Effective risk management is fundamental to the success of the Bank, and is recognized as one of the Bank’s five strategic priorities. Scotiabank has a strong, disciplined risk management culture where risk management is a responsibility shared by all of the Bank’s employees. A key aspect of this culture is diversification across business lines, geographies, products, and industries.

Risk management framework
The primary goals of risk management are to ensure that the outcomes of risk-taking activities are consistent with the Bank’s strategies and risk appetite, and that there is an appropriate balance between risk and reward in order to maximize shareholder returns. The Bank’s enterprise-wide risk management framework provides the foundation for achieving these goals.

This framework is subject to constant evaluation to ensure that it meets the challenges and requirements of the global markets in which the Bank operates, including regulatory standards and industry best practices. The risk management programs of the Bank’s subsidiaries conform in all material respects to the Bank’s risk management framework, although the actual execution of their programs may be different. For new acquisitions, or situations where control of a subsidiary has been recently established, the Bank assesses existing risk management programs and, if necessary, develops an action plan to make improvements in a timely fashion.

The Bank’s risk management framework is applied on an enterprise-wide basis and consists of three key elements:

- Risk Governance,
- Risk Appetite, and
- Risk Management Techniques.

Risk governance
Effective risk management begins with effective risk governance.

The Bank has a well-established risk governance structure, with an active and engaged Board of Directors supported by an experienced senior management team and a centralized risk management group that is independent of the business lines. Decision-making is highly centralized through a number of senior and executive risk management committees.

The Board of Directors
The Board of Directors, either directly or through its committees ensures that decision-making is aligned with the Bank’s strategies and risk appetite. The Board receives regular updates on the key risks of the Bank – including a semi-annual comprehensive summary of the Bank’s risk profile and performance of the portfolio against defined goals, which is also presented quarterly to the Executive and Risk Committee of the Board – and approves key risk policies, limits, strategies, and risk appetite. The Bank’s Internal Audit department reports independently to the Board (through the Audit and Conduct Review Committee) on the effectiveness of the risk governance structure and risk management framework.

Management
Executive management, and in particular the Chief Executive Officer (CEO) and the Chief Risk Officer (CRO), are responsible for risk management under the oversight of the Board. The CRO, who oversees the Global Risk Management (GRM) division of the Bank, reports to the CEO but also has direct access to the Executive and Risk Committee of the Board. The CEO, CRO, and other senior executives chair the Bank’s senior and executive risk management committees. Committee structures and key accountabilities are outlined on page 56.

Global Risk Management (GRM)
GRM is responsible for the design and application of the Bank’s risk management framework, and is independent of the Bank’s business units. It provides oversight of credit, market, liquidity, structural foreign exchange, structural interest rate, models and operational risks.
Executive Committees:

Risk Policy Committee: reviews key risk exposures and risk policies, and adjudicates risk issues referred by the Senior Credit, Market, Operational and Reputational Risk committees.

Liability Committee: provides strategic direction in the management of global interest rate risk, foreign exchange risk, liquidity and funding risk, trading and investment portfolio decisions, and capital management.

Strategic Transaction Executive Committee: provides advice, counsel and decisions on effective allocation and prioritization of resources with respect to the Bank’s portfolio of businesses, and strategic investments including mergers and acquisitions, and divestitures.

Systems Planning and Policy Committee: reviews and approves significant business initiatives involving system and computing investments in excess of designated executive approval limits.

Human Investment Committee: reviews and approves all major new and changing Bank-wide Human Resources objectives, strategies, policies and programs including all compensation matters. As well it reviews and approves all senior management appointments and the staffing of key positions.

Senior Management Committees:

Senior Credit Committees: adjudicate credits within prescribed limits and establish the operating rules and guidelines for the implementation of credit policies. Separate committees cover commercial, international and corporate counterparties, and Canadian and international retail, small business, and wealth management.

Market Risk Management and Policy Committee: oversees and establishes standards for market, liquidity and insurance risk management processes within the Bank, including the review and approval of new products, limits, practices and policies for the Bank’s principal trading and treasury activities.

Operational Risk Committee: promotes an enterprise-wide operational risk framework to ensure operational risks are understood, communicated, and appropriate actions are taken to mitigate related losses.

Stress Testing Committee: sets overall direction and makes key decisions relating to stress testing activities across the Bank, and guides the design, execution, and results assessment of the Enterprise-wide Stress Testing program.

Reputational Risk Committee: upon referral from business lines or risk committees, reviews business activities, initiatives, products, services, transactions or processes and recommends either proceeding or not proceeding, based on an assessment of reputational risk, to ensure that the Bank is, and is seen to be, acting with high ethical standards.

The Model Review Committee: oversees model submissions, vetting, approval, and ongoing review processes primarily for market and treasury risk models.

The Insurance Risk Committee: provides risk management direction and oversight on the risk taking activities of the Bank’s enterprise-wide insurance operations.
Risk Management Culture

Effective risk management requires a strong, robust, and pervasive risk management culture.

The Business Lines are responsible for the development and execution of business plans that are aligned with the Bank’s risk management framework, and are accountable for the risks they incur. Understanding and managing these risks is a fundamental element of each business plan. Business units work in partnership with Global Risk Management to ensure that risks arising from their business are thoroughly evaluated and appropriately addressed.

Risk education programs, and documented policies and procedures are jointly available to staff in the Business Lines and Global Risk Management.

Decision-making on risk issues is highly centralized. The membership of senior and executive management committees responsible for the review, approval and monitoring of transactions and the related risk exposures, includes Business Line Heads and senior risk officers from Global Risk Management. The flow of information and transactions to these committees keeps senior and executive management well informed of the risks the Bank faces, and ensures that transactions and risks are aligned with the Bank’s risk appetite framework.

Risk appetite

Effective risk management requires clear articulation of the Bank’s risk appetite and how the Bank’s risk profile will be managed in relation to that appetite.

The Bank’s risk appetite framework governs risk taking activities on an enterprise-wide basis.

- The Bank’s Risk Appetite Framework consists of four components, and combines qualitative as well as quantitative terms of reference to guide the Bank in determining the amount and types of risk it wishes to prudently undertake.

Risk management principles

Provide the qualitative foundation of the risk appetite framework. These principles include:

- Promotion of a robust risk culture,
- Accountability for risk by the business lines,
- Independent oversight exercised by Global Risk Management (GRM),
- Avoidance of excessive risk concentrations, and
- Ensuring risks are clearly understood, measurable, and manageable.

Strategic principles

Provide qualitative benchmarks to guide the Bank in its pursuit of the Governing Financial Objectives, and to gauge broad alignment between new initiatives and the Bank’s risk appetite. Strategic principles include:

- Placing emphasis on the diversity, quality and stability of earnings,
- Focusing on core businesses by leveraging competitive advantages, and
- Making disciplined and selective strategic investments.

Governing financial objectives

Focus on long-term shareholder value. These objectives include sustainable earnings growth, maintenance of adequate capital in relation to the Bank’s risk profile, and availability of financial resources to meet financial obligations on a timely basis at reasonable prices.

Risk appetite measures

Provide objective metrics that gauge risk and articulate the Bank’s risk appetite. They provide a link between actual risk taking activities and the risk management principles, strategic principles and governing financial objectives described above. These measures include capital and earnings ratios, market and liquidity risk limits, and credit and operational risk targets.

Risk management techniques

Effective risk management includes techniques that are guided by the Bank’s Risk Appetite Framework and integrated with the Bank’s strategies and business planning processes.

Strategies, Policies and Limits

**Strategies**

Provide quantitative and qualitative guidance. This guidance is, in turn, used to set limits and guidelines on the types of risk taking activities the Bank is prepared to assume in pursuit of its strategic and financial objectives.

**Policies**

Apply to specific types of risk or to the activities that are used to measure and control risk exposure. They are based on recommendations from risk management, audit, business lines, and senior executive management. Industry best practices and regulatory requirements are also factored into the policies. Policies are guided by the Bank’s risk appetite, and set the limits and controls within which the Bank and its subsidiaries can operate.

- Key risk policies are approved by the Board of Directors, either directly or through the Board’s Executive and Risk Committee or Audit and Conduct Review Committee (the Board).
- Management level risk policies associated with processes such as model development and stress testing are approved by executive management and/or key risk committees.

**Limits**

Control risk-taking activities within the tolerances established by the Board and senior executive management. Limits also establish accountability for key tasks in the risk-taking process and establish the level or conditions under which transactions may be approved or executed.
GUIDELINES, PROCESSES AND STANDARDS

Guidelines

Are the directives provided to implement policies as set out above. Generally, they describe the facility types, aggregate facility exposures and conditions under which the Bank is prepared to do business. Guidelines ensure the Bank has the appropriate knowledge of clients, products, and markets, and that it fully understands the risks associated with the business it underwrites. Guidelines may change from time to time, due to market or other circumstances. Risk taking outside of guidelines usually requires approval of the Bank’s Senior Credit Committees, Market Risk Management and Policy Committee, or Risk Policy Committee.

Processes

Are the activities associated with identifying, evaluating, documenting, reporting and controlling risk.

Standards

Define the breadth and quality of information required to make a decision, and the expectations in terms of quality of analysis and presentation. Processes and standards are developed on an enterprise-wide basis, and documented in a series of policies, manuals and handbooks under the purview of GRM. Key processes cover the review and approval of new products, model validation and stress testing.

Measurement, Monitoring, and Reporting

Measurement

GRM is responsible for developing and maintaining an appropriate suite of risk management techniques to support the operations of the various business lines, and for supporting the measurement of economic capital on an enterprise-wide basis. The risk sections explain the application of these techniques.

Risk measurement techniques include the use of models and stress testing. The Bank uses models for a range of purposes including estimating the value of transactions, risk exposures, credit risk ratings and parameters, and economic and regulatory capital. The use of quantitative risk methodologies and models is balanced by a strong governance framework and includes the application of sound and experienced judgement. The development, independent review, and approval of models are subject to formalized policies where applicable, including the oversight of senior management committees such as the Model Review Committee for market risk (including counterparty credit risk) and liquidity risk models.

Regular Monitoring

Ensures that business activities are within approved limits or guidelines, and are aligned with the Bank’s strategies and risk appetite. Breaches, if any, of these limits or guidelines are reported to senior management, policy committees, and/or the Board depending on the limit or guideline.

Risk Reports

Aggregate measures of risk across products and businesses, and are used to ensure compliance with policies, limits, and guidelines. They also provide a clear statement of the amounts, types, and sensitivities of the various risks in the Bank’s portfolios. Senior management and the Board use this information to understand the Bank’s risk profile and the performance of the portfolios.

Control and audit functions are also established that are independent of the organizations whose activities they review, and whose role includes ensuring that all of the components of the risk management framework are effective and being implemented on a day to day basis.

Stress testing

Programs at both enterprise-wide level and risk level allow the Bank to estimate the potential impact on income and capital as a result of significant changes in market conditions, credit environment, liquidity demands, or other risk factors. Each program is developed with input from a broad base of stakeholders, and results are integrated into management decision-making processes for capital, funding, market risk limits, and credit risk strategy. Enterprise-wide stress testing is also integrated with both the strategic and financial planning processes. The development, approval and on-going review of the Bank’s stress testing programs are subject to formalized policy, and are under the oversight of the Stress Testing Committee, which reports to the Liability Committee.

BASEL II

The Basel II regulatory capital framework governs minimum regulatory capital requirements to cover three broad categories of risk – credit risk, market risk and operational risk. This framework is organized under three broad categories or pillars:

- **Pillar 1** stipulates the methodologies and parameters that must be applied to calculate minimum capital requirements.
- **Pillar 2** introduces the requirement for formal internal assessment of capital adequacy in relation to strategies, risk appetite, and actual risk profile. Regulators are required to review this internal capital adequacy assessment process (ICAAP – for further discussion, refer to the Capital Management section on page 34).
- **Pillar 3** enhances public disclosure (both quantitative and qualitative) of specific details of risks being assumed, and how capital and risk are being managed under the Basel II framework.

The following sections on Credit Risk, Market Risk, and Operational Risk include descriptions of the Pillar 1 methodologies and risk parameters, as well as some of the enhanced disclosure requirements associated with Pillar 3.

Credit risk

Credit risk is the risk of loss resulting from the failure of a borrower or counterparty to honour its financial or contractual obligations to the Bank. Credit risk arises in the Bank’s direct lending operations, and in its funding, investment and trading activities where counterparties have repayment or other obligations to the Bank.

The effective management of credit risk requires the establishment of an appropriate credit risk culture. Key credit risk policies and credit risk management strategies are important elements used to create this culture.

The Board of Directors, either directly or through the Executive and Risk Committee (the Board), reviews and approves the Bank’s credit risk strategy and credit risk policy on an annual basis:

- The objectives of the credit risk strategy are to ensure that:
  - target markets and product offerings are well defined at both the enterprise-wide and business line levels;
  - the risk parameters for new underwritings and for the portfolios as a whole are clearly specified; and
  - transactions, including origination, syndication, loan sales and hedging, are managed in a manner that is consistent with the Bank’s risk appetite.
- The credit risk policy articulates the credit risk management framework, including:
  - key credit risk management principles;
  - delegation of authority;
– the credit risk management program;
– counterparty credit risk management for trading and investment activities;
– aggregate limits, beyond which credit applications must be escalated to the Board for approval; and
– single name/aggregation exposures, beyond which exposures must be reported to the Board.

Global Risk Management develops the credit risk management framework and policies that detail, among other things, the credit risk rating systems and associated parameter estimates; the delegation of authority for granting credit; the calculation of the allowance for credit losses; and the authorization of write-offs.

Corporate and commercial credit exposures are segmented by country and by major industry group. Aggregate credit risk limits for each of these segments are also reviewed and approved annually by the Board. Portfolio management objectives and risk diversification are key factors in setting these limits.

Consistent with the Board-approved limits, borrower limits are set within the context of established lending criteria and guidelines for individual borrowers, particular industries, countries and certain types of lending, to ensure the Bank does not have excessive concentration in any single borrower, or related group of borrowers, particular industry sector or geographic region. Through the portfolio management process, loans may be syndicated to reduce overall exposure to a single name. For certain segments of the portfolio, credit derivative contracts are also used to mitigate the risk of loss due to borrower default. Risk is also mitigated through the selective sale of loans.

Banking units and Global Risk Management regularly review the various segments of the credit portfolio on an enterprise-wide basis to assess the impact of economic trends or specific events on the performance of the portfolio, and to determine whether corrective action is required. These reviews include the examination of the risk factors for particular products, industries and countries. The results of these reviews are reported to the Risk Policy Committee and, when significant, to the Board.

Risk measures

The credit risk rating systems support the determination of key credit risk parameter estimates which measure credit and transaction risk. These risk parameters – probability of default, loss given default and exposure at default are transparent and may be replicated in order to provide consistency of credit adjudication, as well as minimum lending standards for each of the risk rating categories. The parameters are an integral part of enterprise-wide policies and procedures encompassing governance, risk management, and control structure, and are used in various internal and regulatory credit risk quantification calculations.

The Bank’s credit risk rating system is subject to a rigorous validation, governance and oversight framework. The objectives of this framework are to ensure that:

• Credit risk rating methodologies and parameters are appropriately designed and developed, independently validated, and regularly reviewed; and
• The review and validation processes represent an effective challenge to the design and development process.

Non-retail credit risk rating methodologies and parameters are reviewed and validated at least annually. Units within Global Risk Management are responsible for design and development, validation and review, and are functionally independent from the business units responsible for originating transactions. Within Global Risk Management, they are also independent from the units involved in risk rating approval and credit adjudication.

Internal credit risk ratings and associated risk parameters affect loan pricing, computation of the collective allowance for credit losses, and return on economic capital.

Corporate and commercial

Corporate and commercial credit exposure arises in Canadian Banking, International Banking, Global Wealth Management and Global Banking and Markets business lines.

Adjudication

Credit adjudication units within Global Risk Management analyze and evaluate all significant credit requests for corporate and commercial credit exposures, to ensure that risks are adequately assessed, properly approved, continually monitored and actively managed. The decision-making process begins with an assessment of the credit risk of the individual borrower or counterparty. Key factors considered in the assessment include:

• The borrower’s management;
• The borrower’s current and projected financial results and credit statistics;
• The industry in which the borrower operates;
• Economic trends; and
• Geopolitical risk.

Based on this assessment, a risk rating is assigned to the individual borrower or counterparty, using the Bank’s risk rating systems.

A separate risk rating is also assigned at the facility level, taking into consideration additional factors, such as security, seniority of claim, structure, term and any other forms of credit risk mitigation that affect the amount of potential loss in the event of a default of the facility. Security typically takes the form of charges over inventory, receivables, real estate, and operating assets when lending to corporate and commercial borrowers; and cash or treasuries for trading lines such as securities lending, repurchase transactions, and derivatives. The types of acceptable collateral, and related valuation processes are documented in risk management policies and manuals. Other forms of credit risk mitigation include third party guarantees and, in the case of derivatives facilities, master netting agreements.

Internal borrower and facility risk ratings are assigned when a facility is first authorized, and are promptly re-evaluated and adjusted, if necessary, as a result of changes to the customer’s financial condition or business prospects. Re-evaluation is an ongoing process, and is done in the context of general economic changes, specific industry prospects, and event risks, such as revised financial projections, interim financial results and extraordinary announcements. Global Risk Management is the final arbiter of internal risk ratings.

The internal credit risk ratings are also considered as part of the Bank’s adjudication limits, as guidelines for hold levels are tied to different risk ratings. Single borrower limits are much lower for higher risk borrowers than low risk borrowers.

The credit adjudication process also uses a risk-adjusted return on equity profitability model to ensure that the client and transaction structure offers an appropriate return for a given level of risk. For the corporate portfolio, and the large borrowers in International, the Loan Portfolio Management Group reviews the profitability model results, together with external benchmarks, and provides an opinion on the relative return and pricing of each transaction above a minimum threshold.
Individual credit exposures are regularly monitored by both the business line units and Global Risk Management for any signs of deterioration. In addition, a review and risk analysis of each borrower is conducted annually, or more frequently for higher-risk borrowers. If, in the judgement of management, an account requires the expertise of specialists in workouts and restructurings, it will be transferred to a special accounts group for monitoring and resolution.

**Traded Products**

Traded products are transactions such as derivatives, foreign exchange, commodities, repurchase/reverse repurchase agreements, and securities lending/borrowing. Credit risks arising from traded products cannot be determined with certainty at the outset, because during the tenure of a transaction the dollar value of the counterparty’s obligation to the Bank will be affected by changes in the capital markets (such as changes in stock prices, interest rates, exchange rates). The Bank adjudicates credit exposures arising from transacting in traded products by considering their current fair value plus an additional component to reflect potential future changes in their mark-to-market value. The credit adjudication process also includes an evaluation of potential wrong way risk, which arises when the exposure to a counterparty is positively correlated to the probability of default of that counterparty.

Credit risk associated with traded products is managed within the same credit adjudication process as the lending business. The Bank considers the credit risk arising from lending activities, as well as the potential credit risk arising from transacting in traded products with that counterparty.

Most traded products transactions benefit from credit mitigation techniques, such as netting and collateralization, which are taken into consideration in the calculation of counterparty credit risk exposure. A master netting agreement allows for a single net settlement of all transactions covered by that agreement in the event of a default or early termination of the transactions. Collateral agreements with a counterparty allow for variation margin to be called if total credit risk arising from transacting in traded products with that counterparty.

Exposure at default (EAD) measures the expected exposure on a facility in the event of a borrower’s default. The Bank’s internal LGD grades are mapped to ranges of LGD estimates. LGD grades are assigned based on facility characteristics such as seniority, collateral type, collateral coverage and other structural elements.

Risk ratings

The Bank’s risk rating system utilizes internal grade (IG) codes – an 18 point scale used to differentiate the risk of default of borrowers, and the risk of loss on facilities. The general relationship between the Bank’s internal borrower IG codes and external agency ratings is shown in Table 33.

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### T33 Internal rating scale(1) and mapping to external rating agencies

<table>
<thead>
<tr>
<th>Internal Grade</th>
<th>Description</th>
<th>Moody’s</th>
<th>S&amp;P</th>
<th>DBRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>99 - 98</td>
<td>Investment grade</td>
<td>Aaa to Aa1</td>
<td>AAA to AA+</td>
<td>AAA to AA (high)</td>
</tr>
<tr>
<td>95 - 90</td>
<td>Aa2 to A3</td>
<td>BB to BB+</td>
<td>AA to A-</td>
<td>AA to A (low)</td>
</tr>
<tr>
<td>87 - 83</td>
<td>Baa1 to Baa3</td>
<td>BB to BB-</td>
<td>BBB to BBB+</td>
<td>BBB (high) to BBB (low)</td>
</tr>
<tr>
<td>80 - 75</td>
<td>Non-investment grade</td>
<td>Ba1 to Ba3</td>
<td>B+ to BB-</td>
<td>BB (high) to BB (low)</td>
</tr>
<tr>
<td>73 - 70</td>
<td>B to B3</td>
<td>BB to BB-</td>
<td>B+ to BB-</td>
<td>BB (high) to BB (low)</td>
</tr>
<tr>
<td>65 - 30</td>
<td>Ba to B3</td>
<td>B to B3</td>
<td>B to BB-</td>
<td>BB (high) to BB (low)</td>
</tr>
<tr>
<td>27 - 21</td>
<td>Default</td>
<td>Ca to C</td>
<td>CCC- to CC</td>
<td></td>
</tr>
</tbody>
</table>

(1) Applies to non-retail portfolio.

IG codes are also used to define credit adjudication authority levels appropriate to the size and risk of each credit application. Lower-rated credits require increasingly more senior management involvement depending upon the aggregate exposure. Where the decision is beyond their authority levels, credit units will refer the request – with its recommendation – to a senior credit committee for adjudication. Senior credit committees also have defined authority levels and, accordingly, forward certain requests to the Risk Policy Committee. In certain cases, these must be referred to the Executive and Risk Committee of the Board of Directors.

**Credit risk and capital**

The Bank uses the Advanced Internal Ratings Based (AIRB) approach under Basel II to determine minimum regulatory capital requirements for its domestic, U.S. and European credit portfolios, and certain international non-retail portfolios. The remaining credit portfolios are subject to the Standardized approach, which relies on the credit ratings of borrowers, if available, to compute regulatory capital for credit risk. For AIRB portfolios, the key risk measures used in the quantification of regulatory capital for credit risk include probability of default (PD), loss given default (LGD) and exposure at default (EAD).

- Probability of default (PD) measures the likelihood that a borrower, with an assigned IG code, will default within a one-year time horizon. Each of the Bank’s internal borrower IG codes is mapped to a PD estimate.
- Loss given default (LGD) measures the severity of loss on a facility in the event of a borrower’s default. The Bank’s internal LGD grades are mapped to ranges of LGD estimates. LGD grades are assigned based on facility characteristics such as seniority, collateral type, collateral coverage and other structural elements.
- Exposure at default (EAD) measures the expected exposure on a facility in the event of a borrower’s default.

All three risk measures are estimated using the Bank’s historical data, as well as available external benchmarks, and are updated on a regular basis. Further analytical adjustments, as required under the Basel II Framework and OSFI’s requirements set out in their Domestic Implementation Notes, are applied to estimates obtained from historical data. These analytical adjustments incorporate the regulatory requirements pertaining to:

- Long-run estimation of PD, which requires that PD estimates capture average default experience over a reasonable mix of high-default and low-default years of the economic cycle;
- Downturn estimation for LGD and EAD, which requires that these estimates appropriately reflect conditions observed during periods of economic stress; and
- The addition of an adequate level of conservatism, which should reflect the various sources of uncertainty inherent in historical estimates.

These risk measures are used in the calculation of regulatory capital requirements based on formulas specified by the Basel framework. The credit quality distribution of the Bank’s AIRB non-retail portfolio is shown in Table 34.
T34 Credit risk assessment of exposures

Non-retail AIRB portfolio(1)

<table>
<thead>
<tr>
<th>Exposure at default(2) ($ millions)</th>
<th>Exposure Weighted Average PD (%) (3)</th>
<th>Exposure Weighted Average LGD (%) (4)</th>
<th>Exposure Weighted Average RW (%) (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment grade(2)</td>
<td>278,667</td>
<td>0.10</td>
<td>23</td>
</tr>
<tr>
<td>Non-investment grade</td>
<td>57,299</td>
<td>0.88</td>
<td>40</td>
</tr>
<tr>
<td>Watch list</td>
<td>2,661</td>
<td>22.16</td>
<td>39</td>
</tr>
<tr>
<td>Default(2)</td>
<td>1,997</td>
<td>100.00</td>
<td>42</td>
</tr>
<tr>
<td>Total</td>
<td>340,624</td>
<td>0.99</td>
<td>26</td>
</tr>
<tr>
<td>Total as at Oct. 31, 2011</td>
<td>293,817</td>
<td>1.21</td>
<td>29</td>
</tr>
</tbody>
</table>

(1) Excludes securitization exposures.
(2) Includes government guaranteed residential mortgages.
(3) After credit risk mitigation.
(4) PD – Probability of Default.
(5) LGD – downturn Loss Given Default including a certain conservative factor as per Basel accord.
(6) RW – Risk Weight.
(7) Gross defaulted exposures, before any related allowances. Defaulted exposures under Basel II definition may be higher than those under accounting definition.

Retail

Retail credit exposure arises in the Canadian Banking, International and Wealth Management business lines.

Adjudication

The decision-making process for retail loans ensures that credit risks are adequately assessed, properly approved, continually monitored and actively managed. Generally, credit decisions on consumer loans are processed by proprietary adjudication software and are based on risk ratings, which are generated using predictive credit scoring models.

The Bank’s credit adjudication and portfolio management methodologies are designed to ensure consistent underwriting and early identification of problem loans. The Bank’s rigorous credit underwriting methodology and risk modeling in Canada is more customer-focused than product-focused. The Bank’s view is that a customer-centric approach provides better risk assessment than product-based approaches, and should result in lower loan losses over time. The adjudication system calculates the maximum debt for which a customer qualifies, allowing customers to choose the products that satisfy all of their credit needs. International Banking uses a similar approach to risk modeling, adjudication and portfolio management.

Credit scoring and policy changes are proposed by risk departments in the business lines with governance, oversight and key approvals made by Global Risk Management. Risk models and parameters are also subject to Global Risk Management’s validation and ongoing review. The review process includes referral to the appropriate Senior Credit Committee for approval, where required. Consumer credit portfolios are reviewed monthly to identify emerging trends in loan quality and to assess whether corrective action is required.

Risk ratings

The Bank’s consumer risk rating systems are oriented to borrower or transaction risk. Each retail exposure is assigned a risk grade based on the customer’s credit history and/or internal credit score. The Bank’s automated risk rating systems assess the ongoing credit-worthiness of individual customers on a monthly basis. This process provides for meaningful and timely identification and management of problem loans.

The overall risk ratings system under AIRB approach is subject to regular review with ongoing performance monitoring of key components. Risk model validations are conducted independently from the areas responsible for rating system development and implementation, to ensure effective independence.

The Bank’s Canadian consumer risk rating systems used in borrower/transaction risk management are important inputs to Basel II AIRB models. The International portfolios are subject to the Standardized approach at this time.

Credit Risk and Capital – Canadian retail

The AIRB approach is used to determine minimum regulatory capital requirements for the retail credit portfolio. The retail portfolio is comprised of the following Basel-based pools:

- Residential real estate secured exposures: consists of conventional and high ratio residential mortgages and all other products opened under the Scotia Total Equity Plan (STEP), such as loans, credit cards and secured lines of credit;
- Qualifying revolving retail exposures: consists of all unsecured credit cards and lines of credit;
- Other retail consists of term loans (secured and unsecured), as well as credit cards and lines of credit which are secured by assets other than real estate.

For the AIRB portfolios the following models and parameters are estimated:

- Probability of default (PD) is the likelihood that the facility will default within the next 12 months.
- Loss Given Default (LGD) measures the economic loss as a proportion of the defaulted balance.
- Exposure at Default (EAD) is a portion of exposures that will default.

The scale of retail loan probability of default is shown in Table 35. Various statistical techniques including predictive modeling and decision trees were used to develop models. The models assign accounts into homogenous segments using internal and external borrower/facility-level credit experience. Every month exposures are automatically re-rated based on risk and loss characteristics. PD, LGD and EAD estimates are then assigned to each of these segments incorporating regulatory requirements pertaining to:

- PD incorporates the average long run default experience over an economic cycle. This long run average includes a mix of high and low default years.
- LGD is adjusted to appropriately reflect economic downturn conditions.
- EAD may also be adjusted to reflect downturn conditions when PD and EAD are highly correlated.
- Sources of uncertainty are reviewed regularly to ensure all parameter estimates reflect appropriate levels of conservatism.

The credit quality distribution of the Bank’s AIRB retail portfolio as at October 2012 is shown in Table 36. The Bank also uses AIRB models to calculate economic capital.

International retail

International retail credit portfolios follow the Standardized approach and consist of the following components:

- Residential real estate secured lending;
- Qualifying revolving retail exposures consisting of all credit cards and lines of credit;
- Other retail consisting of term loans.
Market Risk

Market risk is the risk of loss from changes in market prices and rates (including interest rates, credit spreads, equity prices, foreign exchange rates and commodity prices), the correlations among them, and their levels of volatility. A description of each market risk category is provided below:

Interest rate risk
The risk of loss due to changes in the level, slope and curvature of the yield curve; the volatility of interest rates; and mortgage prepayment rates.

Credit spread risk
The risk of loss due to changes in the market price of credit, or the creditworthiness of issuers.

Foreign currency risk
The risk of loss due to changes in spot and forward prices, and the volatility of currency exchange rates.

Equity risk
The risk of loss due to changes in the prices, and the volatility, of individual equity instruments and equity indices.

Commodity risk
The risk of loss due to changes in spot and forward prices and the volatility of precious and base metals, and energy products.

The Board of Directors reviews and approves market risk policies and limits annually. The Bank’s Liability Committee (LCO) and Market Risk Management and Policy Committee (MRMPC) oversee the application of the framework set by the Board, and monitor the Bank’s market risk exposures and the activities that give rise to these exposures. The MRMPC establishes specific operating policies, and sets limits at the product, portfolio, business unit and business line levels, and for the Bank in total. Limits are reviewed at least annually.

Global Risk Management provides independent oversight of all significant market risks, supporting the MRMPC and LCO with analysis, risk measurement, monitoring, reporting, proposals for standards and support for new product development. To ensure compliance with policies and limits, market risk exposures are independently monitored on a continuing basis, either by Global Risk Management or by the back offices. They provide senior management, business units, the LCO, and the MRMPC with a series of daily, weekly and monthly reports of market risk exposures by business line and risk type.

The Bank uses a variety of metrics and models to measure and control market risk exposures. These measurements are selected based on an assessment of the nature of risks in a particular activity. The principal measurement techniques are Value at Risk (VaR), stress testing, sensitivity analysis and simulation modeling, and gap analysis. The use and attributes of each of these techniques are noted in the Risk Measurement Summary. Models are independently validated prior to implementation and are subject to formal periodic review.

### T35 Retail loan probability of default scale

<table>
<thead>
<tr>
<th>Category of PD Grades</th>
<th>PD Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very low</td>
<td>0.0000% – 0.2099%</td>
</tr>
<tr>
<td>Low</td>
<td>0.2100% – 0.4599%</td>
</tr>
<tr>
<td>Medium</td>
<td>0.4600% – 3.1999%</td>
</tr>
<tr>
<td>High</td>
<td>3.2000% – 17.2899%</td>
</tr>
<tr>
<td>Very high</td>
<td>17.2900% – 99.9999%</td>
</tr>
<tr>
<td>Default</td>
<td>100%</td>
</tr>
</tbody>
</table>

### T36 Credit risk assessment of exposures – Retail AIRB portfolio

<table>
<thead>
<tr>
<th>Exposure at default (EAD) (1) ($ millions)</th>
<th>Exposure Weighted Average PD (%) (2)</th>
<th>Exposure Weighted Average LGD (%) (3)</th>
<th>Exposure Weighted Average RW (%) (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very low</td>
<td>80,531</td>
<td>0.10</td>
<td>26</td>
</tr>
<tr>
<td>Low</td>
<td>16,577</td>
<td>0.31</td>
<td>49</td>
</tr>
<tr>
<td>Medium</td>
<td>33,870</td>
<td>1.24</td>
<td>39</td>
</tr>
<tr>
<td>High</td>
<td>7,547</td>
<td>6.29</td>
<td>49</td>
</tr>
<tr>
<td>Very high</td>
<td>1,458</td>
<td>36.47</td>
<td>37</td>
</tr>
<tr>
<td>Default(6)</td>
<td>503</td>
<td>100.00</td>
<td>70</td>
</tr>
<tr>
<td>Total</td>
<td>140,486</td>
<td>1.47</td>
<td>34</td>
</tr>
<tr>
<td>Total as at October 31, 2011</td>
<td>144,118</td>
<td>1.31</td>
<td>31</td>
</tr>
</tbody>
</table>

### Notes

- (1) After credit risk mitigation.
- (2) PD – Probability of Default.
- (3) LGD – Loss Given Default.
- (4) RW – Risk Weight.
- (5) Exposure at default used as basis for estimated weightings.
- (6) Gross defaulted exposures, before any related allowances.
**Risk Measurement Summary**

Value at risk (VaR)

VaR is a method of measuring market risk based upon a common confidence interval and time horizon. It is a statistical estimate of expected potential loss that is derived by translating the riskiness of any financial instrument into a common standard. The Bank calculates VaR daily using a 99% confidence level, and a one-day holding period for its trading portfolios. This means that once in every 100 days, the trading positions are expected to lose more than the VaR estimate. The Bank calculates general market risk and equity specific risk VaR using historical simulation based on 300 days of market data. For debt specific risk VaR, the Bank uses a Monte Carlo simulation. Changes in VaR between reporting periods are generally due to changes in levels of exposure, volatilities and/or correlations among asset classes. VaR is also used to evaluate risks arising in certain funding and investment portfolios. Back testing is also an important and necessary part of the VaR process, by validating the quality and accuracy of the Bank’s VaR model. The Board reviews VaR results quarterly.

Stress testing

VaR measures potential losses in normally active markets. An inherent limitation of VaR is that it gives no information about how much losses could exceed their expected levels. Accordingly, stress testing examines the impact that abnormally large swings in market factors and periods of prolonged inactivity might have on trading portfolios. The stress testing program is designed to identify key risks and ensure that the Bank’s capital can easily absorb potential losses from abnormal events. The Bank subjects its trading portfolios to a series of stress tests on a daily, weekly and monthly basis. The Bank also evaluates risk in its investment portfolios on a monthly basis, using stress tests based on risk factor sensitivities and specific market events. The stress testing program is an essential component of the Bank’s comprehensive risk management framework which complements the current VaR methodology and other risk measures and controls employed by the Bank. The Board reviews stress testing results quarterly.

Sensitivity analysis and simulation modeling

Sensitivity analysis assesses the effect of changes in interest rates on current earnings and on the economic value of shareholders’ equity related to non-trading portfolios. It is applied globally to each of the major currencies within the Bank’s operations. Simulation models enable the Bank to assess interest rate risk under a variety of scenarios over time. The models incorporate assumptions about changes in interest rates, shape of the yield curve, embedded product options, maturities and other factors. Simulation modeling under various scenarios is particularly important for managing risk in the deposit, lending and investment products the Bank offers to its retail customers.

Gap analysis

Gap analysis is used to assess the interest rate sensitivity of the Bank’s Canadian and international operations. Under gap analysis, interest rate sensitive assets, liabilities and off-balance sheet instruments are assigned to defined time periods on the basis of expected re-pricing dates.

Funding and investment activities

Market risk arising from the Bank’s funding and investment activities is identified, managed and controlled through the Bank’s asset-liability management processes. The LCO meets weekly to review risks and opportunities, and evaluate performance including the effectiveness of hedging strategies.

**Interest Rate Risk**

Interest rate risk arising from the Bank’s lending, funding and investment activities is managed in accordance with Board-approved policies and global limits, which are designed to control the risk to net interest income and economic value of shareholders’ equity. The income limit measures the effect of a specified change in interest rates on the Bank’s annual net interest income over the next twelve months, while the economic value limit measures the impact of a specified change in interest rates on the present value of the Bank’s net assets. These limits are set according to the documented risk appetite of the Bank. Board-level limit utilization is reported to both the Liability Committee and the Board on a regular basis. Any limit exceptions are reported according to the Limit Monitoring and Compliance Policy of the Bank.

Net interest income and the economic value of equity result from the differences between yields earned on the Bank’s non-trading assets and interest rate paid on its liabilities and between the maturity and re-pricing mismatch (gap) of its assets and liabilities. This mismatch is inherent in the non-trading operations of the Bank and exposes it to adverse changes in the level of interest rates. The Liability Committee provides strategic direction for the management of structural interest rate risk within the risk appetite framework authorized by the Board of Directors. The ALM strategy is executed by Group Treasury with the objective of enhancing net interest income within established risk tolerances. Gap analysis, simulation modeling, sensitivity analysis and VaR are used to assess exposures and for limit monitoring and planning purposes. The Bank’s interest rate risk exposure calculations are generally based on the earlier of contractual re-pricing or maturity of on-balance sheet and off-balance sheet assets and liabilities, although certain assets and liabilities such as credit cards and deposits without a fixed maturity are assigned a maturity profile based on the longevity of the exposure. Expected prepayments from loans and cashable investment products are also incorporated into the exposure calculations. Common shareholders’ equity is assumed to be non-interest rate sensitive.

Table 38 shows the after-tax impact of a 100 and 200 basis point shift on annual income and economic value of shareholder’s equity, which also includes the rate shift impact from trading positions. Based on the Bank’s interest rate positions at year-end 2012, an immediate and sustained 100 basis point rise in interest rates across all currencies and maturities, would decrease net income after-tax by approximately $23 million over the next 12-months. During fiscal 2012, this measure ranged between a decrease of $23 million and an increase of $160 million. This same increase in interest rates would result in an after-tax decrease in the present value of the Bank’s net assets of approximately $561 million. During fiscal 2012, this measure ranged between $240 million and $561 million. The directional sensitivity of these two key metrics is largely determined by the difference in time horizons (annual income captures the impact over the next twelve months only, whereas economic value considers the potential impact of interest rate changes on the present value of all future cash flows). The annual income and economic value results are compared to the authorized Board limits. There were no limit breaches in the reporting period.
The Bank is also subject to foreign currency translation risk on the earnings of its domestic and remitting foreign branch operations. The Bank forecasts foreign currency revenues and expenses, which are primarily denominated in U.S. dollars, over a number of future fiscal quarters. The LCO also assesses economic data trends and forecasts to determine if some or all of the estimated future foreign currency revenues and expenses should be hedged. Hedging instruments normally include foreign currency spot and forward contracts, as well as foreign currency options and swaps. Certain of these economic hedges may not qualify for hedge accounting resulting in a potential for a mismatch in the timing of the recognition of economic hedge gains/losses and the underlying foreign earnings translation gains/losses. In accordance with IFRS, foreign currency translation gains and losses relating to monetary and non-monetary items are recorded directly in earnings.

As at October 31, 2012, a one per cent increase in the Canadian dollar against all currencies in which the Bank operates, decreases the Bank’s before-tax annual earnings by approximately $37 million in the absence of hedging activity, primarily from exposure to U.S. dollars. A similar change in the Canadian dollar would increase the unrealized foreign currency translation losses in the accumulated other comprehensive income section of shareholders’ equity by approximately $185 million as at October 31, 2012, net of hedging.

Investment portfolio risks
The Bank holds investment portfolios to meet liquidity and statutory reserve requirements and for investment purposes. These portfolios expose the Bank to interest rate, foreign currency, credit spread and equity risks. Debt investments primarily consist of government, agency, and corporate bonds. Equity investments include common and preferred shares, as well as a diversified portfolio of third-party managed funds. The majority of these securities are valued using prices obtained from external sources. These portfolios are controlled by a Board-approved policy and limits.

Trading activities
Scotiabank’s policies, processes and controls for trading activities are designed to achieve a balance between pursuing profitable trading opportunities and managing earnings volatility within a framework of sound and prudent practices. Trading activities are primarily customer focused, but also include a proprietary component.

Market risk arising from the Bank’s trading activities is managed in accordance with Board-approved policies, and aggregate VaR and stress testing limits. The quality of the Bank’s VaR is validated by regular backtesting analysis, in which the VaR is compared to theoretical and actual profit and loss results. A VaR at the 99% confidence interval is an indication of the probability that losses will exceed the VaR if positions remain unchanged during the next business day. Trading positions are however managed dynamically and, as a result, actual profit/loss backtesting exceptions are uncommon. During fiscal 2012 there were no theoretical profit/loss exceptions and no actual profit/loss exceptions.

In fiscal 2012, the total one-day VaR for trading activities averaged $18.7 million, compared to $15.4 million in 2011. The increase was primarily due to higher debt specific risk.

The Bank also calculates a Stressed VaR which uses the same basic methodology as the VaR. However, Stressed VaR is calculated using market volatility from a one-year time frame identified as a stressful period given the risk profile of the trading portfolio. In fiscal 2012, the total one-day Stressed VaR for trading activities averaged $37.1 million.
In addition, new Basel market risk capital requirements effective in Q1, 2012 include the Incremental Risk Charge (IRC) and the Comprehensive Risk Measure (CRM) which capture the following:

**Default risk.** This is the potential for direct losses due to an obligor’s default as well as the potential for indirect losses that may arise from a default event; and

**Credit migration risk.** This is the potential for direct losses due to an internal or external rating downgrade or upgrade as well as the potential for indirect losses that may arise from a credit migration event.

A Monte Carlo simulation tool is used for the obligors underlying the Credit Default Swap (CDS) and bond portfolios to perform default and migration simulations which are then applied to revalue the instruments. Both IRC and CRM are calculated at the 99.9th percentile with a one year horizon. The CRM in correlation trading also incorporates a market simulation model to capture historical price movements.

As at October 31, the market risk capital requirements for IRC and CRM were $118 million and $164 million respectively. The CRM surcharge was $169 million.

Chart 46 shows the distribution of daily trading revenue for fiscal 2012. Trading revenue averaged $6.1 million per day, compared to $4.3 million for 2011. Revenue was positive on more than 97% of trading days during the year, higher than 2011. During the year, the largest single day trading loss was $4.3 million which occurred on November 28, 2011, and was lower than the total VaR of $19.9 million on the same day.

<table>
<thead>
<tr>
<th>2012</th>
<th>2011(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>($ millions)</td>
<td>($ millions)</td>
</tr>
<tr>
<td><strong>Interest rate</strong></td>
<td>12.9</td>
</tr>
<tr>
<td><strong>Equities</strong></td>
<td>1.7</td>
</tr>
<tr>
<td><strong>Foreign exchange</strong></td>
<td>0.8</td>
</tr>
<tr>
<td><strong>Commodities</strong></td>
<td>3.3</td>
</tr>
<tr>
<td><strong>Debt specific(1)</strong></td>
<td>13.7</td>
</tr>
<tr>
<td><strong>Diversification</strong></td>
<td>(14.0)</td>
</tr>
<tr>
<td><strong>All-Bank VaR</strong></td>
<td>18.4</td>
</tr>
<tr>
<td><strong>All-Bank Stressed VaR</strong></td>
<td>38.8</td>
</tr>
</tbody>
</table>

(1) Debt specific risk was not disclosed previously.
(2) Prior period amounts were restated to conform to current methodology.

### Calculation of market risk capital for trading

The assessment of market risk capital for trading activities can be aggregated using general market risk VaR, specific risk VaR, IRC, and CRM.

For all material trading portfolios, the Bank applies its internal models to calculate the market risk capital charge. The attributes and parameters of the VaR model is described in the Risk Measurement Summary on page 63. The Office of the Superintendent of Financial Institutions (OSFI) has approved the Bank’s internal VaR, IRC and CRM models for the determination of market risk capital.

For some non-material trading portfolios, the Bank applies the Standardized Approach for calculating market risk capital. The standardized method uses a “building block” approach, with the capital charge for each risk category calculated separately.

For regulatory capital purposes, other measures of market risk are calculated effective November 1, 2011. Below are the market risk requirements as at October 31, 2012.

<table>
<thead>
<tr>
<th></th>
<th>($ millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Bank VaR</td>
<td>195</td>
</tr>
<tr>
<td>All Bank Stressed VaR</td>
<td>421</td>
</tr>
<tr>
<td>Incremental Risk Charge</td>
<td>118</td>
</tr>
<tr>
<td>Comprehensive Risk Measure</td>
<td>164</td>
</tr>
<tr>
<td>CRM Surcharge</td>
<td>169</td>
</tr>
<tr>
<td>Standardized Approach</td>
<td>38</td>
</tr>
<tr>
<td><strong>Total market risk capital</strong></td>
<td><strong>$1,106(1)</strong></td>
</tr>
</tbody>
</table>

(1) Equates to $13.8 billion of risk-weighted assets.
Derivative instruments and structured transactions

Derivatives
The Bank uses derivatives to meet customer needs, generate revenues from trading activities, manage market and credit risks arising from its lending, funding and investment activities, and to lower its cost of capital. The Bank uses several types of derivative products, including interest rate swaps, futures and options, to hedge interest rate risk exposure. Forward contracts, swaps and options are used to manage foreign currency risk exposures. Credit exposures in its lending and investment books are managed using credit default swaps. As a dealer, the Bank markets a range of derivatives to its customers, including interest rate, foreign exchange, equity, commodity and credit derivatives.

Market risk arising from derivatives transactions is subject to the control, reporting and analytical techniques noted above in the Trading activities section. Additional controls and analytical techniques are applied to address certain market-related risks that are unique to derivative products.

Structured Transactions
Structured transactions are specialized transactions that may involve combinations of cash, other financial assets and derivatives designed to meet the specific risk management or financial requirements of customers. These transactions are carefully evaluated by the Bank to identify and address the credit, market, legal, tax, reputational and other risks, and are subject to a cross-functional review and sign-off by trading management, Global Risk Management, Taxation, Finance and Legal departments. Large structured transactions are also subject to review by senior risk management committees and evaluated in accordance with the procedures described below in Reputational Risk.

The market risk in these transactions is usually minimal, and returns are earned by providing structuring expertise and by taking credit risk. Once executed, structured transactions are subject to the same ongoing credit reviews and market risk analysis as other types of derivatives transactions. This review and analysis includes careful monitoring of the quality of the reference assets, and ongoing valuation of the derivatives and reference assets.

Liquidity Risk
Liquidity risk is the risk that the Bank is unable to meet its financial obligations in a timely manner at reasonable prices. Financial obligations include liabilities to depositors, payments due under derivative contracts, settlement of securities borrowing and repurchase transactions, and lending and investment commitments.

Effective liquidity risk management is essential in order to maintain the confidence of depositors and counterparties, manage the cost of funds, and to enable the core businesses to continue to generate revenue, even under adverse circumstances.

Liquidity risk is managed within the framework of policies and limits that are approved by the Board of Directors. The Board receives reports on risk exposures and performance against approved limits. The Liability Committee (LCO) provides senior management oversight of liquidity risk and meets weekly to review the Bank’s liquidity profile.

The key elements of the liquidity risk framework are:

- Measurement and modeling – the Bank’s liquidity model measures and forecasts cash inflows and outflows, including off-balance sheet cash flows on a daily basis. Risk is managed by a set of key limits over the maximum net cash outflow by currency over specified short-term horizons (cash gaps) and a minimum level of core liquidity.

- Reporting – Global Risk Management provides independent oversight of all significant liquidity risks, supporting the LCO with analysis, risk measurement, stress testing, monitoring and reporting.

- Stress testing – the Bank performs liquidity stress testing on a regular basis, to evaluate the effect of both industry and Bank-specific disruptions on the Bank’s liquidity position. Liquidity stress testing has many purposes including:
  - Helping the Bank to understand the potential behavior of various on-balance sheet and off-balance sheet positions in circumstances of stress; and
  - Based on this knowledge, facilitating the development of risk mitigation and contingency plans.

The Bank’s liquidity stress tests consider the effect of changes in funding assumptions, depositor behavior and the market value of liquid assets. The Bank performs industry standard stress tests, the results of which are reviewed at senior levels of the organization and are considered in making liquidity management decisions.

- Contingency planning – the Bank maintains a liquidity contingency plan that specifies an approach for analyzing and responding to actual and potential liquidity events. The plan outlines an appropriate governance structure for the management and monitoring of liquidity events, processes for effective internal and external communication, and identifies potential counter measures to be considered at various stages of an event. A contingency plan is maintained both at the parent level as well as for major subsidiaries.

- Funding diversification – the Bank actively manages the diversification of its deposit liabilities by source, type of depositor, instrument, term and geographic market.

- Core liquidity – the Bank maintains a pool of highly liquid, unencumbered assets that can be readily sold or pledged to secure borrowings under stressed market conditions or due to company specific events. The Bank also maintains liquid assets to support its intra-day settlement obligations in payment, depository and clearing systems.

### T40 Liquidity

|                        | As at October 31 | IFRS |
|------------------------|------------------|------|---|
|                        | 2012             | 2011 | 2010(1) |
| **Canadian dollar liquid assets** |                  |      |     |
| Cash and deposits with central banks | 671  | 514  | 488  |
| Deposits with other banks | 2,412 | 2,341 | 3,255 |
| Securities(2)           | 98,720           | 78,578 | 79,403 |
| **Total**               | **101,803**      | **81,433** | **83,146** |
| **Foreign currency liquid assets** |                  |      |     |
| Cash and deposits with central banks | 37,055 | 29,633 | 23,049 |
| Deposits with other banks | 14,666 | 12,934 | 13,439 |
| Precious metals         | 12,387           | 9,249  | 6,497  |
| Securities              | 40,599           | 25,062 | 20,678 |
| Call and short loans    | 1,127            | 1,708  | 1,498  |
| **Total**               | **105,834**      | **78,386** | **65,161** |
| **Total liquid assets** |                  |      |     |
| Cash and deposits with central banks | 37,726 | 29,947 | 23,537 |
| Deposits with other banks | 17,078 | 15,275 | 16,684 |
| Precious metals         | 12,387           | 9,249  | 6,497  |
| Securities(2)           | 139,319          | 103,640 | 100,081 |
| Call and short loans    | 1,127            | 1,708  | 1,498  |
| **Total**               | **207,637**      | **159,819** | **148,307** |
| Liquid assets as a % of total assets |                  |      |     |
|                        | 31.1%            | 26.9%  | 27.3%  |

(1) As at November 1, 2010.
(2) Includes MBS Available for Sale of $41,040 in 2012, $21,466 in 2011 and $17,809 at November 1, 2010 that are reported as residential mortgage loans.
Liquidity Profile

The Bank maintains large holdings of liquid assets to support its operations. These assets generally can be sold or pledged to meet the Bank’s obligations. As at October 31, 2012, liquid assets were $208 billion or 31% of total assets, compared to $160 billion or 27% of total assets as at October 31, 2011. The mix of these liquid assets between securities and other liquid assets, which include cash, deposits with banks and precious metals was 67% and 33%, respectively (October 31, 2011 – 65% and 35%, respectively). The increase in liquid assets was mainly attributable to growth in the securities portfolio and deposits with banks. Included in liquid assets are mortgage backed securities which for accounting purposes are classified as residential mortgages.

In the course of the Bank’s day-to-day activities, securities and other assets are pledged to secure an obligation, participate in clearing or settlement systems, or operate in a foreign jurisdiction. Securities may also be used as collateral under repurchase agreements. In addition, pursuant to the adoption of International Financial Reporting Standards, mortgage backed securities sold to Canada Housing Trust under the Canada Mortgage Bond program are reported on the balance sheet as pledged assets. As at October 31, 2012, total assets pledged, including securities sold under repurchase agreements, were $155 billion, compared to $124 billion as at October 31, 2011. Pledged assets include assets that have been received from counterparties through normal course business in securities financing and derivative transactions. The year-over-year increase was largely due to an increase in pledging activity to support the Bank’s secured borrowing and lending activities, including repurchase agreements, and to support the Bank’s covered bond program. Note 38(c) to the Consolidated Financial Statements, on page 167, provides details about the asset pledging activity, including year-over-year changes. In some over-the-counter derivative contracts, the Bank would be required to post additional collateral in the event its credit rating was downgraded. The Bank maintains access to sufficient collateral to meet its obligations in the event of a downgrade of its ratings by one or more of the rating agencies.

Funding

The Bank ensures that its funding sources are well diversified. Funding concentrations are regularly monitored and analyzed by type. The sources of funding are capital, deposits from retail and commercial clients sourced through the Canadian and international branch network, as well as wholesale funding (including securitization of assets).

Capital and personal deposits are key components of the Bank’s core funding and these amounted to $191 billion as at October 31, 2012, versus $174 billion last year. The increase was attributable to an increase of $12 billion in capital and growth of $5 billion in personal deposits. In addition, a portion of commercial deposits, particularly those of an operating or relationship nature, would be considered part of the Bank’s core funding. Furthermore, core funding is augmented by longer term liabilities (original maturity over 1 year) of $90 billion (2011 – $78 billion). Longer term liabilities include senior unsecured deposit notes, residential mortgage securitizations and covered bonds.

Diversification is a key part of the Bank’s overall funding and liquidity management strategy. The Bank prudently diversifies its wholesale funding activities by using a number of different funding programs to access global financial markets, and raises funding across a variety of terms, currencies and investor classes including corporations, institutional money managers, pension funds and central banks.

In Canada, the Bank raises both short- and longer-term wholesale funding through the issuance of senior unsecured deposit notes. Additional term funding in Canada is generated through Canadian residential mortgage securitizations and the issuance of non-common capital including subordinated debentures. In the U.S., short-term funding is raised through the issuance of certificates of deposits and commercial paper programs. The Bank’s US$16 billion Medium Term Notes Program is used to raise longer-term funding in the U.S. Internationally, the Bank generates short term funding through certificate of deposits in various currencies as well as an Australian commercial paper program. Term funding is raised internationally across a variety of currencies by a US$20 billion European Medium Term Note Program as well as a US$20 billion Global Covered Bond Program (issuance to date has been in USD and AUD).

In normal course, the Bank uses a mix of unsecured and secured wholesale funding instruments across a variety of markets. The choice of instruments and market is based on a number of factors, including relative cost and market capacity as well as an objective of maintaining a diversified mix of sources of funding. Market conditions can change over time, impacting cost and capacity in particular markets or instruments. Changing market conditions can include periods of stress where the availability of funding in particular markets or instruments is constrained. In these circumstances the Bank would increase its focus on sources of funding in functioning markets and secured funding instruments.

Should a period of extreme stress exist such that all wholesale funding sources are constrained, the Bank maintains a pool of liquid assets to mitigate its liquidity risk. This pool includes cash, deposits with central banks and securities.

Contractual Obligations

The Bank’s contractual obligations include contracts and purchase obligations, including agreements to purchase goods and services, that are enforceable and legally binding on the Bank.

Table 41 provides aggregated information about the Bank’s contractual obligations related to all financial and other liabilities as at October 31, 2012, which affect the Bank’s liquidity and capital resource needs. The table provides details on undiscounted contractual cash flows to maturity. Depending on the nature of these obligations, they may be recorded on- or off-balance sheet.

The Bank leases a large number of its branches, offices and other locations. The vast majority of these leases are for a term of five years, with an option to renew. The total cost of these leases, net of rental income from subleases, was $321 million in 2012 (2011 – $276 million). The increase of $45 million relates primarily to the sale of Scotia Plaza and lease-back of the Bank’s space in the complex, along with the full-year impact from DundeeWealth acquisition in 2011 and growth in Canadian and International service delivery platforms.

Two major outsourcing contracts have been entered into by the Bank. The largest is a contract with IBM Canada entered into in 2001 to manage the Bank’s domestic computer operations, including data centres, branches, Automated Banking Machines, and desktop computing environment. The contract was expanded in 2005 to also include the computer operations for the Caribbean, Central America, and Mexico. The contract for Canadian operations was renewed in 2007 and is now extended until 2013, co-terminus with Mexico, the Caribbean and Central America contracts.
The second is a three-year contract, with two optional five-year renewals, entered into in 2003, with Symcor Inc. to manage the Bank’s cheque and bill payment processing, including associated statement and report printing activities across Canada. The final 5-year option has been exercised. These outsourcing contracts are cancellable with notice.

141 Contractual obligations

<table>
<thead>
<tr>
<th>As at October 31 ($ millions)</th>
<th>Under 1 year</th>
<th>1-3 years</th>
<th>4-5 years</th>
<th>Over 5 years</th>
<th>No Specific Maturity*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deposits</td>
<td>209,547</td>
<td>68,985</td>
<td>29,928</td>
<td>5,439</td>
<td>149,710</td>
<td>463,609</td>
</tr>
<tr>
<td>Acceptances</td>
<td>8,932</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8,932</td>
</tr>
<tr>
<td>Obligations related to securities sold short</td>
<td>18,622</td>
<td></td>
<td></td>
<td></td>
<td>18,622</td>
<td></td>
</tr>
<tr>
<td>Derivative financial instruments</td>
<td>35,299</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>35,299</td>
</tr>
<tr>
<td>Obligations related to securities sold under repurchased agreements</td>
<td>56,029</td>
<td>920</td>
<td></td>
<td></td>
<td>56,949</td>
<td></td>
</tr>
<tr>
<td>Subordinated debentures</td>
<td>1,250</td>
<td></td>
<td>8,893</td>
<td></td>
<td></td>
<td>10,143</td>
</tr>
<tr>
<td>Capital instrument liabilities</td>
<td>708</td>
<td>650</td>
<td></td>
<td></td>
<td></td>
<td>1,358</td>
</tr>
<tr>
<td>Other liabilities</td>
<td>3,585</td>
<td>1,231</td>
<td>2,023</td>
<td>2,547</td>
<td>22,367</td>
<td>626,655</td>
</tr>
<tr>
<td>Subtotal</td>
<td>298,673</td>
<td>71,136</td>
<td>31,951</td>
<td>17,529</td>
<td>207,376</td>
<td>628,548</td>
</tr>
<tr>
<td>Operating leases</td>
<td>283</td>
<td>449</td>
<td>306</td>
<td>507</td>
<td>–</td>
<td>1,545</td>
</tr>
<tr>
<td>Outsourcing obligations</td>
<td>185</td>
<td>141</td>
<td>12</td>
<td>–</td>
<td>–</td>
<td>338</td>
</tr>
<tr>
<td>Total</td>
<td>299,141</td>
<td>71,726</td>
<td>32,269</td>
<td>18,036</td>
<td>207,378</td>
<td>628,548</td>
</tr>
</tbody>
</table>

* Includes deposits on demand and on notice.

Capital Expenditures

Scotiabank has an ongoing program of capital investment to provide the necessary level of technology and real estate resources to service our customers and meet new product requirements. All major capital expenditures go through a rigorous review and approval process. Total capital expenditures in 2012, are estimated to be $328 million, an increase of 25% from 2011. The increase is primarily in technology spending, due mainly to the ABM replacement program and digital signage in our domestic branch network.

Operational risk

Operational risk is the risk of loss, whether direct or indirect, to which the Bank is exposed due to inadequate or failed internal processes or systems, human error, or external events. Operational risk includes legal and regulatory risk, business process and change risk, fiduciary or disclosure breaches, technology failure, financial crime and environmental risk. It exists in some form in every Bank business and function. Operational risk can not only result in financial loss, but also regulatory sanctions and damage to the Bank’s reputation. The Bank is very successful at managing operational risk with a view to safeguarding client assets and preserving shareholder value.

Governance and Organization

The Bank has developed policies, processes and assessment methodologies to ensure that operational risk is appropriately identified and managed with effective controls. The governing principles of the Bank’s Operational Risk Management Framework include:

- The three lines of defence model helps to ensure proper accountability and clearly defines the roles and responsibilities for operational risk management. The first line of defence is the business units, who own the risks in their businesses and operations. The second line of defence is led by a central risk management unit within Global Risk Management, with support from control and stewardship functions across the Bank. The third line of defence is Internal Audit.
- The individual business lines are accountable for management and control of the significant operational risks to which they are exposed.

The Bank has a governance and organizational structure through which there is effective oversight and in which operational risk is managed to an established risk appetite, including:

- The Board of Directors is responsible for sound corporate governance and approves the Bank’s Operational Risk Management Policy and Operational Risk Management Framework;
- A senior level Operational Risk Committee comprised of Heads of Business Lines and key control functions, and chaired by the Group Head and Chief Risk Officer. This Committee provides consistent, Bank-wide oversight of operational risk management;
- Business-line level operational risk committees are in place to ensure issues are known, discussed, managed and escalated, as needed and in a timely manner;
- Executive management with clearly defined areas of responsibility;
- A central unit in Global Risk Management responsible for: developing and applying methods to identify, assess, manage and monitor operational risks; and reporting on risks as well as actual loss events and to play a challenge role to the business units in their assessment and management of operational risk;
- Independent specialist units responsible for developing methods to mitigate specific components of operational risk, including codifying policies and processes required to control those specific risks;
- Separation of duties between key functions; and
- An independent internal audit department responsible for verifying that significant risks are identified and assessed, and for testing controls to ensure that overall risk is at an acceptable level. The Internal Audit department is also responsible for auditing and assessing the Bank’s Operational Risk Management Framework and its design and effectiveness.

Operational Risk Management Framework

The Bank’s Operational Risk Management Framework sets out an integrated approach to identify, assess, control, mitigate and report operational risks across the Bank. The following are key components of the Bank’s Operational Risk Management Framework:

- The Bank’s risk and control assessment program, which is managed by Global Risk Management’s central operational risk unit, includes formal reviews of significant operations and processes to identify and assess operational risks. This program provides a basis for management to ensure that key risks have been identified and that controls are functioning effectively. Business line management attests to the accuracy of each assessment and develops action plans to mitigate risks if controls are not identified as effective. Results of these reviews are summarized and reported to executive management and the Board of Directors.

- The Bank has an inventory of operational risks which are discussed and considered in each risk assessment.

- The Bank’s scenario analysis program provides a more forward looking view of key risks and provides management with insights into how plausible but high impact, remote operational risk events might occur. Scenario analysis will also assist in the selection of severity distributions in the Bank’s Advanced Measurement Approach (AMA) capital model (discussed below).

- The Bank’s Key Risk Indicator (KRI) program provides management with an early warning system of changes in risk exposure that may indicate that an operational risk appetite or tolerance may be breached. KRIs exist at the business line and all-Bank level.
• The Business Environment and Internal Control Factors (BEICF) program incorporates the impact of key business environment and internal control factors into the regulatory capital allocated to divisions by utilizing a BEICF scorecard. The scorecard will be used to adjust capital calculations produced using the Bank’s AMA capital model.

• The Bank’s centralized operational loss event database, which is managed and maintained by the central operational risk unit within Global Risk Management, captures key information on operational losses. This data is analyzed, benchmarked against industry loss data and significant metrics, then reported to executive management and the Board of Directors to provide insight into operational risk exposures, appetites and trends.

• Operational risk reporting is provided to the Bank’s senior executive management and the Board of Directors. In addition to details and trends from operational risk loss events, reporting also includes information on risk and control assessments and scenarios completed, industry trends and significant events, key risk indicators and Business Environment and Internal Control Factor (BEICF) survey results. The combination of these information sources provides both a backward and forward-looking view of operational risk at the Bank.

• The Bank is a member of the Operational Riskdata Exchange Association (ORX), an international consortium of banks that share anonymized loss data. This industry data is used to support risk identification, assessment and will be used as an input to the Bank’s Advanced Measurement Approach capital model. Discussion forums within ORX also help to ensure that the Bank is current of all industry best practices and developments.

• The Bank’s Fraud Management Office, which identifies threats of financial crime, implements systems and processes to mitigate loss and reports on fraud loss activity to senior management.

• The Bank’s monitoring of industry events, identifies significant losses incurred at other financial institutions and provides a reference for reviewing and assessing the Bank’s own risk exposure.

• The compliance risk management program led by Global Compliance through an established network and associated processes that include: monitoring regulatory changes; conducting compliance risk assessments; implementing policies and procedures; training; monitoring and resolving issues; and reporting on the status of compliance and compliance controls to executive management, the Board of Directors, and regulators as required.

• The Bank’s New Products and Services Risk Management Policy which describes the general principles applicable to the review, approval and implementation of new products and services within the Scotiabank Group and is intended to provide overarching guidance. Processes are in place at the all-Bank level and in each business line for evaluation of risk in new businesses, services and products.

• The Bank’s Business Continuity Management Department is responsible for governance and oversight of the Bank’s business continuity, and monitors units to ensure compliance with these policies. The Bank’s business continuity management policy requires that all business units develop business continuity capabilities for their respective functions.

• The Bank’s Model Risk Management Policy, which provides the framework for model review and approval under the oversight of the Operational Risk Committee.

• The Bank’s training programs, including the mandatory Anti-Money Laundering, Operational Risk and Information Security courses and examinations which ensure employees are aware and equipped to safeguard our customers’ and the Bank’s assets.

• Risk mitigation programs, which use insurance policies to transfer the risk of high severity losses, where feasible and appropriate.

Capital

The Bank currently applies the Standardized Approach for calculating operational risk capital under the Basel II capital framework. Total capital is determined as the sum of capital for each of eight Basel defined business activities. The capital for each activity is the product of the relevant risk factor, as defined by Basel, applied to the gross income of each respective business activity. The Bank has submitted its pre-application to OSFI to use the Advanced Measurement Approach (AMA). Pending regulatory approval the Bank is expected to be AMA compliant in fiscal 2014. Under AMA, regulatory capital measurement will more directly reflect the Bank’s operational risk environment through the use of a loss distribution approach model which will use internal loss events, external loss events, scenario analysis and BEICF adjustments to arrive at a final operational risk regulatory capital calculation. The impact on required regulatory capital is not determinable at this time.

Reputational risk

Reputational risk is the risk that negative publicity regarding Scotiabank’s conduct, business practices or associations, whether true or not, will adversely affect its revenues, operations or customer base, or require costly litigation or other defensive measures.

Negative publicity about an institution’s business practices may involve any aspect of its operations, but usually relates to questions of business ethics and integrity, or quality of products and services. Negative publicity and attendant reputational risk frequently arise as a by-product of some other kind of risk management control failure. Reputational risk is managed and controlled throughout the Bank by codes of conduct, governance practices and risk management programs, policies, procedures and training. Many relevant checks and balances are outlined in greater detail under other risk management sections, particularly Operational risk, where reference is made to the Bank’s well-established compliance program. All directors, officers and employees have a responsibility to conduct their activities in accordance with the Scotiabank Guidelines for Business Conduct, and in a manner that minimizes reputational risk. While all employees, officers and directors are expected to protect the reputation of Scotiabank by complying with the Bank’s Guidelines for Business Conduct, the activities of the Legal, Corporate Secretary, Public, Corporate and Government Affairs and Compliance departments, and the Reputational Risk Committee, are particularly oriented to the management of reputational risk.

In providing credit, advice, or products to customers, or entering into associations, the Bank considers whether the transaction, relationship or association might give rise to reputational risk. The Bank has an established, Board-approved reputational risk policy, as well as policy and procedures for managing reputational and legal risk related to structured finance transactions. Global Risk Management plays a significant role in the identification and management of reputational risk related to credit underwriting. In addition, the Reputational Risk Committee is available to support Global Risk Management, as well as other risk management committees and business units, with their assessment of reputational risk associated with transactions, business initiatives, and new products and services.
The Reputational Risk Committee considers a broad array of factors when assessing transactions, so that the Bank meets, and will be seen to meet, high ethical standards. These factors include the extent, and outcome, of legal and regulatory due diligence pertinent to the transaction; the economic intent of the transaction; the effect of the transaction on the transparency of a customer’s financial reporting; the need for customer or public disclosure; conflicts of interest; fairness issues; and public perception.

The Committee may impose conditions on customer transactions, including customer disclosure requirements to promote transparency in financial reporting, so that transactions meet Bank standards. In the event the Committee recommends not proceeding with a transaction and the sponsor of the transaction wishes to proceed, the transaction is referred to the Risk Policy Committee.

Environmental risk

Environmental risk refers to the possibility that environmental concerns involving the Scotiabank Group or its customers could affect the Bank’s financial performance.

To safeguard the Bank and the interests of its stakeholders, Scotiabank has an environmental policy, which is approved by the Bank’s Board of Directors. The policy guides day-to-day operations, lending practices, supplier agreements, the management of real estate holdings and external reporting practices. It is supplemented by specific policies and practices relating to individual business lines.

Environmental risks associated with the business operations of each borrower and any real property offered as security are considered in the Bank’s credit evaluation procedures. This includes an environmental assessment where applicable, and commentary on climate change where it could have a material impact (including regulatory, physical or reputational impacts) on the borrower. Global Risk Management has primary responsibility for establishing the related policies, processes and standards associated with mitigating environmental risk in the Bank’s lending activities. Decisions are taken in the context of the risk management framework discussed on page 55.

In the area of project finance, the revised Equator Principles have been integrated into the Bank’s internal processes and procedures since 2006. These are environmental and social guidelines for project finance transactions with a capital cost of US$10 million or higher, based on the policies of the International Finance Corporation, the private sector arm of the World Bank. The Equator Principles provide safeguards for sensitive projects to ensure protection of natural habitats and the rights of indigenous peoples, as well as safeguards against child and forced labour.

Environmental concerns also play a prominent role in shaping the Bank’s real estate practices and purchasing decisions. The Real Estate Department adheres to an Environmental Compliance Policy to ensure responsible management of the Bank’s real estate holdings. In addition, considerable recycling and resource management programs are in place in the Bank’s corporate offices and branch networks. Internal tracking systems are in place with respect to energy use, greenhouse gas emissions (GHG) and paper consumption. In 2012, GHG emissions data for the branch network and corporate offices was externally verified. A variety of reduction measures are in place for energy, paper and waste. In order to further reduce the Bank’s environmental footprint, it has developed an internal Environmental Paper Policy.

To ensure it continues to operate in an environmentally responsible manner, the Bank monitors policy and legislative requirements through ongoing dialogue with government, industry and stakeholders in countries where it operates. Scotiabank has been meeting with environmental organizations, industry associations and socially responsible investment organizations with respect to the role that banks play to help address issues such as climate change, protection of biodiversity, promotion of sustainable forestry practices, and other environmental issues important to its customers and communities where it operates. The Bank has an ongoing process of reviewing its policies in these areas.

Scotiabank has a number of environmentally related products and services to meet demand and promote the “green” economy, including the Scotiabank Global Climate Change Fund, an EcoEnergy Financing program designed to support personal and small business customers who wish to install small-scale renewable energy projects, an auto loan product for hybrid, electric and clean diesel vehicles, an Environmental Markets group, which assists corporate clients originate and trade carbon credits, and an eco-home renovation program.

EcoLiving

Scotiabank is also a signatory, participant and sponsor of the Carbon Disclosure Project, which provides corporate disclosure to the investment community on greenhouse gas emissions and climate change management. In 2011, Scotiabank was included on the Dow Jones Sustainability Index (DJSI)-(North America), an annual review that recognizes the world’s financial, social and environmental corporate leaders. For more information on Scotiabank’s environmental policies and practices, please refer to:

- the Bank’s annual Public Accountability Statement/Corporate Social Responsibility Report, which is also available online at www.scotiabank.com;
- the Environment section of Scotiabank’s website at www.scotiabank.com/environment;
- the Bank’s EcoLiving website at www.scotiabank.com/ecoliving; and
- Scotiabank’s response to the Carbon Disclosure Project at www.cdpject.net.

Insurance risk

The Bank is both a distributor of third party insurance products and underwrites insurance risk. As a distributor of third party insurance products, the Bank earns fees but bears no insurance risk. The Bank bears insurance risk in its role as an underwriter, either through direct underwriting or via reinsurance.

Insurance risk is the risk of potential financial loss due to actual experience being different from that assumed in the pricing process of the insurance products.

Insurance by nature involves the distribution of products that transfer individual risks to the issuer with the expectation of a return built into the insurance premiums earned. The Bank is exposed to insurance risk primarily through its creditor, life and select property and casualty insurance and reinsurance products.

The insurance governance and risk management frameworks are calibrated within each insurance subsidiary commensurate with the nature and materiality of risk assumed. Senior management within the insurance business units has primary responsibility for managing insurance risk, with oversight by Global Risk Management through the Insurance Risk Committee. The insurance company subsidiaries have their own boards of directors, as well as independent appointed actuaries who provide additional risk management oversight.

The insurance companies maintain a number of policies and practices to manage insurance risk. Sound product design is an essential element. The vast majority of risks insured are short-term in nature, that is, they do not involve long-term pricing guarantees. Geographic diversification and product-line diversification are important elements
as well. Reinsurance is commonly used as an effective tool to manage the insurance risk exposures. Insurance risk is also managed through effective underwriting and claim adjudication practices, ongoing monitoring of experience, and stress-testing scenario analysis.

**Strategic risk**

Strategic Risk is the risk that the Bank’s business strategies are ineffective, being poorly executed, or insufficiently resilient to changes in the business environment.

The Board of Directors is ultimately responsible for oversight of strategic risk, by adopting a strategic planning process and approving, on an annual basis, a strategic plan for the Bank.

The Bank’s Strategy Management and Executive Projects department manages the strategic planning process by working with the Executive Management Team, business lines, and control units to develop the strategic plan in a consistent and disciplined manner; ensuring the plan is aligned with the Bank’s Five Point Strategy; annually documenting the Bank’s Five Point Strategy and strategic plan for approval by the Chief Executive Officer; and, monitoring the effectiveness of the Bank’s strategy against a suite of established performance objectives, and reporting regularly to the Chief Executive Officer.

Chief Executive Officer:

- Present the strategic plan annually to the Board of Directors; and,
- Report regularly to the Board of Directors on the effectiveness of the Bank’s strategy through the Balanced Scorecard.

The execution and evaluation of strategic plans is a fundamental element of the Bank’s enterprise-wide risk management framework. All employees are responsible for clearly understanding the Bank’s direction and goals. On an ongoing basis, business lines and control units identify, manage, and assess the internal and external events and risks that could impede achievement of strategic objectives. The Executive Management Team regularly meets to evaluate the effectiveness of the Bank’s strategic plan, and consider what amendments, if any, are required.