Review of the Government of Canada Debt Distribution Framework

October 2004

Executive Summary

As part of their regular review of debt management policies and programs, the Department of Finance and the Bank of Canada, on behalf of the Government of Canada, are seeking the views of interested parties on the design of the framework for distributing the government's debt securities.

The purpose of the framework is to raise stable, low-cost funding for the government and to support the government's debt strategy objective of maintaining a well-functioning market for Government of Canada securities.

Within this framework, the government strives to attract broad, competitive participation and active bidding at its auctions of marketable bonds and treasury bills. The framework also seeks to reinforce the integrity of the auction process.

This paper provides background information for consultations with interested parties and serves to:

- provide interested parties with a broad understanding of the government's goals with respect to the debt distribution framework and the trends that have evolved since the framework was last amended in 1998; and

- generate discussion on the effectiveness of the current framework and the impact of possible changes to the current framework on participants and on the functioning of the domestic fixed-income environment over the medium term.

A number of trends have developed in the government securities market, suggesting that a review of the framework is warranted. These include a modest decline in the net issuance of government bonds due to debt reduction, a change in the government's target debt structure, and continued improvements in the transparency and efficiency of the auction process. Since the previous review, there has been: an evolution of debt management practices of other governments; an increase in the concentration of auction participation and secondary-market trading; interest in direct participation at auctions by institutional and retail investors; greater price transparency; and the advent of electronic trading systems.

In designing the debt distribution framework, the government must balance a variety of interests: its own interest in competitive auctions that achieve the lowest funding cost on a consistent basis; securities dealers' interest in access to government securities and awareness of trading flows; and investors' interest in paying a reasonable price for government securities.

This document describes market trends and identifies potential modifications to the debt distribution framework, aimed at ensuring broad and active participation in the primary market for government securities and well-functioning operation of secondary markets. Questions are raised to gauge the impact of potential modifications on market participants' activity in the fixed-income marketplace, particularly their participation at government securities auctions. Interested parties are also encouraged to identify any other changes to the framework that may enhance the distribution of Government of Canada securities and the functioning of the domestic fixed-income market.

Preface

The government's debt distribution framework encompasses the auction rules and surveillance of participants in the primary market for Government of Canada securities.

The current distribution framework follows from the review of the framework conducted in 1996/98. The framework is outlined in the Terms of Participation in Auctions for Government Securities Distributors and Terms of Participation in Auctions for Customers. Additional information is also available in the Standard Terms for Auctions of various Government of Canada securities on the following Bank of Canada Web page: http://www.bankofcanada.ca/en/auct.htm#rules.

This review is being undertaken as part of the government's regular review of its debt management policies and programs to ensure that the framework continues to function effectively over a medium-term horizon.

Introduction

The purpose of the government's debt strategy is to raise stable, low-cost funding to meet its financial requirements. To achieve this objective, the government pursues a number of strategic objectives: maintaining a prudent debt structure; maintaining a well-functioning market for Government of Canada securities; and maintaining a diversified investor base.

The debt distribution framework is the method by which the government distributes or issues its debt securities to market participants, including securities dealers and investors. The debt distribution framework is designed to ensure that the government can sell its securities on a reliable basis at the best price. It is also designed to support the well-functioning operation of the government securities market by promoting participation of dealers and investors.

A well-functioning government securities market benefits the broader Canadian fixed-income market by providing a range of credit-risk-free assets to investors and intermediaries, which serve as effective pricing benchmarks and hedging tools. In this regard, the market for Government securities should be active, competitive, and accessible by interested parties.

History

The government's debt distribution framework has evolved over the years. An important change was the gradual move from syndicated issuance of its securities to auctions. Syndicated issuance involved the sale of securities, at negotiated prices including a fee, to a group of underwriting dealers who then redistributed the securities to their client investors. Issuance through auctions involves the sale of securities at multiple prices bid by dealers and investors participating in the auction, without payment of any fees. Dealers earn revenues from direct access to securities that support trading activity with their client investors.

The move towards multiple-price auctions began with the issuance of two-year bonds in 1983, followed by a gradual expansion to other maturities, with the last syndicated offering for regular coupon-bearing bonds taking place in December 1991 for 30-year bonds.[i] 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.

Another important change to the government's debt distribution framework came in 1998 when the government introduced modifications to the framework designed to enhance the reliability of funding through auctions and to encourage participation by reducing the potential for manipulative behaviour prior to and during the auction. To achieve these two objectives, participants at auctions were classified in three main categories (Government Securities Distributors (GSDs); a subgroup of GSDs defined as Primary Dealers (PDs); and customers), each with defined terms and conditions for participation.

The reliability of access to funding for the government was improved by enhancing the rules for dealers. Prior to the modifications to the framework, there were no formal obligations for large market participants to participate at each auction and the government faced the risk of holding an "uncovered" auction in which it could not sell all of the securities it offered to meet its financial obligations. Another risk faced by the government was that bids at auctions could significantly differ from the fair market price of securities. Changes to the framework granted PDs a higher level of access to government securities at auctions but also gave them the formal responsibility of bidding at each auction for minimum amounts and at reasonable price levels. To promote more diverse participation and active bidding, customers were granted the ability to submit bids through all GSDs.

The 1998 modifications sought to enhance participation by ensuring that the auction process would not result in undue concentration of securities or unfair competitive advantage for any particular market participants. The following conditions were put in place to reduce the potential for manipulative trading behaviour surrounding the auctions. All GSDs and customers are required to report their net positions in the auctioned security prior to participating at auctions. To prevent undue concentration of holdings following an auction, maximum bidding limits were changed for GSDs and customers to take account of each participant's pre-auction holdings in the auctioned security.

A further modification was made to support the secondary market for government securities. GSDs are now expected to support secondary-market trading, as distributors' bidding limits at auctions are tiered in line with both their performance in auctions and their trading activity in secondary markets. GSDs are also required to support the integrity of the secondary market by providing the Bank of Canada with information on fixed-income prices and trading.

Balance of Interests

In designing a framework for the distribution of Government of Canada securities, the government seeks to balance a number of interests:

- the government's interest in ensuring that auctions are consistently covered and well bid, which is the product of active participation by a diverse group of participants;

- large dealers' interest in substantial direct access to securities to support trading businesses and a desire to be aware of client trading activity and investment flows;

- small dealers' interest in access to auctions to allow them to support and develop their businesses and a desire to be aware of client trading activity and investment flows; and

- customers' interest in access to government securities at reasonable prices.

The balance of interests is reflected in the design of the current framework. Broad participation is encouraged by allowing market intermediaries (i.e., GSDs) and customers to bid at auctions. Distributors enjoy a privileged status at auctions by virtue of the fact that customer orders must be submitted through distributors. As a result of knowledge of customer orders, distributors gain market information that can help them in making more informed bids at auctions. Customers submitting orders through distributors are assured access to the auctioned securities and at the prices they bid. Customers may use as many distributors as they choose to submit bids. Customers receive indirect assured access, but must divulge their investment activities to the dealer(s) submitting their bids. Primary dealers are awarded higher bidding limits relative to other GSDs on the basis of their performance in auctions and their trading activity in secondary markets. With the higher bidding limits come mandated bidding obligations for PDs, to ensure the success of auctions from one auction to the next.

Review of the Framework

The debt distribution framework in recent years has broadly met its goals (see Box below). Treasury bill and bond auctions have been consistently well bid, with good auction coverage (i.e., total bids received comfortably exceeding auction sizes) and competitive bidding in terms of prices offered for securities (see *Debt Management Report 2002/03* at http://www.fin.gc.ca/toce/2003/dmr03_e.html).

The goals of the debt distribution framework are to support an:

- <u>effective auction process</u> that attracts broad, competitive participation; and

- <u>effective intermediation process</u> that is characterized by active bidding, transparency, and integrity, and that allows for market innovation.

Effective auction and intermediation processes promote the government's debt strategy objective of stable, low-cost funding and a well-functioning market for its securities.

More broadly, a well-functioning and competitive Government of Canada securities marketplace is maintained to support the borrowing and investment activity of a wide range of participants in the domestic capital market.

The review is being undertaken to seek the views of interested parties on the current and future effectiveness of the framework.

The next section describes trends of note. Given the potentially significant impact of these trends and the fact that the framework has not been reviewed since 1998, this review is considered to be warranted and timely. The final section of the paper discusses, at a thematic level, potential adjustments to the debt distribution framework. Interested parties are encouraged to comment on these potential adjustments and to identify any other changes that may enhance the distribution of Government of Canada securities and the functioning of the domestic fixed-income market.

Context and Considerations

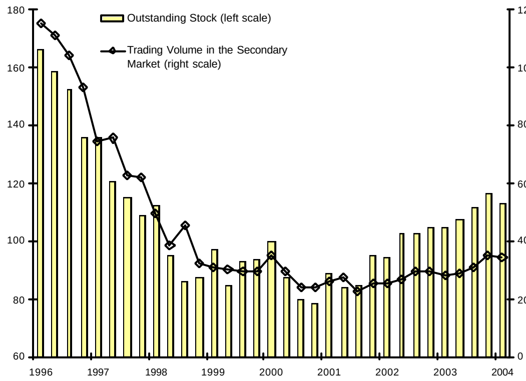
Funding Requirements Lower and Change in Target for the Debt Structure

The most notable change in the government securities environment is the fact that the government's fiscal performance since the mid-1990s has resulted in the reduction in the outstanding stock of government securities. With the debt on a downward track, the trading activity of bonds and treasury bills among securities dealers and investors remains lower than when the debt was at its peak (Figures 1 and 2). The declining size of the government debt compared to the stock of other types of fixed-income securities is expected to affect trading activity for intermediaries in government securities.

Through its annual debt strategy plans, the government has continued to introduce adjustments to its borrowing programs to promote participation and liquidity in its securities. These include focusing on regular issuance in key bond and treasury bill maturity sectors, building benchmarks to target sizes that are established in consultation with market participants, and introducing the bond buyback programs on a cash and switch basis.

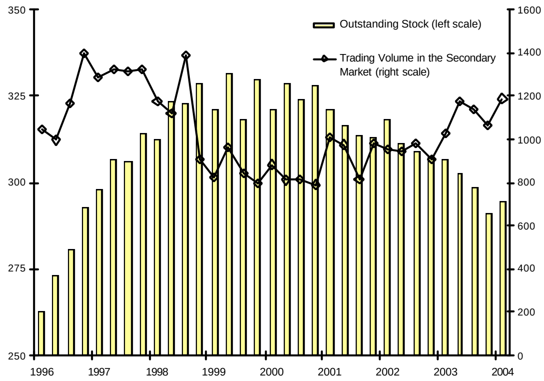
The near-term outlook for funding requirements remains relatively unchanged, with some year-to-year variation, given the government's desire to achieve balanced budgets or better. The issuance of bonds is expected to remain fairly stable, with relatively modest adjustments to reduce the fixed-rate target debt structure from two-thirds to 60% by 2007-08 (see *Debt Management Strategy 2003-04* at http://www.fin.gc.ca/toce/2003/dms03_e.html). Gross bond issuance may need to be adjusted downward depending on the availability of outstanding bonds for repurchase from the market through the buyback programs. The size of the treasury bill program is expected to increase slightly to achieve the target debt structure.

Figure 1 – Trading Volume in the Secondary Market and Outstanding Amounts: Treasury Bills (C$ Billions)



Source: Bank of Canada

Figure 2 – Trading Volume in the Secondary Market and Outstanding Amounts: Government Bonds (C$ Billions)



Source: Bank of Canada

Auction Participation

Primary market concentration has increased, as a result of the greater share of auction participation by fewer, larger intermediaries. For example, the top 10 market participants at treasury bill and bond auctions obtained roughly 94 per cent of issuance in 2003/04 compared to 88 per cent of issuance in 1999/00 (Table 1).

Following consolidation in the Canadian securities dealer market since the late 1980s, the Canadian fixed-income dealer market may be characterized as having several large firms, few medium-sized firms, and a number of small firms. This consolidation trend is also evident internationally, particularly in the Unites States where several firms are becoming increasingly dominant in the primary fixed-income market. The implication of this trend in Canada is that auction participation of smaller domestic PDs and GSDs has generally continued to decline compared with that of large PDs.

Consequently, the government has relied on fewer PDs to cover the sale of securities at auctions. Auction participation of foreign dealers has also declined recently compared with that of the large PDs, particularly since the departure of three large U.S. primary dealers from the Canadian fixed-income market in 2001. By way of comparison, there were 30 dealers distributing Government of Canada securities in 1997 and 20 today.

With the exception of Real Return Bond (RRB) auctions, customer participation at treasury bill and bond auctions has been low compared with the participation of market intermediaries. Real Return Bond auctions are buy-and-hold securities and are not traded as actively as other Government of Canada securities. Customers' participation at RRB auctions is higher because they are more likely to obtain large amounts of securities at auctions.

Table 1: Primary Auction Share of Amount Allotted to Participants (in per cent)

	1999/00	2000/01	2001/02	2002/03	2003/04
BONDS, EXCLUDING REAL RETURN BONDS					
PDs	88.1	91.5	83.7	91.8	93.4
Non-PD GSDs	4.9	2.7	6.4	2.5	1.8
Foreign Dealers	31.8	28.2	17.4	18.5	15.3
Customers	7.0	5.8	9.8	5.6	4.7
Top 5 Participants	57.4	58.4	57.5	63.6	68.1
Top 10 Participants	84.8	86.1	84.0	88.7	90.9
REAL RETURN BONDS					
PDs	45.9	45.5	39.0	47.9	36.1
Non-PD GSDs	3.4	2.7	3.9	0.9	0.8
Foreign Dealers	23.4	13.3	7.4	10.1	7.8
Customers	50.7	51.8	57.2	51.2	63.1
Top 5 Participants	40.3	41.8	38.4	42.1	45.0
Top 10 Participants	65.9	68.4	59.7	63.9	69.0
TREASURY BILLS					
PDs	85.2	87.6	86.0	84.1	84.2
Non-PD GSDs	2.9	1.5	1.6	2.2	1.2
Foreign Dealers	15.3	14.1	15.2	12.7	7.7
Customers	11.9	10.9	12.4	13.6	14.5
Top 5 Participants	61.4	67.0	61.9	61.9	66.3
Top 10 Participants	88.0	92.5	93.0	91.5	93.7

Source: Bank of Canada

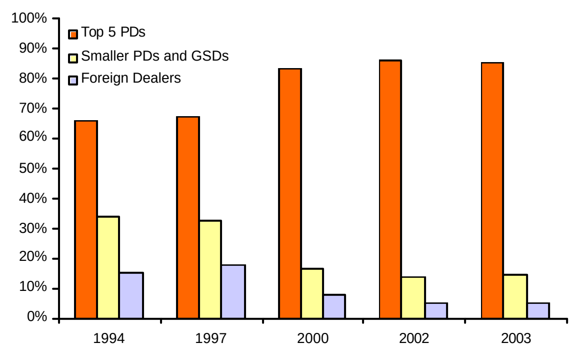
Secondary-Market Trading

Another important trend is the change in the mix of the fixed-income trading activity of dealers. The share of secondary-market trading of foreign firms peaked in the late 1990s but has declined over the past five years with the departure of a number of foreign primary dealers. The trading activity of small primary dealers and Government Securities Distributors has declined somewhat over the past decade (Figures 3 and 4).

Trading shares of the largest primary dealers have increased significantly since 1998, helped by the departures of foreign dealers and the purchase of several independent domestic dealers by the large domestic banks that took place in the late 1980s and to a lesser degree in the mid-1990s.

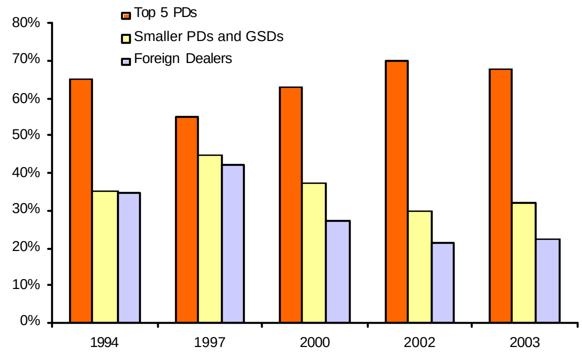
Standard measures of market concentration suggest that the secondary market for government securities, along with other sectors of the domestic fixed-income market, is highly concentrated. From the perspective of competition theory, a further increase in concentration may reduce market competitiveness, particularly to the extent there are barriers to entry.

Figure 3 – Share of Secondary Market Trading: Treasury Bills



Source: Bank of Canada

Figure 4 – Share of Secondary Market Trading: Bonds



Source: Bank of Canada

Transparency

Transparency pertains to the availability of reliable trading-related information to market participants. Markets that are more transparent can enhance the integrity and attractiveness of the Government of Canada securities market for a wide array of investors. The government has long had a strong interest in enhancing the transparency of the Government of Canada securities market.

For over a decade, the government has supported the development of CanPX, an industry-led initiative of the Investment Dealers Association, Canadian dealers, and inter-dealer brokers. CanPX provides ongoing bid-and-offer, price/yield, and trading volume information on government bonds and treasury bills, provincial securities, and selected corporate bonds traded by participating inter-dealer brokers. The system is broadly available to clients for a small subscription fee.

In recent years, discussions have taken place with Canadian securities regulators and market participants on the regulatory framework for electronic trading systems since 1999, when the Canadian Securities Administrators first proposed rules for these systems. The government has advocated mandatory reporting of secondary-market trading in Government of Canada securities. Due to a lack of consensus among market participants on the appropriate standard for transparency, regulators opted in 2003 to maintain the exemption on reporting trade-related information for Government of Canada securities until the start of 2007 (see http://www.osc.gov.on.ca/MarketRegulation/mr_index.jsp).

The central concern of market participants is the likely trade-off between greater transparency and market liquidity. Given the relatively limited number of active dealers in the trading of fixed-income securities, the real-time posting of large-volume trades could potentially affect the ability of dealers to make active markets. Comments provided by market participants during the last two rounds of debt strategy consultations highlighted the fact that the introduction of electronic trading systems and CanPX, as an information consolidator, had improved price transparency.

Electronic Trading

Electronic trading systems (ETSs) designed for posting securities quotes and matching buy-and-sell orders are developing in Canada, although they remain relatively small compared with those in other countries. To date, there are two broad types of electronic trading systems in Canada: a dealer-client quote-based system and an order-driven trading system. Both types facilitate trading of Government of Canada securities. A dealer-client system provides real-time consolidated inventory price feeds from participating dealers, who provide on-line quotes to clients when requested. This system allows investors to execute against the best of the dealers' bids or offers and automates the settlement process. An order-driven trading system provides a real-time marketplace that automatically and anonymously matches bids and offers by dealers and institutional and retail investors. Interest has recently been expressed in using electronic trading technology to access government securities auctions.

Debt Distribution Frameworks of Other Sovereign Borrowers

Most industrialized countries use a PD distribution framework to market government securities. Compared with Canada, primary dealer models in other developed countries tend to require fewer obligations for dealers at auctions but more obligations in secondary markets such as continuous market making and minimum trading volumes during a given period of time.

Over the past several years, sovereign issuers have adapted their debt distribution frameworks in response to evolving market trends. For example, the advent of the euro and the resulting ability to reach a wider audience of investors prompted some European issuers to revert to syndicated offerings for openings of new conventional and inflation-linked bonds, with re-openings issued through auctions. A significant trend is the general increase in consolidation in the financial sector of many countries, resulting in more concentrated participation at government auctions.

Some sovereign borrowers now provide electronic access to their marketable securities for retail investors. For example, retail investors of U.S. Treasuries can use the TreasuryDirect system or acquire the securities from a dealer. Similarly, Sweden provides retail investors access to government securities over the Internet. France designates a percentage of 10-year conventional and inflation-linked bonds for direct sales in the retail sector.

1. What are your views of the identified trends in the government securities market? Are there other trends that are relevant?

2. What are the likely impacts of these trends on the government securities market and on the broader fixed-income market in Canada?

Potential Modifications to the Debt Distribution Framework

This section presents a range of potential modifications to the debt distribution framework for the purpose of raising stable, low-cost funding and maintaining a well-functioning market for Government of Canada securities.

The following list identifies areas where changes could be considered, along with the rationale for such changes; the list also provides a brief summary of key impacts on the government, dealers, and investors.

The purpose of the list is to elicit discussion around the framework's future design and effectiveness for participants. Given the central role played by Government of Canada securities in the domestic fixed-income market, changes to the framework could have significant implications for the domestic fixed-income market environment over the medium term.

Views are requested from all interested parties on the potential adjustments listed in this section and suggestions for any other changes to the framework that may be beneficial.

Goal: Effective Auction Process

i) Bidding Limits

Current Context: Under the current terms of participation, GSDs (including PDs) may bid on their own behalf, and they have a separate limit for the aggregate amount of bids they submit on behalf of customers. Bidding limits are scaled to reflect the size of operation of dealers. Customers must place bids through GSDs (i.e., they cannot place direct bids to the Bank of Canada). GSDs and customers can submit competitive bids and non-competitive bids. Non-competitive bids (up to $3 million for a GSD and another $3 million on behalf of customers) are accepted in full at the average yield of the auction.

Potential Modification: *Broader participation could result from an increase in auction bidding limits for participants at government securities auctions. The increase in bidding limits could be designed in a number of ways. The first would be an increase in competitive bidding limits for all PDs, GSDs, and customers.*

Likely Impacts:

- For the government, an increase in bidding limits could encourage wider participation at auctions and broaden the investor base by providing greater flexibility for parties that participate at auctions. More competitive bidding could result in higher prices for auctioned securities and reduce the likelihood of an uncovered auction.

- For large dealers, larger bidding limits would enable dealers to accept large orders from clients, including international investors who seek substantial amounts of Government of Canada securities at times. Increased bidding limits could also enhance the value of the PD status through greater direct access to securities to support trading businesses. An increase in the bidding limits of large PDs and customers beyond a certain level, on the other hand, could raise the risk of market manipulation through large concentrated holdings of securities (e.g., squeezes), which could affect the integrity of the market.

- For small dealers, this change could benefit small PDs and other GSDs who currently have insufficient bidding limits to accept large orders from customers and want to grow their business.

- For customers, an increased bidding limit raises their access to government securities through GSDs. An increase in bidding limits could also reduce the economic incentives for large dealers to attain/maintain PD status if a large proportion of customer orders were to be directed through small PDs and other GSDs.[ii]

Potential Modification: *A second alternative to encourage broader auction participation would be an increase in competitive bidding limits of small GSDs and customers only.*

Likely Impacts:

- For the government, compared to an increase in the bidding limits of all participants, this measure may reduce the possibility of market manipulation by maintaining the current bidding limits of the largest participants.

- For large dealers, the incentives to maintain PD status could be reduced relative to smaller dealers and relative to customers.

- For small dealers, this change would raise their access to government securities and ability to accept large orders from customers.

- For customers, the impact would be similar to the previous alternative.

Potential Modification: *A third alternative to encourage broader auction participation would be an increase in the non-competitive bidding limits.*

Likely Impacts:

- For the government, higher non-competitive bidding limits could potentially broaden auction participation and diversify the investor base, particularly with small (retail) investors and very small GSDs. A reduction in the supply of securities available for competitive bidding could encourage market participants to bid more aggressively.

- For dealers, if non-competitive limits were sufficiently large, more customers orders could be submitted.

- For customers, higher non-competitive bidding limits could broaden participation for those that would rather not bid competitively. In particular, larger non-competitive bidding limits could facilitate retail investors' access to marketable securities at auctions.

3. What are your views regarding the likely impacts of changes in bidding limits for auction participants?

4. What are your views on an increase in non-competitive bidding limits?

ii) Access to Auctions

Current Context: As stated in the terms of participation, GSDs are permitted to directly bid at auctions. GSDs that have market shares in the primary and secondary markets above a certain threshold are awarded the status of PD and are also awarded higher bidding limits than other GSDs in exchange for assuming certain requirements.

1. Electronic Trading Systems (ETSs)

   Potential Modification: *The ability of ETSs to access auctions could broaden participation by improving the access of small institutional investors and retail customers to government securities.*

   Likely Impacts:

   - For the government, ETSs could provide an additional channel to distribute debt, broadening the investor base. In permitting ETSs to access auctions, the government would need to ensure that it does not bear settlement risk if the ETS does not take responsibility for trades, as GSDs do.

   - For dealers, this initiative may reduce the economic incentives to participate actively at auctions if investors decide to use ETSs to submit bids and reduce the flow of orders and information through GSDs.

   - For ETSs, investors and retail investors, the ability to bid at auctions could permit systems to grow and provide their clients with more direct access to securities.

2. Retail investor access to auctions

   Potential Modifications: *Retail customers could be provided direct access to government securities via a non-competitive bidding tranche reserved for dealers that provide retail sales for their clients, or through a direct-access system from the government.*

   Likely Impacts:

   - For the government, retail investors' participation at auctions could broaden the investor base, promote auction participation, and provide marketable securities for the saving and investment plans of Canadians. Settlement and processing procedures would require significant investment.

- For GSDs, direct access to auctioned securities for retail investors may negatively affect their brokerage revenues.

- For retail investors, direct access to auctioned securities would provide risk-free, marketable securities for their needs.

5. What are your views on the participation of electronic trading systems at Government of Canada securities auctions?

6. What are your views on greater access for retail investors?

iii) Auction Format

Context: The Government of Canada uses multiple-price auctions to issue domestic treasury bills and regular marketable bonds. In a multiple-price auction, successful competitive bids are allotted in rising order of yield until the full amount of the issue is allotted. RRBs are issued with the single-price auction format. In a single-price auction, successful competitive bids are allotted at the highest yield of accepted competitive bids.

Over the past few years, a number of smaller or less frequent participants in the Government of Canada securities market have advocated the use of single-price auctions for bonds. The rationale is that single-price auctions could reduce the risks that less-informed bidders, who do not have the benefit of seeing large customer orders and flows, overpay for the securities auctioned.[iii]

Potential Modification: *The government could adopt the single-price auction format for nominal bond issuance.*

Likely Impacts:

- For the government, the single-price auction format could support broader and more regular participation at auctions, given the premise that single-price auctions reduce the risks for less-informed bidders. On the other hand, multiple-price auctions permit the government to issue its securities at the maximum prices bid. Other impacts could include the potential for increased variability of funding costs.

- For large dealers, the single-price auction format could reduce the benefit of being informed bidders and reduce the value of PD status.

- For small dealers and investors, the risk of overpaying for securities at a single-price auction is lowered.

7. What are your views with respect to the impact over time of a single-price auction format for Government of Canada nominal bonds?

Goal: Effective Intermediation

i) Regular Bidding Requirements

<u>Context:</u> Under the terms of participation, each PD must bid at every auction for a minimum of 50 per cent of its auction limit at a reasonable price for the government.[iv]

<u>Potential Modification</u>: *The bidding obligations of PDs could be reduced to encourage participation at auctions. Potential changes could be to decrease minimum bidding requirements from 50 per cent of the firm's auction limit, or to expand the range of bids that would be classified as being at "reasonable prices".*

<u>Likely Impacts:</u>

- For the government, lower bidding requirements could result in an increase in the potential for an uncovered auction, placing the financing of the government at risk, with the associated potential negative impact on its cost of funding.
- For PDs, lower bidding requirements could make the status of PD more attractive.
- For GSDs, lower bidding requirements for PDs could encourage GSDs to become PDs.

* Questions 8 to 10 are primarily addressed to dealers, but others are welcome to provide feedback.

8. How do the current obligations affect participation at auctions? How do you view the balance between the value of being a PD and the bidding obligations that must be assumed?
9. What are your views on the impact of lower minimum bidding requirements?
10. Would reducing bidding obligations be more likely to support GSDs in becoming a PD?

ii) Transparency of Prices and Trading on Government of Canada securities

Context: The yields of government securities that trade in the secondary market are used as pricing benchmarks in the broader fixed-income market.

Potential Modification: *The publication of pricing information of Government of Canada benchmarks on exchanges or Web sites could enhance the availability of the information at minimum cost for the public.*

Likely Impacts:

- For the government, improved secondary-market price transparency could encourage greater participation at the government's auctions and subsequently lower the government's costs of borrowing.

- For PDs, a higher level of transparency could affect their ability to make markets.

- For retail and small investors, posted prices could encourage greater participation in fixed-income markets and provide assurance that prices are fair.

11. What are your views with respect to broader dissemination of real-time price information on Government of Canada securities to the general public?

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[i] For Real Return Bonds, syndicated offerings were used until the first single-price (Dutch) auction, which took place in April 1995. The single-price auction format is used for Real Return Bonds because they trade less frequently than regular coupon-bearing bonds and therefore the determination of the market price is more difficult.

[ii] Potential changes in bidding requirements are addressed in Section b) i) of the Potential Modifications to the Debt Distribution Framework section.

[iii] This is referred to as the *winner's curse*.

[iv] More specifically, the lesser of 50 per cent of its auction limit or 50 per cent of its formula calculation (bidding limit less the PDs' inventory of that security) at reasonable yields that do not exceed the highest yield accepted at the auction plus a spread of 5 basis points. A basis point is one-hundredth of one percentage point. See Section 10.1 of the *Terms of Participation in Auction for Government Securities Distributors*.