Appendices

Appendix A

Governance Practices and Borrowing Framework

Leading Governance Practices for Sovereign Issuers

Leading practices are developing most evidently in the USA, where the quality and effectiveness of corporate governance, accountability and securities regulation has become prominent due to significant accounting and securities disclosure incidents that have lead to well publicized corporate failures, addressed by unprecedented levels of litigation and legislative and regulatory reform.

The most visible landmark US legislation has been the Sarbanes-Oxley Act of 2002 (SOX), which places a strong emphasis on corporate governance and accountability, and the quality and effectiveness of internal controls over financial reporting, mainly for Securities and Exchange Commission (SEC) registrants. There are strict penalties for violators. Among other things, SOX requires Boards of Directors to have at least five financially literate members, two of whom must be (or have been) public accountants; and the other three must not be (or not have been) public accountants. Boards are explicitly responsible for establishing and enforcing auditing, quality control and independence standards. In particular, the SOX Section 404 internal control over financial reporting requirement was intended to improve the accuracy and reliability of the basic information on which capital markets rely in making investment decisions. Each audited annual report filed with the SEC for public information must include a signed internal control report stating the establishment, maintenance and adequacy of internal control structure and procedures for financial reporting, and an assessment of its effectiveness.

Increased attention has been placed on the mortgage market government agency participants through the January 2005 introduction of a Bill to address the regulation of secondary mortgage market enterprises, otherwise known as the Federal Housing Enterprise Regulatory Reform Act of 2005. Among other things, the Bill proposes to establish the Federal Housing Enterprise Regulatory Agency, which will be an independent agency of the US federal government, to replace the Office of Federal Housing Enterprise Oversight of the Department of Housing and Urban Development (OFHEO – the regulator for Freddie Mac and Fannie Mae) and the Federal Housing Finance Board (FHFB – the regulator of the Federal Home Loan Bank Finance Corporation and the twelve regional Federal Home Loan Banks). The legislation is aimed at improving the federal oversight and supervision of these large secondary mortgage market institutions' safety, soundness and mission.

This Bill has been tabled to address the concern that the existing special purpose regulators (i.e.; OFHEO and FHFB) are too closely associated with the government agencies they regulate to be truly effective. In response to this increased level of scrutiny, OFHEO and FHFB have become more stringent in their examinations. The government agencies, in most cases, are required to become SEC compliant and SOX Section 302 (CEO and CFO certification) compliant by August 31, 2005; and SOX Section 404 (management assessment of internal controls) compliant by December 31, 2006.

Other sovereign borrowers operate under their own countries' federal government governance frameworks, with a gradual trend to having a central debt office carrying out the borrowing and risk management programs for and on behalf of the state and most if not all of its sub-organizations, and reporting to its Finance departments to segregate the operational activities from the regulatory and supervisory or oversight responsibilities.[1]

The implication for the Government of Canada is that the precedents established in the largest, most liquid government bond market - the US government and its agencies - is setting the agenda for the governance and

[1] International Monetary Fund and the World Bank Guidelines for Public Debt Management: Accompanying document. Prepared by the staffs of the International Monetary Fund and the World Bank. November 2002.

accountability of capital markets and their institutions in other countries, including – if not especially – Government of Canada and the Borrowers. This is already apparent with the adoption of the Canadian SOX equivalent, Bill 198 or the Budget Measures Act, which made several reforms to the securities laws in Ontario, followed in February 2005 with the Canadian Securities Administrators' proposal for new rules governing the certification of financial disclosure under Multilateral Instrument 52-111: Reporting on Internal Control over Financial Reporting. Overall, more regulation and control rather than the status quo is likely to be required by Canadian, US and international capital markets participants and investors to maintain and improve the liquidity of the Government of Canada debt markets.

Analyze Current Practices – Review and Approval of Borrowing Plans

Minister of Finance

The main formal means by which the Minister of Finance and Finance Canada oversee the Borrowers' borrowing plans and performance is through the legislatively required annual Borrowing Plan. The Borrowing Plan is a section of the annual Corporate Plan submitted by each parent Crown Corporation subject to the *Financial Administration Act* to Parliament. The Borrowers, except CWB and CHT, are subject to the *Financial Administration Act*.

The CWB submits a borrowing plan for Minister of Finance approval of CWB's annual borrowing terms and conditions as required by its enabling legislation, the *Canadian Wheat Board Act*.

CHT is a special case again as it is covered by CMHC in its Corporate Plan in its role as Guarantor and Financial Services Advisor, but as a housing support program, it is not required by the *FAA* to be included in the Borrowing Plan component of the Corporate Plan.

Regardless of whether the Borrower is an Agent directly or guaranteed by GOC or one of its Agents, a Borrowing Plan is submitted annually and approved by Minister of Finance who, upon review and approval, issues an approval letter to the Minister responsible for the Borrower.

The approval letter is usually a standing approval of the overall amounts, terms and conditions of a Borrower's planned borrowing activity for the upcoming year, usually by borrowing instrument type (e.g.; commercial paper, medium-term notes, bonds). Borrowers are required to provide this standing approval document to its institutional and retail investors most often as a closing condition to securities placement and underwriting agreements with the broker / dealers and underwriters as evidential proof of the Minister of Finance's approval to borrow within the stated amount, terms and conditions of the instrument being issued.

The Minister of Finance and Finance Canada, together with the Treasury Board Secretariat, are active in the review and approval of the annual Corporate Plans and their component Borrowing Plans (or equivalent, in the case of CWB). Finance Canada and Treasury Board also work together to set and enforce policy and guidelines governing Crown corporations' financial operations and reporting, to conduct performance reviews, and to amend of develop regulatory policies and guidelines to address issues.

There is little formal interaction between Finance Canada and Borrowers other than this annual planning and approval process.

Finance Canada is responsible for Canada's debt management and this responsibility is shared with its fiscal agent, The Bank of Canada. Finance Canada and The Bank of Canada are also jointly responsible for reserves management, but as it does not involve the Borrowers, it is outside of the scope of this review. In the context of debt management, senior officials from Finance Canada and The Bank of Canada participate in the Funds Management Committee, formed in 2003 to formalize their joint strategy development, planning and oversight roles in maintaining effective liquid government bond and money markets. There is a corresponding Risk

Management Committee that deals with the more operational debt and market risk issues associated with the federal government's funding and investment activities.[2]

Borrowers

Borrowers' Boards of Directors approve the Corporate Plan and the integral Borrowing Plan, or its equivalent, annually. The Corporate Plan looks forward five years (one year in CWB's case), and once approved by the Board, it is sent to the relevant Minister responsible for the Crown Corporation for ultimate Parliamentary approval. Parliament approves the Corporate Plan and the Minister of Finance approves the Borrowing Plan specifically. The Corporate Plan, or most often, its abridged Summary is made available to the public post-approval. Typically the Borrowing Plans are significantly edited and available only as a Summary for public information purposes because the entire plans are deemed to contain commercially sensitive information, which if made publicly available, may detract from the Borrower's ability to transact in the market on the most favourable terms.

The Borrowers' treasury management report quarterly to a senior management asset / liability committee (ALCO) and in some cases, more frequently to an ALCO subcommittee, per leading practices used in the private financial sector. One of the key roles of the ALCO is to review compliance with market risk policies and performance within the agreed corporate and Finance Canada guidelines, noting deficiencies, if any, and recommending corrective actions, if required.

The Auditor General of Canada (AG) and Treasury Board released separate reports on Crown corporations' corporate governance in February 2005. The reports indicated the existence of prolonged vacancies and other issues at the Board and executive levels of many Crown corporations including some of the Borrowers subject to this review. The reports indicated the need for certain improvements and other actions too numerous to duplicate in this review.

As part of this Review, the résumés of the Borrowers' Boards of Directors were reviewed and it was noted that while all the Borrowers have directors with financial expertise, some Borrowers have directors with stronger treasury and capital markets expertise than others.

The actions for the Borrowers to take, in this regard, are to be considered in the context of the current AG and Treasury Board reviews and recommendations.

Analyze Current Practices – Borrowing Framework

Risk Management and Internal Reporting

Market risk policies and guidelines have been developed by the Borrowers and implemented in the key areas of interest rate risk, foreign exchange risk, counterparty credit risk, liquidity risk and operational risks. The policies and guidelines cover the relevant types of borrowing instruments and derivatives in line with both Finance Canada and commercial financial sector market risk policies.

Borrowers segregate responsibility for treasury operations from accounting, risk management and portfolio valuation, and settlement, which is industry practice for financial institutions which require, for control and effectiveness purposes, a division of responsibility among front office trading, middle office risk management and valuation, and back office accounting, transaction processing and settlement.

The overall exposure to counterparty credit risk is calculated individually and collectively and provided to Finance Canada. The other market risks are determined on an individual Borrower level and reported to their respective ALCO's and Boards of Directors. Borrowers manage to the Finance Canada policies and guidelines

[2] Memorandum of Understanding on Treasury Risk Management between the Bank of Canada and the Department of Finance. April 30, 2004.

and include in the ALCO and Board reports any policy and guideline compliance issues, including the corrective action required, if any.

Finance Canada has access to the ALCO reports but it is not part of the monthly or quarterly ALCO report review except to the extent that there is a Finance Canada representative on the Borrower's Board of Directors who debriefs Finance Canada staff following Board meetings. As a general practice, Finance Canada neither routinely reviews the quarterly ALCO reports nor analyzes each Borrower individually or as a consolidated group.

Borrowers indicated they would be willing to share further market risk performance results and related data with Finance Canada, if requested, and expressed an interest in receiving information back on the aggregated results, to serve as benchmarking data to compare their performance and standing with their peer group.

Accounting policies generally and specifically those to do with treasury operations (e.g.; derivatives), are adopted and carried out according to the accounting standards that apply to private sector corporations. Borrowers are subject to external audit by public accountants and in some cases by the AG. Borrowers are also subject to periodic Special Examinations by the AG, and other types of reviews and examinations by Treasury Board and other governmental committees organized for various purposes, from time to time.

Ministerial Control and Reporting

The principal reporting and control mechanism is the annual Corporate and Borrowing Plan review and approval process, as discussed above. Finance Canada does not perform formal annual regulatory examinations of each of the Borrowers and provide written assessments of internal control adequacy, risk review results and any findings to the senior management and the Board, as would be the case in the USA, for example. Finance Canada has more of a supervisory role than a strictly regulatory role of the Borrowers' treasury and capital market activities and their market risks. Elements of the Borrowers' treasury and capital market activities are reviewed, assessed and regulated by other examiners, such as the external auditors and the AG for treasury related accounting and financial statement reporting, but the extent of the examinations do not go much further than accounting and reporting compliance, and so do not assess, for example, funding and risk management strategies and performance, the adequacy or excess of liquidity portfolios, or the appropriateness of structured borrowings and their longer-term credit, valuation, and reputation risks.

Overall Comments on Governance

The Borrowers receive direction on their mandated lending, insurance and program activities from their respective responsible Ministers; and direction on their treasury, borrowing, investment and market risk activities from both their respective Ministers responsible and the Minister of Finance. They seem to manage the two environments adeptly.

Accountability to Minister of Finance has, over time, remained strong and unambiguous, but at the same time, the Borrowers have matured into more independent entities operating in global financial markets within approved Finance Canada policies and guidelines, with little more than a high-level annual review and approval process.

Minister of Finance has the ultimate supervisory authority to determine the Borrowers' borrowing activities, and by extension, is able to set minimum risk management protocols and risk management activities, but is not a hands-on regulator. This responsibility rests largely with the Borrowers' management in the context of the regulatory compliance requirements set out by the Minister of Finance.

Overall, the Borrowers appear to operate within the stated borrowing, investment and risk management policy objectives with the formal annual and occasional ad hoc oversight.

Appendix A

Borrowers state that there is sufficient, effective and appropriate Ministerial direction and oversight of their treasury investment, borrowing and market risk operations and no material instances of negative developments or incidents have occurred which have affected the Canada Credit and its quality or perception of quality in capital markets.

Appendix B

Appendix B

Financial Risk Management Practices

	Foreign Currency Risk Management	Interest Rate Risk Management	Liquidity Risk Management	Counterparty Credit Risk Management	Permitted Derivatives Instruments and Strategies	Responsibility & Procedures for Derivative Management	Other Risk Management
Borrower A - Risk Management Guidelines	No foreign exchange exposure. Foreign currency investments will be fully hedged into CAD at the time of investment unless the proceeds of the foreign investment are supported by like foreign currency borrowing.	Measure potential impact on Net Interest Income under different interest rate scenarios; develop effective interest rate risk management reports and monitoring procedures to facilitate the control of interest rate risk; establish and implement prudent action plans for funding and hedging operations within the constraints of Treasury policy. Stress tests.	Borrower A maintains liquidity through: liquid investment portfolio (minimum credit ratings for ST & LT securities); access to CP markets; bank lines and standby credit facility.	Compliance with Minister of Finance guidelines. Dollars-at-Risk individual counterparty limit.	Borrower A uses derivatives to reduce financial exposure (foreign currency risk hedged back into CAD and Canadian interest rates), to manage asset/liability positions, to synthetically create or hedge borrowings. List of authorized derivatives includes: Forward Rate Agreements, interest rate futures, interest rate options and interest rate swaps, options on interest rates swaps, bonds forwards, foreign currency swaps, forwards and options, index linked swaps, stock index futures, index options.	Approval from ALCO and the Board, authorization by the treasurer and Front Officer Manager. Control of trade execution.	N/A

Financial Risk Management Practices

	Foreign Currency Risk Management	Interest Rate Risk Management	Liquidity Risk Management	Counterparty Credit Risk Management	Permitted Derivatives Instruments and Strategies	Responsibility & Procedures for Derivative Management	Other Risk Management
Borrower B - Financial Risk Management Policies	Concurrent hedging of any non-USD or CAD currency risk arising from funding operations. Hedging currency risk linked to Asset Liability mismatches. Independent benchmarks are used to measure performance on foreign exchange risk management activities. Borrower B receives an annual borrowing authority from the Minister of Finance, which requires all monies borrowed by Borrower B to be in USD or CAD or to be swapped to floating USD or CAD.	ALM Tolerance limit. The requirement for floating rate debt reduces Borrower B's interest rate risk. Concurrent hedging of interest rate risk arising from funding operations. Long term funding transactions are swapped from a fixed rate of interest to a floating rate (typically 6 months).	Managed through the use of exchange-traded futures and options. No hedging strategy will be undertaken that, by nature of its design, is illiquid.	Compliance with Minister of Finance guidelines. Borrower B only deals with highly-rated counterparties (that meet or exceed the Minister of Finance credit guidelines) and who have signed an ISDA Master Agreement prior to entering into transactions. Maintain an appropriate number of approved counterparties for investment and Over the Counter derivatives to manage credit risk. Maintain appropriate credit administration, measurement, monitoring and reporting of credit risk on a regular basis.	See column "Counterparty credit risk management".	Detailed approval from Minister of Finance to issue debt, the terms, derivative activities, and delegation rights of authority.	Borrower B is a floating rate borrower financing floating rate assets and has natural CAD and USD funding requirements. Current funding programs include: Employee Savings Plan; Credit & Operating Line arrangements with financial institutions; note program; US CP program; Euro CP program; Euro MTN program; Domestic MTN program. Investments are managed to meet the following objectives: safety of principal, counterparty credit exposure, risk/return nature of the investment, liquidity of the investment.

Financial Risk Management Practices

	Foreign Currency Risk Management	Interest Rate Risk Management	Liquidity Risk Management	Counterparty Credit Risk Management	Permitted Derivatives Instruments and Strategies	Responsibility & Procedures for Derivative Management	Other Risk Management
Borrower C - Treasury Risk Policy	Minimize adverse impact to Gross Interest Income and Economic Value, prudent allocation of Equity. Perform stress test of 200 basis points for impact on Gross Interest Income for next 12 months; long-term risk-sensitivity of Economic Value of Equity using duration.		Explains liquidity risk and that Treasury will ensure cash is invested in highly liquid instruments and maintain stability in its funding activities as unexpected material and sudden fundraising may result. Treasury will aim to protect Gross Interest Income through an adequate range of liquidity levels. Limits for minimum and max liquidity based on net cash outflows, for liquidity as percentage of liability profile and maturity profile of investments. Lists authorized investment securities (bonds, repurchase agreements, CP, asset-backed securities).	Compliance with Minister of Finance guidelines. Distinction between issuer and derivative counterparty credit risk. Identify and measure exposure; ensure acceptable credit standing; ensure liquidity portfolio is guaranteed by entities with acceptable credit standing; ISDA agreements contractual provisions protect Borrower C against declining creditworthiness. Discussion of credit assessment and Limits by credit rating and term, ratings and amounts, exposure threshold for derivatives. Review of creditworthiness of counterparties - daily by Risk Management Unit.	No list of permitted derivatives.	ALCO approval for each new derivatives strategy. Independent valuation of positions.	N/A

Financial Risk Management Practices

	Foreign Currency Risk Management	Interest Rate Risk Management	Liquidity Risk Management	Counterparty Credit Risk Management	Permitted Derivatives Instruments and Strategies	Responsibility & Procedures for Derivative Management	Other Risk Management
Borrower D - Market Risk Management Policy Manual	Risk limits will be established to measure the impact of interest rate and foreign exchange rate shocks on projected Net Interest Income and economic value of the corporation. Interest rate risk will be managed according to the Asset Liability strategy.		Measurement of Tier 1, Tier 2 and Tier 3 liquidity requirements.	Compliance with Minister of Finance guidelines. Counterparties must meet minimum rating standards in order to warrant credit exposure (ST, MT, LT). ISDA Master Agreement with each counterparty. In order to measure Counterparty exposure against approved credit risk limits, market risk management will determine the value of all existing exposures in addition to potential credit exposures related to possible changes in market factors on a daily basis. Counterparty risk limits are set to equal maximum aggregate net amount of credit exposure that Borrower D is allowed to hold at any time with a counterparty - avoid undue concentration of risk. Collateral agreement.	Borrower D will limit its use of Derivatives or Structured Notes whose value and hence financial risk it is unable to calculate, monitor and manage internally on a timely basis. It will abstain from issuing Structured notes where the principal redemption amount is subject to leverage that could lead to leveraged principal losses on the part of the investor. New transactions require endorsement by a cross-functional New Transaction Type Panel prior to execution. Maximum 3 transactions and maximum USD 100 Million notional amount for transactions not priced internally (maximum 6 months to be able to price them internally).	Market Risk Management Dept will formally review Borrower D's Structured notes and associated hedging deals at time of inception, and also on a monthly basis to provide an independent check and control on valuation of deal structures, effectiveness of hedge and associated financial risks. Review and sign-off of new structured note issues will be reported to the Treasurer, Chief Risk Officer and Chief Financial Officer.	N/A

Financial Risk Management Practices

	Foreign Currency Risk Management	Interest Rate Risk Management	Liquidity Risk Management	Counterparty Credit Risk Management	Permitted Derivatives Instruments and Strategies	Responsibility & Procedures for Derivative Management	Other Risk Management
Borrower E - Risk Management Reports & Responses to KPMG Interview Guide	Requirement to hedge foreign currency risk in the Lending activity portfolio with currency swaps.	Limit on change in net interest margin as a result of changes in interest rates. Impacts of interest rate shocks on interest margin and economic value are evaluated. Stress-testing.	Risks are managed on a micro-basis, assets and liabilities are matched, and cashflows are matched/hedged. Authorized instruments: Mortgage Backed Securities, treasury bills, and certain highly rated money market securities.	Compliance with Minister of Finance guidelines. Swaps counterparties are reviewed and approved by Risk Management and subject to negotiation of ISDA agreements. Minimum credit ratings. Collateral requirements. Net swap position with each counterparty in CAD. Total Credit exposure by rating (in %). Total number of upgrades and downgrades. Credit Risk policy exceptions.	Interest rate and cross currency swaps for hedging purposes. Approved strategies govern use of derivatives. Positive swap exposure. Net mark to market swap exposure. Notional value of the swaps.	Independent valuation of positions.	Funding benchmark versus results achieved in terms of cost of funds. Assets and liabilities are generally matched within the market risk limits, which minimizes refinancing risk. Strong demand for and prudent management of CP program to minimize short term refinancing risk.

Appendix C

Improvements to Current Framework

Enhanced Status Quo

Improvements to Borrowing Plans and Reporting of Actual Results

Borrowing Plans vary in quality and comprehensiveness from Borrower to Borrower and are not standardized as to format, content and level of detail, making it difficult to combine the Borrower's prior years of results and future five year plans into one comprehensive consolidated plan which would be required to provide benchmark comparisons and to determine the overall Canada-wide position of the group which materially utilizes and represents the Canada Credit.

Additional details applied uniformly and consistently by each Borrower would make the Borrowing Plans more useful for assessing past performance and the next five-year plans. This should include CWB, which being outside the *FAA*, is only required to do a one-year plan. We suggest that the application of a standard reporting format should be developed and include standardized and comparable tables and data for the prior year, the current year and the next five years, addressing (with commentary):

Funding:

- New financing amounts
- Refinancing amounts

With each debt issuance amount broken down by type and market relative to borrowing ceilings:

- Short-, medium- or long-term
- Fixed or floating rate
- Synthetic, structured or plain with related derivatives activity
- Relative and effective cost of funds and their repricing basis

Risk management:

- Interest rate and currency mismatches against policy limits
- Borrowing and risk management strategies
- Maturity / refinancing schedules
- Application of funding to program assets
- Extent of liquidity and its application as contingency funding, investment arbitrage or pre-funding
- Counterparty credit risk

Standardized reporting of actual results should be submitted quarterly to Finance Canada.

Scope of Borrowing Plans

There are program activities that equate to a borrowing or guarantee equivalent, like the Canada Mortgage Bond (CMB) program or occasional bond guarantees supporting export or agricultural sales, for example. These transactions are done in the furtherance of achieving mandated objectives or missions and so they are not included in the Borrowing Plans. They are covered in the program or lending sections of the Corporate Plans, and brought to the attention of Finance Canada as a matter of business, often through the relevant Finance Canada policy branch.

The materiality of these guarantee programs can be significant. The CMB program, for example, annually issues competing securities to the five-year benchmark Canada Bond in comparable or greater volumes, but at a higher cost. CMB issuance is approximately twice the bond issuance of all the other Borrowers combined annually, and as an asset class, the aggregate CMB's outstanding is about equivalent in size to the debt of consolidated group and growing, whereas much of the Borrowers' issuance activity is for refinancing of existing obligations with modest net growth. We suggest that the CMB program should be included in the Borrowing Plan as a matter of supervisory control given its importance in the domestic bond markets, in much the same way as Minister of Finance approval is required for other guaranteed entities' capital market activities.

<u>Spreads and Limits</u>

The spreads and, in many cases, the debt ceilings or borrowing limits approved in the Borrowing Plan process by the Minister of Finance tend to be quite wide of actual market levels or requirements. A common example of this phenomenon, which was observed, was a limit on Canadian dollar bond issue spreads of no more than 75 basis points over comparable benchmark Canada bonds. This is a holdover from years past, when Borrowers paid much higher spreads than they have done since the mid-1990's, to avoid having to go back to the Minister of Finance for an amendment to the standing approval in the advent of a declining market. In the current context, this wide spread limit provides no practical guideline or control. The same may be said of issuance ceiling of, say, $4 billion when the intention is to issue no more than half that amount. We suggest that reduced but adequate and realistic spread and issuance levels should be included in the annual Borrowing Plans.

<u>Finance Canada and Borrower Coordination</u>

Finance Canada does not specifically manage a new issuance calendar for the Borrowers, so for example, it is technically possible that an uncoordinated new bond issuance in the domestic bond market could occur. Similarly, Finance Canada does not typically review the Borrowers' pre-issuance financing documentation (e.g.; underwriting agreements), so a Borrower could agree to a poor documentation or covenant precedent that would adversely affect the Government of Canada and the Borrowers. As a practical matter, the entire group are experienced and professional, and as a result there are few incidents where either of these events have happened, but isolated events have occurred. Furthermore, two Borrowers could be giving different market quotations for virtually identical products at virtually the same time on the same day. All Borrowers and Finance Canada could benefit from improved coordination, and we suggest that steps should be taken. For example, Borrowers could alert Finance Canada and the other Borrowers of their intentions to borrow in the Canadian dollar domestic or international medium- and long-term bond markets before committing to any material transaction with the underwriting syndicate in enough time to delay the transaction should there be a Canada-wide reason not to issue just then. Materiality would need to be defined.

<u>Aggregate Financial Risk Policies and Guidelines</u>

We suggest that Finance Canada should review its aggregate financial risk policies and guidelines to instill standards in the way that limits are defined by Borrowers, on the methodology used, on minimum content for ALCO reporting, on monitoring and on statutory reporting.

a) Structured Notes:

Structured notes should be made the object of a thorough specific review, resulting in a precise policy and guidelines integrating the concept of risk weighed cost of funds. However, before issuing any prohibitions or limitations of authorized types of structured instruments, this review should consider the possible repercussions of limiting what is today a key source of funding for many of the Borrowers.

b) Counterparty credit risk

Borrowers take seriously the monitoring of counterparty credit risk and comply with the overall guidelines of Finance Canada with respect to the minimum acceptable credit ratings of counterparties. However, we suggest that Finance Canada should clarify the requirement for Credit Support Annexes ("CSAs"), setting out thresholds where the unrealized profit for the Borrower exceeds a given amount, function of the counterparty credit rating, which trigger the obligation for the counterparty to pledge collateral with the Borrower, thereby mitigating credit risk. CSA's should be mandatory for all counterparties.

<u>Liquidity</u>

Borrowers maintain diversified liquidity sources by being regularly present on the Canadian and US money markets. In general, they keep their liquidity levels at around five to eight percent of total assets. This could go higher when, for instance, there are timing discrepancies between large maturities and term refinancing which require use of short term funding to bridge the gap. Liquidities are invested in instruments authorized by Finance Canada guidelines. However, we believe that Finance Canada should clarify guidelines of acceptable levels of liquidity, in order to avoid perceived or real situations of arbitrage, whereby a Borrower would exploit its credit to raise surplus liquidity at AAA rates and generate trading profits by investing in higher yielding instruments.

The Borrowers typically have stand-by bank lines of credit for emergency liquidity purposes. We suggest that the GOC should investigate the possibility of replacing these bank lines with a similar GOC commitment, to allow for the Borrowers to reduce the costs paid to the banks for such credit facilities.

<u>Intra-year Reporting to Finance Canada</u>

In line with current leading practices, more frequent official regulatory review and oversight should be considered, along with certain reporting and administrative enhancements, including:

- Consolidate the Borrowers' key ALCO performance and policy compliance metrics quarterly in one management view for Finance Canada, which can be shared with the group.
- Borrowers, including CHT, clear significant new issue Canadian dollar domestic or international medium- and long-term bond offering through Finance Canada prior to committing to launch.
- Finance Canada review each market risk policy annually in consultation with the Borrowers with periodic ad hoc reviews, if considered necessary, to accommodate new market developments. Include the review of the policies and guidelines for interest rate risk, currency risk, investments, derivatives, liquidity, operations risk, settlements risk, legal risk and reputation risk.
- Borrowers should be provided with appropriate feedback on overall risk management.

<u>Enhancements that may Decrease Borrowing Costs</u>

All Borrowers have developed the infrastructure required to perform their Treasury duties in the main fields of funding, liquidity management, settlements, risk management and reporting. Treasurers of the various entities exchange ideas and communicate informally with each other from time to time. However, we have observed very little commonality of platforms among the Borrowers. The same can be said about procedures, for instance with respect to the setting of performance benchmarks. Should one take the bid, the offer or the mid-point when comparing one's cost of funds with the benchmark? Areas where more coordination could probably bring value are:

- Identify and review the information technology platforms used by the Borrowers to estimate the benefits (if any) that could be obtained from greater standardization, be it only to have more negotiating power with outside vendors
- Standardize benchmarks for performance measurement
- Warehouse data in a way that facilitates statistical aggregation, peer to peer and year to year comparisons

Actions to Tighten the Agency Spread

The agency spread has narrowed significantly over the last five years, especially as demand for high quality paper has increased, and as the Borrowers have worked on developing their names and reputations in the capital markets. Additional actions could be undertaken to potentially tighten the agency spread such as:

- Borrowers securities could be recognized as general collateral by the Bank of Canada and at the same margin rates as Government of Canada issues by the Investment Dealers Association and other regulatory and self-regulatory organizations.
- Borrowers and Finance could lobby for inclusion/recognition of Borrowers securities in major indices and in the eligible pools of bonds deliverable under exchange traded futures contracts.
- Finance could also work with the Borrowers to market the fact that “Borrower = Government of Canada” to potential investors, at least for the Crowns.

These possibilities should be discussed with the Borrowers.

Board Governance

The treasury departments of the Borrowers are extremely sophisticated, engaging in, among other things, the issuance of advanced borrowing products, management and issuance of complex derivative products and strategies, undertaking asset-liability management and more. Due to the extremely technical nature of this knowledge, many Board members would have limited capability to independently assess the efficiency, effectiveness and risk management activities of their treasury operations. We noted that the boards of the Borrowers do not appear to consistently include individuals who have all of these required skills. Therefore, we suggest that each Borrower should require that at least one non-executive board member have skills in treasury, capital markets and financial risk management.

Appendix D

International and Provincial Frameworks

International

Sovereign entities borrow and manage their debt and market risks in various ways, depending on their respective fiscal and monetary frameworks and performance, size, economic conditions, governmental system, organization and priorities. Despite the variation among sovereign entities, there are many debt and risk management characteristics held in common among sovereign borrowers. Usually a nation's Ministry of Finance, Central Bank, autonomous debt management agency or central depository are involved in establishing the objectives and carrying out the nation's sovereign debt management. Whether one or more of these institutions are involved, the principles of transparency and accountability to the public are upheld through defined and disclosed public debt management roles and responsibilities, objectives, policies, strategies, plans, and annual debt management performance reports covering primary and secondary markets in government securities.

Ultimate borrowing authority is invariably held by the parliamentary body that sets the fiscal budget with the borrowing limits set to finance any net budgetary deficits and refinancing of existing maturing debt obligations. Budgetary deficits/surpluses and refinancing requirements are the two key factors determining the gross issuance of government bonds. The borrowing and debt management is delegated most often to the Ministry of Finance for operational and control purposes.

Many sovereigns have established a single national debt management office to centralize borrowing operations. Sweden, which has historically had the principle of separating its government policy determination from its operations, has had a national debt office since 1789. In 1988, New Zealand adopted a similar approach to support its fiscal restructuring and, in the 1990's, Ireland, Austria, Belgium, Finland, Portugal, and UK followed suit.

The determining principle behind the establishment of operationally autonomous national debt management offices was the separation of borrowing operations from direct political and budgetary pressures. This has especially been the case since the 1980's, when deregulation in global financial markets combined with the advent and then explosive growth of the swap and derivatives markets has provided sovereign borrowers with the opportunity to issue large non-domestic currency issues outside their domestic market and many varied synthetic or structured financing opportunities. These structured transactions combined conventional cash market instruments with swaps and/or other derivatives and options to provide previously unavailable opportunities to reduce costs and consequently reduce budgetary pressures. At the same time, these structures increased the financial risks and exposures to previously unknown proportions and concentration. Financial policy makers were concerned that using these complex funding structures with embedded option or currency risks to reduce borrowing costs in the short-term would prove ultimately to be no more than an expedient reallocation of costs from the current budgetary period to a later one. Debt management centralization in a specialized unit was viewed as one way to control the temptation to enter into complex financing arrangements to gain short-term over long-term benefits and so protect the long-term interests of the nation. Additional benefits included building its reputation as a quality sovereign borrower and more effectively managing the financial market risks faced by any corporate entity, such as interest rate risk, foreign exchange risk, counterparty credit risk, liquidity or refinancing risk, legal risk, and operational risk.

In most cases, monetary policy is determined and implemented by the nation's central bank separately from the debt management entity to ensure that the debt and risk management operations are not, in fact or in perception, trading on insider knowledge of the policy decisions and open market operations that influence the direction of domestic interest rates.

Specialized, dedicated debt and risk management entities were also considered to foster professionalism, expertise and experience in an increasingly technically demanding activity, to provide a career path and, in some cases, better compensation for the public sector debt management professionals more in line with their better compensated private financial sector counterparts to reduce attrition.

Centralizing debt and risk management operations was also viewed as a more efficient means to facilitate direct coordination of the nation's borrowing and risk management by providing a single clearinghouse for market intelligence gained from all sources for the benefit of improving the domestic market.

Other sovereigns (e.g.; Japan, France, Germany) have more than one government agency or equivalent issuing securities with similar mandates to the Borrowers (e.g.; official export credits and guarantees), although, in many cases, these mandates are concentrated in fewer entities than in Canada.

The United States is the most salient comparator to Canada because of the large volume of US-Canada cross-border currency and capital markets transactions. The US is different in many respects, because many of the roles carried out by the Borrowers are the responsibility of US government departments directly, such as the US Export-Import Bank, Housing and Urban Development (HUD) and General National Mortgage Association (GNMA or Ginnie Mae). Additionally, the US has many borrowers that have been established through official Congressional mandates, called Government Sponsored Entities (GSE's) or government agencies, to achieve government purposes which are comparable to some of the Borrowers, like the Farm Credit Bank System, but which differ materially because they do not have explicit government credit support, and in most cases, have non-governmental shareholders or association members. The Canadian Borrowers tend to have attributes of both; the explicit Canada Credit like a department, but the corporate structure and public policy delivery mission of a GSE or agency.

The oldest GSE is the Farm Credit Bank System. It is also an example of centralized funding. The Federal Farm Credit Banks Funding Corporation (Funding Corporation) pools the borrowing activity of the five regional Farm Credit Banks (FCB's) in one centralized borrowing entity. Funding Corporation issues Federal Farm Credit Banks Consolidated Systemwide Debt Securities on behalf of the FCB's which have a broad range of maturities and structures. The individual FCB's are responsible for managing their market risks but cannot borrow outside of the System. The FCB's manage their own interest rate risk, currency risk, credit risk, and liquidity risk through the cash liabilities available through the Funding Corporation and through the use of investments and derivatives sourced from investment broker / dealers and commercial banks.

The next level of centralization would be found in the Federal Home Loan Bank (FHLB) System, where the twelve regional FHLB's borrow individually but consolidate their financial reporting as one entity, the Federal Home Loan Bank Finance Corporation.

Both the FCB's and the FHLB's have inter-bank operational agreements setting out the operating rules, parameters and metrics that must be met to be included in their respective groups, because all banks report as one system-wide entity and are rated as one entity, so a weak or poorly performing individual FCB or FHLB would have negative consequences for their entire group. In all cases, the GSE's have a dedicated regulator reporting to the federal government.

Nationally Recognized Statistical Rating Organizations (NRSRO's or Rating Agencies) such as Standard & Poors and Moody's Investor Services, rate debt issued by GSE's or government agencies (independently or as a consolidated group, as the case may be) the same as the underlying US government's credit, either because these government agencies have implicit or explicit guarantees, direct access to treasury funds, deliver government programs under federally decreed mandates deemed essential to national development or strategic interests, or some combination of one or more of the foregoing characteristics. Due to the large size and banking characteristics of many government agencies, Moody's further applies a bank-financial-strength rating, which measures the likelihood that, as a financial institution, it will require financial assistance, such as a capital infusion, from a third party such as the government or a shareholder / member. Even though government agencies' short- and long-term debt have the highest ratings equivalent to the US government, they do not always receive the highest bank-financial-strength ratings.

This difference in debt and bank-financial-strength ratings recognizes that government agencies share the common risk of balancing conflicting objectives. Government agencies have specialized mandates, often restricted to a region or economic sector, or both, that are designed to support public policy objectives. On the other hand, government agencies are required to be commercially operated and viable. The combination of public policy and commercial objectives often results in financial institutions with less diversified and lower quality portfolios than would otherwise be possible in the strictly for-profit commercial sector. The relative inflexibility and low margin attributes of the lending or program delivery mandate adds extra pressure on government agencies' treasuries to pursue as many cost saving opportunities as possible to offset, at least partially, the lack of profit and diversification opportunities on the asset side.

Provincial

Many Provinces (or States) borrow centrally at the provincial level through their respective finance ministries. To complement the provincial treasury, many have created centralized borrowing entities to aggregate the needs of many borrowers, such as municipalities and other public entities, into one borrowing pool to gain economies of scale, to create centres of expertise and to improve choice, delivery and control. Examples in Canada include the Municipal Finance Authority of British Columbia, Alberta Capital Finance Authority, Ontario Strategic Infrastructure Financing Authority (which to date has financed 170 municipalities' infrastructure investment needs), Ontario School Boards Financing Corporation, and Nova Scotia Municipal Finance Corporation. Typically, the large power utilities like Hydro Quebec, Ontario Power Generation and Hydro One continue to borrow individually due to their large requirements and special regulatory, tariff, contractual and trade circumstances. The overall result has been to consolidate the number of individual small municipal and other public borrowers over the last few years.

This trend is observable in other jurisdictions as well, for the same reasons. Department of Treasury & Finance – State of Victoria, Australia is comparable to the Canadian provinces that have more centralized debt and risk management. Comparisons with the US States are more difficult to make, because much of the state and municipal borrowing is done under separate authorities using various forms of tax-exempt bonds and debentures using many security structures other than direct guarantees or their equivalent. For example, tax-exempt revenue bonds secured by toll proceeds under a joint state-municipal transportation authority are commonly issued, with such projects managed by private sector interests for a fee or participation.

Some provinces borrow using conventional debt instruments issued by the provincial treasury, and some add opportunistic structured offerings to achieve the lowest possible cost of funds. There is no single consistent approach. Each province has its own requirements and strategies. For example, Alberta has a low funding requirement while Quebec is a relatively large, active domestic and international borrower using a mix of different structures and currencies.

The implications for the Government of Canada are that there has been a gradual but determinable trend towards centralization in government debt management operations over the past two decades to gain the operational, risk management, administrative and economic benefits of aggregating smaller borrowing entities into one or a few larger units.

Appendix E

International and Provincial Perspectives

Leading practices are developing most evidently in the USA, where the quality and effectiveness of corporate governance, accountability and securities regulation has become prominent due to significant accounting and securities disclosure incidents that have lead to well publicized corporate failures, addressed by unprecedented levels of litigation and legislative and regulatory reform.

United States of America

- The government of the United States has a rating of AAA
- The Bureau of Public Debt, a bureau of the US Department of Treasury, is responsible for borrowing the money needed to operate the US government. It issues and services US Treasury marketable, savings and special securities

<u>Export-Import Bank of the United States</u>

- The Export-Import Bank of the United States ("Ex-Im Bank") is the official export credit agency of the United States. Ex-Im Bank's mission is to assist in financing the export of US goods and services to international markets
- Ex-Im Bank is a US government agency that is backed by the full faith and credit of the US government
- Ex-Im Bank borrows from the US Treasury for its cash needs for loan disbursements and claim payments that are in excess of amounts appropriated for claim losses

<u>Farm Credit Bank System</u>

- The Farm Credit System provides more than US$90 billion in loans to more than half a million borrowers. It maintains the same rating as the US government
- The Federal Farm Credit Banks Funding Corporation ("Funding Corp") is the centralized borrowing function for the five regional Farm Credit Banks
- FCBs may only borrow from Funding Corp, except for back-up liquidity lines of credit from commercial banks but FCBs can borrow daily to match assets specifically as to amount, terms and conditions, including option risks
- FCBs conduct their own treasury operations, including liquidity, investment and lending programs
- FCBs are responsible for their own asset/liability management and loan pricing and program design
- FCBs consolidate their financial statements and have an inter-bank agreement with financial ratios and covenants to monitor and control each participant's financial and operational performance and capitalization. FCBs scoring below a certain threshold are denied access to Funding Corp until remedied

<u>Federal Home Loan Bank System</u>

- Established by Congressional Charter to support member mortgage lenders including community-based lenders
- Each of the 12 regional Federal Home Loan Banks ("FHLBs") consolidates their financial statements to comprise one borrowing credit under the FHLB System Office of Finance to the financial markets, but borrow individually

- FHLBs conduct their own treasury operations, including all borrowing, liquidity, investment and lending programs
- FHLBs are responsible for their own asset/liability management and loan pricing and program design
- FHLBs have an inter-bank agreement with financial ratios and covenants to monitor and control each participant FHLBs' financial and operational performance and capitalization
- Maintains the same rating as the US government

Ginnie Mae

- Ginnie Mae guarantees the timely payout of principal and interest on MBS back by federally insured or guaranteed loans – mainly loans insured by the Federal Housing Administration or guaranteed by the Department of Veterans Affairs
- Ginnie Mae-backed securities are the only MBS to carry the full faith and credit guarantee of the government of the United States

Sallie Mae

- Sallie Mae is the nation's leading provider of education funding, providing federally guaranteed student loans
- This Government Sponsored Enterprise ("GSE") will be phased out by 2006 and Sallie Mae will become a private sector company

France

- The French national government is a large issuer of government bonds, in domestic and international markets. It guarantees, or is deemed to support 13 additional users which benefit from the AAA rating of the Republic of France
- The most significant of these borrowers is La Caisse d'Amortissement de la Dette Sociale ("CADES"), which was created to finance and distinguish the debt accumulated by the basic national social security program from 1994 to 2006
  - CADES is not guaranteed, but receives a dedicated source of tax revenue and has access to the French Treasury "special accounts" to meet any shortfall.
  - It issues large benchmark issues at a spread to Bons du Trésor à intérêt annuel négociables ("BTANS") and Obligations Assimilables du Trésor ("OATs") in the French domestic and international markets
  - In fiscal 2004, it has issued benchmarks of Euro 4 billion and Euro 3 billion in the domestic market, Euro 1 billion and US$ 1 billion internationally
- Agent France Trésor ("AFT") is in charge of government debt and cash management. It issues debt in the form of BTANS and OATs which are fully guaranteed by the French Government. Maturities range from three months to 30 years. OATs, introduced in 1985, has made the French government securities markets one of the most active in the world. AFT has simplified the issuance procedure by regularly publishing auction calendars and introducing fungible bonds

United Kingdom

- The United Kingdom does not have any guaranteed or government owned agencies which access capital markets. The government of the UK is rated AAA
- In order to raise funds, the UK government issues Gilts, which are U.K. government issued securities issued by the UK Debt Management Office, an executive agency of HM Treasury
- The National Loans Fund is the government's main borrowing account. It operates in tandem with the Debt Management Account (the main operational channel for wholesale borrowing and cash management operations) and National Savings & Investment (retail borrowing). The NLF can and still does, however, borrow directly in some instances
- The NLF is backed by the Consolidated Fund. The CF receives the receipts from taxation, and all other money payable to the Exchequer. Government departments are accountable to Parliament for its expenditure. Parliamentary approval for spending plans is sought through Supply Estimates presented to the House of Commons. These spending plans specify the estimated expenditure and ask for the necessary funds to be voted. The government departments then draw down voted funds from the CF as required

Sweden

- The Kingdom of Sweden carries a AAA rating
- The Swedish National Debt Office acts as the central coordinator of financing for the Swedish Government. It provides a forecast for the annual financing requirement based on economic and fiscal projections, and then develops a financing recommendation for the Government
- This recommendation is updated three times a year, and outlines percentages of domestic conventional and index-linked issuance, foreign currency issues, duration strategy, derivatives strategy and portfolio strategy for outstanding debt
- The annual financing requirement gives estimates for, among other things, debt servicing and net lending by the Debt Office to government agencies, public enterprises and state-owned companies
- Swedish Export Credit Corporation ("SEC") is owned but not guaranteed by Sweden. It is rated AA+, one level below the Kingdom of Sweden. SEC has large funding requirements, and has international funding programs in the US, Europe, Asia, Australia and Japan. In addition, it has domestic long term and short term programs in Swedish Krona
- Swedish Housing Finance Corp ("SBAB") is wholly owned by the Swedish Government, but its debt is not guaranteed. SBAB was originally established to support new home construction, but has expanded its program to become one of Sweden's largest mortgage lenders. SBAB tries to balance its funding between domestic and international markets. SBAB has a rating three to four levels below Sweden's (Standard & Poor's and Moody's, respectively), despite being wholly owned by the Swedish Government
- State owned entities Akademiska HUS (provides university housing), Apoteket AB (distributes pharmaceuticals nationally) and Specialfastigheter Svierge (constructs state owned buildings) are not guaranteed by the Swedish government. These entities borrow almost exclusively in the domestic or Swiss francs markets, and are rated two to three levels below the Swedish Government

Australia

- The Commonwealth of Australia holds a rating of AAA.

- The Australian Office of Financial Management ("AOFM") is responsible for all aspects of the Commonwealth's debt management. Its operations encompass the execution of instruments including Treasury bonds, Treasury notes and associated derivatives. AOFM uses interest rate swaps to manage the Australian net debt portfolio
- The Australian domestic debt market closely resembles the Canadian market in its basic characteristics and issuer base. Australia has been allocating its budget surpluses to repay Australian Government Bonds, which has led to greater liquidity for the development of the corporate market
- Export Finance and Insurance Co ("EFIC") is the only remaining Australian state-guaranteed entity which accesses the public markets. It shares the AAA rating of the Australian government
  - EFIC is a US$ based borrower and sources its financing almost exclusively from its EMTN program

New Zealand

- The government of New Zealand carries a AAA rating
- New Zealand manages its borrowing operations through the New Zealand Debt Management Office ("NZDMO"). The NZDMO has an objective of maximizing the long term economic return on the government's financial assets and debt in the context of the government's fiscal strategy, particularly its aversion to risk
- Since the float of the New Zealand dollar in 1985, the government has borrowed externally only to finance foreign exchange reserves. All other borrowing has been in the domestic market
- Unless otherwise directed by the Minister of Finance, net foreign-currency debt is kept close to zero
- Major responsibilities of the NZDMO include disbursing cash to government departments and facilitating departmental cash management and undertaking lending to government organizations and state-owned enterprises and facilitating and executing derivatives transactions, in accordance with government policy
- The NZDMO applies the following principles, among others, for managing the New Zealand-dollar debt portfolio:
  - In order to manage risk in respect of refinancing, NZDMO maintains a relatively even maturity profile for term debt across the yield curve to reduce pressure on the domestic bond market when supply increases unexpectedly and provide the government with greater flexibility in a time of fiscal surpluses
  - NZDMO builds benchmark bonds of approximately NZD 3 billion to improve liquidity in the market and consequently, reduce the government's cost of borrowing
  - To diversify interest-rate risk and lower the cost of the portfolio, NZDMO maintains a mix of fixed-rate and floating-rate debt and uses interest rate swaps. Inflation-indexed debt also makes up a portion of the portfolio and is issued when it is cost-effective to do so.

Germany

- The debt management of the Federal Republic of Germany is managed by four institutions:
  - The Federal Ministry of Finance – the issuer. It is responsible for shaping the fiscal policy of the federal government and the underlying orientation of its economic policy
  - The Germany Finance Agency – central service provider to the issuer. It is a private company under control of the Federal Republic of Germany, responsible for management of the federal debt and liquidity management. Core activities include the issuance of German government securities,

borrowings by means of a German type of promissory notes, the use of derivatives and money market transactions.

  - The Federal Securities Administration – service provider for sale and custodian services of German government securities. It issues collector coins, offers federal securities for sale to the public and administers them
  - Deutsche Bundesbank – provider of bank services to the Federal Ministry of Finance. It carries out the auction of federal securities

- The German domestic bond market is the largest national capital market in Europe, and the third largest in the world
- Standard & Poor's has rated four issuers which it defines as Government Sponsored Enterprises, and rates at the AAA rating of the Federal Republic of Germany. Only two of these issuers, Kreditanstalt für Wiederaufbau ("KfW"), and Landwirtschaftliche Rentenbank ("LwR") are permitted to access the international markets
- KfW has multiple roles in the German economy. It funds export business, project and infrastructure finance, lending to small and medium sized enterprises, housing modernization and is also responsible for providing finance to developing countries
- LwR is a specialized development bank with a public policy mandate to promote German agriculture, forestry, fisheries and rural areas

Japan

- Japan has the second largest national bond market in the world. The Japanese Government has a rating of AA-
- The issue amount of Japanese government bonds is determined for each fiscal year that begins on April 1, and ends on March 31 of the following year. Four main laws provide for the issuance of government bonds:
  - Construction bonds under Public Finance Law – Public Finance Law in stipulates that in principle, government expenditure must be financed by tax revenue, but it allows for government bond issuance or borrowing only as a means to finance public works
  - Special deficit-financing bonds under the Special Laws – when there is a budgetary deficit, a special law enacted for each fiscal year authorizes the government to issue special deficit-financing bonds
  - Refunding bonds under the Special Account Law of the Government Debt Consolidation Fund – the government can issue refunding bonds (except for fiscal loan fund special account bonds) up to the amount required for consolidation or redemption of government bonds during a given fiscal year
  - Fiscal Loan Fund Special Account Bonds under the Fiscal Loan Fund Special Account Act – the government can issue bonds or borrow to finance fiscal loan programs due to the reform of the Fiscal Investment and Loan Program ("FILP") system that took effect in 2001
- The Minster of Finance is granted the authority to determine government bond issuance
- There are three Japanese issuers which are active in the foreign currency markets with the guarantee of Japan. These Special Public Institutions ("SPIs") are required to incorporate issues of non-guaranteed bonds (FILP bonds) in the domestic market as a component of their borrowing plan, however they can still issue domestic guaranteed bonds to supplement FILP issuance

- Standard & Poor's has maintained its foreign guaranteed rating of AA- for the unguaranteed issues of the major SPIs due to their government sponsorship and strategic role
- Japan Finance for Municipal Enterprises ("JFM") is the Japanese SPI responsible for supporting improvement and development of local infrastructure. JFM foreign currency bonds are guaranteed by Japan
- Japan Bank for International Cooperation ("JBIC") has two distinct roles – to promote Japanese exports and imports and international financial stability. It is also responsible for providing aid to developing countries. JBIC finances its lending with a combination of grants and loans from the Government an public financing
- Development Bank of Japan ("DBJ") has a mandate to provide low cost fixed rate financing for private sector projects with high public policy content such as technology promotion and regional development. DBJ's annual borrowing requirements are aligned to the government's current economic and social policies
- Japan Finance for SMEs is responsible for financing the growth of small and medium enterprises
- Japan Highway is responsible for the planning, construction and maintenance of the Japanese highway system, including toll roads
- According to JBIC's investor presentation, the Japanese government is currently reviewing operations of Japan's 77 SPIs, and will decide, for each SPI, whether to abolish it, privatize it, etc.

Provincial Perspective

Ontario

- The Ontario Financing Authority ("OFA") is responsible for the borrowing, investment and financial risk management activities on behalf of the Province, its Crown corporations and other public bodies. It also provides centralized cash and liability management and advises on financial policies and projects
- OFA and the Ministry of Finance carries out the daily operations of the Ontario Electricity Financial Corporation ("OEFC"), an agency of the province of Ontario. OFA manages OEFC's debt, derivatives and non-utility generator portfolios
- The province of Ontario is rated AA. OEFC shares the same credit rating
- Ontario Strategic Infrastructure Financing Authority ("OSIFA") is an agency of the Government of Ontario. It was created to provide Ontario municipalities, universities and other broader public sector partners with access to low-cost and longer-term loans to renew and rebuild critical public infrastructure. OSIFA is based on a "pooled financing" concept that aggregates the infrastructure investment needs of many borrowers into one borrowing pool. OSIFA has a rating of AA+
- Ontario School Boards Financing Corporation ("OSBFC") is a non-profit corporation, created to provide Ontario school boards with access to the debt capital markets. It is rated by Moodys as Aa3

British Columbia

- Provincial Treasury manages the province's borrowing and financial needs, and banking and cash These services are extended to all ministries, Crown corporations and public sector agencies
- There are six branches of Provincial Treasury – the Debt Management branch borrows money, manages the liability portfolio and provides financial advice to government and public sector agencies
- The Province of British Columbia is rated AA

- The Municipal Finance Authority of British Columbia ("MFABC") is rated AAA
- MFABC was established in 1970, and is a non-profit corporation that acts as a central borrowing agency for local governments
- MFABC borrows in domestic and international capital markets

<u>Québec</u>

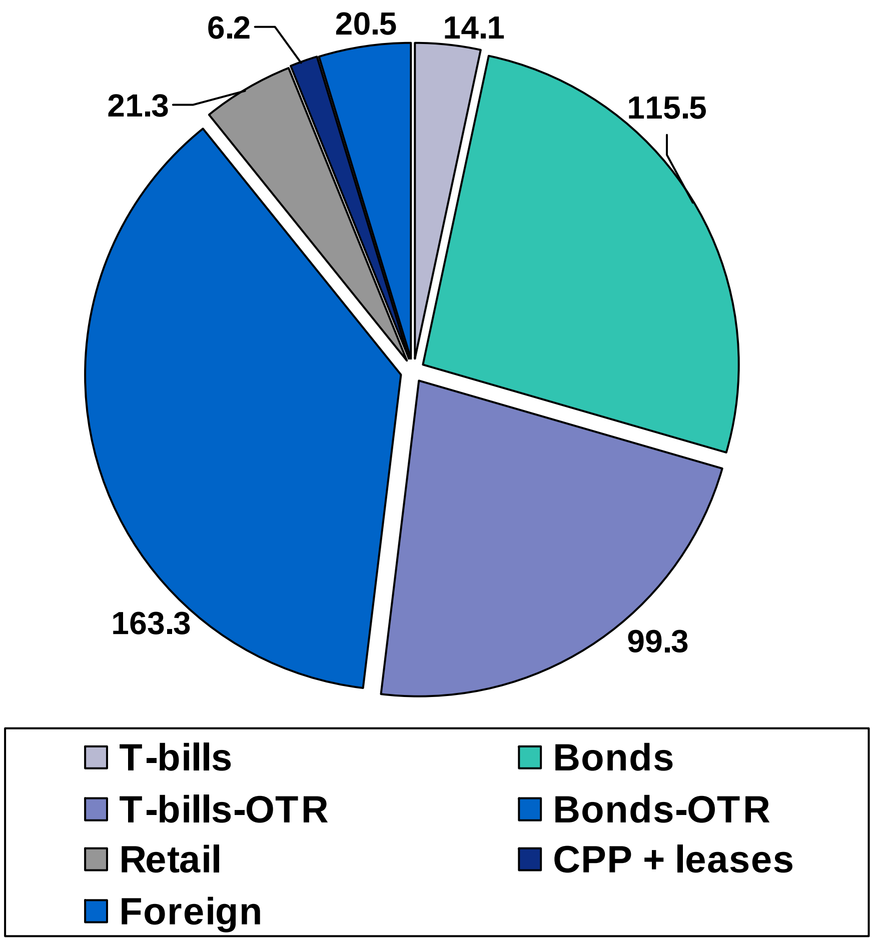
- The Province of Québec issues debt in domestic and foreign markets and carries an A+ rating
- The duties of the Ministère des Finances include securing financing for the government and various other organizations. It manages the debt, asset portfolios and debt service
- The Financing Fund was created in 1991 to provide financing to certain public bodies that had formerly borrowed in their own names. In 1998, the functions of the Financing Fund were limited to government organizations and enterprises whose results are consolidated in Quebec's financial statements. The government of Québec borrows in its own name and then makes advances to the Financing Fund, who in turn lends to its clientele
- In 1999, Financement-Québec was created to assume some of the functions previously provided by the Financing Fund. Its objective is to provide financial services to public organizations, in particular granting loans to them and providing advice. Currently Financement-Québec only makes loans to educational and health and social services entities
- The borrowings of Financement-Québec are fully secured by the Government of Québec. These borrowings must be approved by the government of Québec

<u>Alberta</u>

- The Ministry of Finance, through the Treasury Management Division, is responsible for the province's cash management including short-term borrowing and investing, management of banking arrangements and cash forecasting, as well as arranging short and long term financing for the government and provincial corporations
- The province of Alberta has a rating of AAA, and accumulated debt, net of cash set aside in the Debt Retirement Account, is forecasted to be eliminated as of March 31, 2005
- The Alberta Capital Finance Authority ("ACFA") was established in 1956 and provides financing to local authorities including municipalities, towns, counties, hospitals, and schools for capital projects
- AFCA borrows in capital markets and its obligations are guaranteed by the Province of Alberta. As such, AFCA is rated AAA

Appendix F

GOC Debt Outstanding



Government of Canada has $440.2 B in outstanding market debt comprised as follows:

Benchmarks

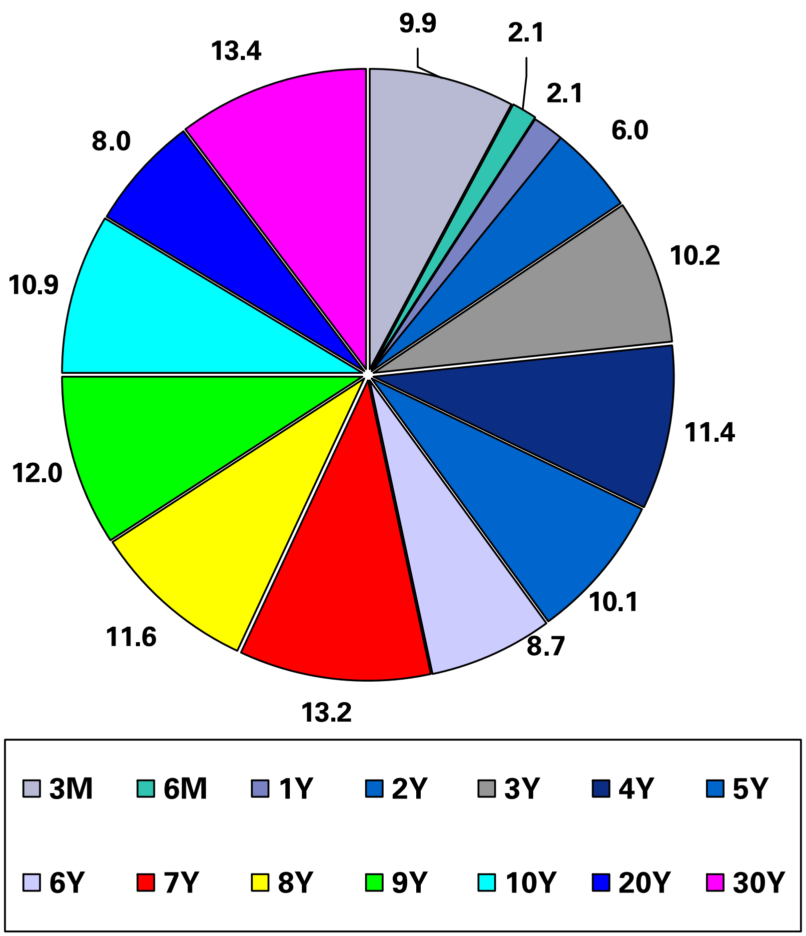
- T-Bills: $14.1 B
- Notes/Bonds (2–30 years): $115.5 B

Off-the-Run ("OTR")

- T-Bills: $99.3 B
- Notes/Bonds (2–30 years): $163.3 B
- Retail (CSB & CPB): $21.3 B
- CPP + capital lease Bonds: $6.2
- Foreign Currency (all maturities): $20.5 B

GOC's outstanding market debt of $440.2 B is 12.2% less than its peak outstanding market debt position of $501 B in 1996/97.

GOC Debt Outstanding – Domestic Benchmark Securities



GOC has $129.6 B in outstanding market debt as current benchmark on-the-run issues (benchmarks as broadly defined in the pie chart). This constitutes 29% of GOC's total market debt outstanding or 31% if foreign currency denominated debt is excluded from the total.

Even with anticipated issuance of another $33 B in Canada Bonds this year and an increase in T-Bills to $140 B, GOC's debt outstanding is not expected to grow, mainly as a result of fiscal surpluses (source: Debt Management Strategy 2005/2006).

Historically, GOC has sought to keep a low debt profile and has tended to borrow in domestic markets. For this and risk management and accountability reasons, the Borrowers tended to raise funds outside of Canada.

Recently, a radical shift has occurred. Declining GOC borrowing requirements in the face of expanding capital markets demand has reversed the way in which GOC can manage the domestic Canada money and bond markets.

To retain a thriving GOC benchmark market across the yield curve, the Government has implemented a bond buy-back program for off-the-run securities.

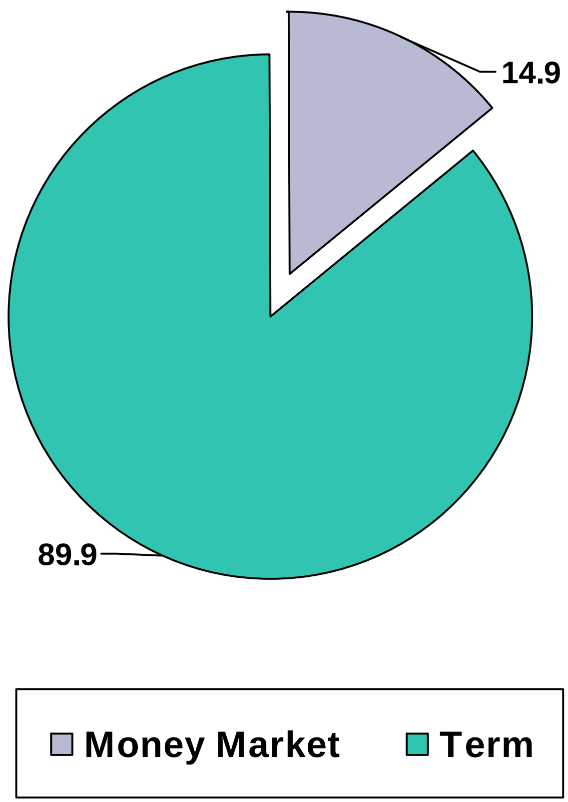
GOC Debt Outstanding – Debt Management Strategy

GOC continues to reduce the fixed rate portion of the debt, aiming to reach a target of 60% in 2007-2008. In order to achieve its strategy, yet maintain a well-functioning market in Canada securities, the Government anticipates making the following changes:

- An increase in the outstanding amount of T-Bills, to approximately $140 billion in 2005-2006
- A decrease in CB issuance of approximately $3 billion in 2005-2006, from $36 to $33 billion. To facilitate this decrease, GOC is intending to forego the auction of a 2-year fungible bond in the fourth quarter of 2005-2006
- In 2005-2006, GOC intends to reduce its bond buyback program, and planned buybacks will be approximately $1.5 billion less than 2004-2005 to an estimated buyback of $9 billion to $10 billion in 2005-2006
- The stock of marketable domestic bonds is expected to decrease at the end of 2004-2005, as a result of maturities and buyback operations, to approximately $235 billion
- Annual CB issuance is expected to remain stable once GOC's 60% target of fixed-rate debt reduction is reached, and will be in the range of $30 billion to $35 billion

Debt management strategy for 2005-2006 has the Government consulting with market participants on potential changes to the structure of the CB program to ensure a well-functioning market for Canada securities is maintained for the future. In addition, GOC will be working with market participants and securities regulators in the coming year to increase the level of transparency of secondary market trading information for Canada securities, for both institutional and retail investors.

Borrowers' Debt Outstanding

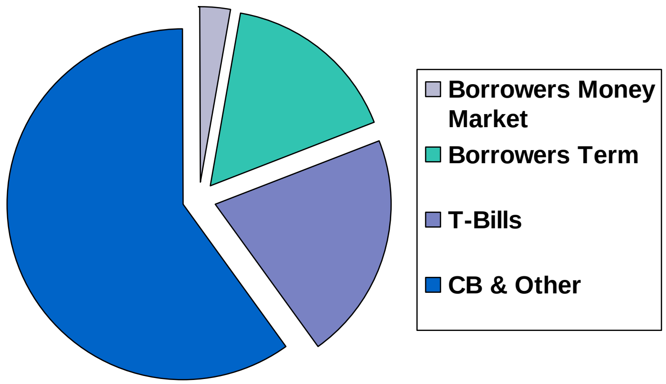


Borrowers have issued about $104.8 B in outstanding market debt, comprised as follows:

- Money Market: $14.9 B
- Term: $89.9 B

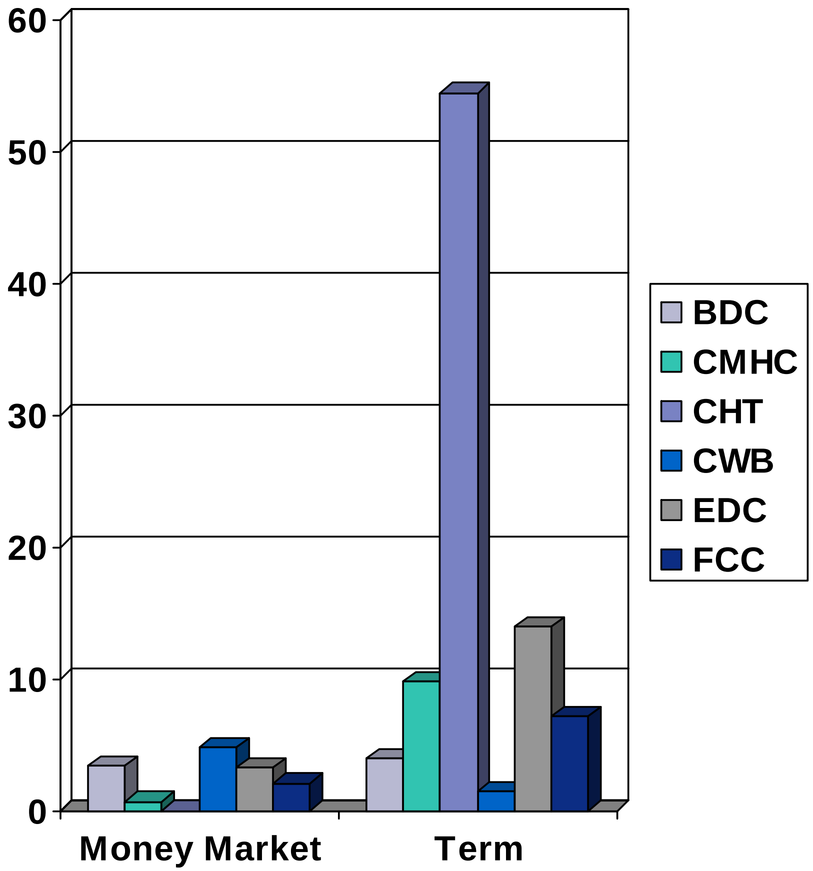
GOC plus the Borrowers has issued about $545.0 B in outstanding market debt, comprised as follows:

- Money Market and T-Bills: $128.3 B (87% GOC)
- Term/CB: $416.7 B (78% GOC)



GOC has 80.7% of Total, the Borrowers have 19.3%

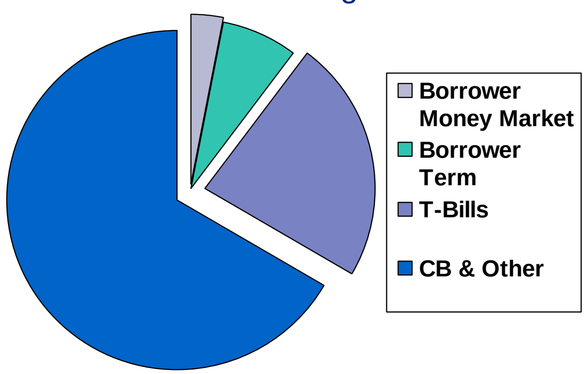
Borrowers' Debt Outstanding



Borrowers' $104.8 B in total money market and term outstanding market debt is as follows:

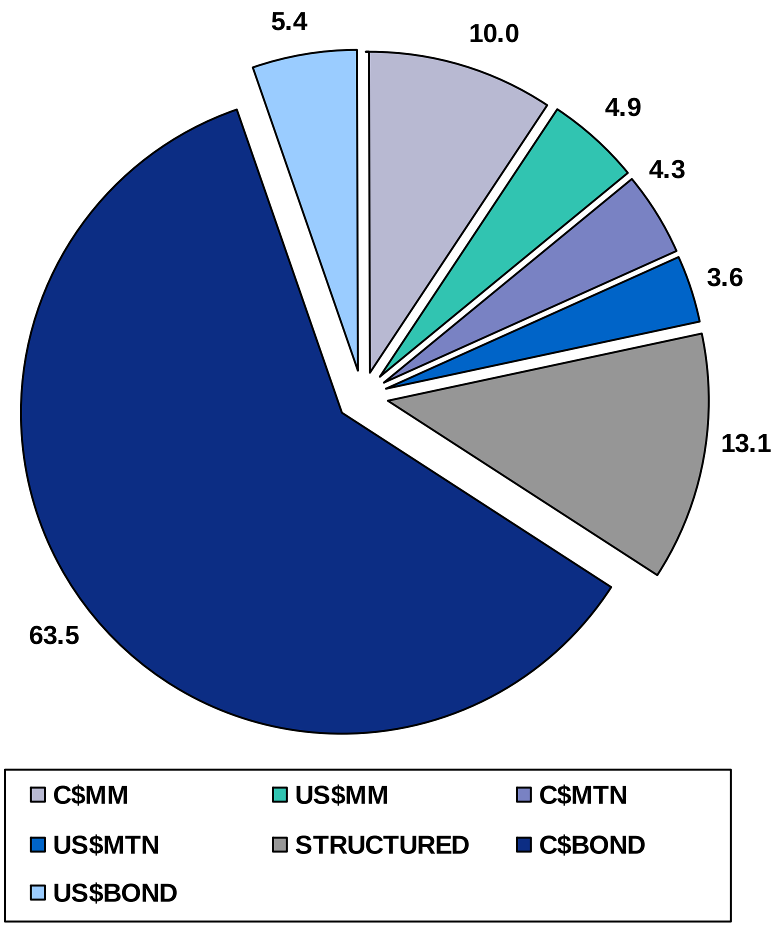
- BDC: $7.30 B [Mar 04 – Debt Management Report]
- CMHC: $10.44 B [Mar 04 – Debt Management Report]
- CHT: $54.45 B [Dec 04 – CIBC WM handout]
- CWB: $6.22 B [Sep 04 – Statistics Canada statement of liabilities]
- EDC: $17.18 B [Mar 04 – Debt Management Report]
- FCC: $9.21 B [Mar 04 – Debt Management Report]

CHT has 52% of total outstanding Borrower market debt. If excluded, Borrowers decline to 10.3% of total Borrower + GOC debt outstanding.



GOC has 89.7% of total outstanding market debt ex-CHT

Borrowers' Debt Outstanding by Type



Borrowers $104.8 B in total outstanding market debt is issued in the following instrument types:

Money Market:

- C$ Money Market: $10.0 B
- US$ MM: $4.9 B

Term:

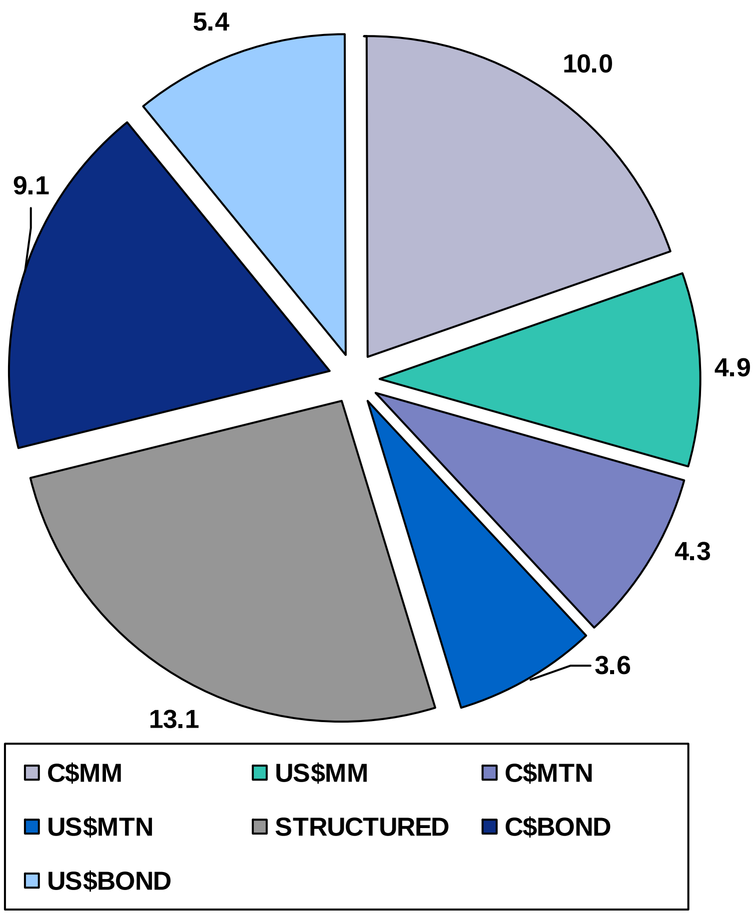
- C$ Medium Term Note: $4.3 B
- US$ MTN: $3.6 B
- Structured MTN: $13.1 B
- C$ Bond: $63.5 B
- US$ Bond: $5.4 B

We sampled 12 structured notes issued by various Borrowers – See Appendix J for details.

These instruments may be swapped or hedged to the currency and interest modality needed to comply with asset/liability management tolerances.

Over 74% of issuance or $77.8 B was done in the Canadian money and bond markets ($67.8 B fixed term, normal maturity; $10.0 B money market).

Borrowers' Debt Outstanding by Type (cont.)



Excluding CHT's $54.4 B in Canada Mortgage Bonds, Borrowers have $50.4 B in total outstanding market debt issued in the following instrument types:

Money Market:

- C$ MM: $10.0 B
- US$ MM: $4.90 B

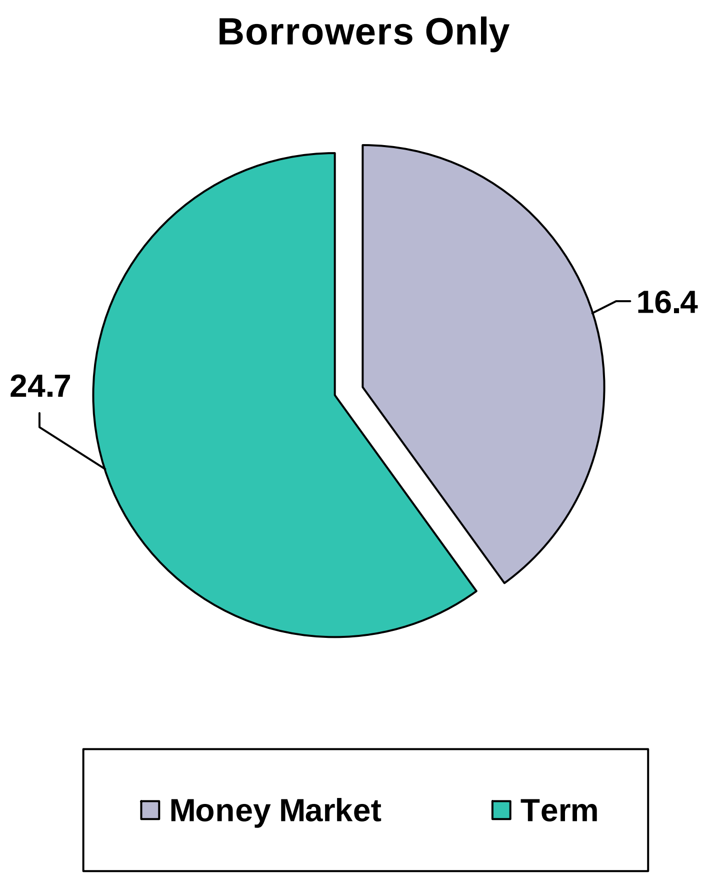
Term:

- C$ MTN: $4.3 B
- US$ MTN: $3.6 B
- Structured MTN: $13.1 B
- C$ Bond: $9.1 B
- US$ Bond: $5.4 B

Stemming from their mandates:

- CMHC, as a domestic mortgage lender, is the most significant natural issuer of C$ Bonds
- BDC, CWB and FCC as domestic agricultural and small business lenders have a natural requirement for mainly floating rate and modest fixed rate C$ debt
- EDC, as a lender to international buyers of Canadian goods and services, has multi-currency requirements (mainly in US$) in fixed and floating rates depending on conditions; it has GOC-provided equity as a significant source of C$ capital

Expected 2005 New Debt Issuance Overview



Borrowers are expected to issue $41.1B in market debt in 2005 as follows:

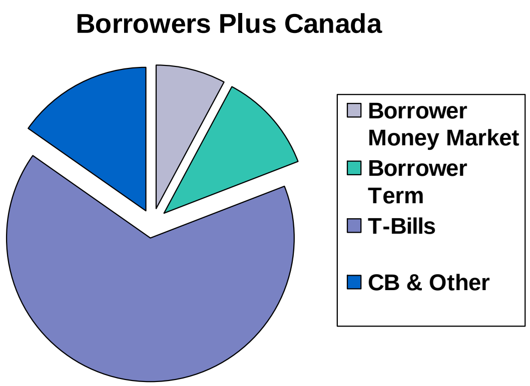
- Money Market: $16.4 B (average outstanding)
- Term: $24.7 B

For GOC, fiscal 2006 expected issuance has been used as a proxy for calendar year 2005 issuance. As such, the Government is expected to issue market debt in 2005 as follows:

- T-Bills: $140 B (average outstanding)
- Canada Bonds: $33 B

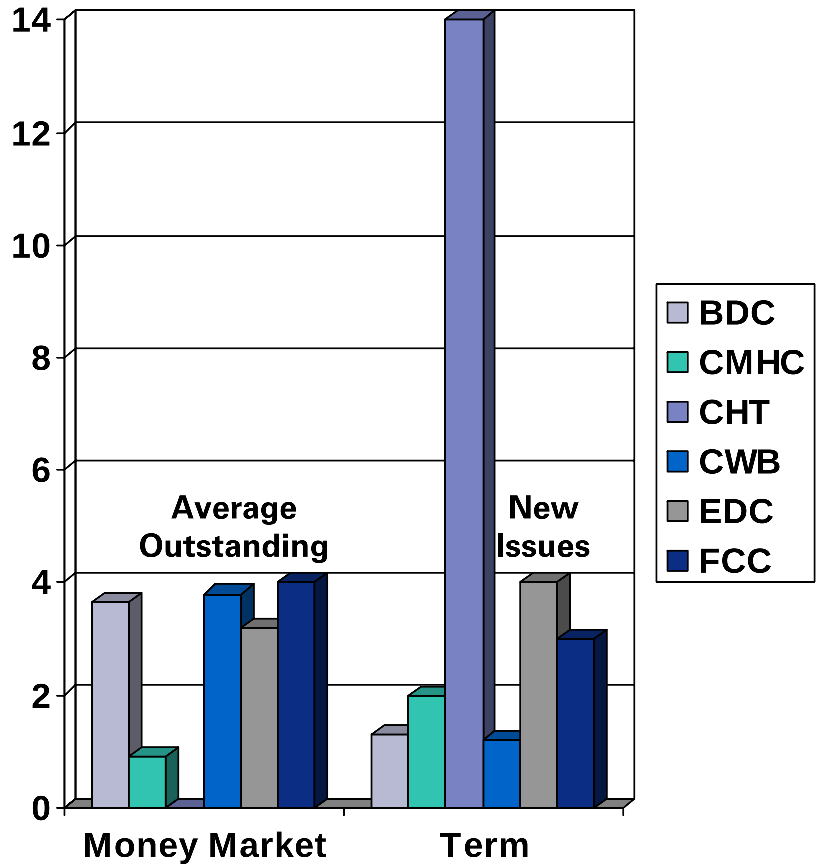
GOC plus the Borrowers are expected to issue $214.1 B in market debt in 2005 as follows :

- Money Market and T-Bills (average outstanding): $156.4 B (89% GOC)
- Term and CB: $57.7 B (59% GOC)



GOC has 80% of total with 65% of in T-Bills and 15% in Canada Bonds.

Review – Borrowers’ Expected New Debt Issuance

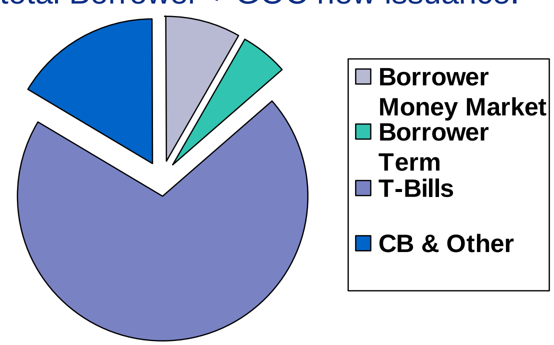


For 2005, Borrowers will issue approximately $41.1 B in total new market debt (i.e., money market plus term):

- BDC: $4.9 B
- CMHC: $2.9 B
- CHT: $14.0 B
- CWB: $5.1 B
- EDC: $7.2 B
- FCC: $7.0 B

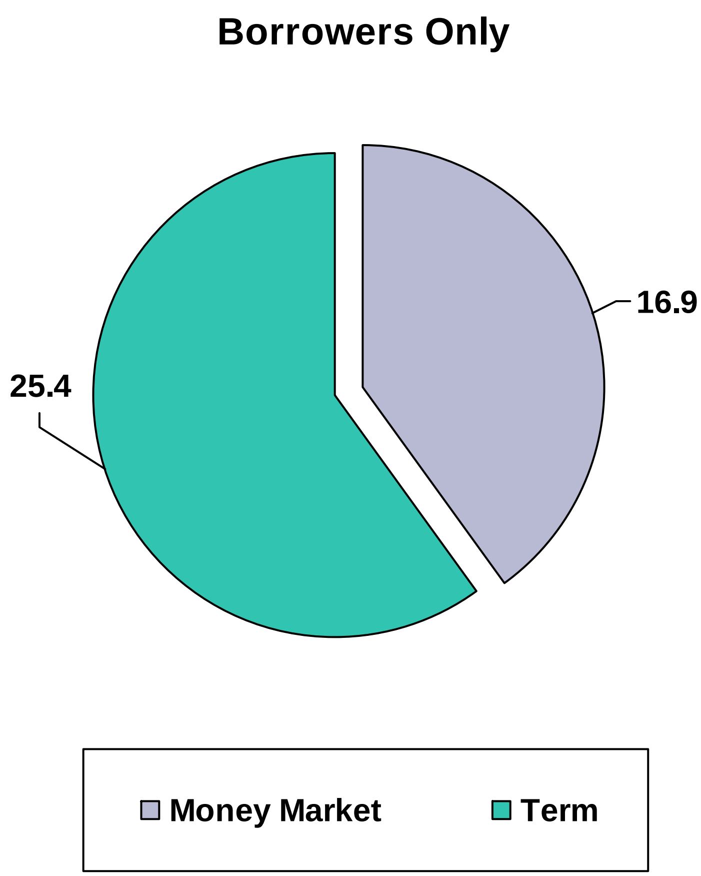
CHT has almost 35% of total new Borrowers market debt issuance.

If CHT is excluded, Borrowers become less than 15% of total Borrower + GOC new issuance.



Excluding CHT, GOC has over 85% of Total New Issuance.

Expected New Debt Issuance – Five Year Projections



Borrowers are expected to issue an average of $42.3 B annually in market debt in each of the next five years as follows:

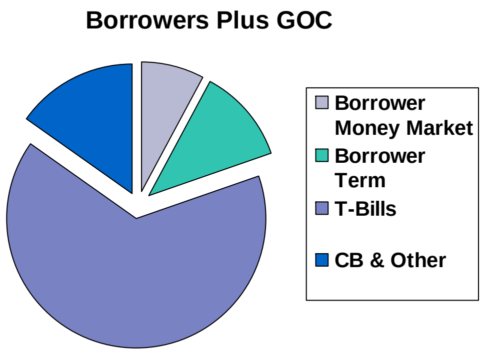
- Money Market: $16.9 B (average outstanding)
- Term: $25.4 B

GOC is expected to issue an average of $173B in market debt in each of the next five years as follows:

- T-Bills: $140 B (average outstanding)
- Canada Bonds: $33 B

GOC plus the Borrowers are expected to issue an average of $215.3 B annually in market debt in each of the next five years as follows:

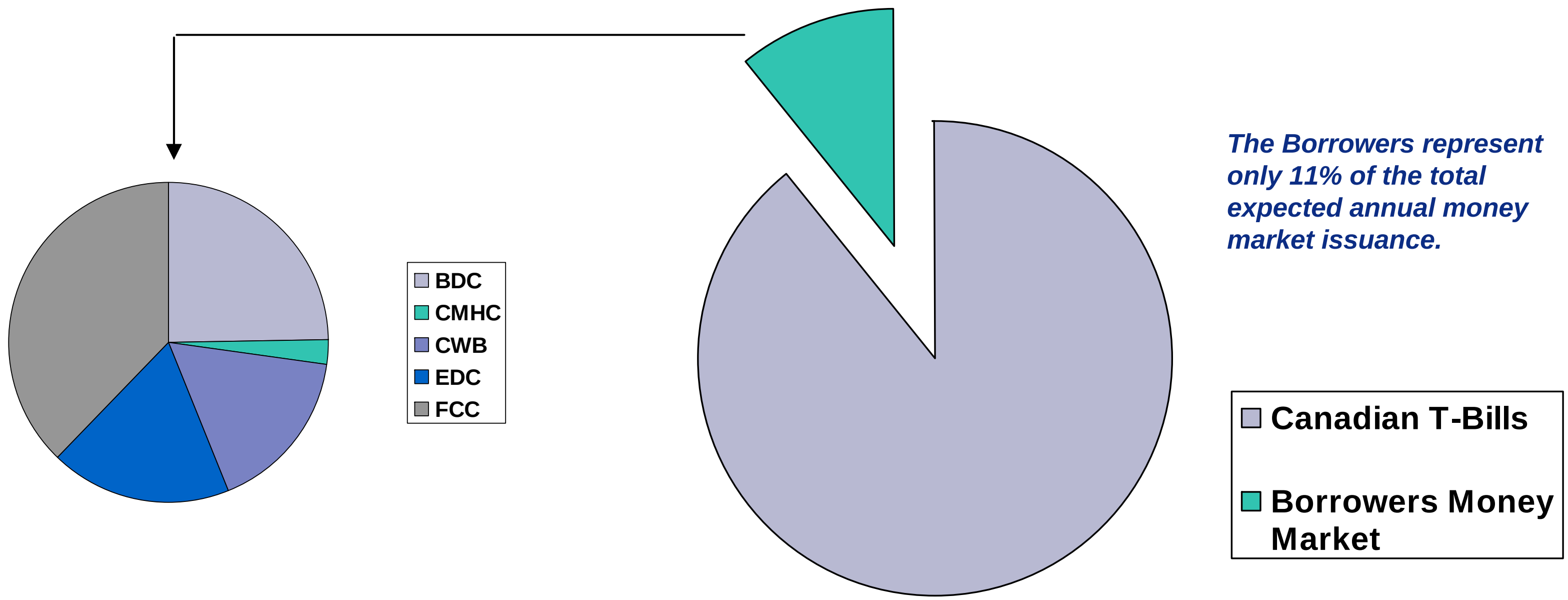
- Money Market and T-Bills (average outstanding): $156.9 B (89% GOC)
- Term/CB: $58.4 B (57% GOC)



GOC has 80% of total with 65% in T-Bills and 15% in Canada Bonds.

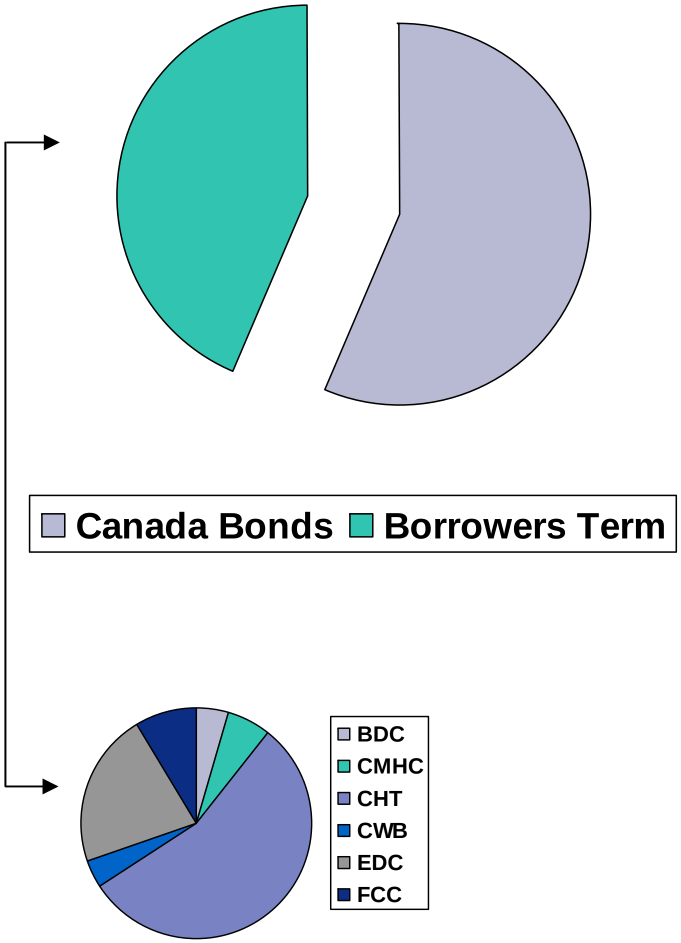
Money Market Five Year Projections

- Over the next five years, the Borrowers expect to have an average of $16.9 billion in money market debt.
- CHT does not issue Money Market and is therefore not included.
- The Government's Debt Management Strategy indicates that total T-Bill issuance will increase to $140 B by March 2006
- T-Bill issuance may increase somewhat after that date due to the stated intention to meet 40% of GOC's debt stock in floating rate form and with maturity under one year by 2008.
- Due to uncertainty as to the amount of GOC's future total debt, we have assumed $140 billion in stock of T-Bills through 2009.

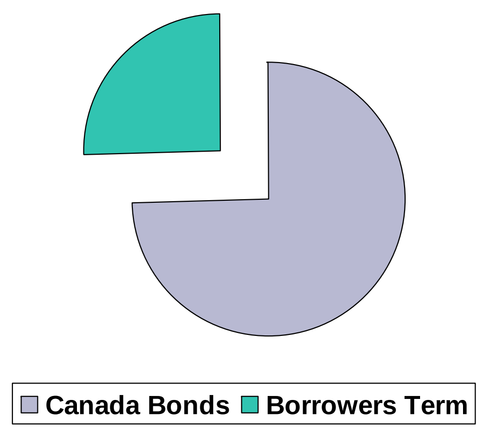


The Borrowers represent only 11% of the total expected annual money market issuance.

Term Debt Five Year Projections



- Over the next five years, the Borrowers expect to issue an average of $25 billion in new term debt.
- This amount includes $14 billion for CHT and $11 billion for the other five Borrowers.
- It should be noted that 42% of the Borrowers' term needs are expected to be met through issuance of floating rate term debt.
- GOC's Debt Management Strategy indicates that total Canada Bond issuance will be approximately $33 billion in fiscal 2006, and similar amounts over the next few years.
- Collectively, the Borrowers are significant issuers of term debt relative to Canada Bonds – at 43% of the total, i.e., collectively 76% of the amount issued by the Government.



Even with CHT removed, new term debt issuance by Borrowers for the next five years is expected to be 25% of the total issued, i.e., 33% of the amount of Canada Bonds issued.

Appendix G

The Agency Spread

An “Agency” is considered by the market to be a government-like enterprise that is not the sovereign nation. Agencies are typically organizations that have a guarantee from the sovereign, are owned by the sovereign, have mandates established by the sovereign, or, while not explicitly guaranteed by the sovereign, have a market expectation that the sovereign would be unlikely to let this Agency fail.

The four Crown Borrowers are different than most Agencies, because legally these Borrowers are indistinguishable from GOC. However, the market perceives these four Borrowers as Agencies because:

- They are legally distinct entities;
- They issue debt in their own names;
- Many international market participants do not understand the unique legal framework of these Borrowers, having more experience with sovereign guarantees;
- The structure of the Crown Borrowers requires legal interpretation and explanations to credit committees that investment in sovereign bonds does not;
- Collection in a default situation involves more process than a sovereign default; and
- Various regulations, collateral requirements, security frameworks and indices distinguish between the sovereign and any issue that is not the sovereign.

The market requires an Agency spread over the sovereign. This spread is due to structural differences and is a world phenomenon – KfW trades at a spread over German sovereign debt, Canadian provincial agencies trade at a spread versus the province.

Spreads can also be influenced by liquidity concerns – irregular issues, lack of a full yield curve of possible investments, small issue sizes or poor secondary markets.

The Agency Spread (cont.)

While changing Canadian regulations and pressuring for change in indices is an idea that could be considered to reduce the Borrower spreads, nothing can be done that will eliminate this spread. In the eyes of the market, the Borrowers are not GOC – a Crown will always be an agent and never the same as the Government.

Certain investors will not buy Agencies – through preference of the sovereign, through policies that prohibit investments in Agencies or trusts, or through policies or preferences that require higher spreads if moving away from the sovereign credit.

The changing nature of the spread between the sovereign and the Agency over time also adds risk that makes Agency credits less desirable for certain treasury management activities.

While some investors indicated that they see the Agency spread as a “bonus”, most investors indicated to us that, should spreads tighten too much versus the sovereign, then they’d just buy the sovereign, which would in turn involve the spreads beginning to widen.

The Power of a Basis Point – One Basis Point

Interest savings of 1 bp on long and short term debt issuance – All Borrowers

$ 25,000,000,000	Estimated Long-Term Issuance (assumed 5 years)							
0.010%	Spread savings							
$ 2,500,000	Savings per annum							
$ 17,000,000,000	Estimated Short-Term							
$ 1,700,000	Savings per Annum							
	Annual							Cumulative
Year	Savings	Short	2006	2007	2008	2009	2010	Savings
2006	$ 4,200,000	$ 1,700,000	$ 2,500,000	N/A	N/A	N/A	N/A	$ 4,200,000
2007	4,200,000	1,700,000	2,500,000	2,500,000	N/A	N/A	N/A	6,700,000
2008	4,200,000	1,700,000	2,500,000	2,500,000	2,500,000	N/A	N/A	9,200,000
2009	4,200,000	1,700,000	2,500,000	2,500,000	2,500,000	2,500,000	N/A	11,700,000
2010	4,200,000	1,700,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	14,200,000
2011		1,700,000	N/A	2,500,000	2,500,000	2,500,000	2,500,000	$ 46,000,000
2012		1,700,000	N/A	N/A	2,500,000	2,500,000	2,500,000	
2013		1,700,000	N/A	N/A	N/A	2,500,000	2,500,000	NPV @ 5%
2014		1,700,000	N/A	N/A	N/A	N/A	2,500,000	$ 38,776,094

NPV over 25 years is $177 Million

Appendix H

Analysis of Borrowing Cost - Approach

In this appendix, we focus on the potential difference in borrowing costs between the status quo and a full centralization.

As the sources and methodology of borrowing are quite different under these two alternatives, it is necessary to develop an overall approach to the comparison of the alternatives.

- Our approach herein assumes that the Borrowers will continue their policies regarding asset liability management, and therefore, that the Borrowers will need to ensure that the funds raised are ultimately matched against their assets.
- As a result, our approach has been to use the Borrowers' needs as a basis for comparison.
- Accordingly, where GOC does not raise funds in the form that the Borrowers' need, either GOC or the Borrower is assumed to swap these funds into the form required by the Borrower.
- While an argument could be made that one should swap the Borrowers' needs back into conventional fixed-rate ("vanilla") bonds issued by GOC to compare against GOC's borrowing cost, we favoured the more practical approach which reflected the ultimate needs of the Borrowers for the funds (i.e. GOC issues vanilla bonds which are swapped into the required characteristics - currency, fixed, floating).

Borrowing Categories

For the purpose of this analysis, we have grouped the borrowing requirements of the Borrowers into five categories:

- "Money Market CAD" represents Canadian dollar money market instruments with maturities of less than one year.
- "Money Market USD" represents United States dollar money market instruments with maturities of less than one year.
- "Term Floating CAD" represents Canadian dollar borrowing instruments which have a term of greater than one year, and which are issued or swapped into a floating interest rate.
- "Term Floating USD" represents borrowing instruments which have a term of greater than one year, and which are issued or swapped into a floating interest rate, and which are issued or swapped into United States dollars.
- "Term Fixed CAD" represents Canadian dollar borrowing instruments which have a term of greater than one year, and which are issued or swapped into a fixed interest rate.

We have not presented a "Term Fixed USD" category, as none of the Borrowers expects to require significant funds in this category, and such Borrowers have indicated that it would be acceptable to categorize all of their long-term USD requirements as Term Floating USD.

Key Assumptions

The following key overall assumptions have been incorporated into the analysis that follows. Specific assumptions regarding borrowing in the five categories will be discussed as that category is analyzed.

Transfer Pricing:

- As we are looking at the cost to Canada overall, transfer pricing has been ignored, i.e. borrowing from GOC by the Borrowers is assumed to be flat to GOC's issuance.

Borrowing Under Centralization:

- GOC would not change its current process of issuing Canada bonds and Canada treasury bills by auction.
- GOC would not change its current process of issuing USD Canada treasury bills on a commission basis.
- GOC would not act opportunistically, and would not issue any structured product or floating rate product with a term greater than one year.
- For purpose of funding the Borrowers, GOC would not issue any USD borrowing instruments with term greater than one year.
- Accordingly, funds would be raised for the Borrowers on matched terms to GOC's issuance of benchmark securities (e.g. a 5-year Canada bond or a 3-month treasury bill).
- If required, one or more swaps are assumed to be applied to this borrowing, by GOC or by the Borrowers, such that the Borrower effectively receives the type of instrument that best meets its needs.

Cost of Funds

- Due to strong market demand, GOC's cost of funds would not be impacted by the additional volumes required with centralization

Borrower Liquidity:

- This analysis excludes any costs or savings associated with changes to Borrower liquidity that may follow with centralization of borrowing.

Structured Notes:

- This analysis compares cost of funds from vanilla products to structured products without making any basis point adjustment to reflect the differing levels of risk in such products.

Transition:

- No costs of establishing a centralized borrower have been considered.
- No changes to operating costs under centralization have been considered.

Assumptions - Future Borrowing Requirements

- The amount of expected borrowing in each category represents the average expectation for the five years 2005 through 2009, with and without CHT.
- To prepare this chart, we first considered the Borrowing Plans of the Borrowers.
- After discussions with the Treasurers of the Borrowers, we clarified our interpretation of the Borrowing Plans, incorporating supplemental information where appropriate.
- We then divided the expected borrowing requirements into the five categories shown.
- For Money Market, the figure shown is the expected average amount outstanding at any time.
- For Term Floating and Term Fixed, the figure shown is the expected amount required to be raised in each year. The term of such borrowing is expected to average five years.
- Note that the large requirements for Term Floating products are driven by the preferences of the customers of the Borrowers, which in today's low interest rate environment tend to favour floating rates. Should the customer preferences of the Borrowers trend back to fixed rates, then the mixes on this table could change significantly.
- Collectively, the Borrowers arrange a large portion of their borrowing requirements for Term Floating and a significant portion of their borrowing requirements for Term Fixed using various structured products (often through Medium Term Notes), which are typically swapped to meet the Borrowers' needs.
- We have provided each Borrower with the average borrowing requirement for each category used for such Borrower herein, and have received confirmation.

2005 to 2009 Average Borrowing Requirement

CAD Millions	With CHT	Without CHT
Money Market		
Money Market CAD	12,300	12,300
Money Market USD	4,600	4,600
Subtotal	**16,900**	**16,900**
Term		
Term Floating CAD	4,300	2,100
Term Floating USD	6,400	6,400
Term Fixed CAD	14,700	2,900
Subtotal	**25,400**	**11,400**
Total Average Borrowing Requirements	**42,300**	**28,300**

Base Case and Sensitivity Analysis

In this analysis, we are looking at the difference between the cost of funds achieved by the status quo versus the cost of funds under an assumed centralization. This difference reflects the potential reduced (or increased) borrowing costs under centralization, i.e. a reduction/increase in the rate and dollars paid to the market under centralization, hereinafter referred to as "savings"/"cost". For the Borrowers, any "savings" represents a reduction in direct borrowing costs paid to the market, which may be passed on to stakeholders.

For each of the five borrowing categories, we have prepared a "Base Case", which reflects the potential annual and five-year savings (or cost) under a centralization, using the assumptions herein.

- The annual savings (cost) presents the potential savings or cost for the first year under centralization.
- The five-year savings (cost) presents the potential savings or cost for the first five years post-centralization, on an undiscounted basis.
- Therefore, for Money Market, the five-year savings represents the first year savings multiplied by five.
- For Term Floating and Term Fixed, the five-year savings uses a multiple of 15, as the first year savings would be realized for five years, the second year savings for four years, etc. (5+4+3+2+1=15). Note that this 15 multiple may somewhat overstate the potential savings in certain categories as some long-term debt issued by the Borrowers may be called prior to its maturity.
- For the Base Case, our objective has been to use the data that is best representative of the cost of funds over a market cycle, as this analysis is for an assumed five-year projection period. We noted that the cost of funds in 2000 and 2001 was an outlier in many categories, due not only to changes in the markets, but due to changes in the Borrowers' programs and approach to the market. For that reason, we have used the three-year average of 2002 through 2004 as the "Base Case" representative to consider the market cycle.

We have then performed a sensitivity analysis versus the Base Case.

- For each of the five borrowing categories, we have created the "Worst Case" and "Best Case" by varying the expected savings (or cost) by an appropriate number of basis points, as explained on the slide.
- For clarity, the Worst Case represents the "worst case for centralization", i.e. the situation where centralized borrowings would be least favourable.

KPMG

Five Year Cost of Funds

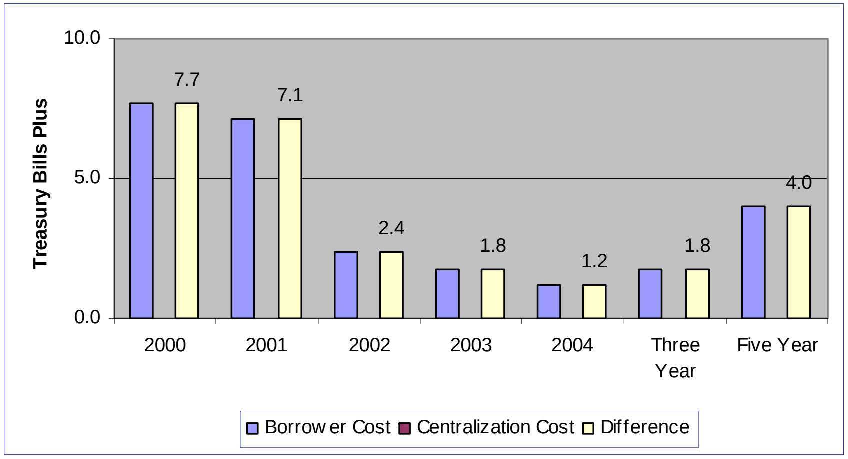
We have compiled a five-year cost of funds analysis for each of the Borrowers for the five borrowing categories, as follows:

- We have examined the cost of funds for each of 2000, 2001, 2002, 2003 and 2004, as provided by the Borrowers.
- In most cases, this cost of funds analysis includes commission. Where the cost of funds does not include commissions, we have adjusted this cost of funds for commission, after discussion with the Treasurers.
- The cost of funds analysis has not used absolute cost of funds, but instead has used comparison to benchmarks, as follows:
  - Money Market CAD — Canada Treasury Bills
  - Money Market USD — LIBOR
  - Term Floating CAD — Bankers Acceptances (BAs)
  - Term Floating USD — LIBOR
  - Term Fixed CAD — Canada Bonds
- The Borrowers typically use the term of the benchmark that best matches the Borrowers' own issuing term in order to best measure performance.
- To calculate the average cost of funds for a specific year versus a benchmark, we have weighted each Borrower's costs of funds by their expected future borrowing in that category. Note that we have not used historic borrowing in each of the five years, as the purpose of our analysis is to look at future borrowing costs, and the weighted average cost of funds in the future will involve the Borrowers' actual cost of funds weighted by their future expected borrowing.

We have provided each Borrower with the average cost of funds for each year for each category used for such Borrower herein, and have received confirmation.

Money Market CAD

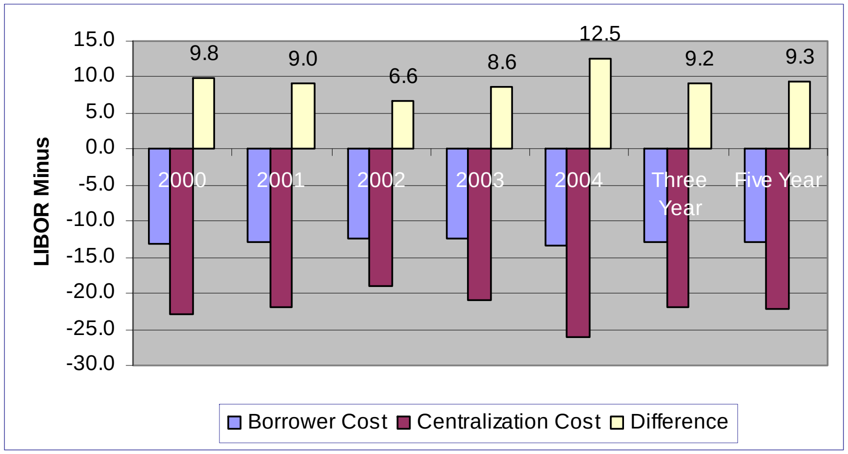
- The adjacent table shows the Borrowers' costs in relation to the benchmark GOC treasury bills.
- As GOC sets this benchmark, the borrowing cost assumed with centralization is GOC treasury bills flat, and the difference represents the potential savings.
- For the Base Case, we have assumed an average for the last three years (i.e. a 1.8 basis point premium) to reflect recent borrowing costs over a cycle.
    - Canada could save $2.2 million per year or $10.9 million over five years.
- For the Worst Case, we assume that the Borrowers would borrow flat to treasury bills, as most Borrowers are able to achieve this rate from time-to-time.
    - No savings could be achieved in this scenario.
- For the Best Case, we assume that treasury bill spreads could widen to the levels of 2000 and 2001 over a cycle, and therefore have used a 4.0 basis point premium, representing the 5-year average.
    - Canada could save $4.9 million per year or $24.7 million over five years.



Sensitivity Analysis	Base Case	Worst Case	Best Case
Basis Point Saving	1.8	0.0	4.0
(CAD Millions)			
Savings (Cost) – 1 Year	2.2	0.0	4.9
Savings (Cost) – 5 Years	10.9	0.0	24.7

Money Market USD

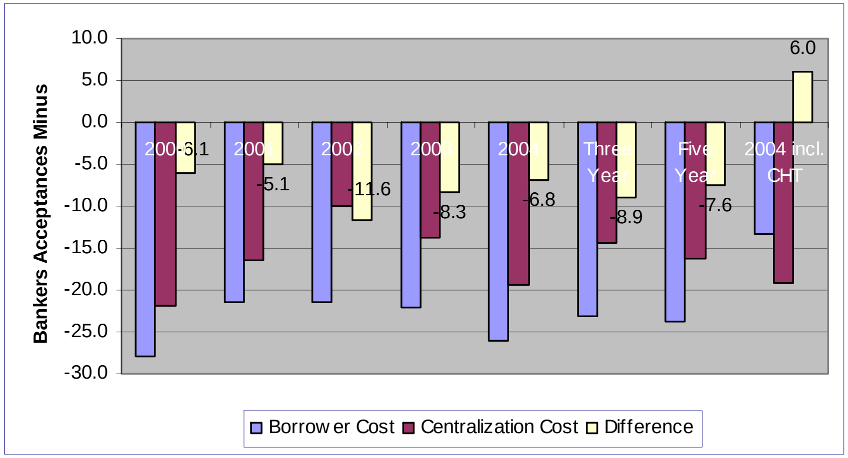
- The benchmark used in this analysis is LIBOR.
- The market data versus LIBOR on centralization represents GOC's all-in borrowing cost (including commissions) for 3-month USD Canada Treasury Bills for each year, as provided by the Bank of Canada.
- For the Base Case, we have assumed that Canada could save 9.2 basis points on centralization, using the three-year average.
    - Canada could save $4.2 million per year or $21.2 million over five years
- For the Worst Case, we have reduced the potential savings by 2.6 basis points to 6.6 basis points, representing the best Borrower results in the last five years.
    - Canada could save $3.1 million per year or $15.3 million over five years
- For the Best Case, we have increased the potential savings by 3.3 basis points to 12.5 basis points, similar to 2004 results.
    - Canada could save $5.8 million per year or $28.8 million over five years.



Sensitivity Analysis	Base Case	Worst Case	Best Case
Basis Point Saving	9.2	6.6	12.5
(CAD Millions) Savings (Cost) – 1 Year	4.2	3.1	5.8
Savings (Cost) – 5 Years	21.2	15.3	28.8

Term Floating CAD

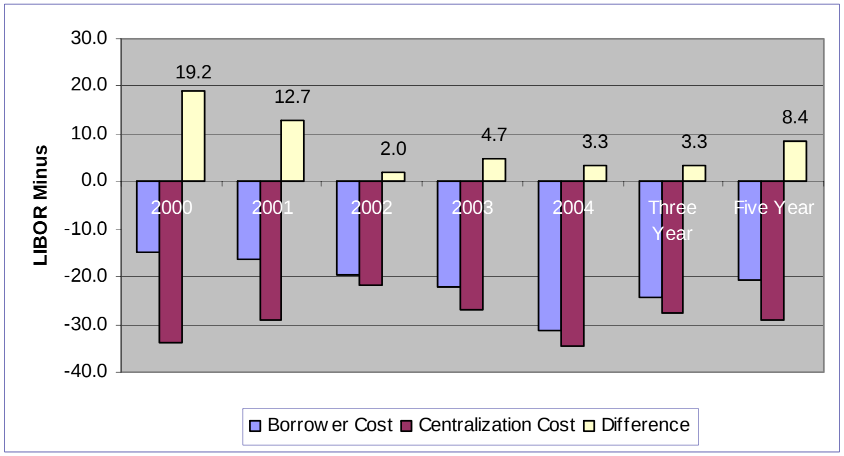
- The benchmark used for assessment of floating rate funding is typically Bankers Acceptances (BAs).
- In this category the Borrowers have achieved a cost of funds between 20 and 25 basis points below BAs, as the vast majority of issuance in this category is in the form of structured notes.
- Under centralization, GOC is assumed to increase its issue of 5-year Canada benchmark bonds, which would be swapped to floating using the 5-year Canada swap curve rates. In compiling the graph, we adjusted posted swap spreads first to reflect the difference in term between the swap bond and the underlying benchmark bond, and then by 0.5 basis points to reflect the fact that some Borrowers benchmark versus 1 month and the swap curve uses 3 months. This determines the assumed cost of centralization.
- As shown by the chart, the Borrowers are achieving costs lower than would be expected by GOC in this category. The lower direct borrowing is expected due to the additional risks being taken through issuance of such notes and does not reflect an ability for the Borrower to achieve rates better than GOC on a risk-adjusted basis.
- Under the Base Case excluding CHT, it is assumed that GOC could issue at BAs less 14 versus the Borrowers at BAs less 23, representing the three-year averages.
  - It would cost Canada $1.9 million per year or $28 million over five years.
  - It should be noted that the assumed centralization costs use posted swap rates and that it is probable that GOC could achieve better than posted rates due to the volumes issued. This has not been reflected herein.
- For the Worst Case, we have subtracted 4.0 basis points to arrive at negative 12.9 basis points, approximately reflective of the best Borrower results over the past five years.
  - It would cost Canada $2.7 million per year or $40.6 million over five years.
- For the Best Case, we have mirrored the same 4.0 basis points to arrive at a cost of 4.9 basis points, reflecting the potential for reduced availability of structured notes.
  - It would cost Canada $1.0 million per year or $15.4 million over five years.
- With CHT included (see final table on this slide), which as a vanilla bond is issued at a higher cost, savings are available, even in the Worst Case scenario.



EXCLUDING CHT Sensitivity Analysis	Base Case	Worst Case	Best Case
Basis Point Saving	-8.9	-12.9	-4.9
(CAD Millions)			
Savings (Cost) – 1 Year	-1.9	-2.7	-1.0
Savings (Cost) – 5 Years	-28.0	-40.6	-15.4
INCLUDING CHT Sensitivity Analysis	**Base Case**	**Worst Case**	**Best Case**
Basis Point Saving	6.0	2.0	10.0
(CAD Millions)			
Savings (Cost) – 1 Year	2.6	0.9	4.3
Savings (Cost) – 5 Years	38.7	12.9	64.5

Term Floating USD

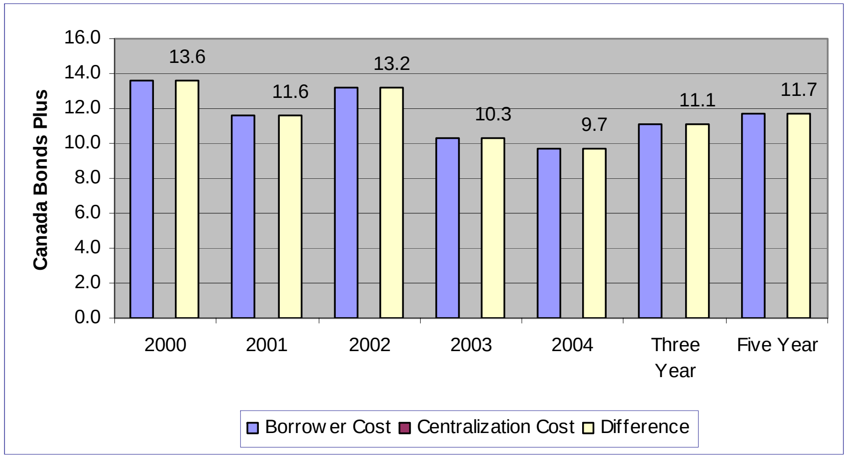
- LIBOR is the benchmark for this funding, and the Borrowers' current costs are compared versus LIBOR.
- Under centralization, we assumed that GOC would start with the benchmark 5-year Canada bond, which would then be swapped to floating. After that, a basis swap would be used to swap to USD.
- Over the last four years, GOC has swapped from vanilla Canada bonds to USD floating raising over USD 6 billion at an average rate of LIBOR less 41, and a standard deviation below 4 basis points. This is a significantly better result than the LIBOR less 28 figure used in the chart, which is based on posted rates. Therefore, while we expect that the savings under centralization could exceed the amounts shown herein, we do not have sufficient data points to use this data.
- Under the Base Case, we have used the three year average as the Borrowers have significantly changed their approach since 2000 and 2001.
  - Canada could save $2.1 million per year or $31.9 million over five years.
  - It should be noted that the assumed centralization costs are based on posted swap rates. Based on GOC experience, Canada could achieve better than posted rates due to the volumes issued. This has not been reflected herein.
- For the Worst Case, we have used the best Borrower result over the past five years at 2.0 basis points.
  - Canada could save $1.3 million per year or $18.9 million over five years.
- In the Best Case, we have used the 5 year average of 8.4 basis points.
  - Canada could save $5.4 million per year or $80.5 million over five years.
- Borrowing in CAD when the Borrowers require USD increases counterparty risk under centralization.



Sensitivity Analysis	Base Case	Worst Case	Best Case
Basis Point Saving	3.3	2.0	8.4
(CAD Millions) Savings (Cost) – 1 Year	2.1	1.3	5.4
Savings (Cost) – 5 Years	31.9	18.9	80.5

Term Fixed CAD (excluding CHT)

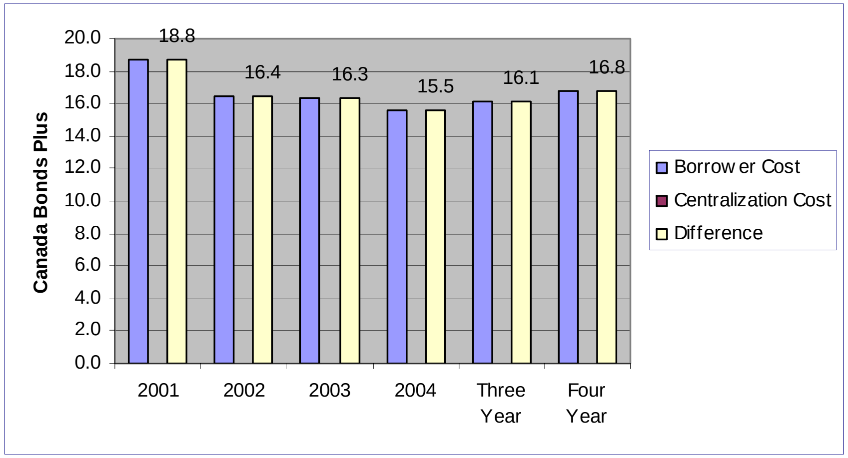
- The adjacent table shows the Borrowers' costs in relation to the benchmark 5-year Canada bonds.
- As GOC sets this benchmark, the borrowing cost assumed with centralization is 5-year Canada bonds flat, and the difference represents the potential savings.
- For the Base Case, we have assumed an average for the last three years (i.e. an 11.1 basis point premium) to reflect recent borrowing costs over a cycle.
  - Canada could save $3.2 million per year or $48.1 million over five years.
- Note that the three-year average of 11.1 basis points does not reflect the market rate for vanilla bonds. The achieved cost of funds considers the mix of vanilla bonds and structured notes issued by the Borrowers. In each of the past five years, the all-in cost of vanilla bond issuance by Borrowers has been at least 5 basis points higher than the figures presented in the table.
- For the Worst Case, we assume that the Borrowers could reduce their spreads by 2 basis points.
  - Canada could save $2.6 million per year or $39.4 million over five years.
- For the Best Case, we have mirrored the narrowing, instead assuming a widening by 2 basis points to 13.1.
  - Canada could save $3.8 million per year or $56.8 million over five years.



Sensitivity Analysis	Base Case	Worst Case	Best Case
Basis Point Saving	11.1	9.1	13.1
(CAD Millions)			
Savings (Cost) – 1 Year	3.2	2.6	3.8
Savings (Cost) – 5 Years	48.1	39.4	56.8

Term Fixed CAD (including CHT)

- This page presents the same information and same comparison as the previous slide, except that it includes CHT.
- As a vanilla, unstructured product issued in large volume, inclusion of CHT's Canada Mortgage Bonds increases the weighted average spreads achieved by the Borrowers.
- For the Base Case, we have again assumed an average for the last three years (i.e. a 16.1 basis point premium) to reflect recent borrowing costs over a cycle.
  - Canada could save $23.7 million per year or $354.8 million over five years.
- For the Worst Case, we assume that the Borrowers would reduce their spreads by 3 basis points – particularly assuming the trend to tightening of CMB spreads continues.
  - Canada could save $19.2 million per year or $288.7million over five years.
- For the Best Case, we assume that spreads could widen by the same 3 basis points to 19.1.
  - Canada could save $28.1 million per year or $421.0 million over five years.



Sensitivity Analysis	Base Case	Worst Case	Best Case
Basis Point Saving	16.1	13.1	19.1
(CAD Millions) Savings (Cost) – 1 Year	23.7	19.2	28.1
Savings (Cost) – 5 Years	354.8	288.7	421.0

Overall

With CHT – Average Borrowing Requirements $42.3 billion

	Centralization Savings (Cost)	Annual Savings (Cost)	Nominal Five-year Savings (Cost)
	(Basis points)	(CAD millions)	
Base Case	8.2	34.8	457.5
Worst Case	5.8	24.4	335.7
Best Case	11.4	48.4	619.4

Without CHT – Average Borrowing Requirements $28.3 billion

	Centralization Savings (Cost)	Annual Savings (Cost)	Nominal Five-year Savings (Cost)
	(Basis points)	(CAD millions)	
Base Case	3.5	9.9	84.2
Worst Case	1.5	4.2	33.0
Best Case	6.7	18.8	175.4

- Overall, there is an expected Base Case savings of $34.8 million in the first year after centralization, and $457.5 million over five years. Substantial savings remain available in a Worst Case scenario.
- Note the significant basis point reduction in savings when CHT is removed. This is because CHT issuance is unstructured (i.e. unswapped and vanilla) and issued in substantial size into the Canadian market.
- Therefore, if CHT is excluded, the Base Case reduces to $9.9 million in the first year, and $84.2 million over five years.
- However, that Base Case is variable based on changing capital and swap markets. The expected first year savings would be $4 to $19 million or $84 to $175 million over five years.
- Savings would be larger under centralization if structured notes were presented on a risk-adjusted basis, or if under centralization, GOC could achieve better than posted swap rates.

KPMG

Appendix I

Attributes

The various alternatives are being assessed according to the following nine attributes:

- **Direct Borrowing Costs**
- **Management of the Canada Credit**
- **Diversity and Appropriateness of Borrowing Products**
- **Quality and Liquidity of Canadian Capital Markets**
- **Financial Reporting**
- **Borrower Liquidity**
- **Borrowing Operations**
- **Financial Risk Management**
- **Governance and Accountability**

Direct Borrowing Costs

Why Relevant?

- The publicly stated fundamental objective of the Debt Management Strategy of Finance Canada is to raise stable, low-cost funding for the Government of Canada.
- In the broader macroeconomic context of public policy, any issuer benefiting from the Canada Credit has a responsibility to Canadian taxpayers to achieve the lowest possible risk weighted cost of borrowing.

All-in Cost of Borrowing

- It is important to take into account spreads, commissions and infrastructure costs.

Infrastructure

- Based on our interviews, Treasuries of Borrowers collectively employ 58 people, but not all of these are involved in direct funding operations.
- This aggregate headcount would likely not change significantly under a centralization scenario
  - the Borrowers will retain their in-house ALM, debt management, liquidity management, lending and insurance program support and investment management expertise ;
  - the few resources (if any) that Borrowers could save would be needed at the CFE.
- Despite there being some overlap, there is no standard trading or information system between the Borrowers.
- Any assessment of alternatives other than the status quo would need to analyze and take into account the transition costs required to modify the existing treasury infrastructures.

Cost of Funds (“COF”) Targets

- Short term: for money market CAD and USD activity, Borrowers established targets ranging from:

- T-Bill flat to +5 bps or US LIBOR -10 bps to -20 bps;
- All-in COF achieved over the last year ranged from T-Bill +1 bp to T-Bill +2.5 bps;
- No commission paid by borrowers for money market issuance.

- Floating rate and fixed rate term financing
  - Depending on the characteristics of their funded assets, Borrowers will set their targets either in terms of Canada Bonds ("CB") or in floating rate terms.
  - Observed targets thus ranged from:

Fixed	Floating
CB +12 bps in the 5Y CB +18 bps in the 10Y	BA's -20 bps to -40 bps LIBOR -30 bps to -40 bps

- Above targets for floating and fixed rates are all-in, including commissions.

Risk Weighted Cost of Funds

- Currently no formal risk weighted cost of fund methodology is in place – and structured products bear more risk than vanilla products.
- Targets posted by some Borrowers (who are the most active and have the longest expertise in issuing structures) are much more aggressive than for vanilla issues of similar maturities; we understand that all these issues are "reverse inquiry" (proposals made by dealers) and that the Borrower needs the capacity to independently vet that its resulting cost of funds through structured notes does fully price the credit risk as well as the option granted to the counterparty to call the issue.
- Structured notes includes the following additional risks:
  - Valuation, complexity and counterparty risk issues.
  - Reliance, in certain structures, on indices which may have difficulties in the long term.
  - Investor response risk when called.
  - Rollover (refinancing) risk when called.

Management of the Canada Credit

Why Relevant?

- The Government of Canada has a AAA rating, and is well-respected as a borrower in Canadian and international markets.
- The Borrowers are using the same credit, i.e. their borrowing programs depend upon their reputation and AAA rating of GOC.
- Actions taken by parties that share a rating will impact all of the other parties.
- As a sovereign, the market and public perception of the Canada Credit is critical. In this connection, the

> "move to auctions by the government for the issuance of securities denominated in its domestic currency was in line with the evolution of practices of other major sovereign countries."[1]

[1] Finance Canada, Review of the Government of Canada Debt Distribution Framework, October 2004, p.4

- GOC's borrowing must be seen as having a transparent process that is fair to all market participants. Over the last few years, Finance Canada and the Bank of Canada have implemented a number of measures to improve transparency of the Canadian fixed income markets, while aiming at a balanced trade-off between greater transparency and market liquidity. And these developments occurred in a context of shrinking debt issuance and increased concentration among fewer primary dealers.[2]

<u>Observations on Market Perception and Process</u>

- While sharing a rating with GOC, the Borrowers have their own distinct market reputations, which are generally high.
- Most sovereigns use the auction process, as used by GOC, as it is the most transparent.
- CHT does not issue via auction, but does have quarterly issuances that are expected by the market.
- The other Borrowers are "opportunistic", in that they do not issue any benchmark or regular issuances, instead monitoring the market and executing borrowing when market conditions are favourable versus their desired borrowing costs.

Diversity and Appropriateness of Borrowing Products

<u>Why Relevant?</u>

- Market perception and reputation are extremely sensitive factors for GOC.
- Exploring innovative ways to address the shrinking debt concept is encouraged as is the maintenance of a variety of funding channels.
- The benefits of structures have to be looked at in terms of risk-adjusted cost of funds.
- Funding through retail oriented structured products raises public policy and reputation risk issues that ought to be carefully weighted.

<u>Observations</u>

- The Borrowers, except CMHC and CHT, issue structured notes to reduce their borrowing costs; in fact, structured finance allows the Borrowers to obtain lower-cost floating rate funding than would be achievable by issuing commercial paper (replicates existing financial products at a lower cost).
- This Borrower approach is not dissimilar to many other "agencies" around the world.
- It provides access to niche markets where sovereigns are not typically present (less than USD 10 million) and where Borrowers are most appreciated by investors because of their clear ownership structure (the ultimate credit risk is sometimes less clear for European quasi sovereigns).
- Through their structured MTNs, Borrowers fill a market need by issuing synthetic products which are otherwise not available in the marketplace and hence meet specific investor demands, i.e.
  - Financial instruments to match institutional investors' requirements for higher returns during low-interest-rate periods or for purposes which relate directly to an individual investor's other portfolio requirements
  - Allow investors to take market risk but minimize credit risk through a principal protected AAA rated underlying issuer.
- Dealers value MTNs due to the commission and derivative income they generate while servicing the needs of borrowers and investors.

[2] Finance Canada, Review of the Government of Canada Debt Distribution Framework, October 2004, p.9

- Structured notes issued by the Borrowers allow international institutional investors to access AAA-rated issuers requiring no credit risk capital charge (0% BIS weighted). Issuance of structured notes adds credit risk management complexity to debt management strategies of the Borrowers as mark-to-market levels of credit exposures change with movements of currency and interest rates and must be measured to assess accurate levels of credit exposures to counterparties.
- In Canada, according to our interviews, institutional investors typically avoid these products, deeming them too expensive compared to what they can achieve on their own – they definitely see these structures as more of a retail product. Concerns raised about retail targeted issues include: (1) do retail investors understand the role of the Borrower in the transaction; or (2) if investors receive no return from the issue, will the reputation of the Canada Credit suffer?
- Issues underlying all structured note issuance include:(1) do the Borrowers fully understand the issues, and can they reverse engineer the product?; (2) to translate the structured note into what the Borrower needs, complex swaps are executed with counterparties rated lower than the Borrowers; and (3) do the Borrowers appropriately price the structural and counterparty risk into their borrowing targets?
- In our review of a sample of structured notes issued by the Borrowers, we noted that the counterparty to the swaps or other other-the-counter derivatives hedging these structures is the official calculation agent. Whereas this is neither a wrong or unusual situation per se, it reinforces the fact that Borrowers should be able to reach their own independent valuations to ensure that they are treated fairly by their counterparty and that they properly value their market and credit risks on said structures. The Borrowers indicated that they have this capability.
- As many of the structures include a callable feature, they can exacerbate rollover risk hence market risk – that is in cases where debt will have to be rolled over at unusually high cost.[3] The calls are usually hedged and if not the Borrower is not likely to pay more than its average cost rather than high cost. Call dates are usually fairly short.
- In their Guidelines for public debt management[4], the IMF and Worldbank propose that

  > "Where appropriate, issuing instruments with embedded options (such as savings bonds, which are redeemable by the bondholder on demand) may also contribute to instrument diversification. However, even where valid reasons exist for issuing such securities, debt managers should exercise considerable caution to ensure that the risks inherent in embedded options and other derivative instruments are integrated in the risk management framework, and that the instruments and risks are well understood by the issuer and other market participants."

Quality and Liquidity of Canadian Capital Markets

Why Relevant?

- Canada Treasury Bills and Bonds are used as the benchmark against which all other borrowers in the Canadian fixed income capital markets are measured.
- Therefore the Government of Canada establishes benchmark issues, and continually is taking steps to maintain a viable and liquid yield curve.

Measures of Liquidity

- The narrowness of the bid - offer spread.

[3] Guidelines for Public Debt Management – Amendments December 2003, issued by the Staffs of the International Monetary Fund and the World Bank, p.10.
[4] Guidelines for Public Debt Management, issued by the Staffs of the International Monetary Fund and the World Bank, April 2001 ¶ 69.

- Size of benchmark issues: the buybacks, switches and reopening of issues were very helpful in sustaining healthy benchmark sizes over the last few years. However, the Bank of Canada and other market observers agree that these programs have matured and that given the shrinking size of the overall debt combined with the transfer of a larger part of debt issuance into Treasury Bills, the minimum benchmark sizes could decrease somewhat over the next few years, posing a challenge in terms of liquidity maintenance.
- Trading volumes.
- Ability to transact substantial size trades with nominal market impact.
- Number of market participants: There were 30 dealers distributing GOC securities in 1997 and 20 as of October 2004. Three large US primary dealers departed the Canadian market in 2001. The concentration of the primary market is increasing – the five major primary dealers accounted for 57.4% of issues in 1999/2000 and for 68.1% in 2003/2004.[5]

Observations from Interviews

- GOC bond program issuance peaked at $54B in 1996-1997 and has fallen since then to $35.5B in 2004-2005 – a reduction of roughly one-third over that period; the program is expected to fall further this year to $33B.
- A large portion of Canada's liquidity is consumed by "buy and hold" investors who do not often trade their issues.
- About half of the Canadian dealers indicated they have no concerns about liquidity, the other half indicated that while liquidity is acceptable today, they are concerned about the future.
- Investors overall are more concerned about future liquidity than dealers, and those who transact in long-term Canada bonds tend to find that liquidity at the long-end is insufficient, and that it is difficult to easily trade large amounts at that point in the curve.
- Foreign dealers indicated that they saw sufficient liquidity for Canadian dealers and investors, but not for international dealers and investors.
- Foreign dealers and investors both expressed concerns about the concentration of power with the Canadian dealers.
- Interviewees indicated that Canadian and international bond demand is at an all-time high and growing.
- The only Borrower issues considered to have reasonable liquidity are the CMBs.
- Interviewees indicated that 5-year point on the yield curve tends to be the most desired in the markets, and GOC should not abandon that point on the yield curve for any reason.
- International dealers and investors indicated that GOC has an excellent world reputation, and that any additional supply could be easily absorbed by the market without an impact on price.

Financial Reporting

Why Relevant?

- Changing the status quo could change the amount of debt reported on the "Public Accounts of Canada" (Canada's financial statements), and therefore could change various figures reported, such as the debt to GDP ratio and interest expense as a percentage of spending.

[5] Review of the Government of Canada Debt Distribution Framework, Finance Canada, October 2004

Accounting and Financial Reporting Policies

- GOC follows the Public Sector Accounting Board ("PSAB") guidelines for financial reporting.
- Under these guidelines, all of the Borrowers, except CHT, are "government business enterprises" because they: (i) are separate legal entities; (2) carry on a business; (3) sell goods and services to individuals and organizations outside of the government; and (4) are self-sustaining in the normal course.
- The PSAB guidelines require that Government Business Enterprises be consolidated using the equity basis. GOC uses a modified equity basis, as the Borrowers typically use private sector accounting policies, and their equity is consolidated on that basis instead of being translated into equity on a PSAB basis.
- Thus, GOC presents each Borrower as an investment asset at its equity level, and does not include the debt issued by the Borrowers in the Public Accounts.
- Under PSAB guidelines for long-term debt, netting of long-term debt is by GOC only allowed if the terms and conditions of the debt between GOC and the Borrower mirrors that of the terms and conditions of the debt issued to the market by GOC.
- It is unlikely that any CFE would most effectively borrow by mirroring Borrower needs, and therefore netting should not be expected – leading to an increase in reported debt in this scenario.
- From an economic basis, nothing would change, however reported figures could change significantly, as shown below.

Observations on Interest Ratio

- Under a worst case centralization scenario, assuming that all existing Borrower debt was issued by GOC and that no netting was permitted, the reported interest ratio as at March 31, 2004 would have increased by about 1% from 18% to 19%.
- Excluding CHT, the impact would be reduced to about 0.5%, increasing the ratio to 18.5%.
- If any centralization scenario evolved, and such scenario did not involve netting, then it would likely be applied on a prospective basis as new debt is issued, such that this increase would occur over time.

Observations on Debt and Debt to GDP Ratio

- Under a worst case centralization scenario, assuming that all existing Borrower debt was issued by GOC and that no netting was permitted, the reported total market debt as at March 31, 2004 would have increased by 23% from $440 billion to $545 billion.
- Excluding CHT, the impact would be reduced significantly, increasing the total market debt by 11%.
- If any centralization scenario evolved, and such scenario did not involve netting, then it would likely be applied on a prospective basis, such that this increase would occur over time.
- Debt to GDP ratio would be unlikely to be affected as any additional debt would be offset by a financial asset (i.e. an amount due from the Borrower) and this ratio considers and deducts financial assets from gross debt.

Hedge Accounting Issue

- The new hedge accounting rules could lead to more volatility in Borrowers' reported earnings. This impact should be the same whether the elected alternative is the status quo or one of the centralization models, as ALM related derivatives hedges would continue to be posted in Borrowers books.

- However, the amount of structured products being issued going forward could influence the size and complexity of the issue.

Borrower Liquidity

Why Relevant?

- The ability of Borrowers to manage their day to day liquidity requirements is critical to the accomplishment of their mandate.
- Changing the status quo could change the amount of short term liquidity that the Borrowers maintain.
- In a centralized model, it would be essential for the CFE to establish normal lead times that Borrowers would provide as forewarning of their expected borrowing needs. This is especially critical for money market activity.

Framework and Ranges

- Each Borrower has a policy in place which governs liquidity targets and limits.
- Predictability of cash flows: for some Borrowers, cash flows are fairly predictable, whereas for others, cash flows are very unpredictable as they are driven by several external factors (i.e. crop transportation delays, weather, large export transaction closing, etc.).
- Liquid assets (cash and marketable securities) are generally maintained at around 5% to 8% of total assets.
- Some Borrowers compare regularly their liquidity ratios with those of their peers, in either the private or sovereign, supra-national sectors.
- In some cases, Borrowers keep high levels of liquidity, with as much as 11% to 13% of their assets liquid, due to the unpredictable character of their cash flows and due to a desire to earn revenue from a liquidity portfolio.

Liquidity Sources

- All Borrowers (except CHT) have direct regular presence on the domestic commercial paper markets and, in most cases, in US markets and Euro CP markets.
- Each Borrower has Intraday and overnight credit lines in place with commercial banks.

Short Term Investments

- Short term liquidity is placed in investments allowed by policy in compliance with Finance Guidelines.

Arbitrage

- Keeping too much liquidity could be perceived as using the Canada Credit to obtain cheap resources which are then placed in higher yielding short term money market instruments.
- In theory, given efficient operations, (under any alternative chosen) decentralized pools should be reduced and “arbitrage” possibilities eliminated.

Liquidity Crisis Management

- Borrowers have diversified funding sources (geographic, institutional, retail, etc.) and keep more channels open.
- In crisis, Borrowers have noticed a flight to quality, generally implying that their borrowing requirements may still be readily met.

Borrower Operations

Why Relevant?

- The effectiveness of Borrowers in managing treasury and borrowing operations is critical to fulfill their mandates.
- Changing the status quo could add further complexity and increase operational risk.

Framework

- The Borrowers are autonomous, well-established as relatively stand-alone entities with their own boards.
- The Borrowers value treasury and capital markets operations as a core activity.
- Each of the Borrowers has fully operational Treasury department set-up, including front, middle and back-office.
- Some systems are the same (i.e. Bloomberg), but most are different between Borrowers.

Role of Treasury

- Borrowing, investing, cash management, asset/liability management, lending program support, investor relations, and liquidity management.
- To obtain funding in global markets in the most efficient and cost effective manner and to optimize the net interest income of the Borrowing entity that they serve.
- To various degrees, Borrowers have developed sophisticated financial engineering capabilities to manufacture structured notes or fund securitization issues.
- Active role in helping the borrowing entity set the design and pricing of its various products and services.
- Perform ALM recommend policies/procedures to Asset Liability Management Committee (ALCO) and report on ALM issues and compliance with risk management policies.

Observations from Interviews

- The Borrowers are extremely concerned that centralization would negatively impact their mandates in three major areas: (1) loss of flexibility; (2) loss of market intelligence; and (3) loss of autonomy
- The Borrowers feel that with funding handled by a CFE, treasury capabilities in the treasury department will become fragmented and inefficient;
- They also believe that the CFE will not be sufficiently responsive, thereby reducing the flexibility of the treasury department;
- Regarding autonomy, centralization is viewed as a forced outsourcing of a core activity, which reduces the ability to act as a relatively independent stand-alone entity; accordingly, the Borrowers believe that centralization would significantly impair their ability to support their respective mandates;
- Having their own Treasuries is viewed by the Borrowers as benefiting their core mandates, for example, through exchange of market intelligence and help in setting the price of services.
- Conversely, there is a perception that centralization could hurt the fulfillment of Borrowers' mandates through loss of these benefits.

Mitigating factors

- Under any of the envisioned centralized borrowing frameworks, each Borrower will need to retain its Treasury department expertise and practitioners to perform ALM and effect derivative hedges
- Many of the efficiency issues can be mitigated with a well planned CFE, with a tight service level agreement
- The CFE would likely add, not subtract treasury and capital markets expertise, thus increasing overall market intelligence for the whole group, provided that communications are set up properly among the CFE and Borrowers
- It could be argued that international capital markets intelligence could be of limited value for those Borrowers with predominantly domestic businesses

ALM and Derivatives

- Each Borrower has developed in-house asset liability management expertise.
- It is widely accepted that people performing ALM must understand very well the core business that they are funding/hedging.
- All Borrowers are currently preparing for the implementation of new derivative accounting rules (Accounting guideline 13).

Relationships

- Frequent informal relationships between Borrowers, but no formal exchange of services or information.
- Yearly submission of borrowing plans to Finance.
- Quarterly filing at the Bank of Canada of the counterparty exposures.
- Otherwise, (with exception of one Borrower whose borrowing ceilings are based on a formula computed every quarter) no other formal contacts or filings by Borrowers with either Finance or Bank of Canada, as long as they remain within limits authorized in the borrowing plan.
- There is, to a limited extent, some mobility of staff transferring from one Borrower to another.

Financial Risk Management

Why Relevant?

- Best practice guidelines of the World Bank for sovereign issuers invite debt managers to identify and manage the trade-offs between expected costs and risks in the government debt portfolio.
- Sound risk management by the public sector is essential for risk management by other sectors of the economy.

Approach and Organization

- Risks monitored and managed individually by each Borrower and reported to local ALCO.
- Borrowers have comprehensive risk management policies in place – please refer to table entitled “Financial Risk Management Practices” in Appendix B.
- No aggregate view of risks – other than counterparty credit risk.
- Borrowers indicated that they are opened to doing more risk reporting/would appreciate feedback.
- At the time of our interviews, there were 31 persons involved in risk management at the Borrowers.

Foreign Currency and Interest Rate Risk Management

- Risk limits are established to minimize the impact on interest incomes and economic value of the Borrowers.
- Hedging strategies using derivatives are set to offset foreign currency and interest rate risks.

Permitted Derivatives Instruments and Strategies

- For some Borrowers, a list of authorized derivatives is mentioned in their Risk Management Policies; in the absence of such explicit list, the approval process for new derivatives strategies is documented.
- All Borrowers limit their use of derivatives to the types they are able to value, monitor and manage internally on a timely basis.
- Risk monitoring for derivatives activities is in place, with emphasis on counterparty/credit risk management.

Counterparty / Credit Risk Management

- For derivatives, the Borrowers deal only with highly-rated counterparties, in accordance with Finance guidelines.
- A regular monitoring of counterparty/credit risk is in place.
- Collateral requirements are applied when necessary.
- Borrowers policies provide for mandatory International Swaps and Derivatives Association (“ISDA”) Master Agreements with clauses allowing the winding down or recouponing of swaps in the event of a credit downgrade of the counterparty; further credit mitigation arrangements include, for each Borrower surveyed, the possibility of having Credit Support Annexes (to the ISDA Master Agreement), however, it is not clear whether these CSA’s are mandatory for each and every counterparty – if not, Finance Canada should clarify that CSA’s are mandatory.
- Counterparty exposures are reported by the Borrowers to the Financial Risk Office on a quarterly basis – however Borrowers indicated that they seldom get any feedback from such reports.

Structured Notes

- In order to achieve sub-LIBOR borrowing rates, mainly through the implicit premium tied to the embedded options of such products, some Borrowers are active issuers of structured notes to retail investors. Those notes are typically swapped into basic floating rate issues.
- All Borrowers issuing structured notes indicated that they are able to value the corresponding hedges independently either directly or by outsourcing to an independent outside firm.
- Borrowers issue structured notes which are capital guaranteed only; however, no formal guidelines or policies exist with respect to potential retail client suitability issues and reputation risk.

Governance and Accountability

Why Relevant?

- Minister of Finance, Finance Canada and the Bank of Canada are ultimately responsible for the Canada Credit, Government borrowing and investing operations, the smooth functioning of the Canadian capital markets, and prudent debt management (including asset/liability management) for GOC, among other things.

- Borrowers in the fulfillment of their mandates must also ensure their own prudent debt management and their own ALM, which could differ from the ALM done by Finance as they have essentially financial assets whereas the Government has a significant amount of non financial assets to fund.
- Borrowers operate corporately under the overall umbrella of the federal legislative framework, being mainly the Borrower's individual enabling legislation (e.g.; *National Housing Act, Export Development Act*, etc.) and the *Financial Administration Act*.
- Governance and accountability are critical to the underlying success and stability of Canada's capital market operations – a significant misstep by any Borrower can have repercussions on the Government and all other Borrowers.

<u>Observations on Ministerial Control and Oversight</u>

- The main formal means by which Minister of Finance and Finance Canada oversee Borrowers' borrowing plans and performance is through the legislatively required annual Borrowing Plans approved by Minister of Finance.
- There is very limited homogeneity in the formats used by the various Borrowers to submit their borrowing plans, which makes aggregation and backward comparisons very arduous if not impossible.
- As the CHT is not subject to the FAA, the CMB program is not currently formally submitted in a borrowing plan to Finance Canada.
- Borrowing Plan approval is given by a letter from the Minister of Finance to the Minister responsible for the Borrower.
- Minister of Finance, Finance Canada and Treasury Board are active in the annual Corporate and Borrowing Plan reviews, policy setting, performance reviews, and developing and setting regulatory guidelines and their enforcement. There is currently little formal interaction between Finance Canada and Borrowers other than this annual planning and approval process, as long as the Borrowers remain within these authorized limits.
- In between these annual reviews, Finance Canada has access to the ALCO reports but is not part of the monthly or quarterly ALCO review; as a general practice, Finance Canada neither routinely reviews the quarterly ALCO reports nor analyzes each Borrower individually or as a consolidated group.
- Finance Canada currently relies on the Borrowers to comply with the terms of their approved borrowing plans and on the Office of the Auditor General to check compliance upon their external audits.

<u>Observations on Board of Directors and Management's Control and Oversight</u>

- Borrowers' Boards of Directors approve the Corporate Plan, which includes the Borrowing Plan.
- Borrowers' Treasury management reports to corporate level ALCO per leading practices.
- However, further to our observation of monthly or quarterly ALCO reports, we concluded that in general, there is room for improvement to align their contents or the organization thereof with leading practices, improve clarity and facilitate aggregation for Finance Canada.
- Recent studies indicate prolonged vacancies and other issues at the Borrowers' Board level, and in one case, at the CEO level, indicating need for improvement.
- Some Boards have stronger treasury and capital markets expertise than others, however according to the OAG, the situation is gradually improving as "we found fewer gaps in the collective skills and

expertise of board members. We also found that the composition and operating practices of board audit committees had improved and that audit committees are operating more effectively than in 2000".[6]

- All Borrowers undergo annual external audits and are also subject, at least once every five years, to special examinations conducted by the Office of the Auditor General of Canada.

<u>Observations on Borrowers' Independence</u>

- Balance needs to be made between independence to act quickly and decisively in an active, international capital markets environment on the one hand, and control and optimal deployment of the Canada Credit, on the other hand.
- Historical trend has been towards increasing independence as markets and Borrowers' capabilities have grown.

[6] Report of the Auditor General of Canada – February 2005, Chapter 7 p.1

Appendix J

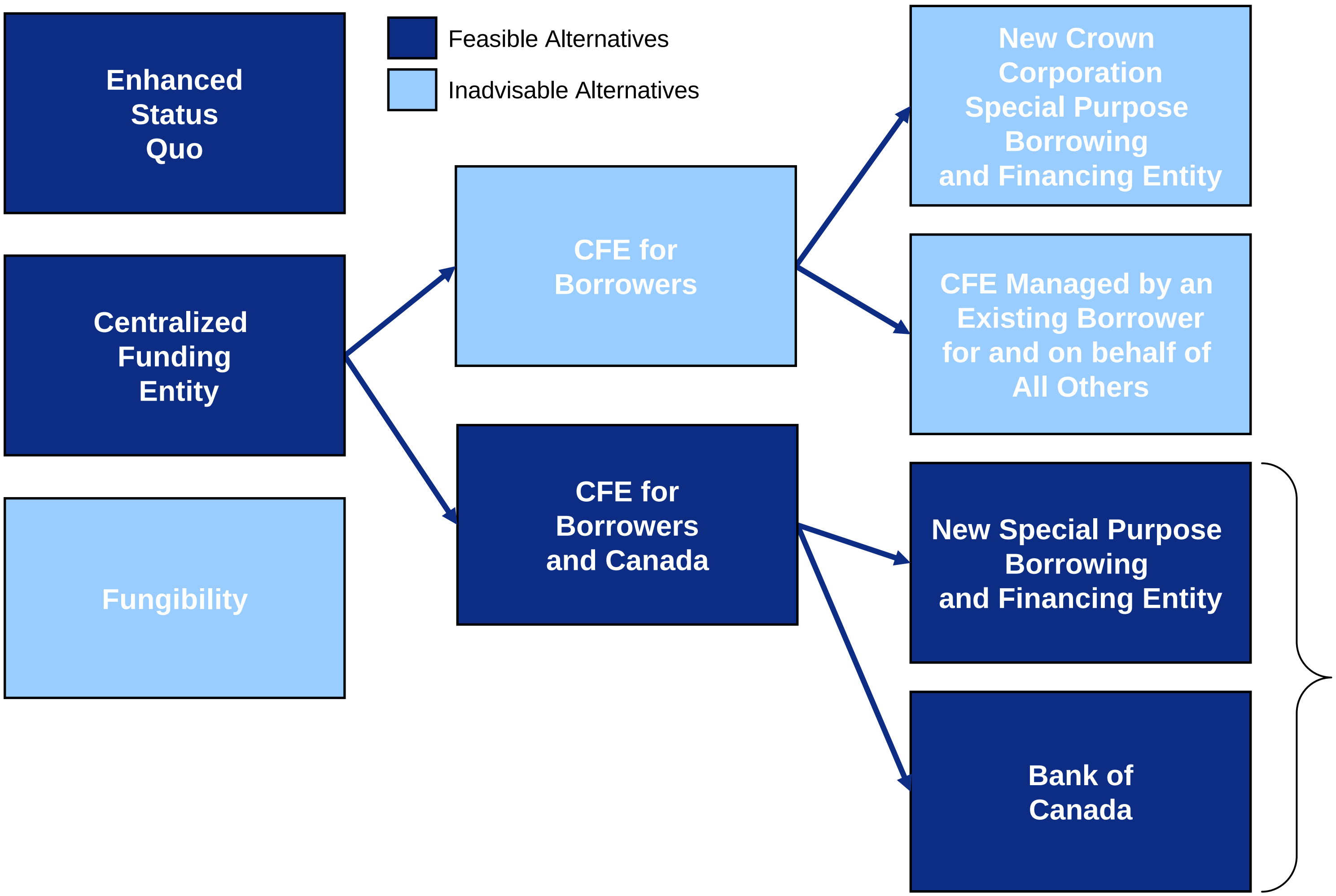
Structured Notes

Description of the Structured Note	
Structured note with a coupon formula linked to an index basket issued in C$	Structured note with a coupon = 3.3% to 5/04 ; thereafter X*(# of days 6MO US LIBOR is within range / # days within each accrual product) . X=3.55%, 4.3%, 5% issued in US$; Callable / Extendable
Structured note with a coupon = 1.6% to 4/05, thereafter linked to 6MO Yen LIBOR issued on JPY; Callable	Structured note with a coupon rate = 6 MO US LIBOR + 85 bp. Maximum coupon = 6.5% issued in US$; Callable
Structured note with a coupon rate = 6MO US LIBOR + 155bp to 4/03, thereafter 7% annually issued in US$; Callable	Structured note with a coupon rate linked to FTSE Eurotop 100 Index issued in C$
Structured note with a coupon rate = 4.04% to 11/04 thereafter reset annually at 4.10%, 4.15%, 4.40%, 5%, 5.85%, 6.60% in C$; Callable / Extendable	Structured note with a coupon = 6MO USLIBOR + 84 bp, maxi coupon = 4% to 6/03 ; reset annually on cap on coupon at 5.5%, 6.5%, 7%, 7.5% issued in US$; Callable
Structured note with a coupon rate = 10% to 10/05 thereafter previous coupon +3% - 6MO CDOR issued in C$	Structured note with a coupon = 3.5% to10/00 ; then US 126404.49*FX – Yen 10 MM, US$ steps annually at US$ 4681.65, issued in JPY; Callable
Structured note with a coupon linked to FTSE Eurotop 100 Index issued in C$	Structured note with a coupon rate = 10 YR Yen swap rate – 2 YR Yen swap rate + 0.7% to 2/01 ; thereafter spread steps annually at 0.8%, 0.9%, 1%, 1.1%, 1.2%, 1.3%, 1.4%, 1.5%, 1.6%, 1.7%, 1.8%, 1.9%, 2%, 2.1% - Min coupon=0%, issued in JPY; Callable

Our review consisted of ensuring, based on the term sheets supplied, that the corresponding swaps did effectively hedge optionality and convert each issue into a simple floating rate equivalent – excluding the implicit cost of complexity.

Appendix K

Alternatives Matrix



<u>Variants</u>
- include/exclude CWB
- include/exclude CHT
- use of CFE is optional
- partial centralization
  - money market only
  - term only
  - Canadian dollars only
  - vanilla only

Fungibility

KPMG had planned to present "fungibility" as an alternative. Under fungibility, the implication is that the Borrowers would issue debt that would legally be the same, and interchangeable with, GOC debt. For example, a Borrower could issue debt under an existing GOC benchmark, with such debt labeled as "GOC" or "GOC (Borrower)". If it could be accomplished, fungibility could add liquidity to existing benchmarks, while eliminating the spread premium being paid by the Borrowers.

However, upon our discussions with dealers, investors and Canadian Depository for Securities Ltd. ("CDS"), we have determined that this alternative is not feasible due to two main factors, as follows:

Market Confusion	CDS Logistical Problem
• Most market participants believed that a mixed issue framework (some auction and some commission) was illogical for the same bond, and could cause problems with both bond issue processes • The market has a very good understanding of Canada benchmarks, including how much will be issued and when. The ability for a Borrower to re-open a benchmark through its typical issuing process would add unpredictability to a predictable process – i.e. the supply of a particular benchmark could be increased at any time • This uncertainty would undermine some of the activities currently undertaken by the market, including reducing the attractiveness of taking short positions in benchmarks • Market participants believe that this uncertainty would actually reduce the liquidity of the benchmarks, and would create a very confusing Canadian market that lacked credibility with dealers and Canadian and international investors	• CDS tracks GOC and Borrower bonds through CUSIP numbers. Each CUSIP is issuer-specific, and each Borrower is allocated a range of CUSIP numbers by CDS • For the Borrowers, CDS requires a paper "master note" for each issue, which is kept in its vaults. Where a Borrower re-opens an issue, the Borrower would issue a revised larger-size note to be retained by CDS • GOC, on the other hand, does not issue master notes, instead its obligations are documented through electronic notes only • CDS would refuse to issue a Borrower note on a GOC CUSIP due to its differing documentation processes • If the Borrower added to a GOC bond using its own CUSIP, the market would be aware that this was a Borrower bond by the CUSIP number, and from CDS' point-of-view, this would not be interchangeable • If the Borrower wanted to use the GOC CUSIP, it would have to gain the Government's permission, and have GOC write the electronic note • This in all likelihood, would lead to a note being issued between GOC and the Borrower, similar to the old CRF borrowing framework. This would not be fungibility, but would effectively be a centralization option

Borrowers Views on Centralization

Overall	• Strong perception that there would be a loss of flexibility and a loss of market intelligence by having someone issue on their behalf • Borrowers claim that their opportunistic borrowing approach, together with sophisticated financial engineering allow them to fund their assets at rates very close if not equivalent to GOC rates • Treasury Officers of the borrowers expressed concern relative to their accountability, should borrowing operations be "outsourced" to an external entity • That said, some Borrowers have significant CRF sourced borrowings for which they are now responsible for risk management (e.g. prepayment risks) and/or manage GOC loan portfolios
Cost and Execution	• Perception that liquidity levels would need to be increased, to offset the reduced flexibility of centralization, at a cost to be borne by each Borrower • Loss of market intelligence could have repercussion on the ability of the Treasurers to assist their front or core business operations (i.e. to set lending rates or internal cost of funds) • Perception that the CFE would not be efficient operationally • Borrowers anticipate very few direct cost savings as the Borrowers would need to maintain the same systems and resources to handle their ALM, whether or not they borrow from the capital markets or from a CFE • Borrowers would certainly welcome a lower cost of funds, but in this respect, would like to know what transfer price to expect in a CFE model
Other perceptions/ comments	• Accounting issues – may become yet more complex if move to centralization is made at the same time that Borrowers are adjusting to new hedge accounting rules • While the Borrowers pay an Agency spread, the market intelligence that they obtain from capital market intermediaries and contact with peers, in turn influences positively their ability to fulfill their mandates • The Borrowers strongly believe that, as Crowns, the Agency spread should not apply

KPMG

Market Views on Centralization

Overall	• There was no consistent view from Canadian dealers – some indicated status quo was best, some favoured full centralization, others indicated that centralization should only cover "vanilla" borrowing and not structured notes • Many observers commented that the Canadian banks and dealers have a vested interest in maintaining the status quo on the commissions and spreads generated by Borrower issuance • Foreign dealers also gave us mixed views, although the foreign dealers who do not benefit from the Borrower's programs (i.e. they have minimal or no involvement with CMBs and structured notes) were in favour of full centralization • Most investors we spoke with were in favour of full centralization (including CMB), for one of two reasons: 1. Preference for additional liquidity and issuance of Canada bonds; or 2. The feeling that the agency spread was a "gift" to the market that was not in the best interest of Canada and its taxpayers
Specific Comments on CFE for Borrowers but Distinct from GOC	• Without CMBs being centralized, dealers and investors saw this option as pointless, as the volumes would be insufficient to make a difference • Volumes could potentially be increased if Borrowers moved away from MTNs, but would probably still not be material to the market • The Agency spread would still be a factor, and therefore the basis point savings would be minimal, if any • Market issues such as lack of liquidity, opportunism, irregularity of issuance and the incomplete nature of the yield curve would still be evident • Even with CMB included in this centralized CFE (i.e. all issuance in the name of the CFE), this sub-alternative was not perceived positively by the market

Market Views on Centralization

Specific Comments on Canada Mortgage Bonds	• While the commissions paid on CMBs have declined as a percentage, the dealers earn significant commissions in dollar terms from CMB issuance • The spread over CBs, and the commissions, however, are not paid by Canada, they instead are paid by the participants placing mortgaged-back securities into the CHT program • Even though the cost of this spread is not paid by GOC or CMHC, Canada (through CMHC's guarantee) is ultimately responsible for CMB debt • If centralization of CMBs was ultimately undertaken, a decision would need to be made as to whether the spread savings would be passed onto the bank users, or instead would be kept by Canada as a cost of accessing the Canada Credit