(37)**	2,605	36	(50)
Corporate debt and other debt	**1,446**	**13**	**(12)**	1,478	12	(11)
Equities	**948**	**20**	**(24)**	863	3	(2)
Loans	**403**	**3**	**(3)**	563	9	(11)
Derivatives	**1,251**	**106**	**(117)**	1,015	171	(151)
Other assets	**14**	**1**	**(1)**	–	–	–
Total	**$ 9,919**	**$ 243**	**$ (280)**	$ 11,162	$ 293	$ (326)
Deposits	**(9,359)**	**84**	**(84)**	(7,050)	61	(59)
Derivatives	**(3,292)**	**41**	**(60)**	(2,951)	119	(133)
Other, securities sold short, other liabilities and subordinated debentures	**(231)**	**8**	**(8)**	(179)	1	(1)
Total	**$ (12,882)**	**$ 133**	**$ (152)**	$ (10,180)	$ 181	$ (193)

	As at November 1, 2010		
(Millions of Canadian dollars)	Level 3 fair value	Positive fair value movement from using reasonably possible alternatives	Negative fair value movement from using reasonably possible alternatives
Securities			
Trading			
Canadian government debt	$ 19	$ –	$ –
U.S. state, municipal and agencies debt	41	–	–
Other OECD government debt	42	–	–
Mortgage-backed securities	416	37	(33)
Asset-backed securities	3,001	20	(31)
Corporate debt and other debt	1,482	26	(21)
Equities	2,373	–	–
Available-for-sale			
U.S. state, municipal and agencies debt	3,277	35	(75)
Mortgage-backed securities	1,545	67	(92)
Asset-backed securities	960	22	(48)
Corporate debt and other debt	2,350	39	(31)
Equities	1,265	–	–
Loans	592	3	(2)
Derivatives	5,093	194	(170)
Other assets	–	–	–
Total	$ 22,456	$ 443	$ (503)
Deposits	(6,617)	10	(10)
Derivatives	(6,465)	81	(87)
Other, securities sold short, other liabilities and subordinated debentures	23	–	–
Total	$ (13,059)	$ 91	$ (97)

Note 4 Fair value of financial instruments (continued)

Sensitivity results

As at October 31, 2012, the effects of applying other reasonably possible alternative assumptions to the Level 3 asset positions would be an increase of $243 million and a reduction of $280 million in fair value, of which $87 million and $121 million would be recorded in Other components of equity. The effects of applying these assumptions to the Level 3 liability positions would result in a decrease of $133 million and an increase of $152 million in fair value. The reduction in both positive and negative fair value movement in Derivative related assets was caused by the termination of a certain credit derivative transaction. The reduction in both positive and negative fair value movement of Derivative related liabilities was due to the reduction of a certain MBS reference portfolio.

Level 3 valuation inputs and approaches of developing reasonably possible alternative assumptions

Level 3 financial instruments primarily include asset-backed securities (ABS) including Collateralized Loan Obligations and CDOs, auction-rate securities (ARS), municipal bonds, U.S. Non-agency MBS, non-OECD government and corporate debt with long-dated maturities and significant unobservable spreads, hedge fund investments with certain redemption restrictions, certain structured debt securities, private equities, derivatives referenced to the performance of certain CDOs, commodity derivatives, equity-linked and interest-rate-linked structured notes, and deposit notes with long-dated maturities and significant unobservable spreads.

The following is a summary of the unobservable inputs of the Level 3 instruments and our approach to develop reasonably possible alternative assumptions used to determine sensitivity:

The fair value of subprime, Alt-A and prime MBS, Collateralized Loan Obligations, CDOs, corporate bonds and loans, floating-rate notes, non-OECD countries' government debt and municipal bonds are determined using prices from pricing services. These securities were classified as Level 3 due to a lack of market observable pricing. The positive and negative sensitivities are determined based on plus or minus one standard deviation of the input prices if a sufficient number of prices is received, or using high and low vendor prices as reasonably possible alternative assumptions.

The fair value of certain municipal and student loan ARS is determined by the discounted cash flow valuation technique. Cash flows of the underlying ARS assets are forecasted based on unobservable parameters such as defaults, prepayments and delinquencies, and are discounted using a market observable interest rate and an unobservable discount margin. In calculating the sensitivity of these ARS, we decreased the discount margin between .2% and 1.2% and increased the discount margin between .5% and 2.0%, depending on the specific reasonable range of fair value uncertainty for each particular financial instrument's market.

Trading Equities consist of hedge fund units with certain redemption restrictions. The NAVs of the funds and the corresponding equity derivatives in the Derivatives (Liability) referenced to NAVs are not considered observable because we cannot redeem these hedge funds at NAV. The NAVs of the AFS private equities are also unobservable due to the few recent market transactions to support their values. We have not applied another reasonably possible alternative assumption to these private equity positions as the NAVs are provided by the fund managers. This approach also applies to our hedge fund and related equity derivatives.

Derivative assets and liabilities consist of CDO-referenced derivatives, commodity derivatives, structured-interest-rate derivatives, hedge fund swaps and bank-owned life insurance (BOLI). Inputs for CDOs are based on credit default correlation. Commodity derivatives inputs are contract prices and prices for certain long-term contracts in which prices are not observable. For our commodity derivatives sensitivity, we applied one standard deviation to the commodity prices. Interest rate swaps and options were classified as Level 3 if their terms exceed certain observable periods or contain unique features, respectively. The sensitivity for interest rate swaps, cross currency swaps and options is derived using a combination of model and parameter uncertainty valuation adjustments. For BOLI, the unobservable inputs include default rates, prepayment rates, severity and housing price index. For sensitivity, the range of values was determined as reasonably possible alternative assumptions by adjusting these parameters by 10% and the housing price index by one standard deviation. The sensitivity for the derivative credit valuation adjustment was calculated using a combination of increasing the relative credit spread by 9.0%, and an amount for model uncertainty.

Equity-linked and interest-rate-linked structured notes, as well as promissory notes with significant unobservable spreads and limited market activities are included in Deposits. For equity-linked and interest-rate-linked structured notes, model parameters include volatility rate, dividend rate, correlation and foreign currency rate. The model parameters are adjusted by plus or minus one standard deviation and the interest rate curves by certain basis points to derive the sensitivities.

Note 5 Securities

Carrying value of securities
The following table presents the financial instruments that we held at the end of the period, measured at carrying value:

(Millions of Canadian dollars)	As at October 31, 2012						
	Term to maturity (1)						
	Within 3 months	3 months to 1 year	1 to 5 years	5 years to 10 years	Over 10 years	With no specific maturity	Total
Trading account (2)							
Canadian government debt	$ 3,696	$ 6,085	$ 6,351	$ 1,674	$ 6,051	$ –	$ 23,857
U.S. government debt	1,580	4,461	5,537	1,649	7,523	–	20,750
Other OECD government debt	1,400	2,116	4,696	2,150	1,548	–	11,910
Mortgage-backed securities (3)	–	7	37	114	590	–	748
Asset-backed securities (3)	29	68	312	166	207	–	782
Corporate debt and other debt (3)							
Bankers' acceptances	925	14	–	–	–	–	939
Certificates of deposit	377	559	611	9	9	–	1,565
Other (4)	2,524	2,697	9,207	2,254	3,245	–	19,927
Equities	–	–	–	–	–	40,305	40,305
	10,531	16,007	26,751	8,016	19,173	40,305	120,783
Available-for-sale securities (2)							
Canadian government debt							
Federal							
Amortized cost	310	851	8,230	864	513	–	10,768
Fair value	312	858	8,626	956	529	–	11,281
Yield (5)	.8%	3.1%	2.6%	3.3%	2.7%	–	2.7%
Provincial and municipal							
Amortized cost	43	804	895	12	20	–	1,774
Fair value	43	810	897	13	22	–	1,785
Yield (5)	.8%	3.1%	1.6%	5.4%	4.8%	–	2.3%
U.S. state, municipal and agencies debt							
Amortized cost	46	50	285	418	5,130	–	5,929
Fair value	46	50	286	417	4,986	–	5,785
Yield (5)	.4%	.1%	.3%	.9%	.8%	–	.8%
Other OECD government debt							
Amortized cost	6,218	1,605	1,598	385	–	–	9,806
Fair value	6,217	1,610	1,607	391	–	–	9,825
Yield (5)	.2%	.6%	1.1%	2.4%	–	–	.5%
Mortgage-backed securities							
Amortized cost	–	–	–	21	232	–	253
Fair value	–	–	–	22	241	–	263
Yield (5)	–	–	–	4.5%	2.3%	–	2.4%
Asset-backed securities							
Amortized cost	69	95	217	1,621	873	–	2,875
Fair value	68	97	225	1,665	766	–	2,821
Yield (5)	.7%	.7%	1.0%	.7%	1.1%	–	.8%
Corporate debt and other debt							
Amortized cost	3,611	917	1,319	294	366	–	6,507
Fair value	3,630	919	1,316	296	347	–	6,508
Yield (5)	1.0%	1.2%	2.5%	4.9%	4.9%	–	1.7%
Equities							
Cost	–	–	–	–	–	1,584	1,584
Fair value	–	–	–	–	–	1,835	1,835
Loan substitute							
Cost	–	–	–	–	–	209	209
Fair value	–	–	–	–	–	217	217
Yield (5)	–	–	–	–	–	3.6%	3.6%
Amortized cost	10,297	4,322	12,544	3,615	7,134	1,793	39,705
Fair value	10,316	4,344	12,957	3,760	6,891	2,052	40,320
Held-to-maturity securities (2)							
Amortized cost	131	186	112	78	1	–	508
Fair value	131	186	112	78	1	–	508
Total carrying value of securities (2)	$ 20,978	$ 20,537	$ 39,820	$ 11,854	$ 26,065	$ 42,357	$ 161,611

Note 5 Securities (continued)

(Millions of Canadian dollars)	As at October 31, 2011						
	Term to maturity (1)						
	Within 3 months	3 months to 1 year	1 to 5 years	5 years to 10 years	Over 10 years	With no specific maturity	Total
Trading account (2)							
Canadian government debt	$ 1,902	$ 8,000	$ 8,768	$ 1,569	$ 4,126	$ –	$ 24,365
U.S. government debt	313	5,594	4,659	1,485	7,500	–	19,551
Other OECD government debt	2,109	5,144	5,333	3,957	1,562	–	18,105
Mortgage-backed securities (3)	–	3	97	39	277	–	416
Asset-backed securities (3)	160	44	422	237	426	–	1,289
Corporate debt and other debt (3)							
Bankers' acceptances	582	287	–	–	–	–	869
Certificates of deposit	3	974	352	7	12	–	1,348
Other (4)	2,142	4,876	10,369	1,873	3,493	–	22,753
Equities	–	–	–	–	–	39,432	39,432
	7,211	24,922	30,000	9,167	17,396	39,432	128,128
Available-for-sale securities (2)							
Canadian government debt							
Federal							
Amortized cost	284	353	7,697	680	26	–	9,040
Fair value	284	360	8,156	703	28	–	9,531
Yield (5)	.5%	4.3%	3.1%	2.6%	4.1%	–	3.0%
Provincial and municipal							
Amortized cost	301	89	1,112	14	21	–	1,537
Fair value	302	91	1,131	15	22	–	1,561
Yield (5)	4.9%	3.6%	2.6%	5.4%	4.9%	–	3.1%
U.S. state, municipal and agencies debt							
Amortized cost	60	51	53	10	4,864	–	5,038
Fair value	60	51	55	10	4,717	–	4,893
Yield (5)	1.1%	1.7%	1.3%	4.9%	1.8%	–	1.8%
Other OECD government debt							
Amortized cost	4,006	1,108	1,736	190	–	–	7,040
Fair value	4,005	1,105	1,730	193	–	–	7,033
Yield (5)	.2%	1.8%	1.8%	3.7%	–	–	1.0%
Mortgage-backed securities							
Amortized cost	–	–	20	26	268	–	314
Fair value	–	–	21	28	261	–	310
Yield (5)	–	–	4.6%	4.2%	2.6%	–	2.9%
Asset-backed securities							
Amortized cost	128	30	270	1,584	1,048	–	3,060
Fair value	128	31	269	1,573	926	–	2,927
Yield (5)	2.0%	5.1%	.8%	.7%	2.3%	–	1.3%
Corporate debt and other debt							
Amortized cost	5,793	1,917	2,073	388	380	22	10,573
Fair value	5,803	1,920	2,049	361	361	32	10,526
Yield (5)	2.2%	2.1%	2.0%	5.9%	4.8%	–	2.3%
Equities							
Cost	–	–	–	–	–	1,250	1,250
Fair value	–	–	–	–	–	1,430	1,430
Loan substitute							
Cost	–	–	–	–	–	222	222
Fair value	–	–	–	–	–	222	222
Yield (5)	–	–	–	–	–	3.7%	3.7%
Amortized cost	10,572	3,548	12,961	2,892	6,607	1,494	38,074
Fair value	10,582	3,558	13,411	2,883	6,315	1,684	38,433
Held-to-maturity securities (2)							
Amortized cost	129	57	193	81	1	–	461
Fair value	129	57	193	81	1	–	461
Total carrying value of securities (2)	$ 17,922	$ 28,537	$ 43,604	$ 12,131	$ 23,712	$ 41,116	$ 167,022

(Millions of Canadian dollars)	Within 3 months	3 months to 1 year	1 to 5 years	5 years to 10 years	Over 10 years	With no specific maturity	Total
	As at November 1, 2010						
	Term to maturity (1)						
Trading account (2)							
Canadian government debt	$ 2,065	$ 5,346	$ 10,392	$ 1,991	$ 4,442	$ –	$ 24,236
U.S. government debt	946	1,184	3,241	2,138	4,885	–	12,394
Other OECD government debt	1,097	3,446	9,003	2,394	2,001	–	17,941
Mortgage-backed securities (3)	–	1	45	11	369	–	426
Asset-backed securities (3)	56	215	1,821	546	599	–	3,237
Corporate debt and other debt (3)							
Bankers' acceptances	508	249	–	–	–	–	757
Certificates of deposit	128	696	500	15	44	–	1,383
Other (4)	2,520	4,189	14,454	4,463	4,854	–	30,480
Equities	–	–	–	–	–	38,985	38,985
	7,320	15,326	39,456	11,558	17,194	38,985	129,839
Available-for-sale securities (2)							
Canadian government debt							
Federal							
Amortized cost	145	4,331	7,491	3,558	314	–	15,839
Fair value	145	4,374	7,699	3,738	318	–	16,274
Yield (5)	.8%	4.1%	1.8%	.4%	.8%	–	2.1%
Provincial and municipal							
Amortized cost	22	144	1,148	32	147	–	1,493
Fair value	22	144	1,179	34	157	–	1,536
Yield (5)	1.6%	2.3%	3.7%	5.0%	4.3%	–	3.6%
U.S. state, municipal and agencies debt							
Amortized cost	596	1,012	383	972	5,046	–	8,009
Fair value	596	1,013	386	972	5,032	–	7,999
Yield (5)	.7%	1.1%	1.2%	.7%	.7%	–	.8%
Other OECD government debt							
Amortized cost	1,414	1,153	2,314	183	–	–	5,064
Fair value	1,413	1,153	2,330	184	–	–	5,080
Yield (5)	.1%	.6%	4.3%	3.9%	–	–	2.3%
Mortgage-backed securities							
Amortized cost	3	2	79	75	1,431	–	1,590
Fair value	3	3	82	78	1,379	–	1,545
Yield (5)	6.6%	5.1%	4.5%	4.7%	2.0%	–	2.3%
Asset-backed securities							
Amortized cost	5	–	306	205	1,085	–	1,601
Fair value	5	–	311	199	925	–	1,440
Yield (5)	3.7%	–	1.6%	.7%	5.6%	–	4.1%
Corporate debt and other debt							
Amortized cost	3,836	3,504	2,940	573	1,681	148	12,682
Fair value	3,846	3,518	2,976	601	1,604	115	12,660
Yield (5)	2.4%	1.4%	2.3%	5.7%	2.3%	2.9%	2.3%
Equities							
Cost	–	–	–	–	–	1,649	1,649
Fair value	–	–	–	–	–	1,826	1,826
Loan substitute							
Cost	–	–	–	–	–	228	228
Fair value	–	–	–	–	–	228	228
Yield (5)	–	–	–	–	–	4.1%	4.1%
Amortized cost	6,021	10,146	14,661	5,598	9,704	2,025	48,155
Fair value	6,030	10,205	14,963	5,806	9,415	2,169	48,588
Held-to-maturity securities (2)							
Amortized cost	522	40	65	28	1	–	656
Fair value	522	40	65	28	1	–	656
Total carrying value of securities (2)	$ 13,872	$ 25,571	$ 54,484	$ 17,392	$ 26,610	$ 41,154	$ 179,083

(1) Actual maturities may differ from contractual maturities shown above since borrowers may have the right to prepay obligations with or without prepayment penalties.
(2) Trading securities and AFS securities are recorded at fair value. Held-to-maturity securities are recorded at amortized cost.
(3) Includes CDOs which are presented as Asset-backed securities – CDOs in the table entitled Fair value of assets and liabilities classified using the fair value hierarchy in Note 4.
(4) Primarily composed of corporate debt, supra-national debt, and commercial paper.
(5) The weighted average yield is derived using the contractual interest rate and the carrying value at the end of the year for the respective securities.

Note 5 Securities (continued)

Unrealized gains and losses on available-for-sale securities (1), (2)

(Millions of Canadian dollars)	As at October 31, 2012 Cost/ Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value	October 31, 2011 Cost/ Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value	November 1, 2010 Cost/ Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Canadian government debt												
Federal	**$ 10,927**	**$ 513**	**$ –**	**$11,440**	$ 9,172	$ 492	$ (1)	$ 9,663	$ 15,871	$ 436	$ (1)	$16,306
Provincial and municipal	**1,774**	**11**	**–**	**1,785**	1,537	25	(1)	1,561	1,493	44	(1)	1,536
U.S. state, municipal and agencies debt (3)	**5,929**	**13**	**(157)**	**5,785**	5,038	11	(156)	4,893	8,009	75	(85)	7,999
Other OECD government debt	**9,856**	**25**	**(6)**	**9,875**	7,091	26	(33)	7,084	5,068	24	(8)	5,084
Mortgage-backed securities	**253**	**13**	**(3)**	**263**	314	19	(23)	310	1,590	24	(69)	1,545
Asset-backed securities												
CDOs	**1,943**	**61**	**(8)**	**1,996**	1,941	4	(13)	1,932	221	20	(17)	224
Non-CDO securities	**932**	**12**	**(119)**	**825**	1,119	4	(128)	995	1,380	46	(210)	1,216
Corporate debt and other debt	**6,806**	**49**	**(48)**	**6,807**	10,851	58	(105)	10,804	13,302	158	(180)	13,280
Equities	**1,584**	**269**	**(18)**	**1,835**	1,250	207	(27)	1,430	1,649	200	(23)	1,826
Loan substitute securities	**209**	**8**	**–**	**217**	222	–	–	222	228	–	–	228
	$ 40,213	**$ 974**	**$ (359)**	**$40,828**	$ 38,535	$ 846	$ (487)	$38,894	$ 48,811	$ 1,027	$ (594)	$49,244

(1) Includes $508 million held-to-maturity securities as at October 31, 2012 (October 31, 2011 – $461 million; November 1, 2010 – $656 million).
(2) The majority of the MBS are residential. Cost/Amortized cost, gross unrealized gains, gross unrealized losses and fair value related to commercial MBS are $41 million, $1 million, $nil and $42 million, respectively as at October 31, 2012 (October 31, 2011 – $52 million, $2 million, $nil, and $54 million; November 1, 2010 – $148 million, $4 million, $nil, and $152 million).
(3) Includes securities issued by U.S. non-agencies backed by government insured assets, and MBS and ABS issued by U.S. government agencies.

Net gain and loss on available-for-sale securities (1)

(Millions of Canadian dollars)	For the year ended October 31 2012	October 31 2011
Realized gains	**$ 242**	$ 283
Realized losses	**(74)**	(63)
Impairment losses	**(48)**	(116)
Net gain (loss) on available-for-sale securities	**$ 120**	$ 104

(1) The following related to our insurance operations are excluded from Net gain (loss) on available-for-sale securities and included in Insurance premiums, investment and fee income on the Consolidated Statement of Income: Realized gains for the year ended October 31, 2012 were $9 million (October 31, 2011 – $25 million); Realized losses for the year ended October 31, 2012 were $nil (October 31, 2011 – $1 million); Impairment losses for the year ended October 31, 2012 were $nil (October 31, 2011 – $14 million).

AFS securities are assessed for objective evidence of impairment at each reporting date and more frequently when conditions warrant. Our impairment review is primarily based on the factors described in Note 2. Depending on the nature of the securities under review, we apply specific methodologies to assess whether the cost/amortized cost of the security would be recovered. As at October 31, 2012, our gross unrealized losses on AFS securities were $359 million (October 31, 2011 – $487 million; November 1, 2010 – $594 million).

The total cost/amortized cost of the AFS portfolio, as at October 31, 2012, increased by $1.7 billion or 4.4% compared to October 31, 2011. The increase is largely due to purchases of Other OECD government debt as well as certain Canadian and U.S. government guaranteed MBS. This was partially offset by sales and maturities of short-term Corporate debt and other debt.

Gross unrealized gains of $974 million, as of October 31, 2012, increased by $128 million or 15.1% compared to October 31, 2011. This increase mainly reflects fair value improvements due to tightening of credit spreads on certain ABS, as well as fair value improvements on certain equities.

Gross unrealized losses of $359 million, as of October 31, 2012, decreased by $128 million or 26.3% compared to October 31, 2011. This decrease mainly reflects losses realized on sale of securities by RBC Dexia in connection with the acquisition. Also contributing to the overall decrease are fair value improvements due to tightening of credit spreads on certain European exposures classified as Corporate debt and other debt as well as on certain MBS.

Management believes that there is no objective evidence of impairment on the above-mentioned securities that are in an unrealized loss position as at October 31, 2012.

Held-to-maturity securities

Held-to-maturity securities stated at amortized cost are subject to periodic impairment review and are classified as impaired when, in management's opinion, there is no longer reasonable assurance of the timely collection of the full amount of principal and interest. The impairment review of held-to-maturity securities is primarily based on the impairment model for loans. Management is of the view that there is no impairment on held-to-maturity investments as at October 31, 2012.

Net gain (loss) on available-for-sale securities

During the year ended October 31, 2012, $120 million of net gains were recognized in Non-interest income as compared to $104 million in the prior year. The current year reflects net realized gain on sales of $168 million mainly comprised of gain on distributions and redemptions from certain equities along with gain on sales of Canadian government debt partially offset by loss on sales of securities by RBC Dexia as a result of the acquisition. The net realized gain on sales was also partially offset by $48 million of writedowns on securities that were deemed impaired, mainly on equities. This compares to net gain on sales for the year ended October 31, 2011 of $220 million which was partially offset by $116 million of writedowns on securities that were deemed impaired, mainly on certain ABS and equities.

Reclassification of financial instruments

The following table provides information regarding certain securities that we reclassified in prior reporting periods:

Financial instruments reclassified in prior periods

(Millions of Canadian dollars)	As at October 31 2012 (1) Total carrying value and fair value	As at October 31 2011 (1) Total carrying value and fair value
Financial assets — FVTPL reclassified to available-for-sale		
CDOs	**$ 1,801**	$ 1,738
Mortgage-backed securities	**75**	31
	$ 1,876	$ 1,769

(Millions of Canadian dollars)	For the year ended October 31, 2012 Change in fair value during the period (2)	October 31, 2012 Interest income/gains (losses) recognized in net income during the period	October 31, 2011 Change in fair value during the period (2)	October 31, 2011 Interest income/gains (losses) recognized in net income during the period
FVTPL reclassified to available-for-sale				
CDOs	**$ 60**	**$ 76**	$ (4)	$ 5
Mortgage-backed securities	**2**	**8**	–	–
	$ 62	**$ 84**	$ (4)	$ 5

(1) On October 1, 2011 and November 1, 2011 we reclassified $1,872 million and $255 million, respectively, of certain CDOs and U.S. non-agency MBS from classified as at FVTPL to AFS.
(2) This change represents the fair value gain or loss that would have been recognized in profit or loss had the assets not been reclassified.

Note 6 Loans

(Millions of Canadian dollars)	As at October 31, 2012 Canada	United States	Other International	Total	October 31, 2011 Canada	United States	Other International	Total	November 1, 2010 Canada	United States	Other International	Total
Retail (1)												
Residential mortgages	**$195,552**	**$ 275**	**$ 2,497**	**$198,324**	$185,620	$ 321	$ 2,465	$188,406	$172,244	$ 2,350	$ 2,418	$177,012
Personal	**80,897**	**2,825**	**2,975**	**86,697**	75,668	2,749	2,504	80,921	69,291	7,205	2,332	78,828
Credit cards	**13,422**	**38**	**201**	**13,661**	12,723	31	183	12,937	12,969	220	186	13,375
Small business (2)	**2,503**	**–**	**–**	**2,503**	2,481	–	–	2,481	2,712	–	–	2,712
	$292,374	**$ 3,138**	**$ 5,673**	**$301,185**	$276,492	$ 3,101	$ 5,152	$284,745	$257,216	$ 9,775	$ 4,936	$271,927
Wholesale (1)												
Business (3), (4)	**42,894**	**16,755**	**16,121**	**75,770**	38,981	11,035	10,780	60,796	35,676	19,230	9,029	63,935
Bank (5)	**390**	**304**	**296**	**990**	747	24	553	1,324	472	98	536	1,106
Sovereign (6)	**1,854**	**–**	**442**	**2,296**	1,886	–	746	2,632	1,613	–	943	2,556
	$ 45,138	**$17,059**	**$ 16,859**	**$ 79,056**	$ 41,614	$11,059	$ 12,079	$ 64,752	$ 37,761	$19,328	$ 10,508	$ 67,597
Total loans	**$337,512**	**$20,197**	**$ 22,532**	**$380,241**	$318,106	$14,160	$ 17,231	$349,497	$294,977	$29,103	$ 15,444	$339,524
Allowance for loan losses	**(1,542)**	**(330)**	**(125)**	**(1,997)**	(1,518)	(115)	(334)	(1,967)	(1,539)	(964)	(364)	(2,867)
Total loans net of allowance for loan losses	**$335,970**	**$19,867**	**$ 22,407**	**$378,244**	$316,588	$14,045	$ 16,897	$347,530	$293,438	$28,139	$ 15,080	$336,657

(1) Geographic information is based on residence of borrower.
(2) Includes small business exposure managed on a pooled basis.
(3) Includes small business exposure managed on an individual client basis.
(4) Included under U.S. as at October 31, 2012 are loans totalling $1.4 billion (October 31, 2011 – $1.4 billion; November 1, 2010 – $1.5 billion), respectively, to SPEs administered by us.
(5) Bank refers primarily to regulated deposit-taking institutions and securities firms.
(6) Sovereign refers to all central governments and agencies, central banks, as well as other qualifying public sector entities and multilateral development banks.

Note 6 Loans (continued)

Loans maturity and rate sensitivity

(Millions of Canadian dollars)	Maturity term (1) Under 1 year (2), (3)	1 to 5 years	Over 5 years	Total	Rate sensitivity Floating	Fixed Rate	Non-rate-sensitive	Total
As at October 31, 2012								
Retail	**$ 172,309**	**$ 114,597**	**$ 14,279**	**$ 301,185**	**$ 153,531**	**$ 144,177**	**$ 3,477**	**$ 301,185**
Wholesale	**60,583**	**12,149**	**6,324**	**79,056**	**37,572**	**40,214**	**1,270**	**79,056**
Total loans	**$ 232,892**	**$ 126,746**	**$ 20,603**	**$ 380,241**	**$ 191,103**	**$ 184,391**	**$ 4,747**	**$ 380,241**
Allowance for loan losses				**(1,997)**				**(1,997)**
Total loans net of allowance for loan losses				**$ 378,244**				**$ 378,244**
As at October 31, 2011								
Retail	$ 168,480	$ 105,560	$ 10,705	$ 284,745	$ 131,813	$ 148,786	$ 4,146	$ 284,745
Wholesale	45,646	12,257	6,849	64,752	36,335	27,138	1,279	64,752
Total loans	$ 214,126	$ 117,817	$ 17,554	$ 349,497	$ 168,148	$ 175,924	$ 5,425	$ 349,497
Allowance for loan losses				(1,967)				(1,967)
Total loans net of allowance for loan losses				$ 347,530				$ 347,530
As at November 1, 2010								
Retail	$ 157,568	$ 98,211	$ 16,148	$ 271,927	$ 141,363	$ 126,275	$ 4,289	$ 271,927
Wholesale	46,417	12,816	8,364	67,597	33,603	31,045	2,949	67,597
Total loans	$ 203,985	$ 111,027	$ 24,512	$ 339,524	$ 174,966	$ 157,320	$ 7,238	$ 339,524
Allowance for loan losses				(2,867)				(2,867)
Total loans net of allowance for loan losses				$ 336,657				$ 336,657

(1) Generally, based on the earlier of contractual repricing or maturity date.
(2) Included in Wholesale are loans totalling $1.4 billion (October 31, 2011 – $1.4 billion; November 1, 2010 – $1.5 billion) to SPEs administered by us. All of the loans reprice monthly or quarterly.
(3) Includes variable rate loans that can be repriced at the clients' discretion without penalty.

Allowance for credit losses

(Millions of Canadian dollars)	Balance at beginning of period	Provision for credit losses	Write-offs	Recoveries	Unwind of discount	Exchange rate changes/ other	Balance at end of period
For the year ended October 31, 2012							
Retail							
Residential mortgages	**$ 112**	**$ 64**	**$ (32)**	**$ 1**	**$ (34)**	**$ 13**	**$ 124**
Personal	**557**	**437**	**(499)**	**83**	**(23)**	**(12)**	**543**
Credit cards	**415**	**403**	**(496)**	**102**	**–**	**(21)**	**403**
Small business	**75**	**43**	**(50)**	**8**	**(2)**	**(2)**	**72**
	1,159	**947**	**(1,077)**	**194**	**(59)**	**(22)**	**1,142**
Wholesale							
Business (1)	**775**	**354**	**(291)**	**39**	**(51)**	**27**	**853**
Bank (2)	**33**	**–**	**(32)**	**–**	**–**	**1**	**2**
	808	**354**	**(323)**	**39**	**(51)**	**28**	**855**
Total allowance for loan losses	**1,967**	**1,301**	**(1,400)**	**233**	**(110)**	**6**	**1,997**
Allowance for off-balance sheet and other items (3)	**91**	**–**	**–**	**–**	**–**	**–**	**91**
Total allowance for credit losses	**$ 2,058**	**$ 1,301**	**$(1,400)**	**$ 233**	**$ (110)**	**$ 6**	**$ 2,088**
Individually assessed	**$ 252**	**244**	**(202)**	**19**	**(26)**	**11**	**$ 298**
Collectively assessed	**1,806**	**1,057**	**(1,198)**	**214**	**(84)**	**(5)**	**1,790**
Total allowance for credit losses	**$ 2,058**	**$ 1,301**	**$(1,400)**	**$ 233**	**$ (110)**	**$ 6**	**$ 2,088**

(Millions of Canadian dollars)	Balance at beginning of period	Less allowances related to discontinued operations	Provision for credit losses	Write-offs	Recoveries	Unwind of discount	Exchange rate changes/ other	Balance at end of period
	For the year ended October 31, 2011							
Retail								
Residential mortgages	$ 154	$ (63)	$ 43	$ (16)	$ 1	$ (30)	$ 23	$ 112
Personal	891	(258)	440	(515)	79	(11)	(69)	557
Credit cards	434	(19)	447	(545)	97	–	1	415
Small business	78	–	35	(45)	7	(1)	1	75
	1,557	(340)	965	(1,121)	184	(42)	(44)	1,159
Wholesale								
Business (1)	1,267	(503)	168	(226)	60	(36)	45	775
Sovereign (4)	9	–	–	(9)	–	–	–	–
Bank (2)	34	–	–	–	–	–	(1)	33
	1,310	(503)	168	(235)	60	(36)	44	808
Total allowance for loan losses	2,867	(843)	1,133	(1,356)	244	(78)	–	1,967
Allowance for off-balance sheet and other items (3)	99	(11)	–	–	–	–	3	91
Total allowance for credit losses	$ 2,966	$ (854)	$ 1,133	$(1,356)	$ 244	$ (78)	$ 3	$ 2,058
Individually assessed	$ 415	$ (130)	$ 61	$ (129)	$ 43	$ (10)	$ 2	$ 252
Collectively assessed	2,551	(724)	1,072	(1,227)	201	(68)	1	1,806
Total allowance for credit losses	$ 2,966	$ (854)	$ 1,133	$(1,356)	$ 244	$ (78)	$ 3	$ 2,058

(1) Includes $5 million of allowance for credit losses related to loans extended under liquidity facilities drawn on by RBC-administered multi-seller asset-backed commercial paper conduit programs as at October 31, 2012 (October 31, 2011 – $2 million; November 1, 2010 – $2 million)
(2) Bank refers primarily to regulated deposit-taking institutions and securities firms.
(3) The allowance for off-balance sheet and other items is reported separately in Provisions under Other liabilities.
(4) Sovereign refers to all central governments and agencies, central banks, as well as other qualifying public sector entities and multilateral development banks.

Net interest income after provision for credit losses

	For the year ended	
	October 31 2012	October 31 2011
Net interest income	**$ 12,498**	$ 11,357
Provision for credit losses	**1,301**	1,133
Net interest income after provision for credit losses	**$ 11,197**	$ 10,224

Loans past due but not impaired

(Millions of Canadian dollars)	As at October 31, 2012 1 to 29 days	30 to 89 days	90 days and greater	Total	As at October 31, 2011 1 to 29 days	30 to 89 days	90 days and greater	Total
Retail	**$ 2,954**	**$ 1,350**	**$ 393**	**$4,697**	$ 3,180	$ 1,416	$ 525	$5,121
Wholesale	**416**	**221**	**–**	**637**	417	241	–	658
Total	**$ 3,370**	**$ 1,571**	**$ 393**	**$5,334**	$ 3,597	$ 1,657	$ 525	$5,779

(Millions of Canadian dollars)	As at November 1, 2010 1 to 29 days	30 to 89 days	90 days and greater	Total
Retail	$ 3,582	$ 1,706	$ 635	$5,923
Wholesale	1,197	485	12	1,694
Total	$ 4,779	$ 2,191	$ 647	$7,617

Note 6 Loans (continued)

Gross carrying value of loans individually determined to be impaired (1)

(Millions of Canadian dollars)	As at October 31 2012	October 31 2011	November 1 2010
Wholesale			
Business (2)	**$ 981**	$ 907	$ 2,233
Sovereign (3)	**–**	–	9
Bank (4)	**2**	33	34
Total	**$ 983**	$ 940	$ 2,276

(1) Average balance of gross individually assessed impaired loans for the year ended October 31, 2012 was $929 million (October 31, 2011 – $917 million).
(2) Includes gross and net balances of individually assessed impaired loans of $50 million (October 31, 2011 – $53 million; November 1, 2010 – $58 million) and $45 million (October 31, 2011 – $49 million; November 1, 2010 – $55 million), respectively, related to loans extended under liquidity facilities drawn on by RBC-administered multi-seller asset-backed commercial paper conduit programs.
(3) Sovereign refers to all central governments and agencies, central banks, as well as other qualifying public sector entities and multilateral development banks.
(4) Bank refers primarily to regulated deposit-taking institutions and securities firms.

Note 7 Derecognition of financial assets

We enter into transactions in which we transfer financial assets such as loans or securities to SPE's or non-SPE third parties. The transferred assets are derecognized from our Consolidated Balance Sheets when we transfer substantially all of the risks and rewards of ownership of the assets. When we are exposed to substantially all of the risks and rewards of the assets, or when we have neither transferred nor retained substantially all of the risks and rewards but retain control of the assets, we continue to recognize the assets on our Consolidated Balance Sheets and a liability is recognized for the cash proceeds received.

The majority of assets transferred under repurchase agreements, securities lending agreements, and in our Canadian residential mortgage securitization transactions do not qualify for derecognition.

Transferred financial assets not derecognized

Securitization of Canadian residential mortgage loans

We securitize insured Canadian residential mortgage loans through the creation of MBS pools under the National Housing Act MBS (NHA MBS) program. All loans securitized under the NHA MBS program are required to be insured by the Canadian government or a third-party insurer. We require the borrower to pay the insurance for mortgages in which the loan amount is greater than 80% of the original appraised value of the property (loan-to-value ratio (LTV)). For mortgage loans with an LTV ratio less than 80% and securitized under this program we are required to insure at our own expense. Under the NHA-MBS program, we are responsible for making all payments due on our issued MBS, regardless of whether we collect the necessary funds from the mortgagor or the insurer. When the borrower defaults on the mortgage payment, we submit a claim to the insurer if the amount recovered from the collection or foreclosure process is lower than the sum of the mortgage principal balance, accrued interest and collection costs on the outstanding loan. The insurance claim process is managed by the insurance provider in accordance with the insurer's policies and covers the entire unpaid loan balance plus generally up to 12 months of interest, selling costs and other eligible expenses. If an insurance claim is denied, a loss is recognized in Provision for credit losses in our Consolidated Statements of Income. The amount recorded as a loss is not material to our Consolidated Financial Statements and no significant losses were incurred due to legal action arising from a mortgage default during 2012 and 2011.

We sell NHA MBS pools primarily to a government-sponsored SPE under the Canada Mortgage Bond (CMB) program. The SPE periodically issues CMB, which are guaranteed by the government, and sells them to third-party investors. Proceeds of the CMB issuances are used by the SPE to purchase the MBS pools from eligible MBS issuers who participate in the issuance of a particular CMB series. Our continuing involvement includes servicing, either ourselves or through an independent servicer, the underlying mortgages we have securitized. We also act as counterparty in interest rate swap agreements where we pay the SPE the interest due to CMB investors and receive the interest on the underlying MBS and reinvested assets. As part of the swap, we are also required to maintain a principal reinvestment account for principal payments received on the underlying mortgage loans to meet the repayment obligation upon maturity of the CMB. We reinvest the collected principal payments in trust permitted investments as outlined in the swap agreement.

We have determined that all of the NHA MBS transferred to the SPE do not qualify for derecognition as we have not transferred substantially all of the risks and rewards of ownership. As a result, these transferred MBS continue to be classified as mortgage loans and recognized on our Consolidated Balance Sheets. The cash received for these transferred MBS is treated as a secured borrowing and a corresponding liability recorded in Deposits on our Consolidated Balance Sheets.

Securities sold under repurchase agreements and securities loaned

We also enter into transactions such as repurchase agreements and securities lending agreements where we transfer assets under agreements to repurchase them on a future day and retain substantially all of the credit, price, interest rate and foreign exchange risks and rewards associated with the assets. These transferred assets remain on our Consolidated Balance Sheets and are accounted for as collateralized borrowing transactions.

The following table provides information on the carrying amount and fair value of the transferred assets that did not qualify for derecognition, and their associated liabilities.

(Millions of Canadian dollars)	As at October 31, 2012				As at October 31, 2011				As at November 1, 2010			
	Canadian residential mortgage loans (1) (2)	**Securities sold under repurchase agreements** (3)	**Securities loaned** (3)	**Total**	Canadian residential mortgage loans (1) (2)	Securities sold under repurchase agreements (3)	Securities loaned (3)	Total	Canadian residential mortgage loans (1) (2)	Securities sold under repurchase agreements (3)	Securities loaned (3)	Total
Carrying amount of transferred assets that fail derecognition	**$ 45,973**	**$ 59,332**	**$ 4,700**	**$110,005**	$ 45,684	$ 37,560	$ 5,175	$88,419	$ 43,921	$ 32,005	$ 4,001	$79,927
Carrying amount of associated liabilities	**$ 45,878**	**59,332**	**4,700**	**109,910**	45,478	37,560	5,175	88,213	43,726	32,005	4,001	79,732
Fair value of transferred assets	**$ 45,994**	**$ 59,332**	**$ 4,700**	**$110,026**	$ 45,903	$ 37,560	$ 5,175	$88,638	$ 44,857	$ 32,005	$ 4,001	$80,863
Fair value of associated liabilities	**47,014**	**59,332**	**4,700**	**111,046**	46,984	37,560	5,175	89,719	44,936	32,005	4,001	80,942
Fair value of net position	**$ (1,020)**	**$ –**	**$ –**	**$ (1,020)**	$ (1,081)	$ –	$ –	$ (1,081)	$ (79)	$ –	$ –	$ (79)

(1) Includes Canadian residential mortgages loans transferred primarily to Canada Housing Trust at the initial securitization and other permitted investments used for funding requirements after the initial securitization.
(2) CMB investors have legal recourse only to the transferred assets, and do not have recourse to our general assets.
(3) Does not include over-collateralization of assets pledged.

Note 8 Special purpose entities

Consolidated special purpose entities
The following table presents the assets and liabilities of consolidated special purpose entities recorded on our Consolidated Balance Sheets.

(Millions of Canadian dollars)	As at October 31, 2012				
	Credit card securitization vehicle (1)	**Structured finance**	**Investment funds**	**Other** (1)	**Total**
Consolidated assets (2), (3)					
Cash	**$ –**	**$ 24**	**$ 8**	**$ 4**	**$ 36**
Securities – Trading and Available-for-sale	**–**	**3,878**	**371**	**79**	**4,328**
Loans – Retail and Wholesale	**–**	**–**	**–**	**–**	**–**
Derivatives	**–**	**–**	**–**	**–**	**–**
Other assets	**15**	**37**	**–**	**18**	**70**
	$ 15	**$ 3,939**	**$ 379**	**$ 101**	**$ 4,434**
Consolidated liabilities					
Deposit	**$ 7,046**	**$ 816**	**$ –**	**$ 20**	**$ 7,882**
Other liabilities (4)	**40**	**3,146**	**–**	**84**	**3,270**
Non-controlling interests	**–**	**–**	**–**	**810**	**810**
	$ 7,086	**$ 3,962**	**$ –**	**$ 914**	**$11,962**

Note 8 Special purpose entities (continued)

(Millions of Canadian dollars)	As at October 31, 2011 Credit card securitization vehicle (1)	Structured finance	Investment funds	Other (1)	Total
Consolidated assets (2), (3)					
Cash	$ –	$ 28	$ 2	$ 6	$ 36
Securities – Trading and Available-for-sale	–	3,740	252	27	4,019
Loans – Retail and Wholesale	–	214	–	94	308
Derivatives	–	–	–	–	–
Other assets	11	47	–	26	84
	$ 11	$ 4,029	$ 254	$ 153	$4,447
Consolidated liabilities					
Deposit	$ 3,747	$ 216	$ –	$ 99	$4,062
Other liabilities (4)	41	3,254	–	88	3,383
Non-controlling interests	–	–	–	1,863	1,863
	$ 3,788	$ 3,470	$ –	$2,050	$9,308

(Millions of Canadian dollars)	As at November 1, 2010 Credit card securitization vehicle (1)	Structured finance	Investment funds	Other (1)	Total
Consolidated assets (2), (3)					
Cash	$ –	$ 40	$ –	$ 1	$ 41
Securities – Trading and Available-for-sale	400	3,108	287	57	3,852
Loans – Retail and Wholesale	–	219	–	381	600
Derivatives	–	5	–	–	5
Other assets	9	14	8	35	66
	$ 409	$ 3,386	$ 295	$ 474	$4,564
Consolidated liabilities					
Deposit	$ 3,542	$ 1,128	$ –	$ 417	$5,087
Other liabilities (4)	28	2,283	3	246	2,560
Non-controlling interests	–	–	–	1,894	1,894
	$ 3,570	$ 3,411	$ 3	$2,557	$9,541

(1) We transferred credit card receivables to a securitization vehicle and mortgages to RBC Capital Trust and RBC Covered Bond Guarantor Limited Partnership (Guarantor LP). These transferred assets were not derecognized from our Consolidated Balance Sheets and the consideration received was recorded as liabilities to the SPEs, as we retain control over substantially all of the risks and rewards of the transferred assets. Upon consolidation of the SPEs, only the notes and the innovative capital instruments issued to the third-party investors are reported in the above table.

(2) As at October 31, 2012, our consolidated compensation vehicles held $15 million of our common shares (October 31, 2011 – $29 million; November 1, 2010 – $53 million), which are reported as Treasury shares and this amount represents the total assets of these vehicles. The obligation to provide our common shares to employees is recorded as an increase to Retained earnings as the expense for the corresponding share-based compensation plan is recognized.

(3) Investors have recourse only to the assets of the related consolidated SPEs and do not have recourse to our general assets unless we breach our contractual obligations relating to those SPEs. In the ordinary course of business, the assets of each consolidated SPE can generally only be used to settle the obligations of the SPE. We may also provide liquidity facilities or credit enhancement facilities to, or enter into derivative transactions with, the SPEs.

(4) Other liabilities generally represent notes issued by the SPEs.

Unconsolidated special purpose entities

We also hold significant interests in certain SPEs that we do not consolidate but in respect of which we have recorded on our Consolidated Balance Sheets assets and liabilities arising from our transactions and involvement with these SPEs. This information is set forth in the table below. In addition, we may be a sponsor of certain SPEs in which we have interests. In determining whether we are a sponsor of an SPE, we consider both qualitative and quantitative factors, including the purpose and nature of the special purpose entity, our continuing involvement in the SPE and whether we hold subordinated interests in the SPE. This table also includes SPEs that we sponsor.

(Millions of Canadian dollars)	As at October 31, 2012 **Multi-seller conduits** (1)	**Structured finance**	**Investment funds**	**Third-party securitization vehicles**	**Other** (2)	**Total**
Total assets of unconsolidated special purpose entities	**$ 29,582**	**$ 4,840**	**$ 1,584**	**$ 5,429**	**$ 152,301**	**$ 193,736**
On-balance sheet assets						
Securities – Trading and Available-for-sale	**26**	**–**	**1,077**	**118**	**76**	**1,297**
Loans – Retail and Wholesale	**1,391**	**–**	**–**	**1,074**	**–**	**2,465**
Derivatives	**2**	**–**	**–**	**–**	**–**	**2**
Other assets	**–**	**1,111**	**1**	**–**	**169**	**1,281**
Total	**$ 1,419**	**$ 1,111**	**$ 1,078**	**$ 1,192**	**$ 245**	**$ 5,045**
On-balance sheet liabilities						
Deposits	**$ 2**	**$ –**	**$ –**	**$ –**	**$ –**	**$ 2**
Derivatives	**11**	**–**	**–**	**–**	**–**	**11**
Other liabilities	**247**	**–**	**43**	**–**	**–**	**290**
Total	**$ 260**	**$ –**	**$ 43**	**$ –**	**$ –**	**$ 303**
Maximum exposure to loss (3)	**$ 30,029**	**$ 1,663**	**$ 1,082**	**$ 1,266**	**$ 162**	**$ 34,202**

(Millions of Canadian dollars)	As at October 31, 2011					
	Multi-seller conduits (1)	Structured finance	Investment funds	Third-party securitization vehicles	Other (2)	Total
Total assets of unconsolidated special purpose entities	$ 24,271	$ 4,988	$ 1,374	$ 1,090	$ 137,866	$ 169,589
On-balance sheet assets						
Securities – Trading and Available-for-sale	111	–	1,090	–	130	1,331
Loans – Retail and Wholesale	1,413	–	–	206	–	1,619
Derivatives	–	–	–	–	–	–
Other assets	–	870	–	–	208	1,078
Total	$ 1,524	$ 870	$ 1,090	$ 206	$ 338	$ 4,028
On-balance sheet liabilities						
Deposits	$ –	$ –	$ –	$ –	$ –	$ –
Derivatives	–	–	–	–	–	–
Other liabilities	190	–	–	–	36	226
Total	$ 190	$ –	$ –	$ –	$ 36	$ 226
Maximum exposure to loss (3)	$ 24,614	$ 1,340	$ 1,125	$ 214	$ 77	$ 27,370

(Millions of Canadian dollars)	As at November 1, 2010					
	Multi-seller conduits (1)	Structured finance	Investment funds	Third-party securitization vehicles	Other (2)	Total
Total assets of unconsolidated special purpose entities	$ 21,848	$ 4,590	$ 1,063	$ –	$132,827	$160,328
On-balance sheet assets						
Securities – Trading and Available-for-sale	4	1,041	704	–	169	1,918
Loans – Retail and Wholesale	1,517	–	–	–	–	1,517
Derivatives						–
Other assets	–	–	–	–	211	211
Total	$ 1,521	$ 1,041	$ 704	$ –	$ 380	$ 3,646
On-balance sheet liabilities						
Deposits	$ –	$ –	$ –	$ –	$ –	$ –
Derivatives	–	–	–	–	–	–
Other liabilities	61	–	–	–	89	150
Total	$ 61	$ –	$ –	$ –	$ 89	$ 150
Maximum exposure to loss (3)	$ 22,139	$ 1,041	$ 728	$ –	$ 196	$ 24,104

(1) Total assets of unconsolidated SPEs represent maximum assets that may have to be purchased by the conduits under purchase commitments outstanding. Actual assets held by these conduits as at October 31, 2012, were $17.1 billion (October 31, 2011 – 16.3 billion; November 1, 2010 — $14.0 billion).
(2) Includes tax credit funds and mutual funds that we sponsor which are described in our Other significant vehicles discussion.
(3) The maximum exposure to loss resulting from our significant interests in these SPEs consists mostly of investments, loans, fair value of derivatives, liquidity and credit enhancement facilities. The maximum exposure to loss of the multi-seller conduits is higher than the on-balance sheet assets primarily by the notional amounts of the backstop liquidity and credit enhancement facilities. Refer to Note 27.

Credit card securitization vehicle

We securitize a portion of our credit card receivables through an SPE on a revolving basis. The SPE is financed through the issuance of senior and subordinated notes collateralized by the underlying credit card receivables. The senior notes are issued to third-party investors and the subordinated notes are owned by us. The third-party investors have recourse only to the transferred assets.

We continue to service the credit card receivables sold to the SPE and perform an administrative role for the SPE. We also provide first-loss protection to the SPE through our ownership of all the subordinated notes issued by the SPE and our interest in the excess spread (residual net interest income after all trust expenses) which is subordinated to the SPE's obligations to the ABS noteholders.

Additionally, we may own some senior notes as investments or for market-making activities; we retain a cash reserve account of the SPE from time to time; we provide subordinated loans to the SPE to pay upfront expenses; and we act as counterparty to interest rate and cross currency swap agreements which hedge the SPE's interest rate and currency risk exposure.

We consolidate the SPE because we have the decision making powers to obtain the majority of the benefits of the SPE and are exposed to the majority of the residual ownership risks.

Structured finance

U.S. ARS Trusts

We purchased U.S. ARS from certain trusts (U.S. ARS Trusts) which fund their long-term investments in student loans by issuing short-term senior and subordinated notes. We are subject to losses on these U.S. ARS Trusts if defaults are experienced on the underlying student loans; however, in the majority of these structures, the principal and accrued interest on the student loans is guaranteed by U.S. government agencies. We act as auction remarketing agent for some of these entities but have no legal obligation to purchase the notes issued by these entities in the auction process.

We do not consolidate those U.S. ARS Trusts where we do not have decision making power to obtain the majority of the benefits of the Trust. We have significant interests in these entities through our note holdings.

Note 8 Special purpose entities (continued)

ARS TOB programs
We also sold ARS into TOB programs, where each program consists of a credit enhancement (CE) trust and a TOB trust. Each ARS sold to the TOB program is supported by a letter of credit and liquidity facility issued by us, which requires us to extend funding if there are any losses on the ARS. The CE trust certificate is deposited into a TOB trust which provides the financing of the purchase of the underlying security through the issuance of floating-rate certificates to short-term investors and a residual certificate to a single third-party investor. Both the CE and the TOB trusts are SPEs. We are the remarketing agent for the floating-rate certificates and we provide liquidity facilities to each of the ARS TOB programs to purchase any floating-rate certificates that have been tendered but not successfully remarketed. We receive market-based fees for acting as the remarketing agent and providing the letters of credit and liquidity facilities.

We consolidate these ARS TOB programs as we control the CE trust and are exposed to the majority of the residual ownership risks of the underlying ARS through our provision of the credit enhancement and the liquidity facility.

Municipal bond TOB programs
We utilize the TOB funding vehicle to finance other taxable and tax-exempt municipal bond assets within our Capital Markets segment. The structure of municipal bond TOB programs that we are involved with is similar to the structure of the ARS TOB programs described above. However, in certain municipal bond TOB programs, we also purchase the residual certificates issued by these TOB vehicles which expose us to credit risk of the underlying bonds as well as interest rate risk of the structure. Where we own the residual certificate, the assets transferred into the TOB vehicle continue to be recorded on our Consolidated Balance Sheets as we have not transferred substantially all of the risks and rewards of ownership. We consolidate programs in which we are the holder of the residual certificate as we have the decision making power to obtain the majority of the benefits of the SPEs and are exposed to the majority of the residual ownership risks.

In certain other municipal bond TOB programs, the residual certificates are held by third-parties and we do not provide credit enhancement of the underlying assets but only provide liquidity facilities on the floating-rate certificates; therefore, we do not consolidate these programs. The assets transferred into these programs are derecognized from our Consolidated Balance Sheets.

Investment funds
We enter into fee-based equity derivative transactions with third parties including mutual funds, unit investment trusts and other investment funds. These transactions provide their investors with the desired exposure to the reference funds, and we economically hedge our exposure from these derivatives by investing in those third-party managed reference funds. We also act as custodian or administrator for several funds. Our investments in reference funds may expose us to the market risk of the underlying investments. We may also be exposed to counterparty risk due to the equity derivative transactions. We do not consolidate these third-party managed reference funds as we do not have power to direct their investing activities.

We also enter into certain fee-based equity derivative transactions similar to those described above except that our investments in the reference funds are held by an intermediate limited partnership entity (intermediate entity), an SPE subsidiary. We consolidate the intermediate entity because we have the decision making power to obtain the majority of the benefits of the SPE and are exposed to a majority of the residual ownership risk.

Multi-seller conduits
We administer five multi-seller ABCP conduit programs (multi-seller conduits) – two in Canada and three in the U.S. These conduits primarily purchase financial assets from clients and finance those purchases by issuing ABCP.

We do not maintain any ownership or retained interests in the multi-seller conduits that we administer and have no rights to, or control of, their assets. As the administrative agent, we earn a residual fee for providing services such as coordinating funding activities, transaction structuring, documentation, execution and monitoring of transactions. The ABCP issued by each multi-seller conduit is in the conduit's own name with recourse to the financial assets owned by each multi-seller conduit, and is non-recourse to us except through our participation in liquidity and/or credit enhancement facilities. We may purchase ABCP issued by our multi-seller conduits from time to time in our capacity as placement agent in order to facilitate the overall program liquidity.

We provide transaction-specific and program-wide liquidity facilities to the multi-seller conduits. In addition, we provide program-wide credit enhancement to the multi-seller conduits which obligate us to purchase assets or advance funds in the event the multi-seller conduit does not otherwise have funds from other sources, such as from the liquidity facilities, to settle maturing ABCP. In some cases, we or another third party may provide transaction-specific credit enhancement which can take various forms. We receive market-based fees for providing these liquidity and credit facilities.

Each transaction is structured with transaction-specific first loss protection provided by the third-party seller. This enhancement can take various forms, including but not limited to overcollateralization, excess spread, subordinated classes of financial assets, guarantees or letters of credit. The amount of this enhancement varies but is generally sized to cover a multiple of loss experience.

An unrelated third party (expected loss investor) absorbs credit losses, up to a maximum contractual amount, that may occur in the future on the assets in the multi-seller conduits before the multi-seller conduits' debt holders and us. In return for assuming this multi-seller conduit first-loss position, each multi-seller conduit pays the expected loss investor a return commensurate with its risk position. The expected loss investor has substantive power to direct the majority of the activities which significantly impact the conduit's economic performance, including initial selection and approval of the asset purchase commitments and liquidity facilities, approval of renewal and amendment of these transactions and facilities, sale or transfer of assets, ongoing monitoring of asset performance, and mitigation of credit losses.

We do not consolidate these multi-seller conduits as we do not have the decision-making power to obtain the majority of the benefits of the SPE.

Third-party securitization vehicles
We hold significant interests in certain third-party securitization vehicles which are SPEs. We, as well as other financial institutions, are obligated to provide funding up to our maximum commitment level and are exposed to credit losses on the underlying assets after various credit enhancements. Enhancement can take various forms, including but not limited to overcollateralization, excess spread, subordinated classes of financial assets, guarantees or letters of credit. The amount of this enhancement varies but is generally sized to cover a multiple of loss experience. We do not consolidate these entities as we do not have the decision making power to obtain the majority of the benefits of these SPEs and are not exposed to a majority of the residual ownership risks.

Other

Credit investment products

We use SPEs to generally transform credit derivatives into cash instruments, to distribute credit risk and to create customized credit products to meet investors' specific requirements. We enter into derivative contracts, including credit derivatives, to purchase protection from these SPEs (credit protection) and convert various risk factors such as yield, currency or credit risk of underlying assets to meet the needs of the investors. We act as sole arranger and swap provider for certain SPEs and, in some cases, fulfil other administrative functions for the SPEs. We may transfer assets to these SPEs as collateral for notes issued; however, these assets continue to be recorded on our Consolidated Balance Sheets as we have not transferred substantially all of the risks and rewards of ownership.

We consolidate those credit investment product SPEs in which we have the decision making power to obtain the majority of the benefits of the SPE.

Funding vehicles

RBC Capital Trust (Trust), RBC Capital Trust II (Trust II), RBC Subordinated Notes Trust (Trust III) and Guarantor LP were created to issue innovative capital instruments, subordinated notes or covered bonds. With the proceeds, we issued senior deposit notes to Trust II and Trust III and transferred our mortgages to the Trust and Guarantor LP. These mortgages were not derecognized from our Consolidated Balance Sheets and the transfers are accounted for as secured financing transactions as we retain control over substantially all of the risks and rewards of the transferred assets. We consolidate the trusts and Guarantor LP as, through our roles as trustee, administrative agent and equity investor, we have the decision making power to retain the majority of the benefits of the trusts and Guarantor LP. Upon consolidation of the SPEs, all the intercompany balances are eliminated except for the notes and innovative capital instruments issued to the third-party investors.

During the year, all of the outstanding subordinated notes issued by Trust III were redeemed. See Note 21 for further details.

Tax credit funds

We created certain funds to pass through tax credits received from underlying low-income housing or historic rehabilitation real estate projects to third parties (tax credit funds). We are sponsors of the tax credit funds as a result of our responsibility to manage the funds, arrange the financing, and perform the administrative duties of these tax credit funds. We do not consolidate the tax credit funds as the investors in these funds have the decision making power to select the underlying investments and are exposed to the majority of the residual ownership and tax risks of the funds.

Mutual and pooled funds

We are also sponsors of our mutual and pooled funds as a result of our ability to influence the investment decisions of the mutual funds and our continuing involvement in the administration of these funds. We consolidated certain mutual and pooled funds in which we have direct investment or seed capital representing greater than 50% of the fund units such that we have the decision making power to obtain the majority of the benefits of the fund and are exposed to a majority of the residual ownership risk.

Compensation trusts

We use compensation trusts, which primarily hold our own common shares, to economically hedge our obligation to certain employees under some of our share-based compensation programs. We consolidate these trusts because we have the decision making power to obtain the majority of the benefits of the trusts and are exposed to the majority of the residual ownership risks.

Note 9 Derivative financial instruments and hedging activities

Derivative instruments are categorized as either financial or non-financial derivatives. Financial derivatives are financial contracts whose value is derived from an underlying interest rate, foreign exchange rate, credit risk, and equity or equity index. Non-financial derivatives are contracts whose value is derived from a precious metal, commodity instrument or index. Notional amount of derivatives represents the contract amount used as a reference point to calculate payments. Notional amounts are generally not exchanged by counterparties, and do not reflect our exposure at default.

Financial derivatives

Forwards and futures

Forward contracts are effectively non-standardized agreements that are transacted between counterparties in the over-the-counter market, whereas futures are standardized contracts with respect to amounts and settlement dates, and are traded on regular futures exchanges. Examples of forwards and futures are described below:

Interest rate forwards (forward rate agreements) and futures are contractual obligations to buy or sell an interest-rate sensitive financial instrument on a predetermined future date at a specified price.

Foreign exchange forwards and futures are contractual obligations to exchange one currency for another at a specified price for settlement at a predetermined future date.

Equity forwards and futures are contractual obligations to buy or sell at a fixed value (the specified price) of an equity index, a basket of stocks or a single stock at a predetermined future date.

Swaps

Swaps are over-the-counter contracts in which two counterparties exchange a series of cash flows based on agreed upon rates to a notional amount. Examples of the various swap agreements that we enter into are as follows:

Interest rate swaps are agreements where two counterparties exchange a series of payments based on different interest rates applied to a notional amount in a single currency. Cross currency swaps involve the exchange of fixed payments in one currency for the receipt of fixed payments in another currency. Cross currency interest rate swaps involve the exchange of both interest and principal amounts in two different currencies.

Equity swaps are contracts in which one counterparty agrees to pay or receive from the other cash flows based on changes in the value of an equity index, a basket of stocks or a single stock.

Note 9 Derivative financial instruments and hedging activities (continued)

Options
Options are contractual agreements under which the seller (writer) grants the purchaser the right, but not the obligation, either to buy (call option) or sell (put option), a security, exchange rate, interest rate, or other financial instrument or commodity at a predetermined price, at or by a specified future date. The seller (writer) of an option can also settle the contract by paying the cash settlement value of the purchaser's right. The seller (writer) receives a premium from the purchaser for this right. The various option agreements that we enter into include but are not limited to interest rate options, foreign currency options, equity options and index options.

Credit derivatives
Credit derivatives are over-the-counter contracts that transfer credit risk related to an underlying financial instrument (referenced asset) from one counterparty to another. Examples of credit derivatives include credit default swaps, credit default baskets and total return swaps.

Credit default swaps provide protection against the decline in value of the referenced asset as a result of specified credit events such as default or bankruptcy. They are similar in structure to an option, whereby the purchaser pays a premium to the seller of the credit default swap in return for payment contingent on a credit event affecting the referenced asset.

Credit default baskets are similar to credit default swaps except that the underlying referenced financial instrument is a group of assets instead of a single asset.

Total return swaps are contracts where one counterparty agrees to pay or receive from the other cash flows based on changes in the value of the referenced asset.

Other derivative products
Certain warrants and loan commitments that meet the definition of derivative are also included as derivative instruments.

Non-financial derivatives
We also transact in non-financial derivative products including precious metal and commodity derivative contracts in both the over-the-counter and exchange markets.

Derivatives issued for trading purposes
Most of our derivative transactions relate to sales and trading activities. Sales activities include the structuring and marketing of derivative products to clients to enable them to transfer, modify or reduce current or expected risks. Trading involves market-making, positioning and arbitrage activities. Market-making involves quoting bid and offer prices to other market participants with the intention of generating revenue based on spread and volume. Positioning involves managing market risk positions with the expectation of profiting from favourable movements in prices, rates or indices. Arbitrage activities involve identifying and profiting from price differentials between markets and products.

Derivatives issued for other-than-trading purposes
We also use derivatives for purposes other than trading, primarily for hedging, in conjunction with the management of interest rate, credit, equity and foreign exchange risk related to our funding, lending, investment activities and asset/liability management.

Interest rate swaps are used to manage our exposure to interest rate risk by modifying the repricing or maturity characteristics of existing and/or forecasted assets and liabilities, including funding and investment activities. Purchased options are used to hedge redeemable deposits and other options embedded in consumer products. We manage our exposure to foreign currency risk with cross currency swaps and foreign exchange forward contracts. We predominantly use credit derivatives to manage our credit exposures. We mitigate industry sector concentrations and single-name exposures related to our credit portfolio by purchasing credit derivatives to transfer credit risk to third parties.

Certain derivatives and cash instruments are specifically designated and qualify for hedge accounting. We apply hedge accounting to minimize volatility in earnings and capital caused by changes in interest rates or foreign exchange rates. Interest rate and currency fluctuations will either cause assets and liabilities to appreciate or depreciate in market value or cause variability in forecasted cash flows. When a hedging instrument functions effectively, gains, losses, revenue and expenses of the hedging instrument will offset the gains, losses, revenue and expenses of the hedged item. We largely assess and measure the effectiveness of a derivative that is designated as a hedging instrument based on the change in its fair value. When cash instruments are designated as hedges of currency risks, only changes in their value due to currency risk are included in the assessment and measurement of hedge effectiveness.

From time to time, we also enter into derivative transactions to economically hedge certain exposures that do not otherwise qualify for hedge accounting, or where hedge accounting is not considered economically feasible to implement. In such circumstances, changes in fair value are reflected in Non-interest income.

After-tax unrealized gains relating to de-designated hedges of $64 million (before-tax unrealized gains of $87 million) included in Other components of equity as at October 31, 2012, are expected to be reclassified to Net interest income within the next 12 months.

The following table presents the fair values of the derivative and non-derivative instruments categorized by their hedging relationships, as well as derivatives that are not designated in hedging relationships.

Derivatives and non-derivative instruments

	As at											
	October 31, 2012				October 31, 2011				November 1, 2010			
	Designated as hedging instruments in hedging relationships				Designated as hedging instruments in hedging relationships				Designated as hedging instruments in hedging relationships			
(Millions of Canadian dollars)	**Cash flow hedges**	**Fair value hedges**	**Net investment hedges**	**Not designated in a hedging relationship**	Cash flow hedges	Fair value hedges	Net investment hedges	Not designated in a hedging relationship	Cash flow hedges	Fair value hedges	Net investment hedges	Not designated in a hedging relationship
Assets												
Derivative instruments	**$ 837**	**$ 1,894**	**$ 5**	**$ 88,557**	$ 1,089	$ 2,271	$ 85	$ 96,205	$ 505	$ 2,047	$ 360	$ 103,197
Liabilities												
Derivative instruments	**$ 680**	**$ 284**	**$ 144**	**$ 95,653**	$ 1,072	$ 370	$ 125	$ 98,955	$ 812	$ 60	$ 182	$ 107,023
Non-derivative instruments	**–**	**–**	**16,777**	**–**	–	–	17,211	–	–	–	8,732	–

Results of hedge activities recorded in Net income and Other Comprehensive Income

	For the year ended					
	October 31, 2012			October 31, 2011		
(Millions of Canadian dollars)	**Net gains (losses) included in Non-interest income**	**Net gains (losses) included in Net interest income**	**After-tax unrealized gains (losses) included in OCI**	Net gains (losses) included in Non-interest income	Net gains (losses) included in Net interest income	After-tax unrealized gains (losses) included in OCI
Fair value hedges						
(Losses) gains on hedging instruments	**$ (66)**	**$ n.a.**	**$ n.a.**	$ 148	$ n.a.	$ n.a.
Gains (losses) on hedged items attributable to the hedged risk	**(15)**	**n.a.**	**n.a.**	(134)	n.a.	n.a.
Ineffective portion	**(81)**	**n.a.**	**n.a.**	14	n.a.	n.a.
Cash flow hedges						
Ineffective portion	**(4)**	**n.a.**	**n.a.**	14	n.a.	n.a.
Effective portion	**n.a.**	**n.a.**	**32**	n.a.	n.a.	298
Reclassified to income during the period (1)	**n.a.**	**(35)**	**n.a.**	n.a.	(161)	n.a.
Net investment hedges						
Ineffective portion	**1**	**n.a.**	**n.a.**	4	n.a.	n.a.
Foreign currency (losses) gains	**n.a.**	**n.a.**	**113**	n.a.	n.a.	(625)
Gains (losses) from hedges	**n.a.**	**n.a.**	**–**	n.a.	n.a.	717
	$ (84)	**$ (35)**	**$ 145**	$ 32	$ (161)	$ 390

(1) After-tax losses of $25 million were reclassified from Other components of equity to income for the year ended October 31, 2012 (October 31, 2011 – losses of $132 million).
n.a. not applicable

Note 9 Derivative financial instruments and hedging activities (continued)

Notional amount of derivatives by term to maturity (absolute amounts)

(Millions of Canadian dollars)	As at October 2012					
	Term to maturity					
	Within 1 year	1 to 5 years	Over 5 years (1)	Total	Trading	Other than Trading
Over-the-counter contracts						
Interest rate contracts						
Forward rate agreements	$ 366,587	$ 133,964	$ –	$ 500,551	$ 500,551	$ –
Swaps	1,301,121	2,052,851	1,042,643	4,396,615	4,228,985	167,630
Options purchased	35,703	46,715	23,264	105,682	105,682	–
Options written	35,768	72,150	31,162	139,080	139,080	–
Foreign exchange contracts						
Forward contracts	862,743	32,382	656	895,781	849,800	45,981
Cross currency swaps	5,339	13,850	10,236	29,425	29,027	398
Cross currency interest rate swaps	125,668	279,675	129,317	534,660	512,654	22,006
Options purchased	18,781	7,678	3,643	30,102	30,099	3
Options written	17,839	7,976	3,411	29,226	29,220	6
Credit derivatives (2)	2,139	6,572	8,360	17,071	15,477	1,594
Other contracts (3)	58,635	33,471	26,883	118,989	117,868	1,121
Exchange-traded contracts						
Interest rate contracts						
Futures – long positions	8,248	10,002	47,269	65,519	65,519	–
Futures – short positions	41,530	13,187	66,388	121,105	121,105	–
Options purchased	8,367	252	15,678	24,297	24,297	–
Options written	3,679	247	1	3,927	3,927	–
Foreign exchange contracts						
Futures – long positions	172	–	–	172	172	–
Futures – short positions	299	–	–	299	299	–
Other contracts (3)	106,205	37,883	7,262	151,350	151,350	–
	$ 2,998,823	$ 2,748,855	$ 1,416,173	$ 7,163,851	$ 6,925,112	$ 238,739

(Millions of Canadian dollars)	As at October 31, 2011					
	Term to maturity					
	Within 1 year	1 to 5 years	Over 5 years (1)	Total	Trading	Other than Trading
Over-the-counter contracts						
Interest rate contracts						
Forward rate agreements	$ 647,975	$ 260,133	$ –	$ 908,108	$ 908,108	$ –
Swaps	1,430,516	1,794,498	1,071,978	4,296,992	4,136,341	160,651
Options purchased	34,831	38,965	23,789	97,585	97,544	41
Options written	36,356	42,774	31,289	110,419	110,378	41
Foreign exchange contracts						
Forward contracts	872,548	26,405	825	899,778	849,317	50,461
Cross currency swaps	3,602	12,229	11,155	26,986	26,679	307
Cross currency interest rate swaps	97,270	267,070	120,552	484,892	469,204	15,688
Options purchased	23,715	8,584	3,558	35,857	35,850	7
Options written	23,366	8,292	3,151	34,809	34,809	–
Credit derivatives (2)	7,510	28,237	11,790	47,537	45,636	1,901
Other contracts (3)	48,532	31,499	28,677	108,708	106,904	1,804
Exchange-traded contracts						
Interest rate contracts						
Futures – long positions	28,744	19,518	46,920	95,182	95,172	10
Futures – short positions	58,250	29,331	70,378	157,959	157,959	–
Options purchased	29,555	10,714	418	40,687	40,687	–
Options written	24,704	2,443	–	27,147	27,147	–
Foreign exchange contracts						
Futures – long positions	27	–	–	27	27	–
Futures – short positions	21	–	–	21	21	–
Other contracts (3)	152,934	39,284	10,337	202,555	202,555	–
	$ 3,520,456	$ 2,619,976	$ 1,434,817	$ 7,575,249	$ 7,344,338	$ 230,911

(Millions of Canadian dollars)	As at November 1, 2010					
	Term to maturity					
	Within 1 year	1 to 5 years	Over 5 years (1)	Total	Trading	Other than Trading
Over-the-counter contracts						
Interest rate contracts						
Forward rate agreements	$ 560,552	$ 188,012	$ –	$ 748,564	$ 748,564	$ –
Swaps	1,310,679	1,613,018	825,153	3,748,850	3,560,592	188,258
Options purchased	21,888	32,555	31,801	86,244	86,244	–
Options written	23,560	48,037	84,429	156,026	156,026	–
Foreign exchange contracts						
Forward contracts	859,657	31,738	579	891,974	809,191	82,783
Cross currency swaps	5,853	6,881	12,056	24,790	24,789	1
Cross currency interest rate swaps	93,626	241,216	114,243	449,085	414,750	34,335
Options purchased	29,947	7,996	2,456	40,399	40,392	7
Options written	29,935	7,969	2,004	39,908	39,908	–
Credit derivatives (2)	7,959	57,043	24,196	89,198	87,720	1,478
Other contracts (3)	41,275	39,962	11,456	92,693	90,937	1,756
Exchange-traded contracts						
Interest rate contracts						
Futures – long positions	34,281	18,314	42,655	95,250	95,241	9
Futures – short positions	39,135	18,212	56,372	113,719	113,719	–
Options purchased	32,205	4,557	97	36,859	36,859	–
Options written	19,149	3,572	–	22,721	22,721	–
Foreign exchange contracts						
Futures – long positions	140	–	–	140	140	–
Futures – short positions	28	–	–	28	28	–
Other contracts (3)	92,507	36,990	9,503	139,000	139,000	–
	$ 3,202,376	$ 2,356,072	$ 1,217,000	$ 6,775,448	$ 6,466,821	$ 308,627

(1) Includes contracts maturing in over 10 years with a notional value of $401.9 billion (October 31, 2011 – $406.7 billion; November 1, 2010, – $337.9 billion). The related gross positive replacement cost is $32.3 billion (October 31, 2011 – $26.8 billion; November 1, 2010 – $21.7 billion).

(2) Comprises credit default swaps, total return swaps and credit default baskets, including credit derivatives given guarantee treatment for OSFI regulatory reporting purposes. Credit derivatives with a notional value of $1.6 billion (October 31, 2011 – $1.9 billion; November 1, 2010 – $1.5 billion) are economic hedges. Trading credit derivatives comprise protection purchased of $8.7 billion (October 31, 2011 – $24.2 billion; November 1, 2010 – $47.6 billion) and protection sold of $6.8 billion (October 31, 2011 – $21.4 billion; November 1, 2010 – $40.1 billion).

(3) Comprises precious metal, commodity, stable value and equity derivative contracts.

The following tables indicate the periods when the cash flows are expected to occur and when they are expected to affect profit or loss for cash flow hedges:

(Millions of Canadian dollars)	**As at October 31, 2012**					
	Within 1 year	**1 to 2 years**	**2 to 3 years**	**3 to 5 years**	**Over 5 years**	**Total**
Cash inflows from assets	**$ 329**	**$ 314**	**$ 314**	**$ 274**	**$ 85**	**$ 1,316**
Cash outflows from liabilities	**(370)**	**(250)**	**(211)**	**(261)**	**(272)**	**(1,364)**
Net cash flows	**$ (41)**	**$ 64**	**$ 103**	**$ 13**	**$ (187)**	**$ (48)**

(Millions of Canadian dollars)	As at October 31, 2011					
	Within 1 year	1 to 2 years	2 to 3 years	3 to 5 years	Over 5 years	Total
Cash inflows from assets	$ 1,248	$ 752	$ 538	$ 721	$ 446	$ 3,705
Cash outflows from liabilities	(526)	(364)	(310)	(217)	(105)	(1,522)
Net cash flows	$ 722	$ 388	$ 228	$ 504	$ 341	$ 2,183

(Millions of Canadian dollars)	As at November 1, 2010					
	Within 1 year	1 to 2 years	2 to 3 years	3 to 5 years	Over 5 years	Total
Cash inflows from assets	$ 1,238	$ 746	$ 405	$ 473	$ 293	$ 3,155
Cash outflows from liabilities	(777)	(793)	(607)	(558)	(136)	(2,871)
Net cash flows	$ 461	$ (47)	$ (202)	$ (85)	$ 157	$ 284

Note 9 Derivative financial instruments and hedging activities (continued)

Fair value of derivative instruments

	As at									
	October 31, 2012				October 31, 2011				November 1, 2010	
	Average fair value for year ended (1)		**Year end fair value**		Average fair value for year ended (1)		Year end fair value		Year end fair value	
(Millions of Canadian dollars)	**Positive**	**Negative**	**Positive**	**Negative**	Positive	Negative	Positive	Negative	Positive	Negative
Held or issued for trading purposes										
Interest rate contracts										
Forward rate agreements	**$ 729**	**$ 544**	**$ 690**	**$ 429**	$ 467	$ 403	$ 763	$ 602	$ 316	$ 286
Swaps	**89,881**	**84,214**	**93,908**	**87,908**	56,069	51,765	79,538	73,832	62,029	56,659
Options purchased	**2,527**	**–**	**2,516**	**–**	1,732	–	2,324	–	2,099	–
Options written	**–**	**3,519**	**–**	**3,408**	–	2,180	–	3,202	–	2,486
	93,137	**88,277**	**97,114**	**91,745**	58,268	54,348	82,625	77,636	64,444	59,431
Foreign exchange contracts										
Forward contracts	**8,622**	**8,314**	**6,288**	**6,251**	11,137	10,822	10,639	9,985	12,201	12,133
Cross currency swaps	**1,665**	**1,371**	**1,665**	**1,267**	1,995	1,725	1,851	1,489	1,902	1,540
Cross currency interest rate swaps	**10,361**	**19,219**	**8,637**	**18,841**	12,224	17,300	11,635	17,437	12,211	17,797
Options purchased	**1,632**	**–**	**1,557**	**–**	1,408	–	1,518	–	1,421	–
Options written	**–**	**1,420**	**–**	**1,373**	–	1,124	–	1,196	–	1,190
	22,280	**30,324**	**18,147**	**27,732**	26,764	30,971	25,643	30,107	27,735	32,660
Credit derivatives (2)	**459**	**484**	**287**	**306**	720	924	599	815	1,925	1,692
Other contracts (3)	**5,331**	**7,991**	**4,351**	**7,369**	6,805	9,083	6,022	8,467	7,770	10,361
	121,207	**127,076**	**119,899**	**127,152**	92,557	95,326	114,889	117,025	101,874	104,144
Held or issued for other than trading purposes										
Interest rate contracts										
Swaps			**2,795**	**766**			3,195	1,481	3,075	1,825
Options purchased			**–**	**–**			1	–	–	–
Options written			**–**	**–**			–	1	–	–
			2,795	**766**			3,196	1,482	3,075	1,825
Foreign exchange contracts										
Forward contracts			**232**	**142**			435	325	533	480
Cross currency swaps			**4**	**19**			7	2	2	3
Cross currency interest rate swaps			**861**	**439**			1,064	582	1,447	1,851
Options purchased			**–**	**–**			–	–	–	–
Options written			**–**	**–**			–	–	–	–
			1,097	**600**			1,506	909	1,982	2,334
Credit derivatives (2)			**5**	**29**			41	19	7	28
Other contracts (3)			**92**	**2**			206	–	118	–
			3,989	**1,397**			4,949	2,410	5,182	4,187
Total gross fair values before netting (4)			**123,888**	**128,549**			119,838	119,435	107,056	108,331
Valuation adjustments determined on a pooled basis			**(626)**	**–**			(748)	–	(693)	–
Impact of netting agreements that qualify for balance sheet offset			**(31,969)**	**(31,788)**			(19,440)	(18,913)	(254)	(254)
			91,293	**96,761**			99,650	100,522	106,109	108,077
Impact of netting agreements that do not qualify for balance sheet offset (5)			**(67,849)**	**(67,849)**			(70,630)	(70,630)	(76,381)	(76,381)
Total			**$ 23,444**	**$ 28,912**			$ 29,020	$ 29,892	$ 29,728	$ 31,696

(1) Average fair value amounts are calculated based on monthly balances.
(2) Comprises credit default swaps, total return swaps and credit default baskets, including credit derivatives given guarantee treatment for OSFI regulatory reporting purposes.
(3) Comprises precious metal, commodity, stable value and equity derivative contracts.
(4) Total gross fair values before netting include market and credit valuation adjustments that are determined on an instrument-specific basis.
(5) Additional impact of offsetting credit exposures on contracts that do not qualify for balance sheet offset.

Fair value of derivative instruments by term to maturity

	As at											
	October 31, 2012				October 31, 2011				November 1, 2010			
(Millions of Canadian dollar)	**Less than 1 year**	**1 to 5 years**	**Over 5 years**	**Total**	Less than 1 year	1 to 5 years	Over 5 years	Total	Less than 1 year	1 to 5 years	Over 5 years	Total
Derivative assets	**$ 12,958**	**$ 29,957**	**$ 48,378**	**$ 91,293**	$ 20,711	$ 34,035	$ 44,904	$ 99,650	$ 22,191	$ 38,411	$ 45,507	$ 106,109
Derivative liabilities	**14,429**	**35,362**	**46,970**	**96,761**	20,943	35,899	43,680	100,522	23,558	40,019	44,500	108,077

Derivative-related credit risk

Credit risk from derivative transactions is generated by the potential for the counterparty to default on its contractual obligations when one or more transactions have a positive market value to us. Therefore, derivative-related credit risk is represented by the positive fair value of the instrument and is normally a small fraction of the contract's notional amount.

We subject our derivative-related credit risk to the same credit approval, limit and monitoring standards that we use for managing other transactions that create credit exposure. This includes evaluating the creditworthiness of counterparties, and managing the size, diversification and maturity structure of the portfolio. Credit utilization for all products is compared with established limits on a continual basis and is subject to a standard exception reporting process. We utilize a single internal rating system for all credit risk exposure. In most cases, these internal ratings approximate the external risk ratings of public rating agencies.

Netting is a technique that can reduce credit exposure from derivatives and is generally facilitated through the use of master netting agreements. A master netting agreement provides for a single net settlement of all financial instruments covered by the agreement in the event of default. However, credit risk is reduced only to the extent that our financial obligations to the same counterparty can be set off against obligations of the counterparty to us. We maximize the use of master netting agreements to reduce derivative-related credit exposure. Our overall exposure to credit risk that is reduced through master netting agreements may change substantially following the reporting date as the exposure is affected by each transaction subject to the agreement as well as by changes in underlying market rates. Measurement of our credit exposure arising out of derivative transactions is reduced to reflect the effects of netting in cases where the enforceability of that netting is supported by appropriate legal analysis as documented in our trading credit risk policies.

The use of collateral is another significant credit mitigation technique for managing derivative-related counterparty credit risk. Mark-to-market provisions in our agreements with some counterparties, typically in the form of a Credit Support Annex, provide us with the right to request that the counterparty pay down or collateralize the current market value of its derivatives positions when the value passes a specified threshold amount.

Replacement cost represents the total fair value of all outstanding contracts in a gain position after factoring in the master netting agreements. The amounts in the table below exclude fair value of $2.1 billion (October 31, 2011 – $3.4 billion; November 1, 2010 – $2.3 billion) relating to exchange-traded instruments as they are subject to daily margining and are deemed to have no credit risk.

The credit equivalent amount is defined as the sum of the replacement cost plus an add-on amount for potential future credit exposure as defined by OSFI.

The risk-weighted amount is determined by applying the standard OSFI-defined measures of counterparty risk to the credit equivalent amount.

Derivative-related credit risk

	As at								
	October 31, 2012 (1)			October 31, 2011 (1)			November 1, 2010 (1)		
(Millions of Canadian dollars)	**Replacement cost**	**Credit equivalent amount** (2)	**Risk-adjusted balance** (3)	Replacement cost	Credit equivalent amount (2)	Risk-adjusted balance (3)	Replacement cost	Credit equivalent amount (2)	Risk-adjusted balance (3)
Interest rate contracts									
Forward rate agreements	**$ 81**	**$ 273**	**$ 116**	$ 173	$ 782	$ 184	$ 40	$ 478	$ 90
Swaps	**15,722**	**13,114**	**5,798**	15,275	18,058	6,666	14,015	17,621	6,505
Options purchased	**211**	**396**	**153**	198	344	121	355	561	268
	16,014	**13,783**	**6,067**	15,646	19,184	6,971	14,410	18,660	6,863
Foreign exchange contracts									
Forward contracts	**2,859**	**7,778**	**2,143**	4,623	9,325	2,187	4,290	8,954	2,024
Swaps	**1,748**	**6,664**	**1,529**	3,125	13,567	3,232	3,709	12,956	3,101
Options purchased	**224**	**634**	**283**	1,310	2,116	738	1,035	1,716	583
	4,831	**15,076**	**3,955**	9,058	25,008	6,157	9,034	23,626	5,708
Credit derivatives (4)	**121**	**588**	**244**	548	1,226	399	937	2,379	2,553
Other contracts (5)	**981**	**3,958**	**1,642**	1,322	4,553	2,401	3,826	6,688	4,950
Total	**$ 21,947**	**$ 33,405**	**$ 11,908**	$ 26,574	$ 49,971	$ 15,928	$ 28,207	$ 51,353	$ 20,074

(1) The amounts presented are net of master netting agreements in accordance with Basel II.
(2) The total credit equivalent amount includes collateral applied of $10.7 billion (October 31, 2011– $7.9 billion; November 1, 2010 – $7.4 billion).
(3) The risk-weighted balance was calculated in accordance with Basel II.
(4) Comprises credit default swaps, total return swaps and credit default baskets. The above excludes credit derivatives issued for other-than-trading purposes related to bought protection with a replacement cost of $5 million (October 31, 2011 – $41 million; November 1, 2010 – $7 million).
(5) Comprises precious metal, commodity and equity derivative contracts.

Replacement cost of derivative instruments by risk rating and by counterparty type

	As at October 31, 2012								
	Risk rating (1)					**Counterparty type** (2)			
(Millions of Canadian dollars)	**AAA, AA**	**A**	**BBB**	**BB or lower**	**Total**	**Banks**	**OECD governments**	**Other**	**Total**
Gross positive replacement cost	**$ 24,404**	**$ 77,490**	**$ 15,006**	**$ 4,873**	**$ 121,773**	**$ 59,859**	**$ 13,074**	**$ 48,840**	**$ 121,773**
Impact of master netting agreements	**19,332**	**70,193**	**9,113**	**1,183**	**99,821**	**49,353**	**10,485**	**39,983**	**99,821**
Replacement cost (after netting agreements) (3)	**$ 5,072**	**$ 7,297**	**$ 5,893**	**$ 3,690**	**$ 21,952**	**$ 10,506**	**$ 2,589**	**$ 8,857**	**$ 21,952**

Note 9 Derivative financial instruments and hedging activities (continued)

	As at October 31, 2011								
	Risk rating (1)					Counterparty type (2)			
(Millions of Canadian dollars)	AAA, AA	A	BBB	BB or lower	Total	Banks	OECD governments	Other	Total
Gross positive replacement cost	$ 29,938	$ 66,503	$ 13,877	$ 6,378	$ 116,696	$ 65,484	$ 12,287	$ 38,925	$ 116,696
Impact of master netting agreements	22,497	56,846	8,142	2,596	90,081	52,217	8,445	29,419	90,081
Replacement cost (after netting agreements) (3)	$ 7,441	$ 9,657	$ 5,735	$ 3,782	$ 26,615	$ 13,267	$ 3,842	$ 9,506	$ 26,615

	November 1, 2010								
	Risk rating (1)					Counterparty type (2)			
(Millions of Candian dollars)	AAA, AA	A	BBB	BB or lower	Total	Banks	OECD governments	Other	Total
Gross positive replacement cost	$ 31,724	$ 49,339	$ 16,544	$ 7,243	$ 104,850	$ 68,475	$ 11,118	$ 25,257	$ 104,850
Impact of master netting agreements	24,228	38,862	10,889	2,658	76,637	55,638	8,141	12,858	76,637
Replacement cost (after netting agreements) (3)	$ 7,496	$ 10,477	$ 5,655	$ 4,585	$ 28,213	$ 12,837	$ 2,977	$ 12,399	$ 28,213

(1) Our internal risk ratings for major counterparty types approximate those of public rating agencies. Ratings of AAA, AA, A and BBB represent investment grade ratings and ratings of BB or lower represent non-investment grade ratings.
(2) Counterparty type is defined in accordance with the capital adequacy requirements of OSFI.
(3) Includes credit derivatives issued for other-than-trading purposes with a total replacement cost of $5 million (October 31, 2011 – $41 million; November 1, 2010 – $7 million).

Note 10 Premises and equipment

(Millions of Canadian dollars)	Land	Buildings	Computer equipment	Furniture, fixtures and other equipment	Leasehold improvements	Work in process	Total
Cost							
Balance at October 31, 2011	$116	$ 801	$ 1,815	$ 1,353	$ 1,684	$ 532	$6,301
Additions (1)	13	20	203	67	50	380	733
Acquisitions through business combinations	–	–	1	9	1	–	11
Transfers from work in process	–	448	46	42	98	(634)	–
Disposals	(1)	(17)	(423)	(36)	(29)	(3)	(509)
Foreign exchange translation	–	(1)	(10)	–	1	(1)	(11)
Other	–	24	(138)	(43)	66	(75)	(166)
Balance at October 31, 2012	$128	$ 1,275	$ 1,494	$ 1,392	$ 1,871	$ 199	$6,359
Accumulated depreciation							
Balance at October 31, 2011	$ –	$ 427	$ 1,432	$ 907	$ 1,045	$ –	$3,811
Depreciation	–	21	182	86	139	–	428
Impairment loss (reversal)	–	–	–	–	–	–	–
Disposals	–	(5)	(422)	(34)	(25)	–	(486)
Foreign exchange translation	–	(2)	(8)	–	3	–	(7)
Other	–	15	(92)	9	(10)	–	(78)
Balance at October 31, 2012	$ –	$ 456	$ 1,092	$ 968	$ 1,152	$ –	$3,668
Net carrying amount at October 31, 2012	$128	$ 819	$ 402	$ 424	$ 719	$ 199	$2,691

(Millions of Canadian dollars)	Land	Buildings	Computer equipment	Furniture, fixtures and other equipment	Leasehold improvements	Work in process	Total
Cost							
Balance at November 1, 2010	$ 216	$ 934	$ 1,954	$ 1,467	$ 1,641	$ 293	$6,505
Assets from discontinued operations	(105)	(269)	(38)	(154)	(81)	(12)	(659)
Additions (1)	6	40	77	56	34	612	825
Acquisitions through business combinations	–	–	–	–	–	–	–
Transfers from work in process	1	66	95	53	156	(371)	–
Disposals	–	(5)	(34)	(54)	(23)	–	(116)
Foreign exchange translation	(2)	7	(20)	(17)	(24)	(1)	(57)
Other	–	28	(219)	2	(19)	11	(197)
Balance at October 31, 2011	$ 116	$ 801	$ 1,815	$ 1,353	$ 1,684	$ 532	$6,301
Accumulated depreciation							
Balance at November 1, 2010	$ –	$ 498	$ 1,511	$ 993	$ 1,002	$ –	$4,004
Assets from discontinued operations	–	(108)	(31)	(111)	(46)	–	(296)
Depreciation	–	18	165	76	128	–	387
Impairment loss (reversal)	–	–	–	–	–	–	–
Disposals	–	(3)	(34)	(49)	(20)	–	(106)
Foreign exchange translation	–	3	(11)	(5)	(12)	–	(25)
Other	–	19	(168)	3	(7)	–	(153)
Balance at October 31, 2011	$ –	$ 427	$ 1,432	$ 907	$ 1,045	$ –	$3,811
Net carrying amount at October 31, 2011	$ 116	$ 374	$ 383	$ 446	$ 639	$ 532	$2,490

(1) At October 31, 2012, we had total contractual commitments of $96 million to acquire premises and equipment (October 31, 2011 – $154 million; November 1, 2010 – $72 million).

Note 11 Goodwill and other intangibles

Goodwill

The following table presents changes in the carrying amount of goodwill by CGU for the years ended October 31, 2012 and 2011.

(Millions of Canadian dollars)	Canadian Banking	Caribbean Banking	Canadian Wealth Management	Global Asset Management	U.S. Wealth Management	International Wealth Management	Insurance	Investor Services	Investor & Treasury Services (1)	Capital Markets	Total
At November 1, 2010	$ 1,931	$ 1,492	$ 545	$ 765	$ 528	$ 119	$ 126	$ 146	$ –	$ 901	$6,553
Acquisitions	11	–	–	1,099	–	–	–	–	–	2	1,112
Currency translations	–	(41)	(3)	17	(12)	(1)	(8)	(2)	–	(16)	(66)
Other changes	11	–	–	–	–	–	–	–	–	–	11
At October 31, 2011	$ 1,953	$ 1,451	$ 542	$ 1,881	$ 516	$ 118	$ 118	$ 144	$ –	$ 887	$7,610
Acquisitions	**–**	**–**	**–**	**–**	**–**	**8**	**–**	**–**	**–**	**–**	**8**
Transfers	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**52**	**(52)**	**–**
Impairment losses (2)	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**(142)**	**–**	**–**	**(142)**
Currency translations	**–**	**–**	**–**	**8**	**1**	**–**	**–**	**(2)**	**–**	**2**	**9**
Other changes	**(2)**	**–**	**1**	**–**	**–**	**1**	**–**	**–**	**–**	**–**	**–**
At October 31, 2012	**$ 1,951**	**$ 1,451**	**$ 543**	**$ 1,889**	**$ 517**	**$ 127**	**$ 118**	**$ –**	**$ 52**	**$ 837**	**$7,485**

(1) Effective October 31, 2012, Investor & Treasury Services is a newly created CGU that includes our former Investor Services CGU and certain related businesses that were part of our Capital Markets CGU. The transfer of goodwill was based on the relative fair value of the transferred businesses. See Note 30 for further details on our business segments.

(2) During the second quarter of 2012, we recorded an impairment loss of $142 million in our Investor Services CGU related to our acquisition of the remaining 50% interest in RBC Dexia. See Note 12 for further details.

Key inputs and assumptions

We perform our annual impairment test by comparing the carrying amount of each CGU to its recoverable amount. The recoverable amount of a CGU is represented by its value in use, except in circumstances where the carrying amount of a CGU exceeds its value in use. In such cases, we determine the CGU's fair value less costs to sell and its recoverable amount is the greater of its value in use and fair value less costs to sell.

In our annual impairment tests performed as at August 1, 2012 and August 1, 2011 and our goodwill impairment test performed on transition to IFRS as at November 1, 2010, the recoverable amounts of our CGUs were based on value in use, except for Caribbean Banking as at August 1, 2012 and 2011, which was based on fair value less costs to sell.

We calculate value in use using the discounted cash flow (DCF) method that projects future cash flows, which are discounted to their present value. Future cash flows are based on financial plans agreed by management for a five-year period, estimated based on forecast results, business initiatives, planned capital investments and returns to shareholders. Cash flow projections beyond the initial five-year period are assumed to increase at a constant rate using a nominal long-term growth rate (terminal growth rate).

The estimation of value in use involves significant judgment in the determination of inputs to the model and is most sensitive to changes in future cash flows, discount rates and terminal growth rates applied to cash flows beyond the forecast period. These key inputs and assumptions used to determine the recoverable amount of each CGU using value in use were tested for sensitivity by applying a reasonably possible change to those assumptions. The discount rates were increased by 1%, terminal growth rates were decreased by 0.5%, and future cash flows were reduced by 10%. As at August 1, 2012, no change in an individual key input or assumption as described, would result in a CGU's carrying value exceeding its recoverable amount.

Note 11 Goodwill and other intangibles (continued)

We calculate fair value less costs to sell using a DCF method that projects future cash flows over a 10-year period. Future cash flows are based on the same factors noted above. Cash flow projections beyond the initial 10-year period are assumed to increase at a constant rate using a nominal long-term growth rate. Cash flow projections are adjusted to reflect the considerations of a prospective third-party buyer and discounted to their present value.

The estimation of fair value less costs to sell also involves significant judgment and due to the longer time period used for our cash flow projections, the ultimate outcome of the cash flow projections has greater uncertainty than those used in our value in use model. Variability in timing and amount of future cash flows, discount rates and terminal growth rates applied to cash flows beyond the forecast period are therefore more likely. For our Caribbean Banking CGU, the recoverable amount, based on fair value less costs to sell, was 125% of its carrying value. If projected cash flows decreased by 19%, the discount rate increased to 12.3% or the terminal growth rate decreased to 1.4%, holding other individual factors constant, the recoverable amount based on fair value less costs to sell would be equal to the carrying value.

The discount rate used is based on the bank-wide cost of capital, adjusted for the risks to which each CGU is exposed. CGU-specific risks include: country risk, business/operational risk, geographic risk (including political risk, devaluation risk, and government regulation), currency risk, and price risk (including product pricing risk and inflation). Terminal growth rates are based on the current market assessment of gross domestic product and inflation for the countries within which the CGU operates.

The terminal growth rates and discount rates used in our annual impairment tests are summarized below.

	As at					
	August 1, 2012		August 1, 2011		November 1, 2010	
	Discount rate	**Terminal growth rate**	Discount rate	Terminal growth rate	Discount rate	Terminal growth rate
Group of Cash Generating Units						
Canadian Banking	**8.0%**	**3.0%**	9.0%	3.0%	9.5%	3.0%
Canadian Wealth Management	**9.0**	**3.0**	10.0	3.0	10.5	3.0
Global Asset Management	**9.0**	**3.0**	10.0	3.0	10.5	3.0
U.S. Wealth Management	**9.5**	**3.0**	10.5	3.0	10.5	3.0
International Wealth Management	**9.6**	**3.0**	10.7	3.0	10.7	3.0
Insurance	**9.0**	**3.0**	10.0	3.0	10.5	3.0
U.S. Banking	**n.a.**	**n.a.**	n.a.	n.a.	10.5	3.5
Caribbean Banking	**10.8**	**4.1**	11.5	4.0	11.3	4.0
Investor Services	**n.a.**	**n.a.**	10.5	3.0	10.0	3.0
Capital Markets	**10.4**	**3.0**	11.3	3.0	11.0	3.0

n.a. As at August 1, 2012 and 2011, the balance of goodwill in our U.S. Banking CGU was $nil. See Note 3. As at August 1, 2012, the balance of goodwill in our Investor Services CGU was $nil. Therefore, no annual impairment tests were performed for these CGUs on these dates.

Other intangible assets

The following table presents the carrying amount of our other intangible assets:

	As at October 31, 2012					
(Millions of Canadian dollars)	**Internally generated software**	**Other software**	**Core deposit intangibles**	**Customer list and relationships** (1)	**In process software**	**Total**
Gross carrying amount						
Balance at October 31, 2011	**$ 1,926**	**$ 855**	**$ 150**	**$ 1,356**	**$ 306**	**$ 4,593**
Additions	**15**	**41**	**–**	**337**	**587**	**980**
Transfers	**233**	**42**	**–**	**–**	**(275)**	**–**
Dispositions	**(21)**	**(27)**	**–**	**(175)**	**(1)**	**(224)**
Currency translations	**1**	**1**	**–**	**10**	**2**	**14**
Other changes	**104**	**74**	**–**	**(158)**	**31**	**51**
Balance at October 31, 2012	**$ 2,258**	**$ 986**	**$ 150**	**$ 1,370**	**$ 650**	**$ 5,414**
Accumulated amortization						
Balance at October 31, 2011	**$ (1,182)**	**$ (690)**	**$ (68)**	**$ (538)**	**$ –**	**$ (2,478)**
Amortization charge for the year	**(306)**	**(86)**	**(22)**	**(114)**	**–**	**(528)**
Dispositions	**18**	**25**	**–**	**155**	**–**	**198**
Impairment losses	**–**	**–**	**–**	**(26)**	**–**	**(26)**
Currency translations	**–**	**(6)**	**–**	**(6)**	**–**	**(12)**
Other changes	**(15)**	**17**	**–**	**116**	**–**	**118**
Balance at October 31, 2012	**$ (1,485)**	**$ (740)**	**$ (90)**	**$ (413)**	**$ –**	**$ (2,728)**
Net balance, at October 31, 2012	**$ 773**	**$ 246**	**$ 60**	**$ 957**	**$ 650**	**$ 2,686**

(Millions of Canadian dollars)	As at October 31, 2011						
	Internally generated software	Other software	Core deposit intangibles	Customer list and relationships	Mortgage servicing rights	In process software	Total
Gross carrying amount							
Balance at November 1, 2010	$ 1,522	$ 840	$ 648	$ 1,073	$ 16	$ 98	$ 4,197
Assets of discontinued operations	–	(121)	(493)	–	(16)	–	(630)
Additions	339	37	–	283	–	319	978
Transfers	71	61	–	–	–	(132)	–
Dispositions	(12)	(44)	–	(1)	–	(2)	(59)
Currency translations	(6)	25	(5)	(1)	–	(1)	12
Other changes	12	57	–	2	–	24	95
Balance at October 31, 2011	$ 1,926	$ 855	$ 150	$ 1,356	$ –	$ 306	$ 4,593
Accumulated amortization							
Balance at November 1, 2010	$ (866)	$ (599)	$ (387)	$ (420)	$ –	$ –	$(2,272)
Assets of discontinued operations	–	76	338	–	–	–	414
Amortization charge for the year	(250)	(82)	(24)	(125)	–	–	(481)
Dispositions	4	1	–	–	–	–	5
Currency translations	1	(3)	2	3	–	–	3
Other changes	(71)	(83)	3	4	–	–	(147)
Balance at October 31, 2011	$ (1,182)	$ (690)	$ (68)	$ (538)	$ –	$ –	$(2,478)
Net balance, at October 31, 2011	$ 744	$ 165	$ 82	$ 818	$ –	$ 306	$ 2,115

(1) The impairment loss in our customer list and relationships intangibles related to our acquisition of the remaining 50% interest in RBC Dexia. See Note 12 for further details.

Note 12 Significant acquisitions and dispositions

Acquisitions

Personal & Commercial Banking

On October 23, 2012, RBC announced a definitive agreement to acquire the Canadian auto finance and deposit business of Ally Financial Inc. Subject to certain closing adjustments, total consideration is expected to be $3.1 to $3.8 billion, depending on the size of a dividend paid to the seller prior to closing. The transaction is subject to customary closing conditions, including regulatory and other approvals, and is expected to close in the first quarter of calendar 2013.

Investor & Treasury Services

On July 27, 2012, we completed the acquisition of the 50% interest that we did not already own in RBC Dexia for cash consideration of €837.5 million ($1 billion) and renamed the entity RBC Investor Services. The acquisition of the remaining interest in RBC Dexia allows us to increase stable earnings from global custody services that are well positioned for growth.

When we announced the definitive agreement to purchase the additional 50% interest of RBC Dexia, the agreed purchase price for the additional 50% was below the carrying value of our existing 50% interest. We believed this to be an indicator that our existing investment in RBC Dexia may be impaired. We completed an impairment test in accordance with IAS 36 in April 2012 on our Investor Services CGU which was primarily comprised of our direct investment in RBC Dexia. In determining the CGU's recoverable amount, we determined value in use using a discounted cash flow approach that specifically considered the impact of the pending transaction; we considered the purchase price to be evidence of fair value in our estimate of fair value less costs to sell. Based on this analysis, fair value less costs to sell was determined to be higher than value in use, and was therefore determined to represent the CGU's recoverable amount. As a result, in the second and third quarters, we recognized impairment losses on the CGU of $161 million and $7 million respectively ($161 million and $7 million after tax) in Impairment of goodwill and other intangibles. The second quarter loss was comprised of writedowns of $142 million of goodwill and $19 million of other intangibles and the third quarter loss was comprised of a writedown of other intangibles. We incurred further impairment losses in the third quarter as we continued to writedown the carrying value of our Investor Services CGU to its recoverable amount between the announcement date and the closing date, representing recognition of our proportionate share of RBC Dexia's results.

In conjunction with the purchase agreement, RBC Dexia sold AFS fixed income securities issued by Dexia Group (our joint venture partner) with a fair value of €1.4 billion ($1.9 billion) to the Dexia Group and acquired an approximately equivalent amount of U.S. dollar-denominated securities primarily issued by large global financial institutions. The sale of the Dexia Group securities and subsequent trading losses on the securities purchased resulted in $52 million in losses (after tax) to RBC Dexia. Our proportionate share of the total loss of $36 million ($26 million after tax) was recognized in the second quarter of 2012.

In accordance with IFRS 3, for a business combination achieved in stages (step acquisition), upon closing, there is a deemed disposition of our existing investment at fair value and then recognition of the entire investment at its acquisition-date fair value. The difference between the carrying value and fair value of our existing interest at the closing date is recognized in earnings. No gain or loss was recognized on the deemed disposition as we had previously written down our investment to its fair value. We then recognized the entire investment in RBC Investor Services at its acquisition date fair value of $2.1 billion, represented by the cash consideration paid to the Dexia Group of $1 billion and the fair value of our previously held 50% interest of $1 billion. Our preliminary purchase price allocation includes assigning $28.9 billion to assets, including $304 million of other intangible assets, and $26.8 billion to liabilities on the acquisition date.

Note 12 Significant acquisitions and dispositions (continued)

As part of the acquisition, we also incurred costs of $5 million ($4 million after tax) recorded in Non-interest expense. The following table presents the estimated fair values of the assets acquired and liabilities assumed as at the date of the acquisition.

(Millions of Canadian dollars, except as otherwise noted)		
Percentage of shares acquired		50%
Cash consideration transferred to acquire the 50% interest	€	837.5 million
Fair value of previously held 50% interest	€	837.5 million
Fair value of 100% interest	€	1,675 million
Fair value of 100% interest in Canadian dollars	$	2,084
Fair value of identifiable assets acquired (100% interest)		
Cash and deposits with banks	$	9,086
Securities		5,177
Assets purchased under reverse repurchase agreements and securities borrowed		11,913
Loans		1,455
Other assets (1)		1,288
Fair value of liabilities assumed (100% interest)		
Deposits		(25,629)
Other liabilities		(1,206)
Fair value of identifiable net assets acquired (100% interest)	$	2,084

(1) Other assets include $304 million of customer lists and relationships which are amortized on a straight-line basis over an estimated average useful life of 15 years.

Had the acquisition of full control been effective on November 1, 2011, our consolidated revenue and net income for the year ended October 31, 2012 would have increased by $428 million and $7 million, respectively, including losses on the sale of Dexia Group securities described above.

All results of operations and the impairment losses discussed above are included in our Investor & Treasury Services segment.

Wealth Management

On May 31, 2012, we completed the acquisition of the Latin American, Caribbean and African private banking business of Coutts, the wealth division of The Royal Bank of Scotland Group with client assets of approximately US$2 billion, for an estimated purchase price of $35 million. The purchase price will be adjusted based on the actual net client assets transferred over the 12 month period subsequent to close.

On December 17, 2010, we completed the acquisition of BlueBay Asset Management plc (BlueBay), a London based publicly-traded asset management company specializing in fixed income investing with approximately $39.1 billion of assets under management on the date of acquisition. Details of the final purchase price allocation are in the following table. We report the results of BlueBay in our Wealth Management segment on a one-month lag basis.

(Millions of Canadian dollars, except as otherwise noted)		
Percentage of shares acquired		100%
Purchase consideration in the currency of the transaction	Total cash payment of £ 955 million	
Purchase consideration in Canadian dollar equivalent	$	1,503
Fair value of identifiable assets acquired (1)	$	689
Fair value of liabilities assumed (2)		(286)
Fair value of identifiable net assets acquired	$	403
Goodwill		1,100
Total purchase consideration	$	1,503

(1) Identifiable assets acquired include $280 million of customer lists and relationships which are amortized on a straight-line basis over an estimated average useful life of 12 years.
(2) Includes deferred tax liabilities of $79 million related to the intangible assets acquired.

Dispositions

Personal & Commercial Banking

On March 2, 2012, we completed the sale of our U.S. regional retail banking operations to the PNC Financial Services Group, Inc. (PNC) announced on June 20, 2011. An estimated loss on sale of $304 million after-tax was recorded in Net loss from discontinued operations in our 2011 Consolidated Statement of Income. A reduction to loss on sale of $7 million after-tax was recorded in the first quarter of 2012. Upon closing of the sale, we revised our loss on sale to $294 million after tax. The difference of $3 million was recorded as a reduction to Net loss from discontinued operations in the second quarter of 2012.

We also had previously classified certain of our U.S. regional banking assets as discontinued operations when announced on June 20, 2011, because we committed to selling them within a year. Certain of these assets which were not sold within the year were reclassified in the third quarter of 2012 to continuing operations in our Corporate Support segment. The assets are not material to our Personal & Commercial Banking or Corporate Support segments.

The results of the operations sold to PNC and certain of our U.S. regional banking assets were reflected as discontinued operations on our Consolidated Balance Sheets beginning in the third quarter of 2011 and our Consolidated Statements of Income for all relevant periods. Selected financial information for these operations is set out in the tables below.

Insurance

On April 29, 2011, we completed the sale of Liberty Life, our U.S. life insurance business, to Athene Holding Ltd, as announced on October 22, 2010. The loss on sale after-tax was $104 million. The results of operations of Liberty Life sold to Athene Holding Ltd. have been presented in our Condensed Consolidated Financial Statements as discontinued operations for all periods presented. Select financial information is set out in the tables below.

Total discontinued operations – Balance Sheets

(Millions of Canadian dollars)	As at October 31 2012	October 31 2011	November 1 2010
Total Assets (1)			
Securities	**$ –**	$ 5,253	$ 4,612
Loans	**–**	16,593	477
Other (2)	**–**	5,306	634
	$ –	$ 27,152	$ 5,723
Total Liabilities			
Deposits	**$ –**	$ 18,470	$ –
Insurance claims and policy benefit liabilities	**–**	–	4,858
Other	**–**	1,606	154
	$ –	$ 20,076	$ 5,012

(1) Total other U.S. regional banking assets classified as discontinued operations are $nil (October 31, 2011 – $331 million).
(2) Includes deferred tax assets classified as discontinued operations of $nil (October 31, 2011 – $1,029 million; November 1, 2010 – $nil).

Total discontinued operations – Statements of Income

(Millions of Canadian dollars)	For the year ended October 31 2012	October 31 2011
Net interest income	**$ 200**	$ 683
Non-interest income	**68**	328
Total Revenue	**268**	1,011
Provision for credit losses	**117**	326
Insurance policyholder benefits, claims and actuarial expenses	**–**	240
Non-interest expense	**258**	834
Net (loss) income before income taxes	**(107)**	(389)
Net (loss) income	**(61)**	(234)
Gain (loss) on sale	**10**	(292)
Net (loss) gain from discontinued operations		
U.S. regional retail banking operations sold to PNC	**(36)**	(479)
Other U.S. regional banking assets	**(15)**	(77)
Liberty Life sold to Athene Holding Ltd.	**–**	30
Total	**$ (51)**	$ (526)

Total discontinued operations – Statements of Cash Flows

(Millions of Canadian dollars)	For the year ended October 31 2012	October 31 2011
Net cash (used in) from operating activities	**$ (6,727)**	$ 1,179
Net cash from investing activities	**4,054**	586
Net cash (used in) from financing activities	**(24)**	64
Effect of exchange rate changes on cash and due from banks	**(19)**	(3)
Net change in cash and due from banks (1)	**(2,716)**	1,826
Cash and due from banks at beginning of year	**2,716**	890
Cash and due from banks at end of year	**$ –**	$ 2,716

(1) Net change in cash and due from banks of Liberty Life for the year ended October 31, 2012 were $nil (October 31, 2011 – $(2) million).

Note 13 Joint ventures and associated companies

Joint ventures

As at October 31, 2012, our principal joint venture is a 50% interest in Moneris Solutions, which provides payment processing services to merchants across North America.

Previously, our principal joint ventures included a 50% interest in RBC Dexia Investor Services Limited (RBC Dexia), a provider of global custody services. In the third quarter of 2012, we completed the acquisition of the remaining 50% that we did not already own in RBC Dexia. As a result of the acquisition, RBC Dexia is no longer a joint venture. See Note 12.

Note 13 Joint ventures and associated companies (continued)

The following table summarizes the assets, liabilities, income and expense recognized in our Consolidated Balance Sheets and Consolidated Income Statements related to our interests in joint ventures.

	RBC Dexia (1)			Other			Total		
	As at or for the year ended								
(Millions of Canadian dollars)	**October 31 2012**	October 31 2011	November 1 2010	**October 31 2012**	October 31 2011	November 1 2010	**October 31 2012**	October 31 2011	November 1 2010
Consolidated Balance Sheets									
Assets	**$ –**	$ 11,949	$ 11,727	**$ 1,044**	$ 770	$ 679	**$ 1,044**	$ 12,719	$ 12,406
Liabilities	**–**	11,998	11,749	**1,050**	788	679	**1,050**	12,786	12,428
Consolidated Income Statements									
Total revenue	**428**	680	n.a.	**336**	333	n.a.	**764**	1,013	n.a.
Net income	**7**	96	n.a.	**131**	125	n.a.	**138**	221	n.a.

(1) As at October 31, 2012 our interest in RBC Dexia is no longer a joint venture. Revenues and income for the year ended October 31, 2012 reflect our share of the revenues and income of RBC Dexia up to July 27, 2012, the date we completed our acquisition of the remaining 50% interest that we did not already own. Refer to Note 12 for further details.

Associated companies

The following tables summarize the carrying value of our investments in associated companies and present selected aggregate financial information about our associated companies.

	As at	
(Millions of Canadian dollars)	**October 31 2012**	October 31 2011
Carrying amount at the beginning of the year	**$ 142**	$ 131
Additions (disposals)	**4**	43
Our share of investees' net income (loss)	**24**	(9)
Our share of investees' other comprehensive income (loss) (1)	**–**	–
Dividends/distributions	**(36)**	–
Impairments	**–**	–
Foreign currency translation	**–**	(2)
Other	**(9)**	(21)
Carrying amount at the end of the year	**$ 125**	$ 142

	As at or for the year ended		
(Millions of Canadian dollars)	**October 31 2012**	October 31 2011	November 1 2010
Total assets	**$ 584**	$ 667	$ 652
Total liabilities	**300**	356	322
Total revenue	**623**	611	n.a.
Total profit for the year	**46**	(28)	n.a.

(1) The aggregate financial information of our significant investees reflects balances that are based on accounts made up to October 31. While the year end dates of our significant investees are different from ours, financial information is obtained as at October 31 in order to report on a consistent basis with our year-end date.

Restricted net assets

Certain of our subsidiaries and joint ventures are subject to regulatory requirements of the jurisdictions in which they operate. When these subsidiaries and joint ventures are subject to such requirements, they may be restricted from transferring to us, our share of their assets in the form of cash dividends, loans or advances. At October 31, 2012, restricted net assets of these subsidiaries and joint ventures were $13.6 billion (October 31, 2011 – $16.6 billion).

Note 14 Other assets

	As at		
(Millions of Canadian dollars)	**October 31 2012**	October 31 2011	November 1 2010
Cash collateral and margin deposits	**$ 18,220**	$ 10,093	$ 10,216
Accounts receivable and prepaids	**3,482**	3,172	2,763
Receivable from brokers, dealers and clients	**2,849**	3,935	4,165
Insurance-related assets	**2,003**	1,821	2,042
Deferred income tax asset	**1,707**	1,894	2,792
Accrued interest receivable	**1,467**	1,434	1,669
Taxes receivable	**1,450**	675	1,475
Precious metals	**996**	753	535
Other	**2,845**	4,190	4,664
	$ 35,019	$ 27,967	$ 30,321

Note 15 Deposits

The following table details our deposit liabilities:

	As at							
	October 31, 2012				October 31, 2011			
(Millions of Canadian dollars)	**Demand** (1)	**Notice** (2)	**Term** (3)	**Total**	Demand (1)	Notice (2)	Term (3)	Total
Personal	**$ 104,079**	**$ 13,893**	**$ 61,530**	**$ 179,502**	$ 96,233	$ 11,938	$ 57,859	$ 166,030
Business and government	**128,409**	**1,393**	**183,080**	**312,882**	109,454	1,709	186,348	297,511
Bank	**4,621**	**18**	**11,196**	**15,835**	4,139	17	11,405	15,561
	$ 237,109	**$ 15,304**	**$ 255,806**	**$ 508,219**	$ 209,826	$ 13,664	$ 255,612	$ 479,102
Non-interest-bearing (4)								
Canada	**$ 56,706**	**$ 82**	**$ –**	**$ 56,788**	$ 50,876	$ 86	$ –	$ 50,962
United States	**1,188**	**6**	**–**	**1,194**	1,160	6	–	1,166
Europe (5)	**3,935**	**1**	**–**	**3,936**	2,365	2	–	2,367
Other International	**3,332**	**439**	**–**	**3,771**	2,767	266	–	3,033
Interest-bearing (4)								
Canada	**136,169**	**11,024**	**205,041**	**352,234**	125,887	9,325	199,402	334,614
United States	**3,410**	**584**	**33,303**	**37,297**	3,196	960	34,778	38,934
Europe (5)	**29,143**	**50**	**10,072**	**39,265**	19,159	35	12,913	32,107
Other International	**3,226**	**3,118**	**7,390**	**13,734**	4,416	2,984	8,519	15,919
	$ 237,109	**$ 15,304**	**$ 255,806**	**$ 508,219**	$ 209,826	$ 13,664	$ 255,612	$ 479,102

	As at November 1, 2010			
(Millions of Canadian dollars)	Demand (1)	Notice (2)	Term (3)	Total
Personal	$ 85,774	$ 12,206	$ 63,713	$ 161,693
Business and government	107,385	2,394	177,756	287,535
Bank	3,515	11	15,759	19,285
	$ 196,674	$ 14,611	$ 257,228	$ 468,513
Non-interest-bearing (4)				
Canada	$ 44,341	$ 87	$ —	$ 44,428
United States	4,223	765	—	4,988
Europe (5)	974	1	—	975
Other International	3,225	247	—	3,472
Interest-bearing (4)				
Canada	110,354	7,562	180,632	298,548
United States	8,527	2,996	45,501	57,024
Europe (5)	20,763	25	22,026	42,814
Other International	4,267	2,928	9,069	16,264
	$ 196,674	$ 14,611	$ 257,228	$ 468,513

(1) Deposits payable on demand include all deposits for which we do not have the right to notice of withdrawal. These deposits include both savings and chequing accounts.
(2) Deposits payable after notice include all deposits for which we can legally require notice of withdrawal. These deposits are primarily savings accounts.
(3) Term deposits include deposits payable on a fixed date. These deposits include term deposits, guaranteed investment certificates and similar instruments. As at October 31, 2012, the balance of term deposits also include senior deposit notes we have issued to provide long-term funding of $113.9 billion (October 31, 2011 – $103.9 billion; November 1, 2010 – $94.5 billion).
(4) The geographical splits of the deposits are based on the point of origin of the deposits and where the revenue is recognized.
(5) Europe includes the United Kingdom, Switzerland and the Channel Islands.

The following tables present the contractual maturities of our term deposit liabilities:

	As at		
(Millions of Canadian dollars)	**October 31 2012**	October 31 2011	November 1 2010
Within 1 year:			
less than 3 months	**$ 55,808**	$ 61,108	$ 57,679
3 to 6 months	**22,493**	27,982	28,047
6 to 12 months	**43,286**	26,552	41,248
1 to 2 years	**49,920**	50,403	37,165
2 to 3 years	**24,011**	28,605	34,986
3 to 4 years	**21,134**	21,300	23,849
4 to 5 years	**18,568**	21,198	16,942
Over 5 years	**20,586**	18,464	17,312
	$ 255,806	$ 255,612	$ 257,228
Aggregate amount of term deposits in denominations of $100,000 or more	**$ 223,000**	$ 221,000	$ 221,000

Note 15 Deposits (continued)

The following table presents the average deposit balances and average rates of interest during 2012 and 2011.

	For the year ended			
	October 31, 2012		October 31, 2011	
(Millions of Canadian dollars, except for percentage amounts)	**Average balances**	**Average rates**	Average balances	Average rates
Canada	**$ 404,656**	**1.31%**	$ 358,094	1.49%
United States	**38,792**	**0.54**	42,766	0.54
Europe (1)	**33,394**	**0.63**	45,740	1.00
Other International	**19,338**	**1.44**	18,717	1.75
	$ 496,180	**1.21%**	$ 465,317	1.36%

(1) Europe includes the United Kingdom, Switzerland and the Channel Islands.

Note 16 Insurance

Insurance assets

	As at		
	October 31	October 31	November 1
(Millions of Canadian dollars)	**2012**	2011	2010
Collateral loans	**$ 1,176**	$ 990	$ 808
Policy loans	**120**	120	113
Reinsurance assets	**336**	361	803
Other	**371**	350	318
Total	**$ 2,003**	$ 1,821	$ 2,042

Reinsurance

In the ordinary course of business, our insurance operations reinsure risks to other insurance and reinsurance companies in order to lower our risk profile, limit loss exposure to large risks, and provide additional capacity for future growth. These ceding reinsurance arrangements do not relieve our insurance subsidiaries from their direct obligations to the insureds. We evaluate the financial condition of the reinsurers and monitor our concentrations of credit risks to minimize our exposure to losses from reinsurer insolvency. Reinsurance amounts (ceded premiums) included in Non-interest income are shown in the table below.

Net premiums and claims

	For the year ended	
	October 31	October 31
(Millions of Canadian dollars)	**2012**	2011
Gross premiums	**$ 4,739**	$ 4,552
Premiums ceded to reinsurers	**(1,034)**	(1,019)
Net premiums	**$ 3,705**	$ 3,533
Gross claims and benefits	**$ 3,472**	$ 3,155
Reinsurers' share of claims and benefits	**(417)**	(398)
Net claims	**$ 3,055**	$ 2,757

Risk Management

Insurance risk is the risk of fluctuations in the timing, frequency or severity of insured events, relative to our expectations at the time of underwriting. Due to our geographic diversity and business mix, we have a well diversified portfolio of insurance risks resulting in reduced concentration risk. We manage underwriting and pricing risk through the use of underwriting guidelines which detail the class, nature and type of business that may be accepted; pricing policies by product line; and centralized control of policy wordings. The risk that claims are handled or paid inappropriately is mitigated using a range of IT system controls and manual processes conducted by experienced staff. These, together with a range of detailed policies and procedures, ensure that all claims are handled in a timely, appropriate and accurate manner.

Insurance claims and policy benefit liabilities

All actuarial assumptions are set in conjunction with Canadian Institute of Actuaries Standards of Practice and OSFI requirements. The assumptions that have the greatest effect on the measurement of insurance liabilities, and the processes used to determine them are as follows:

Life insurance

Mortality and morbidity – Mortality estimates are based on standard industry and national mortality tables, adjusted where appropriate to reflect our own experience. Morbidity assumptions are made with respect to the rates of claim incidence and claim termination for health insurance policies and are based on a combination of industry and our own experience.

Future investment yield – Assumptions are based on the current yield rate, a reinvestment assumption and an allowance for future credit losses for each line of business, and are developed using interest rate scenario testing, including prescribed scenarios for determination of minimum liabilities as set out in the actuarial standards.

Policyholder behaviour – Under certain policies, the policyholder has a contractual right to change benefits and premiums, as well as convert policies to permanent forms of insurance. All policyholders have the right to terminate their policies through lapse. Lapses represent the termination of policies due to non-payment of premiums. Lapse assumptions are primarily based on our recent experience adjusted for emerging industry experience where applicable.

Non-life insurance
Assumptions related to unpaid claims concern the patterns of development of claims from inception to ultimate settlement. The reserving assumptions, based on historical paid/incurred development patterns adjusted for changes in products, claim processes and legislative trends, result in a collective loss ratio when compared with earned premium.

The net increase in Insurance claims and policy benefit liabilities over the prior year was comprised of i) the increase due to market movements on assets backing life and health liabilities and ii) the net increase in life and health, reinsurance and property and casualty liabilities attributable to business growth. During the year, we reviewed all key actuarial methods and assumptions which are used in determining the policy benefit liabilities resulting in a $3 million net increase to the insurance liabilities. The policy benefit liabilities were adversely impacted by $71 million due to interest rate and market conditions, most notably for updates to the re-investment rate assumption. These impacts were partially offset by insurance risk related assumption updates, largely due to mortality, morbidity, maintenance and expense assumptions of $68 million. Changes in Insurance claims and policy benefit liabilities are included in Insurance policyholder benefits, claims and acquisition expenses in our Consolidated Statements of Income in the period in which the estimates changed.

The following table summarizes our gross and reinsurers' share of insurance liabilities at the end of the year.

Insurance claims and policy benefit liabilities

	As at								
	October 31, 2012			October 31, 2011			November 1, 2010		
(Millions of Canadian dollars)	**Gross**	**Ceded**	**Net**	Gross	Ceded	Net	Gross	Ceded	Net
Life insurance policyholder liabilities									
Life, health and annuity	**$ 6,988**	**$ 206**	**$ 6,782**	$ 6,288	$ 252	$ 6,036	$ 6,127	$ 600	$ 5,527
Investment contracts (1)	**1**	**–**	**1**	3	–	3	2	–	2
	$ 6,989	**$ 206**	**$ 6,783**	$ 6,291	$ 252	$ 6,039	$ 6,129	$ 600	$ 5,529
Non-life insurance policyholder liabilities									
Unearned premium provision (1)	**$ 421**	**$ –**	**$ 421**	$ 417	$ –	$ 417	$ 384	$ –	$ 384
Unpaid claims provision	**933**	**27**	**906**	831	10	821	739	12	727
	$ 1,354	**$ 27**	**$ 1,327**	$ 1,248	$ 10	$ 1,238	$ 1,123	$ 12	$ 1,111
Total	**$ 8,343**	**$ 233**	**$ 8,110**	$ 7,539	$ 262	$ 7,277	$ 7,252	$ 612	$ 6,640

(1) Insurance claims and policy benefit liabilities include Investment contracts and Unearned premium provision, both of which are reported in Other Liabilities on the Consolidated Balance Sheets.

Reconciliation of life insurance policyholder liabilities

	October 31, 2012			October 31, 2011		
(Millions of Canadian dollars)	**Gross**	**Ceded**	**Net**	Gross	Ceded	Net
Balances, beginning of the year	**$ 6,291**	**$ 252**	**$ 6,039**	$ 6,129	$ 600	$ 5,529
New and in-force policies	**697**	**(46)**	**743**	180	(348)	528
Changes in assumption and methodology	**3**	**–**	**3**	(20)	–	(20)
Net change in investment contracts	**(2)**	**–**	**(2)**	2	–	2
Balances, end of the year	**$ 6,989**	**$ 206**	**$ 6,783**	$ 6,291	$ 252	$ 6,039

Reconciliation of non-life insurance policyholder liabilities

	October 31, 2012			October 31, 2011		
(Millions of Canadian dollars)	**Gross**	**Ceded**	**Net**	Gross	Ceded	Net
Balances, beginning of the year	**$ 1,248**	**$ 10**	**$ 1,238**	$ 1,123	$ 12	$ 1,111
Changes in unearned premiums provision						
Written Premiums	**1,006**	**13**	**993**	978	9	969
Less: Net premiums earned	**(1,001)**	**(13)**	**(988)**	(945)	(9)	(936)
Changes in unpaid claims provision and adjustment expenses						
Incurred claims	**619**	**14**	**605**	635	2	633
Less: Claims paid	**(518)**	**3**	**(521)**	(543)	(4)	(539)
Balances, end of the year	**$ 1,354**	**$ 27**	**$ 1,327**	$ 1,248	$ 10	$ 1,238

Sensitivity Analysis
The following table presents the sensitivity of the level of insurance policyholder liabilities disclosed in this note to movements in the actuarial assumptions used to calculate them. The percentage change in variable is applied to a range of existing actuarial modelling assumptions to derive the possible impact on net profit after tax. The disclosure is not intended to explain the impact of a percentage change in the insurance assets and liabilities disclosed above. The analyses are performed where a single assumption is changed while holding other assumptions constant, which is unlikely to occur in practice.

Note 16 Insurance (continued)

Sensitivity

(Millions of Canadian dollars, except for percentage amounts)	Change in variable	Net income after-tax impact for the year ended October 31 2012	October 31 2011
Increase in market interest rates	1%	**$ 8**	$ 25
Decrease in market interest rates	1	**(17)**	(38)
Increase in equity market values	10	**17**	10
Decrease in equity market values	10	**(17)**	(13)
Increase in maintenance expenses	5	**(31)**	(29)
Life Insurance			
Adverse change in annuitant mortality rates	2	**(49)**	(38)
Adverse change in assurance mortality rates	2	**(45)**	(38)
Adverse change in morbidity rates	5	**(198)**	(183)
Adverse change in lapse	10	**(180)**	(141)
Non-life Insurance			
Increase in expected loss ratio	5	**(37)**	(34)

Note 17 Segregated Funds

We offer certain individual variable insurance contracts that allow policyholders to invest in segregated funds. The investment returns on these funds are passed directly to the policyholders. Amounts invested are at the policyholders' risk, except where the policyholders have selected options providing maturity and death benefit guarantees. A liability for the guarantees is recorded in Insurance claims and policy benefit liabilities.

Segregated funds net assets are recorded at fair value. The fair value of the segregated funds liabilities is equal to the fair value of the segregated funds net assets. Segregated funds net assets and segregated funds liabilities are presented on separate lines on the Consolidated Balance Sheets. The following tables present the composition of net assets and the change in net assets for the year:

Segregated funds net assets

(Millions of Canadian dollars)	As at October 31 2012	October 31 2011	November 1 2010
Cash	**$ 5**	$ 2	–
Investment in mutual funds	**379**	318	257
Other liabilities, net	**(1)**	–	–
	$ 383	$ 320	$ 257

Change in net assets

(Millions of Canadian dollars)	For the year ended October 31 2012	October 31 2011
Net assets, beginning of year	**$ 320**	$ 257
Additions (deductions):		
Deposits from policyholders	**128**	140
Net realized and unrealized gains (losses)	**16**	(5)
Interest and dividend	**9**	8
Payment to policyholders	**(81)**	(73)
Management administrative fees	**(9)**	(7)
Net assets, end of year	**$ 383**	$ 320

Note 18 Pension and other post-employment benefits

We sponsor a number of programs, which provide pension and post-employment benefits to eligible employees.

Our defined benefit pension plans provide benefits based on years of service, contributions and average earnings at retirement. The majority of the plans' beneficiaries are located in Canada, the United States and the United Kingdom. We measure our benefit obligations and pension assets as at October 31 each year. All plans are valued using the projected unit-credit method. The actual return on plan assets for the year ended October 31, 2012 was $666 million (October 31, 2011 – $241 million).

We fund our registered defined benefit pension plans in accordance with actuarially determined amounts required to satisfy employee benefit obligations under current pension regulations. For our principal pension plan, the most recent funding actuarial valuation was completed on January 1, 2012, and the next valuation will be completed on January 1, 2013.

Our primary other post-employment benefit plans provide health, dental, disability and life insurance coverage and cover a number of current and retired employees who are mainly located in Canada and the United States. The majority of these plans are unfunded.

For 2012, total company contributions to our pension plans (defined benefit and defined contribution plans) and other post-employment plans were $952 million and $55 million (2011 – $282 million and $46 million), respectively. For 2013, total contributions to pension plans and other post-employment benefit plans are expected to be approximately $471 million and $67 million, respectively.

The following table presents financial information related to all of our material pension and other post-employment plans worldwide, including executive retirement arrangements.

(Millions of Canadian dollars)	As at or for the year ended October 31, 2012 Defined benefit pension plans (1) (2)	October 31, 2012 Other post-employment plans (2)	October 31, 2011 Defined benefit pension plans (1) (2)	October 31, 2011 Other post-employment plans (2)	November 1, 2010 Defined benefit pension plans (1) (2)	November 1, 2010 Other post-employment plans (2)
Change in fair value of plan assets						
Opening fair value of plan assets	**$ 8,092**	**$ 1**	$ 7,980	$ 12		
Expected return on plan assets	**517**	**–**	498	–		
Actuarial gain (loss)	**148**	**–**	(258)	–		
Company contributions	**861**	**55**	195	46		
Plan participant contributions	**46**	**10**	37	10		
Benefits paid	**(406)**	**(65)**	(379)	(67)		
Acquisition (3)	**88**	**–**	–	–		
Change in foreign currency exchange rate	**2**	**–**	(12)	–		
Other	**–**	**–**	31	–		
Closing fair value of plan assets	**$ 9,348**	**$ 1**	$ 8,092	$ 1		
Change in benefit obligation						
Opening benefit obligation	**$ 8,337**	**$ 1,461**	$ 7,902	$ 1,411		
Current service cost	**222**	**25**	203	23		
Interest cost	**444**	**78**	425	75		
Plan participant contributions	**46**	**10**	37	9		
Actuarial (gain) loss	**1,165**	**126**	112	12		
Benefits paid	**(406)**	**(65)**	(379)	(67)		
Acquisition (3)	**99**	**23**	–	–		
Disposal (4)	**(52)**	**–**	–	–		
Prior service cost	**–**	**(1)**	–	–		
Curtailment	**–**	**(4)**	–	–		
Change in foreign currency exchange rate	**2**	**–**	(15)	(2)		
Other	**–**	**(2)**	52	–		
Closing benefit obligation	**$ 9,857**	**$ 1,651**	$ 8,337	$ 1,461		
Unfunded obligation	**$ 29**	**$ 1,503**	$ 77	$ 1,309	$ 75	$ 1,253
Wholly or partly funded obligation	**9,828**	**148**	8,260	151	7,827	158
Total benefit obligation	**$ 9,857**	**$ 1,651**	$ 8,337	$ 1,460	$ 7,902	$ 1,411
Reconciliation of funded status						
Net (deficit) surplus	**$ (509)**	**$ (1,650)**	$ (245)	$ (1,460)	$ 78	$ (1,399)
Unrecognized net actuarial loss (gain)	**1,345**	**134**	365	12	13	(2)
Net amount recognized	**$ 836**	**$ (1,516)**	$ 120	$ (1,448)	$ 91	$ (1,401)
Amounts recognized in our Consolidated Balance Sheets						
Prepaid pension benefit cost	**$ 1,049**	**$ –**	$ 311	$ –	$ 266	$ –
Accrued pension and other post-employment benefit expense	**(213)**	**(1,516)**	(191)	(1,448)	(175)	(1,401)
Net amount recognized	**$ 836**	**$ (1,516)**	$ 120	$ (1,448)	$ 91	$ (1,401)

(1) For pension plans with funding deficits, the benefit obligations and fair value of plan assets as at October 31,2012 were $8,573 million and $7,935 million, respectively (October 31, 2011 – $7,163 million and $6,776 million, respectively; November 1, 2010 – $1,092 million and $914 million, respectively).
(2) Cumulative actuarial gains and loses for these plans as at November 1, 2010 were recognized in Retained Earnings on transition to IFRS. See Note 3 for details.
(3) Acquisition for 2012 reflect the additional amounts relating to the acquisition of the remaining 50% interest in our previous joint venture RBC Dexia Investor Services Limited. See Note 12.
(4) Disposal for 2012 is related to the transfer of our U.S. non-qualified pension and other post-employment plans obligations to PNC on the sale of our U.S. regional retail banking operations. See Note 12.

The following table presents the history of the funded status of our material pension and post-employment benefits plans and the history of experience gains (losses) on our benefit obligation and plan assets:

(Millions of Canadian dollars)	Defined benefit pension plans, As at or for the year ended (1) October 31 2012	October 31 2011	November 1 2010	Other post-employment plans, As at or for the year ended (1) October 31 2012	October 31 2011	November 1 2010
Defined benefit obligation	**$ 9,857**	$ 8,337	$ 7,902	**$ 1,651**	$ 1,461	$ 1,411
Fair value of plan assets	**9,348**	8,092	7,980	**1**	1	12
(Deficit) Surplus	**$ (509)**	$ (245)	$ 78	**$ (1,650)**	$ (1,460)	$ (1,399)
Experience (gain) loss adjustments on defined benefit obligation	**$ 7**	$ 43	n.a.	**$ –**	$ 50	n.a.
Experience gain (loss) adjustment on assets	**148**	(258)	n.a.	**–**	40	n.a.

(1) Historical data will be built up over time to give a five year history.

Note 18 Pension and other post-employment benefits (continued)

Pension and other post-employment benefit expense
The following table presents the composition of our pension and other post-employment benefit expense.

	Pension plans		Other post-employment plans	
	For the year ended			
(Millions of Canadian dollars)	**October 31 2012**	October 31 2011	**October 31 2012**	October 31 2011
Service cost	**$ 222**	$ 203	**$ 25**	$ 23
Interest cost	**444**	425	**78**	75
Expected return on plan assets	**(517)**	(498)	**–**	(1)
Recognition of past service cost	**1**	(1)	**–**	–
Amortization of net (gain) loss	**10**	–	**2**	(1)
Curtailment (gain) loss	**–**	–	**(5)**	(1)
Defined benefit pension expense	**$ 160**	$ 129	**$ 100**	$ 95
Defined contribution pension expense	**91**	87	**–**	–
Total benefit expense recognized	**$ 251**	$ 216	**$ 100**	$ 95

Investment policy and strategies
Defined benefit pension plan assets are invested prudently in order to meet our longer term pension obligations at a reasonable cost. The asset mix policy was developed within an asset/liability framework. Factors taken into consideration in developing our asset allocation include but are not limited to the following:
(i) the nature of the underlying benefit obligations, including the duration and term profile of the liabilities;
(ii) the member demographics, including normal retirements, terminations, and deaths;
(iii) the financial position of the pension plans;
(iv) the diversification benefits obtained by the inclusion of multiple asset classes; and
(v) expected asset returns, including assets and liability volatility and correlations.

To implement our asset allocation policy, we may invest in equities, fixed income securities, alternative investments and derivative instruments. Our holdings in certain investments, including common shares, emerging market equities, fixed income securities rated lower than BBB and residential and commercial mortgages, cannot exceed a defined percentage of the market value of our defined benefit pension plans assets. We may use derivative instruments as either a synthetic investment to more efficiently replicate the performance of an underlying security, or as a hedge against financial risks associated with the underlying portfolio. To manage our credit risk exposure, counterparties of our derivative instruments are required to meet minimum credit ratings, and counterparty exposures are monitored and reported to management on an ongoing basis.

Composition of defined benefit pension plan assets
The defined benefit pension plan assets are primarily composed of equity and fixed income securities. As at October 31, 2012, the assets include 1 million (October 31, 2011 – 1 million; November 1, 2010 – 1 million) of our common shares having a fair value of $57 million (October 31, 2011 – $47 million; November 1, 2010 – $66 million) and $6 million (October 31, 2011 – $4 million; November 1, 2010 – $4 million) of our debt securities. For the year ended October 31, 2012, dividends received on our common shares held in the plan assets were $2 million (October 31, 2011 – $1 million). The following table presents the allocation of the plan assets by securities category, and the allocation is determined based on the fair value of the total plan assets:

Asset allocation of defined benefit pension plans

	As at		
	October 31 2012	October 31 2011	November 1 2010
Equity securities	**39%**	38%	44%
Debt securities	**46**	47	43
Other	**15**	15	13
	100%	100%	100%

Significant assumptions
Our methodologies to determine significant assumptions used in calculating the defined benefit pension and other post-employment expense are as follows:

Overall expected long-term rate of return on assets
The assumed expected rate of return on assets is determined by considering long-term returns on fixed income securities combined with an estimated equity risk premium. The expected long-term return for each asset class is then weighted based on the target asset allocation to develop the expected long-term rate of return on assets assumption for the portfolio.

Discount rate
For the Canadian pension and other post-employment plans, all future expected benefit payments at each measurement date are discounted at spot rates from a derived Aa corporate bond yield curve. The derived curve is based on observed rates for Aa corporate bonds with maturities less than six years and a projected Aa corporate curve based on spreads between observed Aa corporate bonds and Aa provincial bonds for periods greater than six years. For the U.S. pension and other post-employment plans, all future expected benefit payments at each measurement date are discounted at spot rates from an Aa corporate bond yield curve. Spot rates beyond 30 years are set to equal the 30-year spot rate. The discount rate is the equivalent single rate that produces the same discounted value as that determined using the entire discount curve. This valuation methodology does not rely on assumptions regarding reinvestment returns.

Summary of significant assumptions

	Defined benefit pension plans			Other post-employment plans		
	As at					
	October 31 2012	October 31 2011	November 1 2010	**October 31 2012**	October 31 2011	November 1 2010
Weighted average assumptions to determine benefit obligation						
Discount rate	**4.40%**	5.30%	5.40%	**4.50%**	5.50%	5.50%
Rate of increase in future compensation	**3.30%**	3.30%	3.30%	**n.a.**	n.a.	n.a.
Healthcare cost trend rates						
– Medical (1)	**n.a.**	n.a.	n.a.	**3.90%**	4.50%	4.50%
– Dental	**n.a.**	n.a.	n.a.	**4.00%**	4.00%	4.00%
Weighted average assumptions to determine benefit expense						
Discount rate	**5.30%**	5.40%	n.a.	**5.50%**	5.50%	n.a.
Assumed long-term rate of return on plan assets	**6.25%**	6.50%	n.a.	**0.00%**	6.50%	n.a.
Rate of increase in future compensation	**3.30%**	3.30%	n.a.	**n.a.**	n.a.	n.a.
Healthcare cost trend rates						
– Medical	**n.a.**	n.a.	n.a.	**4.50%**	4.50%	n.a.
– Dental	**n.a.**	n.a.	n.a.	**4.00%**	4.00%	n.a.

(1) For our other post-employment plans, the assumed medical healthcare cost trend rates used to measure the expected cost of benefits were 3.9% for the next year decreasing to an ultimate rate of 2.7% in 2028.

Mortality assumptions

Mortality assumptions are significant in measuring our obligations under the defined benefit plans. These assumptions have been set in accordance with current practices in the respective countries. Future longevity improvements have been considered and included where appropriate. The following table summarizes the mortality assumptions used for major plans.

	October 31, 2012				October 31, 2011			
	Life expectancy at 65 for a member currently at				Life expectancy at 65 for a member currently at			
	Age 65		**Age 45**		Age 65		Age 45	
(In years)	**Male**	**Female**	**Male**	**Female**	Male	Female	Male	Female
Country								
Canada	**20.3**	**22.1**	**21.8**	**22.9**	20.2	22.1	21.7	22.9
United States	**20.3**	**22.1**	**21.8**	**22.9**	20.2	22.1	21.7	22.9
United Kingdom	**23.6**	**25.0**	**25.9**	**27.3**	22.5	24.9	24.4	26.8

Sensitivity analysis

Assumptions adopted can have a significant effect on the obligations and expense for defined benefit pension and post-employment benefit plans. The following table presents the sensitivity analysis of key assumptions for 2012:

(Millions of Canadian dollars)	**Increase (decrease) in obligation**	**Increase (decrease) in expense**
Defined benefit pension plans		
Impact of .25% decrease in discount rate	**$ 354**	**$ 42**
Impact of .25% increase in rate of increase in future compensation	**27**	**6**
Impact of .25% decrease in the long-term rate of return on plan assets	**–**	**23**
Other post-employment plans		
Impact of .25% decrease in discount rate	**$ 59**	**$ 3**
Impact of .25% increase in rate of increase in future compensation	**–**	**–**
Impact of 1% increase in health care cost trend rate	**127**	**8**
Impact of 1% decrease in health care cost trend rate	**(106)**	**(7)**

Note 19 Other liabilities

	As at		
(Millions of Canadian dollars)	**October 31 2012**	October 31 2011	November 1 2010
Cash collateral	**$ 10,843**	$ 10,589	$ 9,898
Accounts payable and accrued expenses	**5,242**	3,954	2,376
Payroll and related compensation	**5,002**	4,266	4,247
Payable to brokers, dealers and clients	**2,722**	3,209	3,393
Negotiable instruments	**2,282**	2,355	1,897
Accrued interest payable	**1,878**	2,019	2,305
Deferred income	**1,580**	1,512	1,416
Taxes payable	**1,312**	1,331	1,365
Precious metals certificates	**967**	1,125	827
Dividends payable	**932**	841	779
Insurance related liabilities	**559**	556	517
Deferred income taxes	**176**	266	218
Provisions	**235**	229	252
Other	**7,641**	6,989	8,828
	$ 41,371	$ 39,241	$ 38,318

Note 20 Subordinated debentures

The debentures are unsecured obligations and are subordinated in right of payment to the claims of depositors and certain other creditors. All redemptions, cancellations and exchanges of subordinated debentures are subject to the consent and approval of OSFI. All subordinated debentures are redeemable at our option. The amounts presented below include the impact of fair value hedging for interest rate risk and are net of our holdings in these securities which have not been cancelled and are still outstanding.

(Millions of Canadian dollars, except percentage and foreign currency)				As at		
Maturity	Earliest par value redemption date	Interest rate	Denominated in foreign currency (millions)	**October 31 2012**	October 31 2011	November 1 2010
November 14, 2014		10.00%		**$ 233**	$ 249	$ 259
April 12, 2016	April 12, 2011(1)	6.30%(2)		**–**	–	405
April 30, 2017		4.58%(3)		**–**	1,000	996
March 11, 2018	March 11, 2013(4)	4.84%(5)		**1,005**	1,034	1,050
June 6, 2018	June 6, 2013(6)	5.00%(7)		**1,004**	1,012	1,002
November 4, 2018	November 4, 2013(8)	5.45%(2)		**1,033**	1,075	1,096
June 15, 2020	June 15, 2015	4.35%(9)		**1,556**	1,577	1,562
November 2, 2020	November 2, 2015	3.18%(10)		**1,524**	1,528	–
June 8, 2023		9.30%		**110**	110	110
June 26, 2037	June 26, 2017	2.86%	JPY 10,000	**122**	111	120
October 1, 2083	Any interest payment date	(11)		**224**	224	224
June 6, 2085	Any interest payment date	(12)	US$180	**173**	179	187
June 18, 2103	June 18, 2009(13)	5.95%(14)		**636**	659	676
				$ 7,620	$ 8,758	$ 7,687
Deferred financing costs				**(5)**	(9)	(11)
				$ 7,615	$ 8,749	$ 7,676

The terms and conditions of the debentures are as follows:

(1) All outstanding subordinated debentures were redeemed on April 12, 2011 for $400 million.
(2) Interest at stated interest rate until earliest par value redemption date, and thereafter at a rate of 1.00% above the 90-day Bankers' Acceptance rate.
(3) All $1 billion outstanding Trust Subordinated Notes – Series A were redeemed on April 30, 2012 for 100% of their principal amount plus accrued interest to the redemption date.
(4) Redeemable at any time prior to the earliest par value redemption date at the greater of (i) the fair value of the subordinated debentures based on the yield on Government of Canada bonds plus 42.5 basis points and (ii) par value, and thereafter at any time at par value.
(5) Interest at stated interest rate until earliest par value redemption date, and thereafter at a rate of 2.00% above the 90-day Bankers' Acceptance rate.
(6) Redeemable at any time prior to the earliest par value redemption date at the greater of (i) the fair value of the subordinated debentures based on the yield on Government of Canada bonds plus 44 basis points and (ii) par value, and thereafter at any time at par value.
(7) Interest at stated interest rate until earliest par value redemption date, and thereafter at a rate 2.15% above the 90-day Bankers' Acceptance rate.
(8) Redeemable at any time prior to the earliest par value redemption date at the greater of (i) the fair value of the subordinated debentures based on the yield on Government of Canada bonds plus 14 basis points and (ii) par value, and thereafter at any time at par value.
(9) Interest at stated interest rate until earliest par value redemption date, and thereafter at a rate of 1.41% above the 90-day Bankers' Acceptance rate.
(10) Interest at stated interest rate until earliest par value redemption date, and thereafter at a rate of 1.21% above the 90 day Bankers' Acceptance rate.
(11) Interest at a rate of 40 basis points above the 30-day Bankers' Acceptance rate.
(12) Interest at a rate of 25 basis points above the U.S. dollar 3-month LIMEAN. In the event of a reduction of the annual dividend we declare on our common shares, the interest payable on the debentures is reduced pro rata to the dividend reduction and the interest reduction is payable with the proceeds from the sale of newly issued common shares.
(13) Redeemable on June 18, 2009, or every fifth anniversary of such date at par value. Redeemable on any other date at the greater of par and the yield on a non-callable Government of Canada bond plus 21 basis points if redeemed prior to June 18, 2014, or 43 basis points if redeemed at any time after June 18, 2014.
(14) Interest at a rate of 5.95% until earliest par value redemption date and every 5 years thereafter at a rate of 1.72% above the 5-year Government of Canada yield.

Maturity schedule

The aggregate maturities of subordinated debentures, based on the maturity dates under the terms of issue, are as follows:

(Millions of Canadian dollars)	**October 31 2012**
Within 1 year	**$ –**
1 to 5 years	**233**
5 to 10 years	**6,122**
Thereafter	**1,265**
	$ 7,620

Note 21 Trust capital securities

We issued innovative capital instruments, RBC Trust Capital Securities (RBC TruCS) and RBC Trust Subordinated Notes (RBC TSNs), through three SPEs: RBC Capital Trust (Trust), Trust II and Trust III.

We also issued non-voting RBC Trust Capital Securities Series 2010, 2011, 2015 and 2008-1 (RBC TruCS 2010, 2011, 2015 and 2008-1) through the Trust. RBC TruCS 2010 were redeemed for cash, at a redemption price of $1,000 per unit for a total of $650 million on June 30, 2010. RBC TruCS 2011 were redeemed for cash, at a redemption price of $1,000 per unit for a total of $750 million on June 30, 2011.

The holders of RBC TruCS 2015 and 2008-1 do not have any conversion rights or any other redemption rights. As a result, upon consolidation of the Trust, RBC TruCS 2015 and 2008-1 are classified as Non-controlling interests. Holders of RBC TruCS 2015 and 2008-1 are eligible to receive semi-annual non-cumulative fixed cash distributions until December 31, 2015 and June 30, 2018, respectively, and a floating-rate cash distribution thereafter.

Trust II, an open-end trust, has issued non-voting RBC TruCS 2013, the proceeds of which were used to purchase a senior deposit note from us. Upon consolidation of Trust II, the senior deposit note and all of our financial interests in the SPE are eliminated, and RBC TruCS 2013 is classified as Trust capital securities. Holders of RBC TruCS 2013 are eligible to receive semi-annual non-cumulative fixed cash distributions.

No cash distributions will be payable by the trusts on RBC TruCS if we fail to declare regular dividends (i) on our preferred shares, or (ii) on our common shares if no preferred shares are then outstanding. In this case, the net distributable funds of the trusts will be distributed to us as holders of residual interest in the trusts. Should the trusts fail to pay the semi-annual distributions in full, we will not declare dividends of any kind on any of our preferred or common shares for a specified period of time.

In 2007, we issued $1 billion of innovative subordinated debentures, RBC TSNs – Series A, through Trust III. Trust III is a closed-end trust. The proceeds were used to purchase a senior deposit note from us. Upon consolidation of Trust III, RBC TSNs – Series A was classified as Subordinated debentures.

The table below presents the significant terms and conditions of RBC TruCS and RBC TSNs.

Significant terms and conditions of RBC Trust Capital Securities and RBC Trust Subordinated Notes

Issuer	Issuance date	Distribution dates	Annual yield	Redemption date: At the option of the issuer	Conversion date: At the option of the holder	As at October 31 2012 Principal amount	As at October 31 2011 Principal amount	As at November 1 2010 Principal amount
RBC Capital Trust (1),(2),(3),(4),(5),(6),(7)								
Included in Trust capital securities								
750,000 Trust Capital Securities – Series 2011(8)	December 6, 2000	June 30, December 31	7.183%	December 31, 2005	December 31, 2011	**$ –**	$ –	$ 750
Included in Non-controlling interests								
1,200,000 Trust Capital Securities – Series 2015	October 28, 2005	June 30, December 31	4.87%(9)	December 31, 2010	n.a.	**1,200**	1,200	1,200
500,000 Trust Capital Securities – Series 2008-1	April 28, 2008	June 30, December 31	6.82%(9)	June 30, 2013	n.a.	**500**	500	500
RBC Capital Trust II (2),(3),(4),(5),(6),(7),(10)								
Included in Trust capital securities								
900,000 Trust Capital Securities – Series 2013	July 23, 2003	June 30, December 31	5.812%	December 31, 2008	Any time	**$ 900**	$ 900	$ 900
RBC Capital Trust III								
RBC Trust Subordinated Notes(3),(4),(5),(6),(7)								
Included in Subordinated debentures $1 billion 4.58% Trust Subordinated Notes – Series A(11)	April 30, 2007	April 30, October 30	4.584%	Any time	n.a.	**$ –**	$ 1,000	$ 1,000

The significant terms and conditions of the RBC TruCS and RBC TSNs are as follows:

(1) Subject to the approval of OSFI, the trust may, on the Redemption date specified above, and on any Distribution date thereafter, redeem in whole (but not in part) the RBC TruCS 2008-1 and 2015, without the consent of the holders.

(2) Subject to the approval of OSFI, upon occurrence of a special event as defined, prior to the Redemption date specified above, the trusts may redeem in whole (but not in part) the RBC TruCS 2008-1, 2013 or 2015 without the consent of the holders.

(3) Issuer Redemption Price: The RBC TruCS 2008-1 may be redeemed for cash equivalent to (i) the Early Redemption Price if the redemption occurs prior to June 30, 2018 or (ii) the Redemption Price if the redemption occurs on or after June 30, 2018. The RBC TruCS 2013 and 2015 may be redeemed for cash equivalent to (i) the Early Redemption Price if the redemption occurs prior to December 31, 2013 and 2015, respectively, or (ii) the Redemption Price if the redemption occurs on or after December 31, 2013 and 2015, respectively. The RBC TSNs – Series A may be redeemed, in whole or in part, subject to the approval of OSFI, for cash equivalent to (i) the Early Redemption Price if the notes are redeemed prior to April 30, 2012, or (ii) the Redemption Price if the notes are redeemed on or after April 30, 2012. Redemption Price refers to an amount equal to $1,000 plus the unpaid distributions to the Redemption date. Early Redemption Price refers to an amount equal to the greater of (i) the Redemption Price and (ii) the price calculated to provide an annual yield, equal to the yield on a Government of Canada bond issued on the Redemption date with a maturity date of June 30, 2018, plus 77 basis points, for RBC TruCS 2008-1, and a maturity date of December 31, 2013 and 2015, plus 23 basis points and 19.5 basis points, for RBC TruCS 2013 and 2015, respectively; and a maturity date of April 30, 2012, plus 11 basis points for RBC TSNs – Series A.

(4) Automatic Exchange Event: Without the consent of the holders, each RBC TruCS 2008-1, 2013 and 2015 will be exchanged automatically for 40 of our non-cumulative redeemable First Preferred Shares Series AI, T and Z, respectively, and each RBC TSNs-Series A will be exchanged automatically for an equal principal amount of Bank Series 10 Subordinated Notes upon occurrence of any one of the following events: (i) proceedings are commenced for our winding-up; (ii) OSFI takes control of us; (iii) we have Tier 1 capital ratio of less than 5% or Total capital ratio of less than 8%; or (iv) OSFI has directed us to increase our capital or provide additional liquidity and we elect such automatic exchange or we fail to comply with such direction. The First Preferred Shares Series AI, T and Z pay semi-annual non-cumulative cash dividends and Series T is convertible at the option of the holder into a variable number of common shares.

(5) From time to time, we purchase some of the innovative capital instruments and hold them temporarily. As at October 31, 2012, we held $nil of RBC TruCS – Series 2011 (October 31, 2011 – nil; November 1, 2010 – $22 million), $20 million of RBC TruCS – Series 2015 (October 31, 2011 – $nil; November 1, 2010 – $nil), $nil of the RBC TruCS Series 2008-1 (October 31, 2011 – $12 million; November 1, 2010 – $nil), $nil of the RBC Capital Trust II Series 2013 (October 31, 2011 – $6 million; November 1, 2010 – $nil) and $nil of RBC TSNs – Series A (October 31, 2011 – $nil; November 1, 2010 – $4 million) as treasury holdings which were deducted from regulatory capital.

(6) Regulatory capital: According to OSFI guidelines, innovative capital instruments may comprise up to 15% of net Tier 1 capital with an additional 5% eligible for Tier 2B capital. RBC TSNs – Series A qualifies as Tier 2B capital. As at October 31, 2012, $2,580 million represents Tier 1 capital (October 31, 2011 – $2,582 million; November 1, 2010 – $3,327 million), none for Tier 2B capital (October 31, 2011 – $1,027 million; November 1, 2010 – $1,023 million) and $20 million of our treasury holdings of innovative capital is deducted for regulatory capital purposes (October 31, 2011 – $18 million; November 1, 2010 – $26 million).

(7) Holder Exchange Right: Holders of RBC TruCS 2013 may, at any time, exchange all or part of their holdings for 40 non-cumulative redeemable First Preferred Shares Series U, for each RBC TruCS 2013 held. The First Preferred Shares Series U pay semi-annual non-cumulative cash dividends as and when declared by our Board of Directors and are convertible at the option of the holder into a variable number of common shares. Holders of RBC TruCS 2008-1, RBC TruCS 2015 and RBC TSNs – Series A do not have similar exchange rights.

(8) On June 30, 2011, the Trust redeemed all issued and outstanding RBC TruCS 2011 for cash at a redemption price of $1,000 per unit for a total of $750 million.

(9) The non-cumulative cash distribution on the RBC TruCS 2015 will be 4.87% paid semi-annually until December 31, 2015, and at one half of the sum of 180-day Bankers' Acceptance rate plus 1.5%, thereafter. The non-cumulative cash distribution on the RBC TruCS 2008-1 will be 6.821%, paid semi-annually in an amount of $34.105 on June 30 and December 31 of each year until June 30, 2018, and floating distributions thereafter at the six-month Bankers' Acceptance rate plus 350 basis points.

(10) Subject to the approval of OSFI, Trust II may, in whole or in part, on the redemption date specified above, and on any distribution date thereafter, redeem any outstanding RBC TruCS 2013 without the consent of the holders.

(11) All $1 billion outstanding Trust Subordinated Notes – Series A were redeemed on April 30, 2012 for 100% of their principal amount plus accrued interest to the redemption date.

n.a. not applicable

Note 22 Equity

Share capital

Authorized share capital

Preferred – An unlimited number of First Preferred Shares and Second Preferred Shares without nominal or par value, issuable in series; the aggregate consideration for which all the First Preferred Shares and all the Second Preferred Shares that may be issued may not exceed $20 billion and $5 billion, respectively.

Common – An unlimited number of shares without nominal or par value may be issued.

Outstanding share capital

	As at							
	October 31, 2012			October 31, 2011			November 1, 2010	
(Millions of Canadian dollars, except the number of shares and dividends per share)	**Number of shares (Thousands)**	**Amount**	**Dividends declared per share**	Number of shares (Thousands)	Amount	Dividends declared per share	Number of shares (Thousands)	Amount
Preferred shares								
First preferred (1)								
Non-cumulative Series W	**12,000**	**$ 300**	**$ 1.23**	12,000	$ 300	$ 1.23	12,000	$ 300
Non-cumulative Series AA	**12,000**	**300**	**1.11**	12,000	300	1.11	12,000	300
Non-cumulative Series AB	**12,000**	**300**	**1.18**	12,000	300	1.18	12,000	300
Non-cumulative Series AC	**8,000**	**200**	**1.15**	8,000	200	1.15	8,000	200
Non-cumulative Series AD	**10,000**	**250**	**1.13**	10,000	250	1.13	10,000	250
Non-cumulative Series AE	**10,000**	**250**	**1.13**	10,000	250	1.13	10,000	250
Non-cumulative Series AF	**8,000**	**200**	**1.11**	8,000	200	1.11	8,000	200
Non-cumulative Series AG	**10,000**	**250**	**1.13**	10,000	250	1.13	10,000	250
Non-cumulative Series AH	**8,500**	**213**	**1.41**	8,500	213	1.41	8,500	213
Non-cumulative, 5-Year Rate Reset Series AJ	**16,000**	**400**	**1.25**	16,000	400	1.25	16,000	400
Non-cumulative, 5-Year Rate Reset Series AL	**12,000**	**300**	**1.40**	12,000	300	1.40	12,000	300
Non-cumulative, 5-Year Rate Reset Series AN	**9,000**	**225**	**1.56**	9,000	225	1.56	9,000	225
Non-cumulative, 5-Year Rate Reset Series AP	**11,000**	**275**	**1.56**	11,000	275	1.56	11,000	275
Non-cumulative, 5-Year Rate Reset Series AR	**14,000**	**350**	**1.56**	14,000	350	1.56	14,000	350
Non-cumulative, 5-Year Rate Reset Series AT	**11,000**	**275**	**1.56**	11,000	275	1.56	11,000	275
Non-cumulative, 5-Year Rate Reset Series AV	**16,000**	**400**	**1.56**	16,000	400	1.56	16,000	400
Non-cumulative, 5-Year Rate Reset Series AX	**13,000**	**325**	**1.53**	13,000	325	1.53	13,000	325
		$ 4,813			$ 4,813			$ 4,813
Common shares								
Balance at beginning of year	**1,438,376**	**$ 14,010**		1,424,922	$13,378			
Issued for general business purpose	**–**	**–**		6,412	317			
Issued under dividend reinvestment plan (2)	**3,752**	**187**		2,951	162			
Issued under the stock option plan (3)	**3,175**	**126**		2,953	90			
Employee savings and share ownership plans (4)	**–**	**–**		1,138	63			
Balance at end of year	**1,445,303**	**$ 14,323**	**$ 2.28**	1,438,376	$14,010	$ 2.08		
Treasury shares – Preferred shares								
Balance at beginning of year	**(6)**	**$ –**		(86)	$ (2)			
Sales	**3,706**	**98**		3,726	97			
Purchases	**(3,658)**	**(97)**		(3,646)	(95)			
Balance at end of year	**42**	**$ 1**		(6)	$ –			
Treasury shares – Common shares								
Balance at beginning of year	**146**	**$ 8**		(1,719)	$ (81)			
Sales	**99,008**	**5,186**		112,865	6,074			
Purchases	**(98,611)**	**(5,164)**		(111,000)	(5,985)			
Balance at end of year	**543**	**$ 30**		146	$ 8			

(1) First Preferred Shares Series were issued at $25 per share.
(2) During 2012 and 2011, the requirements of our dividend reinvestment plan (DRIP) were satisfied through open market share purchases and treasury share issuances.
(3) Includes fair value adjustments to stock options of $17 million (2011 – $6 million).
(4) During 2012, we funded our employee savings and share ownership plans through open market share purchases. During 2011, we funded our employee savings and share ownership plans through open market share purchases and treasury share issuances.

	Dividend per share (1)	Initial Period Annual Yield	Dividend Reset Premium (2)	Redemption date (3)	Issue Date	Redemption price (3), (4)	Conversion date (6) At the option of the bank (3), (5)	Conversion date (6) At the option of the holder
Preferred shares								
First preferred								
Non-cumulative Series W	$ .306250	4.90%		February 24, 2010	January 31, 2005	$ 26.00	February 24, 2010	Not convertible
Non-cumulative Series AA	.278125	4.45%		May 24, 2011	April 4, 2006	26.00	Not convertible	Not convertible
Non-cumulative Series AB	.293750	4.70%		August 24, 2011	July 20, 2006	26.00	Not convertible	Not convertible
Non-cumulative Series AC	.287500	4.60%		November 24, 2011	November 1, 2006	26.00	Not convertible	Not convertible
Non-cumulative Series AD	.281250	4.50%		February 24, 2012	December 13, 2006	26.00	Not convertible	Not convertible
Non-cumulative Series AE	.281250	4.50%		February 24, 2012	January 19, 2007	26.00	Not convertible	Not convertible
Non-cumulative Series AF	.278125	4.45%		May 24, 2012	March 14, 2007	26.00	Not convertible	Not convertible
Non-cumulative Series AG	.281250	4.50%		May 24, 2012	April 26, 2007	26.00	Not convertible	Not convertible
Non-cumulative Series AH	.353125	5.65%		May 24, 2013	April 29, 2008	26.00	Not convertible	Not convertible
Non-cumulative, 5-Year Rate Reset Series AJ	.312500	5.00%	1.93%	February 24, 2014	September 16, 2008	25.00	Not convertible	Not convertible
Non-cumulative, 5-Year Rate Reset Series AL	.350000	5.60%	2.67%	February 24, 2014	November 3, 2008	25.00	Not convertible	Not convertible
Non-cumulative, 5-Year Rate Reset Series AN	.390625	6.25%	3.50%	February 24, 2014	December 8, 2008	25.00	Not convertible	Not convertible
Non-cumulative, 5-Year Rate Reset Series AP	.390625	6.25%	4.19%	February 24, 2014	January 14, 2009	25.00	Not convertible	Not convertible
Non-cumulative, 5-Year Rate Reset Series AR	.390625	6.25%	4.50%	February 24, 2014	January 29, 2009	25.00	Not convertible	Not convertible
Non-cumulative, 5-Year Rate Reset Series AT	.390625	6.25%	4.06%	August 24, 2014	March 9, 2009	25.00	Not convertible	Not convertible
Non-cumulative, 5-Year Rate Reset Series AV	.390625	6.25%	4.42%	August 24, 2014	April 1, 2009	25.00	Not convertible	Not convertible
Non-cumulative, 5-Year Rate Reset Series AX	.381250	6.10%	4.13%	November 24, 2014	April 29, 2009	25.00	Not convertible	Not convertible

(1) Non-cumulative preferential dividends on Series W, AA, AB, AC, AD, AE, AF, AG, AH, AJ, AL, AN, AP, AR, AT, AV and AX are payable quarterly, as and when declared by the Board of Directors, on or about the 24th day of February, May, August and November.

(2) The dividend rate will reset on the earliest redemption date and every fifth year thereafter at a rate equal to the 5-year Government of Canada bond yield plus the premium indicated. The holders have the option to convert their shares into non-cumulative floating rate First Preferred Shares subject to certain conditions on the earliest redemption date and every fifth year thereafter at a rate equal to the three-month Government of Canada Treasury Bill rate plus the premium indicated.

(3) The redemption price represents the price as at October 31, 2012 or the contractual redemption price, whichever is applicable. Subject to the consent of OSFI and the requirements of the Act, we may, on or after the dates specified above, redeem First Preferred Shares. These may be redeemed for cash, in the case of Series W, at a price per share of $26, if redeemed during the 12 months commencing February 24, 2010, and decreasing by $.25 each 12-month period thereafter to a price per share of $25 if redeemed on or after February 24, 2014; and in the case of Series AA, at a price per share of $26, if redeemed during the 12 months commencing May 24, 2011, and decreasing by $.25 each 12-month period thereafter to a price per share of $25 if redeemed on or after May 24, 2015; and in the case of Series AB, at a price per share of $26, if redeemed during the 12 months commencing August 24, 2011, and decreasing by $.25 each 12-month period thereafter to a price per share of $25 if redeemed on or after August 24, 2015; and in the case of Series AC, at a price per share of $26, if redeemed during the 12 months commencing November 24, 2011, and decreasing by $.25 each 12-month period thereafter to a price per share of $25 if redeemed on or after November 24, 2015; and in the case of Series AD, at a price per share of $26, if redeemed during the 12 months commencing February 24, 2012, and decreasing by $.25 each 12-month period thereafter to a price per share of $25 if redeemed on or after February 24, 2016; and in the case of Series AE, at a price per share of $26, if redeemed during the 12 months commencing February 24, 2012, and decreasing by $.25 each 12-month period thereafter to a price per share of $25 if redeemed on or after February 24, 2016; and in the case of Series AF, at a price per share of $26, if redeemed during the 12 months commencing May 24, 2012, and decreasing by $.25 each 12-month period thereafter to a price per share of $25 if redeemed on or after May 24, 2016; and in the case of Series AG, at a price per share of $26, if redeemed during the 12 months commencing May 24, 2012, and decreasing by $.25 each 12-month period thereafter to a price per share of $25 if redeemed on or after May 24, 2016; and in the case of Series AH, at a price per share of $26, if redeemed during the 12 months commencing May 24, 2013, and decreasing by $.25 each 12-month period thereafter to a price per share of $25 if redeemed on or after May 24, 2017; and in the case of Series AJ, at a price per share of $25, if redeemed on February 24, 2014 and on each February 24 every fifth year thereafter; and in the case of Series AL, at a price per share of $25, if redeemed on February 24, 2014 and on each February 24 every fifth year thereafter; and in the case of Series AN, at a price per share of $25, if redeemed on February 24, 2014 and on each February 24 every fifth year thereafter; and in the case of Series AP, at a price per share of $25, if redeemed on February 24, 2014 and on each February 24 every fifth year thereafter; and in the case of Series AR, at a price per share of $25, if redeemed on February 24, 2014 and on each February 24 every fifth year thereafter; and in the case of Series AT, at a price per share of $25, if redeemed on August 24, 2014 and on each August 24 every fifth year thereafter; and in the case of Series AV, at a price per share of $25, if redeemed on August 24, 2014 and on each August 24 every fifth year thereafter; and in the case of Series AX, at a price per share of $25, if redeemed on November 24, 2014 and on each November 24 every fifth year thereafter.

(4) Subject to the consent of OSFI and the requirements of the Act, we may purchase the First Preferred Shares W, AA, AB, AC, AD, AE, AF, AG, AH, AJ, AL, AN, AP, AR, AT, AV and AX for cancellation at the lowest price or prices at which, in the opinion of the Board of Directors, such shares are obtainable.

(5) Subject to the approval of the Toronto Stock Exchange, we may, on or after the dates specified above, convert First Preferred Shares Series W into our common shares. First Preferred Shares may be converted into that number of common shares determined by dividing the then-applicable redemption price by the greater of $2.50 and 95% of the weighted average trading price of common shares at such time.

(6) The conversion date refers to the date of conversion to common shares.

Restrictions on the payment of dividends

We are prohibited by the Act from declaring any dividends on our preferred or common shares when we are, or would be placed as a result of the declaration, in contravention of the capital adequacy and liquidity regulations or any regulatory directives issued under the Act. We may not pay dividends on our common shares at any time unless all dividends to which preferred shareholders are then entitled have been declared and paid or set apart for payment. We have agreed that if Trust or Trust II fail to pay any required distribution on the trust capital securities in full, we will not declare dividends of any kind on any of our preferred or common shares. Refer to Note 21. Currently, these limitations do not restrict the payment of dividends on our preferred or common shares.

We have also agreed that if, on any day we report financial results for a quarter, (i) we report a cumulative consolidated net loss for the immediately preceding four quarters; and (ii) during the immediately preceding quarter we fail to declare any cash dividends on all of our outstanding preferred and common shares, we may defer payments of interest on the Series 2014-1 Reset Subordinated Notes (matures on June 18, 2103). During any period while interest is being deferred, (i) interest will accrue on these notes but will not compound; (ii) we may not declare or pay dividends (except by way of stock dividend) on, or redeem or repurchase, any of our preferred or common shares; and (iii) we may not make any payment of interest, principal or premium on any debt securities or indebtedness for borrowed money issued or incurred by us that rank subordinate to these notes.

Dividend reinvestment plan

Our DRIP provides registered common shareholders with a means to receive additional common shares rather than cash dividends. The plan is only open to registered shareholders residing in Canada or the United States. The requirements of our DRIP are satisfied through either open market share purchases or shares issued from treasury.

Note 22 Equity (continued)

Shares available for future issuances
As at October 31, 2012, 47.5 million common shares are available for future issue relating to our DRIP and potential exercise of stock options outstanding. In addition, we may issue up to 38.9 million common shares from treasury under the RBC Umbrella Savings and Securities Purchase Plan that was approved by shareholders on February 26, 2009.

Non-controlling interests

	As at		
(Millions of Canadian dollars)	**October 31 2012**	October 31 2011	November 1 2010
RBC Trust Capital Securities (1)			
Series 2015	**$ 1,200**	$ 1,219	$ 1,219
Series 2008-1	**511**	499	511
Consolidated special purpose entities	**–**	–	5
Others	**50**	43	359
	$ 1,761	$ 1,761	$ 2,094

(1) As at October 31, 2012, RBC TruCS Series 2015 includes $20 million (October 31, 2011 – $19 million; November 1, 2010 – $19 million) of accrued interest, net of $20 million of treasury holdings (October 31, 2011 – $nil; November 1, 2010 – $nil). Series 2008-1 includes $11 million of accrued interest (October 31, 2011 – $11 million; November 1, 2010 – $11 million) net of $nil of treasury holdings (October 31, 2011 – $12 million; November 1, 2010 – $nil).

Note 23 Share-based compensation

We offer share-based compensation to certain key employees and to our non-employee directors. We use derivatives and compensation trusts to manage our exposure to volatility in the price of our common shares under many of these plans. The share-based compensation amounts recorded in Non-interest expense – Human resources in our Consolidated Statements of Income are net of the impact of these derivatives.

Stock option plans
We have stock option plans for certain key employees. Under the plans, options are periodically granted to purchase common shares. The exercise price for each grant is determined as the higher of the volume-weighted average of the trading prices per board lot (100 shares) of our common shares on the Toronto Stock Exchange (i) on the day preceding the day of grant; and (ii) the five consecutive trading days immediately preceding the day of grant. Stock options are normally granted at the end of the year, with the exercise price determined at least five business days after the release of the year-end financial results. The options vest over a four-year period for employees and are exercisable for a period not exceeding 10 years from the grant date.

The compensation expense recorded for the year ended October 31, 2012, in respect of the stock option plans was $7 million (October 31, 2011 – $13 million). The compensation expenses related to non-vested awards were $7 million at October 31, 2012 (October 31, 2011 – $9 million), to be recognized over the weighted average period of 1.5 years (October 31, 2011 – 1.8 years).

Analysis of the movement in the number and weighted average exercise price of options is set out below:

A summary of our stock option activity and related information

	October 31, 2012		October 31, 2011	
(Canadian dollars per share except share amounts)	**Number of options (thousands)**	**Weighted average exercise price**	Number of options (thousands)	Weighted average exercise price
Outstanding at beginning of year (1), (2)	**14,413**	**$ 45.06**	15,659	$ 40.90
Granted	**1,161**	**48.93**	1,815	52.60
Exercised (3), (4)	**(3,174)**	**34.36**	(2,954)	27.76
Forfeited in the year	**(96)**	**52.37**	(100)	44.04
Expired in the year	**–**	**–**	(7)	24.64
Outstanding at end of year	**12,304**	**$ 48.12**	14,413	$ 45.06
Exercisable at end of year	**6,544**	**$ 45.43**	8,688	$ 41.64
Available for grant	**12,968**		14,033	

(1) As at November 1, 2010, there was 10,170,311 of options exercisable with weighted average exercise price of $36.86.
(2) As at November 1, 2010, there was 15,740,995 of options available for grant.
(3) Cash received for options exercised during the year was $109 million (October 31, 2011 – $82 million) and the weighted average share price at the date of exercise was $54.48 (October 31, 2011 – $55.61).
(4) New shares were issued for all stock options exercised in 2012 and 2011. See Note 22.

Options outstanding as at October 31, 2012 by range of exercise price:

(Canadian dollars per share except share amounts)	Options outstanding			Options exercisable	
	Number outstanding (thousands)	Weighted average exercise price (1)	Weighted average remaining contractual life	Number exercisable (thousands)	Weighted average exercise price (1)
$29.00 – $35.37	2,790	$ 34.05	4.72	2,241	$ 33.76
$44.13 – $48.93	2,230	46.60	6.17	1,080	44.13
$50.55 – $52.94	3,344	52.72	6.67	1,573	52.85
$54.99 – $57.90	3,940	55.05	5.84	1,650	55.06
Total	12,304	$ 48.12	5.87	6,544	$ 45.43

(1) The weighted average exercise prices have been revised to reflect the conversion of foreign currency-denominated options at the exchange rate as at our Consolidated Balance Sheet date.

The weighted average fair value of options granted during 2012 was estimated at $4.42 (2011 – $7.30). This was determined by applying the Black-Scholes model on the date of grant, taking into account the specific terms and conditions under which the options are granted, such as the vesting period and expected share price volatility estimated by considering both historic average share price volatility and implied volatility derived from traded options over our common shares of similar maturity to those of the employee options. The following assumptions were used to determine the fair value of options granted in 2012 and 2011:

Weighted average assumptions

(Canadian dollars per share except percentages)	For the year ended October 31 2012	October 31 2011
Weighted average assumptions		
Share price at grant date	$ 48.19	$ 52.60
Risk-free interest rate	1.38%	2.72%
Expected dividend yield	3.93%	3.62%
Expected share price volatility	18%	20%
Expected life of option	6 years	6 years

Employee savings and share ownership plans

We offer many employees an opportunity to own our common shares through savings and share ownership plans. Under these plans, the employees can generally contribute between 1% and 10% of their annual salary or benefit base for commissioned based employees. For each contribution between 1% and 6%, we will match 50% of the employee contributions in our common shares. For the RBC Dominion Securities Savings Plan, our maximum annual contribution is $4,500 per employee. For the RBC U.K. Share Incentive Plan, our maximum annual contribution is £1,500 per employee. In 2012, we contributed $75 million (2011 – $72 million), under the terms of these plans, towards the purchase of our common shares. As at October 31, 2012, an aggregate of 37 million common shares were held under these plans (October 31, 2011 – 36 million common shares; November 1, 2010 – 35 million common shares).

Deferred share and other plans

We offer deferred share unit plans to executives, non-employee directors and to certain key employees. Under these plans, the executives or directors may choose to receive all or a percentage of their annual variable short-term incentive bonus or directors' fee in the form of deferred share units (DSUs). The executives or directors must elect to participate in the plan prior to the beginning of the year. DSUs earn dividend equivalents in the form of additional DSUs at the same rate as dividends on common shares. The participant is not allowed to convert the DSUs until retirement, permanent disability or termination of employment/directorship. The cash value of the DSUs is equivalent to the market value of common shares when conversion takes place.

We have a deferred bonus plan for certain key employees within Capital Markets. Under this plan, a percentage of each employee's annual incentive bonus is deferred and accumulates dividend equivalents at the same rate as dividends on common shares. The employee will receive the deferred bonus amounts within 90 days of the three following year end dates. The value of the deferred bonus paid will be equivalent to the original deferred bonus adjusted for dividends and changes in the market value of common shares at the time the bonus is paid.

We offer performance deferred share award plans to certain key employees, all of which vest at the end of three years. Awards under the plans are deferred in the form of common shares which are held in trust until they fully vest or in the form of DSUs. A portion of the award under some plans can be increased or decreased up to 25%, depending on our total shareholder return compared to a defined peer group of global financial institutions. The value of the award paid will be equivalent to the original award adjusted for dividends and changes in the market value of common shares at the time the award vests. The number of our common shares held in trust as at October 31, 2012 was 0.3 million (October 31, 2011 – 0.7 million; November 1, 2010 – 1.1 million).

We maintain a non-qualified deferred compensation plan for key employees in the United States under an arrangement called the RBC U.S. Wealth Accumulated Plan. This plan allows eligible employees to make deferrals of a portion of their annual income and allocate the deferrals among various fund choices, which include a share unit fund that tracks the value of our common shares. Certain deferrals may also be eligible for matching contributions, all of which are allocated to the RBC share unit fund.

For other stock-based plans, the number of our common shares held under these plans was 0.1 million as at October 31, 2012 (October 31, 2011 – 0.1 million; November 1, 2010 – 0.5 million).

Our liabilities for the awards granted under the deferred share and other plans are measured at fair value, determined based on the quoted market price of our common shares. The following tables present our obligations under the deferred share and other plans, and the related compensation expenses (recoveries) recognized for the year.

Note 23 Share-based compensation (continued)

Obligation under deferred share and other plans

(Millions of Canadian dollars except units and per unit amounts)	October 31, 2012 Units granted during the year: Number granted (thousands)	October 31, 2012 Units granted during the year: Weighted average fair value	October 31, 2012 Units outstanding at the end of the year: Carrying amount	October 31, 2011 Units granted during the year: Number granted (thousands)	October 31, 2011 Units granted during the year: Weighted average fair value	October 31, 2011 Units outstanding at the end of the year: Carrying amount	November 1, 2010 Units outstanding: Carrying amount
Deferred share unit plans	**302**	**$ 59.60**	**$ 229**	228	$ 64.74	$ 187	$ 204
Deferred bonus plan	**8,917**	**56.72**	**1,494**	7,314	49.50	1,116	953
Performance deferred share award plans	**2,570**	**49.03**	**307**	2,360	52.60	299	337
RBC U.S. Wealth Accumulation Plan	**458**	**51.61**	**305**	390	59.45	263	303
Other share-based plan	**437**	**51.34**	**63**	401	53.70	57	66
Total	**12,684**	**$ 54.86**	**$ 2,398**	10,693	$ 51.03	$ 1,922	$ 1,863

Compensation expenses (recoveries) recognized under deferred share and other plans

(Millions of Canadian dollars)	For the year ended October 31 2012	For the year ended October 31 2011
Deferred share unit plans	**$ 29**	$ (8)
Deferred bonus plan	**185**	(60)
Performance deferred share award plans	**151**	147
RBC U.S. Wealth Accumulation Plan	**136**	33
Other share-based plan	**29**	11
Total	**$ 530**	$ 123

Note 24 Income and expenses from selected financial instruments

Gains and losses arising from financial instruments held at FVTPL, except for those supporting our insurance operations, are reported in Non-interest income. Related interest and dividend income are reported in Net interest income.

Net gains (losses) from financial instruments held at fair value through profit or loss (1)

(Millions of Canadian dollars)	For the year ended October 31 2012	For the year ended October 31 2011
Net gains (losses)	**$**	$
Classified as at fair value through profit or loss	**1,210**	10
Designated as at fair value through profit or loss	**(94)**	590
	$ 1,116	$ 600
By product line		
Interest rate and credit	**$ 796**	$ 321
Equities	**(48)**	(47)
Foreign exchange and commodities	**368**	326
Total	**$ 1,116**	$ 600

(1) The following related to our insurance operations are excluded from Non-interest income and included in Insurance premiums, investment and fee income on the Consolidated Statements of Income: Net gains (losses) from financial instruments classified as at FVTPL were $nil (2011 – $nil), Net gains (losses) from financial instruments designated as at FVTPL were $439 million (2011 – $213 million).

Net interest income from financial instruments (1)

(Millions of Canadian dollars)	For the year ended October 31 2012	October 31 2011
Interest income		
Financial instruments held as at fair value through profit or loss	**$ 4,957**	$ 5,250
Other categories of financial instruments (2)	**15,895**	15,563
	20,852	20,813
Interest expense		
Financial instruments held as at fair value through profit or loss	**$ 3,029**	$ 3,827
Other categories of financial instruments	**5,325**	5,629
	8,354	9,456
Net interest income	**$ 12,498**	$ 11,357

(1) The following related to our insurance operations are excluded from Net-interest income and included in Insurance premiums, investment and fee income on the Consolidated Statement of Income: Interest income of $466 million (2011 – $456 million), Interest expense of $nil (2011 – $nil).
(2) See Note 6 for interest income accrued on impaired financial assets.

Income from other categories of financial instruments (1), (2)

(Millions of Canadian dollars)	For the year ended October 31 2012	October 31 2011
Net gains (losses) arising from financial instruments measured at amortized cost (3)	**$ (4)**	$ (1)
Net fee income which does not form an integral part of the effective interest rate of financial assets and liabilities	**3,784**	3,528
Net fee income arising from trust and other fiduciary activities	**6,855**	6,812

(1) See Note 5 for net gains (losses) on AFS securities.
(2) See Note 5 for impairment losses on AFS and held-to-maturity securities, and Note 6 for impairment losses on loans.
(3) Financial instruments measured at amortized cost include held-to-maturity securities, loans and financial liabilities measured at amortized cost.

Note 25 Income taxes

The components of tax expense are as follows:

(Millions of Canadian dollars)	For the year ended October 31 2012	October 31 2011
Income taxes (recoveries) in Consolidated Statements of Income		
Current tax		
Tax expense (recoveries) for current year	**$ 2,217**	$ 2,074
Adjustments for prior years	**(184)**	(8)
	2,033	2,066
Deferred tax		
Origination and reversal of temporary difference	**(86)**	(66)
Effects of changes in tax rates	**2**	36
Adjustments for prior years	**167**	(26)
(Recoveries) arising from previously unrecognized tax loss, tax credit or temporary difference of a prior period	**(16)**	–
	67	(56)
	2,100	2,010
Income taxes in Consolidated Statements of Comprehensive Income and Changes in Equity		
Other comprehensive income		
Net unrealized gains (losses) on available-for-sale securities	**72**	(56)
Reclassification of (gains) losses on available-for-sale securities to income	**(2)**	45
Net foreign currency translation gains, net of hedging activities	**40**	279
Reclassification of gains on net investment hedging activities	**(59)**	–
Net unrealized gains on derivatives designated as cash flow hedges	**11**	137
Reclassification of losses on derivatives designated as cash flow hedges to income	**10**	29
	72	434
Total income taxes	**$ 2,172**	$ 2,444

Our effective tax rate changed from 22.4% for 2011 to 21.7% for 2012, principally due to a decrease of 1.7% in our Canadian statutory rate and the differences itemized in the table below.

Note 25 Income taxes (continued)

The following is an analysis of the differences between the income tax expense reflected in the Consolidated Statements of Income and the amounts calculated at the Canadian statutory rate:

Reconciliation to statutory tax rate

	For the year ended			
(Millions of Canadian dollars, except for percentage amounts)	**October 31, 2012**		October 31, 2011	
Income taxes at Canadian statutory tax rate	**$ 2,558**	**26.4%**	$ 2,523	28.1%
(Decrease) increase in income taxes resulting from				
Lower average tax rate applicable to subsidiaries	**(305)**	**(3.1)%**	(271)	(3.0)%
Goodwill Impairment	**37**	**0.4%**	–	0.0%
Tax-exempt income from securities	**(330)**	**(3.4)%**	(355)	(4.0)%
Tax rate change	**2**	**0.0%**	36	0.4%
Other	**138**	**1.4%**	77	0.9%
Income taxes reported in Consolidated Statements of Income / effective tax rate	**$ 2,100**	**21.7%**	$ 2,010	22.4%

Deferred tax assets and liabilities result from tax loss carry-forwards and temporary differences between the tax basis of assets and liabilities and their carrying amounts on our Consolidated Balance Sheets.

Significant components of deferred tax assets and liabilities

	As at October 31, 2012						
(Millions of Canadian dollars)	**Net Asset November 1, 2011**	**Change through equity**	**Change through profit or loss**	**Exchange rate differences**	**Acquisitions/ disposals**	**Other**	**Net Asset October 31, 2012**
Net deferred tax asset/(liability)							
Allowance for credit losses	**$ 374**	**$ –**	**$ 5**	**$ –**	**$ –**	**$ 39**	**$ 418**
Deferred compensation	**878**	**–**	**106**	**5**	**–**	**–**	**989**
Business realignment charges	**26**	**–**	**13**	**–**	**–**	**–**	**39**
Tax loss carryforwards	**34**	**–**	**30**	**(2)**	**10**	**–**	**72**
Deferred income	**251**	**(11)**	**(143)**	**–**	**–**	**–**	**97**
Available-for-sale securities	**173**	**(21)**	**(3)**	**2**	**–**	**(11)**	**140**
Derivatives designated as cash flow hedges	**(3)**	**–**	**3**	**–**	**–**	**–**	**–**
Premises and equipment	**(193)**	**–**	**42**	**–**	**–**	**–**	**(151)**
Deferred expense	**(65)**	**–**	**(16)**	**–**	**–**	**–**	**(81)**
Pension and post-employement related	**316**	**–**	**(172)**	**–**	**11**	**–**	**155**
Intangibles	**(180)**	**–**	**8**	**(1)**	**(54)**	**–**	**(227)**
Other	**17**	**–**	**60**	**1**	**3**	**(1)**	**80**
	$ 1,628	**$ (32)**	**$ (67)**	**$ 5**	**$ (30)**	**$ 27**	**$ 1,531**
Comprising							
Deferred tax assets	**$ 1,894**						**$ 1,707**
Deferred tax liabilities	**(266)**						**(176)**
	$ 1,628						**$ 1,531**

	As at October 31, 2011						
(Millions of Canadian dollars)	Net Asset November 1, 2010	Change through equity	Change through profit or loss	Exchange rate differences	Acquisitions/ disposals	Other	Net Asset October 31, 2011
Net deferred tax asset/(liability)							
Allowance for credit losses	$ 749	$ –	$ (27)	$ –	$ (348)	$ –	$ 374
Deferred compensation	858	–	90	(13)	(57)	–	878
Business realignment charges	7	–	18	1	–	–	26
Tax loss carryforwards	397	–	12	(1)	(374)	–	34
Deferred income	254	–	(3)	–	–	–	251
Available-for-sale securities	187	44	(5)	(1)	(52)	–	173
Derivatives designated as cash flow hedges	–	20	(23)	–	–	–	(3)
Premises and equipment	(197)	–	(7)	(1)	12	–	(193)
Deferred expense	(26)	–	(39)	–	–	–	(65)
Pension and post-employement related	324	–	(3)	1	(6)	–	316
Intangibles	19	–	40	3	(242)	–	(180)
Other	2	(54)	3	4	28	34	17
	$ 2,574	$ 10	$ 56	$ (7)	$ (1,039)	$ 34	$ 1,628
Comprising							
Deferred tax assets	$ 2,792						$ 1,894
Deferred tax liabilities	(218)						(266)
	$ 2,574						$ 1,628

The tax loss carry-forwards amount of deferred tax assets was related to losses in our Canadian, U.K., Japanese, Luxembourg and U.S. operations. Deferred tax assets of $72 million (October 31, 2011 – $34 million; November 1, 2010 – $397 million) was recognized at October 31, 2012 in respect of tax losses incurred in current or preceding year which recognition is dependent on the projection of future taxable profits. Management's forecasts support the assumption that it is probable that the results of future operations will generate sufficient taxable income to utilize the deferred tax assets. The forecasts rely on continued liquidity and capital support to our business operations, including tax planning strategies implemented in relation to such support.

As at October 31, 2012, unused tax losses and tax credits of $169 million and $nil (October 31, 2011 – $207 million and $6 million; November 1, 2010 – $350 million and $6 million) available to be offset against potential tax adjustments or future taxable income were not recognized as deferred tax assets. This amount includes unused tax losses of $11 million (October 31, 2011 – $58 million; November 1, 2010 – $32 million) which expire in two to four years, and $158 million (October 31, 2011 – $149 million; November 1, 2010 – $318 million) which expire after four years. There are $nil of tax credits (October 31, 2011 – $6 million; November 1, 2010 – $6 million) that will expire after four years.

The amount of temporary differences associated with investments in subsidiaries, branches and associates and interests in joint ventures for which deferred tax liabilities have not been recognized in parent bank is $10.6 billion as at October 31, 2012 (October 31, 2011 – $10.0 billion; November 1, 2010, – $10.0 billion).

Note 26 Earnings per share

(Millions of Canadian dollars, except share and per share amounts)	For the year ended October 31 2012	October 31 2011
Basic earnings per share		
Net Income	**$ 7,539**	$ 6,444
Net loss from discontinued operations	**(51)**	(526)
Net income from continuing operations	**7,590**	6,970
Preferred share dividends	**(258)**	(258)
Net income attributable to non-controlling interest	**(97)**	(101)
Net income available to common shareholders from continuing operations	**7,235**	6,611
Weighted average number of common shares (in thousands)	**1,442,167**	1,430,722
Basic earnings (loss) per share		
Continuing operations (in dollars)	**$ 5.01**	$ 4.62
Discontinued operations (in dollars)	**(.03)**	(.37)
Total	**$ 4.98**	$ 4.25
Diluted earnings (loss) per share		
Net income available to common shareholders from continuing operations	**$ 7,235**	$ 6,611
Dilutive impact of exchangeable shares	**53**	78
Net income from continuing operations available to common shareholders including dilutive impact of exchangeable shares	**7,288**	6,689
Net loss from discontinued operations available to common shareholders	**(51)**	(526)
Weighted average number of common shares (in thousands)	**1,442,167**	1,430,722
Stock options (1)	**1,626**	2,941
Issuable under other share-based compensation plans	**433**	1,043
Exchangeable shares (2)	**24,061**	36,787
Average number of diluted common shares (in thousands)	**1,468,287**	1,471,493
Diluted earnings per share		
Continuing operations (in dollars)	**$ 4.96**	$ 4.55
Discontinued operations (in dollars)	**(.03)**	(.36)
Total	**$ 4.93**	$ 4.19

(1) The dilutive effect of stock options was calculated using the treasury stock method. When the exercise price of options outstanding is greater than the average market price of our common shares, the options are excluded from the calculation of diluted earnings per share. The following amounts were excluded from the calculations of diluted earnings per share: for 2012 – 3,992,229 average outstanding options with an exercise price of $55.05; for 2011 – 4,052,267 average outstanding options with an exercise price of $55.05.

(2) Included in exchangeable shares are preferred shares, trust capital securities and exchangeable shares issued on the acquisition of Phillips, Hager & North Investment Management Ltd. (PH&N) in 2008. The PH&N exchangeable shares were replaced with 6.4 million RBC common shares on May 2, 2011, the third anniversary of the closing date of the acquisition.

Note 27 Guarantees, commitments, pledged assets and contingencies

Guarantees and commitments

We utilize guarantees and other off-balance sheet credit instruments to meet the financing needs of our clients.

The table below summarizes our maximum exposure to credit losses related to our guarantees and commitments provided to third parties. The maximum exposure to credit risk relating to a guarantee is the maximum risk of loss if there was a total default by the guaranteed parties, without consideration of possible recoveries under recourse provisions, insurance policies or from collateral held or pledged. The maximum exposure to credit risk relating to a loan commitment is the full amount of the commitment. In both cases, the maximum risk exposure is significantly greater than the amount recognized as a liability in our Consolidated Balance Sheets.

Note 27 Guarantees, commitments, pledged assets and contingencies (continued)

	Maximum exposure to credit losses		
	As at		
	October 31 2012	October 31 2011	November 1 2010
Financial guarantees			
Financial standby letters of credit	**$ 14,683**	$ 12,139	$ 11,617
Commitments to extend credit			
Backstop liquidity facilities	**30,317**	23,496	20,827
Credit enhancements	**3,708**	3,330	3,211
Documentary and commercial letters of credit	**186**	191	255
Other commitments to extend credit	**94,198**	73,468	56,540
Other commitments			
Securities lending indemnifications (1)	**56,141**	52,607	52,076
Performance guarantees	**5,396**	4,655	5,030

(1) For securities lending indemnifications prior to July 31, 2012, we were exposed to 50% of this amount through our former joint venture, RBC Dexia.

Our credit review process, our policy for requiring collateral security, and the types of collateral security held are generally the same for guarantees and commitments as for loans. Our clients generally have the right to request settlement of, or draw on, our guarantees and commitments within one year. However, certain guarantees can only be drawn if specified conditions are met. These conditions, along with collateral requirements, are described below. We believe that it is highly unlikely that all or substantially all of the guarantees and commitments will be drawn or settled within one year, and contracts may expire without being drawn or settled.

Financial guarantees

Financial standby letters of credit

Financial standby letters of credit represent irrevocable assurances that we will make payments in the event that a client cannot meet its obligations to the third party. For certain guarantees, the guaranteed party can request payment from us even though the client has not defaulted on its obligations. The term of these guarantees can range up to eight years. Our policy for requiring collateral security with respect to these instruments and the types of collateral security held is generally the same as for loans.

When collateral security is taken, it is determined on an account-by-account basis according to the risk of the borrower and the specifics of the transaction. Collateral security may include cash, securities and other assets pledged.

Commitments to extend credit

Backstop liquidity facilities

Backstop liquidity facilities are provided to asset-backed commercial paper conduit programs administered by us and third parties, as an alternative source of financing in the event that such programs are unable to access commercial paper markets, or in limited circumstances, when predetermined performance measures of the financial assets owned by these programs are not met. The average term of these liquidity facilities is approximately three years.

Backstop liquidity facilities are also provided to non-asset backed programs such as variable rate demand notes issued by third parties. These standby facilities provide liquidity support to the issuer to buy the notes if the issuer is unable to remarket the notes, as long as the instrument and/or the issuer maintain the investment grade rating.

The terms of the backstop liquidity facilities do not require us to advance money to these programs in the event of bankruptcy or insolvency events and generally do not require us to purchase non-performing or defaulted assets.

Credit enhancements

We provide partial credit enhancement to multi-seller programs administered by us to protect commercial paper investors in the event that the collection on the underlying assets, the transaction-specific credit enhancement or the liquidity proves to be insufficient to pay for maturing commercial paper. Each of the asset pools is structured to achieve a high investment-grade credit profile through credit enhancements from us and other third parties related to each transaction. The average term of these credit facilities is approximately three years.

Documentary and commercial letters of credit

Documentary and commercial letters of credit, which are written undertakings by us on behalf of a client authorizing a third party to draw drafts on us up to a stipulated amount under specific terms and conditions, are collateralized by the underlying shipment of goods to which they relate.

Other commitments to extend credit

Commitments to extend credit represent unused portions of authorizations to extend credit in the form of loans, bankers' acceptances or letters of credit.

Other commitments

Securities lending indemnifications

In securities lending transactions, we act as an agent for the owner of a security, who agrees to lend the security to a borrower for a fee, under the terms of a pre-arranged contract. The borrower must fully collateralize the security loaned at all times. As part of this custodial business, an indemnification may be provided to securities lending customers to ensure that the fair value of securities loaned will be returned in the event that the borrower fails to return the borrowed securities and the collateral held is insufficient to cover the fair value of those securities. These indemnifications normally terminate without being drawn upon. The term of these indemnifications varies, as the securities loaned are recallable on demand. Collateral held for our securities lending transactions typically includes cash or securities that are issued or guaranteed by the Canadian government, U.S. government or other OECD countries.

Prior to the third quarter of 2012, securities lending transactions were generally transacted through our former joint venture, RBC Dexia. RBC Dexia is now a wholly-owned subsidiary.

Performance guarantees
Performance guarantees represent irrevocable assurances that we will make payments to third-party beneficiaries in the event that a client fails to perform under a specified non-financial contractual obligation. Such obligations typically include works and service contracts, performance bonds, and warranties related to international trade. The term of these guarantees can range up to eight years. Our policy for requiring collateral security with respect to these instruments and the types of collateral security held is generally the same as for loans.

When collateral security is taken, it is determined on an account-by-account basis according to the risk of the borrower and the specifics of the transaction. Collateral security may include cash, securities and other assets pledged.

Indemnifications
In the normal course of our operations, we provide indemnifications which are often standard contractual terms to counterparties in transactions such as purchase and sale contracts, fiduciary, agency, licensing and service agreements, director/officer contracts and leasing transactions. These indemnification agreements may require us to compensate the counterparties for costs incurred as a result of changes in laws and regulations (including tax legislation) or as a result of litigation claims or statutory sanctions that may be suffered by the counterparty as a consequence of the transaction. The terms of these indemnification agreements will vary based on the contract. The nature of the indemnification agreements prevents us from making a reasonable estimate of the maximum potential amount we could be required to pay to counterparties. Historically, we have not made any significant payments under such indemnifications.

Mortgage loans sold with recourse
Through our various agreements with investors, we may be required to repurchase U.S. originated mortgage loans sold to an investor if the loans are uninsured for greater than one year, or refund any premium received where mortgage loans are prepaid or in default within 120 days. The mortgage loans are fully collateralized by residential properties. As at October 31, 2012 and 2011, we have no outstanding mortgage loans sold with recourse (November 1, 2010 – $323 million).

Uncommitted amounts
Uncommitted amounts represent undrawn credit facilities for which we have the ability to withdraw the credit extended to the borrower. These include both retail and commercial commitments. As at October 31, 2012, the total balance of uncommitted amounts was $172 billion (October 31, 2011 — $166 billion; November 1, 2010 — $167 billion).

Pledged assets and collateral
In the ordinary course of business, we pledge assets and enter in collateral agreements with terms and conditions that are usual and customary to our regular lending, borrowing and trading activities recorded on our Consolidated Balance Sheets. The following are examples of our general terms and conditions on pledged assets and collateral:

- The risks and rewards of the pledged assets reside with the pledgor.
- The pledged asset is returned to the pledgor when the necessary conditions have been satisfied.
- The right of the pledgee to sell or re-pledge the asset is dependent on the specific agreement under which the collateral is pledged.
- If there is no default, the pledgee must return the comparable asset to the pledgor upon satisfaction of the obligation.

We are also required to provide intraday pledges to the Bank of Canada when we use the Large Value Transfer System (LVTS), which is a real-time electronic wire transfer system that continuously processes all Canadian dollar large-value or time-critical payments throughout the day. The pledged assets earmarked for LVTS activities are normally released back to us at the end of the settlement cycle each day. Therefore, the pledged assets amount is not included in the table below. For the year ended October 31, 2012, we had on average $3.2 billion of assets pledged intraday to the Bank of Canada on a daily basis (October 31, 2011 – $3.5 billion). There are infrequent occasions where we are required to take an overnight advance from the Bank of Canada to cover a settlement requirement, in which case an equivalent value of the pledged assets would be used to secure the advance. There were no overnight advances taken on October 31, 2012, October 31, 2011, and November 1, 2010.

Note 27 Guarantees, commitments, pledged assets and contingencies (continued)

Details of assets pledged against liabilities and collateral assets held or re-pledged are shown in the following tables:

(Millions of Canadian dollars)	As at October 31 2012	October 31 2011	November 1 2010
Sources of pledged assets and collateral			
Bank assets			
Cash and due from banks	**$ 94**	$ 184	$ 123
Interest-bearing deposits with banks	**424**	618	334
Loans	**65,077**	58,998	54,992
Securities	**40,424**	44,119	46,607
Other assets	**19,411**	9,805	10,046
	$ 125,430	$ 113,724	$ 112,102
Client assets			
Collateral received and available for sale or re-pledging	**178,454**	137,548	123,596
Less: not sold or re-pledged	**(56,172)**	(28,870)	(26,013)
	122,282	108,678	97,583
	247,712	222,402	209,685
Uses of pledged assets and collateral			
Securities lent	**$ 12,202**	$ 10,805	$ 14,977
Securities borrowed	**25,555**	31,509	25,637
Obligations related to securities sold short	**40,756**	44,284	46,597
Obligations related to securities lent or sold under repurchase agreements	**64,154**	44,885	36,196
Securitization	**51,959**	48,535	46,241
Covered bonds	**13,276**	10,513	8,557
Derivative transactions	**32,967**	27,625	26,240
Foreign governments and central banks	**2,608**	2,376	2,332
Clearing systems, payment systems and depositories	**4,235**	1,839	2,154
Other	**–**	31	754
	$ 247,712	$ 222,402	$ 209,685

Lease commitments

Finance lease commitments

We lease computer equipment from third parties under finance lease arrangements. The leases have various terms, escalation and renewal rights. The future minimum lease payments under the finance leases are as follows:

	As at								
	October 31, 2012			October 31, 2011			November 1, 2010		
(Millions of Canadian dollars)	**Total future minimum lease payments**	**Future interest charges**	**Present value of finance lease commitments**	Total future minimum lease payments	Future interest charges	Present value of finance lease commitments	Total future minimum lease payments	Future interest charges	Present value of finance lease commitments
Future minimum lease payments									
no later than one year	**$ 62**	**$ (6)**	**$ 56**	$ 52	$ (5)	$ 47	$ 52	$ (4)	$ 48
later than one year and no later than five years	**108**	**(12)**	**96**	66	(7)	59	61	(6)	55
later than five years	**–**	**–**	**–**	–	–	–	3	–	3
	$ 170	**$ (18)**	**$ 152**	$ 118	$ (12)	$ 106	$ 116	$ (10)	$ 106

The net carrying amount of computer equipment held under finance lease as at October 31, 2012 was $156 million (October 31, 2011 – $106 million; November 1, 2010 – $103 million).

Operating lease commitments

We are obligated under a number of non-cancellable operating leases for premises and equipment. These leases have various terms, escalation and renewal rights. The minimum future lease payments under non-cancellable operating leases are as follows:

	As at					
	October 31, 2012		October 31, 2011		November 1, 2010	
(Millions of Canadian dollars)	**Land and buildings**	**Equipment**	Land and buildings	Equipment	Land and buildings	Equipment
Future minimum lease payments						
no later than one year	**$ 566**	**$ 131**	$ 483	$ 116	$ 510	$ 125
later than one year and no later than five years	**1,663**	**449**	1,485	83	1,588	98
later than five years	**1,256**	**4**	1,029	–	1,133	1
	3,485	**584**	2,997	199	3,231	224
less: Future minimum sublease payments to be received	**(20)**	**(1)**	(27)	(3)	(52)	(3)
Net future minimum lease payments	**$ 3,465**	**$ 583**	$ 2,970	$ 196	$ 3,179	$ 221

Litigation

We are a large global institution that is subject to many different complex legal and regulatory requirements. As a result, Royal Bank of Canada and its subsidiaries are and have been subject to a variety of claims and investigations in various jurisdictions. Management reviews the status of all proceedings on an ongoing basis and will exercise its judgment in resolving them in such manner as management believes to be in the Bank's best interest. The following is a description of our significant legal proceedings. We are vigorously defending ourselves in each of these matters.

LIBOR Inquiries and Litigation

Various regulators and competition and enforcement authorities around the world including in Canada, the UK, and the U.S., including various U.S. states, are conducting investigations related to certain past submissions made by panel banks in connection with the setting of the U.S. dollar London interbank offered rate (LIBOR). As Royal Bank of Canada is a member of certain LIBOR panels including the U.S. dollar LIBOR panel, we have been the subject of various regulatory demands for information and are cooperating with those investigations. In addition, Royal Bank of Canada and other U.S dollar panel banks have been named as defendants in private lawsuits filed in the U.S. with respect to the setting of LIBOR, including a number of class action lawsuits which have been consolidated before the U.S. District Court for the Southern District of New York. The complaints in those actions assert claims against us and other panel banks under various U.S. laws including U.S. antitrust laws, the U.S Commodity Exchange Act, and state law. Based on the facts currently known, it is not possible at this time for us to predict the resolution of these regulatory investigations or private lawsuits, including the timing and potential impact on Royal Bank of Canada.

CFTC Litigation

Royal Bank of Canada is a defendant in a civil lawsuit brought by the Commodity Futures Trading Commission in the U.S. The lawsuit alleges that certain inter-affiliate transactions were improper wash trades and effected in a non-competitive manner. Further, the complaint alleges that we wilfully made false, fictitious or fraudulent statements to the Chicago Mercantile Exchange about the manner in which we intended to, and did, structure these transactions. It is not possible to predict the outcome of these proceedings, nor the timing of their resolution; however, we strongly deny these allegations. At this time, management does not believe that the ultimate resolution of this matter will have a material adverse effect on our consolidated financial position or results of operations.

Wisconsin School Districts Litigation

Royal Bank of Canada is a defendant in a lawsuit relating to our role in transactions involving investments made by a number of Wisconsin school districts in certain collateralized debt obligations. These transactions were also the subject of a regulatory investigation. Despite reaching a settlement with the Securities and Exchange Commission, which was paid to the school districts through a Fair Fund, the lawsuit is continuing. It is not possible to predict the ultimate outcome of these proceedings or the timing of their resolution; however, management believes the ultimate resolution of these proceedings will not have a material adverse effect on our consolidated financial position or results of operations.

Other Matters

We are a defendant in a number of other actions alleging that certain of our practices and actions were improper. The lawsuits involve a variety of complex issues and the timing of their resolution is varied and uncertain. Management believes that we will ultimately be successful in resolving these lawsuits, to the extent that we are able to assess them, without material financial impact to the Bank. This is, however, an area of significant judgment and the potential liability resulting from these lawsuits could be material to our results of operations in any particular period.

Various other legal proceedings are pending that challenge certain of our other practices or actions. We consider that the aggregate liability, to the extent that we are able to assess it, resulting from these other proceedings will not be material to our consolidated financial position or results of operations.

Note 28 Contractual repricing and maturity schedule

The following table details our exposure to interest rate risk. The carrying amounts of financial assets and financial liabilities are reported below based on the earlier of their contractual repricing date or maturity date.

The following table does not incorporate management's expectation of future events where expected repricing or maturity dates differ significantly from the contractual dates. We incorporate these assumptions in the management of interest rate risk exposure. These assumptions include expected repricing of trading instruments and certain loans and deposits. Taking into account these assumptions on the consolidated contractual repricing and maturity schedule at October 31, 2012, would result in a change in the under-one-year gap from $19.2 billion to $60.7 billion.

	As at October 31, 2012							
(Millions of Canadian dollars)	Immediately interest rate-sensitive	Under 3 months	3 to 6 months	6 to 12 months	1 to 5 years	Over 5 years	Non-rate-sensitive	Total
Assets								
Cash and deposits with banks	$ 14,370	$ 5,063	$ 41	$ 25	$ 191	$ –	$ 3,182	$ 22,872
Securities								
Trading	10,132	9,582	3,617	8,714	22,633	25,128	40,977	120,783
Available-for-sale	–	25,501	514	1,569	9,365	1,827	2,052	40,828
Assets purchased under reverse repurchase agreements and securities borrowed	8,283	93,154	7,926	2,687	207	–	–	112,257
Loans (net of allowance for loan losses)	191,103	30,383	8,519	16,696	119,877	8,916	2,750	378,244
Derivatives	91,293	–	–	–	–	–	–	91,293
Investments for account of segregated fund holders	–	–	–	–	–	–	383	383
Other assets	–	4	4	10	34	40	58,348	58,440
	$ 315,181	$ 163,687	$ 20,621	$ 29,701	$ 152,307	$ 35,911	$ 107,692	$ 825,100
Liabilities								
Deposits	$ 202,812	$ 83,476	$ 19,739	$ 35,506	$ 79,148	$ 18,263	$ 69,275	$ 508,219
Obligations related to assets sold under repurchase agreements and securities loaned	3,653	58,479	711	1,189	–	–	–	64,032
Obligations related to securities sold short	771	518	767	1,515	8,259	10,949	17,977	40,756
Derivatives	96,761	–	–	–	–	–	–	96,761
Insurance and investment contracts for account of segregated fund holders	–	–	–	–	–	–	383	383
Other liabilities	–	45	51	136	1,236	516	58,422	60,406
Subordinated debentures	–	397	1,004	1,639	4,575	–	–	7,615
Trust capital securities	–	–	–	–	900	–	–	900
Non-controlling interests	–	–	–	–	1,200	511	50	1,761
Shareholders' equity	–	–	213	600	4,000	–	39,454	44,267
	$ 303,997	$ 142,915	$ 22,485	$ 40,585	$ 99,318	$ 30,239	$ 185,561	$ 825,100
Total gap	$ 11,184	$ 20,772	$ (1,864)	$ (10,884)	$ 52,989	$ 5,672	$ (77,869)	$ –
Canadian dollar	$ 18,367	$ (11,750)	$ 1,333	$ (6,116)	$ 59,052	$ 340	$ (54,900)	$ 6,326
Foreign currency	(7,183)	32,522	(3,197)	(4,768)	(6,063)	5,332	(22,969)	(6,326)
Total gap	$ 11,184	$ 20,772	$ (1,864)	$ (10,884)	$ 52,989	$ 5,672	$ (77,869)	$ –

Note 29 Related party transactions

Related parties

Related parties include associated companies, post-employment benefit plans for the benefit of our employees, key management personnel, the Board of Directors (Directors), close family members of key management personnel and Directors, and entities which are, directly or indirectly, controlled by, jointly controlled by or significantly influenced by key management personnel, Directors or their close family members.

Key management personnel and Directors

Key management personnel are defined as those persons having authority and responsibility for planning, directing and controlling our activities, directly or indirectly. They include the senior members of our organization called the Group Executive. The Group Executive is comprised of the Chief Executive Officer and individuals that report directly to him, including the Chief Administrative Officer and Chief Financial Officer, Chief Human Resource officer, Chief Risk Officer, and heads of our business units. The Directors do not plan, direct, or control the activities of the entity; they oversee the management of the business and provide stewardship.

Compensation of key management personnel and Directors

The following tables present the compensation paid, shareholdings and options held by key management personnel and Directors.

	For the year ended	
(Millions of Canadian dollars)	**October 31 2012**	October 31 2011
Salaries and other short-term employee benefits	**$ 21**	$ 23
Post-employment benefits	**2**	2
Share-based payments	**25**	24
	$ 48	$ 49

Shareholdings and options held by key management personnel, Directors and their close family members

	As at					
	October 31, 2012		October 31, 2011		November 1, 2010	
(Millions of Canadian dollars, except number of shares)	**No. of units held**	**Value**	No. of units held	Value	No. of units held	Value
Stock options	**5,402,931**	**$ 40**	5,663,871	$ 23	5,011,708	$ 45
Other non-option stock based awards	**2,657,787**	**143**	2,189,588	106	1,994,916	107
RBC common shares	**1,593,328**	**91**	1,638,939	80	1,511,316	82
	9,654,046	**$ 274**	9,492,398	$ 209	8,517,940	$ 234

Transactions, arrangements and agreements involving key management personnel, Directors and their close family members

In the normal course of business, we provide certain banking services to key management personnel, Directors, and their close family members. These transactions were made on substantially the same terms, including interest rates and security, as for comparable transactions with persons of a similar standing and did not involve more than the normal risk of repayment or present other unfavourable features.

As at October 31, 2012, total loans to key management personnel, Directors and their close family members are $6 million (October 31, 2011 – $4 million; November 1, 2010 – $5 million). No guarantees, pledges or commitments have been given to key management personnel, Directors or their close family members.

Subsidiaries, associates and joint ventures

In the normal course of business, we provide certain banking and financial services to subsidiaries, associates and joint ventures, including loans, interest and non-interest bearing deposits. These transactions meet the definition of related party transactions and were made on substantially the same terms as for comparable transactions with third-party counterparties.

As at October 31, 2012, there were no deposits from joint ventures and associates (October 31, 2011 – $2.9 billion; November 1, 2010 – $3.1 billion).

Other transactions, arrangements or agreements involving joint ventures or associates

	As at or for the year ended		
(Millions of Canadian dollars)	**October 31 2012**	October 31 2011	November 1 2010
Guarantees provided	**$ –**	$ 483	$ 497
Commitments and other contingencies	**138**	135	–
Other fees received for services rendered	**84**	93	n.a.
Other fees paid for services received	**51**	65	n.a.

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Note 30 Results by business segment

(Millions of Canadian dollars)	For the year ended October 31, 2012									
	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets (3)	Corporate Support (3)	Total	Canada	United States	Other International
Net interest income (1), (2)	$ 9,061	$ 393	$ –	$ 668	$ 2,559	$ (183)	$ 12,498	$ 10,413	$ 1,308	$ 777
Non-interest income	3,582	4,442	4,897	657	3,629	67	17,274	9,378	3,564	4,332
Total revenue	12,643	4,835	4,897	1,325	6,188	(116)	29,772	19,791	4,872	5,109
Provision for credit losses	1,167	(1)	–	–	135	–	1,301	1,021	90	190
Insurance policyholder benefits, claims and acquisition expense	–	–	3,621	–	–	–	3,621	2,320	16	1,285
Non-interest expense	5,932	3,796	515	1,134	3,746	37	15,160	8,809	3,404	2,947
Net income (loss) before income taxes	5,544	1,040	761	191	2,307	(153)	9,690	7,641	1,362	687
Income taxes (recoveries)	1,456	277	47	106	726	(512)	2,100	1,600	519	(19)
Net income from continuing operations	4,088	763	714	85	1,581	359	7,590	6,041	843	706
Net income from discontinued operations							(51)	–	(51)	–
Net income							$ 7,539	$ 6,041	$ 792	$ 706
Non-interest expense includes:										
Depreciation and amortization	$ 248	$ 126	$ 14	$ 54	$ 27	$ 487	$ 956	$ 782	$ 38	$ 136
Impairment of goodwill and other intangibles	–	–	–	168	–	–	168	100	–	68
Total assets from continuing operations	$ 343,100	$ 22,000	$ 12,300	$ 77,200	$ 355,200	$ 15,300	$825,100	$459,700	$173,200	$ 192,200
Total assets from operations that are now discontinued							–	–	–	–
Total assets							$825,100	$459,700	$173,200	$ 192,200
Total assets include:										
Additions to property, plant, equipment and intangibles	$ 256	$ 133	$ 11	$ 308	$ 128	$ 877	$ 1,713	$ 1,089	$ 145	$ 479
Total liabilities from continuing operations	$ 342,000	$ 22,000	$ 12,400	$ 77,300	$ 355,100	$ (29,700)	$779,100	$413,700	$173,300	$ 192,100
Total liabilities from operations that are now discontinued							–	–	–	–
Total liabilities							$779,100	$413,700	$173,300	$ 192,100

(Millions of Canadian dollars)	For the year ended October 31, 2011									
	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets (3)	Corporate Support (3)	Total	Canada	United States	Other International
Net interest income (1), (2)	$ 8,515	$ 365	$ –	$ 573	$ 2,197	$ (293)	$ 11,357	$ 9,641	$ 1,091	$ 625
Non-interest income	3,510	4,343	4,475	569	3,127	257	16,281	9,270	2,815	4,196
Total revenue	12,025	4,708	4,475	1,142	5,324	(36)	27,638	18,911	3,906	4,821
Provision for credit losses	1,142	–	–	–	(14)	5	1,133	1,016	(12)	129
Insurance policyholder benefits, claims and acquisition expense	–	–	3,358	–	–	–	3,358	2,124	21	1,213
Non-interest expense	5,682	3,586	498	821	3,487	93	14,167	8,376	3,159	2,632
Net income (loss) before income taxes	5,201	1,122	619	321	1,851	(134)	8,980	7,395	738	847
Income taxes (recoveries)	1,461	311	19	91	559	(431)	2,010	1,728	259	23
Net income from continuing operations	3,740	811	600	230	1,292	297	6,970	5,667	479	824
Net income from discontinued operations							(526)	–	(526)	–
Net income	$ 3,740	$ 811	$ 600	$ 230	$ 1,292	$ 297	$ 6,444	$ 5,667	$ (47)	$ 824
Non-interest expense includes:										
Depreciation and amortization	$ 231	$ 127	$ 20	$ 48	$ 24	$ 418	$ 868	$ 705	$ 37	$ 126
Impairment of goodwill and other intangibles	–	–	–	–	–	–	–	–	–	–
Total assets from continuing operations	$ 321,100	$ 23,700	$ 11,100	$ 75,200	$ 320,900	$ 14,600	$766,600	$452,200	$134,400	$ 180,000
Total assets from operations that are now discontinued							27,200	–	27,200	–
Total assets							$793,800	$452,200	$161,600	$ 180,000
Total assets include:										
Additions to property, plant, equipment and intangibles	$ 325	$ 347	$ 9	$ 26	$ 133	$ 963	$ 1,803	$ 1,152	$ 164	$ 487
Total liabilities from continuing operations	$ 319,800	$ 23,800	$ 11,100	$ 75,200	$ 321,300	$ (18,900)	$732,300	$409,200	$142,900	$ 180,200
Total liabilities from operations that are now discontinued							20,100	–	20,100	–
Total liabilities							$752,400	$409,200	$163,000	$ 180,200

(1) Inter-segment revenue and share of profits in associates are not material.
(2) Interest revenue is reported net of interest expense as management relies primarily on net interest income as a performance measure.
(3) Taxable equivalent basis (Teb).

Composition of business segments

For management purposes, we are organized into five business segments. Effective October 31, 2012, our previous business segments (Canadian Banking, Wealth Management, Insurance, International Banking and Capital Markets) were reorganized into the following five business segments as outlined below, based on the products and services offered. The comparative results have been revised to conform to our new basis of segment presentation.

Personal & Commercial Banking comprises our personal and business banking operations as well as certain retail investment businesses and is operated through four business lines: Personal Financial Services, Business Financial Services and Cards and Payment Solutions (Canadian Banking), and Caribbean & U.S. Banking. In Canada we provide a broad suite of financial products and services to our individual and business clients through our extensive branch, automated teller machines, online and telephone banking networks, as well as through a large number of proprietary sales professionals. In the Caribbean we offer a broad range of financial products and services to individuals, business clients and public institutions in their respective markets. In the United States our cross border banking business serves the needs of Canadian clients within the United States.

Wealth Management comprises Canadian Wealth Management, U.S. & International Wealth Management and Global Asset Management. We serve affluent, high net worth and ultra high net worth clients in Canada, the United States, the United Kingdom, Europe, Asia, and emerging markets with a comprehensive suite of investment, trust, banking, credit and other wealth management solutions. We also provide asset management products and services directly to institutional and individual clients as well as through RBC distribution channels and third-party distributors.

Insurance comprises our insurance operations in Canada and globally and operates under two business lines: Canadian Insurance and International & Other. In Canada, we offer our products and services through our proprietary distribution channels, composed of the field sales force which includes retail insurance branches and our field sales representatives, call centers and online network, as well as through independent insurance advisors and travel agencies. Outside North America, we operate in reinsurance markets globally.

Investor & Treasury Services offers global custody, fund and pension administration, as well as an integrated suite of products to institutional investors worldwide. We also provide cash management, correspondent banking and trade finance services to financial institutions globally and funding and liquidity management for RBC as well as other select institutions.

Capital Markets comprises a majority of our global wholesale banking businesses providing public and private companies, institutional investors, governments and central banks with a wide range of products and services across our two main business lines, Global Markets and Corporate and Investment Banking. In North America, we offer a full suite of products and services which include corporate and investment

Note 30 Results by business segment (continued)

banking, equity and debt origination and distribution, and structuring and trading. Outside North America, we have a select presence in the U.K., Europe, and Asia Pacific, where we offer a diversified set of capabilities in our key sectors of expertise such as energy, mining and infrastructure.

All other enterprise level activities that are not allocated to these five business segments, such as enterprise funding, securitizations, net charges associated with unattributed capital, and consolidation adjustments, including the elimination of the Taxable equivalent basis (Teb) gross-up amounts, are included in Corporate Support. Teb adjustments gross up Net interest income from certain tax-advantaged sources (Canadian taxable corporate dividends) to their effective tax equivalent value with the corresponding offset recorded in the provision for income taxes. Management believes that these adjustments are necessary for Capital Markets to reflect how it is managed. The use of the Teb adjustments enhances the comparability of revenue across our taxable and tax-advantaged sources. Our use of Teb adjustments may not be comparable to similarly adjusted amounts at other financial institutions. The Teb adjustment for the year ended October 31, 2012 was $431 million (October 31, 2011 – $459 million).

Geographic segments

For geographic reporting, our segments are grouped into Canada, United States and Other International. Transactions are primarily recorded in the location that best reflects the risk due to negative changes in economic conditions and prospects for growth due to positive economic changes. This location frequently corresponds with the location of the legal entity through which the business is conducted and the location of our clients. Transactions are recorded in the local currency and are subject to foreign exchange rate fluctuations with respect to the movement in the Canadian dollar.

Management reporting framework

Our management reporting framework is intended to measure the performance of each business segment as if it were a stand–alone business and reflects the way our business segments are managed. This approach is intended to ensure that our business segments' results reflect all relevant revenue and expenses associated with the conduct of their businesses. Management regularly monitors these segments' results for the purpose of making decisions about resource allocation and performance assessment. These items do not impact our consolidated results.

The expenses in each business segment may include costs or services directly incurred or provided on their behalf at the enterprise level. For other costs not directly attributable to one of our business segments, we use a management reporting framework that uses assumptions, estimates and methodologies for allocating overhead costs and indirect expenses to our business segments and that assists in the attribution of capital and the transfer pricing of funds to our business segments in a manner that fairly and consistently measures and aligns the economic costs with the underlying benefits and risks of that specific business segment. Activities and business conducted between our business segments are generally at market rates. All other enterprise level activities that are not allocated to our five business segments are reported under Corporate Support.

Our assumptions and methodologies used in our management reporting framework are periodically reviewed by management to ensure that they remain valid. The capital attribution methodologies involve a number of assumptions and estimates that are revised periodically.

Note 31 Nature and extent of risks arising from financial instruments

We are exposed to credit, market and liquidity and funding risks as a result of holding financial instruments. Our risk measurement and objectives, policies and methodologies for managing these risks are disclosed in the shaded text along with those tables specifically marked with an asterisk (*) on pages 51 to 68 of the Management Discussion and Analysis. These shaded text and tables are an integral part of these Consolidated Financial Statements.

Concentrations of credit risk exist if a number of our clients are engaged in similar activities, are located in the same geographic region or have comparable economic characteristics such that their ability to meet contractual obligations would be similarly affected by changes in economic, political or other conditions.

Concentrations of credit risk indicate the relative sensitivity of our performance to developments affecting a particular industry or geographic location. The amounts of credit exposure associated with our on- and off-balance sheet financial instruments are summarized in the following table.

	As at October 31, 2012								
(Millions of Canadian dollars, except percentage amounts)	**Canada**	**%**	**United States**	**%**	**Europe**	**%**	**Other International**	**%**	**Total**
On-balance sheet assets other than derivatives (1)	**$372,920**	**74%**	**$64,254**	**13%**	**$ 37,806**	**8%**	**$ 26,903**	**5%**	**$501,883**
Derivatives before master netting agreement (2), (3)	**14,549**	**12**	**20,617**	**17**	**79,810**	**66**	**6,761**	**5**	**121,737**
	$387,469	**62%**	**$84,871**	**14%**	**$117,616**	**19%**	**$ 33,664**	**5%**	**$623,620**
Off-balance sheet credit instruments (4)									
Committed and uncommitted (5)	**$192,841**	**65%**	**$76,269**	**26%**	**$ 18,260**	**6%**	**$ 9,379**	**3%**	**$296,749**
Other	**43,038**	**57**	**15,315**	**20**	**13,943**	**18**	**3,924**	**5**	**76,220**
	$235,879	**63%**	**$91,584**	**24%**	**$ 32,203**	**9%**	**$ 13,303**	**4%**	**$372,969**

	As at October 31, 2011								
(Millions of Canadian dollars, except percentage amounts)	Canada	%	United States	%	Europe	%	Other International	%	Total
On-balance sheet assets other than derivatives (1)	$348,970	79%	$35,814	8%	$ 34,840	8%	$ 22,509	5%	$442,133
Derivatives before master netting agreement (2), (3)	15,211	13	21,541	19	72,334	62	7,270	6	116,356
	$364,181	65%	$57,355	10%	$107,174	19%	$ 29,779	5%	$558,489
Off-balance sheet credit instruments (4)									
Committed and uncommitted (5)	$187,641	71%	$52,831	20%	$ 16,669	6%	$ 8,306	3%	$265,447
Other	38,503	55	11,321	16	15,691	23	3,886	6	69,401
	$226,144	67%	$64,152	19%	$ 32,360	10%	$ 12,192	4%	$334,848

(Millions of Canadian dollars, except percentage amounts)	As at November 1, 2010 Canada	%	United States	%	Europe	%	Other International	%	Total
On-balance sheet assets other than derivatives (1)	$ 319,261	77%	$ 46,119	11%	$ 35,427	8%	$ 18,786	4%	$ 419,593
Derivatives before master netting agreement (2), (3)	13,527	13	25,066	24	58,648	56	7,530	7	104,771
	$ 332,788	63%	$ 71,185	14%	$ 94,075	18%	$ 26,316	5%	$ 524,364
Off-balance sheet credit instruments (4)									
Committed and uncommitted (5)	$ 180,909	73%	$ 43,223	18%	$ 13,417	5%	$ 8,661	4%	$ 246,210
Other	38,731	56	13,130	19	13,137	19	3,725	6	68,723
	$ 219,640	70%	$ 56,353	18%	$ 26,554	8%	$ 12,386	4%	$ 314,933

(1) Includes assets purchased under reverse repurchase agreements and securities borrowed, loans and customers' liability under acceptances. The largest concentrations in Canada are Ontario at 53% (October 31, 2011 – 52%; November 1, 2010 – 46%), the Prairies at 18% (October 31, 2011 – 18%; November 1, 2010 – 15%), British Columbia and the territories at 15% (October 31, 2011 – 15%; November 1, 2010 – 14%) and Quebec at 10% (October 31, 2011 – 10%; November 1, 2010 – 21%). No industry accounts for more than 30% (October 31, 2011 – 30%; November 1, 2010 – 28%) of total on-balance sheet credit instruments.
(2) The largest concentration of credit exposure by counterparty type is banks at 49% (October 31, 2011 – 56%; November 1, 2010 – 65%).
(3) Excludes credit derivatives classified as other than trading with a replacement cost of $5 million (October 31, 2011 – $41 million; November 1, 2010 – $7 million).
(4) Represents financial instruments with contractual amounts representing credit risk.
(5) Retail and wholesale commitments comprise 40% (October 31, 2011 – 44%; November 1, 2010 – 46%) and 60% (October 31, 2011 – 56%; November 1, 2010 – 54%), respectively, of our total commitments. The largest sector concentrations in the wholesale portfolio relate to Energy at 17% (October 31, 2011 – 17%; November 1, 2010 – 14%), Financing products at 17% (October 31, 2011 – 17%; November 1, 2010 – 17%), Non-bank financial services at 9% (October 31, 2011 – 10%; November 1, 2010 – 15%), Sovereign at 9% (October 31, 2011 – 8%; November 1, 2010 – 9%), and Real estate and related at 8% (October 31, 2011 – 8%; November 1, 2010 – 7%).

Note 32 Capital management

Regulatory capital and capital ratios

Capital levels for Canadian banks are regulated pursuant to guidelines issued by OSFI, based on standards issued by the Bank for International Settlements and Basel Committee on Banking Supervision. Regulatory capital is allocated to two tiers: Tier 1 and Tier 2. Tier 1 capital comprises the highest quality capital and is a core measure of a bank's financial strength. Tier 1 capital consists of more permanent components of capital, is free of mandatory fixed charges against earnings and has a subordinate legal position to the rights of depositors and other creditors of the financial institution. Tier 2 capital is composed of supplementary capital instruments that contribute to the overall strength of a financial institution as a going concern. Total capital is defined as the sum of Tier 1 and Tier 2 capital.

Regulatory capital ratios are calculated by dividing Tier 1 and Total capital by risk-weighted assets (RWA). OSFI requires banks to meet minimum risk-based capital requirements for exposures to credit risk, operational risk, and where they have significant trading activity, market risk. RWA is calculated for each of these risk types and added together to determine total RWA.

In addition, OSFI formally establishes risk-based capital targets for deposit-taking institutions in Canada. These targets are currently a Tier 1 capital ratio of greater than or equal to 7% and a Total capital ratio of greater than or equal to 10%. In addition to the Tier 1 and Total capital ratios, Canadian banks are required to ensure that their assets-to-capital multiple, which is calculated by dividing gross adjusted assets by Total capital, does not exceed a maximum level prescribed by OSFI. During 2012 and 2011, we have complied with all capital requirements imposed by OSFI.

Impact of adoption of IFRS

Regulatory capital reporting under IFRS commenced with our conversion to IFRS on November 1, 2011. Per OSFI's Capital Adequacy Guidelines, financial institutions may elect a phase-in of the impact of the conversion to IFRS on their regulatory capital reporting. We made use of this election and are phasing-in the IFRS conversion impact over a five-quarter period ending in the first quarter of fiscal 2013. The phase-in amount is recognized on a straight-line basis, and has reduced the IFRS conversion impact on our Tier 1 capital by $444 million this year, from $2.2 billion to $1.8 billion.

(Millions of Canadian dollars, except for percentage and multiple amounts)	Determined based on IFRS As at October 31 2012	Canadian GAAP As at October 31 2011
Capital		
Tier 1 capital	**$ 36,807**	$ 35,713
Total capital	**42,347**	41,021
Risk-weighted assets		
Credit risk	**$ 209,559**	$ 205,182
Market risk	**30,109**	21,346
Operational risk	**40,941**	40,283
Transitional adjustment prescribed by OSFI (1)	**–**	969
Total risk-weighted assets	**$ 280,609**	$ 267,780
Capital ratios and multiples		
Tier 1 capital	**13.1%**	13.3%
Total capital	**15.1%**	15.3%
Assets-to-capital multiple (2)	**16.7X**	16.1X

(1) Under Basel II transitional guidance, OSFI requires the minimum risk-based capital to be no less than 90% of the capital requirements as calculated under Basel I standards. If the capital requirement is less than 90%, a transitional adjustment to RWA must be applied as prescribed by the OSFI Capital Adequacy Requirement guidance Section 1.7.
(2) As part of the IFRS transition, for the assets-to-capital multiple calculation, the gross adjusted assets exclude mortgages securitized through the CMHC program up to and including March 31, 2010 as approved by OSFI.

Note 33 Recovery and settlement of on-balance sheet assets and liabilities

The table below presents an analysis of assets and liabilities recorded on our Consolidated Balance Sheets by amounts to be recovered or settled within one year and after one year, as at the balance sheet date, based on contractual maturities and certain other assumptions outlined in the footnotes below. As warranted, we manage the liquidity risk of various products based on historical behavioural patterns that are often not aligned with contractual maturities. Amounts to be recovered or settled within one year, as presented below, may not be reflective of management's long term view of the liquidity profile of certain balance sheet categories.

	As at					
	October 31, 2012			October 31, 2011		
(Millions of Canadian dollars)	**Within one year**	**After one year**	**Total**	Within one year	After one year	Total
Assets						
Cash and due from banks (1)	**$ 11,020**	**$ 1,597**	**$ 12,617**	$ 11,002	$ 1,426	$ 12,428
Interest-bearing deposits with banks (1)	**10,255**	**–**	**10,255**	6,387	73	6,460
Securities						
Trading (2)	**112,406**	**8,377**	**120,783**	119,371	8,757	128,128
Available-for-sale	**15,305**	**25,523**	**40,828**	14,326	24,568	38,894
Assets purchased under reverse repurchase agreements and securities borrowed	**110,052**	**2,205**	**112,257**	84,698	249	84,947
Loans						
Retail	**47,193**	**253,992**	**301,185**	42,581	242,164	284,745
Wholesale	**29,446**	**49,610**	**79,056**	26,192	38,560	64,752
Allowance for loan losses			**(1,997)**			(1,967)
Investments for account of segregated fund holders	**–**	**383**	**383**	–	320	320
Other						
Customers' liability under acceptances	**5,198**	**4,187**	**9,385**	4,756	2,933	7,689
Derivatives (2)	**12,958**	**78,335**	**91,293**	20,711	78,939	99,650
Premises and equipment, net	**–**	**2,691**	**2,691**	–	2,490	2,490
Goodwill	**–**	**7,485**	**7,485**	–	7,610	7,610
Other intangibles	**–**	**2,686**	**2,686**	–	2,115	2,115
Assets of discontinued operations	**–**	**–**	**–**	27,152	–	27,152
Investments in associates	**–**	**125**	**125**	–	142	142
Prepaid pension benefit cost	**–**	**1,049**	**1,049**	–	311	311
Other assets	**32,010**	**3,009**	**35,019**	24,963	3,004	27,967
	$ 385,843	**$ 441,254**	**$ 825,100**	$ 382,139	$ 413,661	$ 793,833
Liabilities						
Deposits (3)	**$ 374,000**	**$ 134,219**	**$ 508,219**	$ 339,132	$ 139,970	$ 479,102
Insurance and investment contracts for account of segregated fund holders	**–**	**383**	**383**	–	320	320
Other						
Acceptances	**5,198**	**4,187**	**9,385**	4,756	2,933	7,689
Obligations related to securities sold short	**38,751**	**2,005**	**40,756**	41,339	2,945	44,284
Obligations related to assets sold under repurchase agreements and securities loaned	**64,032**	**–**	**64,032**	42,735	–	42,735
Derivatives (2)	**14,429**	**82,332**	**96,761**	20,943	79,579	100,522
Insurance claims and policy benefit liabilities	**232**	**7,689**	**7,921**	132	6,987	7,119
Liabilities of discontinued operations	**–**	**–**	**–**	20,076	–	20,076
Accrued pension and other post-employment benefit expense	**66**	**1,663**	**1,729**	67	1,572	1,639
Other liabilities	**34,618**	**6,753**	**41,371**	32,757	6,484	39,241
Subordinated debentures	**2,007**	**5,608**	**7,615**	–	8,749	8,749
Trust capital securities	**–**	**900**	**900**	–	894	894
	$ 533,333	**$ 245,739**	**$ 779,072**	$ 501,937	$ 250,433	$ 752,370

(Millions of Canadian dollars)	As at November 1, 2010		
	Within one year	After one year	Total
Assets			
Cash and due from banks (1)	$ 7,367	$ 1,169	$ 8,536
Interest-bearing deposits with banks (1)	7,194	47	7,241
Securities			
Trading (2)	120,629	9,210	129,839
Available-for-sale	16,797	32,447	49,244
Assets purchased under reverse repurchase agreements and securities borrowed	69,841	2,857	72,698
Loans			
Retail	31,038	240,889	271,927
Wholesale	36,413	31,184	67,597
Allowance for loan losses			(2,867)
Investments for account of segregated fund holders	–	257	257
Other			
Customers' liability under acceptances	4,547	2,824	7,371
Derivatives (2)	22,191	83,918	106,109
Premises and equipment, net	–	2,501	2,501
Goodwill	–	6,553	6,553
Other intangibles	–	1,925	1,925
Assets of discontinued operations	5,723	–	5,723
Investments in associates	–	131	131
Prepaid pension benefit cost	–	266	266
Other assets	26,602	3,719	30,321
	$ 348,342	$ 419,897	$ 765,372
Liabilities			
Deposits (3)	$ 338,259	$ 130,254	$ 468,513
Insurance and investment contracts for account of segregated fund holders	–	257	257
Other			
Acceptances	4,547	2,824	7,371
Obligations related to securities sold short	46,597	–	46,597
Obligations related to assets sold under repurchase agreements and securities loaned	36,006	–	36,006
Derivatives (2)	23,558	84,519	108,077
Insurance claims and policy benefit liabilities	131	6,736	6,867
Liabilities of discontinued operations	5,012	–	5,012
Accrued pension and other post-employment benefit expense	44	1,532	1,576
Other liabilities	33,184	5,134	38,318
Subordinated debentures	405	7,271	7,676
Trust capital securities	727	900	1,627
	$ 488,470	$ 239,427	$ 727,897

(1) Cash and due from banks and Interest bearing deposits with banks are assumed to be recovered within one year, except for cash balances not available for use by the bank.

(2) Trading securities classified as at FVTPL and trading derivatives not designated in hedging relationships are presented as within one year as this best represents in most instances the short-term nature of our trading activities. Non-trading derivatives designated in hedging relationships are presented according to the recovery or settlement of the related hedged item.

(3) Demand deposits of $237 billion (October 31, 2011 – $210 billion; November 1, 2010 – $197 billion) are presented as within one year due to their being repayable on demand or at short notice on a contractual basis. In practice, these deposits relate to a broad range of individuals and customer-types which form a stable base for our operations and liquidity needs.

Note 34 Parent company information

The following table presents information regarding the legal entity of Royal Bank of Canada with its subsidiaries presented on an equity accounted basis.

Condensed Balance Sheets

(Millions of Canadian dollars)	As at October 31 2012	October 31 2011	November 1 2010
Assets			
Cash and due from banks	**$ 3,126**	$ 7,406	$ 3,790
Interest-bearing deposits with banks	**1,160**	1,560	1,273
Securities	**83,704**	92,408	89,930
Investments in bank subsidiaries and associated corporations	**24,668**	26,837	28,478
Investments in other subsidiaries and associated corporations	**37,973**	33,837	22,619
Assets purchased under reverse repurchase agreements	**10,909**	8,745	6,367
Loans, net of allowances for loan losses	**356,079**	326,776	300,019
Net balances due from bank subsidiaries	**–**	2,342	8,637
Net balances due from other subsidiaries	**–**	–	–
Other assets	**129,879**	125,202	128,898
	$ 647,498	$ 625,113	$ 590,011
Liabilities and shareholders' equity			
Deposits	**$ 422,893**	$ 413,121	$ 384,359
Net balances due to bank subsidiaries	**2,719**	–	–
Net balances due from other subsidiaries	**18,062**	13,261	8,431
Other liabilities	**151,942**	151,280	155,163
	595,616	577,662	547,953
Subordinated debentures	**7,615**	7,749	6,677
Shareholders' equity	**44,267**	39,702	35,381
	$ 647,498	$ 625,113	$ 590,011

Condensed Statements of Income

(Millions of Canadian dollars)	For the year ended October 31 2012	October 31 2011
Interest income (1)	**$ 18,788**	$ 17,681
Interest expense	**6,860**	7,357
Net interest income	**11,928**	10,324
Non-interest income (2)	**1,733**	3,685
Total revenue	**13,661**	14,009
Provision for credit losses	**1,139**	1,009
Insurance policyholder benefits and acquisition expense	**–**	2
Non-interest expense	**6,903**	6,760
Income before income taxes	**5,619**	6,238
Income taxes	**1,440**	1,394
Net income before equity in undistributed income of subsidiaries	**4,179**	4,844
Equity in undistributed income of subsidiaries	**3,361**	1,600
Net income	**$ 7,540**	$ 6,444

(1) Includes dividend income from investments in subsidiaries and associated corporations of $1,292 million (2011 – $1,314 million).
(2) Includes income from associated corporations of a nominal amount (2011 – loss of a nominal amount).

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Condensed Statements of Cash Flows

(Millions of Canadian dollars)	As at October 31 2012	As at October 31 2011
Cash flows from operating activities		
Net income	**$ 7,540**	$ 6,444
Adjustments to determine net cash from operating activities:		
Change in undistributed earnings of subsidiaries	**(3,361)**	(1,600)
Change in deposits	**9,772**	28,762
Change in loans, net of loan securitizations	**(29,324)**	(26,884)
Proceeds from loan securitizations	**20**	207
Change in obligations related to assets sold under repurchase agreements and securities loaned	**(229)**	(1,690)
Change in assets purchased under reverse repurchase agreements and securities borrowed	**(2,164)**	(2,378)
Change in obligations related to securities sold short	**(2,713)**	3,864
Other operating activities, net	**6,799**	(16,657)
Net cash used in operating activities	**(13,660)**	(9,932)
Cash flows from investing activities		
Change in interest-bearing deposits with banks	**400**	(287)
Proceeds from sale of available-for-sale securities	**3,991**	8,401
Proceeds from maturity of available-for-sale securities	**28,994**	22,898
Purchases of available-for-sale securities	**(29,307)**	(18,054)
Net acquisitions of premises and equipment and other intangibles	**(867)**	(691)
Change in cash invested in subsidiaries	**163**	(8,393)
Change in net funding provided to subsidiaries	**10,158**	11,458
Net cash from investing activities	**13,532**	15,332
Cash flows from financing activities		
Issue of subordinated debentures	**–**	1,500
Repayment of subordinated debentures	**(1,006)**	(404)
Issue of common shares	**126**	152
Dividends paid	**(3,272)**	(3,032)
Net cash used in from financing activities	**(4,152)**	(1,784)
Net change in cash and due from banks	**(4,280)**	3,616
Cash and due from banks at beginning of year	**7,406**	3,790
Cash and due from banks at end of year	**$ 3,126**	$ 7,406
Supplemental disclosure of cash flow information		
Amount of interest paid in year	**$ 7,372**	$ 6,752
Amount of interest received in year	**17,502**	16,758
Amount of dividends received in year	**1,302**	1,277
Amount of income taxes (recovered) paid in year	**1,951**	1,012

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Glossary

Acceptances
A bill of exchange or negotiable instrument drawn by the borrower for payment at maturity and accepted by a bank. The acceptance constitutes a guarantee of payment by the bank and can be traded in the money market. The bank earns a "stamping fee" for providing this guarantee.

Advanced Internal Ratings Based Approach (AIRB)
A measurement of credit risk under Basel II that uses risk weights determined from internal risk parameters, including probability of default, loss given default and exposure at default.

Allowance for credit losses
The amount deemed adequate by management to absorb identified credit losses as well as losses that have been incurred but are not yet identifiable as at the balance sheet date. This allowance is established to cover the lending portfolio including loans, acceptances, guarantees, letters of credit, and unfunded commitments. The allowance is increased by the provision for credit losses, which is charged to income and decreased by the amount of write-offs, net of recoveries in the period.

Alt-A assets
A term used in the U.S. to describe assets (mainly mortgages) with a borrower risk profile between the prime and subprime categorizations. Categorization of assets as Alt-A (as opposed to prime) varies, such as limited verification or documentation of borrowers' income or a limited credit history.

Asset-backed securities (ABS)
Securities created through the securitization of a pool of assets, for example auto loans or credit card loans.

Assets-to-capital multiple
Total assets plus specified off-balance sheet items, as defined by OSFI, divided by total regulatory capital.

Assets under administration (AUA)
Assets administered by us, which are beneficially owned by clients, as at October 31, unless otherwise noted. Services provided in respect of assets under administration are of an administrative nature, including safekeeping, collecting investment income, settling purchase and sale transactions, and record keeping.

Assets under management (AUM)
Assets managed by us, which are beneficially owned by clients, as at October 31, unless otherwise noted. Services provided in respect of assets under management include the selection of investments and the provision of investment advice. We have assets under management that are also administered by us and included in assets under administration.

Auction rate securities (ARS)
Securities issued through special purpose entities that hold long-term assets funded with long-term debt, with an interest rate reset every week to 35 days via auctions managed by participating financial institutions. In the U.S., these securities are issued by sponsors such as municipalities, student loan authorities or other sponsors through bank-managed auctions.

Bank-owned life insurance contracts (BOLI)
Our U.S. Insurance and Pension solutions business provides banks with BOLI stable value agreements ("wraps"), which insure the life insurance policy's cash surrender value from market fluctuations on the underlying investments, thereby guaranteeing a minimum tax-exempt return to the counterparty. These wraps allow us to account for the underlying assets on an accrual basis instead of a mark-to-market basis.

Basis point (bp)
One one-hundredth of a percentage point (.01%).

Canadian GAAP
Canadian generally accepted accounting principles.

Capital adequacy
The level of capital that is sufficient to underpin risk and accommodate potential unexpected increases in risk within specified regulatory targets while maintaining our business plans. This includes risks for which minimum regulatory capital requirements may not be specified.

Capital position
Measures the extent to which illiquid (long-term) assets are funded by short-term liabilities and represents a formula-based measure of mismatches in effective maturity between assets and liabilities including both comparative and directional structural liquidity risk.

Collateral
Assets pledged as security for a loan or other obligation. Collateral can take many forms, such as cash, highly rated securities, property, inventory, equipment and receivables.

Collateralized debt obligation (CDO)
Securities with multiple tranches that are issued by special purpose entities and collateralized by debt obligations including bonds and loans. Each tranche offers a varying degree of risk and return so as to meet investor demand.

Collateralized loan obligation (CLO)
Securities that are backed by a pool of commercial or personal loans, structured so that there are several classes of bonds with varying maturities, called tranches.

Commercial mortgage-backed securities (CMBS)
Securities created through the securitization of commercial mortgages.

Commitments to extend credit
Unutilized amount of credit facilities available to clients either in the form of loans, bankers' acceptances and other on-balance sheet financing, or through off-balance sheet products such as guarantees and letters of credit.

Covered bonds
Full recourse on-balance sheet obligations issued by banks and credit institutions that are also fully collateralized by assets over which investors enjoy a priority claim in the event of an issuer's insolvency.

Credit default swaps (CDS)
A derivative contract that provides the purchaser with a one-time payment should the referenced entity/entities default (or a similar triggering event occur).

Derivative
A contract between two parties, which requires little or no initial investment and where payments between the parties are dependent upon the movements in price of an underlying instrument, index or financial rate. Examples of derivatives include swaps, options, forward rate agreements and futures. The notional amount of the derivative is the contract amount used as a reference point to calculate the payments to be exchanged between the two parties, and the notional amount itself is generally not exchanged by the parties.

Dividend payout ratio
Common dividends as a percentage of net income after preferred share dividends.

Dividend yield
Dividends per common share divided by the average of the high and low share prices in the relevant period.

Earnings per share (EPS), basic
Calculated as net income less preferred share dividends divided by the average number of shares outstanding.

Earnings per share (EPS), diluted
Calculated as net income less preferred share dividends divided by the average number of shares outstanding adjusted for the dilutive effects of stock options and other convertible securities.

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Economic capital
An estimate of the amount of equity capital required to underpin risks. It is calculated by estimating the level of capital that is necessary to support our various businesses, given their risks, consistent with our desired solvency standard and credit ratings. The identified risks for which we calculate Economic Capital are credit, market (trading and non-trading), operational, business, fixed asset, and insurance. Additionally, Economic Capital includes goodwill and intangibles, and allows for diversification benefits across risks and business segments.

Eurozone
A group of 17 European Union member states that have adopted the euro currency as their sole legal tender, which include Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia and Spain.

Fair value
The amount of consideration that would be agreed upon in an arm's length transaction between knowledgeable, willing parties who are under no compulsion to act.

Gross adjusted assets (GAA)
GAA are used in the calculation of the Assets-to-capital multiple. They represent our total assets including specified off-balance sheet items and net of prescribed deductions. Off balance sheet items for this calculation are direct credit substitutes, including letters of credit and guarantees, transaction-related contingencies, trade-related contingencies and sale and repurchase agreements.

Guarantees and standby letters of credit
These primarily represent irrevocable assurances that a bank will make payments in the event that its client cannot meet its financial obligations to third parties. Certain other guarantees, such as bid and performance bonds, represent non-financial undertakings.

Harmonized sales tax (HST)
The HST is a Canadian sales tax that replaced the federal goods and services tax (GST) and the provincial sales tax (PST) in five of the ten Canadian provinces: British Columbia, Ontario, New Brunswick, Newfoundland and Labrador, and Nova Scotia. It is charged on most goods and services purchased in those provinces.

Hedge
A risk management technique used to mitigate exposure from market, interest rate or foreign currency exchange risk arising from normal banking operations. The elimination or reduction of such exposure is accomplished by establishing offsetting positions. For example, assets denominated in foreign currencies can be offset with liabilities in the same currencies or through the use of foreign exchange hedging instruments such as futures, options or foreign exchange contracts.

Hedge funds
A type of investment fund, marketed to accredited high net worth investors, that is subject to limited regulation and restrictions on its investments compared to retail mutual funds, and that often utilize aggressive strategies such as selling short, leverage, program trading, swaps, arbitrage and derivatives.

Home equity products
This is comprised of residential mortgages and secured personal loans whereby the borrower pledges real estate as collateral.

International Financial Reporting Standards (IFRS)
IFRS are principles-based standards, interpretations and the framework adopted by the International Accounting Standards Board.

Impaired loans
Loans are classified as impaired when there has been a deterioration of credit quality to the extent that management no longer has reasonable assurance of timely collection of the full amount of principal and interest in accordance with the contractual terms of the loan agreement. Credit card balances are not classified as impaired as they are directly written off after payments are 180 days past due.

Innovative capital instruments
Innovative capital instruments are capital instruments issued by Special Purpose Entities (SPEs), whose primary purpose is to raise capital. We previously issued innovative capital instruments, RBC Trust Capital Securities (RBC TruCS) and RBC Trust Subordinated Notes (RBC TSNs), through three SPEs: RBC Capital Trust, RBC Capital Trust II and RBC Capital Trust III. As per OSFI guidelines, innovative capital can comprise up to 15% of net Tier 1 capital with an additional 5% eligible for Tier 2 capital.

Master netting agreement
An agreement between us and a counterparty designed to reduce the credit risk of multiple derivative transactions through the creation of a legal right of offset of exposure in the event of a default.

Net interest income
The difference between what is earned on assets such as loans and securities and what is paid on liabilities such as deposits and subordinated debentures.

Net interest margin (average assets)
Net interest income as a percentage of total average assets.

Normal course issuer bid (NCIB)
A program for the repurchase of our own shares for cancellation through a stock exchange that is subject to the various rules of the relevant stock exchange and securities commission.

Notional amount
The contract amount used as a reference point to calculate payments for derivatives.

Off-balance sheet financial instruments
A variety of arrangements offered to clients, which include credit derivatives, written put options, backstop liquidity facilities, stable value products, financial standby letters of credit, performance guarantees, credit enhancements, mortgage loans sold with recourse, commitments to extend credit, securities lending, documentary and commercial letters of credit, note issuances and revolving underwriting facilities, securities lending indemnifications and indemnifications.

Office of the Superintendent of Financial Institutions Canada (OSFI)
The primary regulator of federally chartered financial institutions and federally administered pension plans in Canada. OSFI's mission is to safeguard policyholders, depositors and pension plan members from undue loss.

Operating leverage
The difference between our revenue growth rate and non-interest expense growth rate.

Options
A contract or a provision of a contract that gives one party (the option holder) the right, but not the obligation, to perform a specified transaction with another party (the option issuer or option writer) according to specified terms.

Prepaid pension benefit cost
The cumulative excess of amounts contributed to a pension fund over the amounts recorded as pension expense.

Primary dealer
A formal designation provided to a bank or securities broker-dealer permitted to trade directly with a country's central bank. Primary dealers participate in open market operations, act as market-makers of government debt and provide market information and analysis to assist with monetary policy.

Provision for credit losses (PCL)
The amount charged to income necessary to bring the allowance for credit losses to a level determined appropriate by management. This includes both specific and general provisions.

Repurchase agreements
These involve the sale of securities for cash and the simultaneous repurchase of the securities for value at a later date. These transactions normally do not constitute economic sales and therefore are treated as collateralized financing transactions.

Residential mortgage-backed securities (RMBS)
Securities created through the securitization of residential mortgage loans.

Return on common equity (ROE)
Net income less preferred share dividends, expressed as a percentage of average common equity.

Reverse repurchase agreements
These involve the purchase of securities for cash and the simultaneous sale of the securities for value at a later date. These transactions normally do not constitute economic sales and therefore are treated as collateralized financing transactions.

Risk
Financial institutions face a number of different risks that expose them to possible losses. These risks include credit risk, market risk, liquidity and funding risk, operational risk, legal and regulatory compliance risk, reputation risk, insurance risk, and strategic risk.

Risk-weighted assets (RWA)
Assets adjusted by a regulatory risk-weight factor to reflect the riskiness of on and off-balance sheet exposures. Certain assets are not weighted, but deducted from capital. The calculation is defined by guidelines issued by OSFI based on Basel II, effective November 1, 2007. For more details, refer to the Capital management section.

Securities lending
Transactions in which the owner of a security agrees to lend it under the terms of a prearranged contract to a borrower for a fee. The borrower must collateralize the security loan at all times. An intermediary such as a bank often acts as agent for the owner of the security. There are two types of securities lending arrangements: lending with and without credit or market risk indemnification. In securities lending without indemnification, the bank bears no risk of loss. For transactions in which the bank provides an indemnification, it bears the risk of loss if the borrower defaults and the value of the collateral declines concurrently.

Securities sold short
A transaction in which the seller sells securities and then borrows the securities in order to deliver them to the purchaser upon settlement. At a later date, the seller buys identical securities in the market to replace the borrowed securities.

Securitization
The process by which various financial assets are packaged into newly issued securities backed by these assets.

Special purpose entities (SPEs)
Special purpose entities, which may take the form of a corporation, trust, partnership or unincorporated entity, typically are created to accomplish a narrow and well-defined objective with legal arrangements that impose strict limits on the decision-making powers of their governing board, trustee or management over its operations. Frequently these provisions specify that the policy guiding the ongoing activities of the SPEs cannot be modified, other than perhaps by its creator or sponsor.

Standardized Approach
Risk weights prescribed by OSFI are used to calculate risk-weighted assets for the credit risk exposures. Credit assessments by OSFI-recognized external credit rating agencies of S&P, Moody's, Fitch and DBRS are used to risk-weight our Sovereign and Bank exposures based on the standards and guidelines issued by OSFI. For our Business and Retail exposures, we use the standard risk weights prescribed by OSFI.

Structured investment vehicles
Managed investment vehicle that holds mainly highly rated asset-backed securities and funds itself using the short-term commercial paper market as well as the medium-term note (MTN) market.

Subprime loans
Subprime lending is the practice of making loans to borrowers who do not qualify for the best market interest rates because of their deficient credit history. Subprime lending carries more risk for lenders due to the combination of higher interest rates for the borrowers, poorer credit histories, and adverse financial situations usually associated with subprime applicants.

Taxable equivalent basis (teb)
Income from certain specified tax advantaged sources is increased to a level that would make it comparable to income from taxable sources. There is an offsetting adjustment in the tax provision, thereby generating the same after-tax net income.

Tier 1 capital and Tier 1 capital ratio
Tier 1 capital comprises the more permanent components of capital and consists primarily of common shareholders' equity, non-cumulative preferred shares, the majority of which do not have conversion features into common shares, and the eligible amount of innovative capital instruments. In addition, goodwill and other items as prescribed by OSFI are deducted from Tier 1 capital to determine adjusted net Tier 1 capital. The Tier 1 capital ratio is calculated by dividing the adjusted net Tier 1 capital by risk-weighted assets.

Tier 2 capital
Tier 2 capital consists mainly of subordinated debentures, trust subordinated notes, the eligible amount of innovative capital instruments that could not be included in Tier 1 capital, and an eligible portion of the total general allowance for credit losses, less OSFI-prescribed deductions.

Total capital and total capital ratio
Total capital is defined as the total of net Tier 1 and Tier 2 capital. The total capital ratio is calculated by dividing total capital by risk-weighted assets.

Tranche
A security class created whereby the risks and returns associated with a pool of assets are packaged into several classes of securities offering different risk and return profiles from those of the underlying asset pool. Tranches are typically rated by ratings agencies, and reflect both the credit quality of underlying collateral as well as the level of protection based on the tranches' relative subordination.

Trust Capital Securities (RBC TruCS)
Transferable trust units issued by special purpose entities RBC Capital Trust or RBC Capital Trust II for the purpose of raising innovative Tier 1 capital.

Trust Subordinated Notes (RBC TSNs)
Transferable trust units issued by RBC Subordinated Notes Trust for the purpose of raising innovative Tier 2 capital.

Value-at-Risk (VaR)
A generally accepted risk-measurement concept that uses statistical models based on historical information to estimate within a given level of confidence the maximum loss in market value we would experience in our trading portfolio from an adverse one-day movement in market rates and prices.

Variable interest entity (VIE)
An entity that either does not have sufficient equity at risk to finance its activities without additional subordinated financial support, or where the holders of the equity at risk lack the characteristics of a controlling financial interest.

Exhibit 3

CONSENT OF INDEPENDENT REGISTERED CHARTERED ACCOUNTANTS

We consent to the incorporation by reference in Registration Statement Nos. 333-12036, 333-12050, 333-13052, 333-13112, 333-13176, 333-14144, 333-110953, 333-117922 and 333-178350 on Form S-8 and Nos. 333-171806 and 333-181552 on Form F-3, and to the use in this Annual Report on Form 40-F of our reports dated November 28, 2012 relating to the consolidated financial statements of Royal Bank of Canada and the effectiveness of Royal Bank of Canada's internal control over financial reporting for the year ended October 31, 2012.

/s/ Deloitte & Touche LLP
Independent Registered Chartered Accountants
Licensed Public Accountants
Toronto, Canada
November 29, 2012

Exhibit 4



Our Code of Conduct

lual resp fidentiality • fairness • corporate responsibility • honouring our trust in you • objectivity

GUIDING PRINCIPLES

integrity respect honouring our trust in you fairness

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Foreword

Dear Colleague,

The very essence of the financial services industry demands that we consistently maintain the highest possible standards of honest and ethical behaviour. In keeping with this objective, RBC has eight Guiding Principles that express these high standards and they form the foundation for Our Code of Conduct.

Our Code of Conduct is integral to the way we do business at RBC, defining who we are and providing all employees with the same frame of reference for dealing with issues that can be both sensitive and complex.

Our Code of Conduct broadly addresses a variety of ethical and legal concerns that many of us face on a day-to-day basis – it does not replace established manuals or policies, nor does it answer many of the specific questions you may have. Our Code of Conduct is established to guide your judgment and to help you better understand the ethical demands and constraints related to your work. Each of us is accountable for putting these principles into practice, demonstrating the character and personal integrity that are a prerequisite for success in every RBC company. Our ability to achieve and to sustain quality earnings in this industry depends upon the trust which each of us earns every day from our clients, colleagues, communities and shareholders.

Please review this document carefully, to ensure that you understand it fully. You play an important role in representing our organization both on and off the job and in advancing our reputation with clients and the public at large.

Gord M. Nixon
President and Chief Executive Officer

Introduction

Based on the eight Guiding Principles established by RBC, Our Code of Conduct is for all RBC companies and applies equally to all employees.

As every employee contributes to the process of compliance, it is your responsibility to familiarize yourself with the contents of this Code and with any of the more detailed policies that may directly affect you or your work.

If, at any time, you are uncertain about the proper course of action, we urge you to discuss your concerns with your manager. Should you feel that this is not appropriate for some reason, you may also contact any of the key contacts listed in the Appendix.

The importance of Our Code of Conduct cannot be overemphasized. Your understanding of it and your cooperation in adhering to it is critical to the integrity of our industry and to maintaining the trust that our clients have placed in RBC. Accordingly, any employee who fails to meet the standards set out in this Code will be subject to corrective or disciplinary action, including immediate or eventual dismissal.

The term “RBC” has been used throughout this document to refer collectively to all RBC companies. In some instances, it may refer to individual employers.

Multiple Jurisdictions
Our Code of Conduct and the eight Guiding Principles govern the actions of every employee regardless of the specific company for which they work and regardless of the legal jurisdiction or location of that company. It extends to every employee in every location worldwide. References to specific regulatory bodies should be interpreted to mean the relevant entity or organization in your jurisdiction.

Waivers
Royal Bank of Canada’s Board of Directors must approve any waiver of a departure from Our Code of Conduct involving a Royal Bank of Canada director or certain executive officers, and any approved waiver must be disclosed publicly in accordance with applicable legal or regulatory requirements and relevant RBC policies. RBC’s Chief Human Resources Officer and Chief Compliance Officer must approve any other waiver of a departure from Our Code of Conduct in accordance with relevant RBC policy.



1. Upholding the Law

Every RBC company and employee will, at all times, abide by the law and respect its intent in the best interests of our clients, employees and shareholders.

Laws, Rules and Regulations
Numerous laws, rules and regulations have been established to govern the operations of financial institutions. RBC companies and employees are subject to, and are expected to comply with, the laws, rules and regulations of all countries in which they operate, as well as the expectations and requirements of our various regulators. These laws include, but are not limited to, banking laws, securities laws and regulations, laws prohibiting the corruption of foreign officials, laws designed to combat money laundering and terrorist financing, as well as lobbying and employment legislation.

We have designed all of our policies and procedures to ensure compliance with these laws, regulations, rules, requirements and expectations. As an employee, your adherence to these policies and procedures is essential to ensuring we fulfill our obligations. In some cases, you will be required to review and understand policies, procedures and other guidance around compliance issues that relate to your job responsibilities and your obligations as an RBC employee. If in doubt, discuss with your manager.

As an employee:
- You are not to take any action that violates any applicable law, rule or regulation. To avoid or minimize legal or compliance difficulties, seek any necessary advice at the onset of your business dealings.

- You have a duty to cooperate with valid internal and external investigations, audits and regulatory examinations in a forthright manner and to provide honest, accurate and timely information.

- You must refer all external authorities requesting information about RBC to your Manager or Global Compliance or RBC Law Group before providing any information in response to the request.



Inside Information
Through your work, you may sometimes be privy to confidential information concerning the affairs of an RBC company, a client, a potential client, a supplier, or other company whose securities are publicly traded on a stock exchange. This knowledge is referred to as “inside information” when two specific conditions are met:

- the information has not been generally disclosed to the public
- the information is “material”

In this situation, “material” refers to information that an investor could consider important in deciding whether or not to buy or sell that company’s stock or securities. Examples might include knowledge of a potential merger or acquisition, a valuable natural resource or scientific/technological discovery, the financial stability of the company, etc.

Possession of inside information is legal – the misuse of it is illegal. Those who have access to inside information should clearly recognize this distinction.

“Tipping” is the act of passing inside information to another person who has no right or need to have it, and it is illegal.

All employees – regardless of their role, level, department or area – are to scrupulously avoid using, sharing or disclosing non-public information about any RBC company, its subsidiaries, affiliates or clients (both current and prospective), except in the legitimate course of doing business.

Policies, procedures, standards and guidelines have been established to limit the potential for the misuse of inside information and to offer protection to you and RBC. You are to refer to the policies, procedures and guidelines that deal with information barriers and compliance issues. If in doubt, seek guidance from your manager.

As an employee:
- You are not to discuss or pass on inside information unless the exchange is necessary for a specific business purpose. Adherence to this practice will reduce the chances of inadvertent tipping. Please refer to the Confidentiality section of this document for further guidance.

- You are not to trade in stock or securities, or recommend or advise others to do so, on the basis of inside information you have acquired through your job. It is unethical and usually illegal.

- Before investing in RBC securities, employees are to familiarize themselves with our policies, procedures and guidelines on personal trading, including insider trading laws and RBC securities trading policies, as well as the effect that the perception of wrongdoing may have. If you have any doubts, do not trade.



- Executive officers and other "insiders" identified by RBC are to refer to RBC's Inside Information and Information Barriers Policy and Personal Trading Policy for reporting instructions for further guidance. Directors of Royal Bank of Canada are to refer to the Insider Trading and Reporting Policy and Procedures for Directors of Royal Bank of Canada. Non-executive directors of subsidiaries of Royal Bank of Canada who are not otherwise officers, employees or directors of Royal Bank of Canada, are to refer to the Policy on Inside Information and Personal Trading for Non-executive Directors of Subsidiaries of Royal Bank of Canada.

Copyright
Most printed, broadcast, recorded material and software, including RBC's name, logo and other RBC trademarks, are protected by copyright laws. The prior approval of the copyright holder may be required before making copies of such material. If in doubt, consult guidelines issued by the RBC Law Group or contact the RBC Law Group.

As an employee:
- You are required to follow the specific terms of the licensing agreement issued by the publisher of any computer software program used in the course of business or on a computer owned by an RBC company.

- You must exercise care when making copies of printed or recorded material and software, and you are to respect any prior approval requests required by the copyright holder.

- Under no circumstances, are you to:

- *install or use any software not licensed for use by RBC companies on any company-owned computer*
- *copy software programs licensed to RBC companies for use by others, except as permitted by the copyright or licensing agreement. The use of any copies is to strictly comply with the licensing agreement and RBC guidelines*
- *use RBC's name or logo to identify yourself in non-business social media forums*

Workplace Safety
Safety and health in the workplace is a shared responsibility of RBC, managers and employees. Managers are responsible for ensuring that employees are aware of any potential work hazards, are trained in safe work practices and are expected to comply with the safety and health laws, rules and regulations of the country in which they operate. All employees are to take every reasonable and necessary precaution to ensure personal safety and health as well as that of their colleagues.

Management approval is to be obtained before alcohol can be served on company premises. At any function or event sponsored by an RBC employer at which alcohol is served, the senior officer hosting the event is to ensure that all applicable permits have



been obtained and that employee safety is maintained.

As an employee:
- You are not to possess or use illegal drugs on company premises under any circumstances, nor are you to be under the influence of illegal drugs or misuse prescription drugs. You are not to encourage, persuade, or coerce a fellow employee to engage in illegal drug use, sell or transfer prescription medication, or in any way contribute to such use, either on or off company premises.

- You are not to threaten, intimidate or endanger anyone associated with RBC, either verbally or through your actions.

- You are not to have a weapon of any kind in your possession while on company premises. This includes handguns, rifles, knives, explosives, or any other dangerous implement or material. RBC employers may require any person in possession of such an item to leave the property immediately.



2. Confidentiality

Clients and employees have a right to privacy and to the security of their personal information. RBC companies and employees will respect and preserve this right.

Client Privacy
Respect for the privacy rights of clients is a fundamental principle in the financial services industry. As such, you are expected to have a thorough knowledge of our Enterprise Privacy & Information Risk Management Policy.

As an employee:
- You are to comply with the Enterprise Privacy & Information Risk Management Policy at all times and respect the confidentiality of client information.

- You are to safeguard and handle client information with care at all times in accordance with RBC's Client Privacy View.

- If, in your position, you have access to client information from more than one RBC company, you are to ensure that proper client consent is in place before sharing that information with member companies.

Employee Privacy
Employees have the right to privacy as well. Many employees have both an employment relationship as well as a client relationship with RBC companies. Personal information about you as a client is confidential and is treated in the same manner as any other client. As with any other client, cross-referrals or product/service promotions require your prior written consent. Similarly, personal information about you as an employee is confidential. Any sharing or use of this information for client-related purposes needs your prior consent.

As an employee:
- Any inquiries you may receive about an employee or requests for employee information – including those concerning former employees – is to be handled in strict compliance with our Employee Privacy View.

Protection of Proprietary Information and Intellectual Property
Certain information concerning the plans, methods, practices and activities of RBC companies is proprietary and classified either as Restricted, Confidential or RBC Internal. Such information is to be protected in keeping with RBC's Information Handling Scenarios View.

Client lists and information (i.e. computer/electronic files, paper records, etc.) are the property of RBC.



Intellectual property, including inventions, improvements, works of authorship, developments, concepts or ideas, data, processes, computer software programs, and discoveries, created by employees during their employment belongs to and remains the exclusive property of RBC.

As an employee:
- You are not to access, use or disclose any Restricted, Confidential or RBC Internal information about an RBC company without the proper authorization. Requests for this type of information are to be forwarded to your manager who, if necessary, will direct it to the appropriate corporate function.

- You are not to remove any proprietary information from company premises without permission from your manager.

- You are not to give testimony about RBC or general industry policies or business practices in a legal proceeding not involving RBC as a party without prior authorization from the Law Group.

- Should you leave the service of an RBC employer, you are obliged to continue safeguarding the privacy of both clients and employees, and to protect the confidentiality of the company's business indefinitely. Specific client information – including names, lists, profiles, data, etc. – is not to be used in subsequent employment situations. Any client or proprietary information you have in your possession is to be returned to the organization when you leave.

- Should you leave the service of an RBC employer, any intellectual property you create for RBC or while using RBC resources remains RBC's exclusive property.

Information Shared with Third Parties
In the course of regular business activities, RBC companies frequently enter into arrangements with a variety of outside parties including vendors, suppliers, service providers, etc., often resulting in the exchange of information.

As an employee:
- You are to share Restricted, Confidential or RBC Internal information only in accordance with RBC's Information Handling Scenarios View. Similarly, you are not to share any confidential information about an outside party (vendor, supplier, service provider, etc.) except to satisfy the obligations outlined in the arrangement. Once again, this information is only to be shared with those who need to know.

Solicitation
Employees should be able to enjoy a work environment where others do not unduly solicit them on issues unrelated to their legitimate work.



As an employee:

- You are not to solicit employees for non-RBC-related business on company premises without first receiving approval from your manager.



3. Fairness

In all our dealings, we strive to treat people fairly, carefully weighing our responsibilities to all stakeholders. Business relationships – whether cooperative or competitive – will be pursued freely, fairly and openly.

Equal Opportunity
RBC companies are committed to promoting equal opportunity in all dealings with employees, clients, suppliers and others.

RBC companies abide by the non-discrimination or human rights legislation in the various jurisdictions where we operate. These laws often prohibit discrimination on various grounds, with some examples being race, colour, religion/creed, age, gender, marital status, sexual orientation and disability. This is not a complete list and managers and employees are required to be familiar with those that apply in their jurisdiction.

Where laws do not prohibit discrimination, or where they allow for differential treatment, RBC companies are still committed to non-discrimination principles and will ensure that they do not operate in a way that simply continues stereotypes or establishes barriers. An example of where differential treatment may be necessary could be where a sound legitimate business need exists and where accommodations cannot effectively address the business need and the individual. If in doubt, seek guidance from Human Resources or the Law Group (refer to key contacts).

RBC employers will also respect and accommodate the diversity of their clients and workforce when determining appropriate dress codes.

As an employee:
- You are not to engage in discriminatory practices that are contrary to applicable laws or the policies, procedures and standards established for RBC companies.

Free Competition
RBC companies are committed to free competition and do not support any agreements, actions or concerted practices that restrict or impede fair competition. It is recognized that this is a complex area, particularly for sales and front-line staff. Employees who work in a sales function should familiarize themselves with policies on tied selling and associated compliance manuals and instructions.

As an employee:
- You are to avoid any collusive, anti-competitive discussions and/or agreements with competitors.



- You are to use only fair and honest sales and negotiating methods. At the same time, you are to avoid any sales practices that could be misconstrued as an attempt to impose undue pressure on or coerce a client into obtaining a product or service from an RBC company as a condition of closing a sale.

- If in doubt, you are to seek guidance from your manager, Global Compliance or the Law Group.



4. Corporate Responsibility

It is our duty as a corporate citizen to add value to society while earning a profit for our shareholders. RBC companies take responsibility for the effects of their actions, both social and economic.

Political Contributions
RBC companies will make only those contributions permitted by law to a political party, candidate, or campaign and only as an expression of responsible citizenship – not to "purchase" favours or to gain improper advantage. Contributions to political parties, riding associations, and candidates are not included in the corporate philanthropy program. Head Office decides on and reports such contributions separately for RBC companies.

Employees are encouraged to take their citizenship seriously and to participate in general political processes such as school board, municipal, provincial and/or federal elections, etc.

As an employee:
- You are not to make political contributions in the name of an RBC company unless you are specifically and explicitly mandated by the company to do so.

- Should you choose to become involved in political activity, you do so on your own behalf and not as a representative of RBC. You are not, in any way, to use your affiliation with RBC in a marketing fashion.

Social Responsibility
RBC companies accept responsibility and are accountable for the social and economic effects of their business actions and decisions.

As an employee:
- You need to recognize and conscientiously evaluate these factors whenever you make a business decision. If in doubt, seek the assistance or advice of a senior manager.

Environmental Responsibility
RBC companies believe human welfare depends upon sound economic growth and the maintenance of a healthy environment. We are committed to managing our businesses to promote these aims.

As an employee:
- You need to manage all aspects of your work to ensure environmental laws and recognized standards are met or exceeded.



5. Honouring Our Trust in You

The funds, property, information and services entrusted to our care belong to RBC companies and their clients alone. Using these assets carelessly, inappropriately, or for personal gain is a violation of this trust.

Misappropriation
RBC companies are obliged to safeguard the assets of their clients and member companies at all times, and to protect them from all forms of misuse.

Terms used to describe misappropriation might include theft, fraud, embezzlement, unauthorized "borrowing", or "kiting" (taking advantage through any means of the time delay required for a cheque to clear at one financial institution and be charged back to another) *or obtaining funds through false pretences such as depositing a cheque known to be NSF (Non-Sufficient Funds) or making an "empty envelope deposit" in an Automated Banking Machine*.

As an employee:
- You must not, under any circumstances, misappropriate funds, property or other assets, or knowingly assist another individual to do so. Similarly, you are not to convert any assets that do not belong to you, or use them for the benefit of yourself or anyone other than the rightful owners. You are not to knowingly assist another in this pursuit.

- If you have access to a company expense account, you are to claim only those expenses that are eligible for reimbursement under RBC's expense guidelines. Intentional use of expense accounts for personal purposes represents misappropriation of company funds.

Information Technology Use/Information Security
RBC provides employees with equipment and access to systems, technology, the Internet and information about RBC and its clients as tools to support its business needs. All equipment, systems, technology and information provided by RBC remain the property of RBC. RBC monitors employees' access to and use of systems and technology, including Internet use and electronic mail.

As an employee:
- You are required to follow RBC policies, procedures and standards relating to Information Technology, Information Security and Privacy. Any observed or suspected Information Technology, Information Security or Privacy incidents or lapses are to be reported promptly to your local information security or technology department or other responsible unit.



- When using RBC equipment, you must not access, transmit or download games or obscene or offensive material, nor, except for the occasional incidental use, use the Internet or electronic mail for personal reasons.

Employee as a Client
As a result of their employment with RBC companies, some employees have access to cash, negotiable instruments, systems and processes which are not available to regular clients.

As an employee:
- Any personal business or transaction of yours, or of someone with whom you are personally associated, including friends and relatives, is to be handled at arm's length, and on a strictly "business/client" basis. You are to ensure that all personal transactions are handled by another employee according to standard operating procedures and that they receive the same treatment and scrutiny as any normal client transaction.

Reporting Breaches of Our Code of Conduct and Other Irregularities and Dishonesty
Employees also share responsibility for ensuring that honesty and integrity prevail within the workplace, and for protecting the rights and assets of clients and the reputation of RBC companies.

You will be protected from any adverse repercussions arising from reporting irregularities in good faith.

As an employee:
- If you become aware of any dishonest or illegal activities, of any material transaction or relationship that reasonably could be expected to give rise to a conflict of interest, of the falsification of records or returns by another employee, of any breach or material waiver of this Code of Conduct, or of any other serious infraction that has occurred either inside or outside the company, you must promptly report the facts to your manager, to senior management or to any of the key contacts, each of whom is then required to report the issue through the Code of Conduct Centralized Reporting Process. Should you wish to report anonymously, you may use the RBC Reporting Hotline to do so (see key contacts for information regarding the RBC Reporting Hotline).

- At the same time, anything unusual that you might notice about a client's affairs that could affect an RBC company is also to be promptly reported to your manager, to senior management or to any of the key contacts listed in the Appendix.

- If you are unsure of the proper course of action, or are uncomfortable or unable to talk to your manager, you are required to bring your concerns to the attention of any of the key contacts listed in the Appendix.

- Employees must not take any retaliatory action against another employee for making a report in good faith under this provision of the Code of Conduct.



Compliance with RBC Policies, Procedures and Standards
Employees of RBC companies are expected to perform the work they have been assigned and as requested, consistent with the authorities they have been granted and with the applicable policies, procedures and standards.

As an employee:
- You are expected to work within the boundaries of what you have been authorized to perform such as lending, signing, delegated authorities, and comply with policies, procedures and standards relevant to your job responsibilities.

Compliance with Instructions
Employees of RBC companies are expected to comply with instructions provided by their supervisors.

As an employee:
- You are expected to comply promptly with all instructions received from a supervisor, unless the instruction specifically violates a law, regulation or RBC policy, procedure or standard, or could result in an out-of-the-ordinary health or safety risk.



6. Objectivity

The judgments we make as employees will be independent of personal interests arising from other business dealings or obligations created by social relationships or personal favours.

In general, employees should consider all of the following factors in making business decisions:
- is this legal
- is this fair, ethical and moral
- would RBC's reputation be negatively impacted if this situation became public knowledge
- would clients, fellow employees or third parties perceive this situation as a conflict of interest

Payments, Gifts, Entertainment
Employees are encouraged to consider the motive behind business gifts and entertainment. Employees are to ensure that the practice is done only in the spirit of business courtesy and relationship management and in no way creates an environment where one party feels a sense of obligation to the other party or creates a real, potential or perceived conflict of interest. A modest value of approximately 100 local currency should be applied in assessing what is acceptable to give or to accept. Gifts in the form of cash, bonds or negotiable securities, in any amount, may not be accepted or given.

The value of business entertainment can sometimes exceed the guideline above, since some commonly accepted business invitations include, for example, event tickets (i.e. sports, arts, etc.). Therefore, in the case of business entertainment only, if the value is likely to exceed the value of 100 local currency, the entertainment must still be considered moderate, must in no way create a sense of obligation or real or perceived conflict of interest, and is to be of a style or value commonly accepted for business occasions. If in doubt, as to what is considered acceptable, seek guidance from your manager prior to accepting or extending an invitation.

The same considerations apply for payments, gifts or entertainment provided to employees as well as to those personally associated with employees, including friends or relatives, where the motive could be perceived as attempting to influence the employee.



As an employee:
- You are to familiarize yourself with RBC's enterprise-wide Policy on Gifts and Entertainment.

- You are not to be involved in any act that could be interpreted as seeking, receiving or dispensing a bribe, kickback or questionable payment. It is unethical and generally illegal.

- You may supply or accept modest gifts, favours, entertainment or services provided they:

- *do not consist of cash, bonds, or negotiable securities*
- *are unlikely to be interpreted as a bribe or other improper payment*
- *conform with generally accepted ethical and legal standards as well as public disclosure requirements*
- *are reasonably considered customary and usual business practice*
- *will not embarrass RBC or the recipient*
- *meet the requirements of RBC's Control Standards for Gifts and Entertainment*

Conflicts of Interest
Even the slightest impression of an impropriety or conflict of interest can have a devastating effect. Employees are encouraged to familiarize themselves with the types of situations that could give rise to a perception of a conflict of interest and to handle themselves accordingly. Employees must report any real, potential or perceived conflict of interest situation to their manager.

Employees should also refer to "Inside Information" in the section entitled Upholding the Law.

As an employee:
- Your primary business loyalty must be to RBC. You are to avoid any situation that could result in a real, potential or perceived conflict of interest.

- Any decision made by you in the course of your work is to be:

- *made in an objective manner*
- *based solely on the best interests of RBC*



- *unaffected by any consideration of personal gain for you or for anyone personally associated with you including friends and relatives*

- You are not to approve a product, service request or transaction for yourself or for any client with whom you are personally associated, including friends and relatives. These decisions are to be referred to your manager or through other approved channels. Personal transaction processing for investment advisers within the broker/dealer environment and insurance advisers in the insurance environment may be subject to different considerations. For guidance consult with your compliance group or applicable guidelines.

- Neither you nor members of your immediate family are to acquire any assets or property from a client's estate, either directly or indirectly, nor to accept executorships (paid or unpaid) for the settling of a client's estate, unless you can clearly demonstrate that the assets, property or executorship appointment is totally independent of your employment status. Your business unit or functional compliance officer or group is to be consulted in making this determination.

- You may accept other employment while employed by an RBC company providing it:

- *is legal*
- *is not with a competitor*
- *will not result in a conflict of interest*
- *will not interfere with your work performance at RBC*

- You may work in the same unit or department with someone with whom you are personally associated, including friends and relatives, providing it will not result in a potential security risk or a conflict of interest. As direct reporting relationships may more easily constitute a conflict of interest, employees who are in a direct reporting relationship with someone with whom they are personally associated are to disclose the relationship in keeping with RBC's Conflicts of Interest policy. Reporting relationships involving investment advisers in the broker/dealer environment may be subject to different considerations. For guidance, consult your compliance group or applicable guidelines.

External Directorships
Employees who are invited to sit on the boards of external organizations or to accept other appointments may do so, providing they observe the established RBC policies and procedures, including obtaining any necessary approvals.

For publicly traded, private for-profit, or venture capital entities/organizations, even where the organization or entity is connected to an RBC company, refer to the policy for required process and approvals.



For not-for-profit organizations, review and approval by Management is required prior to accepting the Directorship.

As an employee:
- Before you accept a directorship or similar appointment, you are to obtain approval in accordance with RBC's Conflicts of Interest policy, control standards for Outside Activities and External Directorships and have the prior approval of your manager.

- If you are a member of a public or quasi-public decision-making body such as a school board or town council, you should recognize that these institutions are often consumers of financial services and may be actual or potential clients of RBC companies. You are cautioned to assess the potential for a conflict of interest before accepting and:

- *declare any such conflict to the institution and your manager*
- *carefully judge whether your employment warrants your voluntary withdrawal from any deliberations on the placement of the institution's financial business*



7. Integrity

Our word is our bond. As representatives of RBC companies, we tell the truth in all our communications and do not mislead by commission or omission.

Telling the Truth
Employees should evaluate all communications for which they are responsible, including sales representations and advertising, and ensure information is true and does not mislead the public, either directly or indirectly.

As an employee:
- You are to tell the truth in all communications, making every reasonable effort to provide full, fair, accurate, timely, and understandable disclosure in reports, documents and communications, and to avoid errors, omissions, or misunderstandings in statements issued on behalf of RBC.

Integrity of Records
The books and records of RBC companies are to be maintained with scrupulous integrity and are to accurately reflect all business dealings.

As an employee:
- You are to ensure that all transactions, documents, agreements and dealings are recorded and maintained in an accurate and timely manner, and that such records are managed in accordance with records management policies.

- No employee, officer or director should ask or encourage another person to report anything other than truthful and accurate financial or other information.

Employee Character
The cornerstone of financial services is trust. RBC companies require employees whose integrity is beyond reproach.

As an employee:

- *You are to avoid any conduct or association – either inside or outside of work – which could bring your honesty, integrity or trustworthiness into question, or which could be detrimental to RBC's security or to its reputation within the community.*
- *When representing yourself as an RBC employee – inside or outside of work, verbally or in writing – you must not conduct yourself in any way that would tarnish RBC's image and reputation, and must comply with the Code of Conduct and any relevant RBC policies, procedures, and standards.*



8. Individual Responsibility

As responsible women and men, we treat each other with respect. Our working relationships are based on candour, openness and our commitment to empower others rather than to exploit them.

Respectful Workplaces
RBC is committed to maintaining workplaces characterized by professionalism, and respect for the dignity of every individual with whom its employees interact. RBC expects each employee to respect the diversity of other employees, clients and others with whom they interact, respecting differences such as gender, race, colour, age, disability, sexual orientation, ethnic origin and religion. RBC does not tolerate harassment, other disrespectful and inappropriate behaviour and retaliation, as our employees have every right to work in an environment that is free from such conduct.

RBC has policies designed to prevent harassment, other disrespectful and inappropriate behaviour and retaliation and all RBC employers will take every reasonable measure to ensure a respectful workplace. Likewise, RBC expects that all employees take personal responsibility for their interactions, communications and behaviour to maintain a respectful workplace.

Any complaints of harassment, other disrespectful and inappropriate behaviour and retaliation are promptly, thoroughly and impartially investigated.

Harassment
Harassment is any kind of unwelcome behaviour that has the effect of creating an offensive, hostile or intimidating work environment or unreasonably interfering with an individual's work performance. It interferes with a climate of understanding and mutual respect for the dignity and worth of each person, thereby undermining the integrity of the employment relationship and eroding morale.

Other Disrespectful and Inappropriate Behaviour
Like harassment, other disrespectful and inappropriate behaviour creates an offensive, hostile and intimidating work environment affecting employee morale and performance.

Retaliation
RBC prohibits retaliation of any kind against an individual for making a complaint in good faith, providing information in connection with an investigation, or as a result of the resolution of the complaint. Likewise, retaliation against individuals who have exercised their legal rights is prohibited.



As an employee:

- Under no circumstances are you to engage in harassment, or disrespectful or inappropriate behaviour toward a fellow employee, client or others with whom you are interacting for the purposes of RBC's business.

- You must not display obscene or offensive material in any RBC workplace.

- You may lodge a complaint of harassment or other disrespectful or inappropriate behaviour against an employee, a client or a supplier of an RBC company through one of the key contacts. Should you so desire, you may also lodge a complaint through regulatory channels, e.g. Human Rights Commission.

Publication Date: December 9, 2011



Exhibit 5

Industry Guide 3 — Return on Equity and Assets Ratios

	For the Year-Ended October 2012	For the Year-Ended October 2011[(1)]	For the Year Ended October 31, 2010
	IFRS		U.S. GAAP
Return on Assets	0.93%	0.83%	0.83%
Return on Equity	19.3%	18.7%	14.9%
Dividend Payout Ratio	46%	49%	58%
Equity to Asset Ratio	5.39%	5.05%	6.61%

(1) 2011 Comparatives have been restated under International Financial Reporting Standards (IFRS).

Results are from Consolidated Financial Statements.

* Where applicable, ratios are calculated using methods intended to approximate the average of the daily balances for the period.

Exhibit 7

CONSOLIDATED RATIOS OF EARNINGS TO FIXED CHARGES

The table below sets forth our consolidated ratios of earnings to fixed charges, calculated in accordance with International Financial Reporting Standards (IFRS) and Canadian GAAP as applicable, for the five-year period ended October 31, 2012:

	IFRS		Canadian GAAP		
	Year Ended October 31,		Year Ended October 31,		
	2012	2011	2010	2009	2008
Excluding Interest on Deposits	4.81	3.47	3.55	3.28	2.51
Including Interest on Deposits	2.12	1.84	1.90	1.60	1.37

For purposes of computing these ratios, earnings represent net income plus income taxes and fixed charges (excluding capitalized interest). Fixed charges represent (i) estimated interest within rental expense, (ii) amortization of debt issuance costs and (iii) interest (including capitalized interest), including or excluding deposit interest as indicated.

Royal Bank of Canada and Subsidiaries—IFRS
Ratio of Earnings to Fixed Charges and Preferred Dividends

(Canadian dollars in millions)	IFRS		CDN GAAP			
	Year Ended October 31 2012	Year Ended October 31 2011	Year Ended October 31 2010	2009	2008	
Excluding Interest on Deposits						
Net Income before income taxes	$ 9,617	$ 8,191	$ 6,968	$ 5,526	6,005	
Less: Income from equity investees (note 1)	(24)	9	55	4	(42)	***Note 1***
Fixed Charges:						
Interest expense (excl. Deposits)	$ 2,353	$ 3,164	$ 2,605	$ 2,275	3,826	
Estimated interest within rental expense	162	156	149	146	129	
Total fixed charges	2,515	3,320	2,754	2,421	3,955	
Preferred dividend requirements (note 2)	329	326	338	325	131	***Note 2***
Fixed charges and preferred dividends	2,844	3,645	3,092	2,746	4,086	
Earnings	12,108	11,520	9,777	7,951	9,918	
Ratio of earnings to fixed charges	**4.81**	**3.47**	**3.55**	**3.28**	**2.51**	
Ratio of earnings to fixed charges and preferred dividends	**4.26**	**3.16**	**3.16**	**2.90**	**2.43**	
Including Interest on Deposits						
Net Income before income taxes	$ 9,617	$ 8,191	$ 6,968	$ 5,526	$ 6,005	
Less: Income/(loss) from equity investees	(23)	9	55	4	(42)	***Note 1***
Fixed Charges:						
Interest expense (incl. Deposits)	$ 8,403	$ 9,626	$ 7,696	$ 9,037	15,984	
Estimated interest within rental expense	162	156	149	146	129	
Total fixed charges	8,565	9,782	7,845	9,183	16,113	
Preferred dividend requirements	329	328	338	325	131	***Note 2***
Fixed charges and preferred dividends	8,894	10,110	8,183	9,508	16,244	
Earnings	18,159	17,982	14,868	14,713	22,076	
Ratio of earnings to fixed charges	**2.12**	**1.84**	**1.90**	**1.60**	**1.37**	
Ratio of earnings to fixed charges and preferred dividends	**2.04**	**1.78**	**1.82**	**1.55**	**1.36**	

Note (1)	2012	2011	2010	2009	2008
Equity in Undistributed Earnings of Unconsolidated Subsidiaries Calculation (C $'000s):					
Associated Corporations (equity accounted investments—IFRS)	23,904	(8,890)	(54,684)	(3,922)	41,695
JV (proportionate consolidation Cdn. GAAP)			-	(1)	-
	23,904	(8,890)	(54,684)	(3,923)	41,695

Note: Losses are presented with a negative sign in this calculation.

Note (2)					
Preferred Dividend Requirements Calculation (C $ millions):					
Preferred Dividends (per Income Statement)	258	258	258	233	101
Taxable Equivalent Gross-up (1-Effective Tax Rate for period)	78.4%	78.7%	76.4%	71.6%	77.2%
Preferred Dividend Requirement	329	328	338	325	131
Effective Tax Rate	21.6%	21.3%	23.6%	28.4%	22.8%

Exhibit 31.1

SOX 302 CERTIFICATION

I, Gordon M. Nixon, certify that:

1. I have reviewed this annual report on Form 40-F of Royal Bank of Canada;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the issuer as of, and for, the periods presented in this report;
4. The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the issuer and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the issuer, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   (c) Evaluated the effectiveness of the issuer's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the issuer's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the issuer's internal control over financial reporting; and
5. The issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the issuer's auditors and the audit committee of the issuer's board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the issuer's ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the issuer's internal control over financial reporting.

November 29, 2012

/s/ Gordon M. Nixon
Name: Gordon M. Nixon
Title: President and Chief Executive Officer

Exhibit 31.2

SOX 302 CERTIFICATION

I, Janice R. Fukakusa, certify that:

1. I have reviewed this annual report on Form 40-F of Royal Bank of Canada;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the issuer as of, and for, the periods presented in this report;
4. The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the issuer and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the issuer, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   (c) Evaluated the effectiveness of the issuer's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the issuer's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the issuer's internal control over financial reporting; and
5. The issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the issuer's auditors and the audit committee of the issuer's board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the issuer's ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the issuer's internal control over financial reporting.

November 29, 2012

/s/ Janice R. Fukakusa
Name: Janice R. Fukakusa
Title: Chief Administrative Officer and Chief Financial Officer

Exhibit 32.1

CERTIFICATIONS

Pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code), the undersigned officer of Royal Bank of Canada, a Canadian chartered Bank (the "Bank"), hereby certifies, to such officer's knowledge, that:

The annual report on Form 40-F for the year ended October 31, 2012 (the "Report") of the Bank fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 and information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Bank.

Dated: November 29, 2012

/s/ Gordon M. Nixon

Name: Gordon M. Nixon
Title: President and Chief Executive Officer

Exhibit 32.2

CERTIFICATIONS

Pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code), the undersigned officer of Royal Bank of Canada, a Canadian chartered Bank (the "Bank"), hereby certifies, to such officer's knowledge, that:

The annual report on Form 40-F for the year ended October 31, 2012 (the "Report") of the Bank fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 and information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Bank.

Dated: November 29, 2012

/s/ Janice R. Fukakusa

Name: Janice R. Fukakusa
Title: Chief Administrative Officer and
Chief Financial Officer