Treasury Risk Management Framework for the Government of Canada

DEPARTMENT OF FINANCE

BANK OF CANADA

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Purpose

This document describes the risk management framework for managing the Government of Canada's financial assets and liabilities.

The Government of Canada Treasury Risk Management Framework is a reference document that provides information on the risk management framework within which the federal government's liquid financial assets and market debt are managed. The framework is considered to be dynamic because it evolves over time to incorporate developments in tools and practices in the area of treasury risk management. The framework is prepared by the Department of Finance, in collaboration with the Bank of Canada as fiscal agent.

Government of Canada funds management spans a wide range of activities related to the issuance of debt and the management of liquid financial assets, as shown in Box 1. The framework does not apply to the financial assets and liabilities of Crown corporations and the Government of Canada's interests therein, with the exception of Crown corporation borrowings that have been consolidated into the debt programs of the federal government. The framework also does not apply to Canada Pension Plan Bonds which are held by the Canada Pension Plan Investment Fund.

The prudent management of treasury risk is a key element of achieving the Government's priority of sound fiscal management. In this regard, the Government manages its activities according to a set of key principles which include prudence, cost-effectiveness and leading practices.

BOX 1: THE GOVERNMENT'S FUNDS MANAGEMENT PROGRAMS

Market Debt Programs	- Domestic: Marketable Bonds Treasury Bills Retail Debt Canada Pension Plan Bonds - Foreign: Marketable Bonds (Global Bonds) Canada Bills Foreign Currency Notes (Canada Notes and Euro Medium-Term Notes) Swaps of Domestic Obligations into Foreign-Currencies
Liquid Financial Assets Programs	-Domestic: Receiver General Cash Management Framework -Foreign: Exchange Fund Account Deposits Securities US Dollar Repo Securities Lending

SUPPLEMENTAL INFORMATION

This document is supplemented by other risk-, governance-, policy- and program-related documents as amended over time. These include:

Governance

- *Treasury Management Governance Framework* (October 2007) http://www.fin.gc.ca/treas/Goveev/TMGF_e.html;
- *Memorandum of Understanding on Treasury Risk Management* between the Bank of Canada and the Department of Finance (April 2004) http://www.fin.gc.ca/treas/Goveev/mou-trm-e.html; and
- *Statement of Investment Policy* for the Exchange Fund Account (September 2006) http://www.fin.gc.ca/efa/sip06_e.html;

Policy and Programs

- *Reports on Debt Management Strategy* http://www.fin.gc.ca/purl/dms-e.html;
- *Debt Management Reports* http://www.fin.gc.ca/purl/dmr-e.html;
- *Reports on the Management of Canada's Official International Reserves* http://www.fin.gc.ca/purl/efa-e.html;
- *Treasury Evaluation Program Framework* (October 2005) http://www.fin.gc.ca/activty/tep_e.html.

Part I: Background and Overview

Guiding Principles

Chapter 1

Risk management activities are guided by several fundamental principles.

To the extent possible, the Government of Canada takes thorough steps to limit or mitigate the risks that arise in the course of funding and investment operations. The main risks that the Government strives to mitigate include credit, market, liquidity, legal and operational risks (see Box 2). Broadly, domestic debt operations focus on managing interest rate risk, while foreign debt operations focus on managing market risk via an asset-liability matching framework and credit risk through strict credit guidelines and collateral frameworks.

Guiding Principles

- Independence: Risk monitoring and oversight, supported by analytic capacity and a governance framework, are independent of funds management operations.
- Risk Culture: The Department of Finance and the Bank of Canada strive to create a culture where risk management is highly valued, considered an integral part of all treasury management activities, and viewed as the responsibility of all staff.
- Risk Identification: All existing and new lines of business are thoroughly reviewed on an ongoing basis to identify all material relevant risks.
- Risk Mitigation: Credit, market, liquidity, legal and operational risks are mitigated to the extent possible.
- Risk Measurement: Appropriate quantitative and qualitative measures have been developed in line with policies and guidelines.
- Monitoring and Reporting: Reports provide context and significance to managers on issues surrounding risk management and the Government's overall risk position and are prepared on a regular basis.
- Review: Periodic review of risk management policies, procedures, and operations by internal staff as well as external, independent, experts are undertaken. Risk policies are in line with leading practices of other comparable sovereigns.

BOX 2: TYPES OF RISK

Credit risk: the risk that a business counterparty, or an issuer of a security, will default or be downgraded.

Market risk: the risk the government faces from adverse changes in the value of its assets or liabilities resulting from changes in market factors.

Liquidity risk: the risk that assets cannot be traded or liabilities cannot be issued or repurchased at fair value within a reasonable period of time because of inadequate market depth or market disruption.

Legal risk: the risk that contracts are not legally enforceable or appropriately documented or executed.

Operational risks: the risk resulting from inadequate or failed internal processes, human and/or system errors, or external events.

Chapter

2

Governance

The ultimate authority for risk management policy rests with the Minister of Finance.

The Minister's legal authorities and responsibilities are set out in two Acts.

The first, the *Financial Administration Act* (FAA)[1], establishes the legal authority for the Government's borrowing, cash management, and bond buyback programs. The FAA states that the Minister cannot borrow money without the authority of the Governor in Council. Each year, the Minister must table in Parliament a report on the planned borrowing and debt management for the next fiscal year. The Act provides the Minister with the authority to use modern financial and risk management tools and techniques such as interest rate and currency swaps, options, futures and forwards in the conduct of financial operations and for risk management purposes. In addition, the Act provides the Minister of Finance with legislative authority to establish rules governing the issuance of debt. The Terms of Participation in Auctions for Government Securities Distributors[2] govern the primary market activities of Government securities distributors and customers. The powers of the Minister can be delegated to officials of the Department of Finance.

The second key act is the *Currency Act*[3], which governs the Exchange Fund Account (EFA) held in the name of the Minister of Finance. The legislative mandate of the EFA is to aid in the control and protection of the external value of the Canadian dollar, if required. Under the Act, the Minister is required to establish an investment policy for the management of the EFA. The Act allows the Minister to acquire, borrow, sell, or lend assets in accordance with the *Statement of Investment Policy* (SIP). The Act requires that the Minister provide Parliament with a report [4]on the operations of the EFA for each fiscal year.

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[1] *Financial Administration Act* (R.S., 1985, c. F-11), available at http://laws.justice.gc.ca/en/F-11/index.html
[2] Terms of Participation in Auctions for Government Securities Distributors, available at http://www.bankofcanada.ca/en/auct.htm
[3] *Act* (R.S., 1985, c. C-52), available at http://laws.justice.gc.ca/en/C-52/index.html
[4] Report on the Management of Canada's Official International Reserves, available at http://www.fin.gc.ca/purl/efa-e.html

Beyond these two key Acts, the *Bank of Canada Act*[5] provides statutory authority for the Bank of Canada to act as the Government's fiscal agent.

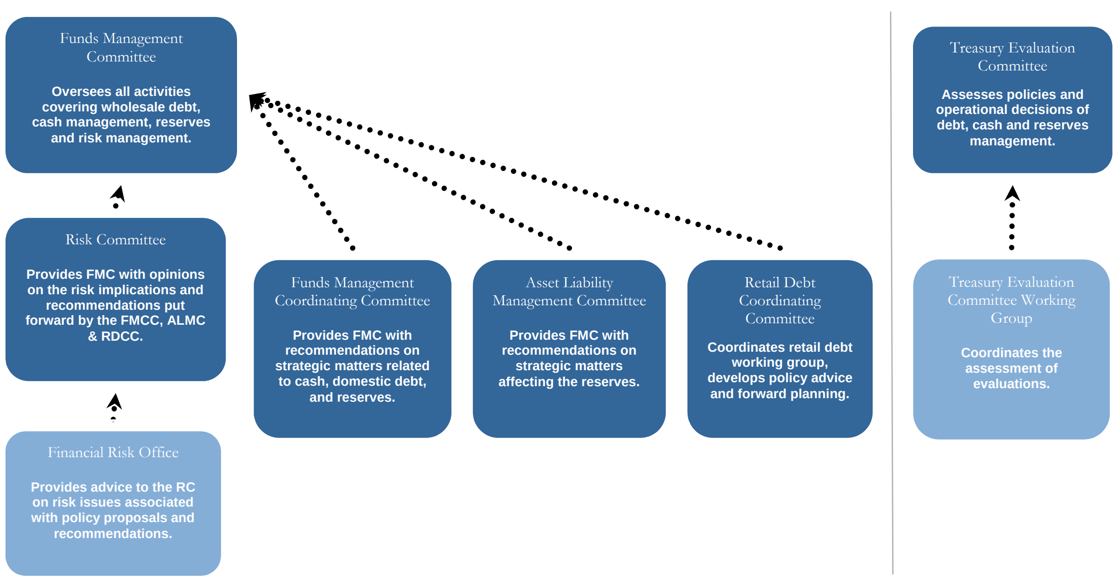
Governance Structure

The governance structure, described in the document entitled *Funds Management Governance Framework*[6], sets out the structure within which funds management and associated risks are managed. The framework delineates roles and responsibilities among managers and officials within the Department of Finance and the Bank of Canada, as fiscal agent of the Government, and describes the organizational committees established to govern treasury activities.

The governance framework is designed to separate funds management operations from risk control to achieve best possible outcome. The framework is supported by the *Memorandum of Understanding on Treasury Risk Management between the Bank of Canada and the Department of Finance*[7] (April 2004).

At the top of the structure is the Minister of Finance. Providing policy advice to the Minister and the Deputy Minister are two separate committees: the Funds Management Committee (FMC) and the Treasury Evaluation Committee (TEC). The TEC is addressed in section 11, Public Accountability.

Figure 1: Governance Structure



[5] *Bank of Canada Act* (R.S., 1985, c. B-2), available at http://laws.justice.gc.ca/en/B-2/index.html
[6] *Funds Management Governance Framework*, available at www.fin.gc.ca/treas/Goveev/TMGF_e.html
[7] *MOU on Treasury Risk Management between the Bank of Canada and the Department of Finance*, available at http://www.fin.gc.ca/treas/Goveev/mou-trm-e.html

Funds Management Committee

The Funds Management Committee (FMC), composed of senior management from the Department of Finance (Finance) and the Bank of Canada (the Bank) and chaired by the (Senior) Associate Deputy Minister of Finance, oversees all activities covering domestic debt, cash management, foreign reserves and risk control. The mandate of the FMC is to advise the Minister, through the Deputy Minister, on policy and strategy for funds and risk management, to oversee the implementation of approved policy and plans, and to review performance and risk outcome reports.

The FMC is supported by the Funds Management Coordinating Committee (FMCC), the Asset Liability Management Committee (ALMC), the Retail Debt Coordinating Committee (RDCC) and the Risk Committee (RC).

Risk Committee

The Risk Committee (RC) is an advisory body to the FMC that reviews and provides opinions on the risk implications of market and operational developments, and policy recommendations put forward by the coordinating committees. The RC is composed of senior officials from Finance and the Bank.

The RC is supported by the Financial Risk Office (FRO), which provides advice to the RC on risk issues associated with policy proposals and recommendations. It also advises the FMCC, the ALMC and the RDCC on risk implications during the development of policy proposals and recommendations, and monitors and reports on risk outcomes for funds management activities. FRO reports to the Adviser, Strategic Planning and Risk Management (Bank).

The RC is responsible for ensuring the FMC is provided with regular reports, prepared by FRO, that summarize trends in financial and operational risk exposures, EFA investment performance and key audit findings. As well, when proposals for new business activities are submitted to the FMC for approval, FRO will inform the RC whether business managers have followed due process in terms of identifying significant operational and legal risks and consulting with internal auditors and legal staff to identify and prepare mitigation strategies for operational and legal issues. In order to ensure that risk issues are appropriately considered, FRO is required to submit a report to the RC when risk exposure is a material concern. The RC will consider the report and present the information to the FMC for its consideration.

The structure, mandate, operations and composition of the RC and FRO are set out in the 2004 *Memorandum of Understanding on Treasury Risk Management between the Bank of Canada and the Department of Finance*.

Funds Management Coordinating Committee

The Funds Management Coordinating Committee (FMCC) discusses key issues, develops policy advice for the FMC and provides ongoing coordination of work on wholesale debt, cash management, and issues that involve both the domestic debt program and foreign currency management. The FMCC is composed of management and senior officials from the Department and the Bank.

Within the limits delegated by the FMC, the FMCC is also a decision-making body, whose decisions are executed by officials at the Bank of Canada and Department of Finance.

Asset Liability Management Committee

The Asset Liability Management Committee (ALMC) discusses key issues, including those pertaining to risk management, and develops policy advice for the FMC on strategic and policy matters related to the management of foreign reserves, including changes to the risk limits and guidelines for the foreign reserves established by the Minister and the FMC. The ALMC is composed of management and senior officials from the Department and the Bank.

Within limits delegated by the FMC, the ALMC is also a decision-making body, whose decisions are executed by officials at the Bank of Canada and Department of Finance.

The Retail Debt Coordinating Committee

The Retail Debt Coordinating Committee (RDCC) meets provides recommendations to the FMC on retail debt strategy and annual work plans. It develops the work plan for the year, coordinates program initiatives, and oversees campaign issues and pricing. The RDCC is composed of management and senior officials from the Department and the Bank.

Part II: Risk Management Policies for Domestic Funds Management Programs

Chapter 3

This section details the risk management framework for the Government's two domestic funds programs: issuance of domestic debt and investment of the Receiver General (RG) cash balances.

As a result of differences in risk types within the two programs, their risks are managed on a program basis.

Domestic Debt Programs

The fundamental objective of the domestic debt management is to raise stable, low-cost funding for the Government of Canada. Domestic debt programs covered in this document include the treasury bills program and the marketable bond program (nominal bonds and Real Return Bonds)[8] . The Government borrows in Canadian dollars mainly through wholesale funding[9]. These securities are sold through auctions to Government of Canada securities distributors and end-investors[10] . The domestic borrowing program faces interest rate risk, legal risk and a very small, temporary exposure to settlement risk.

The Government conducts two types of bond buyback operations: regular bond buybacks (on a cash or switch basis) and cash management bond buybacks. Regular bond buybacks permit the maintenance of a liquid new bond issue program. These operations are sizeable and play a strategic role in maintaining an active new-issue bond program. The second type of buyback operation, cash management bond buybacks, assists in the management of the government's cash balances by repurchasing bonds maturing within the next 18 months. These buyback operations also face legal risk and a very small, temporary exposure to settlement risk[11] .

[8] Retail debt management falls outside of the scope of this document

[9] Retail debt is also used to raise Canadian dollar debt; however, it represents only a small proportion of market debt.

[10] Details on the framework for government securities auctions can be found at www.bankofcanada.ca/en/auct.htm

[11] A very limited amount of credit risk also exists with respect to potential default on the part of Government Securities Distributors to deliver securities that were repurchased.

Financial Risk / Interest Rate Risk

The primary focus of risk management in the context of domestic debt strategy has always been on the management of the structure of the domestic debt, which, due to its size and the potential impact of changing interest rates, is by far the most significant form of financial risk to which the Government is exposed[12] .

Monitoring Financial / Interest Rate Risk

Currently, the main operational measure used to monitor the debt structure is the fixed-rate share, which measures the proportion of all government interest-bearing debt that does not mature or need to be repriced within one year relative to the total amount of interest-bearing debt. The fixed-rate share is a meaningful planning and performance reporting tool because it is intuitive and easy to compute. The Government uses the fixed-rate share of the debt structure measure to communicate its debt management plans for the next fiscal year through the *Debt Management Strategy*, and occasionally through the *Budget*, and reports back on the attainment of the objectives for the measure through the *Debt Management Report*. The measure is also reported on a quarterly basis on the Department of Finance website.

Canada also monitors other measures of the debt structure, such as the average term to maturity and duration, to complement the information provided by the fixed-rate share, and this information is reported to senior management at the Department of Finance on a monthly basis.

Selecting a Level of Financial / Interest Rate Risk

The structure of the debt is managed in a way to protect the fiscal position from unexpected increases in interest rates and to limit refinancing needs. A long-term strategic view is taken in choosing a target debt structure that balances prudence and cost savings under a range of potential interest rate developments. The decision is not based on a particular view on the future evolution of interest rates.

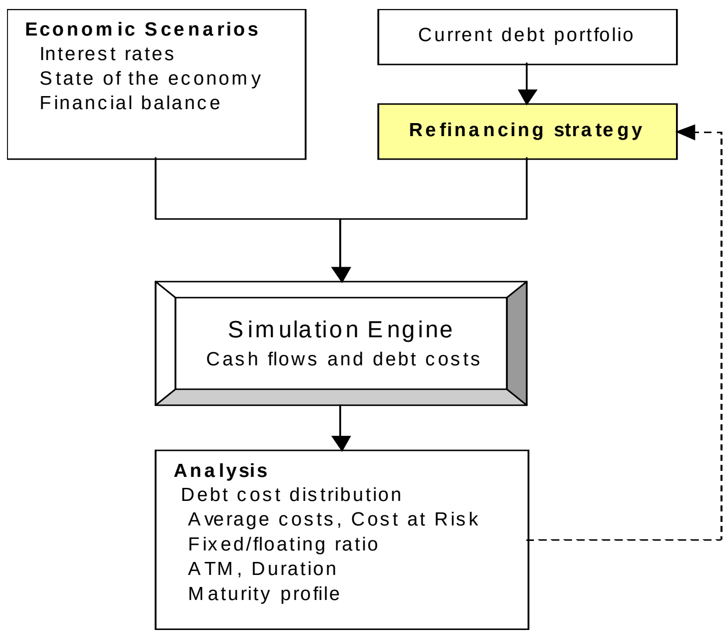
Debt-servicing costs increase (decrease) and interest rate risk decreases (increases) with a higher (lower) fixed-rate share. When determining the appropriate debt structure, the government generally faces a trade-off between keeping borrowing costs low and ensuring that the cost impact of unexpected increases in interest rates does not exceed its tolerance for risk. Specifically, long-term instruments such as bonds typically have higher debt-servicing costs than short-term instruments such as Treasury bills. On the other hand, interest costs for outstanding bonds are known

[12] Risk in the domestic debt portfolio is defined in terms of potential variations in debt costs rather than variations in the market value of the debt. Debt costs are the largest single expenditure item of the government, while changes in the market value of the debt have no impact on the budget balance.

with certainty over their entire life, while Treasury bills need to be refinanced several times throughout the year at new prevailing market interest rates.

A sophisticated, in house stochastic simulation model to examine its debt structure has been developed and continues to be enhanced on an ongoing basis. The model is intended to assist the government in the decision-making process for the selection of an appropriate debt structure that balances costs and risk. The main components of the model are illustrated in Figure 2.

Figure 2: Debt Strategy Framework



This model generates thousands of random interest rate scenarios based on historical dynamics. The choice of the model and the historical period is critical, since the relevance of the analysis depends on the plausibility of the scenarios. A financing strategy is then designed, taking into account existing debt as well as assumptions regarding future borrowing requirements. The financing strategy, which specifies the types and amounts of debt to issue, ultimately determines the debt structure.

With this information, it is possible to run the simulation model to generate cash flows and compute debt costs under every interest rate scenario. By combining the results for all the scenarios, a statistical distribution of future debt costs can be obtained from the model. Debt managers are then in position to examine the risk and cost profiles of a particular debt structure, and consider appropriate changes to the financing strategy, if necessary.

The average debt costs over the thousands of scenarios provide a measure of expected debt costs for a given debt structure. While risk has several dimensions and can be expressed in a number of different ways, debt managers pay particular attention to the risk that rising debt costs could disrupt the budget plan. Although the fixed rate share of the debt is the main operational measure for the government, probability based measures of risk, such as Cost-at-Risk, are used when selecting a target debt structure.

Cost-at-Risk, which allows for quantification of risk in terms of the maximum costs that could occur with a given probability in a particular year, is one of the tools used to compare alternative debt structures. This measure is similar to the well-known Value-at-Risk measure used extensively by the financial community, but is based on the distribution of debt costs rather than marked-to-market values.

Relative Cost-at-Risk, expresses the maximum increase in debt costs that can be expected with a 95% probability. This measure is particularly attractive for gauging risk in the debt portfolio because it can be directly compared to the level of prudence incorporated in the budget framework. In other words, in evaluating an appropriate debt structure, debt managers assess whether Relative Cost-at-Risk remains inside the risk tolerance limit.

Experience has shown that quantitative results of stochastic simulations are very sensitive to assumptions employed for the dynamics of interest rates, and thus need to be interpreted with caution. In addition, the technique may not capture adequately more extreme events.

Debt managers thus complement the stochastic analysis by examining scenarios to evaluate the impact of specific interest rate shocks on debt costs. While it is not possible to fully specify the characteristics of such shocks or their probability, stress testing allows program managers to consider the impact of worst-case scenarios (events that are highly unlikely but still possible), which provide useful insight on the risk of the debt portfolio.

Because of the passive approach to funding and the fact that the Government does not focus on changes in market value of the debt, the risk profile evolves slowly and there is no need for more frequent in-depth analysis beyond the annual simulation analysis.

Canada continues to enhance its modeling techniques. For example, recently completed improvements will enable debt strategy to be considered from a broader fiscal planning perspective, examining the co-movements of debt costs with the other components of the budget.

Legal Risk

Legal risk is mitigated by having a clearly documented, legally enforceable, process in place for the issuance or repurchase of Government of Canada, Canadian dollar-denominated debt. The legislative authority for the issuance of domestic debt was described in section 3.1. In the case of domestic debt, there is a legally documented process in place for the issuance of Government of Canada, Canadian dollar denominated debt. The following provides information on the documentation in place for Treasury bills and marketable bonds.

In the future possible dematerialization on all new issues of treasury bills and marketable bonds are issued in global form only, whereby a global certificate for the full principal amount of each security offered is issued in fully registered form to "CDS & Co.", a nominee of the Canadian Depository for Securities Limited (CDS). Terms and conditions of each issue are attached to the global certificate. Principal and interest are paid to CDS & Co. The securities must be purchased, transferred or sold directly or indirectly through a participant of the Debt Clearing Service operated by CDS, and only in denominations of $1,000 (face value) and integral multiples thereof. The CDS is responsible for tracking bondholders over the life of the bond and ensuring that coupon and principal payments, which the government pays to CDS, are distributed to the investors of record.

Receiver General Cash Management Program

Receiver General (RG) cash balances, the Government's Canadian-dollar balances, fluctuate widely over the year with variations in the Government's financial operations, periodic large maturities of Government of Canada bonds, the operations of the Bank of Canada and changes in market conditions. The primary objective is to hold the lowest level of cash balances, consistent with ensuring funds are available to meet daily requirements with an appropriate margin for uncertainty while investing the cash balances in the market to help mitigate the cost of carrying the balances.

The investment of these balances is achieved through twice-daily auctions of the funds, one in the morning (whereby a portion of the deposits are collateralized) and one in the afternoon.

A standard measure of the management of cash balances is the net return (cost of carry gained or earned) on the cash. The net return on cash balances is calculated as the difference between the return on Government balances auctioned to financial institutions (at something less than the overnight rate) and the average yield paid on treasury bills (based on a 50-25-25 weighted average of 3-, 6-, and 12-month bills). Treasury bill yields are used because it is assumed that the Government funds most of its short-term cash requirements with treasury bills and not bonds. However, the cost of carry is largely exogenously determined depending on the shape of the yield curve. A normal upward sloping short-term yield curve results in a cost of carry. The reverse is true for an inverted short-term yield curve.

Credit Risk: Counterparty and Collateral Risks

Credit risk in the RG framework includes both counterparty (risk exposure to the financial institutions) and collateral (risk exposure associated with the collateral posted) risks.

Mitigating Counterparty Risk

Since September 2002, a collateralization framework has been in place for the morning auction of Receiver General cash balances to mitigate credit risk.

Institutions eligible to participate in the morning auction include: regulated Canadian deposit taking institutions, federal Crown corporations and agents, provincial governments and their agents, municipal governments and municipal finance authorities, other financial institutions, investment dealers and corporations[13]. In addition, participants must reside in Canada, have a minimum credit rating of “BBB”[14] and be active in wholesale capital markets.

Participants rated “A” or better are extended an unsecured bidding limit based on their credit rating and the nature of their business. Participants may bid for amounts in excess of the unsecured bidding limits up to 100% of the amount being auctioned. Auction winnings in excess of their unsecured limit are fully secured with eligible securities through repurchase/reverse repurchase transactions. Participants with a credit rating of BBB and certain non-rated entities may participate, but only on a fully secured basis through the repurchase/reverse repurchase agreements.

The afternoon auction of Receiver General cash balances is limited to LVTS participants and is used to neutralize government cash flows and invest residual cash balances. Auction winnings are placed with successful bidders as unsecured deposits. The afternoon auction limit for an individual institution is correlated to its market share of Canadian dollar deposits (for tranches of less than $2.0 billion, the limit is calculated on the basis of a floor of a $2.0 billion tender). Credit risk is

[13] A full explanation of eligibility criteria for participants and eligible securities for sale and repurchase agreements may be found in “Terms and Conditions Governing the Morning Auction of Receiver General Cash Balances” available at www.bankofcanada.ca/en/auction/rec_general.pdf.

[14] BBB rated and non-rated entities may only participate on an uncollateralized basis with a guarantee from an “A” or better rated entity. Non-rated LVTS participants and Primary Dealers of Government of Canada securities may participate with restrictions: all activity is on a fully secured basis only and the total value of sale and repurchase agreements outstanding may not exceed $500 million.

managed through the use of auction limits, offering only a single tranche, and limiting the term of deposits to a single business day.

Mitigating Collateral Risk

The Government manages collateral risk by setting out strict guidelines as to the quality of eligible securities that may be used as collateral to minimize the risk of loss due to default. Eligible securities for Receiver General sale and repurchase agreements are defined in *Terms and Conditions Governing the Morning Auction of Receiver General Cash Balances*[15] .

Eligible securities include a broad range of corporate (bankers' acceptances, promissory notes, commercial paper) and government (federal, provincial, or their agents or municipal) securities rated "A-" or better. Risk of undue exposure to any single issuer or any single security is managed through the restrictions on the quality and outstanding value of securities pledged. General restrictions address issues of denomination, liquidity, a prohibition on embedded options, book entry format and a requirement that collateral be held in the DCS[16]. Further, there are limits on amounts of any one security that may be pledged by each participant based on issuer and rating.

Risk is further mitigated through the use of margin requirements applied against each security, depending on the issuer of the security and the remaining term to maturity of the security as outlined in the terms and conditions.

Reporting Counterparty and Collateral Risks

Total exposure for both unsecured and secured auctions is tracked and reported to the FMC on a regular basis. An agent appointed under the terms of a *Tri-Party Repo Service Agreement for the Receiver General Cash Balances Auction* carries out daily compliance monitoring and reporting.

On a monthly basis, the Bank of Canada provides a report to management showing the uncollateralized exposures to each participant over the previous month for the morning and afternoon auctions. The report highlights monthly changes in peak uncollateralized exposures on both an individual and aggregate basis.

[15] Terms and Conditions Governing the Morning Auction of Receiver General Cash Balances, available at http://www.bankofcanada.ca/en/auction/rec_general.pdf

[16] DCS is the Debt Clearing Service which is operated by the Canadian Depository for Securities Limited (CDS).

Legal Risk

All participants in the RG cash balances morning auctions are required to sign several documents as set out in the "Terms and Conditions Governing the Morning Auction of Receiver General Cash Balances" which establish their rights and responsibilities as participants in the auctions. These contracts limit potential losses by the Government of Canada resulting from the auctions.

The terms of participation for the afternoon auction of Receiver General balances are currently found in the *Memorandum of Understanding between the Government of Canada and Direct Clearers on Arrangements for Certain Banking Transactions*. An initiative to simplify and modernize the banking arrangements embedded in the MOU is currently underway, as certain components of the MOU have migrated to PWGSC or to the Bank of Canada as they relate more directly to their areas of responsibility. Parties to the MOU have agreed to consolidate RG afternoon auction procedures into a single standalone document which will be posted on the Bank of Canada's web site alongside the morning auction document in early 2008.

Part III: Foreign Currency Liability Programs and the Exchange Fund Account

Chapter

4

Risk Management Policies for the Foreign Currency Programs

This section details the risk management framework for the Government's foreign currency borrowings and investments.

Whereas risks in the domestic funds programs are program specific, the risks associated with the foreign currency programs cut across business lines and are addressed below in that manner to view them more comprehensively.

This chapter provides an overview of the foreign currency programs while the next four chapters provide a description of the management of the risks associated with these programs.

The Exchange Fund Account

The Government holds foreign exchange reserve assets in the Exchange Fund Account (EFA) to provide foreign currency liquidity and to provide the funds needed to help promote orderly conditions for the Canadian dollar in the foreign exchange markets, if required. Further details on the management of international reserves are available in the Report on the Management of Canada's Official International Reserves.

The assets held in the EFA are managed in accordance with the policies set forth in the Statement of Investment Policy (SIP)[17]. This policy is designed to achieve the strategic objectives of maintaining a high standard of liquidity, preserving capital value and, subject to those constraints, maximizing return. To achieve these goals, the policy permits a range of investments, notably in fixed income securities issued by sovereigns and their agencies or supranational organizations. The policy also permits investment in deposits with commercial banks, central banks and the Bank for International Settlements; repurchase agreements; commercial paper and certificates of deposits issued by private sector entities; gold and IMF special drawing rights. Lastly, the SIP allows for the lending or borrowing of securities held in the EFA through a securities-lending program or repurchase agreements to enhance portfolio returns.

Foreign Currency Liability Programs

The Government's foreign currency reserves are funded through foreign currency liabilities. The foreign currency reserve assets, and liabilities financing those assets, are managed on a portfolio basis, based on many of the asset-liability matching principles used by private sector financial institutions and a few other sovereigns, including prudent risk management principles.

Foreign currency debt has been issued by the Government to fund foreign currency reserves. The securities issued include Canada Bills, foreign currency global bonds, Canada Notes and Euro Medium-Term Notes.

Funding requirements have been increasingly been met through cross-currency swaps, which are particularly cost-effective, compared to other funding sources. Cross-currency swaps, which involve the issuance of domestic currency debt and the entering into a derivative contract to transform this liability into a foreign currency liability (denominated in US dollars or Euros), have been used since 1995 to fund the foreign exchange reserves. The largest source of risk in this program is credit risk, as the Government deals with several private-sector swap counterparties

[17] If there is a discrepancy between this document and the SIP, the latter shall be deemed correct.

and the total of swap amounts to roughly three quarters of foreign currency funding. The Government has in place a collateral management framework to control the credit risk exposure to financial institutions with which it executes swaps. High-quality collateral is posted to the Government if individual counterparty credit exposure, arising from changes in the mark-to-market values of swap contracts, exceed pre-set limits. Consistent with best practices, the Swap Management Policy (SMP)[18] documents the policies concerning the Government's swap program.

The Government of Canada issues Canadian-dollar debt and, at inception of the swap, gives the incoming borrowed funds to the counterparty in exchange for foreign currency principal. During the life of the agreement, the Government and the counterparty swap interest payments (based on either a fixed or floating interest rate for each). The Government uses the interest it receives to pay (in whole or in part) the interest it owes on the wholesale debt it issued prior to inception of the agreement. At the termination of the agreement, the two parties exchange the principal amounts exchanged at inception of the swap agreement.

[18] Swap Management Policy, available at http://www.fin.gc.ca/efa/SwapMgmte.html.

Chapter

5

Credit Risk

The Government faces credit risk exposure on its EFA operations in numerous ways. The most direct credit exposure is on EFA assets since a credit event, such as a default or credit downgrade of the issuer of securities held in the EFA, would reduce the market value of the assets. The effect of a downgrade, in the case of a marketable security, would depend upon the price sensitivity of the security to yield (and spread) increases. Hence, longer-term and lower-rated securities are exposed to greater downgrade and default risks than shorter-term and higher-rated ones. In addition, market downgrade expectations could also widen yield spreads in advance of actual downgrades. The Government also faces credit risk in its swap, deposits and repurchase programs.

Mitigating Credit Risk

The Government strives to mitigate credit risk through consolidated credit restrictions and limits. Program specific guidelines and limits have also been established.

Consolidated Credit Restrictions and Limits

Credit risk is predominantly managed through two sets of policies. The first set focuses on the asset class choice and diversification considerations for the EFA: the potential for material credit losses can be minimized if investment exposure is restricted to portions of the total portfolio. The second set minimizes credit risk exposure by investing in a restricted list of eligible assets that have low credit risks. The EFA only does business with the highest rated counterparties. For yet greater protection, credit risk is further mitigated through counterparty maturity limits and counterparty type restrictions.

a) Issuer Type Restrictions

The Government can invest in fixed-income securities issued by a sovereign, sovereign agencies, government-supported entities, and supranational institutions.

Reserves can also be invested in deposits with financial institutions or in US-dollar repos. The Government can also invest in commercial paper and certificates of deposit issued by private sector entities. Further information on the Government's US-dollar repo program can be found in the Repo Program section below. The aggregate and individual limits are reported later in this paper.

Credit Rating Restrictions

To be eligible for EFA investment or to become a swap, deposit, or repurchase counterparty, an issuer or counterparty must have a senior unsecured long-term debt credit rating in the top seven categories (i.e. "A-" or better) from at least two of the four main rating agencies: Moody's Investors Service, Standard & Poor's (S&P), Fitch Ratings, and Dominion Bond Rating Service (DBRS). When the credit ratings for a counteryparty/ issuer differ, the rating of the second highest rating agency will be used to assess eligibility[19], consistent with Basel II approach.

Table 1: Limits on exposure to sovereigns, their central banks and their directly guaranteed agencies at market value (as a % of liquid reserves)

Issuer	Aggregate limits (% of reserves target level)	Individual counterparty limits (% of reserves target level)
"AAA" sovereigns in domestic and foreign currency (including directly guaranteed agencies)	Unlimited	20 (Excluded from above would be direct domestic currency obligations of US, France, Germany and Netherlands)
"AA-" to "AA+" sovereigns in domestic and foreign currency (including directly guaranteed agencies)	25	10
"A+" sovereigns (including directly guaranteed agencies)	2 (to be included in the above 25% limit)	1.67
"A" sovereigns (including directly guaranteed agencies)		0.83
"A-" sovereigns (including directly guaranteed agencies)		0.33
Government-supported entities (senior unsecured obligations)	15	3
Supranationals (excluding Bank for International Settlements)	25	10
Bank for International Settlements	10	-

[19] Stand-alone credit ratings for commercial banks by Moody's (Bank Financial Strength Rating (BFSR)) and by DBRS (Intrinsic Assessments) will be used in conjunction with official credit ratings from S&P and Fitch to provide the relative credit quality of counterparties / issuers. The use of stand-alone ratings is to remove the assumption of implicit government support embedded in the official ratings of Moody's and DBRS. However, in cases where two or more ratings are the same, for example, Moody's is AA, S&P is AA, DBRS is AA- and Fitch Ratings is AA-, the EFA rating would be AA (not AA-).

The only allowable unrated investments are the following: a) securities issued by and deposits with central banks and the Bank for International Settlements and b) investments in special drawing rights (SDRs) created by the International Monetary Fund (IMF).

b) Measuring Credit Risk

Controlling aggregate exposure - Actual and Potential Exposures

"Actual" exposure represents what the loss would be if the counterparty or obligor were to default immediately. In the case of EFA assets, this is measured in terms of par value; for derivative transactions it is measured as the cost of replacing the defaulted contracts in the market. "Potential" exposure represents the plausible future actual exposure and is relevant only to swap and other derivative transactions. The current methodology for calculating the swap exposure was put in place in 2000. It is largely based on the BIS methodology, but the government calculates actual and potential exposures separately for individual counterparties across all lines of business.

For cash investments, actual exposure is equal to the par value (at current foreign exchange rates) except in the case of repurchase transactions, which, when appropriately collateralized, are assigned an actual exposure value of zero. For derivative contracts, actual exposure is the net replacement cost of all relevant contracts should the counterparty default today and is equal to the total mark-to-market value of all contracts less the value of any collateral posted, unless this total is negative, in which case it is set to zero.

Table 2: Exposure limits by credit rating of private sector counterparties/issuers

(% of the reserves target level or USD)

Type of Exposure	EFA Credit Rating						
	"AAA"	"AA+"	"AA"	"AA-"	"A+"	"A"	"A-"
Individual actual exposure*	1.00%	0.67%	0.50%	0.33%	0.17%	0.08%	0.03%
Total Actual exposure	N/A				2%		
Deposits	At discretion of ALMC						
Commercial Paper /Certificate of Deposit	At discretion of ALMC						
Individual potential exposure	0.80%				0.40%	0.20%	0.10%

* Applies to all lines of the EFA business on a consolidated basis: mark-to-market values for forwards; and par values for deposits, commercial paper and certificates of deposits.

In practice, as a result of some of the mechanical aspects of CSA collateral posting, when a swap counterparty is posting collateral, an actual exposure equal to the limit is assigned.

Credit value-at-risk

Credit value-at-risk (VaR) is defined as the maximum loss that the portfolio could potentially incur at a certain confidence level (99.9 per cent) over a one-year horizon as a result of credit events under normal market conditions. The credit VaR provides a more complete understanding of credit risk at the portfolio level because it takes into account downgrade and upgrade probabilities for each credit rating and asset correlation as well as the duration of credit exposures.

Expected shortfall

The expected shortfall is the average of the losses that exceed the credit VaR threshold. It gives an indication of the size of extreme losses, whose possibility of happening (0.1 per cent) is not captured by the credit VaR.

Credit risk stress tests

Credit risk stress tests evaluate potential losses to the EFA assets under hypothetical credit events, such as counterparties with negative outlook being downgraded.

Other Program-Specific Credit Risk Policies

EFA Securities

Transactions Done on Delivery vs. Payment Basis

To decrease credit risk during the execution of transactions (i.e., buying and selling EFA securities), the normal "A-" threshold also applies to the dealers through whom securities trades are transacted on a delivery-versus-payment (DVP) basis[20]. However, some flexibility is exercised, in that the dealer itself need not necessarily have the required rating if its parent does. Counterparties who do not meet these criteria can be submitted to the Risk Committee for an exception review.

[20] In the event that a particular rating agency has a short-term rating for the counterparty in question, but no long-term unsecured debt rating, the short-term rating may be mapped into an equivalent long-term unsecured debt rating. More specifically, a Moody's P-1, any S&P A-1, any Fitch F1, and a DBRS R-1 (mid) maps into an A- long-term unsecured rating. An S&P A-1+, a Fitch F1+ and a DBRS R-1 (high) map into an AA- long-term unsecured debt rating. However, the usual two-rating rule still applies.

The Swap Collateral Management Framework

To be eligible for swap business, counterparties must sign a Collateral Support Annex (CSA). This is signed in addition to the master agreement, which includes netting and other terms. Under the CSA, high-quality collateral is posted to the government if individual actual credit exposures, arising from changes in the mark-to-market values of swap contracts, exceed pre-set threshold limits.

Eligible Collateral Under the CSA

Only marketable securities issued by the US Treasury, Fannie Mae, Freddie Mac and Federal Home Loan Bank, Government of Canada Treasury Bonds and Bills, and Canadian and US dollar cash can be submitted as collateral under such CSAs. Further, all US-dollar denominated securities posted should meet the EFA's eligibility requirements, e.g. no callable bonds. In addition, a haircut of 2 per cent is applied to all posted securities with up to one year remaining to maturity, as is industry practice, and 5 per cent beyond one year. There is no haircut applied to cash collateral. For bonds and notes, the allowable term to maturity is at least 1 year but no more than 10 years.

Valuation of Swaps and Collateral

Swaps are marked-to-market every day, and actual exposures are calculated daily. The degree of under-collateralization is reviewed bi-monthly. The minimum collateral transfer amount is US$10 million for counterparties rated "AA-" and better, and US$1 million for counterparties rated below "AA-". Hence, the net actual exposure, for counterparties rated AA- and higher, can be up to US$10 million above limit before a re-collateralization call can be made. Margin calls are made in accordance with the CSA agreement.

USD Tri-Party Repo Program

Counterparty Eligibility

Counterparty eligibility limits are determined by credit rating. The details are shown in Table 3. If a dealer is unrated, the parent company must have a credit rating of "A-" or above[21].

Table 3: Individual limits on outstanding amounts of repurchase ("repo") transactions (Par value)

	Credit Rating		
	"AAA"	"AA-" to "AA+"	"A-" to "A+"
Versus US Treasury and US Agency collateral combined	2.50%	1.67%	1.00%

[21] In the event that a particular rating agency has a short-term rating for the counterparty in question, but no long-term unsecured debt rating, the short-term rating may be mapped into an equivalent long-term unsecured debt rating. The details of this mapping were discussed in an earlier footnote.

Eligible Collateral

The program permits only “AAA” US Treasury and Agency securities with terms to maturity not exceeding 10.5 years. In addition, a haircut of 2% applies to all collateral, as is common market practice.

Intra-Day Credit Limit to Custodians

Under the Government’s tri-party repo framework, daily unwinding of repo trades is not permitted, and a repo counterparty can only substitute collateral on a security-by-security basis. This is to eliminate intraday credit exposure except on repo inception and termination dates. In order to control the intra-day credit risk to clearing banks on inception and termination dates, a daily US$500 million credit cap was put in place. Repo trades and maturities have to be structured so that, in any one day and with any one custodian and no more than US$500 million could settle or mature.

Term Limits

The term to maturity for repo transactions varies from overnight to 3 months (the maximum term limit).

Collateral Management

The clearing banks manage the repo collateral during the term of the repo. This includes valuing the initial collateral and marking the collateral to market, making collateral substitutions, and ensuring that the repo is fully collateralized at all times.

Securities Lending Program

Under the *Securities Lending Authorization Agreements* contracted between the government and its agents, the agents agree to indemnify the EFA against any loss resulting from the default of a borrower thus reducing the counterparty risk faced by the EFA.

Eligible Collateral

Each loan must be initially collateralized at 102% using cash or eligible securities (high credit short term sovereign, supranational notes or US agency discount notes).

Valuation

The loans are marked-to-market daily and additional collateral is required should the market value of the collateral fall below 101% of the market value of the repo.

Chapter

6

Market Risk

Market risk reflects the risk the government faces from adverse changes in the value of its positions resulting from changes in market factors such as interest rates and exchange rates. Interest rate risk is the risk that changes in yield will impact the value of reserves. An increase (decrease) in yields will lower (raise) the value of assets. Currency risk is the risk that changes in exchange rates will impact on the value of assets held by the government. Since EFA reserves are reported in US dollars, fluctuations in the euro or Yen against the US dollar will impact the US-dollar value of foreign reserves.

Mitigating Market Risk

To manage market risk, the government follows an "asset-liability matching framework", whereby the assets, and the liabilities that fund them, are matched as closely as possible in currency and duration, so that the government is not materially exposed to changes in currency values and interest rates.

Measuring Market Risk

The Government uses three measures for market risk: value-at-risk (VaR), dollar duration and the asset-liability gap. Stress tests are also used to complement these measures.

Value At Risk

Value-at-risk (VAR) is a tool used to measure the Government's exposure to market risk. It is a summary measure of possible portfolio losses due to normal market movements (i.e., changes in interest rates and exchange rates) over given period. VAR is calculated on a gross and net basis.

The gross VaR is relevant because there are guidelines specifying targets for the total level of liquid reserves and for the US dollar share. Thus, the gross VaR can be used to provide an indication of the probability of breaching those thresholds over a certain time-period. The net VaR is a useful indicator of how well the portfolio is matched and is useful as a supplemental piece of information to the traditional interest rate sensitivity and exchange rate sensitivity analysis.

Key Rate Duration

While the commonly used “dollar duration” is the impact on the price of a fixed income security subject to a 100 basis point change in interest rates across the whole yield curve, Key rate durations is the sensitivity of the portfolio value to movements in individual points, or spot rates, along the yield curve. Key rate duration provides a measure of the overall level of interest rate exposure (overall dollar duration) and information on whether or not the portfolio is exposed to risk from non-parallel shifts in the yield curve, such as steepening or flattening, which cannot be measured from ordinary dollar duration.

Asset-Liability Gap

To minimize the Government’s exposure to market risk, the difference between gap between the market values of assets and liabilities must be under US$300 million at all times.

Stress Tests

As a complement to this analysis, market VaR in particular, stress tests are used and reported in order to give a sense of how the portfolio is expected to perform in periods when markets are turbulent. Specifically, stress testing attempt to gauge the vulnerability of a portfolio to hypothetical events, by using hypothetical or actual extreme historical events, to measure the possible losses in either type of scenario. Stress testing does not indicate the probability that either the hypothetical scenarios will occur, or that the historic events will re-occur, simply the impact on the portfolio in question.

Total Net Return

Total Net Return is a performance measure it gives an indication of how well the EFA is matched in duration and currency to corresponding liabilities, and therefore hedged from market risk.

Reporting on Market Risk

A monthly “Performance and Risk Report” is presented to senior management at the Department and the Bank. The Report is a comprehensive account of activities within the EFA and includes detailed metrics related to the assets and liabilities of the EFA, as well as an assessment of performance and risks in the management of the EFA. Details on market risk developments and exposures are included in the monthly report. They are also reported in the Annual Report on the Management of Canada's Official International Reserves, available at http://www.fin.gc.ca/purl/efa-e.html.

Chapter

7

Liquidity Risk

Adequate liquidity is crucial for the Exchange Fund Account given that it is intended to meet the government's core liquidity requirements in foreign currencies. Intervention is likely to take the form of sales of US dollars to purchase Canadian dollars, so US dollar liquidity is particularly important. In general, the EFA holds only such securities that are known to trade in deep markets at tight bid-offer spreads.

Mitigating Liquidity Risk

The Liquidity and Investment Tiers

In recognizing the immense importance of liquidity in times of market stress, the government has specified two sets of asset tiers based on liquidity. The first recognizes the value of immediate liquidity by establishing a liquidity tier of assets. By default, the second addresses any additional reserves not deemed to be part of the liquidity tier. This tier is known as the investment tier.

The liquidity tier maintains a USD target balance of US$12 billion subject to a prudent operating range (on a par value basis)[22]. It is composed of two sub-tiers, tiers I and II listed in Table 4. Moreover, irrespective of maturity, at least 10% of liquid reserves target level must be held in the form of marketable US Treasury securities (on a par value basis). There are no minimum liquidity limits for other currencies.

Terms of Investment

Reserves that are not considered liquidity tier instruments are deemed to be in the investment tier. Policies for the mitigation of liquidity risk can be segmented into two groups: maturity limits and holding limits. These limits are listed in Table 5.

[22] This amount excludes deposits and re-purchases maturing beyond the next day.

Table 4: US Dollar Liquidity Tier Composition (Minimum 25% of liquid reserves) (Based on par value)

Sub-Tier	Minimum Size	Maximum Remaining Term	Eligible Investments
I	10% of liquid reserves target level	1 year	US Treasury bills, US Agency discount notes, FIXBIS deposits, overnight bank and BIS deposits, overnight repurchase agreements, short-term marketable paper
II	-	10.5 years	Marketable US Treasury securities, US Agency securities, sovereign and supranational securities (including BIS MTIs)

Table 5: Maturity and Holding Limits

Maturity Limits	
Maximum term to maturity on marketable securities from issuers rated "AA-" or better	10.5 years
Maximum term to maturity on investment rated from "A-" to "A+"	5 years
Commercial Paper and Certificates of Deposit	1 year
Maximum term to maturity on bank deposits, repurchase agreements and other "non-marketable" investments	3 months
Holding Limits	
Minimum amount outstanding of any bond or note (based on par value)	US$500 million

Monitoring Liquidity Risk

The government monitors the EFA's liquidity position by assessing the EFA's position relative to the liquidity limits. A "days-of liquidity" measure is used to indicate how long the EFA can meet its objective of providing the Government acess to liquid assets in the event of a crisis situation before new funds are required (either through funding or sale of assets). The and represents the number of days of liquidity existing at the beginning of a stress event.

Chapter

8

Legal Risk

The government strives to ensure contracts with counterparties are appropriately documented, legally enforceable and executed to mitigate the legal risk involved in the management of the EFA and associated programs.

There is a legally documented process in place for the issuance of Government of Canada foreign currency debt. These include dealership agreements, issuing and paying agency agreements, global notes and legal opinions for each issue. Terms and conditions for each issue are attached to the global certificate. All public issues are listed on the Luxembourg Stock Exchange. In addition, information on Canada (including the Budget, the Fall Fiscal Update, etc) are filed regularly with the U.S. Securities and Exchange Commission.

Mitigating Legal Risk

Legal Risk Policies by Program

The following provides an overview of the legal documentation and practices supporting the various foreign currency debt instruments[23].

Canada Bills

Canada Bills are issued in book-entry form and settle through the Depository Trust Company (DTC). There is a Master Note in registered form, registered in the name of DTC's nominee, Cede & Co., and such Note represents 100% of the principal amount outstanding at any time. Payments are made to the Depository Trust Company via the fiscal agent.

Canada Notes

Each Canada Note issue is represented by global note for the full principal amount registered in the name of Cede & Co., the nominee of the Depository Trust

[23] All securities discussed are issued under Canadian law

Company. The terms and condition of the Notes are attached to each global certificate. Payments of principal and interest are made to the Depository Trust Company, through the fiscal agent.

Euro Medium-Term Note (EMTN) Program

Each EMTN issue is represented by a permanent global note for the full principal amount which is deposited with Morgan Guaranty Trust Company of New York, Brussels office, as operator of the Euroclear system. The terms and conditions of the Notes are set out in the Issuing and Paying Agency Agreement as amended by a pricing supplement for each issue and are attached to the Notes. Principal and interest are paid to Euroclear via the fiscal agent.

Global Bonds

In general, Global Bonds are in the form of registered global securities (each a Global Bond) registered in the name of the nominee of The Depository Trust Company and recorded in a register held by the Registrar. Beneficial interest in the Global Bonds is represented through book-entry accounts of financial institutions acting on behalf of beneficial owner as direct and indirect participants in The Depository Trust Company. Except in limited circumstances, owners of beneficial interest in the Global Bonds will not be entitled to have Bonds registered in their names and will not receive or be entitled to receive Bonds in definitive form. The Bonds are sold in minimum aggregate principal amounts of US$1,000 and integral multiples thereof.

Swaps

Standard documentation for the swap program includes the 1992 or the 2002 ISDA (International Swap and Derivative Association) Master Agreements and the Credit Support Annexes. These are widely used and are the accepted market standard. It is generally agreed that the Agreements express the intention of the parties and are enforceable in accordance with their terms against the counterparty, subject to solvency.

EFA Deposits and Securities

There are a number of restrictions on which jurisdictions are acceptable for commercial bank deposits. For example, deposits may be booked with Canadian branches and subsidiaries of foreign banks. Furthermore, deposits may be placed with UK and Irish branches and subsidiaries of UK and Irish commercial banks. Deposits may also be placed with UK and Irish branches of non-UK and non-US commercial banks, except for banks whose home country is in a country that has adopted the euro. Deposits with Canadian-domiciled entities are not permitted.

USD Tri-Party Repo Program

Standard documentation for the US$ Modified Tripartite Repo includes the Bond Market Association (BMA) Master Repurchase Agreement under New York law, and the Custodial Undertaking in Connection with Master Repurchase Agreement.

Securities Lending Program

The government has agreements between Canada and the securities lending agents under which the agents agree to carry out securities lending on behalf of Canada; there is also an agreement between the agents and the borrower under which Canada's securities are loaned to the borrower.

Measuring Legal Risk

The Department of Justice provides a comprehensive legal risk review of treasury functions on a periodic basis. These reviews include a thorough assessment of documentation in place and also recommendations as to actions required to mitigate, to the greatest extent possible, legal risk.

Chapter

9

Operational Risk

Operational risk associated with the Government's funds management activities is managed separately within the Bank of Canada and the Department of Finance through their corporate risk management frameworks. The Bank of Canada's framework is fully integrated into its strategic planning, quarterly expenditure monitoring and reporting, and year-end stewardship processes. It therefore supports informed decision-making by ensuring that the appropriate competencies, analytic tools, and consultation and communication form the foundation for innovation and responsible risk-taking.

Mitigating Operational Risk

The Bank of Canada mitigates operational risk by implementing procedures that clearly separate the trading, middle office, and back office functions. Trade entry, trade validation and risk monitoring functions are performed by different units within the Bank of Canada. Trades are entered into a fully integrated system that provides a detailed audit trail of all trades. This system also offers real time risk control and risk monitoring.

The Bank of Canada also has Business Continuity Plans in place so that there is appropriate redundancy. This includes back-up systems and second site capabilities to perform operations.

The Bank of Canada's risk management process has six key steps:

- Establish the strategic context taking into consideration the strategic direction and objectives in the Bank of Canada's medium-term business plan;
- Identify the key risk areas and the approaches to managing the risks;
- Determine the level of risk - likelihood and consequences;
- Assess whether risk is at an acceptable level;

- Develop options for managing a risk that is assessed at an unacceptable level and implement the preferred option; and

- Monitor, manage and report on the areas of risk.

For each area of risk, an assessment is made as to the likelihood of the risk occurring, the potential consequences, and the approaches to manage the risks. The level of risk (likelihood and consequences) for each key area of risk is evaluated in a qualitative fashion. The broad categories of risk relate to financial, security, operational (i.e., human resources, information technology, systems, and legal) and reputation risks.

Measuring Operational Risk

Measurement of operational risk at the Bank of Canada is integrated into the same process as its risk mitigation functions.

Part IV: Public Accountability

Chapter 10

Public Accountability

The Department of Finance has a review program in place that includes internal audits and evaluations in addition to an external program evaluation process. The various facets of these ongoing reviews are aimed at ensuring good governance and public transparency by providing regular reports to the Minister, Parliament and the public on the performance of treasury programs.

Internal Evaluation

The Department of Finance, in collaboration with the Bank of Canada, conducts on an as-needed basis, detailed reviews of programs and policies to assist in the development of policy advice.

The Department of Finance and the Bank of Canada also maintain Internal audit and evaluation functions, which periodically review funds management activities.

On a periodic basis, the Department of Justice provides a comprehensive legal risk review of treasury functions. These reviews include a thorough assessment of documentation in place and also recommendations as to actions required to mitigate, to the greatest extent possible, any chance of loss from legal risk.

External Evaluation

The Department of Finance and Bank of Canada conduct semi-annual consultations with market participants on wholesale debt and cash management program design and implementation.

The Department of Finance maintains an external evaluation function specific to funds management, where independent third parties undertake multi-year reviews of funding and investing policies and practices. These reviews contribute to the development of policy and priorities. Further details on the Treasury Evaluation Committee (TEC) program are contained in the Debt and Reserves Management Program Evaluation Overview (approved March 2002).

Reports on findings and the Government's response to the evaluation are tabled with the Public Accounts Committee of the House of Commons by the Minister of Finance. A copy is also sent to the Auditor General of Canada.

Public Reports

Given the importance to Canadians of excellence in the management of the treasury functions a number of reports, described below, are utilized to ensure appropriate accountability and transparency.

Debt Management Strategy

Prior to the start of a fiscal year, the Minister of Finance submits a report to Parliament that provides details on the Government of Canada's wholesale and retail debt management strategy for the coming fiscal year. (http://www.fin.gc.ca/purl/dms-e.html)

Debt Management Report

Within 30 sitting days of the tabling of the Public Accounts of Canada in Parliament, the Minister of Finance provides Parliament with a report on the Government of Canada debt operations for the previous fiscal year. The DMR provides measurement of performance against the plan set out in the DMS. (http://www.fin.gc.ca/purl/dmr-e.html)

Report on the Management of Canada's International Reserves

Within 60 sitting days after the end of each fiscal, the Minister of Finance provides Parliament with a review of the operations of the Exchange Fund Account for the previous fiscal year and the changes in Canada's international reserve holdings against the background of developments in the foreign exchange market. The accompanying Financial Statements, which are audited by the Office of the Auditor General, provide additional information on the operations of the EFA. (http://www.fin.gc.ca/purl/efa-e.html).

In addition to this annual report, the Department has a monthly press release on the Official International Reserves which includes details on the level and composition of Canada's reserves over the previous month, as well as the major factors underlying the change in reserves.

Departmental Performance Report

At the end of each fiscal year, the Minister of Finance publishes the Departmental Performance Report in which the Department of Finance's activities and accomplishment during the previous year are articulated[24].

Debt Program Evaluation

Reports on the findings of debt program evaluations, including Department of Finance comments, are tabled with the Public Accounts Committee of the House of Commons by the Minister of Finance. A copy is also sent to the Auditor General of Canada. Starting in 2004, the reports are also posted on the departmental website. (www.fin.gc.ca/access/fininste.html#Treasury)

Review of Governance Frameworks

This document and other supporting governance documents – including the MOU on Risk Management, the Treasury Evaluation Program Framework, the Statement of Investment Policy for the Exchange Fund Account (SIP), the Swap Management Policy and the Treasury Management Governance Framework – are reviewed on a regular basis to ensure efficient coordination and control of activities and effective policy development and decision-making.

The secretariat of the ALMC is responsible for maintaining this document up to date.

[24] Available at http://www.fin.gc.ca/purl/dpr-e.html