Chapter 3 Section 3.10

Ministry of Finance

Ontario Financing Authority

1.0 Summary

Effective borrowing, debt management and cash management by the province is important to avoid unnecessary costs to taxpayers, such as higher interest charges on debt. Effective investing balances safeguarding the province's finances while achieving the maximum return for investments.

In 1993, following the 1990 recession, the provincial government created the Ontario Financing Authority (OFA) to manage the province's debt, borrowing and investing. The OFA reports to the Ministry of Finance (Ministry). Its responsibilities also include managing the province's liquid reserve, which represents borrowed funds held as cash and short-term investments. As well, the OFA provides financial advice to the government and manages the operations of the Ontario Electricity Financial Corporation. In addition, public-sector bodies, such as hospitals, universities and agencies, can do their borrowing through the OFA.

Since 1993/94, the average annual increase in net debt—the difference between the province's total financial liabilities and assets—has been $10.3 billion. By 2018/19, net debt had risen to $338 billion from $81 billion in 1993/94. Even with historically low interest rates, in 2018/19 interest on debt was $12.4 billion, which was 8% of total provincial expenditures. This makes interest on debt the province's fourth largest expenditure area, behind health care, education, and children's and social services. Should interest rates increase, interest expenditures would increase, which could create pressure to further reduce program spending in other areas to meet the required interest payments on the debt.

We found that the OFA was effective in its investing operations and assessing short-term risks. However, the OFA has not sufficiently analyzed long-term debt sustainability—that is, the province's future ability to repay debt. Its attention has typically been short-term, focusing on a three-year period—that is, the current year and the upcoming two fiscal years. The Ministry, in turn, has not established long-term targets in conjunction with government to inform debt and expenditure decision-making by using an analysis of debt sustainability that considers the impact of and recovery steps that would be needed in response to potential economic shocks. This is a practice followed by the federal government's debt manager. The lack of long-term debt sustainability planning could contribute to and prolong the negative effects of a future economic shock. For example, Ontario's slow pace in addressing the 2008 financial crisis negatively affected the province's credit rating as late as 2017.

We found that the OFA's practices and decisions in the last five fiscal years incurred significant costs that the OFA did not formally assess to demonstrate

that the province obtained value for them. These estimated costs comprise commissions paid when issuing debt; interest paid by public bodies at rates in excess of the province's borrowing rates; foreign borrowing at costs in excess of borrowing in Canada; and the cost of maintaining liquid reserves that may be in excess of provincial needs.

Our analysis can serve as a guide to areas where the OFA should assess the potential for significant future savings, as highlighted below:

Borrowing and Short-Term Debt Management

- **Direct borrowing by public bodies instead of through the OFA cost $258 million in additional interest costs.** As of March 31, 2019, public government bodies had borrowed $7.7 billion outside of the OFA, of which $5.4 billion was outstanding. This debt results in $258 million in higher interest costs because the public bodies borrowed directly rather than through the OFA, which can get lower interest rates. As of March 31, 2019, $27 million of these additional interest costs had been paid and the remaining $231 million will be paid over the remaining life of the debt, which on average is 15 years. The public bodies acquired this debt at a higher cost primarily because they did not know they could borrow through the OFA or the OFA would not provide their desired repayment terms.
- **Expanding the use of debt auctions would save commission expenses, which were $509 million over the last five years.** The OFA spent $508.9 million on commissions to groups of banks, called syndicates, between 2014/15 and 2018/19 to issue its domestic debt. The OFA has not formally assessed whether to expand its use of debt auctions, which do not carry any significant costs to the province and are commonly used by public borrowers of its size. This means borrowers sell debt instruments, such as bonds, via auction to a broader market, with the objective of incurring lower interest costs than if they issued debt only through banks.
- **The OFA issued debt in foreign markets over the last five years that cost the province $47.2 million more in interest costs than if the debt had been issued in Canada.** We found no evidence that the OFA assessed whether these increased costs were needed for the province to manage the risk associated with issuing debt.
- **Compliance with the province's implementation of an accounting standard could result in $54 million of additional annual interest costs to avoid financial statement volatility.** An anticipated change in a key accounting standard in 2021/22 may result in the OFA using a more expensive way to manage the risks of fluctuations in the exchange rate between foreign currencies and the Canadian dollar. The change in the accounting standard will result in fluctuations appearing in the annual financial statement debt if the OFA's current approach is used but not if a more expensive approach is used. The OFA told us it was considering using the more expensive option to better align the debt in the financial statements with the provincial budget. If the OFA does this, it is expected to increase the province's interest costs by $54 million a year.

Liquid Reserve Management

- **Excess liquid reserve cost up to $761 million in interest payments over the last five years.** In 2018/19 every billion dollars held in liquid reserve cost the province $7.5 million in interest costs annually because the province earns less interest on the liquid reserve than it pays on funds borrowed to maintain the liquid reserve. Therefore, holding a liquid reserve in excess of cash management needs results in additional borrowings being needed, which then results in additional interest costs. Additional interest costs result in lower funding available for other programs. The OFA has never had to use its liquid reserve, which was $32.6 billion on average in fiscal 2018/19, because it always has been able to borrow to meet short-term needs, even during the financial crisis in 2007/08. While maintaining a sufficient liquid reserve is important for reducing the province's risk of not meeting its short-term needs—for example, if it is unable to borrow to meet debt repayments—the OFA has not conducted a cost/benefit analysis to determine the optimal amount of liquid reserve to hold so that these needs are met without excess interest costs being incurred. The OFA sets the minimum amount of liquid reserve at one month's worth of cash requirements but has maintained an average liquid reserve of 2.8 months over the last five years. The excess liquid reserve amount above one month is estimated to have cost up to $761 million in additional interest payments over the last five years.

Investing

- **Investment return benchmark under the Ontario Nuclear Funds Agreement exceeded by 0.51% on average since 2003.** At March 31, 2019, the nuclear funds have earned a 7.29% rate of return since their inception on July 24, 2003, exceeding the market benchmark of 6.78%. The benchmark is based on the returns on comparable investments, for example, government bonds. These funds are managed by external private-sector investment management companies contracted by the OFA together with Ontario Power Generation.

OFA's Operations

- **A $32.2-million surplus from the OFA's administrative charges to public bodies has not been invested or used to reduce the province's debt.** Between 2007/08 and 2018/19, the OFA charged the public government bodies that have borrowed through it administrative costs, which are also funded by the Ministry of Finance, to administer the debt. As of October 2019, this surplus is held in a bank account and has not been invested to earn interest at a higher rate or used to reduce the province's debt.
- **The OFA lacks objective measures to monitor and report on its performance.** Most of OFA's performance measures are reporting and operating requirements, such as calculating interest on debt monthly, and meeting with credit rating agencies. In addition, the OFA does not publicly report on many of its measures and where it does report, in most cases it does not disclose its performance against its targets.

Overall Conclusion

Our audit concluded that the Ontario Financing Authority (OFA) was effective in its investing operations, assessing short-term risks and complying with legislation and regulations. However, the OFA did not formally assess its practices and decisions to determine whether the province obtained the best value for borrowing and debt management operations. For example, the OFA has not evaluated the costs associated with its borrowing methods, such as the commission fees it pays for issuing debt through syndicates and the higher interest rates it is subject to in foreign markets. Nor has it conducted a cost/benefit analysis of the optimal level of liquid reserve (excess borrowing held in the form of cash or investments) to hold.

Also, the OFA is not formally reporting to the Ministry of Finance on long-term debt sustainability or analyzing options for the recovery from potential economic shocks.

The OFA could increase transparency by identifying objective outcome measures of its performance and publicly reporting on the results achieved.

This report contains 10 recommendations, consisting of 20 action items to address our audit findings.

OVERALL MINISTRY AND OFA RESPONSE

The Ministry of Finance and the Ontario Financing Authority accept the recommendations in the report and will endeavour to implement them expeditiously. The OFA is committed to providing cost-effective borrowing and debt management. It carries out its mandate with careful attention to costs and risks. The OFA accepts that the report will serve as a guide to areas with potential for future savings. It will use the recommendations within this report to further its efforts to provide value and cost savings while ensuring effective and prudent management of the province's debt.

The Ministry and the OFA would like to thank the Office of the Auditor General of Ontario for preparing this report.

2.0 Background

2.1 Overview of Ontario Financing Authority

The Ontario Financing Authority (OFA) manages the province's debt, borrowing, investments and cash. The OFA was established as a Crown agency on November 15, 1993, by the *Capital Investment Plan Act, 1993* (Act). The Minister of Finance is responsible for the administration of the Act in respect of the OFA.

The OFA's mandate includes:

- managing the provincial debt and providing cash management and other financial services for the province;
- borrowing on behalf of the province;
- conducting investing and financial risk management activities for the province;
- advising and helping public bodies, such as ministries and Crown agencies, on how to borrow and invest money;
- issuing securities, such as Treasury Bills;
- lending to certain public bodies, when directed by the province to do so;
- investing on behalf of some public bodies;
- jointly investing, with Ontario Power Generation Inc. (OPG), OPG's Used Fuel Segregated Fund and the Decommissioning Segregated Fund established under the Ontario Nuclear Funds Agreement; and
- carrying out the day-to-day operations of Ontario Electricity Financial Corporation.

The Act defines a public body as a Crown agency, hospital, municipality, university, college, school board, and any other entity named or described as a public body in regulations made under the Act.

Before the Act, the Office of the Treasury (Office), which at the time was part of the Ministry of Treasury and Economics, managed the province's debt. The Office was responsible for developing and implementing a centralized financing policy. The Office's activities included borrowing, investing and cash management. More details around the processes of borrowing, investing and cash management are included in **Appendix 1**.

One of the reasons the OFA was initially created was because under the accounting standards in existence then, by using the OFA the government could acquire debt and not record it on the province's financial statements. But before the OFA began operating, the accounting standards were strengthened to prohibit the government from borrowing through a separate entity (for example, the OFA) without recording the debt issued on the province's consolidated financial statements.

Another reason the province created the OFA was that the province anticipated an increase in borrowing both domestically and internationally. The province expected that the growth in borrowing and debt management would require enhanced governance and expertise, which could be provided by the OFA's board of directors.

Powers given to the OFA that the Office of the Treasury did not have include the ability to:

- make loans to other public-sector bodies;
- pool funds from government and other public-sector bodies for investment; and
- take over the financial activities (if directed to do so) of any other public body in order to resolve their fiscal management problems.

The OFA also has administrative flexibility that the Office of the Treasury did not have, such as the ability to offer staff working in trading desk positions and financial management positions special compensation, for example performance pay and salaries not tied to government salary ranges.

The OFA produces an annual debt plan (Financing and Debt Management Plan) for the province and the Ontario Electricity Financial Corporation. This plan outlines the province's borrowing requirements for the upcoming fiscal year and the OFA's strategy for meeting these requirements. The OFA's strategy addresses the average term of debt instruments the OFA intends to issue, the amount it intends to issue in foreign jurisdictions, and its limits on exposure to risk factors. More details on the ranges, targets and actual performance related to various risk measures is available in **Appendix 2**.

2.1.1 Board of Directors

A Board of Directors (board) governs the OFA and is accountable to the Minister through the chair of the board. The OFA's board is composed of a chair and at least four, but not more than 12, other directors. There are currently 13 members on the board.

Under the *Capital Investment Plan Act*, the Deputy Minister of Finance is, by virtue of position, the chair of the board. The other board members are appointed by Cabinet, including the OFA's Chief Executive Officer (CEO).

Under the Act, board members are appointed for a term of three years and can be reappointed for successive terms of three years each. Board members serving as of March 31, 2019, had served on the board for five years on average, with a range of service from 10 months to 19 years (the OFA's CEO, who is also a board member, had served for 19 years). Eight of the other 12 board members have been on the board for more than one term. In April 2017, the board approved a policy limiting board members to three terms. This limitation is not applicable to the Deputy Minister or CEO of the OFA.

Board members, other than the three Ontario Public Service (OPS) employees (that is, the Chair, the CEO and the Chief Talent Officer of the OPS), currently receive $500 a day for each day they are engaged in OFA business, plus expenses, and the vice-chair receives $550 a day plus expenses. In 2018/19, members were paid a total of $91,025 ($83,200 in 2017/18).

The board is responsible for the oversight of the OFA's management. The board can pass by-laws related to the management of the OFA but these must be approved by the Minister. The board approves the OFA's Annual Financing and Debt Management Plan, and the OFA's operating policies. The board has three committees that make recommendations to the board:

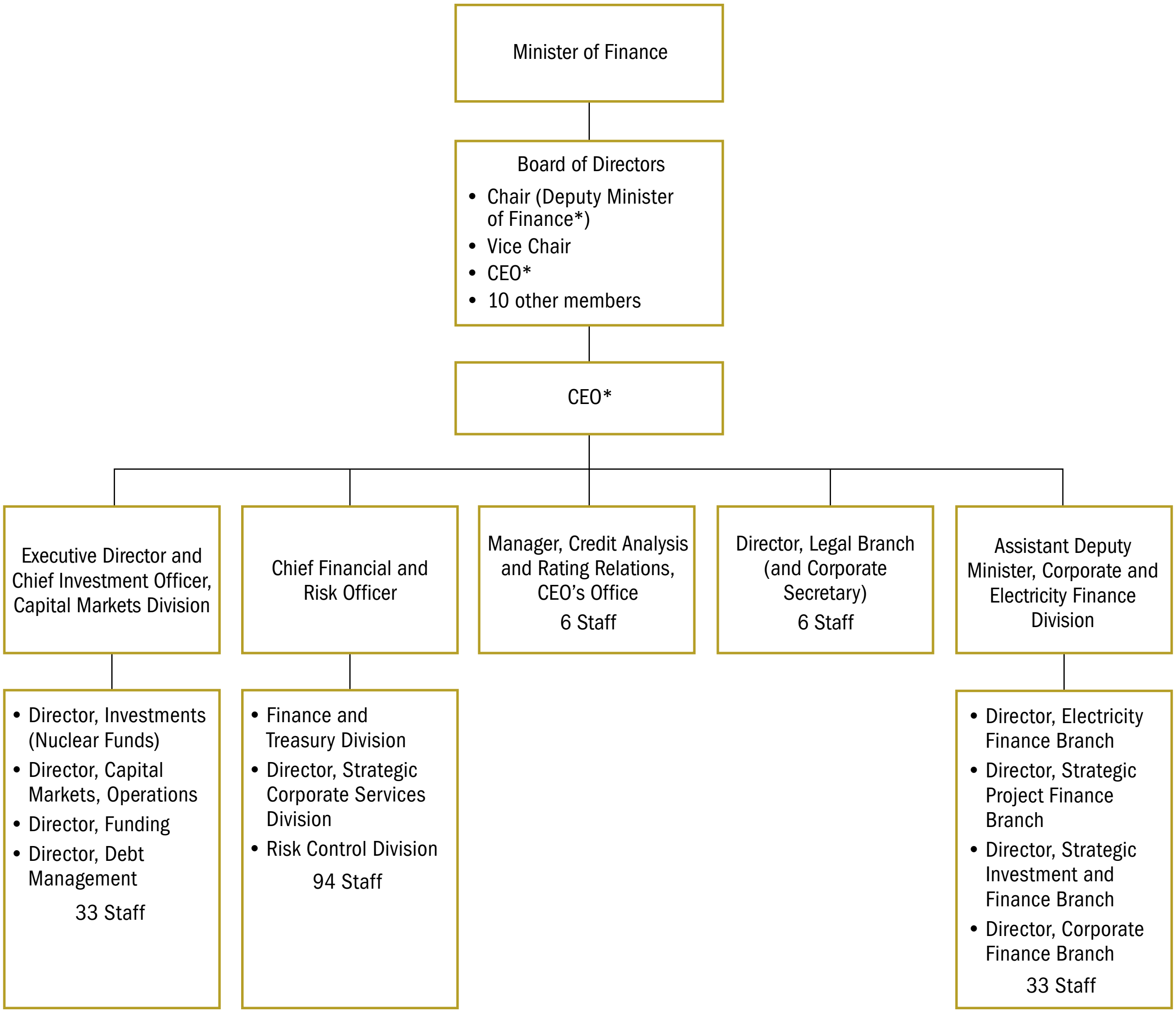
- the Human Resources and Governance Committee,
- Audit and Risk Management Committee, and
- Ontario Nuclear Funds Agreement Investment Committee.

The CEO has responsibility for the day-to-day operations of the OFA. Rather than the board, the Cabinet has the authority to select, hire, and dismiss the CEO. The CEO's performance is evaluated by the chair in consultation with the board.

As the Chair, the Deputy Minister of Finance is responsible for the OFA's performance in achieving its mandate and for reporting and timely communication to the Minister of Finance. The Deputy Minister of Finance is also responsible for the provision of administrative and organizational support to the OFA.

Figure 1: Ontario Financing Authority Organizational Chart (172 Staff)

Prepared by the Office of the Auditor General of Ontario


Minister of Finance
Board of Directors
• Chair (Deputy Minister of Finance*)
• Vice Chair
• CEO*
• 10 other members
CEO*
Executive Director and Chief Investment Officer, Capital Markets Division
Chief Financial and Risk Officer
Manager, Credit Analysis and Rating Relations, CEO's Office
6 Staff
Director, Legal Branch (and Corporate Secretary)
6 Staff
Assistant Deputy Minister, Corporate and Electricity Finance Division
• Director, Investments (Nuclear Funds)
• Director, Capital Markets, Operations
• Director, Funding
• Director, Debt Management
33 Staff
• Finance and Treasury Division
• Director, Strategic Corporate Services Division
• Risk Control Division
94 Staff
• Director, Electricity Finance Branch
• Director, Strategic Project Finance Branch
• Director, Strategic Investment and Finance Branch
• Director, Corporate Finance Branch
33 Staff

* The Chair is the Deputy Minister of Finance. The CEO reports to the Chair; the Deputy Minister of Finance reports to the Minister of Finance.

2.1.2 Organizational Structure and Operations

As of March 31, 2019, the OFA employed 172 full-time-equivalent (FTE) staff. It operates from a single location in downtown Toronto and had expenditures of $26.6 million in 2018/19.

The OFA has seven divisions: capital markets; corporate and electricity; finance and treasury; legal; risk control; strategic corporate services; and the CEO's office. See **Figure 1** for the OFA Organization Chart and **Figure 2** for the total number of staff and compensation expenditures over the last five fiscal years. See **Appendix 3** for a description of activities within each division.

2.1.3 Borrowing and Investment Authority

Ontario has two sources of borrowing authority for provincial debt:

- the *Financial Administration Act*; and
- the *Ontario Loan Act*.

The *Financial Administration Act* sets out the financial activities the OFA is authorized to direct,

Figure 2: Number of Staff and Compensation Expenditures, 1993/94, 2014/15–2018/19

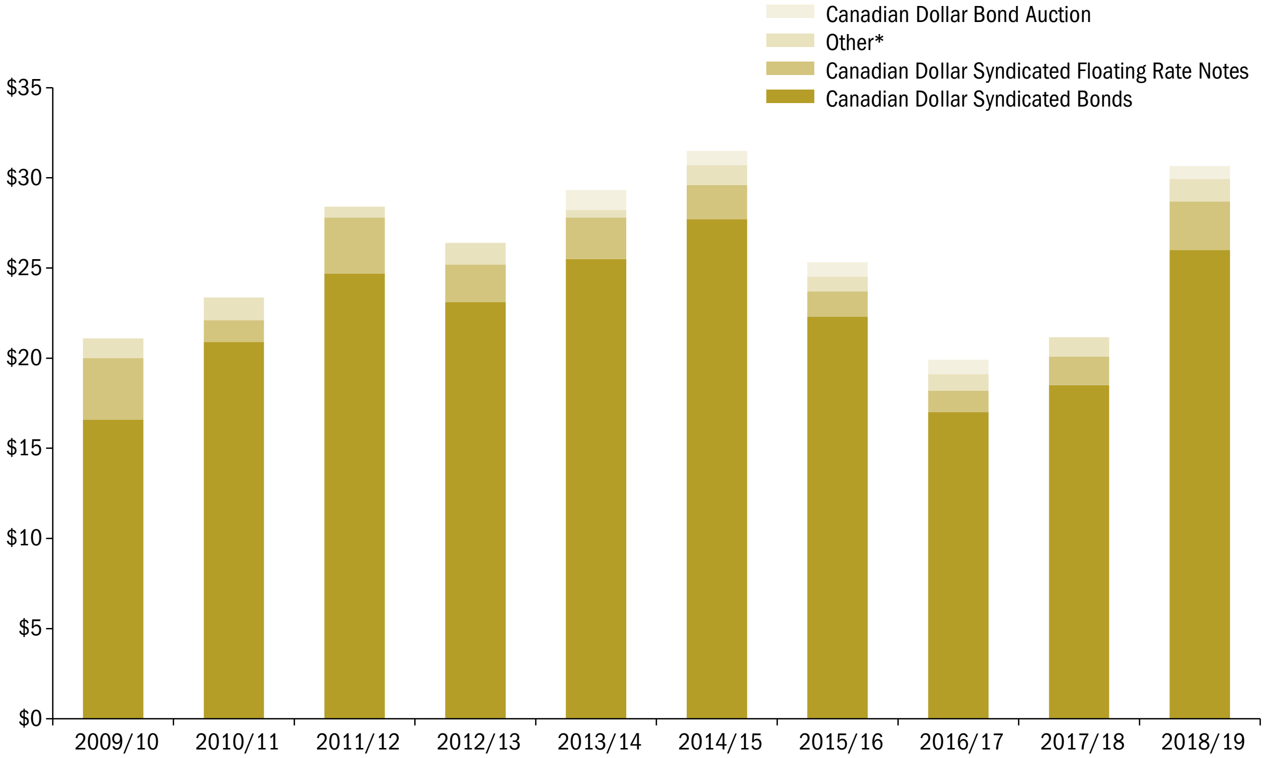
Source of data: Ontario Financing Authority

	1993/94[1]	2014/15	2015/16	2016/17	2017/18	2018/19
OFA staff	115	166	166	166	172[2]	172
Salaries, wages and benefits ($ million)	5.2	18.90	19.10	19.30	21.10	22.50

1. Number of staff when the OFA was created.
2. The staff increase from 2016/17 is due to adding full-time IT staff where roles were previously performed by consultants.

Figure 3: Domestic Borrowings Completed by Ontario, 2009/10–2018/19 ($ billion)

Source of data: Ontario Financing Authority



* Other includes Green Bonds, Medium-term Notes and Ontario Savings Bonds.

control and carry out in the name of—and on behalf of—the Minister. These include issuing bonds to borrow money and carrying out investment activities.

The *Ontario Loan Act* authorizes the OFA to pay the debts of the province and to make any payments from the province's Consolidated Revenue Fund as required by any act. The Consolidated Revenue Fund is the account into which taxes and other revenue the province collects are deposited.

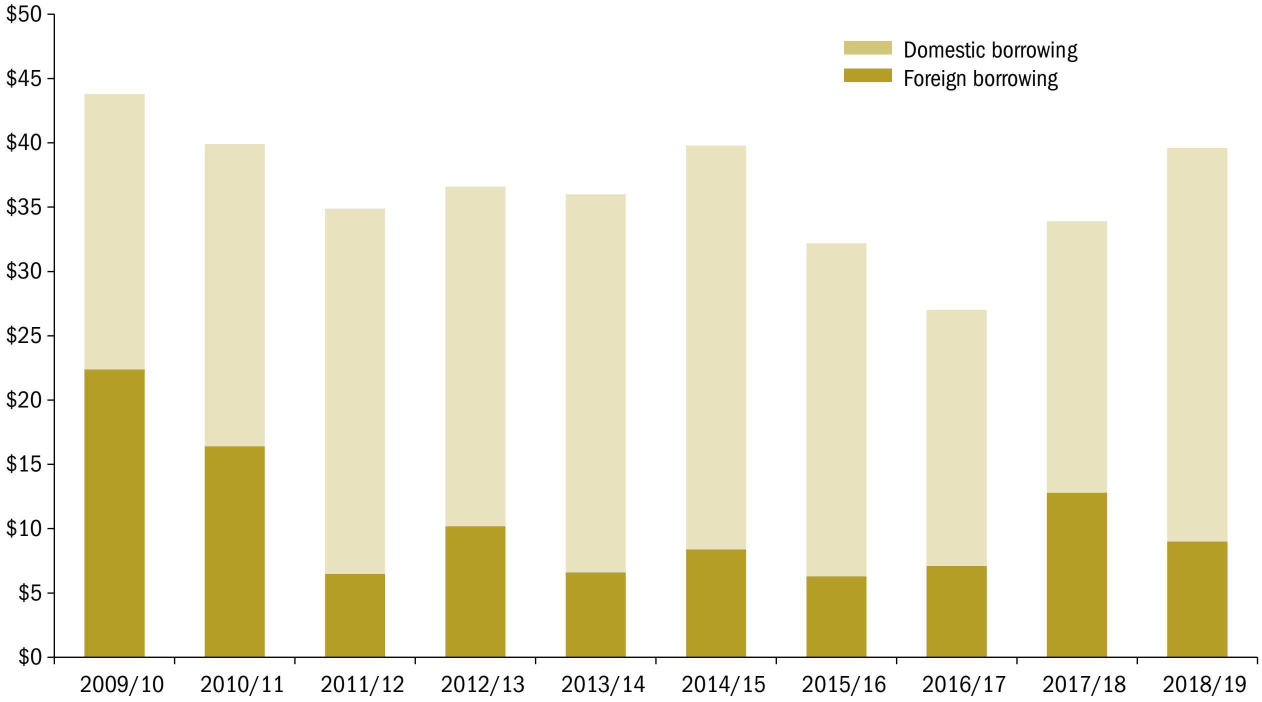
2.1.4 Borrowing Program

Ontario's borrowing program (the total amount borrowed by the province in a given year) is the largest of the Canadian provinces. For the 2018/19 fiscal year, it was approximately 43% of the total dollars borrowed for all provinces combined.

Figure 3 shows the approximately $26 billion obtained by issuing Canadian dollar syndicated bonds. This amounted to 66% of the province's total $39.6 billion borrowed in 2018/19. These are bonds sold within Canada that are purchased by

Figure 4: Foreign Borrowing as a Proportion of Total Annual Borrowing, 2009/10–2018/19 ($ billion)

Source of data: Ontario Financing Authority



syndicates. Syndicates are groups of lenders, such as the big six banks—Bank of Montreal, Canadian Imperial Bank of Commerce, National Bank of Canada, Royal Bank, Scotiabank and Toronto Dominion Bank—and other international banks, such as Goldman Sachs and JP Morgan.

Of the $39.6 billion the province borrowed in 2018/19, 77% was done domestically. Domestic markets generally offer longer financing opportunities compared with foreign markets (for example, 30-year bonds).

Bonds are typically issued in five-, 10- or 30-year terms (the period of time over which the bond is outstanding). The minimum amount the OFA aims to raise varies depending on the term of the bonds it is issuing. Since 2010/11, the minimum it plans to raise for each bond issue is:

- Five-year bonds—$1 billion;
- 10-year bonds—$750 million; and
- 30-year bonds—$600 million.

These minimums are policies set by the OFA and approved by the board. The province does not have a regular schedule for issuing bonds and, to maintain maximum flexibility, it does not publicly commit to minimum amounts of debt to issue.

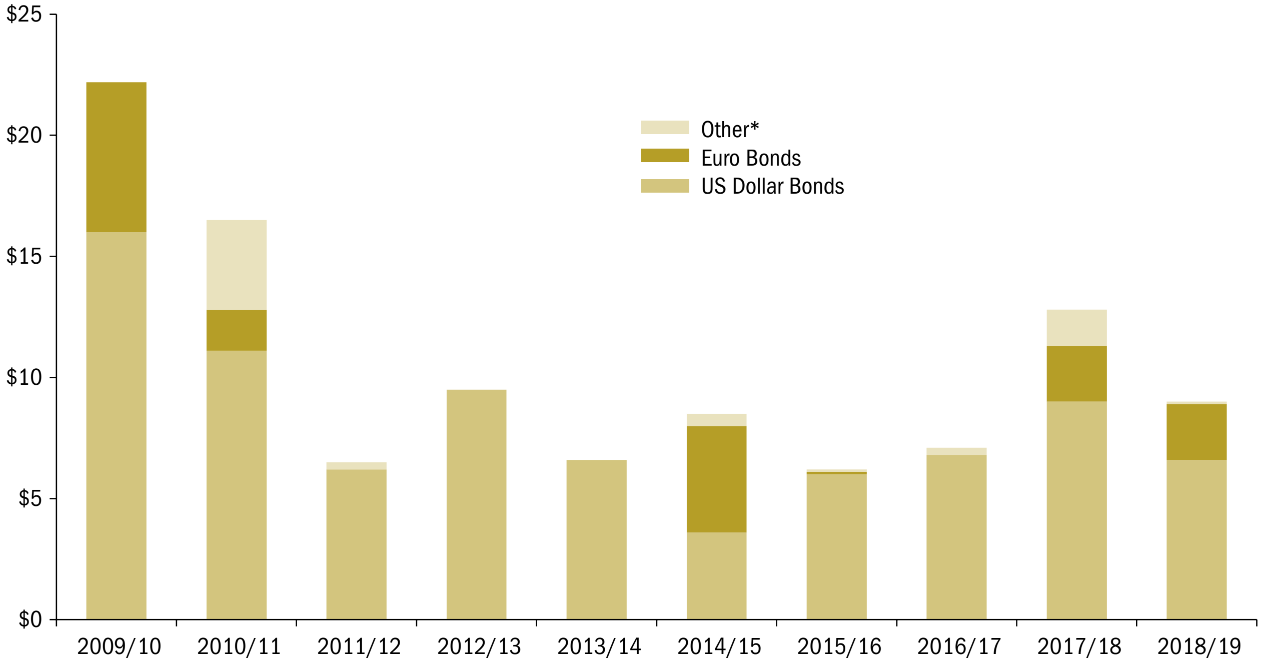
As shown in **Figure 4**, in 2018/19, the OFA raised $9 billion (23%) of the total borrowing through international bonds, which were sold in different countries' currencies. The amount of foreign debt the province issues changes on a yearly basis due to changing market conditions. For example, as little as 18% of all debt issued in 2013/14 was foreign debt, while as much as 51% of the debt was foreign debt in 2009/10, largely due to the level of domestic demand coming out of the financial crisis and the opportunities available to the OFA abroad. **Figure 5** shows the foreign debt issued by currency. The amount of debt to be issued, the terms of the debt, and the mix of foreign and domestic debt are outlined in the OFA's Financing and Debt Management Plan.

2.1.5 Investment Program

The OFA invests and manages the province's liquid reserve. As of March 31, 2019, the amount

Figure 5: Annual Foreign Borrowing by Currency, 2009/10–2018/19 ($ billion Cdn)

Source of data: Ontario Financing Authority



* Other includes Australian Dollar Bonds, Hong Kong Dollar, Japanese Yen, Norwegian Kroner, Sterling and Swiss Franc.

of the liquid reserve was $36 billion of cash and short-term investments. The goal of liquidity management is to maintain sufficient cash and short-term investments to meet the province's daily operating needs and to withstand financial stress or shock events, such as a sudden increase in interest rates or sudden volatility in the financial markets.

As of March 31, 2019, the OFA also invested a total of $2 billion on behalf of seven public entities:

- Deposit Insurance Corporation of Ontario;
- Ontario Trillium Foundation;
- Pension Benefits Guarantee Fund;
- Ontario Capital Growth Corporation;
- Ontario Infrastructure and Lands Corporation;
- Northern Ontario Heritage Fund Corporation; and
- Ontario Immigrant Investor Corporation.

The OFA and Ontario Power Generation (OPG) jointly manage the investment activities of OPG's Used Fuel Segregated Fund and the Decommissioning Segregated Fund, which were established under the Ontario Nuclear Funds Agreement (ONFA). As of March 31, 2019, the combined market value of these two funds was $22.4 billion.

2.2 Government Debt

Government debt is money borrowed from external parties that the government must pay back in the future with interest. A government acquires debt when the cost of operating its programs (for example, providing health-care and education services) and/or the cost of investing in capital (for example, land, buildings, roads) exceeds its revenue (for example, taxes collected). Ontario's debt consists primarily of bonds, treasury bills, and United States commercial paper the province issues. **Figure 6** shows the debt funding requirements due to operating expenditures and investments in capital assets.

Ontario is the most indebted sub-sovereign borrower in the world. (A sub-sovereign jurisdiction is a level of government below the national level, for example, a province, state, city or region.) See **Figure 7** for a listing of the top five most indebted

Figure 6: Debt Incurred to Fund Ontario's Operating Expenditures and Capital Assets from 1960/61 to 2018/19 ($ million)

Source of data: Public Accounts of Ontario

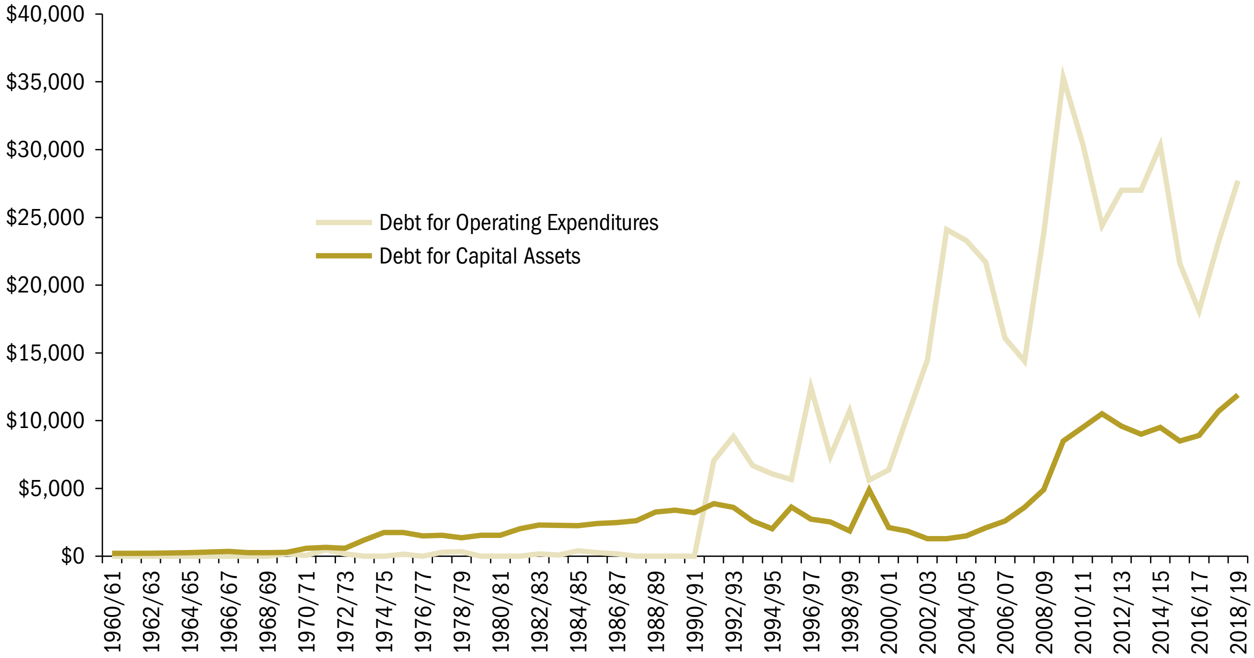


Figure 7: Highest Levels of Sub-sovereign Debt in the World, 2018/19

Sources of data: Annual Reports and Consolidated Financial Statements of other jurisdictions

Sub-sovereign Jurisdiction	Total Debt* ($ billion)
Ontario	354.3
Quebec	195.2
California	146.2
New York	79.6
Texas	70.9

* In Canadian dollars, converted using exchange rate at date of respective jurisdictions' 2018/19 financial statements.

sub-sovereign jurisdictions. Compared with other sub-sovereigns, Canadian provinces have a unique structure whereby they have responsibility over items with significant expenses, including health-care and education.

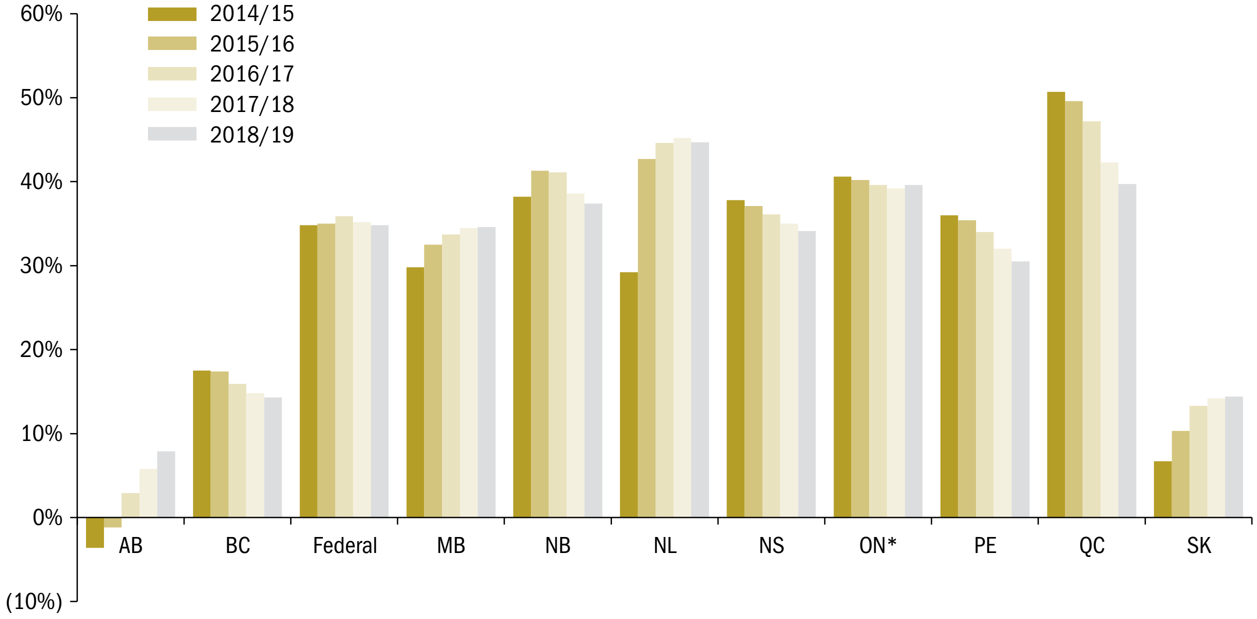
By the end of the 2018/19 fiscal year, the province of Ontario had total debt of $354 billion and net debt—the amount of total liabilities less financial assets—of $338 billion. The province borrowed $39.6 billion in fiscal 2018/19, primarily through bond markets. As of March 31, 2019, the province's net debt-to-GDP ratio was 39.6% (see **Figure 8**).

Many experts believe when a jurisdiction's net debt-to-GDP ratio rises above 60%, the jurisdiction's fiscal health is at risk and is vulnerable to unexpected economic shocks. In its report on the *Long-Term Budget Outlook 2017*, the Financial Accountability Office projected Ontario's net debt-to-GDP ratio could reach 63% by 2050/51.

Net debt-to-GDP is the ratio of net debt to the market value of goods and services produced by an economy. It measures the relationship between a government's obligations and its capacity to raise the funds needed to meet them. This ratio is an indicator of the burden of government debt on the economy. When the net debt-to-GDP ratio rises, it means the province's net debt is increasing faster than the provincial economy is growing and the net debt is becoming a growing burden.

Figure 8: Net Debt-to-GDP by Province, 2014/15–2018/19

Sources of data: Province of Ontario Annual Report and Consolidated Financial Statements; Annual Reports and Consolidated Financial Statements of other provincial jurisdictions; federal budgets and budget updates; budgets of provincial jurisdictions



Note: Jurisdictions with lower debt than Ontario may have a higher net debt-to-GDP ratio because they also have a lower GDP.

* 2015, 2016 and 2017 record the government's correction of previous accounting treatment related to Pensions and the Fair Hydro Plan.

2.2.1 Ontario's Debt Continues to Increase

The recession that started in 1990 reduced the province's tax revenues, with net debt rising as the province incurred large deficits. A later financial crisis in 2008 resulted in an economic downturn that led to increased borrowing.

In 2011, the government of Ontario established the Commission on the Reform of Ontario's Public Services (the Drummond Commission), chaired by former Toronto Dominion Bank chief economist Don Drummond. The Drummond Commission's Report—or the Drummond Report as it is often called—was released in February 2012. It provided recommendations on expense reduction and revenue raising. The last time the province assessed the implementation status of the Drummond Report recommendations was in 2015/16. That assessment showed that 14.6% of the recommendations were fully implemented and 71.2% had some action taken on the recommendations. Some actions were not acted on because the then government considered that those recommendations did not align with its mandate. For example, the Drummond Report recommended limiting annual spending growth until 2017/18. The actual growth/reductions and cost implications from 2012/13 to 2017/18 are identified in **Figure 9**. If spending had been restrained to the levels recommended in the Drummond Report, the province's total debt could potentially have been reduced by $30.3 billion by 2017/18. **Figure 10** shows the growth in net debt in Ontario from 1960/61 to 2018/19, and the growth in net debt-to-GDP over the same period.

Interest expense is the province's fourth-largest annual expenditure behind health, education, and children's and social services. In its 2019 budget, the province forecast that in the 2019/20 fiscal year, for example, if there is a 1% increase in borrowing rates the annual interest on debt would go up by $350 million. The average cost of borrowing for all debt outstanding in the fiscal 2018/19 was 3.6% and in 2019/20 is forecast to be 3.4%. This rate is low compared with historic borrowing rates, which have been as high as 13.1% in 1987/88. Increases

Figure 9: Comparison of Select Cost Constraints Recommended in Drummond Report with Actual Expenses

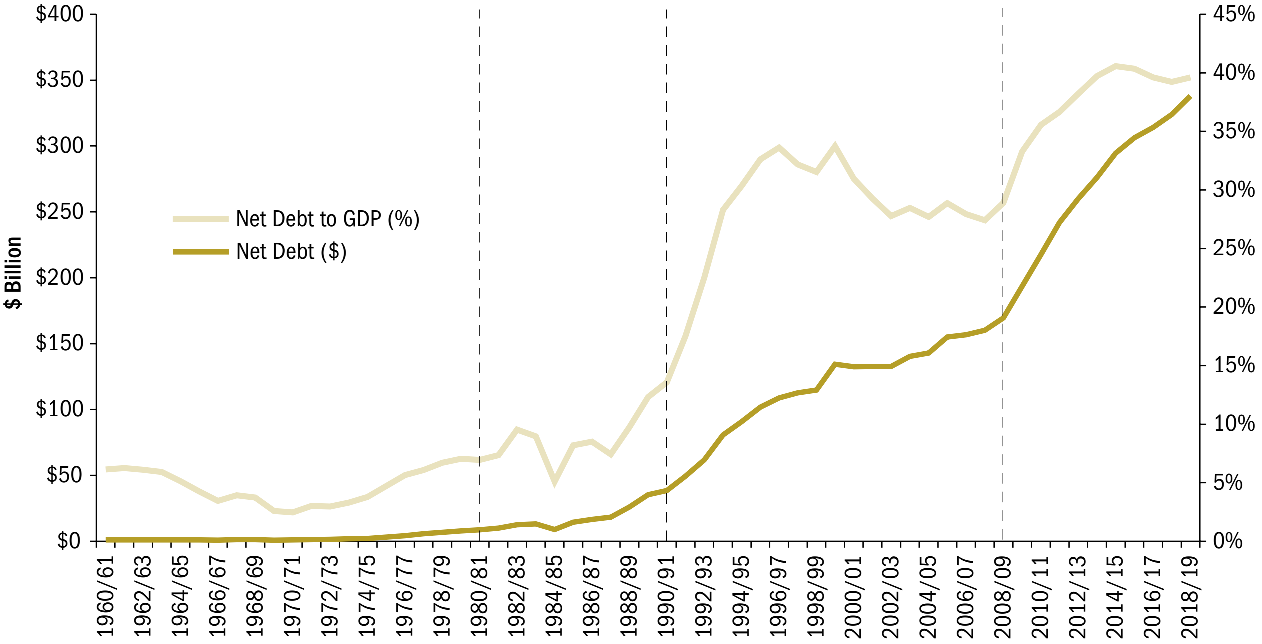
Prepared by the Office of the Auditor General of Ontario

Sector	Drummond Report's Recommended Annual Change in Expenses for 2012/13–2017/18 (%)	Actual Average Annual Change in Expenses 2012/13–2017/18 (%)	Total Cost from Actual Expenses Exceeding Drummond Recommendations 2012/13–2017/18 ($ million)
Health Care	2.5	3.4	2,286
Education	1.0	4.3	7,555
Post-secondary Education and Training*	1.5	3.4	1,136
Social Services	0.5	3.9	8,114
All other programs	(2.4)*	3.6	11,207
Total			**30,298**

* The Drummond Report excluded Training from the 1.5% limit under Post-secondary Education and Training. Such expenses would have fallen under the All Other Programs category, which the Drummond Report recommended be subject to a 2.4% reduction. Since Training was not excluded from our analysis, the cost differences are understated.

Figure 10: Net Debt and Net Debt to GDP, 1960/61–2018/19

Source of data: Public Accounts of Ontario



* The vertical lines indicate recessions in Ontario in 1981, 1990 and 2008, as identified in the *Spring 2019 Economic and Budget Outlook* issued by the Financial Accountability Office of Ontario.

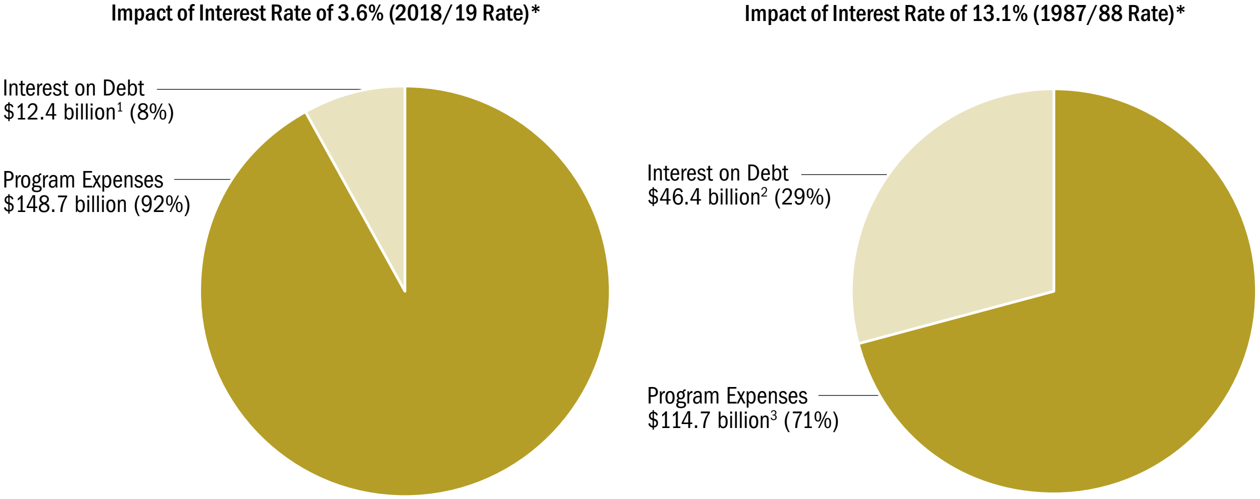
in borrowing rates would result in a growth in the province's annual interest costs. **Figure 11** shows the impact a return to historic high interest rates would have on the province's interest costs. Though the province's borrowing rates have been reducing since their peak in the late 1980's, interest costs have grown because of the increase in provincial debt, as shown in **Figure 12**.

2.3 Public Debt Management

Public debt management is the process of creating a strategy to raise the funds required for the government to meet its planned operating and capital expenditures in the short, medium, and long term and then executing the strategy. According to the International Monetary Fund (IMF), an organization made up of 189 countries

Figure 11: Impact if Interest Rates Increased to Same Level as 1987/88, as a Percentage of 2018/19 Expenses

Prepared by the Office of the Auditor General of Ontario



* Rate is the average cost of borrowing for all debt outstanding during the year.

1. Currently, interest on debt at 8% is the province's fourth largest expense after health (38%), education (19%) and children's and social services (11%).
2. With an interest rate of 13.1%, interest on debt at 29% would become the province's second largest expense, after health spending.
3. This depiction of the impact of an interest rate of 13.1% on Ontario's 2018/19 expenses assumes total expenses would not change.

working to ensure the stability of the international monetary system, "the main objective of public debt management is to ensure that the government's financing needs and its payment obligations are met at the lowest possible cost, consistent with a prudent degree of risk."

Governments make policy decisions concerning what a prudent degree of risk is. A risk policy that focuses on cost savings in the short term without giving thought to preparing for economic shocks runs a high risk of drastic increases in interest costs. Under such a policy, the government concentrates on short-term debt and floating rate debt because they generally have lower interest costs when they are issued. However, when short-term debt matures, it is generally reissued. If there is an economic shock resulting in large increases in interest rates, matured short-term debt will be reissued at much higher rates. This means interest costs on debt increase drastically. A government that is unprepared to pay this increased interest cost may default on its debt obligations.

Governments outline their risk policies through their debt structures—for example, by establishing targets or ranges for key risk indicators, such as the portion of their debt that has foreign currency exposure, the portion that will have a floating interest rate, and the duration they issue debt for. Generally, governments aim for low levels of risk, mostly accepting market interest rates as they are and not taking on additional risks to attempt to save costs. Governments do not want to be seen to be speculating on positive outcomes and thus not mitigating against risk, in case there are cost increases.

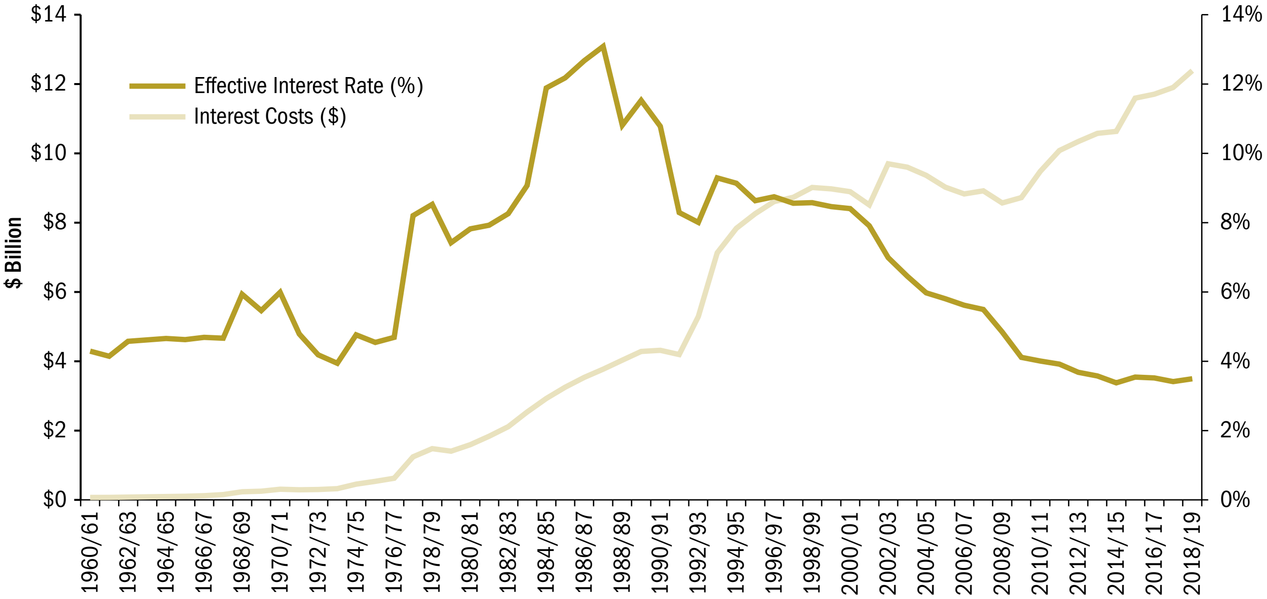
Managing debt involves creating and issuing debt instruments (for example, bonds), with an understanding of the domestic and international market, in order to raise the required amount of money when needed at the lowest interest rates possible. It also involves identifying the risks associated with this debt and applying risk-mitigation strategies to reduce or eliminate the identified risks.

Just like the financial head of a household, a public debt manager has two important jobs to ensure that it will be possible to pay the debt that has been taken on:

- keep enough cash and short-term investments (investments whose returns can easily be converted to cash) on hand to pay back debt that is due in the short term; and

Figure 12: Interest Costs and Effective Interest Rates, 1960/61–2018/19

Source of data: Public Accounts of Ontario



- figure out the best time to take on more debt (or "issue new debt") given the obligations of the existing debt (that is, when to borrow to repay existing debt and interest).

The risk of being unable to meet provincial debt obligations as they come due is referred to as liquidity risk. This risk can be mitigated by holding liquid reserves or having access to funding through market-based mechanisms such as short-, medium- or long-term bonds.

Two other key areas of risk related to debt management are:

- the risk of fluctuations in interest rates (this can happen when a debt instrument provides a variable rate of interest that can go up or down based on market factors, such as the supply and demand for credit); and
- the risk of a change in the value of foreign currencies in relation to the Canadian dollar.

These risks can be mitigated by hedging. This involves investing in financial instruments (monetary contracts) whose value changes (goes up or down) in the opposite direction of the provinces' debt instruments.

Here is an example case. The province raises funds by issuing a bond in United States (US) dollars. The bond is set up to require that the province pays $1 billion US one year from now. At today's exchange rate, that will cost $1.3 billion in Canadian (Cdn) dollars. The province wants to protect itself from the risk that one year from now, because the exchange rate will have changed, the payment will cost more—say, $1.4 billion Cdn. So it enters into a separate agreement with another party to buy $1 billion US one year from now at today's exchange rate. A year from now, even if the exchange rate has changed and the province is due to pay $1.4 billion Cdn, it buys the $1 billion US from the other party for $1.3 billion Cdn as arranged, and then uses the newly purchased $1 billion US to pay its debt. No additional cost is incurred from the change in the value of the Canadian dollar compared to the US dollar.

Another risk is credit risk, which is the risk of an economic loss due to the failure of the other party in a financial transaction to pay amounts owed to the province. This risk can be mitigated in a variety of ways, such as by setting criteria and limits for financial transactions with other parties,

Figure 13: Ontario's Credit Ratings from Four Agencies, 2015–2019

Prepared by the Office of the Auditor General of Ontario

Credit-Rating Agency	2015	2016	2017	2018	2019
DBRS Morningstar (previously DBRS)	AA (low) Stable	AA (low) Stable	AA (low) Stable	AA (low) Stable	AA (low) Stable
Fitch Ratings	AA–Stable	AA–Stable	AA–Stable	AA–Negative	AA–Stable
Moody's	Aa3 Negative	Aa3 Stable	Aa3 Negative	Aa3 Stable	Aa3 Stable
Standard & Poor's	A+ Stable	A+ Stable	A+ Stable	A+ Stable	A+ Stable

by monitoring these risks and taking appropriate actions when necessary, and by entering into collateral agreements. A collateral agreement defines and pledges the collateral each party offers to ensure any losses can be recouped.

2.4 Credit Rating Agencies

Credit rating agencies are private, for-profit companies that assign a credit rating to an entity that issues debt, such as a province. The credit rating is an assessment of the entity's credit risk and reflects the entity's ability to make interest payments, as well as the likelihood that the entity will either repay or default on the original debt. Credit ratings are based on economic and financial forecasts and assessments of future developments and risks.

Four credit agencies provide credit ratings for the province of Ontario. See **Figure 13** for the credit ratings these agencies have assigned the province as of October 2019.

3.0 Audit Objective and Scope

Our audit objective was to assess whether the Ontario Financing Authority (OFA):

- cost-effectively conducts and manages the borrowing, debt and investment needs of the province;
- mitigates the risks associated with public debt;
- complies with legislation and regulations; and
- measures and reports on the results and effectiveness of the OFA's borrowing, debt and investment performance.

In planning for our work, we identified the audit criteria (see **Appendix 4**) we would use to address our audit objective. We established these criteria based on a review of applicable legislation, policies and procedures, internal and external studies, and best practices. OFA senior management reviewed and agreed with the suitability of our objective and associated criteria.

We conducted our audit at the office of the OFA between November 2018 and October 2019. We received written representation from Ministry management that, effective November 12, 2019, they had provided us with all the information they were aware of that could significantly affect the findings or the conclusion of this report.

Our audit focused on the OFA's management of the province's debt, which involves issuing debt instruments domestically and internationally, investing, assessing and hedging the risks associated with issuing debt, managing the province's liquid reserve, and reporting on the province's operations and debt.

We analyzed data provided by the OFA and the Ministry of Finance covering the last 10 years, with a primary focus on the province's borrowing, investing, cash management and debt management during the five-year period between April 1, 2014, and March 31, 2019. Where appropriate, we examined relevant information available from the creation of the OFA in 1993 through to the completion of our audit work in October 2019.

We engaged experts in government debt management to help in assessing whether the OFA's financing strategies were optimal and cost-effective to reduce interest on debt and financial risk exposure. Our experts also assessed and provided feedback on the OFA's management of risks and its use of financial instruments to hedge risks.

We interviewed staff from the Government of Canada, Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Prince Edward Island, and Quebec to understand how they manage debt in their respective jurisdictions. In addition, we spoke with four credit-rating agencies to discuss their views on the province's debt management.

4.0 Detailed Audit Observations

Our audit identified that the OFA was conforming with good practices in risk management and investing, as discussed in **Sections 4.3** and **4.9**. The report addresses areas for improvement in the Ministry of Finance's debt sustainability (**Sections 4.1** and **4.2**), the cost-effectiveness of borrowing done by public bodies such as hospitals, colleges and school boards (**Section 4.4**), the cost-effectiveness of the OFA's borrowing and debt management strategies (**Sections 4.6**, **4.7** and **4.8**), and the OFA's operations (**Sections 4.5**, **4.10**, **4.11** and **4.12**).

4.1 Ministry Should Formally Assess Sustainability of Province's Debt Burden and Develop Long-Term Plan to Address Debt Burden

The Ministry of Finance (Ministry) has not assessed whether the current levels of provincial debt are sustainable and whether the province will be able to withstand an economic shock such as a recession. We found that there are no targets or measures in place related to debt sustainability in any formal, long-term plan. The province currently sets its annual budget for projected revenues and expenses, and the OFA creates a plan to acquire enough debt to meet the needs of any annual projected funding shortfall. The budgeting process does not incorporate a debt-to-GDP reduction target based on an analysis of long-term sustainability.

Credit rating agencies advised us that net debt as a percentage of the province's gross domestic product (net debt-to-GDP) is an important measure for assessing the sustainability of a province's debt because it indicates the province's ability to pay back its debt.

In the province's 2017 budget, the Ministry of Finance identified the target of achieving a net-debt-to-GDP ratio of 27% by 2029/30. But this target was removed by the then government from the province's 2018 budget. Since then, the Ministry of Finance has not established an alternative long-term net debt-to-GDP reduction target.

In August 2018, the Independent Financial Commission of Inquiry (Commission), a commission established to review Ontario's past spending and accounting practices, stated that the province should take immediate steps to reduce the net debt-to-GDP ratio and the Commission recommended that an analysis be conducted to determine—and set—an appropriate target and timeline to reduce the province's ratio of net debt-to-GDP.

Ontario has the highest total debt of any province in Canada and the third-highest net debt-to-GDP ratio (see **Figure 8**). As of March 31, 2019, the province's net debt-to-GDP ratio was 39.6%. In the 2019 budget, which was released April 11, 2019, the Ministry introduced a debt-burden-reduction strategy and announced that the government's objective was to have Ontario's net debt-to-GDP ratio below 40.8% by 2022/2023.

In the Financial Accountability Office of Ontario's (FAO) report *Assessing the Impact of an Economic Downturn on Ontario's Finances*, the FAO concluded that "the government's fiscal plan is vulnerable to an economic downturn … [which] would put the government's commitments to both balance the budget and limit increases in Ontario's [net] debt-to-GDP ratio at risk." In that report, the FAO highlights that under a reasonable recession scenario, the province could incur additional debt, which would increase the province's net debt-to-GDP ratio from 40.2% to nearly 45% by 2021/22.

Other provinces have announced specific net debt-to-GDP targets. For example, in 2013/14, Nova Scotia had a net debt-to-GDP ratio of 38%, which was nearly as high as Ontario's that year. But that year, the Nova Scotia Commission on Building Our New Economy, a group commissioned by the then premier, issued the One Nova Scotia Report recommending the province reduce its net debt-to-GDP ratio to 30% by 2024. As of March 31, 2019, Nova Scotia's net debt-to-GDP ratio was at 34.1%, and Nova Scotia was on track to meet its target. Though Ontario established an overall cap, the cap was based on current projected expenditures versus a review of future debt sustainability.

Ontario has balanced budget legislation. The *Fiscal Transparency and Accountability Act, 2004*, required that the province plan for a balance budget unless, as a result of extraordinary circumstances (which are not defined in that Act), the government determines it is necessary for the province to have a deficit. Under that Act, if the government plans a deficit, it must develop a recovery plan for achieving a balanced budget in the future. Since the time the *Fiscal Transparency and Accountability Act, 2004*, was enacted, the province has run a deficit in all years except 2006/07 and 2007/08. See **Appendix 5** for a list of the government's explanations regarding the extraordinary circumstances that resulted in a deficit for these years.

In May 2019, the *Fiscal Sustainability, Transparency and Accountability Act, 2019* (2019 Act) replaced the *Fiscal Transparency and Accountability Act, 2004*. The 2019 Act continues to require a balanced budget and allows the government to plan to run a deficit for undefined extraordinary circumstances. The 2019 Act expands on the earlier Act's requirements by requiring that the government include a recovery plan in the budget. The 2019 Act also includes new requirements for a debt-burden-reduction strategy and for introduction of Minister and Premier accountability measures.

Other provinces target debt reduction through balanced budget legislation that limits the ability of the government to run deficits that further increase their debt. These provinces include British Columbia, Manitoba and Quebec. See **Appendix 6** for a comparison of provincial balanced budget legislation.

RECOMMENDATION 1

To increase the ability of the Ministry of Finance (Ministry) to achieve long-term sustainability for the provincial debt, we recommend that the Ministry:

- clearly define "extraordinary circumstances" as set out in the *Fiscal Sustainability, Transparency and Accountability Act, 2019*;
- identify relevant measures to assess debt sustainability;
- develop formal, evidence-based long-term targets and plans to meet them; and
- monitor these measures and assess the impact on the province's current and projected financing needs, and the cost of debt.

MINISTRY RESPONSE

The Ministry agrees with the recommendation and acknowledges the importance of maintaining the long-term sustainability of the province's debt.

Consistent with the *Fiscal Sustainability, Transparency and Accountability Act, 2019*, the Ministry reports on the debt burden reduction strategy in the annual budget, specifying objectives for Ontario's projected net debt-to-GDP and plans and progress to meet those objectives. The Ministry will also identify other relevant measures to assess debt sustainability, such as interest as a percentage of revenue, and report on these measures.

4.2 The Province Lacks Plans to Respond to Impact on Debt and Operations from an Economic Shock

Though the province seeks input from OFA staff, such as asking for projected net debt-to-GDP amounts, the Ministry has not empowered the OFA to proactively advise the government on how to manage the sustainability of the provincial debt burden or respond to economic shocks. Given this limitation, we found that OFA staff, who are experts in debt management, were not being used effectively to assist the government in managing the provincial debt.

The following activities are not performed by the OFA, the Ministry, or by anyone else in the provincial government:

- assessing the sustainability of current and projected debt levels;
- formally monitoring emerging trends in debt sustainability (for example, demand for Ontario debt) and informing the Ministry;
- analyzing the impacts of potential economic shocks on the debt sustainability measures and cost of the province's debt; and
- creating mitigation strategies or actions that could be taken should an economic shock occur.

The OFA is in frequent communication with credit rating agencies that assess the province's short-term capacity to meet its financial obligations. The OFA, through its CEO, advises the Ministry on concerns credit rating agencies identify regarding sustainability assessments. These discussions are not documented, however, and so we could not review them.

The OFA told us that it has advised the Ministry that targets and measures for debt sustainability, including the assessment of probable economic shock scenarios that could have a negative impact, are critically important. But the OFA does not identify what these targets or measures should be, and it does not provide guidance on selecting the economic shock scenarios, nor does it perform any form of assessment unless directed to do so by the Ministry. The Ministry has not directed the OFA to perform an assessment on these scenarios.

In contrast, the federal government's Department of Finance assesses economic shock scenarios to identify the flexibility and robustness of the federal debt program and the relevant legislative and regulatory authorities, and the ability of the governance framework to respond to these scenarios. This involves the Department's economic forecast group working with relevant government entities, such as the Bank of Canada. This ensures that the federal government's debt programs are able to respond to changes in economic and financial circumstances and enables the Department to develop contingency plans. The expertise of the different government entities that the group works with adds value to the contingency plans. This makes it possible for a range of potential changes to fiscal and economic policy to respond to the economic shock to be included in those plans. For example, if a scenario affects credit markets and financial stability, the Bank of Canada recommends policies or other actions it could implement for the contingency plan.

The next step in the federal process is for the debt management group to develop plans to borrow the money needed for each economic shock scenario and contingency plans. Each borrowing plan is assessed for how feasible and how sustainable it is. The final step is for all the groups involved to discuss how the contingency and borrowing plans would be enacted so that each party knows its role.

One credit rating agency noted that during the 2008 financial crisis, Ontario was slow to respond (for example, it was slow to reduce expenditures and it took only very modest steps to increase revenue) and that the slow response has had a lingering impact on Ontario's credit assessment as late as the agency's 2017 rating. Having contingency plans in place to respond to economic shocks would enable the province to increase responsiveness and potentially reduce the short-, medium- and longer-term impacts in the event of another economic shock.

In its Spring 2019 Economic and Budget Outlook, the Financial Accountability Office of Ontario (FAO) noted that Ontario has “arguably experienced three recessions over the last four decades.” Recessions are associated with reduced revenues and increased expenditures because:

- governments generally provide additional fiscal stimulus (for example, tax cuts); and
- spending on government programs that support lower-income and unemployed people increase (for example, spending on employment training and social assistance).

The FAO warned that the province’s budget is susceptible to an economic downturn and that a moderate recession could increase Ontario’s net-debt-to-GDP ratio to nearly 45%. As shown in **Figure 10**, the province’s net debt to GDP continued to rise following the 1981, 1990 and 2008 recessions, and did not drop significantly during the periods of economic expansion between recessions.

RECOMMENDATION 2

So that the Ministry of Finance (Ministry) is better informed about the province’s ability to withstand potential new economic shocks and about potential scenarios to consider when faced with new significant economic impacts, we recommend that the Ministry request that the Ontario Financing Authority:

- develop and test scenarios that consider the impacts of potential economic shocks (for example, the 2008 financial crisis); and
- use the information from these tests to advise the Ministry on optimal borrowing levels and on the response strategies, such as fiscal and economic policies, it could apply in the event of economic shocks.

MINISTRY RESPONSE

The Ministry agrees with the recommendation and will enhance the development and testing of scenarios that consider the impacts of potential economic shocks as part of its forecasting and planning process. The Ministry and the OFA will work together to consider the impact of these scenarios on the province’s funding and borrowing requirements, and debt and cost of debt outlook, as well as work together to develop advice for government to inform decision-making related to the annual budget and other economic and fiscal updates throughout the fiscal year.

4.3 OFA’s Management of Debt Risks Aligned with Good Practices

The OFA effectively identifies and manages the risks associated with the debt management portfolio. Its primary performance measure for the cost-effectiveness of its borrowing methods, combined with risk tolerances identified in its Financing and Debt Management Plan, conforms to good public debt management practices. One of the features of good public debt management practice is keeping costs low within a prudent degree of risk.

The OFA has made a policy decision that associates prudent risk with a targeted weighted average interest rate for its bonds throughout the year. This policy decision gives the OFA the flexibility to engage in transactions that could lower the province’s interest costs for issuing domestic debt. In seven of the last nine years, the OFA issued debt domestically at a cost lower than the median of the rates it could have issued at throughout the year. The OFA calculated that this saved the province $347.5 million in interest costs on debt issued between 2008/09 and 2018/19, within a reasonable degree of risk.

In its Financing and Debt Management Plan, the OFA explains its risk tolerances for fluctuations in interest rates and for changes in the value of foreign currencies in relation to the Canadian dollar. This includes hedging a majority of these risks, which is a common practice of public debt management. Our review of the financial instruments the OFA used to mitigate the risks and its reporting on compliance with the thresholds from the Financing and Debt Management Plan indicates that the OFA's management of debt risks within its identified risk tolerance is aligned with good practices. **Appendix 2** presents various risk measures the OFA has taken over the last five years and its performance with respect to them.

4.4 Hospitals, School Boards and Colleges Acquired Over $2.7 Billion of Debt Outside of OFA, Incurring More than $204 Million in Higher Interest Costs in Five Years

Between 2014/15 and 2018/19, hospitals, school boards and colleges acquired $2.7 billion in debt directly, meaning they did so on their own and not through the OFA. This cost the province more than an additional $204 million. For simplicity, we refer to such direct borrowing as being "outside of the OFA." Such borrowing is allowed because these public bodies or broader-public-sector entities are not required to borrow through the OFA. In some cases, the entities acquired debt themselves because they were unaware the OFA was an option, while in others they found that the OFA would not meet their needs (for example, with respect to the timing of cash flows or the term of the borrowing).

The OFA, under the *Capital Investments Plan Act*, can lend money to any public body, including:

- provincial government agencies;
- hospitals and other facilities receiving capital funds from the Minister of Health;
- colleges and universities;
- municipalities; and
- school boards.

We obtained information from the ministries of Health, Education, and Training, Colleges and Universities to determine the total debt acquired by hospitals, school boards and colleges that was outstanding as of March 31, 2019. This debt was acquired from November 17, 1997, through to March 31, 2019. Our calculations show that these broader-public-sector entities borrowed $7.7 billion outside the OFA between the 1996/97 fiscal year and 2018/19. See **Figure 14** for a breakdown of this amount by entity. Total debt outstanding as of March 31, 2019, was $5.4 billion. This means that $2.3 billion was paid back to external lenders.

Figure 14: Amount of Debt Public Bodies Acquired Outside of OFA between 1996/97 and 2018/19

Source of data: Ministry of Health, Ministry of Education and Ministry of Colleges and Universities

Sector	Total Debt ($ million)	Average Term of Debt (Years)
Hospitals	3,028	14
School Boards	4,206	15
Colleges	487	20
Total	**7,721**	**16**

We calculated the amount of additional interest paid on $7.7 billion of this debt acquired outside of the OFA, where adequate information existed to perform a reasonable calculation. By borrowing outside the OFA, the province, through its public bodies, is incurring $257.8 million in additional interest costs on debt issued from November 19, 1999, through to March 31, 2019, because these entities acquire debt from financial institutions, such as a bank, at a higher rate than what the OFA could obtain from the market through its debt-issuing mechanisms. As a result, public bodies will pay additional interest costs for on average 15 years into the future, given the lengthy maturity dates of some of this debt. As shown in **Figure 15**, public bodies have paid $27.1 million in additional interest on their outstanding debt as of March 31, 2019 (which they acquired outside of the OFA). In addition, these public bodies will pay a further $230.7 million in interest over the remaining term of this debt.

Our analysis focused on the entities listed in the *Capital Investments Plan Act* because these entities' debts are consolidated into the province's financial statements. Other entities receiving funding from the government of Ontario may also be borrowing

Figure 15: Additional Interest Costs Incurred as of March 31, 2019, and Committed to Be Incurred after March 31, 2019 ($ million)

Sources of data: Ministry of Health and Ministry of Education

Sector	Nov 19, 1999– Mar 31, 2019	After Mar 31, 2019	Total
Hospitals	15.9	229.1	**245.0**
School Boards	11.2	1.6	**12.8**
Total	**27.1**	**230.7**	**257.8**

outside of the OFA at higher rates and therefore costing the province more.

Hospitals are not required to borrow through the OFA. As of May 2018, colleges are also exempt from borrowing through the OFA when either of the following occur:

- they acquire debt under $1 million; or
- the total amount of the debt is less than 25% of the college's annual revenue and the term of debt is one year or less.

We contacted hospitals, school boards, colleges and universities regarding their reasons for acquiring debt outside of the OFA. Their responses included:

- They did not know that the OFA was a financing option.
- They found the OFA's reporting requirements onerous compared to those of external financial institutions.
- They thought the terms of the OFA's agreements were too restrictive.
- To better manage their cash flow, they prefer non-amortizing debt, which is where the principal is paid in a lump sum at maturity.

One public body that did not know it could borrow through the OFA said that the OFA advised it in pricing its debt issuance, but never mentioned that it could borrow through the OFA at a lower interest rate.

Other public bodies said that the OFA's restrictive terms did not meet their financing needs. For example:

- The OFA's lending agreement may require a public body that has any debt owing to another lender to renegotiate its repayment terms with that lender to have the OFA paid back first, before the public body can obtain a loan from the OFA.
- The OFA requires public bodies to make principal and interest payments equally throughout the term of the debt, instead of permitting the principal to be repaid at the end of the term of the debt.

The OFA began providing loans to public bodies in the 2006/07 fiscal year and has loaned $6.6 billion to school boards. In 2017, school boards started receiving all of their long-term capital financing through a transfer payment from the Ministry of Education. As a result, they no longer needed to obtain long-term capital financing externally. Prior to 2017, school boards had obtained $3.4 billion in debt externally for capital additions, and they continue to make principal and interest payments on this debt.

School boards borrow externally for short-term operating and capital funding because the OFA provides only long-term financing. Since 2017, school boards have borrowed $773 million outside of the OFA (excluding lines of credit). As of March 31, 2019, school boards also had access to $458 million in lines of credit, of which $55 million was drawn. On average, the difference between the interest rates on these lines of credit and the interest rate the OFA could obtain on the market was 1.13%.

We found that it is uncommon for government entities in other jurisdictions to borrow directly rather than through their government debt manager, although it has happened in a few cases. For example, the following entities issue their own bonds:

- The Canada Housing Trust and Export Development Canada (federal government);
- The Crown Labrador Hydro (Newfoundland); and
- Hydro Québec (Quebec).

RECOMMENDATION 3

To reduce the interest cost incurred on the province's debt, we recommend that the Ministry of Finance reassess public entities' borrowing options to require public bodies to borrow through the Ontario Financing Authority where savings to the province could be achieved.

MINISTRY RESPONSE

The Ministry accepts the recommendation as it would reduce the province's interest on debt cost.

The OFA will review options with the Ministry for expanding its loan program, and work with other ministries with responsibility for broader-public-sector agencies and entities, to inform them of the potential cost advantages of borrowing through the OFA. Long-term loans that meet a minimum threshold will initially be looked at as this is where there the greatest potential for cost savings. Short-term loans are more challenging to administer and do not yield the same level of cost savings as long-term debt.

4.5 OFA's Surplus from Loan Administration Charges to Public Bodies Not Used to Reduce Debt Costs or Earn Interest

Beginning in the 2006/07 fiscal year, when the OFA began providing loans to government bodies, it charges them a higher interest rate than what it pays in the market. These charges are intended to recover the administrative costs that the OFA incurs to manage these loans (such as OFA staff time). The Ministry of Finance provides funding to the OFA to cover all of its costs including the costs to administer loans. Therefore, these charges resulted in the OFA holding a surplus of $32.2 million as of March 31, 2019.

The OFA has not used this surplus to reduce debt or fund programs. The funds are held in a bank account because the OFA did not believe the amount was high enough to warrant investment. In 2015/16, our Office recommended that the OFA develop a policy to determine the best use of these funds, but as of October 2019, the OFA has not created one.

As of October 2019, the Ministry had not requested the OFA to remit this surplus to reduce debt. The surplus does not need to be paid into the Consolidated Revenue Fund until the Minister requests it.

RECOMMENDATION 4

To reduce the province's debt, we recommend that:

- the Ministry of Finance request that the Ontario Financing Authority provide to the province its surplus administrative fees earned to date; and
- the Ontario Financing Authority review and revise the administrative fees it charges to keep them at or below its actual administrative costs, so that public bodies do not have to borrow more money just to pay administrative fees to the Ontario Financing Authority.

MINISTRY RESPONSE

The Ministry accepts this recommendation and will work with the OFA and its Board of Directors to determine the most cost-effective approach to manage the OFA's surplus.

OFA RESPONSE

The OFA accepts the recommendation to continue to review its loan administration fees to ensure that the fees accurately reflect the cost incurred in administering loans.

4.6 Province Could Save Commission Expenses by Expanding Debt Auctions

Between 2014/15 and 2018/19, the OFA spent $508.9 million on commissions paid to syndicates to issue its domestic debt without formally considering expanding its use of debt auctions, which are less costly, to better align with common practices for large, regular issuers of debt.

The OFA issues most of its domestic debt (in the form of government securities such as bonds) through syndication (meaning to groups of banks to which it pays commissions). Investors then purchase these Ontario bonds through the banks involved in the syndicate. Between 2014/15 and 2018/19, the OFA issued syndicated domestic debt totalling $112 billion, and it paid commissions totalling $508.9 million. The OFA did not perform any analysis to determine whether, in light of these commission fees, issuing debt through syndicates achieved value for money for the province. It also did not assess the extent to which the province should issue debt through syndicates instead of through the no commission cost option of issuing through auctions.

Debt auctions involve the OFA making a public announcement outlining the quantity and type of debt to be auctioned. Banks and investors can call the OFA to place their bids (that is, the amount of debt they wish to acquire and the interest rate they are willing to pay) on the day of the auction. The winning bidders (those that bid the lowest interest rates) are notified, and the results of the auction are made public. The OFA advised us that an auction requires less than two hours of its staff time.

Ontario has the highest sub-sovereign debt in the world, equalling the debt of many countries. As **Figure 7** shows, few sub-sovereign jurisdictions manage a comparable amount of debt—Ontario's debt is more than twice that of California, the sub-sovereign with the third-highest debt. By comparison, in countries belonging to the Organization for Economic Co-operation and Development (OECD), debt auctions are the most common process for issuing debt. Some smaller countries in the Eurozone combine auctions with syndication. Countries in the Eurozone that are similar to Ontario, in that they are large, regular borrowers, use auctions for issuing debt. **Figure 16** lists the most indebted Eurozone countries and Ontario. Canada also uses auctions, while other provinces that issue smaller amounts of debt use syndication.

The OFA says a key concern with using debt auctions is the possibility of a failed auction. A failed auction results when the supply of debt the borrower attempts to issue exceeds demand in the investment community. In the worst case, the OFA is concerned that it could have to cancel an auction, which could affect its credibility with investors. Unlike most sovereign nations, Ontario does not have a central bank to purchase Ontario's debt should the auction not have adequate demand.

Between 2014/15 and 2018/19, the OFA auctioned debt only four times, issuing debt totalling $3 billion. Debt issued through auctions had an average term of three years. The OFA pays no commission fees on these auctions, and the OFA says there are no significant costs associated with the auctions. In the auctions held by the OFA, the average cost was similar to the market rate of interest that would have been obtained through syndication. Although on individual auctions the OFA had obtained interest rates both lower and higher than expected through syndication, generally there have been overall savings on the average interest costs compared with the market rate of interest that would have been paid through syndication.

RECOMMENDATION 5

To reduce the cost of issuing debt, we recommend that the Ontario Financing Authority perform a formal assessment of its domestic-debt-issuing strategy and consider the costs and benefits of increasing the amount of debt it issues through auctions.

Figure 16: Top 15 Eurozone Countries Based on Gross Debt Outstanding and Their Use of Auctions and of Syndication, as of December 2018

Source of data: Eurostat: General Government Gross Debt

	Gross Debt Outstanding ($ million Cdn)	Auctions	Syndication[1]	
			First Issuance[2]	Domestic[3]
Italy	3,553,058	✓	✓	
France	3,542,869	✓	✓	
Germany	3,157,065	✓	✓	
United Kingdom	3,143,314	✓		
Spain	1,795,088	✓	✓	
Belgium	703,357	✓		✓
Netherlands	620,386	✓		
Greece	511,964	✓	✓	
Austria	435,737	✓		✓
Portugal	374,755	✓	✓	
Poland	367,967	✓		
Ontario	**354,264**[4]	✓		✓
Ireland	315,549	✓		
Sweden	277,409	✓		✓
Finland	210,471	✓	✓	
Denmark	155,215	✓		

1. This column shows that these jurisdictions mostly use syndication when issuing a new type of bond for the first time.
2. Syndication for first time the jurisdiction issues a new type of bond in its domestic market.
3. Syndication for issuance of bonds that are already available in the domestic market.
4. Debt as of March 31, 2019.

OFA RESPONSE

The OFA agrees with the recommendation and will perform a formal evaluation of the costs and benefits of increasing the use of auctions as a method of funding.

4.7 OFA Does Not Formally Assess Cost of and Need for Issuing Debt in Foreign Markets

The OFA does not do a formal assessment of whether the increased cost of issuing debt in foreign markets benefits the province. For example, we found that between April 1, 2014, and March 31, 2019, issuing debt in international markets (instead of within Canada) resulted in obligations to pay an estimated $47.2 million in additional interest and hedging costs. The OFA told us that before issuing debt in a foreign market, OFA staff discuss the cost and consider the associated risks and benefits. But the OFA did not keep records documenting its discussions or reasons, so we were unable to review what the OFA considered before issuing debt in foreign markets.

We found that the OFA issued, on average, 25% of its debt instruments ($43.6 billion), such as bonds, in foreign markets between 2014/15 and 2018/19. The amount issued in foreign markets at a cost exceeding domestic issuances totalled $36.8 billion and ranged from $6.2 billion in 2015/16 (about 18% of total debt issued that year) to $12.8 billion in 2017/18 (about 38% of debt issued that year). Because of the higher overall cost of issuing this foreign debt compared to debt issued in Canada, this will cost the province an estimated additional $221.8 million in interest and hedging costs from the time it was issued until all payments are made on the debt. See **Appendix 7** for an explanation of the methodology used to quantify this cost estimate for issuing debt in foreign markets. The term of debt issued in foreign markets during this period averaged 5.7 years and ranged from three to 25.4 years.

For example, on January 18, 2019, the OFA issued $2.5 billion in five-year fixed rate bonds in the United States at an interest rate of 2.7%, including the cost of mitigating the foreign exchange risks. On that same day, the interest rate on five-year bonds in Canada was 2.6%. It will cost the province an additional $20 million in interest payments over the five years of these bonds because of the premium in interest rate that applies for having the debt issued in the United States instead of Canada.

Besides the higher costs associated with issuing debt outside of Canada, there are higher risks associated with foreign debt, according to the OFA's Financing and Debt Management Plan. The risks include credit risks associated with entering into financial transactions with other parties to mitigate the foreign exchange risk (as explained in **Section 2.3**). As well, there is more administrative work (in the form of jurisdictional filings) when debt is issued outside of Canada, as well as more regulations to comply with.

Despite its preference for issuing debt in Canada, the OFA said that it issued debt in foreign markets to prevent the risk of higher debt costs in the Canadian market due to oversaturation. That is, if the demand in the domestic market does not continue to match the amount of debt the OFA intends to issue, issuing more debt domestically could result in the OFA having to pay higher interest rates. The OFA had not attempted to estimate the likelihood or extent of these higher interest rate costs or whether they would be more or less than the costs of issuing debt in foreign markets.

The OFA also said it continues to issue debt in foreign countries to maintain a presence in international markets so that it can access these markets in the future if needed. The OFA reasons that there might be costs of re-entering a market after a sustained absence. We found that the OFA has not documented any analysis demonstrating the quantity of debt it would need to issue in foreign markets, or the frequency of such issues, in order to reduce or eliminate the costs of re-entering these markets. Further, it has not done a written assessment identifying whether—and to what extent—these additional costs or barriers actually exist or whether the costs currently being incurred covers them.

From discussions with other Canadian jurisdictions, we learned the following:

- After not issuing debt in foreign markets since 1999, the federal government issued $3 billion US in debt in September 2009, and another $2 billion EUR in debt in January 2010. The federal government encountered no significant barriers to re-entering these foreign markets after absences of 10 years. Both issues were highly successful, with more demand than the quantity of bonds issued.
- Alberta, having issued very little debt in international markets for 15 years, issued $23.9 billion in debt, primarily in the United States and Europe, between April 2015 and March 2019. To do this, Alberta promoted itself internationally through investor relations-type activities and re-established proper documentation with local regulators. Alberta told us that it did not pay any additional costs due to higher interest rates, even though it was mostly absent from international markets for over a decade.

The OFA noted that the estimated costs of issuing debt in foreign markets (where it is assumed that hedging will be immediately used to eliminate the foreign exchange risk) have been higher than the actual costs historically recorded. This is because the actual costs of the hedging instruments used were less than estimated. The OFA calculated that the use of forward contracts has resulted in reducing the cost of issuing foreign debt to $47.2 million, from their originally estimated $221.8 million. The OFA advised us that this reduction might no longer be pursued in the future, due to a change in accounting policy (see **Section 4.10** for further details).

RECOMMENDATION 6

To further minimize the interest costs of debt assuming a reasonable level of risk, we recommend that the Ontario Financing Authority:

- formally assess the amount and frequency of debt it should issue in foreign markets; and
- document its assessment of the costs and benefits of issuing debt in foreign markets instead of domestically before issuing debt, and retain this information to support current decisions and inform future ones.

OFA RESPONSE

The OFA accepts the recommendation to perform a formal assessment of the amount and frequency of debt issued in foreign markets. The OFA will formally outline the assumptions and potential costs involved in its planned use of foreign debt issues.

Since foreign borrowing tends to be more expensive than domestic borrowing, the costs and benefits are always considered and discussed prior to a foreign debt issue. The OFA agrees with the recommendation to document the rationale for foreign issuance and has started to document and retain this information based on conversations with staff from the Office of the Auditor General during the value-for-money audit.

4.8 OFA Has Not Established Optimal Amount of Costly Liquid Reserve to Hold

The province’s liquid reserve, which essentially consists of cash and short-term investments, is needed to meet spending and debt payment obligations in the short term. The OFA has not performed a cost/benefit analysis to determine the optimal amount of liquid reserve to carry at any point in time. Nor does it have a policy on how much cash and short-term investments to maintain in its liquid reserve above the minimum cash requirements needed to meet the province’s daily operating costs. As of March 31, 2019, the liquid reserve was $36 billion.

Liquid reserves are costly in that the interest rates they earn are less than the interest costs of the province’s borrowings. In Ontario, the liquid reserve earned interest at an average annual rate of 1.67% during the 2018/19 fiscal year, while the province’s average annual borrowing rate was 2.42% for new debt issued during the year. In other words, every billion dollars that the province held in liquid reserve in 2018/19 cost it $7.5 million in that year. This is because in order to maintain a liquid reserve, the province has to increase its quantity of debt issued above its requirements for operating and capital costs. On the other hand, having a sufficient liquid reserve on hand protects the province from the risk of cash shortfalls when having to meet immediate and unanticipated needs. So the cost of holding liquid assets should be minimized within an acceptable level of risk.

In its annual Financing and Debt Management Plan, the OFA considers various scenarios of cash requirements to forecast liquid reserve needs to ensure enough is maintained to meet its spending and debt payment obligations. Considerations in addition to maintaining the minimum liquid reserve level of one month’s cash needs include significant debt maturities in the short and medium term, the pace of the annual borrowing program, the timing of cash flows to the province and collateral requirements.

The OFA has never performed a cost/benefit analysis to determine the optimal level of liquid reserve to hold in light of these factors, nor has it established a ceiling for these reserves. Rather, the OFA calculates the cost of the prior year's liquid reserve and provides a forecast of planned year-end levels of liquid reserve.

The OFA maintained, on average, $32.6 billion in its liquid reserve during the 2018/19 fiscal year. The province's cash requirements during that period were on average $9.6 billion each month. This meant the province was holding the equivalent in liquid reserve of about 3.4 months' worth of cash requirements. Over the last five years, the province has held on average 2.8 months' worth of liquid reserve.

The federal government has previously maintained about one month's worth of cash requirements as liquid reserve but now typically exceeds this amount, recently earning more in interest on its liquid reserve than its cost to borrow. Alberta has a target of holding cash requirements equal to the most costly three months of the year.

The liquidity coverage guideline proposed in the Third Basel Accord, commonly referred to as Basel III, a voluntary set of global banking regulations developed to promote stability in the international financial system, is a minimum of one month's worth of cash requirements. In its Financing and Debt Management Plan, the OFA identifies that it monitors one month's worth of cash needs, consistent with the Basel III recommendation. This serves as the minimum threshold for liquidity, and if the liquid reserve is reduced beyond this point the OFA is to develop a strategy to increase liquid reserve to this minimum level. The province's liquid reserve has always exceeded the one-month minimum, dropping as low as 1.6 months' worth of cash requirements in January 2017.

An entity's liquidity levels are an important consideration for both credit rating agencies and investors. This is because a liquid reserve reduces the risk of the entity being unable to make payments on its debt obligations. The amount of liquid reserve held has an influence on how much debt investors are willing to buy and the interest rates they require. One credit rating agency informed the OFA that a reduction in the province's liquid reserve to one-month's cash requirements would have a "downward pressure" on its credit rating. The OFA did not obtain a confirmation of whether this would result in a reduction in its credit score. The OFA indicated that "downward pressure" in one area may not reduce the province's credit score.

The OFA does not assess the cost impacts associated with varying levels of its liquid reserve. Therefore, these costs are not considered when determining the optimal level of liquid reserves based on the province's need to access the liquid reserve for its immediate cash requirements in the event of an economic shock.

We calculated the cost of the OFA maintaining the liquid reserve above its one-month minimum and determined that holding the level of liquid reserve cost the province about $172 million in additional interest costs in 2018/19. Applying this same logic to the last five years (that is, between 2014/15 and 2018/19) indicated that additional interest costs of $761 million were incurred to hold a liquid reserve above the OFA's one-month minimum. A standard of one month's cash requirements may not be adequate for Ontario when considering its risk tolerance and the potential impact on its credit score. These factors need to be considered in determining the optimal level of liquid reserve.

When the OFA calculates the cost of holding a liquid reserve it uses the cost of floating rate debt, instead of the average cost of all debt issued throughout the year. Floating rate debt has a lower interest cost. However, the liquid reserve does not only hold funds obtained through issuing floating rate debt. Whether the funds are obtained through floating rate debt or fixed rate debt they are held in the liquid reserve until they are used to meet the province's cash requirements. Using the OFA's metric to calculate the cost of holding a liquid reserve above the one-month minimum would result in a $55-million cost for 2018/19, and $250 million over the last five years. Whether its metric is used or our Office's metric, there exists a potential cost savings ranging from $55 million to $172 million, for 2018/19.

The OFA informed us that it has never had to use its liquid reserve to meet spending and debt obligations as a result of an economic shock. This is because it has always had access to capital markets for its short-term borrowing, even during the financial crisis in 2008. Given this, it is reasonable to assume that the OFA could maintain a liquid reserve lower than the current level of 3.4 months while not going below its one-month minimum. Carrying an amount in excess of the OFA's one-month minimum results in additional costs to the province.

RECOMMENDATION 7

To reduce the costs of holding more liquid reserve than needed while still staying within a reasonable risk tolerance level, and enable the savings to go to paying debt and interest costs, we recommend that the Ontario Financing Authority:

- analyze the province's cash-flow requirements and establish an optimal liquid reserve target, considering the costs and benefits (such as the risk of being unable to meet immediate cash needs and the risk of impacting the province's credit rating) of holding different levels of its liquid reserve; and
- regularly monitor and report on the amount of the reserve and the costs and benefits of effectively managing it.

OFA RESPONSE

The OFA agrees with the importance of reducing the cost of holding liquid reserves. The OFA will enhance the assessment and reporting of liquid reserves consistent with the recommendations, and will look for opportunities to reduce the cost of holding liquid reserves.

Liquid reserves are an integral component of Ontario's overall liquidity management. Liquid reserves are used to meet daily operating requirements that include debt maturities, as well as providing support and flexibility for Ontario's annual borrowing programs and credit rating. Liquid reserve levels are monitored and reported daily.

On average, the province held $32.6 billion in liquid reserves in 2018/19, which represented about 3.4 months of cash requirements. The OFA views holding liquid reserves equivalent to one month of cash requirements as being much too low given the size, timing, and variability of the province's cash requirements and credit rating considerations, and may limit the OFA's ability to take advantage of favourable borrowing opportunities. The OFA accepts this recommendation and will focus on assessing the cost/benefit of liquid reserves while maintaining prudence in overall liquidity management.

4.9 OFA Meeting Requirements on Investments for Other Entities

The OFA effectively manages the investment activities for seven of its "clients" (public bodies) and for the Used Fuel Segregated Fund and the Decommissioning Segregated Fund (nuclear funds) established under the Ontario Nuclear Funds Agreement (ONFA) by consistently meeting its clients' investment objectives and by facilitating returns that exceed performance benchmarks.

The OFA managed discretionary investments totalling $1.3 billion as of March 31, 2019. Over the past five years, in the management of its clients' discretionary investments, the OFA has exceeded its performance benchmarks. For example, the Pension Benefits Guarantee Fund valued at $832 million as of March 31, 2019, earned an average return of 1.19%, exceeding the market benchmark of 0.96% over the last five years.

Together with Ontario Power Generation, the OFA is responsible for managing the assets of the nuclear funds, totalling $22.4 billion as of March 31, 2019. The primary objective is to have sufficient funds to meet the payment obligations associated with nuclear plant decommissioning and disposal costs associated with used nuclear fuel. The ONFA requires a diversified investment portfolio, which was selected to help attain returns to meet the decommissioning costs while also reducing risk to safeguard the assets to ensure they will be available when needed for decommissioning. The OFA and the OPG together engage external private-sector investment management companies to invest the funds in accordance with the ONFA objectives. As of March 31, 2019, the nuclear funds have earned a 7.29% rate of return since their inception on July 24, 2003, exceeding the market benchmark of 6.78%.

4.10 OFA Plans to Spend $54 Million More a Year for Financial Statement Debt to Better Match the Net Debt Projected in Budgets

Changes in accounting standards that are expected to take effect in 2021 may result in the OFA choosing to incur higher-than-necessary costs for its foreign currency transactions. The OFA would incur these costs in order to make the province's interest on debt and the net debt numbers shown in the province's consolidated financial statements align more closely to the interest on debt and net debt numbers projected in the provincial budgets. The OFA interprets provincial directives requiring the Ministry of Finance to operate within its budgeted allocation as requiring the OFA to match the interest on debt numbers in the province's financial statements to the numbers projected in the provincial budgets. It estimates to do so it will cost taxpayers an extra $54 million a year in higher interest costs after the new accounting standard is in effect.

Currently, the OFA uses two types of financial contracts to manage the risks of fluctuations in the exchange rate between foreign currencies and the Canadian dollar. One type—currency swaps—commonly costs more than the other type: forward contracts. Applying current accounting standards, regardless of which financial contract is used, the debt reported in the financial statements is treated as protected, or "hedged," from exchange rate fluctuations. Using either type of financial contract provides the same impact on the interest on debt, compared to the budgeted interest on debt.

Under the changes in accounting standards expected in 2021, the debt reported in financial statements will no longer be treated as protected from exchange-rate fluctuations when the OFA uses the cheaper forward contract to manage risk. While the economic substance of the debt is not affected by exchange-rate fluctuations, such fluctuations would cause the interest on debt and the net debt on the financial statements to vary from the interest on debt and the net debt projected in the budget. **Appendix 8** shows the financial statement impact of the proposed change in accounting standards.

The OFA told us that when the new accounting standards are in place, it may decide to use only the more expensive currency swap in its foreign currency transactions to ensure that its financial statement debt is protected from fluctuations and so that the interest it reports on debt will vary minimally from the interest on debt and net debt projected in the government's budget.

The OFA estimates that, if only currency swaps are used when the new accounting standards take effect, it will pay $54 million in additional interest costs every year. This money will be spent so that the province can reduce the volatility of reported results relative to budget, and to avoid needing to explain that volatility (i.e., having to explain to users of its financial statements the fluctuations in the net debt and interest expense numbers and why they appear not to align with the corresponding projected budget numbers). Incurring costs for the purpose of achieving a favourable accounting outcome on paper is not consistent with the OFA's mandate of managing financial risk as cost effectively as possible.

Prior to 2008/09, the OFA would use interest rate swap agreements in conjunction with issuing short-term debt to, in effect, create long-term fixed-rate debt. The value of these agreements entered into totalled $7 billion between 1998/99 and 2008/09, and the OFA calculated that this saved the province $194.3 million in reduced interest costs. The OFA said that it had discontinued this practice in anticipation of the adoption of the new accounting standard (given that, once the new accounting standard comes into effect, continuing the practice may result in reported outcomes appearing to deviate from budget because of interest rate fluctuations).

RECOMMENDATION 8

To better maximize value for money in the business practices of the Ontario Financing Authority (OFA), and to follow the new accounting standard should it be effective as currently proposed in 2021, we recommend that the OFA:

- incorporate the impact of the potential volatility arising from implementing the change in accounting standards in its debt planning; and
- use the most cost-effective methods to manage the risk of fluctuations in exchange and interest rates.

OFA RESPONSE

The OFA accepts the recommendation to use the most cost-effective methods to manage the risk of fluctuations in foreign exchange and interest rates. Ontario and most other senior governments in Canada are working with the Public Sector Accounting Board (PSAB) to ensure their collective concerns on the introduction of fair-value accounting and its inherent volatility are reflected in the new standard on financial instruments.

The OFA will take steps to prepare for the implementation of the new standard and will consult with the Office of the Auditor General on best practices, including minimizing volatility for the province, strong internal controls and audit evidence required to operationalize them. As part of the implementation, the OFA will also review its borrowing strategy in light of the impact of this new standard.

4.11 No Operational Reviews of OFA's Organizational Structure and Staffing Levels

The OFA has an operating structure that is unique in Canada, being the only provincial debt management agency, and has more than twice the number of debt managers of the other provinces and the federal government. Twenty-three of the OFA's staff receive performance pay, which is not done in other provinces or the federal government, and are being paid significantly more than their comparable counterparts. The Ministry of Finance has never formally compared this operating structure to that of other provincial or federal debt managers.

The OFA has never reviewed its operations to determine whether the current structure and staffing level and mix are optimal to achieve its mandate in a cost-effective manner. **Figure 17** breaks down debt management staffing levels by jurisdiction in contrast with total debt managed. The OFA informed us its view is that it is not possible to compare its operations to debt managers in other jurisdictions because the debt-management operations and mandate of each jurisdiction vary.

Neither the Minister of Finance nor the Treasury Board has ever performed an operational review of the OFA relating to staffing levels and organizational structure.

We were told in May 2019 that 10 staff will be leaving the OFA through the Voluntary Exit Program before the end of 2019 and that these vacancies will not be filled. This will reduce the OFA's staff by 6%. The Human Resources and Govern-

Figure 17: Debt Management Staffing and Debt Management by Canadian Jurisdiction[1]

Source of data: Survey responses and consolidated financial statements from other jurisdictions

Jurisdiction	Debt Issued in 2017/18 ($ billion)	Debt Outstanding as of March 31, 2018 ($ billion)	Staff Involved in Debt Management
Federal	258.0	721.2	30
BC	2.1	65.4	25
AB	17.3	63.5	14
MB	6.4	47.0[3]	13
ON	**33.3**	**337.4**	**62**[2]
QC	17.9	201.9	18
NB	1.8	17.2	13
NL	1.2	11.7	6
PE	0.0	2.1	2

1. Data not available for Nova Scotia and Saskatchewan.
2. Ontario has 172 staff. OFA indicated that 62 of them are involved in debt management.
3. Includes $19.1 billion of debt managed on behalf of the Manitoba Hydro Electric Board.

ance Committee of the OFA's board says it has no resource concerns regarding these departures and that the OFA will continue to be able to effectively achieve its mandate.

Unlike other jurisdictions in Canada, where debt management is done by a branch of the ministry or department of finance, the OFA is set up as a separate agency. This agency structure has led to a unique compensation structure in that Ontario is the only province to provide staff involved in debt management with performance pay. We found that the compensation ranges for the 23 staff involved in debt management receiving performance pay were higher than that of other jurisdictions. The average pay for staff receiving performance pay was $223,736 as of March 31, 2019; the compensation range for staff receiving performance pay (including the performance pay) was from $118,407 to $647,347. **Figure 18** shows the compensation ranges in other jurisdictions.

Unique to the OFA, one of these debt management staff receiving performance pay is the Chief Financial and Risk Officer (CFRO). This position combines the senior management responsibilities for finance and risk into one role. This makes the CFRO responsible both for the OFA's financial and operating activities and for assessing the risk of these activities. In essence, the CFRO is in the position of assessing their own work, which is contrary to best practice. Specifically, there is the risk that the CFRO will not properly identify, for example, that operational issues may be negatively affecting financial performance because they are biased in assessing their work in managing and overseeing operations.

Figure 18: Debt Management Compensation by Canadian Jurisdiction

Source of data: Public-sector compensation disclosure from government websites in other jurisdictions and survey responses from other jurisdictions.

	High End of Compensation Range ($)	Low End of Compensation Range ($)
AB	198,000	62,000
BC	223,000	60,000
MB	138,000	60,000
ON	**647,000**	**118,000**
NB	124,000	60,000
NL	137,000	60,000

RECOMMENDATION 9

To enable operational efficiencies at the Ontario Financing Authority (OFA) that will improve value for money, we recommend that the Ministry of Finance, in conjunction with the OFA, evaluate and determine the optimal organizational structure and staffing size to cost-effectively achieve the province's debt management objectives.

MINISTRY RESPONSE

The Ministry agrees to undertake a formalized review of the OFA's organization structure and staffing, to be conducted in consultation with the OFA and its Board of Directors.

4.12 OFA Lacks Measures to Adequately Report on Performance

Of the OFA's 33 performance measures, 25 were not objective measures of performance. Instead, these 25 measures related to reporting or operating requirements that the OFA has the responsibility to perform. All that is measured is whether the OFA has or has not completed the requirement, rather than measuring how effectively the OFA is performing in these areas. For all of them, the OFA indicated that it was in compliance. For example:

- Reporting requirements:
  - "Stress testing is performed and reported on a monthly basis."
  - "Interest on debt forecasts to be provided monthly."
- Operating requirements:
  - "Provide an advisory role at Infrastructure Ontario's CRC meetings."
  - "Following the release of the Budget, senior OFA and Ministry of Finance staff will meet with the rating agencies."

Of the remaining eight measures, half lack evaluation criteria that can be applied to the measurement, or are not supported. For example:

- "Ensure that the [Ontario Savings Bond] program is cost-effective" (there is no criterion for evaluating cost-effectiveness). After always being reported to its board as meeting the cost-effective measure, the OFA said this program was discontinued in 2018/19 because it was not cost-effective.
- "Generate actual returns within ±2 basis points [0.02 percent] of the benchmark portfolio" (the OFA was not aware of how this target was selected and could not provide support for it, so we could not determine if achieving this target indicated good performance).

The Memorandum of Understanding (MOU) between the Minister of Finance and Chair of the OFA board requires that an Annual Business Plan (Plan), approved by the board, be provided to the Minister for approval. Under the MOU, the Chair of the board is responsible for ensuring that the Plan contains performance measures that include:

- goals;
- the method of achieving these goals;
- the targeted results; and
- associated time frames.

In our review of the performance measures in the Plan, we found that these elements were generally absent. Specifically, measures rarely contained assessable goals or clear timelines, and, where methods of achieving the goals were communicated, the methods were contained in other documents that were not directly referenced.

The OFA's publicly accessible business plan indicates that the OFA has performance measures that it uses internally and reports to its board. The OFA does not publicly report on many of its measures and where it does report, in most cases it does not disclose its performance against its targets, limiting Ontarians' ability to understand or gauge the OFA's performance.

RECOMMENDATION 10

To effectively measure and report on all significant activities within its mandate, we recommend that the Ontario Financing Authority:

- identify objective outcome measures of performance for all its activities;
- set reasonable targets and regularly reassess the relevance and effectiveness of these targets, updating them as needed; and
- publicly report on its targets and the results achieved.

OFA RESPONSE

The OFA agrees with this recommendation and will review its performance measures with a view to increasing objectivity. As part of this review, the OFA plans to revisit which performance measures, targets and outcomes are publicly reported, with a focus on reporting key measures.

Performance measures are set out in the OFA's Annual Business plan, which is approved by the OFA Board and affirmed by the Minister of Finance. Related performance targets are evaluated and reported to the OFA Board on a quarterly basis. Overall results for some measures are published in the OFA's Annual Report.

Appendix 1: Process Descriptions

Prepared by the Office of the Auditor General of Ontario and the Ontario Financing Authority

Borrowing and Debt Management

The OFA annually creates a Financing and Debt Management Plan (Plan) that outlines the type, amount and methods of issuing debt. The first step in determining the borrowing requirements of the province is to analyze the budget and see what the funding shortfall is. The OFA bases the borrowing requirements on the projected surplus or deficit (adjusting for non-cash items such as amortization of capital assets), the province's planned investments in capital assets, and the amount of provincial debt that is maturing. The OFA then develops a plan to meet the province's borrowing needs by creating ranges for the average term of debt and the amounts of domestic and foreign debt to be issued.

The OFA issues its debt primarily through syndicates that purchase bonds for resale to investors, guaranteeing the sale of all bonds issued at an identified interest rate. The OFA pays a commission fee for this service. Prior to issuing debt, the OFA calls the lead banks in the syndicate to inform them of the interest rate and quantity of bonds to be issued. These are determined from daily discussions with the banks, which provide the OFA with information on the demand for the province's debt among their investor base.

Risk Management

Debt management involves the mitigation of risks. The OFA works toward reducing risks to an acceptable level for the province. As outlined in the Financing and Debt Management Plan, when considering debt issuance, the OFA identifies ranges of acceptable levels of risk for fluctuations in foreign exchange, credit exposure and interest rates. The OFA Board approves these ranges.

To mitigate the risks, the OFA uses hedging—it purchases financial instruments that change in value based on interest-rate and foreign-exchange benchmarks. These financial instruments are referred to as derivatives. The main derivatives used by the OFA are swaps, forwards and futures. See **Appendix 8** for a definition of these instruments.

The OFA then regularly assesses its level of exposure to risks, in accordance to the thresholds outlined in the Financing and Debt Management Plan, and reports the results to the OFA Board and a committee of the OFA.

Liquidity/Cash Management

The objective of cash management is to ensure that the province has sufficient cash available to meet its financial obligations. Under the Financing and Debt Management Plan, the OFA has set a minimum threshold of having enough cash available to meet one month's financial requirements. To manage cash flows, the OFA tracks the amount of cash held in banks each morning and updates projected cash outflows and inflows. The Capital Markets Division receives this information daily and issues short-term Ontario Treasury Bills and US Commercial Paper as needed to meet the liquidity requirements. Liquidity is managed through issuing short-term debt if the amount of cash and short-term investments held is below the amount the OFA determines is required to meet the province's financial obligations.

Investments

The OFA provides investment services to seven public bodies (clients), see **Section 2.1.5**, and the province's Nuclear Funds Agreement (ONFA). An investment management agreement is established between the client and the OFA to outline the roles and responsibilities of the OFA.

Discretionary clients are those that have contracted with the OFA to make investment decisions on their behalf. The OFA makes investments for these clients in low-risk short-term investments such as government-issued treasury bills and commercial paper, as well as banker's acceptances that have a fixed rate of return to maturity and government bonds of different maturity dates.

Each discretionary client develops risk and return parameters in conjunction with the OFA, which include investment objectives and applicable performance benchmarks. The OFA monitors the performance of the investments and its compliance with these parameters, and reports this back to the client and the OFA board quarterly.

Non-discretionary clients make their own investment decisions based primarily on their cash flow needs. The OFA offers non-discretionary clients the opportunity to invest in Ontario treasury bills and bonds, and executes these investment transactions as directed by the client.

The OFA jointly manages the ONFA funds with Ontario Power Generation Inc. (OPG). The main objective of the ONFA is to ensure sufficient funds are available to pay for future costs of decommissioning nuclear stations and disposing of nuclear waste and used fuel. These funds have a requirement for meeting a long-term real return target. In order to meet the target, the funds are invested in a mix of equity, fixed income and real assets. Investment decisions are made jointly with staff from the OFA and OPG. The OFA, with the OPG, measures the performance of investment activities, and reports back to a joint OFA and OPG committee and the OFA board.

Appendix 2: Risk Measures

Source of data: Ontario Financing Authority

	2014/15		2015/16		2016/17		2017/18		2018/19	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
GFRE[1] (%)	9.7–13.7	12.2	9.7–13.7	13.6	10.4–14.4	13.4	11.4–15.4	13.8	11.4–15.4	12.9
FEE[2] (%)	<2.5	0.3	<2.5	0.3	<2.5	0.2	<1.25	0.2	<5	0.2
NIRRE[3] (%)	<35	11	<35	10.9	<35	11.1	<35	11	<35	10.8
Term[4] (years)	7.0–14.0	13.8	6.4–15.1	17.5[5]	6.9–13	13.9[5]	6.9–13	12.9	7.9–13	12.7

1. **Gross Floating Rate Exposure (GFRE):** The portion of provincial debt that is subject to fluctuations in market changes in interest rates.
2. **Foreign Exchange Exposure (FEE):** The net exposure of provincial debt to changes in foreign exchange rates. The FEE relates to the risk that the foreign currency debt principal and interest payments and foreign currency transactions will vary in Canadian dollar terms because of fluctuations in foreign exchange rates.
3. **Net Interest Rate Resetting Exposure (NIRRE):** The amount of debt issued by the province that is subject to changes in interest rates over the next 12 months. The NIRRE includes floating rate debt and fixed rate debt maturing within the next 12 months minus the liquid reserve investments on hand.
4. **Average Term of New Borrowing (Term):** The weighted average term of debt issued by the province in the year.
5. When actual amounts exceeded the approved range, the Ontario Finance Authority went back to the board for approval to exceed the range.

Appendix 3: Ontario Financing Authority (OFA)

Source of data: OFA

As of March 31, 2019, the OFA employed 172 full-time-equivalent (FTE) staff who worked in seven divisions. Here is a description of the activities carried on by the divisions, as well as an indication of the number of FTEs in each division.

Capital Markets Division (33 FTE)

- developing and executing the province's borrowing and debt management programs;
- investing funds for the province and specific government entities;
- providing investment, borrowing, and debt services to the Ontario public sector;
- conducting investor relations activities;
- maintaining debt management-related documentation; and
- running the Ontario Savings Bond program.

Corporate and Electricity Finance Division (33 FTE)

- providing financial advice to the Minister of Finance, ministries, Crown agencies, and other public bodies on policies and projects; and
- providing financial advice on electricity reforms and supply initiatives, as well as on the financial performance of Ontario Power Generation, Hydro One, the Ontario Electricity Financial Corporation, and the Ontario Nuclear Funds Agreement.

Finance and Treasury Division (45 FTE)

- settling, accounting and reporting on the province's and the Ontario Electricity Financial Corporation's debt, interest on debt, and investments; and
- providing centralized cash management and banking services to the province.

Legal Branch (6 FTE)

- providing legal advice; and
- acting as Corporate Secretary to the board of directors.

Risk Control Division (17 FTE)

- setting risk management policies, maintaining information related to risk exposures, market values and performance measurements of capital market transactions and portfolio;
- monitoring and forecasting public debt interest;
- maintaining Ontario's relationship with credit rating agencies; and
- reporting to the board on changes to bank credit limits, exceptions to policies, and breaches of credit exposure limits.

Strategic Corporate Services Division (32 FTE)

- responsible for IT infrastructure and network management, electronic business solutions and physical security management; and
- Human Resources functions and general office administration.

Chief Executive Officer's Office (6 FTE)

- day-to-day operations and ongoing activities management of the OFA in accordance with government policies.

Appendix 4: Audit Criteria

Prepared by the Office of the Auditor General of Ontario

1. Effective governance structures are in place for the cost-effective and accountable operation of the OFA as required by legislation, policies and targets.
2. A risk-based strategy is in place to address and manage the province's short- and long-term borrowing needs.
3. Cost-effective financing and borrowing processes are applied to minimize interest on debt and effectively manage financial risks.
4. Processes are in place to cost-effectively optimize returns on investments.
5. The current staffing mix and compensation plan effectively and economically support the OFA's achievement of its mandate.
6. Performance measures and targets are established, monitored and compared against actual results and reported to promote achievement of intended outcomes, and corrective actions are taken on a timely basis when issues are identified.

Chapter 3 • VFM Section 3.10

Appendix 5: List of Extraordinary Circumstances Resulting in a Budget Deficit

Source of data: Various Ontario government budgets and public accounts

Fiscal Year	Budget ($) Surplus/ (Deficit)	Actual ($) Surplus/ (Deficit)[1]	Government's Explanation of Extraordinary Circumstance for the Budget Deficits
2004/05	(2.2 billion)	(1.6 billion)	"But prior to the government assuming office, there were several years during which Provincial program spending grew much faster than the rate of growth in taxation revenue."
2005/06	(2.8 billion)	298 million	"The deficit was the result of a prolonged period where annual growth in Provincial spending exceeded annual growth in Provincial revenue."
2006/07	310 million	2.3 billion	Not applicable
2007/08	400 million	600 million	Not applicable
2008/09	(3.9 billion)	(6.4 billion)	"The government will continue its prudent approach to managing Ontario's finances during the current global economic downturn. To protect key public services and make the short- and long-term investments required, Ontario, like many governments across Canada and around the world, will experience a deficit. This is due to a significant deterioration in revenues and short-term measures to stimulate the economy, not to significant increases in core program spending."
2009/10	(21.3 billion)	(14.1 billion)	"In response to the economic crisis, the government took action by making short-term investments to create jobs and lessen the impact of the recession on families and businesses."
2010/11	(16.7 billion)	(14.0 billion)	"The government chose to help lessen the impact of the recession on Ontarians, through short-term stimulus investments that created and preserved jobs and helped restore growth."
2011/12	(16.3 billion)	(13.0 billion)	"When the global recession hit, the government chose to lessen the impact on Ontarians, through stimulus investments, boosting job training for laid-off workers and lowering income taxes for nine out of 10 Ontario taxpayers."
2012/13	(15.2 billion)	(9.2 billion)	Part of five-year plan to achieve balance in response to the 2008 recession to balance budget by 2017/18
2013/14	(11.3 billion)	(10.5 billion)	Part of five-year plan to achieve balance in response to the 2008 recession to balance budget by 2017/18
2014/15	(10.9 billion)	(10.3 billion)	Part of five-year plan to achieve balance in response to the 2008 recession to balance budget by 2017/18
2015/16	(5.7 billion)	(5.0 billion)	Part of five-year plan to achieve balance in response to the 2008 recession to balance budget by 2017/18
2016/17	(4.3 billion)	(1.0 billion)	Part of five-year plan to achieve balance in response to the 2008 recession to balance budget by 2017/18
2017/18	600 million	(3.7 billion)	Not applicable as surplus budgeted
2018/19	(6.7 billion) Revised (11.7 billion)	(7.4 billion)	"The government believes that the best way to deliver prosperity to more people in Ontario is by continuing to invest in the economy, and in public services that promote greater fairness and opportunity across the province."
2019/20	(10.3 billion)	n/a (10.3 billion)[2]	"The findings of the Independent Financial Commission of Inquiry (Commission) revealed that the government inherited a $15 billion dollar deficit in 2018–19 from the previous government. This was largely because of unsustainable levels of spending that resulted in structural deficits, combined with a heavy reliance on one-time revenues in recent years, which further amplified the fiscal challenge."

1. Actual surplus or deficit taken from Public Accounts from the fiscal year; only 2017/18 and 2018/19 show adjustments for Fair Hydro Plan and Pensions.
2. Forecast by province in budget.

Appendix 6: Comparison of the *Fiscal Sustainability, Transparency and Accountability Act* and Balanced Budget Legislation in British Columbia, Manitoba and Quebec

Prepared by the Office of the Auditor General of Ontario

	Ontario	British Columbia	Manitoba	Quebec
Name of Act	*Fiscal Sustainability, Transparency and Accountability Act, 2019*	*Balanced Budget and Ministerial Accountability Act, 2001*	*The Fiscal Responsibility and Taxpayer Protection Act, 2017*	*Balanced Budget Act, 2001*
Provision Regarding Deficits	For each fiscal year, the Executive Council shall plan for a balanced budget	The main estimates for a fiscal year must not contain a forecast of a deficit for that fiscal year	The government should not incur a deficit greater than a baseline amount. After the deficit is eliminated, the government is not to incur a deficit.	The government may not incur a budgetary deficit
Ability to Run Deficits	Can run a deficit if there are extraordinary circumstances	None	The following amounts are not included in calculation of deficit: • Manitoba Hydro's net income or loss • Amounts transferred to the fiscal stabilization account for that fiscal year • Expenditures required for war or unexpected disaster • Reductions in revenue from the decision of another level of government or regulatory body • One-time expenditures or revenue reductions of more than $25 million that relate to an accounting change or a change in the government reporting entity	The government may incur an overrun if it is the result of: • A disaster that has a major impact on revenue or expenditures • Significant deterioration of economic conditions • A change in federal programs of transfer payments to the provinces
Consequence of Deficits	None	Salary holdback of 10% for the Executive Council in the event of a deficit budget plus an additional 10% holdback for Ministers who allow their ministry budget to exceed budget estimates	Salary holdback of 20% for Ministers, increasing to 40% in a second consecutive year	None

Appendix 7: Methodology for Quantifying Additional Cost of Foreign Debt Issuance

Prepared by the Office of the Auditor General of Ontario and the Ontario Financing Authority

When determining the cost of issuing debt in a foreign market we start with the known interest cost on the debt instrument issued. Additional costs associated with entering into a hedge transaction, such as a foreign-exchange or interest-rate swap, are added to the known interest cost. These agreements were not always entered into immediately. We used the OFA estimate of what it would have cost to enter into these on the date the debt was issued.

We then compared this calculated cost of issuing debt in a foreign market to the estimated cost of issuing debt in the domestic market. We determined this estimated cost based on information we got from a bank about the rate the bank believes debt could have been issued at in the domestic market. Note that debt issued in the domestic market is often for lower quantities than the amount of debt issued in a foreign market. So, increased quantities of debt issued on the same day could result in increased interest costs. The OFA was not able to quantify such potential additional costs.

Appendix 8: Current and Proposed Accounting Treatments of Foreign Currency Transactions

Prepared by the Office of the Auditor General of Ontario

Transaction	Description	Current Accounting Treatment	Proposed Accounting Treatment*
Foreign exchange forward contract	A contract in which party (A) buys or sells a foreign currency at an exchange rate that is locked in until a future date. Party (A) gains or loses money depending on the difference between the locked-in exchange rate and the actual exchange rate on the day the contract matures, which is usually three months after the purchase or sale date. For example: • On April 1, 2018, the province agrees to buy $1 billion US from a US bank on July 1, 2018, at an exchange rate of $1.33 Cdn per US dollar (so for $1.33 billion Cdn). • On July 1, 2018, the actual exchange rate is $1.23 Cdn per US dollar, so purchasing $1 billion US on July 1 costs $1.23 billion Cdn. • In this case, the province incurs a loss of $100 million because the locked-in exchange rate of the contract was higher than the actual exchange rate on the date the contract matured.	The gain or loss is recognized immediately. The gain or loss is offset by the change in value of the debt. For example: • The province has US debt due seven years after it purchased the $1 billion US (i.e., on April 1, 2025). • In the fiscal year, Ontario incurred a net loss of $50 million on four consecutive contracts (that is, a loss of $12.5 million per contract). The value of the debt increases by $50 million over the fiscal year. • This would result in a nil effect on the statement of operations in the financial statements.	The gain or loss is recognized immediately while the change in value on the debt is deferred. For example: • If there is a net loss of $50 million on four forward contracts (that is, $12.5 million each), the province must show a loss of $50 million on its 2018/19 financial statements that is due to the fluctuations in the exchange rates between Canadian and US dollars. The change in value of debt is recorded in a separate statement and recorded in the statement of operations when the debt matures. • The effect on the province's financial statements may differ substantially from budget projections because of the fluctuations in exchange rates.
Foreign exchange swap	A contract in which party (A) borrows an amount of one currency from party (B) at an agreed-upon rate and repays it by selling (B) another currency at an agreed-upon rate. The contract with the agreed-upon rates usually lasts until the debts are fully repaid. For example: • On April 1, 2018, Ontario issues $1 billion US in bonds at a rate of $1.33 Cdn per US dollar (so it owes $1.33 billion Cdn). It simultaneously enters into an agreement with a bank for $1.33 billion Cdn at the same exchange rate (so it is owed $1 billion US). • Over the seven-year term of the contract, Ontario pays interest and the principal to the bank in US dollars and the bank pays interest and the principal to Ontario in Cdn dollars.	Same as for foreign exchange forward contracts: each fiscal year's gains or losses (in this case associated with the loans' interest payments) are recognized annually and are matched by the changes in value of the debt, which reduces the impact of the loss in the current year's statement of operations.	No change from current accounting treatment resulting in minimal impact on each year's statement of operations. However, there will be impacts to net debt as the swap contract and debt are fair valued at each year-end date.

* Under a proposed change in Public Sector Accounting Board accounting standards expected to take effect in 2021.

Appendix 9: Glossary of Terms

Prepared by the Office of the Auditor General of Ontario

Auctioned bonds: Bonds whose interest rates are set by a process where investors submit bids, and the lowest interest rate submitted is chosen.

Capital expenditures: Costs associated with purchasing assets whose expected life is longer than one year, such as land, buildings and roads.

Credit risk: The risk of an economic loss due to the failure of the other party in a financial transaction to pay amounts owed to the province.

Fixed rate debt: Bonds whose interest payments are set at the time they are issued and do not change.

Floating rate debt: Bonds whose interest payments vary based on a referenced market rate, such as the London Inter-bank Offered Rate (LIBOR).

Foreign exchange risk: The risk of debt and interest costs increasing due to the change in value of foreign currencies in relation to the Canadian dollar.

Forwards: A financial instrument where two parties agree to buy and sell an asset at a future date for a specified price. This is a private contract between two parties that is settled at the end of the agreement period.

Futures: A financial instrument where two parties agree to buy and sell an asset at a future date for a specified price. In contrast with forwards, this is a contract with standardized terms trading publicly on financial instrument exchanges. The change in the value of the contract is assessed daily, and the two parties exchange cash based on the change in value.

Hedging: An investment to reduce the risk that future changes in the value of one currency (e.g., the Canadian dollar) compared to a foreign currency (e.g., the US dollar) will increase the cost of an asset or liability.

Interest rate risk: The risk of interest costs increasing due to market factors such as the supply and demand for credit.

Liquid assets: Assets that are cash or can be readily converted into cash.

Liquid reserve: Liquid assets held by a bank, company or government to meet expected future payments and/or emergency needs.

Liquidity risk: The risk of being unable to meet the province's debt obligations as they come due.

Net debt: The difference between the government's total liabilities and its financial assets. Liabilities consist of all amounts the government owes to external parties, including total debt, accounts payable, pension and retirement obligations, and transfer-payment obligations. Financial assets are those that theoretically can be used to pay off liabilities or finance future operations, and include cash, accounts receivable, temporary investments and investments in government business enterprises. Net debt provides a measure of the amount of future revenues required to pay for past government transactions and events.

Net debt to GDP: A measure of the government's debt level (net debt) relative to the size of its economy (the gross domestic product, or GDP). Net debt to GDP measures the relationship between a government's obligations and its capacity to raise the funds needed to meet them. It is an indicator of the burden of government debt on the economy.

Non-amortizing debt: Debt where payments on the principal are not made until the debt matures.

Operating expenditures: Costs associated with operating government programs, such as health-care and education services.

Sovereign: The governing body of a nation, country or territory.

Sub-sovereign: The jurisdiction below a sovereign body, such as a province, region or state.

Swaps: Financial instruments where two parties agree to exchange cash flows. One party agrees to provide a steady amount while the other party provides an amount that varies based on movement in the benchmark. For the OFA's purposes, this benchmark could be the difference in the Canadian dollar from another international currency or an interest-rate benchmark such as the London Inter-bank Offered Rate (LIBOR).

Syndicated bonds: Bonds originating when a group of banks is paid to create demand from other investors. The bank group sometimes underwrites the issue of syndicated bonds, meaning that, if all of the bonds are not sold, the banks must buy what is left.

Term of bond: The amount of time between the date a bond is issued and the date the province redeems the bond by paying the principal amount.

Total debt: The total amount of borrowed money the government owes to external parties. Total debt consists of bonds issued in public capital markets, non-public debt, Treasury Bills and US commercial paper. Total debt provides the broadest measure of a government's debt load.