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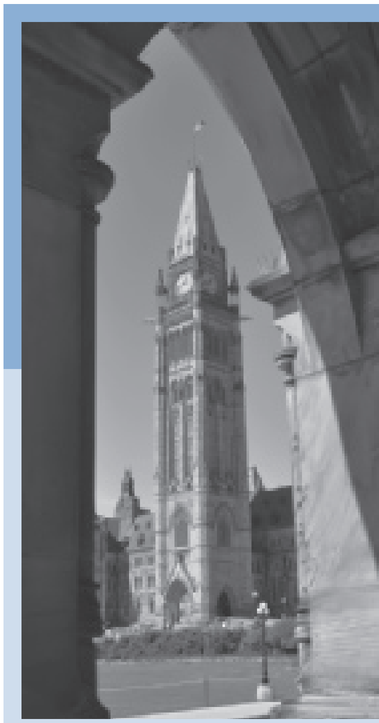

Report of the Auditor General of Canada to the House of Commons

CHAPTER 3
Interest-Bearing Debt

Office of the Auditor General of Canada

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Office of the Auditor General of Canada
Distribution Centre
240 Sparks Street
Ottawa, Ontario
K1A 0G6

Telephone: 613-952-0213, ext. 5000, or 1-888-761-5953
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Email: distribution@oag-bvg.gc.ca

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CHAPTER 3

Interest-Bearing Debt

Performance audit reports

This report presents the results of a performance audit conducted by the Office of the Auditor General of Canada under the authority of the *Auditor General Act*.

A performance audit is an independent, objective, and systematic assessment of how well government is managing its activities, responsibilities, and resources. Audit topics are selected based on their significance. While the Office may comment on policy implementation in a performance audit, it does not comment on the merits of a policy.

Performance audits are planned, performed, and reported in accordance with professional auditing standards and Office policies. They are conducted by qualified auditors who

- establish audit objectives and criteria for the assessment of performance;
- gather the evidence necessary to assess performance against the criteria;
- report both positive and negative findings;
- conclude against the established audit objectives; and
- make recommendations for improvement when there are significant differences between criteria and assessed performance.

Performance audits contribute to a public service that is ethical and effective and a government that is accountable to Parliament and Canadians.

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Interest-Bearing Debt

Main Points

What we examined

Debt management refers to how the Government of Canada raises funds to meet its borrowing requirements, what it decides and does about the composition of the market debt, and how it governs these activities. The Government of Canada's interest-bearing debt is made up of principally two sets of liabilities: market debt and public sector pension plan liabilities. Market debt is the part of the debt that the government borrows in financial markets and that is managed by the Department of Finance Canada. It totalled $597 billion at 31 March 2011. Public sector pension plan liabilities are part of the non-market debt. These liabilities represent the government's obligations to the employee pension plans of the public service, Canadian Forces, and Royal Canadian Mounted Police (RCMP). They totalled $146 billion at 31 March 2011.

Together, market debt and the pension plan liabilities make up over 92 percent of the interest-bearing debt, which totalled $802 billion at 31 March 2011. In 2010–11, interest charges on the debt totalled $30.9 billion and represented 11.4 percent of government expenses.

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

Audit work for this chapter was substantially completed on 31 October 2011. Further details on the conduct of the audit are in **About the Audit** at the end of this chapter.

Why it's important

Debt management is the federal government's largest program (after transfers to seniors and to other levels of government). How market debt is managed has a direct impact on the government's fiscal strength. Debt managers need to set appropriate market debt strategies using robust processes and tools—first, to balance costs and risks so that low-cost and stable funding can be raised, and second, to support well-functioning markets for Government of Canada securities.

Deteriorating sovereign debt conditions in the Euro zone and in the United States show the importance of having sound debt strategies, as they provide stability and assurance to market participants. Sound debt strategies will also support the fiscal sustainability of public finances in the long term.

In addition to market debt, public sector pension plan liabilities and associated debt charges have a large impact on the government's fiscal situation. It is therefore important that Canadians be provided with clear information on that debt, the associated interest charges, and their impact on budget deficits or surpluses. The significant amounts involved can influence policy choices by limiting what the government can afford to do.

What we found

- In developing its debt strategies, the Department of Finance Canada uses a sound process that relies on a detailed and robust debt strategy model and on the judgment of senior managers as well as on consultations with dealers and investors. The model and the qualitative/quantitative analyses help debt managers recommend preferred debt structures, and are major advances since our last audit 12 years ago.
- The Department is monitoring and achieving the objective of a well-functioning market for Government of Canada securities. Until recently, it was using metrics that did not provide a full assessment of the extent to which it was achieving the objective of raising low-cost, stable funding for the Government of Canada by arriving at a desired debt structure that strikes a balance between costs and risks. Subsequent to the period under review, the Department started monitoring better the extent to which it balances costs and risks, but it cannot yet demonstrate that the debt strategy is achieving the low-cost, stable funding objective. While the Department publishes clear information on the market debt, it could publish more details to indicate why a particular debt strategy was chosen and how well the program is performing.
- The Department of Finance Canada has a sound risk management framework in place to assess and monitor emerging risks as well as changes in financial requirements that could affect the debt strategy. However, it does not promote Government of Canada securities to market participants as well as it could to appeal to a broader base of investors.

- Canada is a leader among member countries of the Organisation for Economic Co-operation and Development (OECD) in recognizing in its financial statements the obligations arising from public sector employee pension plans. In fact, very few other countries report these obligations on their financial statements. However, while complete financial information on the pension plans is available, it is dispersed among several reports and not presented in easy-to-read formats. It is therefore difficult for parliamentarians and Canadians to readily understand the potential impact of these liabilities on the budgetary balance and how they influence policy choices. In addition, the composition of projected interest charges reported in the Estimates is not clearly presented. Finally, the Department of Finance Canada does not have timely access to the quarterly updates from the Public Sector Pension Investment Board about actual returns on public sector pension investments, which would help the Department assess the impact that unforeseen fluctuations could have on budget surpluses or deficits.

The entities have responded. The entities have agreed with our recommendations. Their detailed responses follow the recommendations throughout the chapter.

Introduction

3.1 The Government of Canada issues securities—for example, marketable bonds in either domestic or foreign currency, treasury bills, and Canada Savings Bonds—to fund its **financial requirements**. As well, the government has other financial liabilities that are included in its interest-bearing debt (such as the public sector pension plans). To present an idea of the size of this debt, in 2010–11 interest-bearing debt totalled about $802 billion. Each year, interest on this debt costs billions of dollars. In 2010–11, interest charges on the interest-bearing debt represented more than 11 percent of government expenses and 13 percent of the government's revenues.

Financial requirements—The difference between cash coming in to the government and the cash going out. The government may finance a financial requirement by increasing market debt through the sale of government securities or by reducing its cash balances.

3.2 For the purposes of this report, the Government of Canada's interest-bearing debt is made up of two main sets of liabilities:

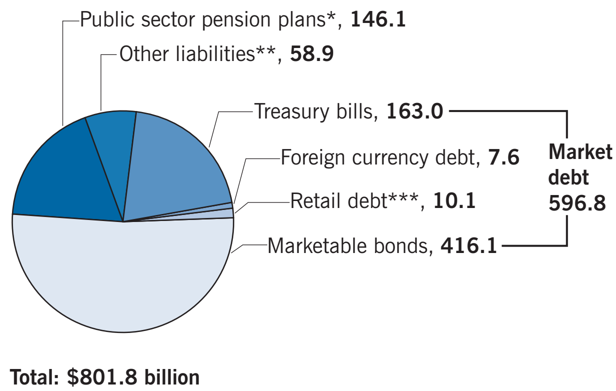
- market debt—debt that the Government of Canada raises in financial markets, including marketable bonds in either domestic or foreign currency, treasury bills, as well as retail debt.
- non-market debt—principally made up of **public sector pension plan liabilities** and also including other liabilities such as government employee and veterans' future benefits.

Public sector pension plan liabilities—The government's obligations for the three major pension plans it sponsors: the public service, Canadian Forces, and Royal Canadian Mounted Police plans.

3.3 As of 31 March 2011, the government's market debt totalled about $597 billion; the debt related to public sector pension plan liabilities totalled $146 billion (Exhibit 3.1). Together, market debt and public sector pension plan liabilities added up to more than 92 percent of the interest-bearing debt.

3.4 As shown in Exhibit 3.2, in 2010–11, interest charges on the interest-bearing debt totalled $30.9 billion. Interest charges in such high amounts have a major impact on the government's surpluses or deficits. Marketable bonds, treasury bills, and public sector pension plan liabilities add up to $725.2 billion (Exhibit 3.1) and cost taxpayers $27.5 billion in interest charges (Exhibit 3.2). Every year, the Minister of Finance approves the debt management strategy, which sets out, among other things, the Government of Canada's objectives, strategy, and plans for managing its market debt. The accounting of other liabilities, such as the public sector pension plan liabilities and the debt management strategy that is chosen for borrowing funds, will influence interest charges.

Exhibit 3.1 The composition of Canada's interest-bearing debt for the 2010–11 fiscal year ($ billions)



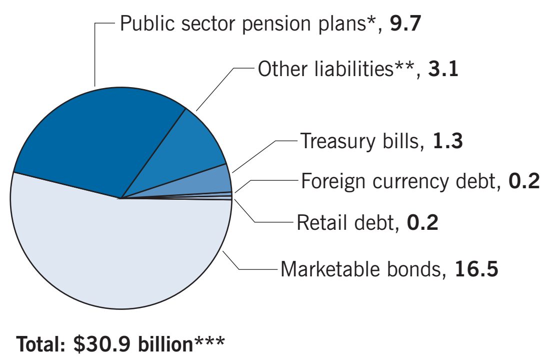
* Pension liabilities also include $802 million for the Members of Parliament pension plan and $2.1 billion for the judges' pension plan.

** Other liabilities include the future benefits of veterans and other employees; capital lease obligation (amount due for long-term asset lease agreements such as office space); and a market debt value adjustment (which includes revaluation of cross-currency swaps, unamortized discounts, and premiums on market debt).

***Retail debt means the portion of the debt held by Canadians in the form of Canada Savings Bonds and Canada Premium Bonds.

Source: Public Accounts of Canada, 2010–11, Volume I

Exhibit 3.2 The composition of the interest charges on public debt for the 2010–11 fiscal year ($ billions)



* Interest on public sector pension liabilities included $37 million for the Members of Parliament pension plan and $91 million for the judges' pension plan.

** Other liabilities include the future benefits of veterans and other employees and obligations related to capital leases as well as revaluation of cross-currency swaps.

*** Total does not add up exactly due to rounding.

Source: Public Accounts of Canada, 2010–11, volumes I and III

Who manages the debt?

3.5 The Department of Finance Canada is responsible for managing the market debt and reporting information on it. The Treasury Board of Canada Secretariat, the Department of Finance Canada, National Defence, and Public Safety Canada have responsibilities for managing and reporting on the public sector pension plan liabilities (Exhibit 3.3).

Influence of recent events on the interest-bearing debt

3.6 The debt management program is the federal government's largest program (after transfers to seniors and to other levels of government). A key objective of this program is to meet its spending needs through stable, low-cost funding—that is, funding that strikes a balance between minimizing the level of interest charges (costs) and exposure to the volatility of interest charges (risks). A second key objective is to maintain a well-functioning market for Government of Canada securities, which helps to keep debt costs low and stable and generally benefits a wide range of participants in the domestic market.

3.7 For 11 fiscal years, from 1997–98 to 2007–08, the government recorded budgetary surpluses. When compared to its peak in 1996–97, total market debt had declined by more than 17 percent by 2007–08 (Exhibit 3.4). Because the debt of the federal government was declining, reducing its need to borrow through securities, a continuing challenge for debt managers was to ensure that enough treasury bills and bonds were being issued to support **market liquidity**. In the 2007–08 fiscal year, debt managers had to suddenly manage rapidly increasing financial requirements. As seen in Exhibit 3.4, new government borrowing totalled $203 billion between the 2007–08 and 2010–11 fiscal years.

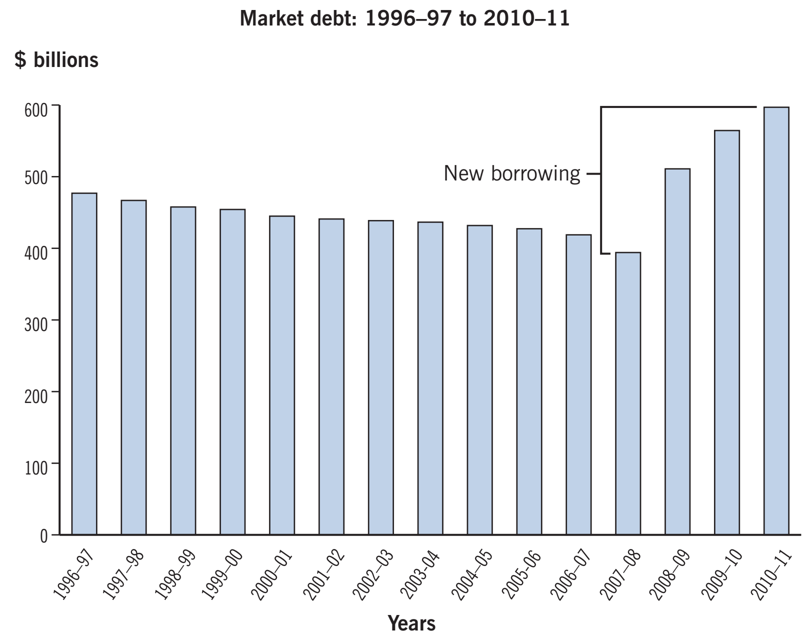
Market liquidity—State of a market that depends on whether there are ready and willing buyers and sellers of government securities in large quantities (if so, it is considered a liquid market). Securities traded in large enough quantities can lower borrowing costs for the government.

3.8 Policy decisions and events, such as the consolidation of the borrowings of some Crown corporations, the turbulence of financial markets, and federal government stimulus, led to an increase in government borrowing. These events and policy decisions, together with changes to the public sector pension plans, had an impact on the interest-bearing debt and its management. Appendix A explains in more detail these policy decisions and events.

Exhibit 3.3 Roles and responsibilities in managing public debt and reporting information

Responsible organization	Responsibilities
Market Debt	
Department of Finance Canada	Under Part IV (Public Debt) of the *Financial Administration Act:* • Provides strategic planning and the operational management of the government's borrowing. • Directs and oversees the policy and strategy for managing funds, submitting policy advice to the Minister, and preparing and publishing reports on fund management. Other: • Analyzes and reports on Canada's budgetary situation, including interest charges and fiscal outlook.
Bank of Canada	Under the *Bank of Canada Act*: • Acts as the government's fiscal agent. As the government's fiscal agent, the Bank of Canada distributes Government of Canada marketable bills and bonds through auction to government securities distributors and customers.
Public Sector Pension Plan Liabilities	
Treasury Board of Canada Secretariat	Reporting on public service pension plan: • Under the *Public Service Superannuation Act* reports to Parliament (through the President) once a year on the administration of the public service pension plan, including the amounts paid into and out of the pension accounts. • Offers general guidance to the Royal Canadian Mounted Police and National Defence on accounting for their pension plans. (The Minister of National Defence and the Minister of Public Safety table annual reports under the *Canadian Forces Superannuation Act* and the *Royal Canadian Mounted Police Superannuation Act,* respectively, on how their plans are being run.) Public Accounts of Canada: • Under the *Financial Administration Act*, establishes the format of the Public Accounts of Canada jointly with the Department of Finance Canada (through the President of the Treasury Board and the Minister of Finance). • Reports the pension liability and pension expense in the *Public Accounts of Canada*, including the disclosures in the government's financial statements, making sure its accounting policies conform with Canadian generally accepted accounting principles for the public sector. • Ensures that actuarial valuations for all public sector pension plans are prepared as needed for the Public Accounts. Estimates: • Leads the preparation of the Estimates in support of the government request to Parliament to spend money, working with departments and agencies. (See paragraph 3.60.)

Exhibit 3.4 After a long trend of declining market debt, there was a sudden increase in the Government of Canada's market debt in 2008



Source: Department of Finance Canada, Debt Management Report 2010–11

Focus of the audit

3.9 The audit examined whether the Department of Finance Canada and the Treasury Board of Canada Secretariat, in keeping with their respective responsibilities, effectively managed the interest-bearing debt of the Government of Canada. This audit examined debt management and reporting practices between 1 April 2007 and 31 March 2011. The audit focused on the interest-bearing debt, including how market debt is managed and how the impact of the public sector pension liabilities (public service, Royal Canadian Mounted Police (RCMP), and Canadian Forces, including the Reserve) is monitored and reported.

3.10 We audited parts of the interest-bearing debt that include domestic marketable bonds, treasury bills, and public sector pension plan liabilities. We did not examine the retail debt program, foreign currency borrowings, or the consolidation of borrowings by Crown corporations. We also left out liabilities linked with the pension plans of federal judges and members of Parliament because they follow different regimes, as well as other liabilities such as capital lease obligations, and the future benefits of veterans and other employees.

The audit scope represents about 90 percent of the total interest-bearing debt.

3.11 We looked at the processes and tools the Department uses to support and develop strategies for market debt. We also looked at how the Department manages risks and how the performance of the strategy for debt management is monitored, as well as how performance results are used to support debt management decisions, including the results achieved so far. Finally, we looked at how the Department and the Secretariat report information on public sector pension plan liabilities, the interests on these liabilities, and their budgetary impact on the government's fiscal position.

3.12 More details about the audit objectives, scope, approach, and criteria are in **About the Audit** at the end of this chapter.

Observations and Recommendations

Strategies for funding market debt

3.13 Choosing a financing strategy for managing debt that meets program objectives is a challenge when fiscal and economic outlooks are uncertain and financial markets are volatile. Debt managers need to balance costs and risks in order to meet the government's objectives of raising low-cost, stable funding and helping to support well-functioning markets for Government of Canada's securities. To meet these objectives, debt managers need to gradually move toward a **debt structure** that, in the long term, will minimize interest charges subject to managing **debt rollover** over time and providing liquidity across different maturity sectors.

Debt structure—Combination of types and terms of securities that the government issues, including, for example, 30-year bonds or short-term treasury bills.

Debt rollover—Refers to the renewal of a portion of the market debt that is arriving at maturity at a specific date and needs to be refinanced.

3.14 Both quantitative information and the judgment of debt managers need to contribute to good strategy for managing debt. Fiscal and economic outlooks, debt management strategy analyses, and input from market participants (distributors and dealers buying and trading securities) gathered through consultations should guide debt managers to find a balance between the level of interest charges (costs) and the volatility of interest charges (risks), and to maintain well-functioning markets for government securities.

3.15 The government can choose from various financing strategies to meet its program objectives. When issuing securities, the government must consider the best funding options—securities can be issued in a variety of options, such as 3-, 6-, and 12-month treasury bills and 2-, 3-, 5-, 10-, and 30-year bonds (including 30-year inflation-adjusted bonds). Debt managers recommend which options to issue after considering borrowing costs, stability of interest charges, refinancing risks, and impact on domestic securities markets. Normally, issuing long-term securities to fund debt costs more, but it makes future borrowing costs more predictable and reduces refinancing risks. Conversely, short-term debt is less costly, but it increases the volatility of interest charges and the risk that the borrower could be exposed to potential refinancing difficulties. Debt managers must make trade-offs between low-cost, short-term financing and longer-term, more costly, but less risky financing.

3.16 Using indicators (metrics) for monitoring and reporting the performance of the debt management strategy is key to managing debt effectively. International organizations such as the World Bank and the Organisation for Economic Co-operation and Development (OECD) recommend the regular assessment of the performance of a debt management strategy. Monitoring and reporting on indicators assure managers that the results are in line with the government's objectives for managing debt.

3.17 We examined the decision-making process that is in place at the Department of Finance Canada to support market debt strategies and policy recommendations, including how the Department's debt strategy model, a computer program that simulates different financing strategies, is used to support debt managers in meeting the financial needs of the Government of Canada. We looked at whether the debt managers are ensuring that the model is producing reliable results. And, we looked at whether the Department uses indicators to assess and report on the performance of the debt management strategy. We looked at research documents, presentations, and minutes of meetings where senior managers discussed and analyzed debt strategies. We also interviewed officials from the Department and the Bank of Canada, as well as debt management officials in some foreign jurisdictions.

The Department of Finance Canada uses a debt strategy model to support funding decisions

3.18 We found that the Department has access to much more sophisticated tools and methods of analysis than were available 12 years ago, when we last performed an audit of market debt management practices. The Department has put in place a sound process that relies heavily on the use of quantitative analyses to develop debt management strategies and establish trade-offs when balancing program objectives. The Department and the Bank of Canada have developed a detailed and complex debt strategy model (Exhibit 3.5). Work on that model started in 2002, and major enhancements were made in 2007. Using assumptions about the changing economy, interest rates, and financial requirements, the model is made of more than 250 subroutines and over 100 parameters to project various mixes of the debt structure.

Exhibit 3.5 The debt-strategy model helps debt managers develop a medium-term debt strategy

The model

The debt-strategy model's results allow debt managers to identify the relationship between risks (volatility) and interest charges on debt (cost) by generating a graphical representation known as an "efficient frontier."

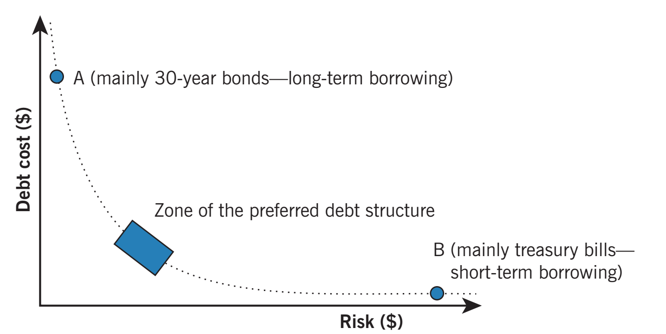
The model includes sets of equations that compute, assuming a given debt management strategy and future macroeconomic and interest-rate outcomes, how the maturing debt and new financial requirements are refinanced, how interest charges are calculated, and how these outcomes affect the size and makeup of the debt.

Developing a medium-term debt strategy

Debt managers use the model results to recommend a debt structure that supports the desired cost versus risk trade-off while taking into account rollover risk, maturity profile, and liquidity requirements over the medium term.

The graph below shows that while relying on long-term bonds will lead to higher costs (see point A), it should also result in reduced volatility. Conversely, lower debt costs can be achieved if more short-term securities are issued, such as treasury bills (see point B). The short-term approach will, however, lead to higher volatility. The model helps debt managers identify a zone where the cost and risks are best balanced in order to raise low-cost and stable funding.

Efficient frontier that summarizes the relationship between costs and risks



3.19 The model makes it possible for debt managers to understand the complex relationship between key economic outcomes and helps them identify a desirable funding mix. The **medium-term debt strategy** created in 2010–11 was supported by analyses and results of the 2007 debt strategy model.

Medium-term debt strategy—The government's strategy plan for issuing securities over a horizon of three to five years to achieve a desired composition of the government debt.

Judgment and qualitative analyses inform decisions about debt strategies

3.20 We found that the Department can set the model's parameters so that all funding options are retained, which is both prudent and essential for making funding flexible and adaptable to changing funding requirements, as was the case in 2008. Parameters are set to address issues such as

- identifying the minimum amount of government securities (minimum benchmark sizes for each sector) that should be issued, using comments from market participants and the judgment of debt managers;
- establishing the premium that the government would pay (also known as the penalty function or liquidity premium) if the amount of securities issued is not meeting market expectations (this parameter relies on debt managers' judgment and is adjusted with feedback from market specialists); and
- determining which mix of maturities should be used to minimize refinancing risk and to spread out those maturities over the course of a year.

3.21 The model's recent results show the advantage of issuing more short- and medium-term bonds rather than issuing long-term bonds. The model shows that such strategies, while improving the debt structure in the long run, would also reduce risks of increased interest charges. Using simulation results and their own judgment, debt managers can compare cost and risks to identify a set of possible funding strategies to recommend to senior management and the Minister. The recommendation also takes into account exposure to **rollover risk**, maturity profile, and liquidity requirements.

Rollover risk—The risk that debt will have to be refinanced at higher cost or, in extreme cases, cannot be refinanced at all.

3.22 We found that debt managers present to senior management assumptions about interest rates, the macroeconomic environment, and fiscal planning. The fiscal outlook that the Department uses to plan the debt management strategy is in keeping with the projections used in the government's annual Budget (including projected budgetary deficits or surpluses and financial requirements). Debt managers hold discussions with officials from the Economic and Fiscal Policy Branch at the Department of Finance Canada on interest rates scenarios, budgetary volatility, and risk tolerance levels. Also, officials consider the fiscal situation and financial requirements when they review the proposed debt management strategy. Financial requirements are updated twice a year and reviewed monthly. Debt managers consider the uncertainty around these requirements.

3.23 When selecting the most favourable debt portfolio, senior management takes into account risk preferences, risk tolerance, and constraints the government is facing when issuing securities. The constraints include the minimum and maximum dollar amount of securities to issue for a well-functioning market. In our review, we noted that senior managers consider these factors when choosing the best debt management strategy, and use judgment when recommending this strategy to the Minister of Finance.

Government 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 financial institutions authorized to bid.

3.24 Active market participation is needed for **government securities auctions** to be successful and to meet the objectives of the debt management program. We found that feedback from market participants is a key part of the decision-making process for recommending options for the debt management strategy.

3.25 The government follows a strategic approach for its domestic borrowing. Debt managers build a relationship with market participants based on the government's credibility and predictability (for example, through transparent operations and a pre-announced calendar for issuing securities). Over the long term, this approach could lead to lower borrowing costs, lower risks, and well-functioning markets for government securities. The financial crisis of 2008 and the more recent deterioration in sovereign debt conditions in the Euro zone and in the United States as the audit was being completed show the need for sound debt strategies, as they provide stability and assurance to market participants.

3.26 Discussions on the different funding options allow market participants to express their views and concerns over the debt management strategy. Regular consultations with market participants cover general market conditions, explore how effective the borrowing program is, and validate the government's modelling assumptions, such as the minimum size of securities to be issued in dollars. Debt managers take into account the views of market participants but also rely on their judgement and on the results of the model to come to a final decision. For example, we found that debt managers discussed re-issuing the 3-year bond with market participants, who expressed some concerns about the re-introduction of the 3-year bond after a 12-year gap. Debt managers used their judgment as well as the results of the model to recommended re-issuing the 3-year bond. In another example, market participants expressed a preference for the government to increase the amount of 30-year bonds it issues, but debt managers recommended against it because it would have been more costly over the long term.

The Department has verified the soundness of the debt strategy model

3.27 As the model's simulation results support the process for choosing a strategy, debt managers must ensure that the model is well designed and comprehensive in its calculations and simulations. Different approaches to modelling will lead to different forecasts of key risks and cost characteristics for a given financing strategy. An important step in testing the soundness of the model is doing a **sensitivity analysis** of the results to ensure that the model is reliable.

Sensitivity analysis—In the context of testing the reliability of the debt strategy model, an analysis that determines how different assumptions will affect the results the model produces.

3.28 Several key parameters must be assessed before the model's results can be used to support decisions on the debt management strategy. We found that sensitivity analysis has been done on the model. This analysis showed that the modelling results were appropriate for informing debt managers on the best debt management strategy. We also found that model results were tested by applying potential optimistic and pessimistic economic scenarios (**stress tests**).

Stress test—A simulation technique used on a model or a system to find out its reactions to different, sometimes hypothetical and extreme, scenarios.

3.29 We found that the Department exercised due diligence in reviewing the model's variables and assumptions. For example, in 2007, the Department hired a specialist to assess the model. The specialist recommended changes to the model to improve its functionality, and those changes were made.

3.30 We found that the Department of Finance Canada and the Bank of Canada are sharing information and working with other sovereign debt model specialists to constantly improve the government's debt strategy model. Notably, a foreign debt management office is considering implementing the Canadian debt strategy model.

Reporting on the overall performance of the debt management strategy to the senior level needs further improvement

3.31 Debt managers need to ensure that the debt management strategy's performance meets debt management program objectives and the expected results of the strategy. For many years, the main indicator that debt managers used to make sure that the government had access to stable, low-cost capital was the percentage of fixed-rate debt in the portfolio. The Department concluded that the fixed-rate share alone did not give enough information about how the debt portfolio was performing compared to the objectives of the debt management strategy.

3.32 We found that the Department does monitor the debt portfolio. The Department and the Bank of Canada developed a new quarterly debt management report in March 2011. The report monitors the debt portfolio and provides senior management with information such as

- the government's financial requirements;
- outstanding debt by types and terms of securities;
- upcoming maturities; and
- the results of recent securities auctions, which are monitored to measure how well the market reacted to the auction.

3.33 In this quarterly report, the Department uses a set of indicators that includes

- average term to maturity;
- refixing share (debt that is being refinanced within the next year as a percentage of the debt portfolio);
- bonds maturing;
- total outstanding market debt; and
- other selected indicators (for example, **tail**, **yield**, and **auction coverage ratios** from securities auctions).

Tail—The difference between the highest accepted yield and the average yield of the auction. Tail below 1 basis point reflects high liquidity of debt securities and is considered an indication of the overall effectiveness of auctions.

Yield—The discount rate that makes the market price of a government security equal to its discounted present value.

Auction coverage ratio (also known as "bid-cover ratio")—The total amount of bids received divided by the dollar value of the securities that were auctioned. A large ratio tends to be associated with a large demand and therefore should result in a lower average auction yield. For example, a ratio of 2 means that bids from market participants were two times higher than the dollar amount offered by the government.

3.34 The quarterly report allows officials to monitor how well the debt management strategy is meeting the objective of maintaining a well-functioning market for Government of Canada securities. This information allows debt managers to assess how well the market for Government of Canada securities functions and the success of the medium-term debt strategy. Exhibit 3.6 shows the very low borrowing costs (low yield), high auction coverage, and low tail results for selected Government of Canada bonds issued just before 31 March 2011. The Department of Finance Canada is therefore monitoring and achieving the well-functioning market objective.

3.35 During the period under review, debt managers were using metrics such as the fixed-rate ratio—the ratio of fixed-rate debt to the total debt. These metrics did not provide a full assessment of the extent to which the debt management strategy was meeting the objective of raising stable and low-cost funding by striking a balance between costs and risks associated with the debt structure. Senior management was therefore not getting reports to track the performance of the debt management strategy. Without this information, debt managers and senior management did not know if the strategy was successfully meeting the stable and low-cost funding objective.

Exhibit 3.6 Selected Government of Canada securities auctions were favourable*

Term	Auction date	Average yield (%)	Auction coverage ratio	Tail (basis points)
2 year	9 March 2011	1.867	2.690	0.10
3 year	23 March 2011	2.022	2.552	0.33
5 year	2 March 2011	2.700	2.315	0.37
10 year	2 February 2011	3.482	2.276	0.66
30 year	17 November 2011	3.638	2.859	0.25

*Low yield, high auction coverage, and low tail results bring about favourable conditions.

Source: Bank of Canada

3.36 Subsequent to the period under review, the Department of Finance Canada started to monitor the actual debt structure against the desired debt structure on the efficient frontier, the graph that summarizes the relation between cost and risks, and to report results to senior management. With this information, management will be able to assess how the actual debt structure compares to the planned medium-term debt strategy and can adjust that strategy if needed. While the objective of raising stable and low-cost funding is now better monitored, the Department of Finance Canada has yet to demonstrate that the debt structure is achieving the expected results because it just started monitoring the progress of the debt management strategy toward the preferred debt structure, and little data is available. We encourage the Department to pursue its efforts in assessing the key objective of raising low-cost stable funding and in reporting the performance results to senior management.

Management of emerging risks

3.37 Unforeseen events could have major financial implications for the government, such as higher interest charges, refinancing difficulties, or larger cash requirements. For these reasons, debt managers must effectively manage emerging risks. International best practices on public debt, such as guidance by the International Monetary Fund and the Organisation for Economic Co-operation and Development, recommend risk management activities such as identifying and assessing risks, measuring and monitoring the impact of risks, mitigating and controlling risks, and finally, regularly reporting on risk issues.

3.38 We examined whether the Department of Finance Canada has a sound framework for risk management to identify, measure, monitor, and report on new risks that could have an impact on the debt management strategy. We examined how emerging risks are identified and reported to senior management and how the strategy is updated to mitigate emerging risks, such as sudden changes in financial requirements or market conditions. We reviewed the documents that were presented to senior management and interviewed Department officials and selected stakeholders.

A sound risk management framework is in place

3.39 As noted in this chapter, the debt strategy model factors in the impact of interest rate risk, rollover risks, and budgetary volatility when computing results. These risks are taken into account when debt managers target the most desirable debt management strategy.

3.40 We found that debt strategies also include risk analyses and contingency plans. Managers consider both pessimistic and optimistic scenarios. For example, we found that the issuing of treasury bills can be adjusted rapidly if the government needs to borrow more funds than planned for in the debt management strategy. At the peak of the financial turmoil in the 2008–09 fiscal year, the Department relied heavily on treasury bills to fund new government programs and growing financial requirements. In the 2008–09 fiscal year, borrowing through the sale of treasury bills grew by $75.5 billion to $192.5 billion. Borrowings through bond auctions can also be adjusted to reflect changing circumstances, but consultations with market participants may be required.

3.41 We found that the Department's risk management framework allows debt managers to assess, monitor, mitigate, and report risks. Senior management looks at how to fund financial requirements based on different economic growth scenarios. We also found that the Department makes projections of financial requirements for the next 10 years and considers different debt strategies.

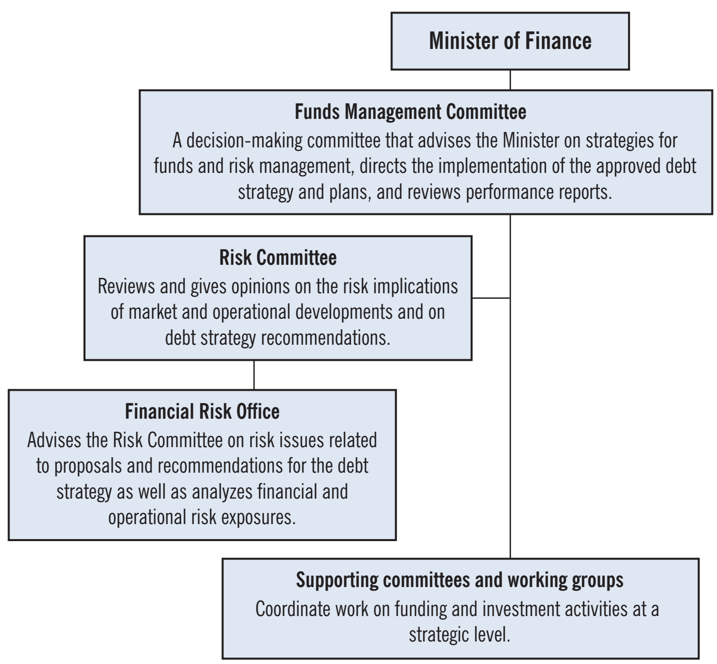
3.42 Many events can affect the planned financial requirements. In 2008–09 and 2009–10, during the financial crisis and because of rapidly changing financial requirements, the Department reviewed the debt management strategy during the year. The reintroduction of the three-year bond in 2009 is another example of how debt managers adapted the strategy to fund growing financial requirements. In 2010–11, the Department gave a mid-year update to the Minister as part of the process for fall market consultations. Mid-year updates on the debt management strategy are provided to the Minister of Finance and explain why there is a need or not for a new strategy.

3.43 The Government of Canada holds liquid financial assets, such as cash deposits, to safeguard its ability to meet payment obligations in situations where normal access to funding markets may be disrupted or delayed. The government's overall liquidity levels are intended to cover at least one month of the net projected cash flows, including interest to be paid and debt refinancing needs. According to the Debt Management Strategy 2011–12, to meet these liquidity levels by 2013–14, government cash assets and foreign denominated financial assets will need to grow by an additional $35 billion. This increased level of liquidity will improve the government's ability to meet payment obligations should normal access to funding markets be disrupted or delayed. It will also support investor confidence in Canadian government debt.

Emerging risks are monitored

3.44 To enable senior management to discuss risk issues, the government has formed committees under a governance framework for funds management (Exhibit 3.7). The Risk Committee, which advises the Funds Management Committee, reviews and gives opinions on the risk implications of market and operational developments and on policy recommendations. The Risk Committee meets quarterly. It is

Exhibit 3.7 The Governance Framework manages risks



made up of senior officials from the Department and the Bank of Canada, as well as an external member. The external member was added in April 2010 for a two-year term to improve knowledge of ongoing developments in best practices for risk management and to provide better oversight. Because the Department and the Bank of Canada have different responsibilities, we found that the two organizations often have different views on debt issues. These different perspectives can benefit risk management. For example, before the Funds Management Committee submits a debt strategy proposal to the Minister for approval, Bank of Canada and Department officials thoroughly debate it and consider all aspects of it.

3.45 The Financial Risk Office advises the Risk Committee on risk issues related to policy proposals and recommendations and analyzes financial and operational risk exposures. The Office is staffed by officials from the Bank of Canada and is independent from funds management operations at the Bank.

3.46 The Funds Management Committee is made up of senior officials from the Department and the Bank of Canada. This decision-making committee's mandate is to advise the Minister on policy and strategy for funds and risk management, direct the implementation of approved strategy and plans, and review performance reports. We found that as part of its annual recommendation for the debt management strategy, which it submits to the Funds Management Committee and the Minister for approval, the Department identifies and analyzes selected risks that affect the domestic borrowing plan.

3.47 There are some discussions about domestic issues, such as debt strategy modelling, the retail debt, and borrowing by Crown corporations. However, we found that discussions at the Risk Committee were focused mainly on risks related to liquidity, foreign currency borrowing, and foreign financial assets, including sovereign debt issues. Discussions also focused on immediate emerging issues. As we were completing this audit, the Department provided certain simulation results showing that debt managers consider long-term fiscal sustainability. We encourage the Department to pursue its efforts in analyzing how fiscal sustainability issues could affect debt strategies in the future.

The Department has a limited strategy for nurturing relations with new investors

3.48 Recent events abroad have proven that loss of confidence and a weakening fiscal position have a major impact on borrowers. In a crisis, such as a severe economic downturn or a natural disaster, having a diversified base of investors allows debt managers to distribute government securities more easily and reduce refinancing risks. In this context, encouraging more competition among market participants would lead to wider distribution of government securities, which reduces the financing cost for the government. Therefore, a key element in managing risk for domestic debt is nurturing and maintaining relations with market participants.

3.49 Because communication between debt managers and investors is important, some international organizations have created guidelines on this subject. The Institute of International Finance lists a number of best practices for communicating with investors, including the following:

- Staff responsible for investor relations should be identifiable and reachable through the government's website.
- Archives of presentations and conference call materials directed at market participants should be available on the website.
- Macroeconomic data should be presented in a user-friendly format.
- Market participants should be able to subscribe to the government's website.

The Ontario Financing Authority carries out the practices listed above. Brazil and France are among sovereign issuers of securities that make promotional presentations to other countries and provide macroeconomic data on their websites. Australia actively promotes its government securities by making presentations to investors abroad.

3.50 We found that the Department of Finance Canada and the Bank of Canada use a mix of communication approaches to consult with market participants on debt strategy matters (such as bilateral visits, multilateral discussions, and the annual consultation process). We found, however, that the information the Government of Canada provided to potential new market participants is limited. Economic, financial, and government borrowing information is found in different documents and websites. Also, there are no presentations available online to actively promote Government of Canada securities to potential investors. We believe this limited effort in reaching out and informing investors does not help Canada to build, diversify, and broaden its base of investors. If there were a sudden increase in financial requirements that needed to be funded abroad, Canada might not be well-positioned to attract this funding.

3.51 Recommendation. The Department of Finance Canada should provide better financial information to market participants and expand its communication and marketing tools, as well as its promotional activities in order to reach a broader base of investors.

The Department's response. Agreed. The Department of Finance Canada's website contains a wide range of materials on Canada's borrowing programs, debt strategy, and economic and fiscal performance. The Bank of Canada's website also contains details on Canada's debt auctions. That said, the Department and the Bank plan to expand the range of economic, financial, and borrowing information available on their websites, provide better links between the two sites, and improve the organization of this information to make it more easily accessible. The Department recognizes the importance of maintaining and building on Canada's strong reputation in global capital markets and will take steps to increase its engagement with domestic and international investors as opportunities present themselves.

In terms of expanding promotional activities, the Department would note that the investor base for Government of Canada securities has grown in recent years, that debt auctions have been well covered, and that Canada's global foreign-currency bond issues have met with very strong demand from international investors. Devoting significantly more resources to investor relations and associated promotional activities would not provide value for money.

Reporting information on the interest-bearing debt

3.52 Reporting clear and complete information on the interest-bearing debt allows for better accountability. This reporting includes comparing the planned debt management strategy with actual results and providing information on the budgetary impact of government liabilities. Budget documentation and fiscal reports should cover all of the government's budgetary activities (such as transfer payments, operating expenditures, and interest charges on the public debt) as well as non-budgetary ones (for example, loans and investments). The International Monetary Fund and the Organisation for Economic Co-operation and Development (OECD) have recommended that fiscal information be presented in a way that facilitates policy analyses and promotes accountability.

3.53 We examined whether the Government of Canada reported complete and clear information on the market debt and the public sector pension plan liabilities. We reviewed the public documentation that reported information on the interest-bearing debt, including public sector pension plan liabilities, and we reviewed briefing material and minutes from senior management committee meetings. We interviewed officials from the Department of Finance Canada, the Treasury Board of Canada Secretariat, and the Office of the Chief Actuary. Finally, we reviewed how four countries rated very high by credit rating agencies (Denmark, Finland, France, and United Kingdom) report their interest-bearing debt.

Market debt is reported clearly, but there is room for improvement

3.54 Parliamentarians and Canadians can read the Debt Management Strategy, which is a report annexed to the Budget early each year, and the Debt Management Report late in the fall, to better understand market debt issues. These reports contain information on market debt management, including the government's objectives, planned borrowing activities, and the medium-term debt strategy. The reports also include several indicators, such as how many domestic marketable bonds and treasury bills the government has issued, the dollar amount issued per securities (for example, 2-, 3-, and 5-year terms), the composition of the market debt, the refixing share of debt, and the average term to maturity.

3.55 Compared to other governments (such as Denmark and the United Kingdom), the Government of Canada gives little analysis to explain the chosen debt management strategy. For example, the Department of Finance Canada does not publish the results of the debt strategy model and information to understand funding choices and why a particular strategy was chosen. This information would allow parliamentarians and Canadians to better understand the government's debt management strategy. For instance, it could explain why the government believes that short-term borrowing (such as using treasury bills), while less expensive, is not desirable because of the impact on rollover risk or why locking-in at relatively low interest rates for 30 years in order to provide stable interest charges in the long term is too costly.

3.56 As explained before, while performance information on the well-functioning market objective is presented to senior management, the Department has recently developed new metrics to monitor the low-cost stable funding objective, and it is reporting these to senior levels. We believe that the Department needs to better disclose performance results of the debt management program in the reports it publishes. We found that the Department is reviewing ways to improve the information it publishes and is looking at how it presents and supports its debt management strategy in its reports. The Department has also said it will adapt its debt reporting practices, as needed, to be more transparent.

3.57 **Recommendation.** The Department of Finance Canada should improve its reports on the market debt by including the analysis that supports the debt management strategy and information on the overall performance results against planned outcomes. These improvements will help better inform parliamentarians, Canadians, and investors on the actual results of the debt management strategy.

The Department's response. Agreed. Where feasible, the Department of Finance Canada will aim to improve the information content of our reports.

We would note, however, that compared to its peers, Canada is already among the most informative in terms of its debt management reporting. The Debt Management Strategy and Debt Management Report are among the most transparent documents of the G20 countries with respect to describing the government's debt strategy as well as providing performance outcomes. New metrics have been added to recent reports. The Department also publishes external evaluations of debt management programs and operations conducted under the Treasury Evaluation Program. Additionally, a number of papers on Canada's stochastic debt strategy model are available on the Bank of Canada's website.

Information on the non-market debt needs to be clarified

3.58 As of 31 March 2011, the liability of public sector pension plans, which is part of the government's gross debt, totalled $146 billion. In other words, about 18 percent of the $802 billion in interest-bearing debt was related to public sector pension plans. In 2010–11, around $9.7 billion of the $30.9 billion in interest charges was related to the interest expense on the public sector pension plans (Exhibit 3.1). It is important to monitor and report on how these liabilities and interest charges could affect the government's fiscal situation.

3.59 **Reporting on public sector employee pension plans.** The government sponsors defined benefit pension plans for its employees, notably the employees of the public service, the Canadian Forces (including the Reserve Force), and the Royal Canadian Mounted Police (RCMP). The government has a statutory obligation to pay benefits relating to these pension plans. Canada is a leader among member countries of the OECD in recognizing in its financial statements the obligations arising from the public sector employees' pension plans. Very few countries report public sector employee pension obligations on their financial statements. Most European countries do not report them. In order to ensure comparability among countries, the OECD excludes these liabilities from the debt to be reported in the governments' finance statistics.

3.60 Reporting interest charges in the Estimates. Parliamentarians rely on several sources of information to review government operations. For information on projected government expenditures, they mainly use the **Estimates** documents, because Parliament has a fundamental duty to scrutinize and approve expenditures to be voted on. Each year, the government prepares the Estimates in support of its request to Parliament for authority to spend public money. These Estimates are tabled in the House of Commons and include information on voted expenditures and statutory expenditures. Voted expenditures are amounts included in an appropriation bill to be authorized by Parliament. Statutory expenditures are amounts for which parliamentary authority has already been obtained through other legislation and is presented in the Estimates for information purposes only. According to the Main Estimates 2011–12, statutory expenditures on "interests and other costs" could total $30.2 billion.

Estimates—Documents prepared to support appropriation acts. Expenditures made by government require the authority of Parliament. That authority is provided in two ways: annual appropriation acts that specify the amounts and broad purposes for which funds can be spent, and other specific statutes that authorize payments and set out the amounts and time periods for those payments. The Estimates provide additional information on voted amounts included in the appropriation act. Forecasts of statutory amounts, including interest charges, are also presented to give a more complete picture of total expenditure authorities for use during the fiscal year.

3.61 "Interest and other costs" include interest paid on the market debt and interest related to the **superannuation accounts** (see Appendix A). Combining them in the Estimates obscures the fact that a third of the projected interest charges do not involve payment in cash. Fluctuations in projected interest charges due to variations in interest related to the superannuation accounts or interest charges on market debt cannot be easily distinguished. In our 1991 Report, Chapter 8—Debt Management and Employee Pensions, we observed that the reporting of interest charges was confusing because the interest expense relating to pension accounts was charged to the Department of Finance Canada as part of total public interest charges. The Department responded that it would consider the merit of disclosing further information. Forecasted expenditures mixing cash with transactions not involving cash are not limited to the "interests and other costs." They are commonly used in the Estimates. This presentation is unclear and can confuse parliamentarians and the public about what is included in the Estimates.

Superannuation accounts—Pension funds established to record transactions relating to service accrued by members of the public service, Canadian Forces, or RCMP pension plans before 1 April 2000. In essence, the superannuation accounts are legislated ledgers and do not hold assets.

3.62 Recommendation. Given the magnitude of charges related to the superannuation accounts, the Treasury Board of Canada Secretariat and the Department of Finance Canada should improve the clarity of information on interest charges by separating, in the

Estimates, the projected interest charges for the market debt from other interest charges in order to improve transparency.

The Department's response. Agreed. The Department of Finance Canada will work with the Treasury Board of Canada Secretariat to present a breakdown of interest and other costs in the Estimates.

The Secretariat's response. Agreed. The Department of Finance Canada will produce for the Estimates a breakdown of interest and other costs, starting with the 2012–13 Estimates, which the Treasury Board of Canada Secretariat will publish.

3.63 **Information on public sector pension investments.** Changes in market conditions could cause public sector pension plan assets, net liabilities, and related interest charges to fluctuate. We found that the Department, with the exception of the annual report, does not have timely access to quarterly information about actual returns on public sector pension investments to assess the impact that unforeseen fluctuations could have on budget surpluses or deficits.

3.64 Interest expenses credited to superannuation accounts (pre-2000 contributions) are calculated using a formula that sets the interest rate. The interest expenses associated with accrued pension benefits (for both pre and post-2000 pension obligations) are determined based on the results of the actuarial valuations performed for accounting purposes and the application of generally accepted accounting principles for employee future benefit accounting. The methods used to calculate these interest expenses offset year-over-year volatility, limiting the potential effects on annual interest charges in the fiscal year where the market conditions changed. Interest charges associated with these liabilities are subtracted from the return on assets managed by the **Public Sector Pension Investment Board** (PSP Investments) (see Appendix A). Even though the return on assets is also smoothed, as the size of assets of the public sector pension funds increases over time, significant changes in investments performance could have a large cumulative impact on the budgetary deficit or surplus. According to PSP Investments' 2011 Annual Report, consolidated net assets are likely to reach some $300 billion by 2030.

Public Sector Pension Investment Board—An investment board created in 2000 and responsible for managing the assets held in the public sector pension funds for post-2000 contributions to pension plans.

3.65 During the period under review, growth in assets under PSP Investments and fluctuations on the return on total assets led to annual variations of $300 million to $700 million in public interest charges. Such variations need to be actively monitored, especially in the context of increasing assets under management and larger market volatility. If not monitored, the government's ability to project its budgetary deficit or surplus and meet its target could be jeopardized.

3.66 The Department is not provided with a quarterly update report on PSP Investments' performance under the *Public Sector Pension Investment Board Act.* In the future, as the size of assets increases, this financial information would be helpful for the Department to forecast the impact that variations in returns on pension funds assets could have on future deficits or surpluses.

3.67 **Recommendation.** The Department of Finance Canada should seek interim information regarding the actual return of public sector pension plan investments in order to properly assess their impact on budgetary deficits or surpluses, as their potential impact on interest charges will grow with the size of assets.

The Department's response. Agreed. The Department of Finance Canada will work with the Treasury Board of Canada Secretariat to establish a process for the sharing of interim financial information regarding public sector pension plan investments.

The Department would like to note, however, that it already has access to sufficient information to properly assess the impact of investment returns on the budgetary balance. As a result, the added value of this interim financial data is considered minimal.

3.68 **Information on public sector pension plan liabilities.** Pension accounting and actuarial valuation of pension liabilities are complex subject areas that can be difficult for people to understand. Thus, it is necessary for management to provide clear information. We found that there is no clear information available to help Canadians understand pension liabilities and how these liabilities and related interest charges are calculated. We also found that the government reporting in this area could be improved by presenting the information in a more easily understandable format.

3.69 No single organization is responsible for monitoring or reporting information on the public sector pension plan liabilities. To gather information on the public sector pension plan assets, liabilities, and related interest payments, users must refer to nine separate reports that contain complex and fragmented information:

- Public Accounts of Canada,
- the PSP Investments Annual Report,
- the Report on the Public Service Pension Plan,

- the Actuarial Report on the Pension Plan of the Public Service of Canada,
- the Annual Report: Canadian Forces Pension Plan,
- the Actuarial Report on the Pension Plan of the Canadian Forces—Regular Force,
- the Actuarial Report on the Pension Plan of the Canadian Forces—Reserve Force,
- the Annual Report: Royal Canadian Mounted Police Pension Plan, and
- the Actuarial Report on the Pension Plan for the Royal Canadian Mounted Police.

Each of these reports has its own purpose and audience. The Public Accounts of Canada Volume I includes notes to the Financial Statements of the Government of Canada in section 2 and section 6 on the interest-bearing debt. The annual reports on pension plans provide details on operations of the individual plans for the latest fiscal year. The actuarial reports, published for each plan every three years, report on the state of the different components of each pension plan to help the responsible minister make informed decisions about financing the government's pension benefit obligation. The PSP Investments Annual Report provides information on the pension funds' investment return of the assets under management, among other things.

3.70 In Canada, the government has not consolidated information on the public sector pension plans in an easy-to-read document showing how these liabilities affect the interest-bearing debt. While this information is captured in part in the Public Accounts of Canada and other documents, parliamentarians and the public do not have access to information in an easy-to-read format that would help them understand how these liabilities affect the government's overall fiscal strength.

3.71 In our view, information on the public sector pension plan liabilities could be reported in a better way. It could include a complete description of the methodology, the assumptions, and the discount rates used to assess the liabilities as well as the interest charges related to public sector pension plans. This information could also include the projected fiscal impact of these liabilities. Such reporting would allow parliamentarians and Canadians to understand the financial implications of the public sector pension plan liabilities.

3.72 **Recommendation.** The Treasury Board of Canada Secretariat and the Department of Finance Canada should report, in a consolidated manner, clear and understandable information on the public sector pension plan liabilities (including supporting methodology and assumptions) and should explain their impact on the government's finances.

The Department's response. Agreed. The Public Accounts of Canada is intended to provide clear and understandable summary information on the government's public sector pension plan liabilities and their impact on the government's financial results. The Department of Finance Canada will work with the Treasury Board of Canada Secretariat to look at ways of improving the presentation of public sector pension plan information in the Public Accounts.

The Secretariat's response. Agreed. The Public Accounts of Canada is intended to provide clear and understandable summary information on the government's public sector pension plan liabilities and their impact on the government's financial results. The Treasury Board of Canada Secretariat will work with the Department of Finance Canada to look at ways of improving the presentation of public sector pension plan information in the Public Accounts, starting with the 2013 Public Accounts.

Conclusion

3.73 Public debt and the associated interest charges consume a large amount of financial resources. They affect the government's fiscal strength, limit policy choices, and influence what we can afford as a nation. In this context, the interest-bearing debt needs to be managed and reported on properly. Clearer information allows for better policy debate, including debates on how to keep public finances sustainable.

3.74 We found that the Department of Finance Canada has put in place a sound decision-making system to support and develop effective market debt strategies. The Department has introduced a debt strategy model that projects budgetary deficits or surpluses, associated interest charges, and budgetary risk. The model has allowed debt managers to design debt management strategies from a broader perspective on fiscal planning. The model and the supporting quantitative analyses are major advances that help debt managers identify sets of desirable debt structures. Also, the Department uses judgment and consults with market participants to support the government's debt management strategy.

3.75 We found that the overall performance of the debt management strategy needs to be better monitored and reported on to inform management decisions. The Department uses indicators to monitor the performance of its debt management strategy against the government's objective of maintaining a well-functioning market for Government of Canada securities. The strategy is achieving this objective. By using more appropriate indicators, the Department can now better monitor the performance of this strategy against its other objective to raise low-cost and stable funding for the government by balancing the cost and risks associated with the debt structure. It has yet to demonstrate that the strategy is achieving this objective.

3.76 The Department of Finance Canada publishes clear information on market debt. However, it should publish more details, such as how it justifies the debt management strategy or the overall performance of the program.

3.77 We found that the Department has a sound risk management framework to measure and monitor risks and changes in financial requirements that could affect the debt management strategy. The Department has adequate processes to update and adapt the strategy. However, the Department needs to expand its marketing tools and promotional activities in order to reach a broader base of investors.

3.78 Relative to other countries, Canada is a leader in reporting public sector pension plan liabilities in its financial statements. However, the information provided to parliamentarians and Canadians on the public sector pension plans is not easy to understand and is dispersed. Because funding the interest-bearing debt has an impact on the government's surplus or the deficit, complete and clear information on this debt should be reported. Clearer information would allow for better policy debates and choices. The reporting of forecasted interest charges in the Estimates needs to be improved in order to be more transparent. Finally, we noted that the Department does not have timely access to the interim information on the return of public sector pension investments in order to assess how unforeseen fluctuations could affect budgetary surpluses or deficits.

About the Audit

All of the audit work in this chapter was conducted in accordance with the standards for assurance engagements set by The Canadian Institute of Chartered Accountants. While the Office adopts these standards as the minimum requirement for our audits, we also draw upon the standards and practices of other disciplines.

Objectives

The audit examined whether the Department of Finance Canada and the Treasury Board of Canada Secretariat, consistent with their respective responsibilities, effectively managed the interest-bearing debt of the Government of Canada. The audit had the following sub-objectives:

- to determine whether the Department implemented a sound decision-making system to support and develop effective market debt strategies,
- to determine whether the debt management strategy responded to emerging risks and changing funding requirements,
- to determine whether the Department assessed the performance of the debt management strategy by establishing objectives and monitoring performance as well as used performance results to support debt management decisions, and
- to determine whether the Department and the Treasury Board of Canada Secretariat reported comprehensive and clear information on the budgetary impact of the public sector pension plans.

Scope and approach

The audit included the Department of Finance Canada and the Treasury Board of Canada Secretariat. At the Department of Finance Canada, we looked at the Financial Markets Division and the Fiscal Policy Division. At the Treasury Board of Canada Secretariat, we discussed issues with officials from the Pensions and Benefits Sector, the Expenditure Management Sector, and the Office of the Comptroller General of Canada. We also interviewed officials from the Bank of Canada and from the Office of the Chief Actuary.

The audit focused on the process used by the Department of Finance for selecting market debt strategies, for measuring performance, for managing risks that could have an impact on debt strategies, and for reporting information on the public debt. The audit also examined the information provided by the Treasury Board of Canada Secretariat and the Department of Finance Canada on the interest-bearing debt. More specifically, we focused on how interest charges are reported in the Estimates and how public sector pension plan liabilities are reported in order to inform parliamentarians and Canadians.

We reviewed various documents, including reports, minutes of meetings, analyses, research papers, as well as foreign reports, including guidance issued by international organizations. We also reviewed literature related to the interest-bearing debt. In addition, we interviewed debt managers in selected countries and consulted with experts in the field. We examined the market debt management activities carried out by the Department of Finance Canada from 1 April 2007 to 31 March 2011. We did not question the appropriateness of the debt management strategy or funding decisions. We examined practices for reporting information on the interest-bearing debt at the Department of Finance Canada and the Treasury Board of Canada Secretariat that were in place as of 31 March 2011.

Criteria

To determine whether the Department of Finance Canada implemented a sound decision-making system to support and develop effective market debt strategies, we used the following criteria:	
Criteria	**Sources**
The Department of Finance Canada performs analyses using quantitative tools (including modelling analyses) as well as qualitative information to establish trade-offs between costs and risks as well as to maintain liquid and well-functioning markets for Government of Canada debt.	• Guidelines for Public Debt Management, International Monetary Fund and World Bank • Stockholm Principles, International Monetary Fund • Developing a Medium-Term Debt Management Strategy (MTDS): The Analytical Tool User Guide, International Monetary Fund and World Bank
The Department of Finance Canada ensures that the robustness of the quantitative analyses is assessed and challenges the projected results of funding scenarios.	• Departmental response to the Risk Management Report prepared for the Departmental Finance Canada • Departmental response to the Evaluation of the Government's Decision to Target a Higher Fixed Rate Debt Structure, Department of Finance Canada • Developing a Medium-Term Debt Management Strategy (MTDS): The Analytical Tool User Guide, International Monetary Fund and World Bank

To determine whether the debt management strategy responded to emerging risks and changing financial requirements, we used the following criteria:	
Criteria	**Sources**
The Department of Finance Canada has a sound risk management governance framework for measuring and monitoring risks as well as changes in financial requirements that could have an impact on the debt strategy.	• Guidelines for Public Debt Management, International Monetary Fund and World Bank • Stockholm Principles, International Monetary Fund • Advances in Risk Management of Government Debt, Organisation for Economic Co-operation and Development
The Department of Finance Canada has adequate processes to update and adapt the financial strategy when new risks emerge or when financial requirements change.	• Debt Management Strategy 2011–12, Department of Finance Canada • Guidelines for Public Debt Management, International Monetary Fund and World Bank • Stockholm Principles, International Monetary Fund • Enterprise Risk Management—Integrated Framework, Committee of Sponsoring Organizations of the Treadway Commission • Principles for Stable Capital Flows and Fair Debt Restructuring, Institute of International Finance

To determine whether the Department of Finance Canada assessed the performance of the debt management strategy by establishing objectives and monitoring performance and whether it used performance results to support debt management decisions, we used the following criteria:	
Criteria	**Sources**
The Department of Finance Canada establishes performance measurement mechanisms and targets to monitor the overall performance of the debt management strategy using metrics against the objectives set for the program.	• Guidelines for Public Debt Management, International Monetary Fund and World Bank • Debt Management Performance Assessment (DeMPA) Tool, World Bank • Advances in Risk Management and Government Debt, Organisation for Economic Co-operation and Development
The Department of Finance Canada considers past performance results to update its debt strategy.	• Guidelines for Public Debt Management, International Monetary Fund and World Bank • Debt Management Performance Assessment (DeMPA) Tool, World Bank • Advances in Risk Management and Government Debt, Organisation for Economic Co-operation and Development
To determine whether the Department of Finance Canada and the Treasury Board of Canada Secretariat reported comprehensive and clear information on the budgetary impact of the public sector pension plans, we used the following criteria:	
Criteria	**Sources**
The Department of Finance Canada and the Treasury Board of Canada Secretariat publish accurate, complete, and clear information on the budgetary impact of the public sector pension plans.	• CICA Handbook, Canadian Institute of Chartered Accountants • PSAB Handbook, Canadian Institute of Chartered Accountants • Code of Good Practices on Fiscal Transparency, International Monetary Fund • Manual on Fiscal Transparency, International Monetary Fund • Best Practices for Budget Transparency, Organisation for Economic Co-operation and Development

Management reviewed and accepted the suitability of the criteria used in the audit.

Period covered by the audit

The audit covered the period from 1 April 2007 to 31 March 2011. Audit work for this chapter was substantially completed on 31 October 2011.

Audit team

Assistant Auditor General: Nancy Cheng
Principal: Richard Domingue
Director: Philippe Le Goff

Johnathon Cziffra
Rose Pelletier

For information, please contact Communications at 613-995-3708 or 1-888-761-5953 (toll-free).

Appendix A Recent events that have had an impact on Canada's interest-bearing debt

Policy changes for public sector pension plans. In 1999, Parliament enacted the *Public Sector Pension Investment Board Act*, amending the *Public Service Superannuation Act,* the *Canadian Forces Superannuation Act,* and the *Royal Canadian Mounted Police Superannuation Act.* These acts are collectively known as the superannuation acts. The amendments came into force on 1 April 2000, and new funds were created for each plan (the pension funds) to receive all employee and government pension contributions made after that date. Hence, contributions and benefit payments for pensionable service accrued after 31 March 2000 are recorded in the pension fund accounts. An investment board—the Public Sector Pension Investment Board, or PSP Investments—was set up to manage the assets in the pension funds. Transactions such as contributions, benefits paid, and transfers that relate to service provided before 1 April 2000 are recorded in the superannuation accounts, which are credited with interest as though invested in a portfolio of Government of Canada long-term bonds (20-year and more) held to maturity. The average interest rate credited to the accounts was 6.7 percent in the 2009–10 fiscal year. In essence, the superannuation accounts are legislated ledgers and do not hold assets.

New borrowing authority process. Prior to 2007, the *Financial Administration Act* gave the government standing authority to refinance its market debt, while specific authority was to be granted by Parliament to undertake additional borrowing beyond an existing $4 billion of non-lapsing borrowing authority. In the *Budget Implementation Act*, 2007, the $4 billion limit was replaced by establishing borrowing authority under the Governor in Council that authorizes the Minister of Finance to borrow money. Annual borrowing limits are now approved by the Governor in Council. Parliament no longer has to approve the borrowing limits of the government. For 2011–12, the aggregate borrowing limit approved by the Governor in Council is $300 billion.

Consolidation of some Crown Corporations borrowings. In 2008, the government consolidated the borrowings of three financial Crown corporations—the Business Development Bank of Canada, the Canada Mortgage and Housing Corporation, and Farm Credit Canada—into the federal debt program. As federal debt was rapidly declining, increasing the issuing of Government of Canada securities (a result of consolidated borrowing) was seen as a way to make the Government of Canada bond market more liquid. This approach was also aimed at reducing borrowing costs of the three corporations. According to the Department of Finance Canada, the consolidated borrowings of these Crown corporations have since grown to account for $34 billion of federal market debt. This Crown borrowing activity does not affect the accumulated deficit (federal debt), since increased federal borrowing is matched by assets in the form of loans to the Crown corporations.

Financial turmoil and stimulus measures. During the second half of the 2007–08 fiscal year, financial markets were turbulent because of the sharp decline in the United States housing market and concerns about the creditworthiness of financial institutions. In January 2009, the federal government announced a series of measures to stimulate the economy. The Economic Action Plan totalled more than $46 billion in new federal initiatives. The Extraordinary Financing Framework (EFF) initiative was created to make credit more available and to respond to gaps in credit markets so that credit restrictions would not deepen Canada's economic downturn. For example, the government provided more than $69 billion in EFF support to maintain the availability of long-term credit by purchasing mortgage-related securities. Because of the impact of the financial turmoil on revenues and expenditures, the government posted budgetary deficits of $5.8 billion in 2008–09, $55.6 billion in 2009–10, and $33.4 in 2010–11.

Appendix B List of recommendations

The following is a list of recommendations found in Chapter 3. The number in front of the recommendation indicates the paragraph where it appears in the chapter. The numbers in parentheses indicate the paragraphs where the topic is discussed.

Recommendation	Response
Management of emerging risks	
3.51 The Department of Finance Canada should provide better financial information to market participants and expand its communication and marketing tools, as well as its promotional activities in order to reach a broader base of investors. **(3.48–3.50)**	**The Department's response.** Agreed. The Department of Finance Canada's website contains a wide range of materials on Canada's borrowing programs, debt strategy, and economic and fiscal performance. The Bank of Canada's website also contains details on Canada's debt auctions. That said, the Department and the Bank plan to expand the range of economic, financial, and borrowing information available on their websites, provide better links between the two sites, and improve the organization of this information to make it more easily accessible. The Department recognizes the importance of maintaining and building on Canada's strong reputation in global capital markets and will take steps to increase its engagement with domestic and international investors as opportunities present themselves. In terms of expanding promotional activities, the Department would note that the investor base for Government of Canada securities has grown in recent years, that debt auctions have been well covered, and that Canada's global foreign-currency bond issues have met with very strong demand from international investors. Devoting significantly more resources to investor relations and associated promotional activities would not provide value for money.

Recommendation	Response
Reporting information on the interest-bearing debt	
3.57 The Department of Finance Canada should improve its reports on the market debt by including the analysis that supports the debt management strategy and information on the overall performance results against planned outcomes. These improvements will help better inform parliamentarians, Canadians, and investors on the actual results of the debt management strategy. **(3.54–3.56)**	**The Department's response.** Agreed. Where feasible, the Department of Finance Canada will aim to improve the information content of our reports. We would note, however, that compared to its peers, Canada is already among the most informative in terms of its debt management reporting. The Debt Management Strategy and Debt Management Report are among the most transparent documents of the G20 countries with respect to describing the government's debt strategy as well as providing performance outcomes. New metrics have been added to recent reports. The Department also publishes external evaluations of debt management programs and operations conducted under the Treasury Evaluation Program. Additionally, a number of papers on Canada's stochastic debt strategy model are available on the Bank of Canada's website.
3.62 Given the magnitude of charges related to the superannuation accounts, the Treasury Board of Canada Secretariat and the Department of Finance Canada should improve the clarity of information on interest charges by separating, in the Estimates, the projected interest charges for the market debt from other interest charges in order to improve transparency. **(3.58–3.61)**	**The Department's response.** Agreed. The Department of Finance Canada will work with the Treasury Board of Canada Secretariat to present a breakdown of interest and other costs in the Estimates. **The Secretariat's response.** Agreed. The Department of Finance Canada will produce for the Estimates a breakdown of interest and other costs, starting with the 2012–13 Estimates, which the Treasury Board of Canada Secretariat will publish.
3.67 The Department of Finance Canada should seek interim information regarding the actual return of public sector pension plan investments in order to properly assess their impact on budgetary deficits or surpluses, as their potential impact on interest charges will grow with the size of assets. **(3.63–3.66)**	**The Department's response.** Agreed. The Department of Finance Canada will work with the Treasury Board of Canada Secretariat to establish a process for the sharing of interim financial information regarding public sector pension plan investments. The Department would like to note, however, that it already has access to sufficient information to properly assess the impact of investment returns on the budgetary balance. As a result, the added value of this interim financial data is considered minimal.

Recommendation	Response
3.72 The Treasury Board of Canada Secretariat and the Department of Finance Canada should report, in a consolidated manner, clear and understandable information on the public sector pension plan liabilities (including supporting methodology and assumptions) and should explain their impact on the government's finances. **(3.68–3.71)**	**The Department's response.** Agreed. The Public Accounts of Canada is intended to provide clear and understandable summary information on the government's public sector pension plan liabilities and their impact on the government's financial results. The Department of Finance Canada will work with the Treasury Board of Canada Secretariat to look at ways of improving the presentation of public sector pension plan information in the Public Accounts. **The Secretariat's response.** Agreed. The Public Accounts of Canada is intended to provide clear and understandable summary information on the government's public sector pension plan liabilities and their impact on the government's financial results. The Treasury Board of Canada Secretariat will work with the Department of Finance Canada to look at ways of improving the presentation of public sector pension plan information in the Public Accounts, starting with the 2013 Public Accounts.