



Department of Finance  
Canada

Ministère des Finances  
Canada

# Debt Management Report

2011–2012

Canada<sup>!</sup>

**©Her Majesty the Queen in Right of Canada (2012)**  
**All rights reserved**

All requests for permission to reproduce this document or any part thereof  
shall be addressed to Public Works and Government Services Canada.

*Cette publication est également disponible en français.*

Cat. No.: F1-33/2012E-PDF  
1487-0177



# Table of Contents

<b>Foreword by the Minister of Finance</b> .....	<b>5</b>
<b>Purpose of This Publication</b> .....	<b>6</b>
<b>Introduction</b> .....	<b>7</b>
Federal Debt Management .....	7
Highlights of 2011–12 .....	8
Government of Canada Credit Rating Profile .....	10
<b>Part I: 2011–12 Debt Management Context</b> .....	<b>11</b>
Financial Market Developments.....	11
Budgetary Outcomes.....	12
Sources and Uses of Borrowing.....	13
<b>Part II: Report on Objectives and Principles</b> .....	<b>16</b>
Objectives and Principles .....	16
Raising Stable, Low-Cost Funding .....	16
Maintaining a Well-Functioning Government Securities Market.....	21
<b>Part III: Report on the 2011–12 Debt Program</b> .....	<b>32</b>
Domestic Marketable Bonds .....	32
Treasury Bills and Cash Management Bills .....	35
Foreign Currency Debt.....	37
Retail Debt .....	38
Cash Management .....	39
<b>Annex 1: Completed Treasury Evaluation Reports</b> .....	<b>42</b>
<b>Annex 2: Debt Management Policy Measures     Taken Since 1997</b> .....	<b>43</b>
<b>Annex 3: Glossary</b> .....	<b>44</b>
<b>Annex 4: Contact Information</b> .....	<b>47</b>
<b>Reference Tables</b> .....	<b>49</b>





# Foreword

## by the Minister of Finance

Canada continued along the path of economic growth and sustainable long-term prosperity over the past year, amidst a tumultuous global backdrop. Our emphasis on responsible fiscal management played a pivotal role, and helped maintain a receptive market for Government of Canada debt securities in 2011–12.

Canada's reputation is well-earned: Canada continues to demonstrate comparative strengths across a host of internationally recognized indicators; our banks remain among the soundest in the world, according to the World Economic Forum; and we have maintained the highest possible credit ratings from all major credit rating agencies.

We have continued to demonstrate the discipline required to make Government of Canada-issued debt among the world's most sought-after investments. Our independent Auditor General has validated our performance, reporting that we continue to achieve the objective of a well-functioning securities market while striking a balance between costs and risks, and that we remain ever nimble in the face of emerging risk and change.

In light of ongoing economic uncertainty, Canada has not been idle. We have refined our fiscal prudence through a new medium-term debt management strategy and prudential liquidity plan focused on stability and reducing financial risk.

The Government's renewed commitment to economic growth and sound public finances is proven: both the International Monetary Fund and the Organisation for Economic Co-operation and Development expect our economic growth to be among the best in the Group of Seven (G-7) in the next two years.

Maintaining a liquid, well-functioning government securities market will continue to be an important objective of the Government's debt management strategy. I invite you to explore the details of the Government's approach to debt management in this year's *Debt Management Report*.

The Honourable James M. Flaherty, P.C., M.P.  
Minister of Finance  
Ottawa, December 2012



# Purpose

## of This Publication

This edition of the *Debt Management Report* provides a detailed account of the Government of Canada's borrowing and debt management activities for fiscal year April 1, 2011 to March 31, 2012.

As required under Part IV (Public Debt) of the *Financial Administration Act*, this publication ensures transparency and accountability regarding these activities. It reports on actual borrowing and uses of funds compared to those forecast in the 2011–12 *Debt Management Strategy*, published in June 2011 as Annex 2 of Budget 2011 ([www.budget.gc.ca/2011/plan/Budget2011-eng.pdf](http://www.budget.gc.ca/2011/plan/Budget2011-eng.pdf)). It also discusses the environment in which the debt was managed, the composition of the debt and changes in the debt during the year, strategic policy initiatives and performance outcomes.

Additional information about the federal debt can be found in the *Public Accounts of Canada*. Information on the management of Canada's foreign reserves is provided in the *Report on the Management of Canada's Official International Reserves*. The *Debt Management Strategy*, the *Debt Management Report* and the *Report on the Management of Canada's Official International Reserves* are tabled annually in Parliament and are available on the Department of Finance website.

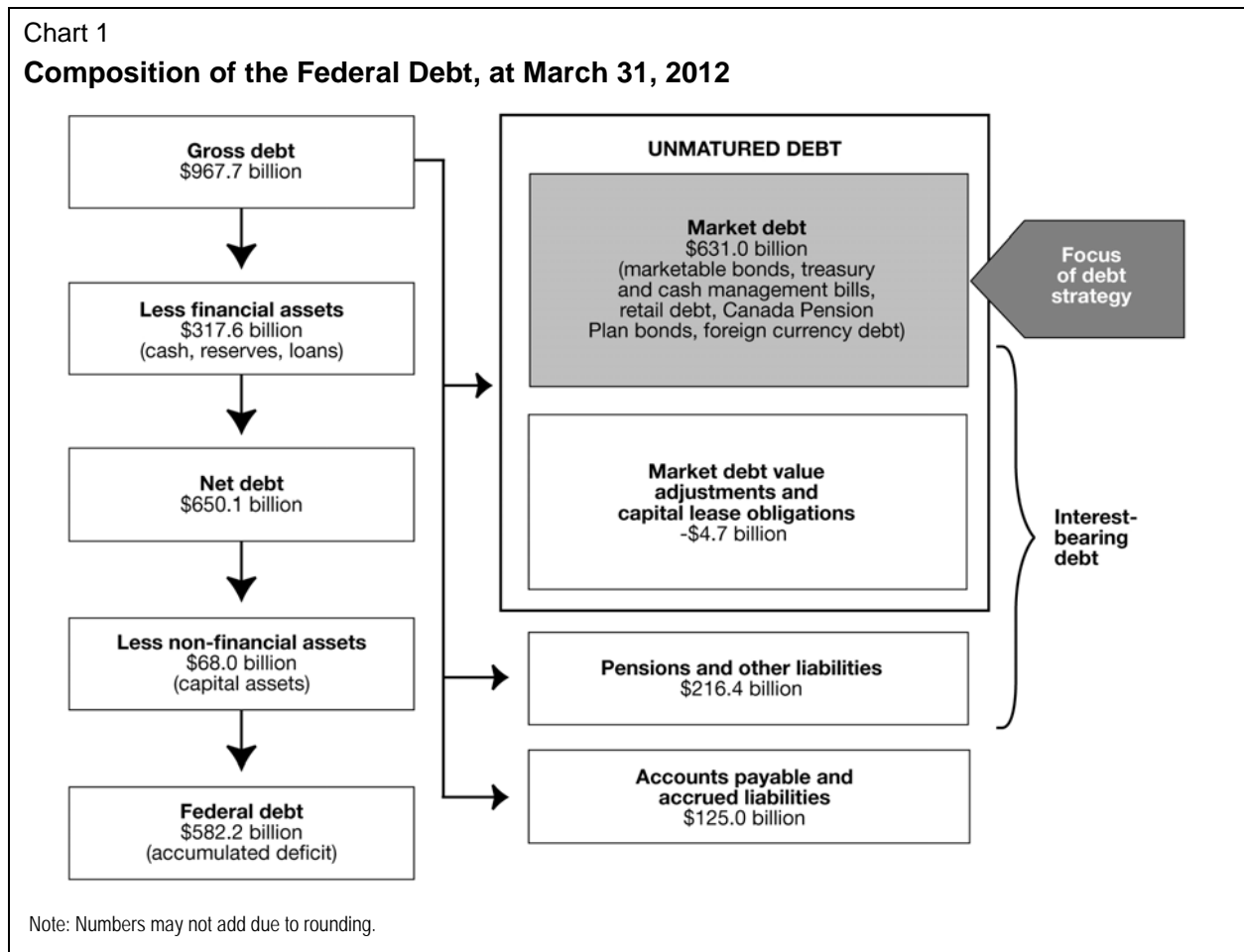


# Introduction

## Federal Debt Management

This publication focuses on two major activities: (i) the management of federal market debt (the portion of the debt that is borrowed in financial markets); and (ii) the investment of cash balances in liquid assets until needed for operations.

With total liabilities of \$967.7 billion, financial assets of \$317.6 billion and non-financial assets of \$68.0 billion, the federal debt (accumulated deficit) stood at \$582.2 billion at March 31, 2012, while the Government of Canada’s market debt totalled \$631.0 billion (see Chart 1).





There are two types of market debt: domestic debt, which is denominated in Canadian dollars, and foreign currency debt. Funding in Canadian dollars is done through both wholesale and retail channels. Domestic wholesale funding is conducted through the issuance of marketable securities, which consist of nominal bonds, Real Return Bonds and treasury bills, including cash management bills. These securities are sold via auction. Retail funding is raised through sales of Canada Savings Bonds and Canada Premium Bonds to Canadian residents. Cross-currency swaps of domestic obligations and issuance of foreign currency debt are used to fund foreign reserve assets held in the Exchange Fund Account. A report on the management of Canada's official international reserves is available on the Department of Finance website ([www.fin.gc.ca/purl/efa-eng.asp](http://www.fin.gc.ca/purl/efa-eng.asp)).

A detailed description of Government of Canada market debt instruments is available on the Department of Finance website ([www.fin.gc.ca/invest/instru-eng.asp](http://www.fin.gc.ca/invest/instru-eng.asp)).

External assessments of the frameworks and processes used in the management of market debt, cash and reserves as well as the treasury activities of other entities under the authority of the Minister of Finance can be found on the Department of Finance website ([www.fin.gc.ca/access/fininst-eng.asp](http://www.fin.gc.ca/access/fininst-eng.asp)). See Annex 1 for a list of treasury evaluations performed since 1992.

## **Highlights of 2011–12**

### **Sources and Uses of Borrowings**

The total amount of cash raised through borrowing activities in 2011–12 was \$279 billion. Over the same period, refinancing needs totalled \$245 billion. The financial requirement was \$32 billion, leading to a net increase in cash holdings of \$3 billion in 2011–12.

The stock of market debt increased by \$34.1 billion in 2011–12, bringing the total stock to \$631.0 billion. The increase in the total stock was mainly comprised of a \$32.0-billion increase in the stock of domestic marketable bonds, a \$3.1-billion increase in foreign currency debt, and a \$1.2-billion decrease in the stock of retail debt outstanding.

### **Strong Demand for Government of Canada Securities**

In 2011–12, demand for Government of Canada securities continued to be strong in the primary and secondary market as a result of an ongoing flight to high quality assets globally and Canada's sound fiscal, economic and financial sector fundamentals. Accordingly, treasury bill and bond auctions remained well-covered and well-bid. Canadian bond yields generally declined in line with lower yields seen in the United States, with the differential between long- and short-term interest rates narrowing compared to previous years.

Demand from non-resident investors remained strong in the primary and secondary market in 2011–12, with non-residents holding over 25 per cent of Government of Canada market debt securities. This is above the five-year average of 18 per cent and the 15 per cent average for the five years preceding the global financial crisis. However, overall foreign ownership of Canadian securities remains low compared to other sovereigns.





Public debt charges increased by \$0.2 billion to \$31.0 billion in 2011–12, reflecting a higher stock of interest-bearing debt, offset in part by a decrease in the average effective interest rate on all subcategories of market debt. The weighted average interest rate on market debt remained near historically low levels at 2.65 per cent in 2011–12, approximately 0.2 percentage points lower than in 2010–11.

### **New Medium-Term Debt Strategy**

In the 2011–12 *Debt Management Strategy*, the Government of Canada announced the new medium-term debt strategy, which focuses on stability and reducing financing risk. Effective April 1, 2011, four new maturity dates were introduced to reduce single-day rollover of maturing debt. Benchmark target range sizes in the 2-, 3- and 5-year sectors and buyback operations on a switch basis were increased to facilitate the transition to the new maturity dates in those sectors. Furthermore, the Government announced plans to increase its level of prudential liquidity by \$35 billion over a three-year period to better safeguard its ability to meet payment obligations in situations where normal access to funding markets may be disrupted or delayed.

### **Issuance of US-Dollar Global Bond**

In February 2012, the Government of Canada issued a 5-year US\$3-billion global bond. This was the Government's third foreign currency bond issue in recent years, following a 10-year €2-billion global bond issued in 2010 and a 5-year US\$3-billion global bond issued in 2009. The February 2012 global bond issue achieved all of the Government's objectives, including providing cost-effective and diversified funding for the foreign reserves held in the Exchange Fund Account. The investor base for the issue included a wide range of central banks, other official institutions and foreign-based investment funds across a diverse geographical area.

### **Report by the Office of the Auditor General of Canada**

Results of the performance audit by the Auditor General of Canada on the management of interest-bearing debt for the period from April 1, 2007 to March 31, 2011 were published in the *2012 Spring Report of the Auditor General of Canada*.<sup>1</sup> The report found that the Government of Canada was monitoring and achieving the objective of maintaining a well-functioning Government of Canada securities market, while striking a balance between costs and risks. It also found that the Government had a sound decision-making system in place to support and develop effective market debt strategies and that the risk management framework allowed it to respond to emerging risks and changes in funding requirements. At the same time, the report recommended that the Department of Finance improve its reports on market debt, for example by including information on the overall performance results against planned outcomes. It also recommended that the Department expand its communication and marketing tools, as well as its promotional activities, in order to reach a broader base of investors.

---

<sup>1</sup> Available on the website of the Office of the Auditor General of Canada ([www.oag-bvg.gc.ca/internet/English/parl\\_oag\\_201204\\_03\\_e\\_36467.html](http://www.oag-bvg.gc.ca/internet/English/parl_oag_201204_03_e_36467.html)).



## Liquid Government Securities Market

Maintaining a liquid, well-functioning government securities market is an important objective of the Government's debt management strategy. During 2011–12, the Government continued to provide regular and transparent bond issuance schedules and to communicate changes to the schedules through the Bank of Canada website in a timely fashion. The regular bond buyback program was used in 2011–12 to facilitate the management of the debt maturity profile and the transition to new benchmark dates for the 2-, 3- and 5-year nominal bonds, as well as to support liquidity in the longer-end of the yield curve.

## Government of Canada Credit Rating Profile

The Government of Canada continued to receive the highest possible ratings, with a stable outlook, on both short- and long-term debt from the six rating agencies that evaluate Canada's debt (see Table 1).

Rating agencies indicated that Canada's political and economic profile, credible fiscal recovery plan, high government financial strength, low susceptibility to event risk, well-regulated financial sector, and sound macroprudential approach to policymaking supported the country's ongoing triple-A credit rating.

Table 1  
**Government of Canada Credit Ratings**

Rating Agency	Term	Domestic Currency	Foreign Currency	Outlook	Last Rating Action
Moody's Investors Service	Long-term	Aaa	Aaa	Stable	May 2002
	Short-term	P-1	P-1		
Standard & Poor's	Long-term	AAA	AAA	Stable	July 2002
	Short-term	A-1+	A-1+		
Fitch Ratings	Long-term	AAA	AAA	Stable	August 2004
	Short-term	F1+	F1+		
Dominion Bond Rating Service	Long-term	AAA	AAA	Stable	n/a
	Short-term	R-1 (High)	R-1 (High)		
Japan Credit Rating Agency	Long-term	AAA	AAA	Stable	n/a
Rating and Investment	Long-term	AAA	AAA	Stable	n/a



# Part I

## 2011–12 Debt Management Context

### Financial Market Developments

A key feature of fixed-income markets in 2011–12 was the continued maintenance of central bank policy rates at very low levels and the decline of longer-term yields in Canada and the United States. The decline in longer-term yields were in part due to safe haven flows resulting from the heightened level of uncertainty in Europe.

The Bank of Canada maintained its target for the overnight rate at 1.00 per cent for the entirety of 2011–12. Government of Canada bonds continued to be issued at historically low yields across the yield curve, and the differential between long- and short-term interest rates narrowed compared to previous years, reflecting flight-to-quality considerations as well as monetary policy actions in the US.

The US Federal Reserve held the target federal funds rate for interbank lending between 0 per cent and 0.25 per cent in 2011–12 and indicated its willingness to keep the federal funds rate at exceptionally low levels through 2014. The Federal Reserve also announced “Operation Twist,” which involved selling US\$400 billion in short-term Treasuries in exchange for the same amount of longer-term bonds in a bid to put downward pressure on long-term borrowing costs and to help make broader financial conditions more accommodative.

Furthermore, the US government reached its debt ceiling in early 2011 and the US Treasury was directed to take “extraordinary measures” to fund federal obligations, risking default if an agreement could not be reached by Congress and causing increased market volatility in the lead-up to the resolution of the debt ceiling crisis. Despite the fact that the debt ceiling was ultimately raised, rating agency Standard & Poor’s lowered the credit rating of the US by one notch to AA+, but this move had little impact on the yields of US Treasuries.

After raising key interest rates in early 2011, the European Central Bank reversed its earlier actions and decreased the interest rate for main refinancing operations back to 1.00 per cent in December 2011. As the euro area sovereign debt and banking crisis intensified, the European Central Bank also took additional measures to maintain European bank liquidity, conducting two longer-term refinancing operations with a maturity of three years.



## Budgetary Outcomes

The key reference point for debt management is the financial source/requirement, which represents net cash needs for the year. This measure differs from the budgetary balance (i.e., the surplus or deficit) by the amount of non-budgetary transactions, which can be significant.

The budgetary balance is presented on a full accrual basis of accounting, recording government revenues and expenses when they are receivable or incurred, regardless of when the cash is received or paid. In contrast, the financial source/requirement measures the difference between cash coming into the Government and cash going out. This measure includes the cash source/requirement resulting from the Government's investment activities through its acquisition of capital assets and its loans, financial investments and advances, as well as from other activities, including payment of accounts payable and collection of accounts receivable, and foreign exchange activities.

With a budgetary deficit of \$26.2 billion and a cash requirement of \$6.2 billion from non-budgetary transactions, there was a financial requirement of \$32.4 billion in 2011–12. This compares to a financial requirement of \$46.2 billion in 2010–11. The financial requirement was approximately \$4 billion lower than projected in the 2011–12 *Debt Management Strategy*, largely due to the improvement in the budgetary balance over the forecast.

Market debt increased by \$34.1 billion to \$631.0 billion, mainly comprised of an increase in the stock of domestic marketable bonds. Table 2 presents the change in the composition of federal debt in 2011–12. For additional information on the financial position of the Government, see the 2011–12 *Annual Financial Report of the Government of Canada* ([www.fin.gc.ca/purl/afr-eng.asp](http://www.fin.gc.ca/purl/afr-eng.asp)).



Budget 2011 ([www.budget.gc.ca/2011/home-accueil-eng.html](http://www.budget.gc.ca/2011/home-accueil-eng.html)) includes an update on Canada's Economic Action Plan and the 2011–12 *Debt Management Strategy* (Annex 2), while Budget 2012 ([www.budget.gc.ca/2012/home-accueil-eng.html](http://www.budget.gc.ca/2012/home-accueil-eng.html)) includes the 2012–13 *Debt Management Strategy* (Annex 3).

Table 2  
**Change in the Composition of Federal Debt, 2011–12**

\$ billions

	March 31, 2012	March 31, 2011	Change
<b>Payable in Canadian currency</b>			
Marketable bonds	448.1	416.1	32.0
Treasury and cash management bills	163.2	163.0	0.2
Retail debt	8.9	10.1	-1.2
Canada Pension Plan bonds	0	0	0
<b>Total payable in Canadian currency</b>	<b>620.3</b>	<b>589.2</b>	<b>31.1</b>
<b>Payable in foreign currencies</b>	<b>10.7</b>	<b>7.6</b>	<b>3.1</b>
<b>Total market debt</b>	<b>631.0</b>	<b>596.9</b>	<b>34.1</b>
Market debt value adjustment and capital lease obligations	-4.7	-5.7	1.0
<b>Total unmatured debt</b>	<b>626.4</b>	<b>591.2</b>	<b>35.2</b>
Pension and other accounts	216.4	210.7	5.7
<b>Total interest-bearing debt</b>	<b>842.7</b>	<b>801.8</b>	<b>40.9</b>
Accounts payable, accruals and allowances	125.0	119.1	5.9
<b>Gross debt</b>	<b>967.7</b>	<b>920.9</b>	<b>46.8</b>
Total financial assets	-317.6	-304.0	-13.6
Total non-financial assets	-68.0	-66.6	-1.4
<b>Federal debt (accumulated deficit)</b>	<b>582.2</b>	<b>550.3</b>	<b>31.9</b>

Note: Numbers may not add due to rounding.

## Sources and Uses of Borrowing

Authority to borrow in financial markets is provided by Part IV of the *Financial Administration Act*, which authorizes the Minister of Finance to issue securities and undertake related activities, including entering into financial contracts and derivatives transactions.

Anticipated borrowing and planned uses of funds are set out in the *Debt Management Strategy*, while actual borrowing and uses of funds compared to those forecast are reported in Table 3 of this publication.

On March 25, 2011, the Governor in Council approved an aggregate borrowing limit of \$300 billion for 2011–12.<sup>2</sup> Total actual borrowings in 2011–12 were \$279 billion, \$21 billion below the authorized borrowing authority limit, but \$16 billion higher than the plan set out in the 2011–12 *Debt Management Strategy*. The higher level of actual over planned borrowing was largely due to a

<sup>2</sup> Approved Orders in Council (OIC) are available on the Privy Council Office website ([www.pco-bcp.gc.ca/oic-ddc.asp?lang=eng&page=secretariats](http://www.pco-bcp.gc.ca/oic-ddc.asp?lang=eng&page=secretariats)). The reference number for the 2011–12 OIC is 2011-0476.



\$13-billion increase in treasury bill issuance to fund a higher-than-anticipated level of bonds purchased through the cash management bond buyback program.

In 2011–12, loans to the Business Development Bank of Canada, Canada Mortgage and Housing Corporation and Farm Credit Canada under the Crown borrowing program were \$4 billion, slightly higher than planned. Since the inception of the program in 2007–08, the consolidated borrowings of these Crown corporations have grown to account for \$38 billion of federal market debt.<sup>3</sup>

Table 3  
**Planned/Actual Sources and Uses of Borrowings, 2011–12<sup>1</sup>**

\$ billions

	Planned <sup>2</sup>	Actual	Difference
<b>Sources of borrowings</b>			
Payable in Canadian currency			
Treasury bills	150	163	13
Bonds	102	101	-1
Retail debt	2	2	0
Total payable in Canadian currency	254	266	12
Payable in foreign currencies	8	13	5
Total cash raised through borrowing activities	263	279	16
<b>Uses of borrowings<sup>3</sup></b>			
Refinancing needs			
Payable in Canadian currency			
Treasury bills	163	163	0
Bonds	57	70	13
Of which:			
Regular bond buybacks	8	6	-2
Cash management bond buybacks	18	31	13
Retail debt	2	3	1
Canada Pension Plan bonds	0	0	0
Total payable in Canadian currency	222	236	14
Payable in foreign currencies	2	10	8
Total refinancing needs	224	245	21
Financial source/requirement			
Budgetary balance	32	26	-6
Non-budgetary transactions			
Pension and other accounts	-6	-6	0
Non-financial assets	3	1	-2
Loans, investments and advances	1	0	-1
Of which:			
Loans to Crown corporations	3	4	1
Other transactions <sup>4</sup>	6	11	5
Total non-budgetary transactions	4	6	2
<b>Total financial source/requirement</b>	<b>36</b>	<b>32</b>	<b>-4</b>

<sup>3</sup> Activity under the Crown borrowing program does not affect the federal debt (accumulated deficit), since increased federal borrowing is matched by assets in the form of loans to the Crown corporations.



Table 3 (cont'd)

**Planned/Actual Sources and Uses of Borrowings, 2011–12<sup>1</sup>**

\$ billions

	Planned <sup>2</sup>	Actual	Difference
Total uses of borrowings	260	277	17
Other unmatured debt transactions <sup>5</sup>	0	5	5
Net increase or decrease (-) in cash	4	3	-1

Note: Numbers may not add due to rounding.

<sup>1</sup> Certain categories have been reclassified to conform to the current year's presentation.<sup>2</sup> Planned numbers are from Budget 2011 and the 2011–12 *Debt Management Strategy*.<sup>3</sup> A negative sign denotes a financial source.<sup>4</sup> Primarily includes the conversion of accrual adjustments into cash, such as tax and other account receivables; provincial and territorial tax collection agreements; and tax payables and other liabilities.<sup>5</sup> Includes cross-currency swap revaluation, unamortized discounts on debt issues and obligations related to capital leases.



# Part II

## Report on Objectives and Principles

### **Objectives and Principles**

The fundamental objective of debt management is to raise stable and low-cost funding to meet the needs of the Government of Canada. An associated objective is to maintain a well-functioning market in Government of Canada securities, which helps to keep debt costs low and stable and is generally to the benefit of a wide array of domestic market participants.

In support of these objectives, the design and implementation of the domestic debt program is guided by the key principles of transparency, regularity and liquidity, which support a well-functioning government securities market. Towards this end, the Government publishes strategies and plans and consults regularly with market participants to ensure the integrity and attractiveness of the market for dealers and investors. The principle of prudence also guides all debt management activities. The structure of the debt is managed conservatively in a cost-risk framework, preserving access to diversified sources of funding and supporting a broad investor base.

### **Medium-Term Debt Strategy**

The global financial crisis highlighted the importance of prudent debt management for individuals, corporations and governments. In Budget 2011, the Government therefore updated its debt strategy by adding new bond maturity dates for smoother cash flow and by increasing cash reserves. These actions will help insulate the Government's financial position in case of future financial shocks.

Modelling analysis in support of the debt strategy demonstrated that over a wide range of economic and interest rate scenarios, portfolios weighted towards more short- and medium-term bonds would improve the cost-risk characteristics of the debt structure. Consequently, the new medium-term debt strategy set out in the 2011–12 *Debt Management Strategy* (included as Annex 2 of Budget 2011) has an increased focus on the issuance of short- and medium-term bonds (2-, 3- and 5-year maturities), while maintaining all current funding instruments. It includes specific actions to contain debt rollover levels, such as a reduction in the stock of treasury bills and changes to maturity dates in certain bond sectors, as well as a new prudential liquidity plan to safeguard the Government's ability to meet payment obligations in situations where normal access to funding may be disrupted or delayed.

Over time, the implementation of the strategy is expected to lead to a more balanced debt structure profile and a reduced exposure to debt rollover risk, accompanied by continued maintenance of liquidity across all maturity sectors.

### **Raising Stable, Low-Cost Funding**

In general, achieving stable, low-cost funding involves striking a balance between debt costs and various risks in the debt structure. This selected balance between cost and risk, or preferred debt structure, is mostly achieved through the deliberate allocation of issuance between various debt instruments.



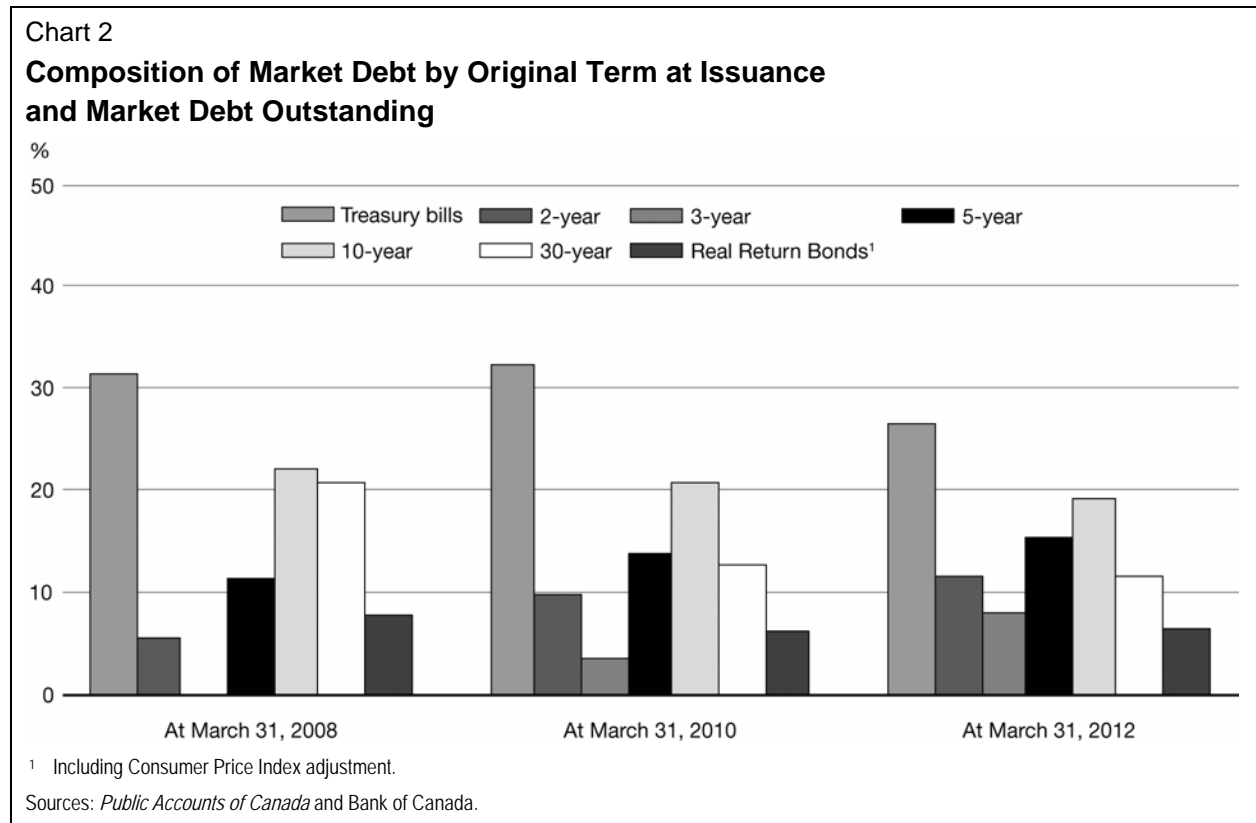


### Composition of Market Debt

The composition of market debt is a reflection of past and present debt issuance choices. The effects of changes in the issuance patterns of short-term instruments are visible relatively quickly, while the full effect of issuance changes in longer-term maturities can take decades to be fully appreciated. A well-distributed maturity profile ensures a controlled exposure to changes in interest rates over time and provides liquidity across different maturity sectors.

The onset of the global financial crisis in late 2008 and the resulting need for the Government to rapidly fund liquidity and stimulus packages led to an increase in treasury bill issuance in 2008–09. Beginning in 2009–10, the share of treasury bills was managed down in favour of short- and medium-term bonds, including the reintroduced 3-year sector.

In line with the medium-term debt strategy, at March 31, 2012, the increased focus on the issuance of short- and medium-term bonds (2-, 3- and 5-year maturities) allowed the overall debt structure to become more evenly distributed (see Chart 2).

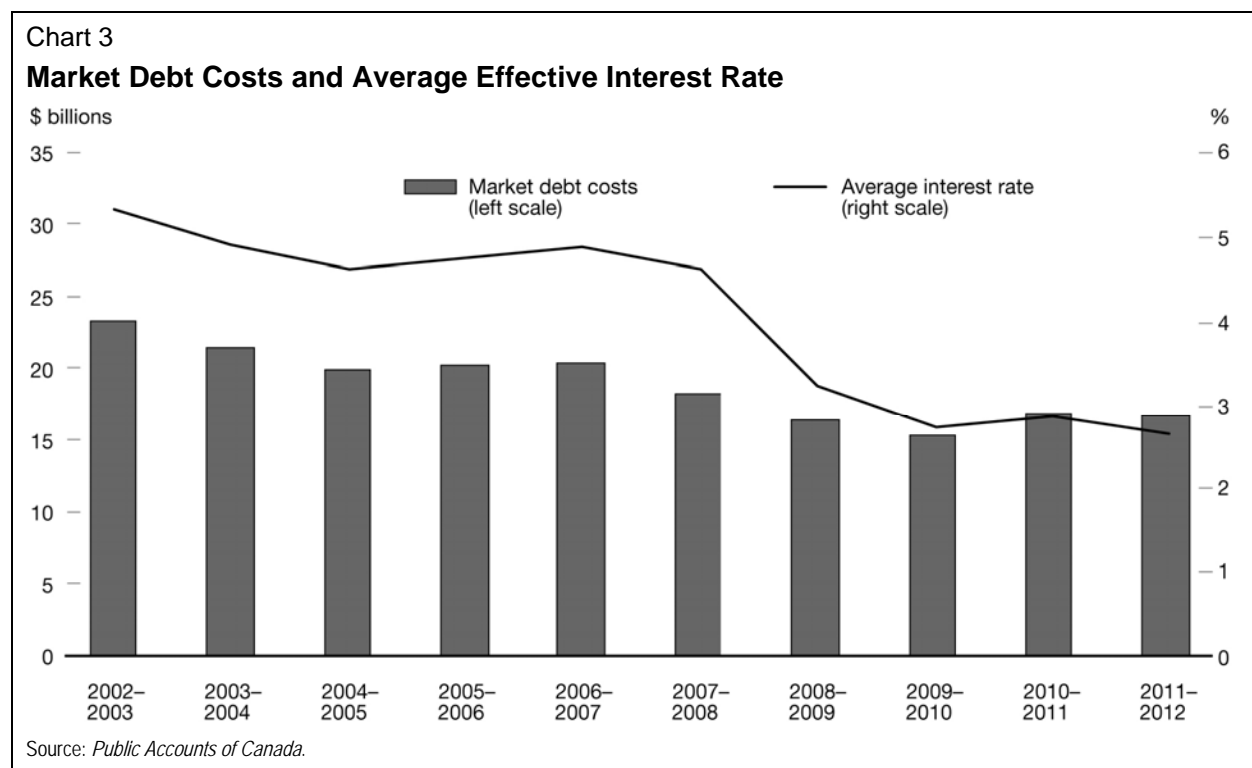




## Cost of Market Debt

Market debt costs are the largest component of public debt charges (public debt charges also include interest expenses on non-market liabilities).<sup>4</sup> The cost of market debt decreased slightly from \$16.9 billion in 2010–11 to \$16.7 billion in 2011–12, reflecting a lower weighted average rate of interest on market debt (see Chart 3). In 2011–12, debt costs on unmatured market debt represented about 60 per cent of total public debt charges, compared to 58 per cent the previous year.<sup>5</sup>

The weighted average rate of interest on market debt was 2.65 per cent in 2011–12, down from 2.83 per cent in 2010–11. The decline was due to the decrease in the average interest rates on all subcategories of market debt, which includes marketable bonds, treasury bills, retail debt, Canada Pension Plan bonds, Canada bills and foreign currency notes.



## Characteristics of Market Debt Structure

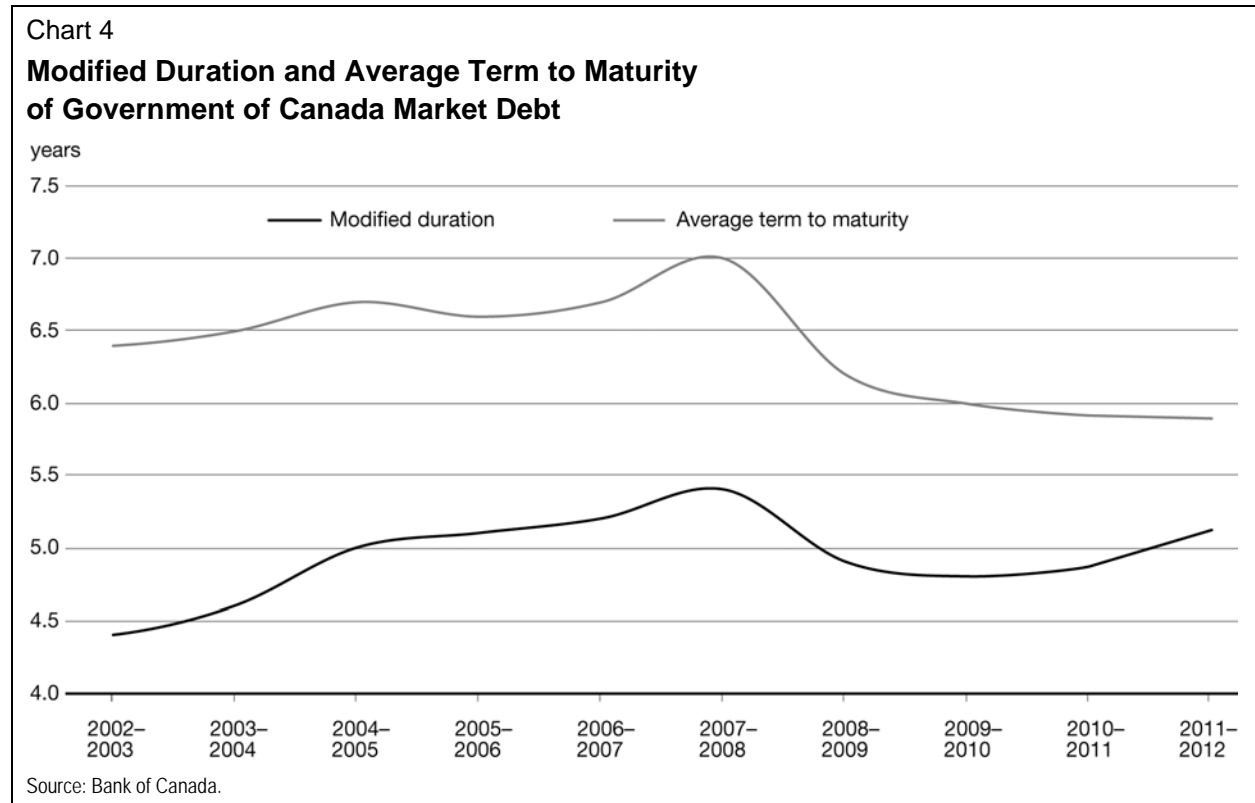
Market debt is composed of short-, medium- and long-term debt instruments. As the yield curve is normally upward sloping, there is generally a trade-off between cost and risk in the selection of a funding mix between shorter-, medium- and longer-term borrowings. While borrowing costs for longer-term instruments tend to be higher and remain fixed for a longer period, there is a reduced risk of having to refinance at higher interest rates. In contrast, borrowing costs tend to be lower on average for shorter-term instruments but are fixed for shorter periods, therefore increasing the risk of having to refinance the debt at higher interest rates.

<sup>4</sup> Non-market liabilities include pensions, other employee and veteran future benefits and other liabilities.

<sup>5</sup> Unmatured debt is almost entirely composed of market debt (it also includes amounts for capital leases).



In 2011–12, the average term to maturity (ATM) of market debt decreased slightly from 5.9 years to 5.8 years. The decline in the ATM from 2007–08 to 2008–09 was primarily due to a large increase in the stock of treasury bills relative to bonds in the context of evolving government financial requirements. In contrast, the steady decline in the ATM from 2008–09 to 2011–12 was primarily due to a higher stock of 2-, 3- and 5-year bonds relative to longer-term bond issuance. Over the same period, modified duration increased from 4.9 years to 5.2 years (see Chart 4).<sup>6</sup> This was largely due to declining longer-term bond yields, which more than offset the decline in the ATM of the debt.

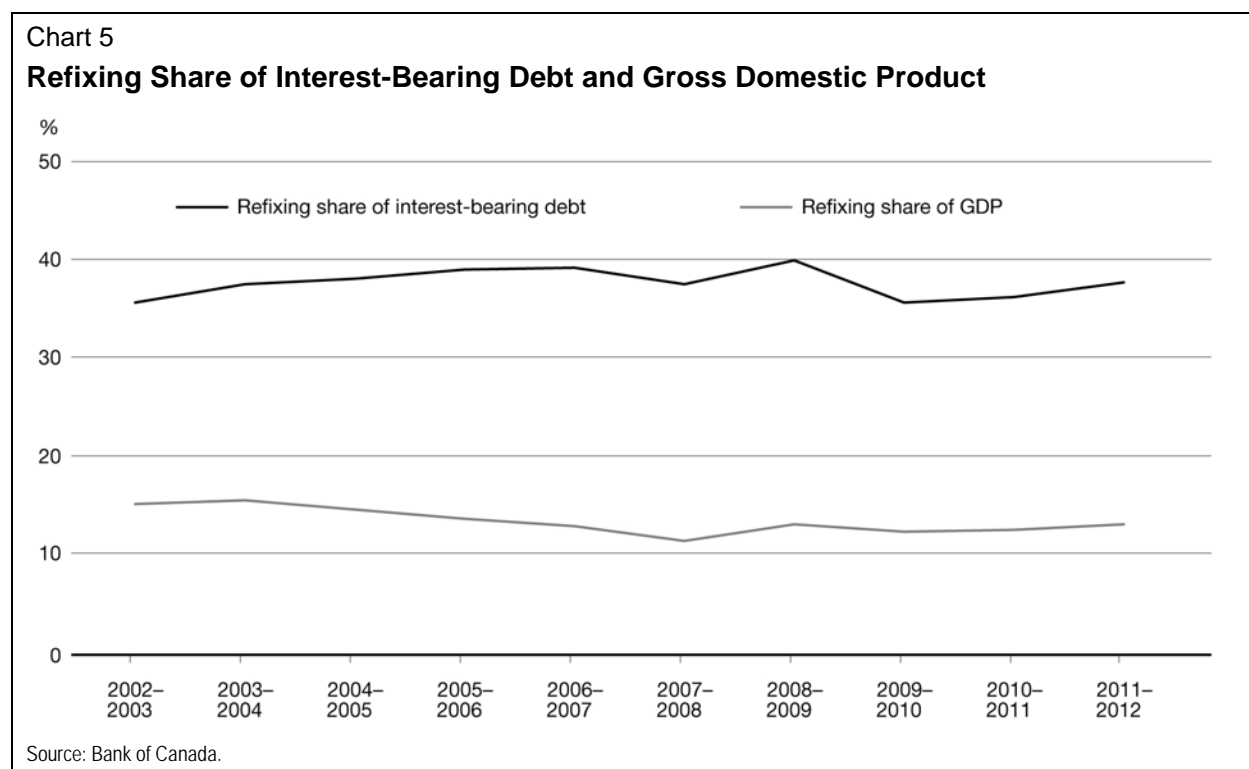


<sup>6</sup> Modified duration measures the price sensitivity of a security or portfolio of fixed-income securities to changes in yields. Multiplying the modified duration of a security by the change in its yield gives the estimated percentage change in price of the security. The average term to maturity is calculated by multiplying the remaining maturity on each instrument by its weight in the portfolio.



The refixing share of interest-bearing debt measures the proportion of all interest-bearing debt that matures or needs to be repriced within one year.<sup>7</sup> In 2011–12, the refixing share of interest-bearing debt increased by 1.4 percentage points to 37.6 per cent as short-term (e.g. 2- and 3-year) bonds issued in recent years are now maturing (see Chart 5).

The refixing share of gross domestic product (GDP) measures the amount of interest-bearing debt that matures or needs to be repriced within one year relative to nominal GDP for that year. The refixing share of GDP had been steadily declining for many years as a result of a lower debt-to-GDP ratio. However, the need for increased issuance during the financial crisis reversed this trend. In 2011–12, the refixing share of GDP was 13.2 per cent, up slightly from 2010–11.



### Prudential Liquidity Management

The Government holds liquid financial assets in the form of domestic cash deposits and foreign exchange reserves to promote investor confidence and safeguard its ability to meet payment obligations in situations where normal access to funding markets may be disrupted or delayed. This also supports investor confidence in Canadian government debt. In Budget 2011, the Government announced its intention to increase its liquidity position. Once the new liquidity plan is fully implemented, the Government’s overall liquidity levels will cover at least one month of projected cash flows, including coupon payments and debt refinancing needs.

<sup>7</sup> The refixing share is simply a reformulation of the fixed-rate share reported in the past. The fixed-rate share has been replaced by the refixing share to facilitate comparison and be consistent with the metrics used by other sovereigns.



During 2011–12, the Government took steps towards implementing the new liquidity plan. Liquid foreign exchange reserves increased by about US\$10 billion and exceeded the minimum target level of 3 per cent of nominal GDP established under the strategy. Government deposits held with financial institutions and the Bank of Canada are scheduled to grow to about \$25 billion before the end of 2013–14.

Information on cash balances and foreign exchange assets is available through *The Fiscal Monitor* ([www.fin.gc.ca/pub/fm-rf-index-eng.asp](http://www.fin.gc.ca/pub/fm-rf-index-eng.asp)) and in the *Public Accounts of Canada 2012*, Volume 1, Section 7 ([www.tpsgc-pwgsc.gc.ca/recgen/txt/72-eng.html](http://www.tpsgc-pwgsc.gc.ca/recgen/txt/72-eng.html)). Information on the management of Canada's reserves held in the Exchange Fund Account is available in the *Report on the Management of Canada's Official International Reserves* ([www.fin.gc.ca/activty/oirrep/oir-rol-12-index-eng.asp](http://www.fin.gc.ca/activty/oirrep/oir-rol-12-index-eng.asp)).

## Maintaining a Well-Functioning Government Securities Market

A well-functioning wholesale market in Government of Canada securities is important as it benefits the Government as a borrower as well as a wide range of market participants. For the Government as a debt issuer, a well-functioning market attracts investors and contributes to keeping funding costs low and stable over time, and provides flexibility to meet changing financial requirements. For market participants, a liquid and transparent secondary market in government debt provides risk-free assets for investment portfolios, a pricing benchmark for other debt issues and derivatives, and a primary tool for hedging interest rate risk. In 2011–12, the following actions promoted a well-functioning Government of Canada securities market.

**Providing regular and transparent issuance:** The Government of Canada conducts treasury bill auctions on a bi-weekly basis, announces the bond auction schedule prior to the start of each quarter and provides details for each operation in a call-for-tender in the week leading up to the auction.<sup>8</sup> In 2011–12, there were regular auctions for 2-, 3-, 5-, 10- and 30-year nominal bonds, as well as for 30-year Real Return Bonds. Regular and pre-announced issuance provided certainty for dealers and investors, allowing them to plan their investment activities, and supported participation and competitive bidding at auctions. Bond issuance schedules were communicated through the Bank of Canada website on a timely basis.

**Concentrating on key benchmarks:** Consistent with the medium-term debt strategy and market participant recommendations, building benchmark target range sizes were increased in the 2-, 3- and 5-year sectors in order to enhance liquidity.

In 2011–12, the benchmark target range sizes in the 2-, 3- and 5-year sectors were changed to:

- 2-year sector: \$8 billion to \$12 billion (previously \$7 billion to \$10 billion).
- 3-year sector: \$8 billion to \$12 billion (previously \$7 billion to \$10 billion).
- 5-year sector: \$10 billion to \$13 billion (previously \$9 billion to \$12 billion).

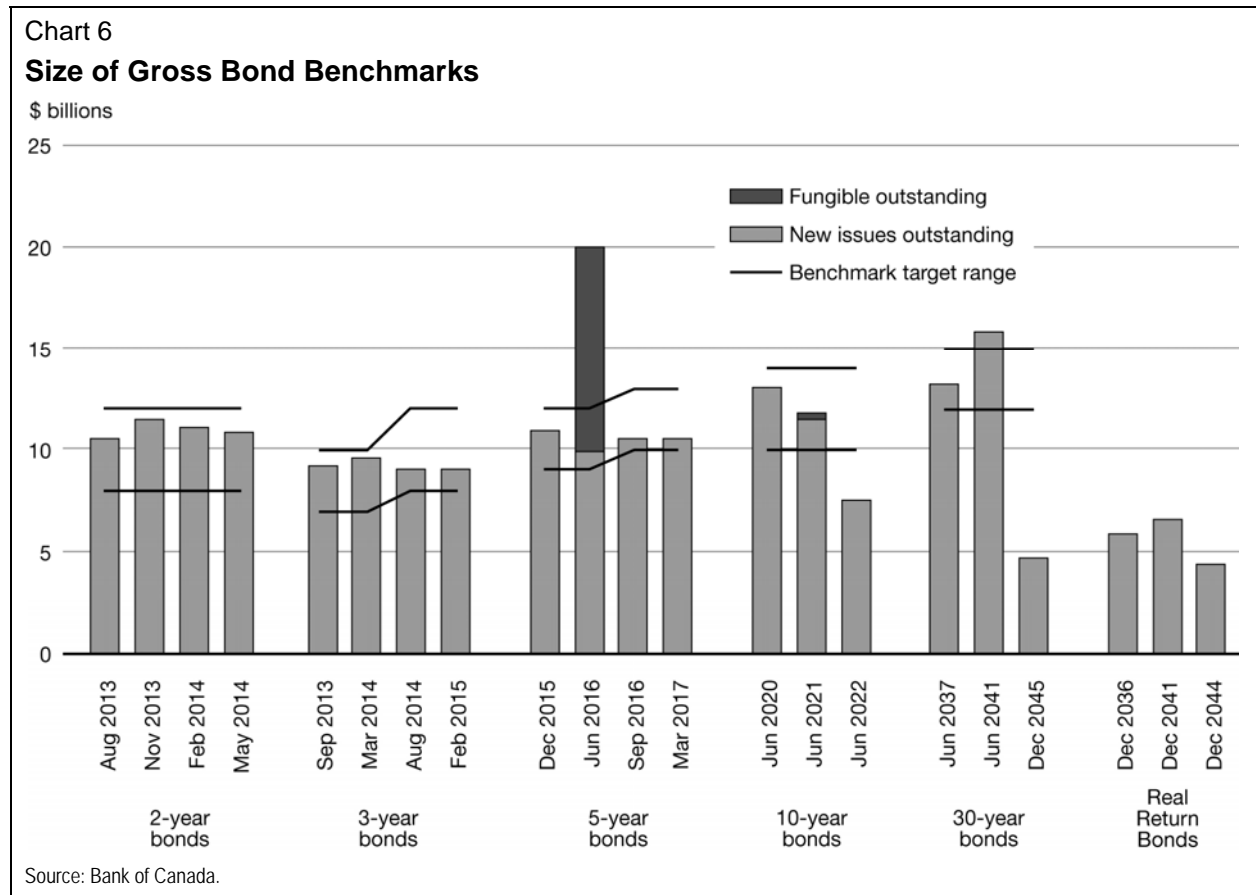
No changes were made to the benchmark target range sizes in the 10- and 30-year sectors:

- 10-year sector: \$10 billion to \$14 billion.
- 30-year nominal sector: \$12 billion to \$15 billion.

<sup>8</sup> See the Bank of Canada website ([www.bankofcanada.ca/stats/cars//bd\\_auction\\_schedule.html](http://www.bankofcanada.ca/stats/cars//bd_auction_schedule.html)).



Prior to the financial crisis, existing old benchmarks with June 1 or December 1 maturity dates were relied upon to maintain adequate liquidity in the 2- and 5-year sectors in an environment of declining debt issuance. The increase in issuance during the crisis has resulted in a few large upcoming maturity dates (e.g., bonds maturing June 1, 2016). With the new issuance pattern of eight maturity dates announced in Budget 2011, the number and magnitude of cash flow maturity spikes due to bond fungibility will decline over time. As in recent years, all benchmark bonds in 2011–12 continued to reach or exceed minimum benchmark size targets (see Chart 6).<sup>9 10</sup>



<sup>9</sup> June 1, 2022 and December 1, 2045 bonds continued to be reopened a number of times after the end of 2011–12 and have or will reach targeted ranges.

<sup>10</sup> Non-fungible securities do not share the same maturity dates with outstanding bond issues. The benchmark size for bonds that are fungible with existing bonds is deemed attained once the total amount of outstanding bonds for that maturity exceeds the minimum benchmark size.



**Using the regular bond buyback program:** Bond buyback operations on a cash basis and on a switch basis involve the purchase of bonds with a remaining term to maturity of 12 months to 25 years. Bond buyback operations on a cash basis involve the exchange of a bond for cash. Bond buyback operations on a switch basis, on the other hand, involve the substitution of one bond for another (e.g., an off-the-run bond for the building benchmark bond).<sup>11</sup>

During 2011–12, regular bond buybacks of short- to medium-term bonds were used to facilitate the transition to new maturity dates in those sectors and to smooth the maturity profile of the debt stock. Regular bond buybacks of long-term bonds were also used to promote liquidity in off-the-run bonds. In total, regular bond buyback operations amounted to \$5.9 billion in 2011–12, higher than in 2010–11 but still low relative to levels over the last decade (see Chart 17 later in this document).

In March 2012, the US Government Accountability Office (GAO) issued a report on bond buybacks titled, *Debt Management: Buybacks Can Enhance Treasury's Capacity to Manage under Changing Market Conditions*.<sup>12</sup> This report examined the buyback programs of other countries and assessed whether buybacks could help the US Treasury achieve its debt management goals. The GAO reported that the Government of Canada's buyback program was consistent with best practice debt management principles (e.g., regularity, transparency, predictability, accessibility) and pointed to Canada's reverse auction format as preferable for transparency to the bilateral trade format used by some sovereigns.

**Consulting with market participants:** Formal consultations with market participants are held at least once a year in order to obtain their views on the design of the borrowing program and on the liquidity and efficiency of the Government of Canada securities market. In 2011, debt management strategy consultations were held with approximately 30 organizations in Vancouver, Edmonton, Montréal and Toronto and were focused on obtaining feedback regarding the effectiveness of the Government's debt distribution framework.

The main purpose was to ensure that auction and intermediation processes continue to promote the debt strategy objectives of stable, low-cost funding and a well-functioning market for government securities. Additionally, market participants' views were sought regarding trends affecting the Government of Canada securities market, the effectiveness of communications with market participants and the changing profile of participants at auctions.

---

<sup>11</sup> The amount of new bonds issued through buybacks on a switch basis does not necessarily equal the amount of old bonds bought back through those operations because the exchange is not based on par value, but rather is on a duration-neutral equivalent basis.

<sup>12</sup> Available on the GAO website ([www.gao.gov/products/GAO-12-314](http://www.gao.gov/products/GAO-12-314)).



Market participants indicated that the Government of Canada securities market continued to be liquid and the current distribution framework functioned well. They expressed concern over the expected decrease in the stock of treasury bills in 2013–14, particularly if international demand remains strong and the need for high-quality, liquid collateral continues to increase with the implementation of new regulatory frameworks. Furthermore, they reiterated that there continues to be strong demand for long-dated nominal bonds and Real Return Bonds, due to the increased use of liability-driven investment mandates by pension funds and insurance companies.<sup>13</sup>

**Supporting broad participation in Government of Canada operations:** As the Government’s fiscal agent, the Bank of Canada distributes Government of Canada marketable bills and bonds through auction to government securities distributors (GSDs) and customers. GSDs that maintain a certain threshold of activity in the primary and secondary market for Government of Canada securities may become primary dealers, which form the core group of distributors for Government of Canada securities.

To maintain a well-functioning securities distribution system, government securities auctions are monitored to ensure that GSDs abide by the terms and conditions.<sup>14</sup>

Quick turnaround times enhance the efficiency of the auction and buyback process and encourage participation by reducing market risk for participants. The turnaround time for treasury bill and bond auctions averaged 1 minute 48 seconds. Buyback operations in 2011–12 averaged 4 minutes 16 seconds as a result of three operations that significantly affected the turnaround time for buybacks. Excluding the three operations, the average turnaround time for buybacks was 2 minutes 26 seconds, which was similar to that in 2010–11.<sup>15</sup>

**Ensuring a broad investor base in Government of Canada securities:** A diversified investor base supports an active secondary market for Government of Canada securities, thereby helping to keep funding costs low and stable. Diversification of the investor base is pursued by maintaining a domestic debt program that is attractive to a wide range of investors.

At March 31, 2012, domestic investors held about 75 per cent of Government of Canada securities. Thus, the majority of the national debt is money that the Government of Canada owes to Canadians.

---

<sup>13</sup> More details on the subjects of discussion and views expressed during the consultations can be found on the Bank of Canada website ([www.bankofcanada.ca/publications-research/market-notice/](http://www.bankofcanada.ca/publications-research/market-notice/)).

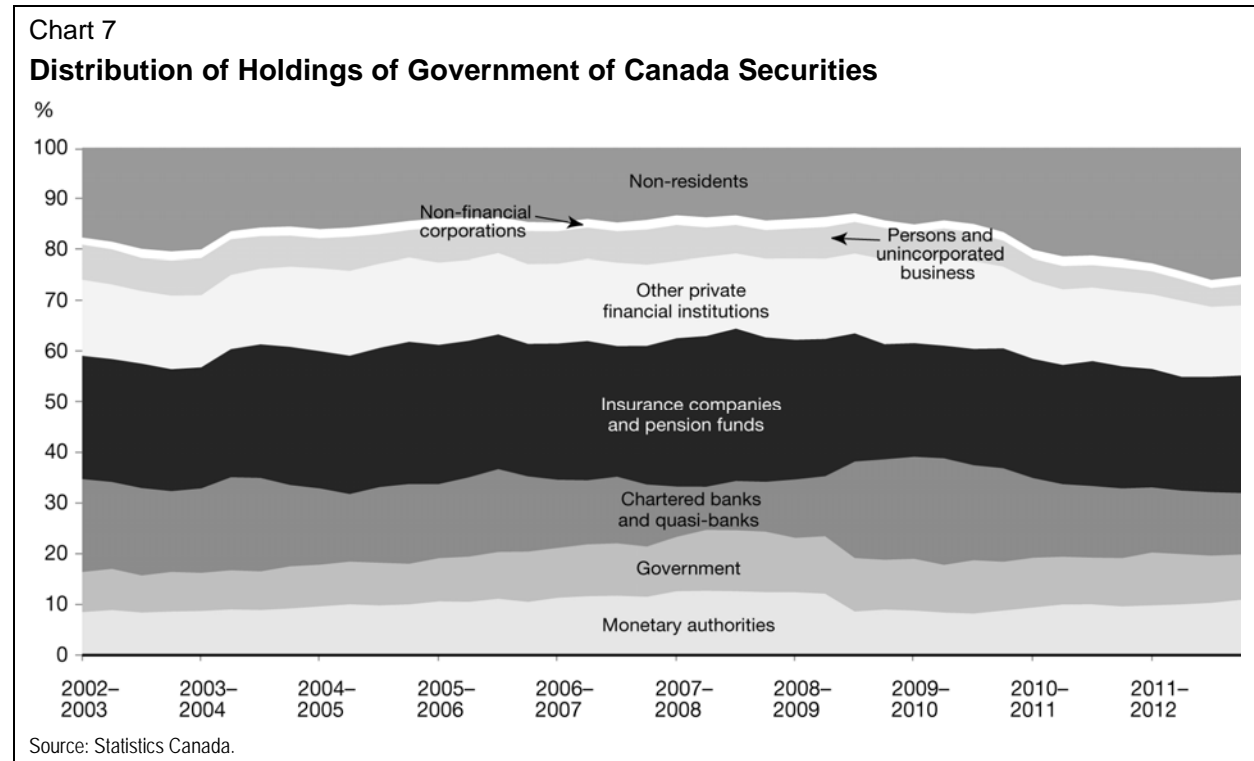
<sup>14</sup> See the Bank of Canada website ([www.bankofcanada.ca/markets/government-securities-auctions/](http://www.bankofcanada.ca/markets/government-securities-auctions/)).

<sup>15</sup> The Bank of Canada targets an average turnaround time of less than 3 minutes for auctions and less than 5 minutes for buyback operations. Maximum turnaround times are 5 minutes for auctions and 10 minutes for buyback operations.





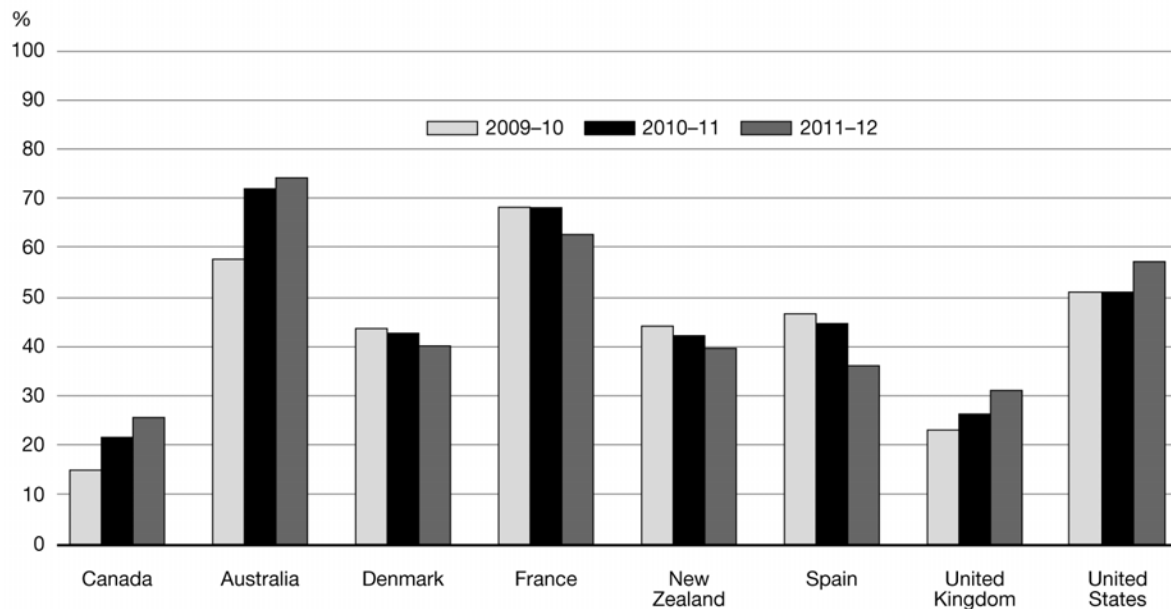
Among domestic investors, insurance companies and pension funds held the largest share of Government of Canada securities (23.3 per cent), followed by other private financial institutions (13.8 per cent) and chartered banks and quasi-banks (12.1 per cent). Taken together, these three categories accounted for about half of outstanding Government of Canada securities (see Chart 7).





About 25 per cent of Government of Canada marketable securities were held by non-resident investors. Non-resident investor holdings of Government of Canada securities have increased in recent years, owing partly to the growing investment in Canadian-dollar assets by sovereign reserve managers attracted by Canada's stable AAA status. At 25 per cent, the level of non-resident holdings of Government of Canada debt remains low compared to other sovereigns (see Chart 8).

Chart 8  
**International Comparison of Non-Resident Holdings  
of Central Government Debt**

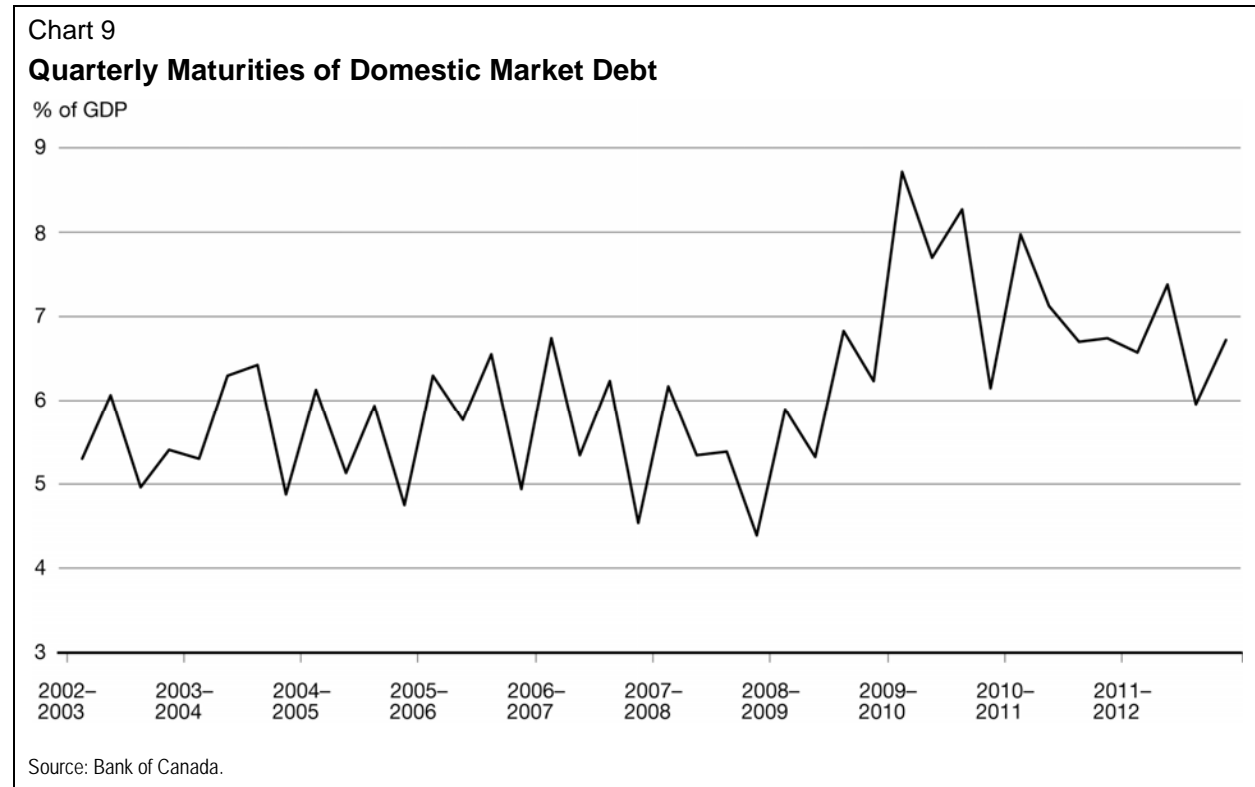


Sources: Organisation for Economic Co-operation and Development, OECD Statistics, Central Government Debt Outstanding for 2009-10 and 2010-11; government websites for 2011-12.

**Maintaining debt rollover within acceptable parameters:** Prudent management of debt refinancing needs promotes investor confidence and strives to minimize the impact of market volatility or disruptions on the funding program.



The amount of quarterly maturities of domestic market debt as a percentage of GDP is an indicator of the amount of refinancing a government faces relative to the size of the economy. Since 2002–03, quarterly maturities have averaged approximately 6 per cent of GDP (see Chart 9). While this ratio rose to just over 8.7 per cent during the financial crisis due to increased debt issuance, it has since declined back to 6.7 per cent.

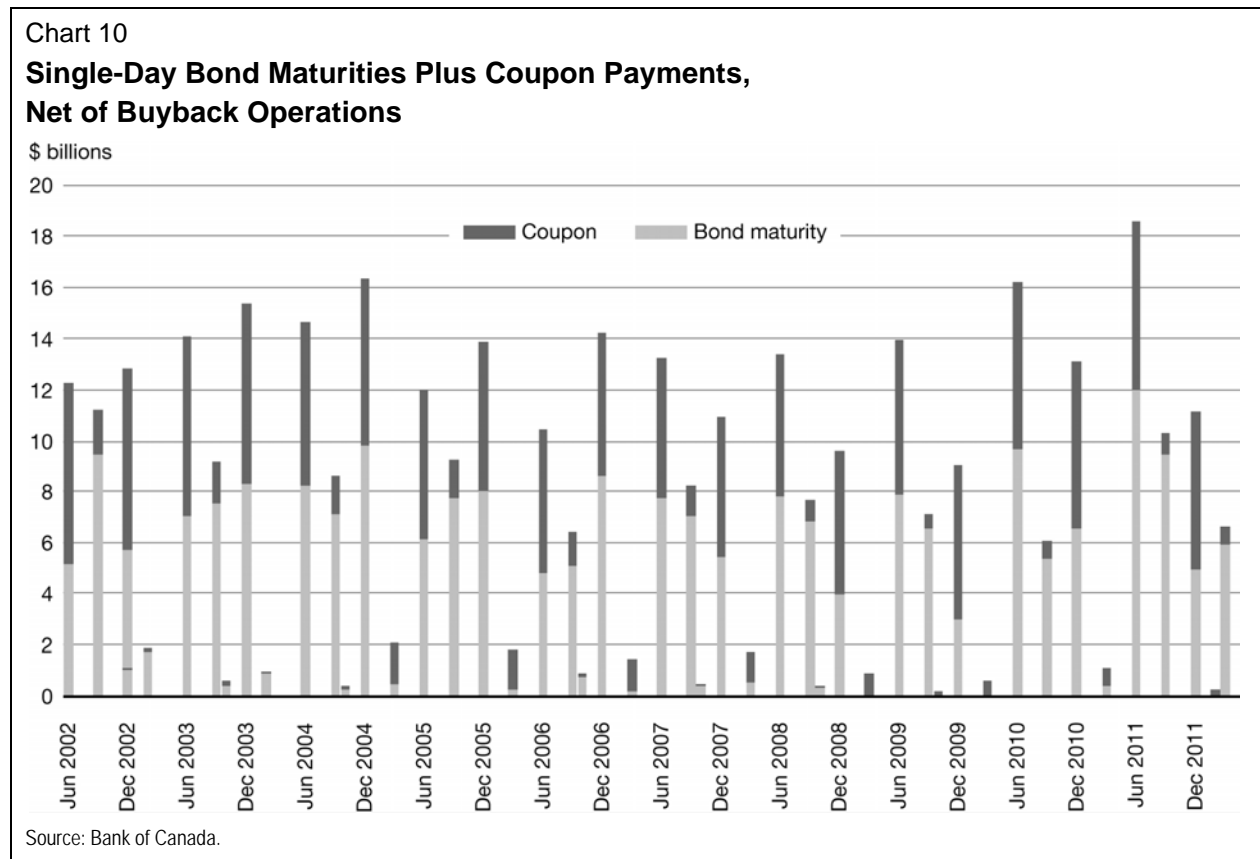




The concentration of issuance mainly around June 1 maturity dates in previous years had been helpful in maintaining benchmark liquidity in an environment of declining debt issuance. However, as a result of higher debt issuance since the financial crisis and the issuance of bonds sharing the same maturity dates, the number of single-day cash flow maturities has increased. At almost \$19 billion, the June 1, 2011 maturity and coupon payment was the largest on record (see Chart 10).

Four additional maturity dates—February 1, May 1, August 1 and November 1—were introduced in 2011–12 to increase the capacity of the debt program to absorb potential increases in funding requirements and to help smooth the cash flow profile of upcoming maturities over the medium term. The new benchmark maturity date profile is as follows:

- 2-year sector: shifted to February-May-August-November dates.
- 3-year sector: shifted to February-August dates.
- 5-year sector: shifted back to its traditional March-September dates.
- 30-year sector: shifted to December, alternating years with Real Return Bond maturities.



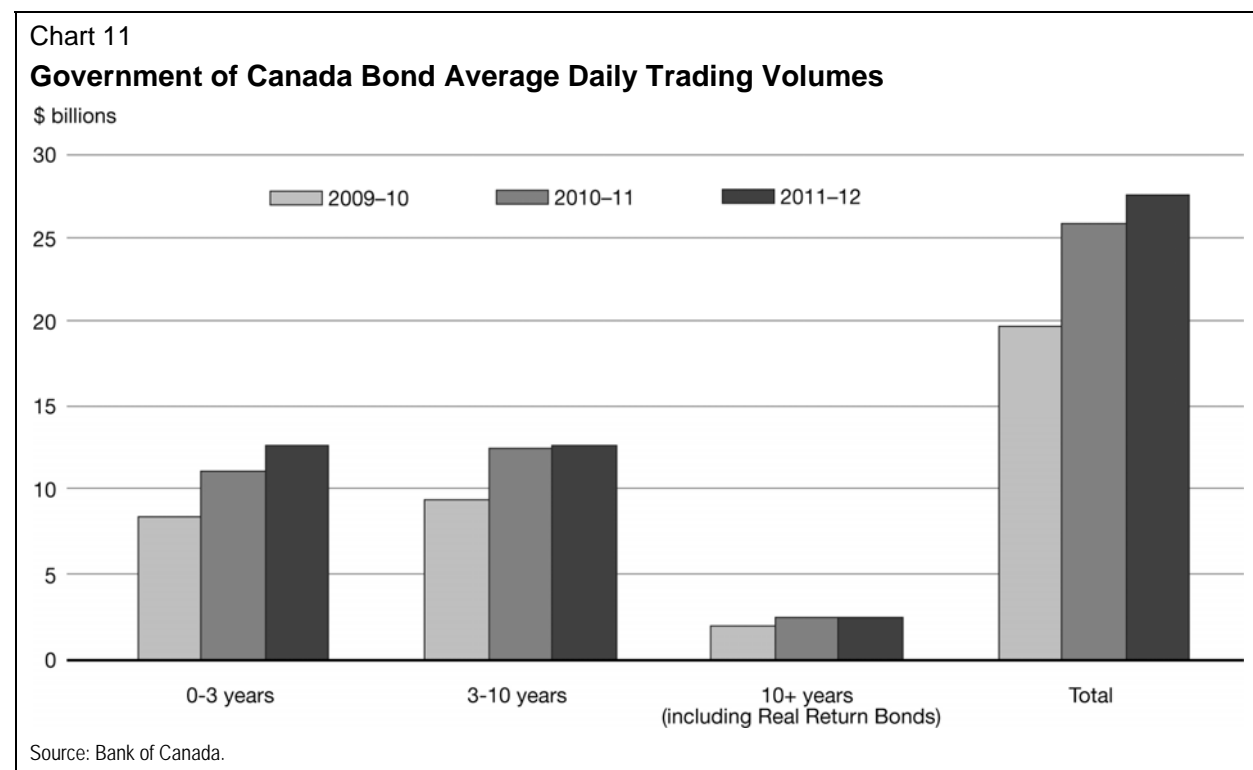
**Monitoring secondary market trading in Government of Canada securities:** The two conventional measures of liquidity and efficiency in the secondary market for Government of Canada securities are trading volume and turnover ratio.



Trading volume represents the amount of securities traded during a specific period (e.g., daily). Large trading volumes typically allow participants to buy or sell in the marketplace without a substantial impact on the price of the securities and generally imply lower bid-offer spreads.

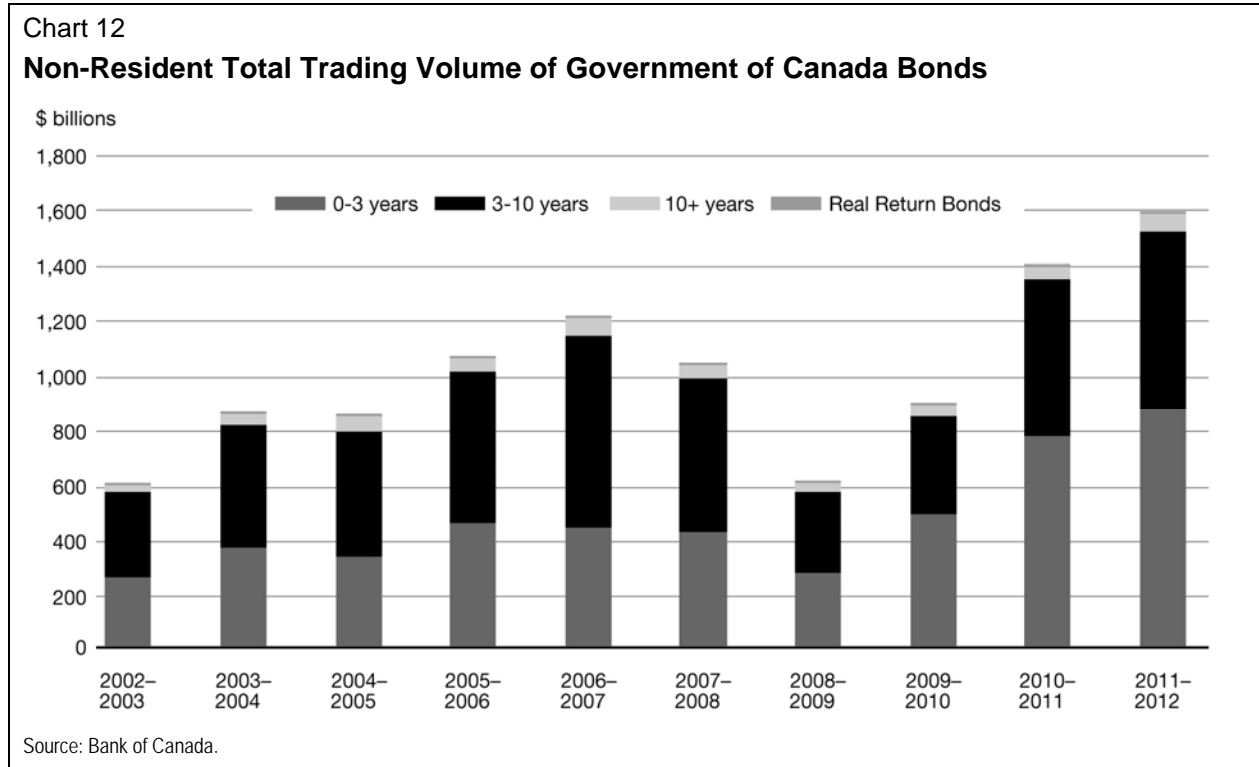
Turnover ratio, which is the ratio of securities traded relative to the amount of securities outstanding, measures market depth and efficiency. High turnover implies that a large amount of securities changes hands over a given period of time, a hallmark of a liquid and efficient securities market.

The average daily trading volume in the secondary market for Government of Canada bonds during 2011–12 was \$27.6 billion, an increase of \$1.7 billion from 2010–11. Since 2009–10, average daily bond trading volumes have increased by approximately 40 per cent (see Chart 11).



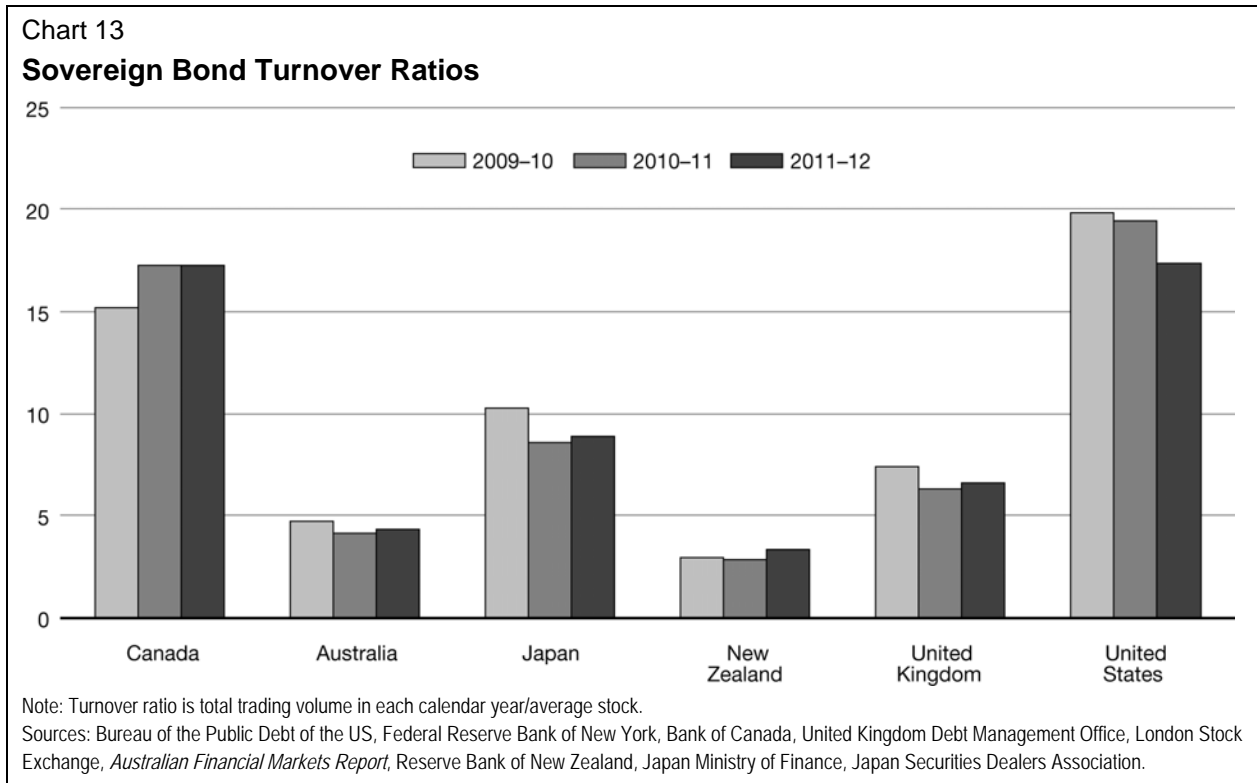


Non-resident trading volume for Government of Canada bonds totalled \$1.6 billion in 2011–12. Since 2008–09, secondary market trading volume by non-residents has increased 153 per cent, primarily due to increased trading volume of outstanding bonds with 0 to 3 years left until maturity (see Chart 12).





With an annual debt stock turnover ratio of 17.3 in 2011–12, the Government of Canada secondary bond market compares favourably with other major sovereign bond markets (see Chart 13).



### Office of the Auditor General of Canada Performance Audit on Interest-Bearing Debt

In 2011–12, the Office of the Auditor General of Canada conducted a performance audit on the management of interest-bearing debt for the period of April 1, 2007 to March 31, 2011. The final report can be found in Chapter 3 of the *2012 Spring Report of the Auditor General of Canada* ([www.oag-bvg.gc.ca/internet/English/parl\\_oag\\_201204\\_e\\_36455.html](http://www.oag-bvg.gc.ca/internet/English/parl_oag_201204_e_36455.html)).

The evaluation examined how the Department of Finance develops strategies to manage market debt. It looked at the Department's risk management practices and at how it monitors and reports on the performance of the debt-funding strategy. It also examined how the Department and the Treasury Board of Canada Secretariat report information about charges on the interest-bearing debt as well as the budgetary impact on the public sector pension plan liabilities.

The report found that the Department has a sound decision-making system in place to support and develop effective market debt strategies. It also found that the risk management framework allowed the Department to respond to emerging risks and changes in funding requirements. The report recommended that the Department pursue its efforts in assessing the key objective of raising low-cost stable funding and in reporting the performance results. It also recommended that the Department expand its communication and marketing tools, as well as its promotional activities, in order to reach a broader base of investors.



# Part III

## Report on the 2011–12 Debt Program

In 2011–12, despite issuance levels remaining near historic highs, both treasury bill and bond auctions continued to perform well. Demand for Government of Canada securities remained strong throughout the fiscal year as a result of persistent demand for fixed-income securities and Canada’s strong fiscal and economic position.

### Domestic Marketable Bonds

#### Bond Program

In 2011–12, gross bond issuance was \$99.9 billion (including issuance through switch buybacks), about \$4.4 billion higher than the \$95.5 billion in 2010–11 (see Reference Table VI for further details). This gross issuance consisted of \$97.7 billion in nominal bonds (including switch operations), and \$2.2 billion in Real Return Bonds (see Table 4). Taking into account net issuance and maturities, the stock of outstanding bonds increased by \$32 billion to \$448 billion over the course of the fiscal year (see Reference Table VI and X for further details).

Table 4  
**Annual Bond Program Operations**

\$ billions

	2007–08	2008–09	2009–10	2010–11	2011–12
Nominal	29.5	69.9	97.7	88.4	95.3
Nominal (switch)	2.5	3.0	2.3	4.9	2.4
Real Return Bonds	2.3	2.1	2.3	2.2	2.2
<b>Total gross issuance</b>	<b>34.3</b>	<b>75.0</b>	<b>102.2</b>	<b>95.5</b>	<b>99.9</b>
Cash buyback	-4.3	-3.2	0.0	0.0	-3.0
Switch buyback	-2.4	-2.7	-2.1	-4.4	-3.0
<b>Total buyback</b>	<b>-6.7</b>	<b>-5.9</b>	<b>-2.1</b>	<b>-4.4</b>	<b>-5.9</b>
<b>Net Issuance</b>	<b>27.6</b>	<b>69.0</b>	<b>100.1</b>	<b>91.2</b>	<b>94.0</b>

Note: Numbers may not add due to rounding.

Source: Bank of Canada.

#### Auction Result Indicators for Domestic Bonds

Auction coverage is defined as the total amount of bids received, including bids from the Bank of Canada, divided by the amount auctioned. A higher auction coverage level typically reflects strong demand and therefore should result in a lower average auction yield.





Assuming that all primary dealers (PDs) bid at their maximum bidding limit, the coverage ratios for PDs would reach 2.71 for bond auctions.<sup>16</sup> However, if all PDs only bid at their minimum bidding obligation, the coverage ratios would be 1.36 for bond auctions.<sup>17</sup>

The auction tail represents the number of basis points between the highest yield accepted and the average yield of an auction. A small auction tail is preferable as it is generally indicative of better transparency in the pricing of securities.

As in 2010–11, 31 nominal bond auctions were conducted in 2011–12. Auction results are presented in Table 5.<sup>18</sup> As in previous years, four Real Return Bond auctions were conducted (one per quarter). Bond auctions continued to be well-covered across all sectors and were in line with five-year averages. Decreased volatility and less uncertainty regarding the economic and interest rate outlook resulted in smaller tails for most sectors in 2011–12. The size of the tail and coverage on the 3-year bond (reinstated in 2009–10) continues to improve.

Table 5  
**Performance at Domestic Bond Auctions**

		Nominal Bonds					Real Return Bonds
		2-Year	3-Year	5-Year	10-Year	30-Year	30-Year
Tail	2011–12	0.31	0.38	0.33	0.37	0.32	n/a
Tail	5-year average	0.40	0.74 <sup>1</sup>	0.66	1.94	0.59	n/a
Coverage	2011–12	2.64	2.63	2.56	2.60	2.67	2.31
Coverage	5-year average	2.53	2.50 <sup>1</sup>	2.37	2.34	2.56	2.51

Notes: Tail represents the number of basis points between the highest yield accepted and the average yield of an auction. Coverage is defined as the total amount of bids received, including bids from the Bank of Canada, divided by the amount auctioned.

<sup>1</sup> Reflects only three years of data since the 3-year bond was reintroduced in 2009–10.

Source: Bank of Canada.

### Participation at Domestic Bond Auctions

In 2011–12, PDs were allotted 84 per cent of auctioned nominal debt securities and customers were allotted 16 per cent (see Table 6).<sup>19</sup> The 10 most active participants were allotted 81 per cent of these securities. PDs' share of the Real Return Bond allotments was about 37 per cent, down from 52 per cent in 2010–11. Customers increased their share to 62 per cent from 48 per cent in 2010–11.

<sup>16</sup> In addition, the Bank of Canada participates at nominal bond auctions. On October 19, 2011, the Bank of Canada announced it would increase its minimum nominal bond purchase amount at nominal bond auctions from 15 per cent to 20 per cent.

<sup>17</sup> Under the *Terms of Participation in Auctions for Government Securities Distributors* ([www.bankofcanada.ca/en/markets/markets\\_auct.html](http://www.bankofcanada.ca/en/markets/markets_auct.html)), a PD's bids, and bids from its customers, must total a minimum of 50 per cent of its auction limit or 50 per cent of its formula calculation, rounded upward to the nearest percentage point, whichever is lower. In addition, the minimum level of bidding must be at a reasonable price.

<sup>18</sup> Tails are not calculated for Real Return Bond auctions since successful bidders are allotted bonds at the single-price equivalent of the highest real yield (single-price auction type) of accepted competitive bids (see Section 6 of the *Standard Terms for Auctions of Government of Canada Real Return Bonds* ([www.bankofcanada.ca/wp-content/uploads/2010/07/terms-rrb110110.pdf](http://www.bankofcanada.ca/wp-content/uploads/2010/07/terms-rrb110110.pdf))).

<sup>19</sup> A customer is a bidder on whose behalf a government securities distributor (GSD) has been directed to submit a competitive or non-competitive bid for a specified amount of securities at a specific price.



Table 6  
**Historical Share of Amount Allotted to Participants by Type of Auction<sup>1</sup>**

<b>Nominal Bonds</b>										
Participant Type	2007-08		2008-09		2009-10		2010-11		2011-12	
	(\$ billions)	(%)	(\$ billions)	(%)	(\$ billions)	(%)	(\$ billions)	(%)	(\$ billions)	(%)
PDs	28	95	66	94	85	87	75	84	80	84
Non-PD GSDs	0	1	0	0	0	0	0	0	0	0
Customers	1	4	4	6	13	13	14	15	15	16
Top 5 participants	20	67	46	66	55	56	46	52	51	53
Top 10 participants	26	89	63	91	81	83	72	81	77	81
Total nominal bonds issued	30		70		98		88		95	

Table 6 (cont'd)  
**Historical Share of Amount Allotted to Participants by Type of Auction<sup>1</sup>**

<b>Real Return Bonds</b>										
Participant Type	2007-08		2008-09		2009-10		2010-11		2011-12	
	(\$ billions)	(%)	(\$ billions)	(%)	(\$ billions)	(%)	(\$ billions)	(%)	(\$ billions)	(%)
PDs	1	54	1	37	1	56	1	52	1	37
Non-PD GSDs	0	1	0	0	0	1	0	0	0	0
Customers	1	46	1	62	1	43	1	48	1	62
Top 5 participants	1	59	1	52	1	57	1	56	1	48
Top 10 participants	2	76	2	73	2	75	2	75	2	68
Total Real Return Bonds issued	2		2		2		2		2	

<sup>1</sup> Net of Bank of Canada allotment.

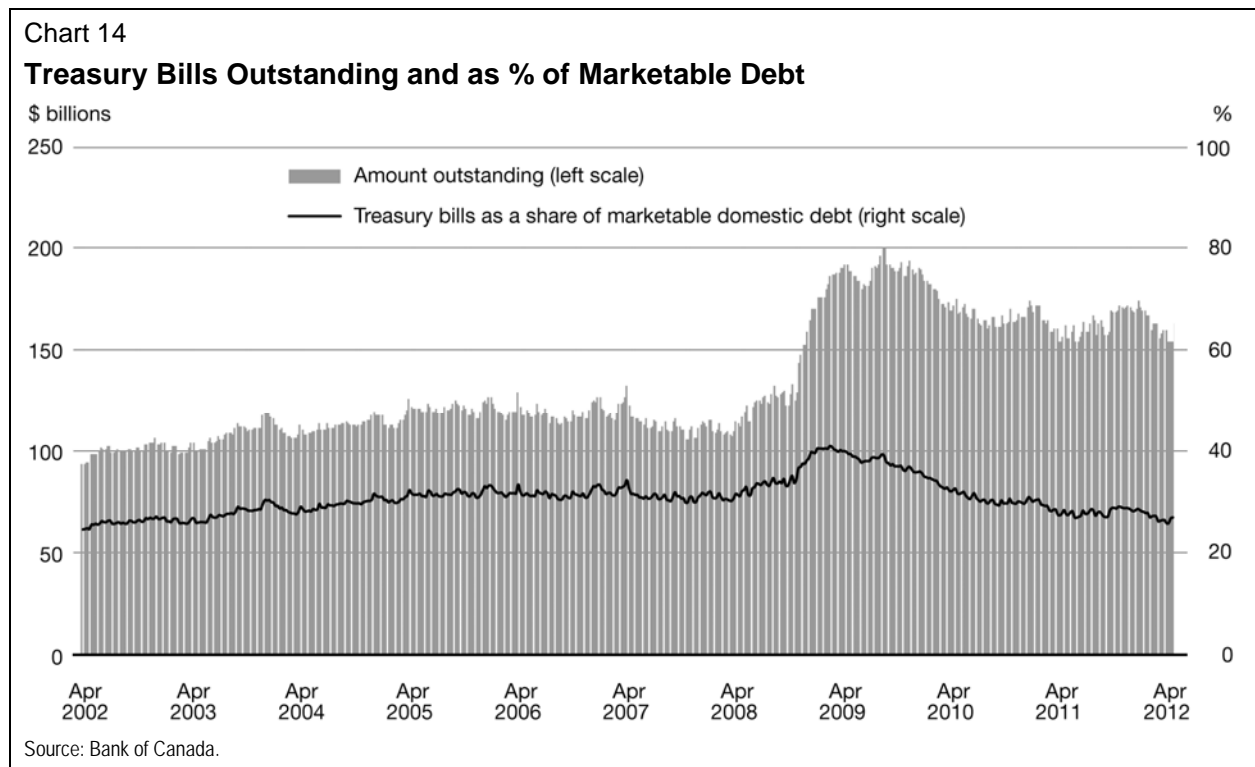
Source: Bank of Canada.



## Treasury Bills and Cash Management Bills

Over 2011–12, \$345.5 billion in 3-month, 6-month and 1-year treasury bills were issued, a decrease of \$7.5 billion from the previous year. In addition, \$81.9 billion in cash management bills were issued compared to \$79.6 billion in 2010–11. The number of cash management bill operations remained at 33 in 2011–12.

During 2011–12, the combined treasury and cash management bill stock remained unchanged at \$163 billion (see Chart 14). Net new issuance of treasury bills ranged from -\$3.5 billion to +\$3.2 billion per operation, with a standard deviation of \$1.8 billion in 2011–12, compared to -\$4.3 billion to +\$2.8 billion per operation, with a standard deviation of \$1.4 billion in 2010–11.



If all PDs bid at their maximum bidding limit for treasury bill auctions, the coverage ratios for PDs would reach 2.5. However, if all PDs only bid at their minimum bidding obligation, the coverage ratios would be 1.65.



In 2011–12, all of the treasury bill and cash management bill auctions were fully covered. Coverage ratios for treasury bill auctions in 2011–12 were slightly higher than the five-year average and were consistent with the trend observed at bond auctions (see Table 7). Decreased volatility in short-term securities and low interest rates also resulted in much smaller tails for treasury bill and cash management bill auctions.

**Table 7**  
**Performance at Treasury Bill and Cash Management Bill Auctions**

		Treasury Bills			Cash Management Bills
		3-Month	6-Month	12-Month	
Tail	2011–12	0.42	0.52	0.55	1.30
Tail	5-year average	0.81	0.80	1.04	3.65
Coverage	2011–12	2.21	2.47	2.53	2.44
Coverage	5-year average	2.11	2.33	2.28	2.31

Notes: Tail represents the number of basis points between the highest yield accepted and the average yield of an auction. Coverage is defined as the total amount of bids received, including bids from the Bank of Canada, divided by the amount auctioned.

Source: Bank of Canada

### Participation at Treasury Bill Auctions

In 2011–12, the share of short-term debt securities allotted to PDs decreased by 6 percentage points to 78 per cent, while the share allotted to customers increased by 5 percentage points to about 20 per cent (see Table 8). The 10 most active participants were allotted about 85 per cent of these securities.

**Table 8**  
**Historical Share of Amount Allotted to Participants by Type of Auction**

Participant Type	2007–08		2008–09		2009–10		2010–11		2011–12	
	(\$ billions)	(%)	(\$ billions)	(%)	(\$ billions)	(%)	(\$ billions)	(%)	(\$ billions)	(%)
PDs	198	88	322	90	324	86	285	84	271	78
Non-PD GSDs	2	1	1	0	6	1	4	1	7	2
Customers	24	11	36	10	46	12	50	15	68	20
Top 5 participants	151	68	246	69	251	67	219	64	206	60
Top 10 participants	207	93	325	91	331	88	287	85	292	85
Total treasury bills issued	224		359		376		339		346	

Source: Bank of Canada.



## Foreign Currency Debt

Foreign currency debt is used to fund the Exchange Fund Account (EFA), which represents the largest component of the official international reserves. The EFA is primarily made up of liquid foreign currency securities and special drawing rights (SDRs). SDRs are international reserve assets created by the International Monetary Fund (IMF) whose value is based on a basket of international currencies. The official international reserves also include Canada's reserve position at the IMF. This position, which represents Canada's investment in the activities of the IMF, fluctuates according to drawdowns and repayments from the IMF. The *Report on the Management of Canada's Official International Reserves* ([www.fin.gc.ca/purl/efa-eng.asp](http://www.fin.gc.ca/purl/efa-eng.asp)) provides information on the objectives, composition and performance of the reserves portfolio.

The market value of the official international reserves increased to US\$69.4 billion at March 31, 2012 from US\$60.6 billion at March 31, 2011. The change comprised an US\$8.4-billion increase in EFA assets and a US\$334-million increase in the IMF reserve position.

The EFA is funded by liabilities of the Government of Canada denominated in, or converted to, foreign currencies. Funding requirements are primarily met through an ongoing program of cross-currency swaps of domestic bond issues. Total cross-currency swap issuance and maturities during the reporting period were US\$6.4 billion and US\$2.2 billion, respectively.

In addition to cross-currency swaps of domestic bond issues, the EFA can be funded through a short term US-dollar paper program (Canada bills), medium-term note issuance in various markets (Canada notes, euro medium-term notes) and international bond issues (global bonds), the use of which depends on funding needs and market conditions (see Table 9).

Table 9  
**Outstanding Foreign Currency Issues**  
(par value in millions of dollars)

	March 31, 2012	March 31, 2011	Change
Swapped domestic bond issues	40,821	37,361	3,460
Global bonds	8,667	5,835	2,832
Canada bills	2,001	1,960	41
Euro medium-term notes	0	0	0
Canada notes	0	0	0
Total	51,489	45,156	6,333

Note: Liabilities are stated at the exchange rates prevailing on March 31.

In February 2012, the Government of Canada issued a US\$3-billion global bond at 8 basis points over the comparable 5-year US Treasury security. As with all foreign currency borrowing conducted by the Government of Canada, the proceeds of this global bond supplemented Canada's foreign exchange reserves and further diversified the funding base. The transaction took advantage of ideal market conditions for Canada and met with very strong demand. With this deal, international investors expressed a strong vote of confidence in Canada's credit quality and economic stewardship.



Table 10

**Government of Canada Global Bonds Outstanding**

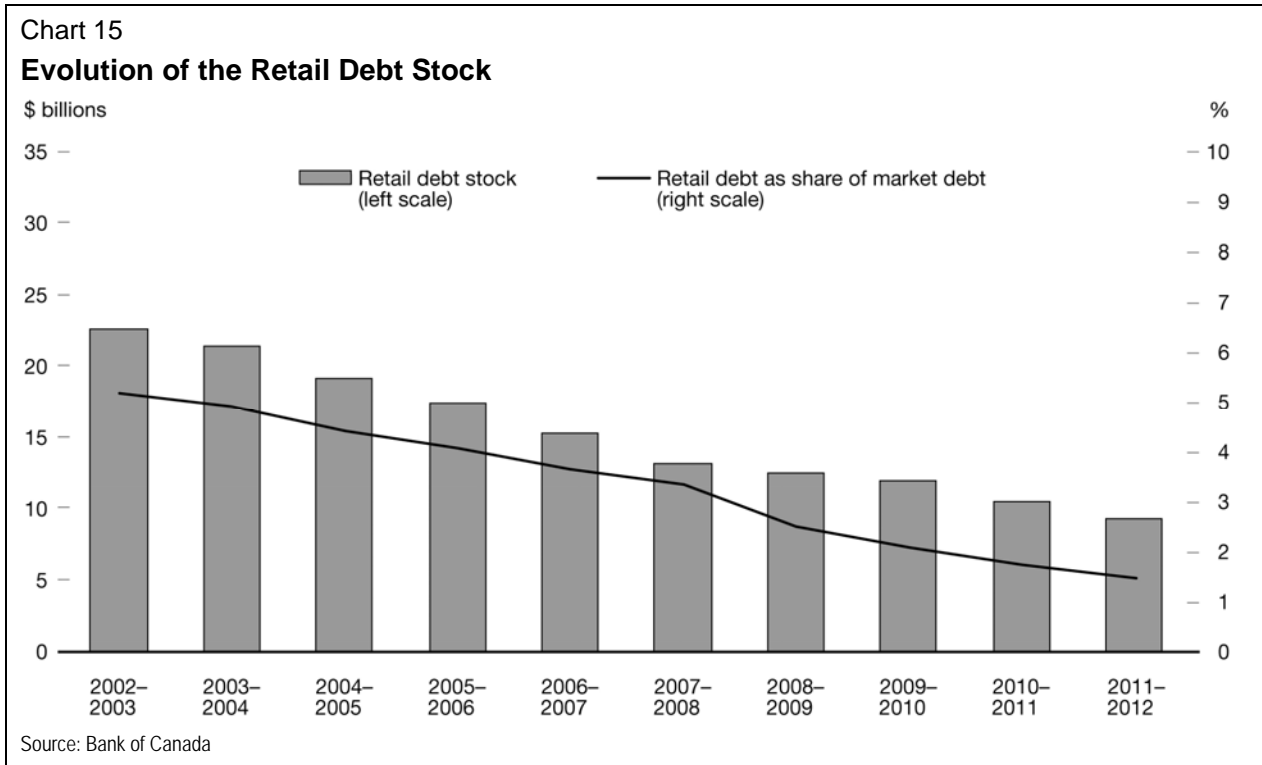
Year of Issuance	Market	Amount in Original Currency	Yield (%)	Term to Maturity (Years)	Coupon (%)	Benchmark Interest Rate—Government Bonds	Spread From Benchmark at Issuance (Basis Points)	Spread Over Swap Curve in Relevant Currency on Issuance Date (Basis Points)
2009	Global	US\$3 billion	2.498	5	2.375	US	23.5	LIBOR – 15.0
2010	Global	€2 billion	3.571	10	3.500	Germany	19.4	EURIBOR + 2.0
2012	Global	US\$3 billion	0.888	5	0.875	US	8.0	LIBOR – 23.5

Notes: LIBOR = London Interbank Offered Rate. EURIBOR = Euro Interbank Offered Rate.

Source: Department of Finance.

**Retail Debt**

The level of outstanding Canada Savings Bonds and Canada Premium Bonds held by retail investors decreased from \$10.1 billion at the start of 2011–12 to \$8.9 billion at the end of 2011–12, representing around 1.5 per cent of total market debt at March 31, 2012 (see Chart 15).





Gross sales and redemptions were \$1.8 billion and \$3.0 billion, respectively, for a net reduction of \$1.2 billion in the stock of retail debt (see Table 11).

Table 11  
**Retail Debt Gross Sales and Redemptions, 2011–12**

\$ billions

	Gross Sales	Redemptions	Net Change
Payroll	1.6	1.5	0.0
Cash	0.2	1.4	-1.2
Total	1.8	3.0	-1.2

Note: Numbers may not add due to rounding.

Source: Bank of Canada.

## Cash Management

The Bank of Canada, as fiscal agent for the Government, manages the Receiver General (RG) Consolidated Revenue Fund, from which the balances required for the Government's day-to-day operations are drawn. The core objective of cash management is to ensure that the Government has sufficient cash available at all times to meet its operating requirements.

Twice-daily auctions of RG cash balances, treasury bill auctions, cash management bill auctions and the cash management bond buyback program are used to manage RG cash balances.

### Twice-Daily Auctions of Receiver General Cash Balances

In 2011–12, RG cash balances fluctuated widely, reaching a peak of \$19.3 billion and a low of \$2.7 billion. At \$9.6 billion, average daily RG cash balances were the same in 2011–12 as in 2010–11.

RG cash balances are invested in a prudent and cost-effective manner through auctions with private sector financial institutions. Since February 1999, when Canada's electronic funds transfer system—the Large Value Transfer System—was implemented, RG cash balances have been allocated to bidders twice daily through an auction process administered by the Bank of Canada. These auctions serve two main purposes: first, as a treasury management tool, they are the means by which the Government invests its excess short-term Canadian-dollar cash balances; second, the auctions are used by the Bank of Canada in its monetary policy implementation to neutralize the impact of public sector flows on the financial system.

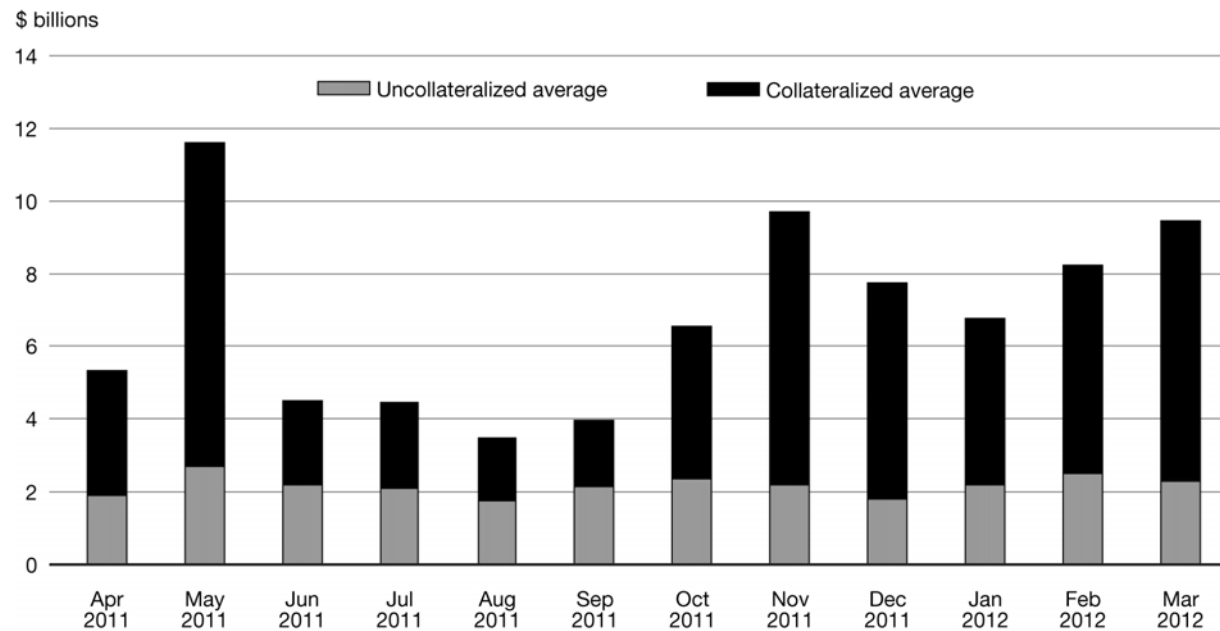
The level of cash balances held by financial institutions tends to be at its highest during the months of March, May and November in anticipation of large cash outflows, principally to cover large bond principal and coupon outflows on June 1 and December 1. Average daily RG cash balances held by financial institutions were \$6.8 billion in 2011–12, up from \$5.6 billion in 2010–11.



A portion of the morning auction has been offered on a collateralized basis since September 2002, permitting access to a broader group of potential participants, while ensuring that the Government's credit exposure is effectively mitigated. Participants with approval for uncollateralized bidding limits maximize their uncollateralized lines prior to using their collateralized lines. Generally, at least 20 per cent of the balances are collateralized; however, in months of high balances, the proportion of collateralized balances can exceed 80 per cent (see Chart 16).

Chart 16

**Receiver General Auctions of Cash Balances**  
**Allocation Between Collateralized and Uncollateralized Tranches**  
(Average of Daily Balances for Each Month)



Source: Bank of Canada.

A key measure of the cost to the Government of maintaining cash balances is the net return on these cash balances—the difference between the return on government cash balances auctioned to financial institutions (typically around the overnight rate) and the weighted average yield paid on treasury bills. A normal upward sloping yield curve results in a negative cost of carry for the Government, as financial institutions pay rates of interest for government deposits based on an overnight rate that is lower than the rate paid by the Government to issue treasury bills. Conversely, under an inverted yield curve, short-term deposit rates are higher than the average of 3- to 12-month treasury bill rates, which can result in a net gain for the Government.

In 2011–12, treasury bill yields traded predominantly lower than the overnight rate, resulting in a gain of carrying cash of \$0.7 million for the fiscal year, compared to a loss of \$7.2 million in 2010–11 and a loss of \$5.7 million in 2009–10.



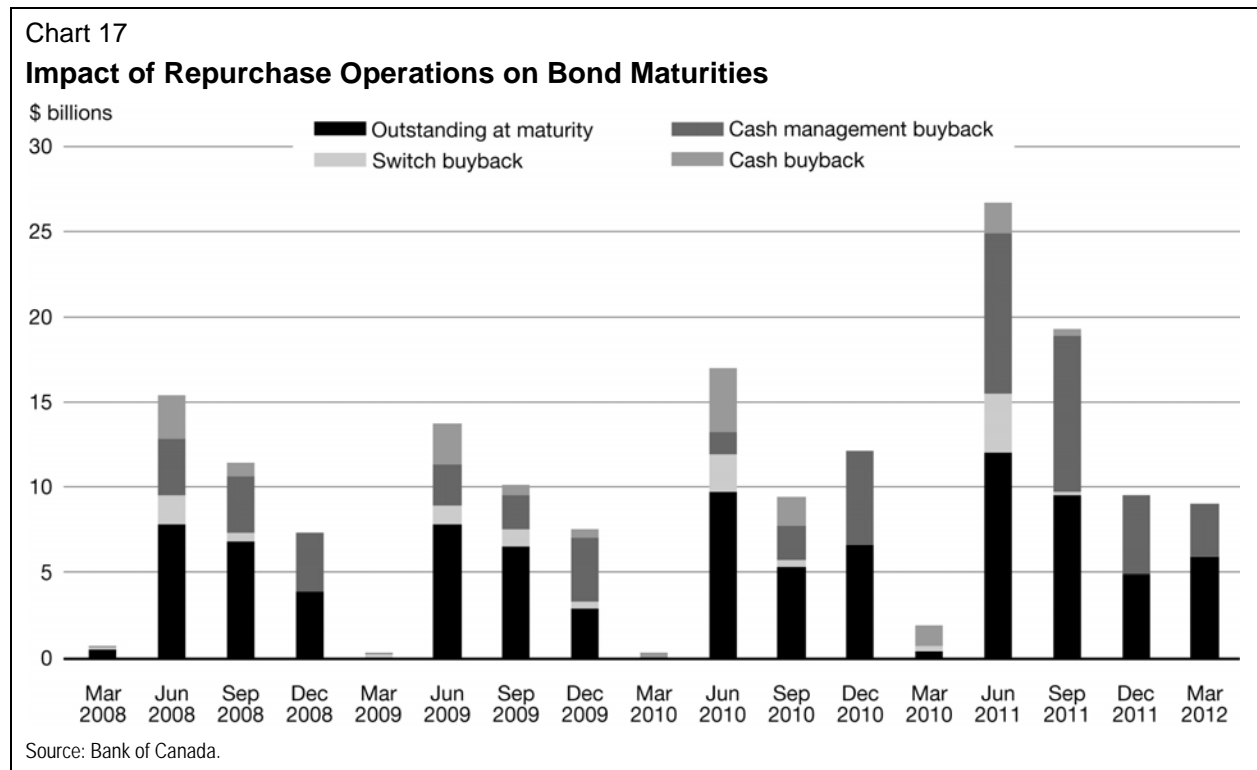


### Cash Management Bond Buyback Program

The cash management bond buyback (CMBB) program helps manage cash requirements by reducing the high levels of cash balances needed for key maturity and coupon payment dates. The program also helps smooth variations in treasury bill auction sizes over the year. Consistent with feedback received during market consultations, weekly CMBB operations were continued in 2011–12.

In 2011–12, the total amount of bonds repurchased through the CMBB program was \$30.5 billion, compared to \$21.9 billion in 2010–11. In 2011–12, the program contributed to reducing the size of the 2011 June 1, September 1 and December 1 as well as the 2012 March 1 bond maturities by about 21 per cent, from a total of \$40.9 billion outstanding at the start of the fiscal year to \$32.5 billion outstanding at maturity.

The CMBB program has been the most consistently useful method for reducing maturity sizes (see Chart 17). However, switch and cash repurchase operations have also proven to be valuable tools in recent years. Overall, total repurchase operations reduced the size of the 2011 June 1, September 1 and December 1 as well as the 2012 March 1 bond maturities by 50 per cent.





# Annex 1:

## Completed Treasury Evaluation Reports

In order to inform future decision making and to support transparency and accountability, different aspects of the Government of Canada’s treasury activities are reviewed periodically under the Treasury Evaluation Program. The program’s purpose is to obtain periodic external assessments of the frameworks and processes used in the management of wholesale and retail market debt, cash and reserves as well as the treasury activities of other entities under the authority of the Minister of Finance.

Reports on the findings of these evaluations and the Government’s response to each evaluation are tabled with the House of Commons Standing Committee on Public Accounts by the Minister of Finance. Copies are also sent to the Auditor General of Canada. The reports are posted on the Department of Finance website.

Area	Year
Debt Management Objectives	1992
Debt Structure—Fixed/Floating Mix	1992
Internal Review Process	1992
External Review Process	1992
Benchmarks and Performance Measures	1994
Foreign Currency Borrowing—Canada Bills Program	1994
Developing Well-Functioning Bond and Bill Markets	1994
Liability Portfolio Performance Measurement	1994
Retail Debt Program	1994
Guidelines for Dealing With Auction Difficulties	1995
Foreign Currency Borrowing—Standby Line of Credit and FRN	1995
Treasury Bill Program Design	1995
Real Return Bond Program	1998
Foreign Currency Borrowing Programs	1998
Initiatives to Support a Well-Functioning Wholesale Market	2001
Debt Structure Target/Modelling	2001
Reserves Management Framework <sup>1</sup>	2002
Bond Buybacks <sup>1</sup>	2003
Funds Management Governance Framework <sup>1</sup>	2004
Retail Debt Program <sup>1</sup>	2004
Borrowing Framework of Major Federal Government-Backed Entities <sup>1</sup>	2005
Receiver General Cash Management Program <sup>1</sup>	2006
Exchange Fund Account Evaluation <sup>1</sup>	2006
Risk Management Report <sup>1</sup>	2007
Evaluation of the Debt Auction Process <sup>1</sup>	2010
Report of the Auditor General of Canada on Interest-Bearing Debt <sup>2</sup>	2012

<sup>1</sup> Available on the Department of Finance website ([www.fin.gc.ca](http://www.fin.gc.ca)).

<sup>2</sup> This audit was conducted outside of the Treasury Evaluation Program.



# Annex 2:

## Debt Management Policy Measures Taken Since 1997

A well-functioning wholesale market in Government of Canada securities is important as it benefits the Government as a borrower as well as a wide range of market participants. For the Government as a debt issuer, a well-functioning market attracts investors and contributes to keeping funding costs low and stable over time. For market participants, a liquid and transparent secondary market in government debt provides risk-free assets for investment portfolios, a pricing benchmark for other debt issues and derivatives, and a primary tool for hedging interest rate risk. The following table lists policy measures that have been taken to ensure a well-functioning Government of Canada securities market.

Measure	Year
Dropped the 3-year bond benchmark	1997
Moved from weekly to bi-weekly treasury bill auctions	1998
Introduced a cash-based bond buyback program	1999
Introduced standardized benchmarks (fixed maturities and increased size)	1999
Started regular cross-currency swap-based funding of foreign assets	1999
Introduced a switch-based bond buyback program	2001
Allowed the reconstitution of bonds beyond the size of the original amount issued	2001
Introduced the cash management bond buyback program	2001
Reduced targeted turnaround times for auctions and buyback operations	2001
Advanced the timing of treasury bill auctions from 12:30 p.m. to 10:30 a.m.	2004
Advanced the timing of bond auctions from 12:30 p.m. to 12:00 p.m.	2005
Reduced the timing between bond auctions and cash buybacks to 20 minutes	2005
Dropped one quarterly 2-year auction	2006
Announced the maintenance of benchmark targets through fungibility (common dates)	2006
Consolidated the borrowings of three Crown corporations	2007
Changed the maturity of the 5-year benchmark and dropped one quarterly 5-year auction	2007
Reintroduced the 3-year bond benchmark	2009
Increased the frequency of cash management bond buyback operations from bi-weekly to weekly	2010
Announced a new medium-term debt management strategy	2011
Announced plans to increase the level of prudential liquidity by \$35 billion over 3 years	2011
Added four new maturity dates—February 1, May 1, August 1 and November 1	2011
Increased benchmark target range sizes in the 2-, 3- and 5-year sectors	2011



# Annex 3:

## Glossary

**asset-liability management:** An investment decision-making framework that is used to concurrently manage a portfolio of assets and liabilities.

**average term to maturity:** The weighted average amount of time until the securities in the debt portfolio mature.

**benchmark bond:** A bond that is considered by the market to be the standard against which all other bonds in that term area are evaluated against. It is typically a bond issued by a sovereign, since sovereign debt is usually the most creditworthy within a domestic market. Usually it is the most liquid bond within each range of maturities and is therefore priced accurately.

**budgetary deficit:** The shortfall between government annual revenues and annual budgetary expenses.

**buyback on a cash basis:** The repurchase of bonds for cash. Buybacks on a cash basis are used to maintain the size of bond auctions and new issuances.

**buyback on a switch basis:** The exchange of outstanding bonds for new bonds in the current building benchmark bond.

**Canada bill:** A promissory note denominated in US dollars, issued for terms of up to 270 days. Canada bills are issued for foreign exchange reserves funding purposes only.

**Canada Investment Bond:** A non-marketable fixed-term security instrument issued by the Government of Canada.

**Canada note:** A promissory note usually denominated in US dollars and available in book-entry form. Canada notes can be issued for terms of nine months or longer, and can be issued at a fixed or a floating rate. Canada notes are issued for foreign exchange reserves funding purposes only.

**Canada Premium Bond:** A non-marketable security instrument issued by the Government of Canada, which is redeemable once a year on the anniversary date or during the 30 days thereafter without penalty.

**Canada Savings Bond:** A non-marketable security instrument issued by the Government of Canada, which is redeemable on demand by the registered owner(s), and which, after the first three months, pays interest up to the end of the month prior to cashing.

**cross-currency swap:** An agreement that exchanges one type of debt obligation for another involving different currencies and the exchange of the principal amounts and interest payments.



**duration:** Measures the sensitivity of the price of a bond or portfolio to fluctuations in interest rates. It is a measure of volatility and is expressed in years. The higher the duration number, the greater the interest rate risk for bond or portfolio prices.

**electronic trading system:** An electronic system that provides real-time information about securities and enables the user to execute financial trades.

**Exchange Fund Account (EFA):** An account that aids in the control and protection of the external value of the Canadian dollar. Assets held in the EFA are managed to provide foreign currency liquidity to the Government and to promote orderly conditions for the Canadian dollar in the foreign exchange markets, if required.

**financial source/requirement:** The difference between the cash inflows and outflows of the Government's Receiver General account. In the case of a financial requirement, it is the amount of new borrowing required from outside lenders to meet financing needs in any given year.

**fixed-rate share of interest-bearing debt:** The proportion of interest-bearing debt that does not mature or need to be repriced within one year (i.e. the inverse of the refixing share of interest-bearing debt).

**foreign exchange reserves:** The foreign-currency assets (e.g. interest-earning bonds) held to support the value of the domestic currency. Canada's foreign exchange reserves are held in the Exchange Fund Account.

**Government of Canada securities auction:** A process used for selling Government of Canada debt securities (mostly marketable bonds and treasury bills) in which issues are sold by public tender to government securities distributors and approved clients.

**government securities distributor:** An investment dealer or bank that is authorized to bid at Government of Canada auctions and through which the Government distributes Government of Canada treasury bills and marketable bonds.

**interest-bearing debt:** Debt consisting of unmatured debt, or market debt, as well as liabilities to internally held accounts such as federal employees' pension plans.

**Large Value Transfer System:** An electronic funds transfer system introduced in February 1999 and operated by the Canadian Payments Association. It facilitates the electronic transfer of Canadian-dollar payments across the country virtually instantaneously.

**marketable bond:** An interest-bearing certificate of indebtedness issued by the Government of Canada, having the following characteristics: bought and sold on the open market; payable in Canadian or foreign currency; having a fixed date of maturity; interest payable either in coupon or registered form; face value guaranteed at maturity.

**marketable debt:** Market debt that is issued by the Government of Canada and sold via public tender or syndication. These issues can be traded between investors while outstanding.



**money market:** The market in which short-term capital is raised, invested and traded using financial instruments such as treasury bills, bankers' acceptances, commercial paper, and bonds maturing in one year or less.

**non-market debt:** The Government's internal debt, which is, for the most part, federal public sector pension liabilities and the Government's current liabilities (such as accounts payable, accrued liabilities, interest payments and payments of matured debt).

**overnight rate; overnight financing rate; overnight money market rate; overnight lending rate:** An interest rate at which participants with a temporary surplus or shortage of funds are able to lend or borrow until the next business day. It is the shortest term to maturity in the money market.

**primary dealer (PD):** A member of the core group of government securities distributors that maintain a certain threshold of activity in the market for Government of Canada securities. The PD classification can be attained in either treasury bills or marketable bonds, or both.

**primary market:** The market in which issues of securities are first offered to the public.

**Real Return Bond (RRB):** A bond whose interest payments are based on real interest rates. Unlike standard fixed-coupon marketable bonds, the semi-annual interest payments on Government of Canada RRBs are determined by adjusting the principal by the change in the Consumer Price Index.

**refixing share of gross domestic product (GDP):** The amount of interest-bearing debt that matures or needs to be repriced within one year relative to nominal GDP for that year.

**refixing share of interest-bearing debt:** The proportion of interest-bearing debt that matures or needs to be repriced within one year (i.e. the inverse of the fixed-rate share of interest-bearing debt).

**secondary market:** The market where existing securities trade after they have been sold to the public in the primary market.

**sovereign market:** The market for debt issued by a government.

**treasury bill:** A short-term obligation sold by public tender. Treasury bills, with terms to maturity of 3, 6 or 12 months, are currently auctioned on a bi-weekly basis.

**yield curve:** The conceptual or graphic representation of the term structure of interest rates. A "normal" yield curve is upward sloping, with short-term rates lower than long-term rates. An "inverted" yield curve is downward sloping, with short-term rates higher than long-term rates. A "flat" yield curve occurs when short-term rates are the same as long-term rates.



# Annex 4:

## Contact Information

Department of Finance Canada  
Financial Sector Policy Branch  
Financial Markets Division  
140 O'Connor St., 11th Floor, East Tower  
Ottawa, Canada K1A 0G5  
Telephone: 613-992-9031  
Fax: 613-943-2039







# Reference Tables

- I Gross Public Debt, Outstanding Market Debt and Debt Charges
- II Government of Canada Outstanding Market Debt
- III Fiscal 2011–12 Treasury Bill Program
- IV Fiscal 2011–12 Treasury Bill Auction Results
- V Issuance of Government of Canada Domestic Bonds
- VI Fiscal 2011–12 Domestic Bond Program
- VII Fiscal 2011–12 Domestic Bond Auction Results
- VIII Outstanding Government of Canada Domestic Bonds as at March 31, 2012
- IX Government of Canada Cross-Currency Swaps Outstanding as at March 31, 2012
- X Fiscal 2011–12 Bond Buyback Program Operations
- XI Crown Corporation Borrowings as at March 31, 2012