

ANNEX A

FRAMEWORK FOR THE REGULATION AND TRANSPARENCY OF THE GOVERNMENT DEBT MARKET, DESCRIPTION OF THE EXPANDED CORPORATE DEBT PROPOSAL AND OF THE PROPOSED AMENDMENTS

I. Introduction

Transparency of the debt markets is an important element of fair and efficient capital markets. In addition, transparency also supports investor protection by facilitating investors' ability to make informed trading decisions.

II. Transparency of trades in the government debt market

1. *Overview of the secondary trading of government debt securities*

Secondary trading in government debt securities is decentralized, with most of the trading activity taking place over-the-counter (OTC) with dealers trading as "principal" with their clients and being compensated through the bid-offer spread, or the difference between the purchase and sale price.

In December, 2017, the market for corporate and government debt securities in Canada was approximately \$1.8 trillion in size by par value outstanding.⁴ While close to \$312 billion of debt securities were issued in the primary market and more than \$12 trillion traded in the secondary market in 2017, most of this activity was concentrated among a few large issuers and institutions.⁵ Government debt securities (federal, provincial and municipal) accounted for approximately 70% of the debt securities issued and outstanding domestically in 2017 and over 90% of the value traded.⁶ Direct retail participation in the primary and secondary debt markets is low and retail investors typically gain exposure to the debt markets by purchasing investment funds.⁷

2. *Current transparency requirements relating to government debt securities*

Section 8.1 of NI 21-101 sets out the transparency requirements for government debt securities. Specifically, marketplaces and IDBBs are required to report order and trade information to an IP (as required by the IP). Currently, there is no IP for government debt securities and, as such, no requirements to report.

While post-trade transparency of trades in government debt securities is not mandated at this time, information about trades in government debt securities is available from a limited number of sources (e.g., Canadian Depository for Securities provides subscribers with its Fixed Income

⁴ Government of Canada Statistics, "CANSIM Table 176-0071, Bonds outstanding, shown at par value, by currency of payments and issuers, Bank of Canada".

⁵ Government of Canada Statistics, "CANSIM Table 176-0034 Gross new issues, retirements and net new issues, par value, Bank of Canada" and IIROC, "Bond Market Secondary trading".

⁶ *Supra*, notes 5 and 6.

⁷ Ontario Securities Commission, *The Canadian Fixed Income Market* (2014).

Product Service (FIPS) and CanPX provides vendors with data from IDBBs). This information is generally available to large dealers and institutional investors that have the financial means to afford such data.

Recognizing the limited availability of affordable post-trade information about trades in government debt securities that can be accessed by retail and small institutional investors, and considering global developments, we think it is appropriate to propose mandatory post-trade transparency for such trades. We view the transparency of trades in government debt securities as an important element of fair and efficient debt markets. Mandatory transparency also supports investor protection by facilitating investors' ability to make informed trading decisions.

3. Principles underlying the Proposed Government Debt Framework

In developing the Proposed Government Debt Framework, we considered the market structure attributes of liquidity, immediacy, transparency, price discovery, fairness and market integrity.⁸ We believe that by introducing mandated post-trade transparency, the Proposed Government Debt Framework supports these attributes and recognizes the need to balance the benefits of greater transparency with the potential detrimental impact on liquidity.

When we refer to post-trade transparency, we refer to the ability of all market participants to access publicly available information about executed transactions. Specifically, post-trade transparency refers to the public dissemination of information about completed transactions, including price and volume.

Some regulators and academic articles⁹ support the argument that increased transparency of debt trading fosters the price discovery process and enhances market liquidity and efficiency. Transparency can reduce the opportunities for informed participants to take advantage of less-informed participants. Access to more information about the trading taking place in the debt markets may result in less-informed participants (such as retail and small- and medium-size institutional investors) becoming more confident in their ability to make informed trading decisions. Subsequently, increased transparency may make the debt market more attractive to new investors. Increased market liquidity may add to the dealers' ability to provide liquidity to the markets by reducing their market-making costs.^{10,11}

As we noted above, currently there is limited transparency of trades in government debt securities and the cost to access such transparency may not be affordable for all market

⁸ These characteristics were outlined in the 1997 TSE *Report of the Special Committee on Market Fragmentation: Responding to the Challenge*, and subsequently in a report titled *Ideal Attributes of a Marketplace* authored by Erik Kirzner and published in June 2006.

⁹ Hendrik Bessembinder et al., *Market Transparency, liquidity externalities, and institutional trading costs in corporate bonds*, *Journal of Financial Economics* 82(2), 251-288 (2006); Amy K. Edwards et al., *Corporate bond market transparency costs and transparency*, *The Journal of Finance* 62(3), 1421-1451 (2007); Michael A. Goldstein, Edith S. Hotchkiss, & Erik R. Sirri, *Transparency and Liquidity: A Controlled Experiment on Corporate Bonds*, *Review of Financial Studies*, 20(2): 235-73 (2007).

¹⁰ Tran-Minh Vu: *Transparency in the Canadian Fixed Income Market: Opportunities and Constraints*.

¹¹ Increased customer participation could help dealers to manage part of their inventory risk by increasing the frequency of their trading with their own customers.

participants. This lack of accessibility to information about trades in government debt securities makes it difficult for investors to assess whether they received a fair price in a transaction for a government debt security, which can impact their perception of the market's fairness and integrity.

Despite this, some have argued that too much transparency may harm liquidity. In particular, real-time post-trade transparency may negatively impact the liquidity of a debt instrument if prices move against a dealer when it attempts to offset positions taken in a debt instrument following a trade with a client, which may occur if this debt instrument is not liquid enough (e.g. trades less frequently). Their view is that any post-trade real-time transparency regime may lead the dealer to trade more on an agency basis (i.e. not take bonds into inventory) and reduce the dealer's willingness to make markets.

4. Transparency and reporting requirements in other jurisdictions

We are of the view that the Proposed Government Debt Framework is a step forward for Canadian markets. We note that there are other markets that have introduced, or will shortly introduce, transparency and/or reporting for regulatory purposes.

Transparency for all debt securities is mandated in the European Union, where MiFID II mandates pre- and post-trade transparency for all debt securities admitted to trading on trading venues.¹² Public dissemination was implemented on January 3, 2018.

Reporting of transactions in United States Treasury securities is also mandated in the United States through the Trade Reporting and Compliance Engine (**TRACE**) administered by the Financial Industry Regulatory Authority (**FINRA**), although information about these transactions is not currently publicly disseminated.¹³

5. Proposed Government Debt Framework

The Proposed Government Debt Framework, described below, was developed with the cooperation of staff of the BoC, Finance and IIROC. It is based on an analysis of Market Trade Reporting System 2.0 (**MTRS 2.0**) data,¹⁴ preliminary consultations with industry stakeholders and the existing transparency regime for corporate debt securities.

In developing the Proposed Government Debt Framework, our goal was to balance the desire for greater transparency, particularly for retail and small institutional investors, with the need to manage any potential negative effect of greater transparency on liquidity. We think that the Proposed Government Debt Framework achieves this balance by delaying the dissemination of information about trades and capping the disclosed volume of trades, thus allowing entities trading as principal to manage their inventory risk while providing useful information to investors.

¹² Depending on the liquidity of the financial instrument subject to transparency requirements, there are pre-trade waivers and post-trade reporting deferrals available.

¹³ TRACE currently reports transactions in debt securities issued by certain government agencies.

¹⁴ MTRS 2.0 data contains information about transactions in all debt securities reported by IIROC Dealer Members.

The Proposed Government Debt Framework necessitates:

- amending NI 21-101 to extend the requirements to any persons or companies trading in government debt securities; and
- approving an IP for government debt securities¹⁵ and:
 - the list of persons or companies to become subject to the transparency requirements for government debt trading, and
 - the model used by the IP for disseminating post-trade information, including the volume caps and dissemination delays.

Under the Proposed Government Debt Framework, the IP will publish details relating to each trade in a government debt security on a delayed basis with caps on reported volume, as described below. Pre-trade information will neither be collected nor disseminated at this time.

(i) Entities subject to reporting and transparency requirements

The Proposed Amendments require any person or company that executes transactions in government debt securities to report the details of orders and trades in these securities to an IP, as required by the IP. Specifically, the Proposed Government Debt Framework extends the transparency requirements, to any person or company that trades such securities. Dealers, IDBBs, marketplaces and Banks will be required to report details of their government debt transactions to the IP.

In proposing the expansion of reporting requirements, *we seek specific comment on the expansion to Banks, and, in particular, Schedule III banks.*

We note that if Schedule III banks are excluded, trades in government debt securities between a Schedule III bank and a dealer, IDBB, Schedule I or Schedule II bank would be within the scope of the transparency regime and would be reported by the Schedule III bank's counterparty.

Any future expansion of the list of persons or companies subject to the transparency requirements will be proposed by the IP and be subject to CSA approval following public notice and comment.

(ii) Types of government debt securities that will be captured

¹⁵ In Ontario, under new powers, the IP is designated by the Ontario Securities Commission, in Saskatchewan, by the Financial and Consumer Affairs Authority of Saskatchewan, and in Québec, it is recognized by the Autorité des marchés financiers.

Government debt securities include federal, provincial and municipal debt securities. Below is a list of government debt securities that would be subject to the Proposed Government Debt Framework:

- All Government of Canada Debt Securities including Government of Canada Bills, Government of Canada Nominal Bonds, Government of Canada Real Return Bonds (**RRBs**) and Government of Canada Strip Coupons and Residuals.
- All Canada Mortgage Bonds (**CMB**).
- All Provincial Debt Securities including RRBs, Strip Coupons and Residuals.
- All Municipal Debt Securities.
- All Federal and Provincial Agency Bonds other than CMB.

(iii) Publication delays and volume caps

The publication delay is the time between when a trade occurs and when information about the trade is published. We note that concerns have been historically raised about the potential impact of transparency on liquidity and the willingness of dealers to provide liquidity if information about their transactions becomes immediately available.

To address this concern, the Proposed Government Debt Framework proposes to publish details of completed trades in government debt securities on T+1 (5:00 pm ET).¹⁶ In addition, the publication of trade details would not display the identity of the counterparties to a trade and would be subject to caps on the displayed volume. These caps would be determined by the liquidity characteristics of the type of bond.

The cap on the displayed volume (otherwise known as volume cap) is a threshold trade volume above which the volume field in the report is masked. Specifically, the volume caps are the maximum volume that would be displayed for a trade. For example, a trade of \$15 million CMB would appear as a trade for \$10 million+, and a trade of \$3 million in a municipal debt security would appear as a trade for \$2 million+. The volume cap protects persons or companies that take on positions in government debt securities by masking the true volume that had been traded.

In determining the proposed volume caps, the Working Group examined data on trades in government debt securities reported to IIROC through MTRS 2.0 using the methodology described in Schedule 1 to this Annex.

Generally, shorter-term Government of Canada and Canada Mortgage Bonds are very liquid, while provincial and municipal debt securities are less liquid. The Working Group thinks it would be preferable to have a small number of volume cap groups, as this will be easier for the IP to administer and for investors to understand. We propose the following volume caps, based on the methodology described in Schedule 1:

\$10M	\$5M	\$2M
Government of Canada Bills	Government of Canada	All provincial debt securities

¹⁶ Today, information on transactions in corporate debt securities is disseminated at midnight on T+2. IIROC, as the IP for corporate debt securities, is considering disseminating the information on T+1 (5:00 pm ET), consistent with the proposed dissemination of information on transactions on government debt securities.

(GoC Bills)	nominal bonds with over 10 years remaining to maturity ¹⁷ (GoC>10)	including RRBs, Strip Coupons and Residuals
Government of Canada nominal bonds with 10 or less years remaining to maturity (GoC <=10)		All municipal debt securities ¹⁸
		All other agency debt securities ¹⁹
All CMB		Government of Canada RRBs
		Government of Canada Strip Coupons and Residuals ²⁰

In developing the volume caps, in general, the Working Group considered the trading patterns of the least liquid securities in each group of securities. As a result, the caps could be larger for the most liquid debt securities in each group of securities, but the Working Group considered it important to have a limited number of groups so that it will be easier for investors and dealers to understand and to comply with the requirements. In our view, and based on some preliminary discussions with market participants,²¹ the proposed volume caps, together with the T+1 (5:00 pm ET) publication delay, should provide dealers with sufficient time to manage their inventory risk before publication.

The Working Group also discussed the application of increased transparency to government debt securities that are the least liquid, especially the RRBs and certain debt issued by smaller provinces and municipalities. The Working Group notes that information about debt transactions may facilitate banks' abilities to satisfy information requirements contained in the revised market risk framework²² developed by the Basel Committee on Banking Supervision (BCBS). As a result, the Working Group is of the view that exempting certain classes of debt securities from post-trade transparency may reduce publicly available information on real and verifiable prices and unnecessarily increase banks' capital surcharges.

We seek specific comments on whether the volume caps and the publication delays are appropriate, particularly for the most illiquid government debt securities such as those issued by municipalities, or those held by a small number of investors.

¹⁷ GoC bonds with less than 11 years to maturity at the time of issue will be subject to the \$10M cap to capture debt securities that become the 10-year benchmark relatively soon after issuance.

¹⁸ In Ontario, government debt securities include a debt security of any school board in Ontario or of a corporation established under section 248(1) of the *Education Act* (Ontario). In Québec, it includes a debt security of the Comité de gestion de la taxe scolaire de l'île de Montréal.

¹⁹ This group includes National Housing Act Mortgage Backed Securities (NHA MBS).

²⁰ Strip coupons and residuals are, respectively, the coupon and principal components of a debt security's cash flows that have been decomposed into distinct securities.

²¹ Canadian Fixed Income Forum, Investment Industry Association of Canada's Bond Committee, provincial issuers, Municipal Finance Authority of British Columbia and Canadian Bond Investors Association.

²² The revised market risk framework designates minimum standards that banks can use to apply customized risk models (**internal models**) to a given instrument to calculate their market risk capital requirements. For example, one standard for use of internal models is that risk factors must be based on real and verifiable prices that are subject to a minimum frequency requirement. Risk factors based on insufficiently frequent pricing information are deemed "non-modellable" and as such are subject to a more punitive capital surcharge.

(iv) Trade details to be disseminated by the IP

The trade details are data fields that will be made publicly available by the IP. Schedule 2 to this Annex lists the details of trades that would be disseminated by the IP. These details are the same as what is currently disseminated for trades in corporate debt securities, with the addition of two data fields, specifically “Type of Bond” and “Original Issue Date”.

The “Type of Bond” field is important because, otherwise, the data would be misleading. Investors could easily confuse RRBs and strips and residuals with conventional government debt securities. These instruments are priced differently and have different liquidity and trading characteristics.

The “Original Issue Date” field is important, in that it allows users to distinguish newly issued debt securities from those that have the same maturity date, but were issued in the past. This is an important difference, as newly issued debt securities have significantly different trading characteristics from those that were issued in the past, even if they have the same maturity date. For example, investors are often interested in benchmark debt securities, rather than older bonds with the same maturity date.

The IP will publish the details of trades on its web site and they will be freely accessible. The initial requirements will be those set out in this notice (subject to modifications that may arise from the comment process). Any subsequent changes to the transparency regime will be made by the IP after consultation with the public and with the approval of the Canadian securities regulatory authorities.

III. Expanded Corporate Debt Proposal

The Expanded Corporate Debt Proposal will be introduced through the Proposed Amendments and implemented through the requirements set by the IP.

The Proposed Amendments expand the mandatory post-trade transparency of trades in corporate debt securities to any person or company that trades such securities, as required by the IP. Specifically, the Expanded Corporate Debt Proposal extends the reporting, and therefore the transparency requirements, to Banks. It is anticipated that Schedule I, II and III banks will be required to report details of their government debt transactions to the IP.

In proposing the expansion of reporting requirements, *we seek specific comment on the expansion to Banks, and, in particular, Schedule III banks.*

We note that if Schedule III banks are excluded, trades in corporate debt securities between a Schedule III bank and a dealer, IDBB, Schedule I or Schedule II bank would be within the scope of the Expanded Corporate Debt Proposal and would be reported by the Schedule III bank’s counterparty.

Currently, the IP disseminates information regarding trades in corporate debt securities at midnight on T+2. It is contemplated that IIROC, as the IP for corporate debt securities, would

disseminate the information on T+1 (5:00 pm ET), consistent with the proposed dissemination of information regarding trades in government debt securities.

IV. Implementation of the Proposed Government Debt Framework and the Expanded Corporate Debt Proposal

As indicated above, the Proposed Amendments require persons or companies that execute trades in government debt securities and corporate debt securities to provide details of such trades to an IP, as required by the IP for those securities. The reporting of trades in government debt securities will not create any additional burden for dealers because they are currently required to report trades in corporate debt securities to the IP (i.e. IIROC) under section 8.2 of NI 21-101.

However, for other persons or companies, such as Banks, additional time may be necessary to implement the Proposed Government Debt Proposal and the Expanded Corporate Debt Proposal since the requirements are new. We therefore propose a phased implementation of the Proposed Government Debt Framework and the Expanded Corporate Debt Proposal, as follows:

- April 1, 2019 – the IP begins to disseminate post-trade information for trades in government debt securities executed by dealers that are currently subject to IIROC Dealer Member Rule 2800C, marketplaces and IDBBs in addition to disseminating the existing post-trade information for corporate debt securities;
- December 31, 2019 – the IP begins disseminating post-trade information for trades in corporate and government debt securities by Banks.

V. NI 21-101 Amendments

In order to implement the Proposed Government Debt Framework and Expanded Corporate Debt Proposal, amendments to NI 21-101 and 21-101CP are required. Attached at Annex B is the text of the Proposed Amendments.

The Proposed Amendments:

- remove the exemption from the requirement in section 8.1 of NI 21-101 that IDBBs and marketplaces report details of trades in all government debt securities to the IP for those securities, which has expired;
- require persons or companies to provide information with respect to trades in corporate and government debt securities executed outside a marketplace to an IP, as required by the IP;
- amend the requirement that the IP for unlisted debt securities produce a real-time consolidated feed showing order and trade information to a requirement to produce consolidated information about trades, consistent with the current approach for corporate debt securities;

- remove the requirement to report information about orders and trades in corporate debt securities to an information vendor approved by a regulation services provider if there is no IP, as there will be an IP for all debt securities;
- amend the requirement in 14.5(d) that the IP provide the securities regulatory authorities with its independent systems review by the earlier of the 30th day after providing it to its board of directors or the 60th day after calendar year end to the earlier of the 30th day after providing it to its board or the 60th day after the IP's fiscal year end.
- amend section 14.8 of NI 21-101 to clarify the information that must be publicly disclosed by the IP for debt securities;
- remove descriptions of volume caps and other operational details of the Proposed Framework from 21-101CP, as these will be set by the IP and approved by the Canadian securities regulatory authorities; and
- amend the definition of IP to reflect the fact that in Ontario an IP is now designated by the Ontario Securities Commission and in Saskatchewan, by the Financial and Consumer Affairs Authority of Saskatchewan..

VI. Information processor for debt securities

The role of an IP for debt securities is to provide transparency to the public regarding trades in corporate and/or government debt securities. NI 21-101 requires that marketplaces and IDBBs that display orders of corporate and government debt securities provide information regarding orders for these securities to an IP, as required by the IP. Marketplaces, IDBBs and dealers are also required to provide trade information for corporate and government debt securities to an IP, as required by the IP.

NI 21-101 also contains the framework for the regulation of an IP. Specifically, it mandates the IP to:

- provide prompt and accurate order²³ and trade information to the public;
- not unreasonably restrict fair access to such information;
- provide timely, accurate, reliable and fair collection, processing, distribution and publication of information for orders and trades in debt securities;
- maintain reasonable books and records; and
- maintain resilient systems and arrange to conduct an annual independent systems review.

²³ At this time there are no requirements to report or display orders for government debt securities or corporate debt securities.

IIROC will apply to become the IP for government debt securities and submit amendments to its Form F5 to act as an IP for government debt securities. We believe there are a number of benefits to have IIROC act as the IP for government debt securities:

- It has a system in place to collect government debt trade information and the dealers that will be subject to the transparency requirements by the Proposed Amendments are already reporting this information through MTRS 2.0.
- IIROC is the IP for corporate debt securities and is currently disseminating information about trades in those securities.
- IIROC has sufficient financial and human resources to perform this function; we note that IIROC already has staff that monitor the integrity and timeliness of the data reported to it through MTRS 2.0 that includes government debt securities.
- It will make available comprehensive government debt information to all market participants and investors, at no cost.
- It has an appropriate governance structure and conflict of interest policies and procedures in place.
- It is already subject to the applicable regulatory requirements in NI 21-101 and is complying with the terms and conditions imposed by the Autorité des marchés financiers in Québec and with its undertakings as corporate debt IP in all other jurisdictions.

CSA staff will continue to conduct oversight activities to ensure that, as an IP for corporate and government debt securities, IIROC complies with the requirements in NI 21-101 and the terms and conditions²⁴ set by the regulatory authorities in each jurisdiction. The proposed terms and conditions for IIROC as IP in Ontario are listed in Annex D to this notice.

²⁴ These terms and conditions will be contained in a Designation Order in Ontario, a Recognition Order in Quebec and in undertakings from the IP in all other jurisdictions.

SCHEDULE 1

METHODOLOGY USED TO DETERMINE THE PROPOSED VOLUME CAPS AND DELAYS FOR TRANSACTIONS IN GOVERNMENT DEBT SECURITIES

Objective

This schedule describes the empirical analysis undertaken by the Working Group to determine appropriate volume caps and delays for government debt securities. The publication delay is the time between when a trade occurs and when information about the trade is published. The volume cap is a threshold trade volume above which the volume field in the report is masked.

Volume caps and publication delays mitigate risks to market participants from publishing trade information, particularly the risk that others may use that information to increase the costs to a dealer offsetting a position taken in a principal trade. Potential risks are more severe when either a trade is large relative to the normal trade size in the security or when trading volume in the security is low. If these risks are not mitigated, we are concerned that dealers will be discouraged from facilitating large trades, which may reduce market liquidity.

In the analysis below, we construct quantitative measures identifying:

- what constitutes a large trade; and
- how large is daily trading volume relative to a large trade to inform appropriate volume caps and publication delays for different types of government debt securities.

Principles

To form a proposal for volume caps and publication delays from the analysis, we have used the following principles as guidance:

- Principle 1: Balance the benefits of greater transparency with the risk to liquidity;
- Principle 2: Volume caps and publication delays should be consistent with those of existing sources of post-trade information; and
- Principle 3: The proposal should be simple to implement and understand while also being tailored to the characteristics of different types of government debt securities.

Principle 1 implies that volume caps and publication delays should be chosen so as not to pose risks to market liquidity. Specifically, volume caps should not be materially higher than a “large” trade and corresponding publication delays should reflect a reasonable period for market participants to manage their inventory.

Principle 2 implies that volume caps and publication delays should be consistent with existing sources. At present, post-trade data for a subset of Canadian debt securities is available end-of-day from FIPS with volume caps of \$2M; information is delayed by 14 days when there is only

one trade in a day for a specific security. For Canadian corporate debt securities, post-trade information is also available from IIROC with a delay of two days and volume caps of \$2M for investment grade corporate debt securities and \$0.2M for non-investment grade corporate debt securities. Taken together, information with a volume cap of \$2M and a publication delay of around one day is generally already available for most debt securities. Government debt securities are more comparable to investment grade rather than non-investment grade corporate debt securities. Therefore, we will apply volume caps greater than or equal to \$2M and a publication delay of T+1(5:00 pm ET).

Principle 3 implies that requirements should strike a balance between defining groups of government debt securities too broadly and focussing too much on a limited subset of similar securities. If categories are defined too broadly, we may miss key differences between securities, and may either pose risks to some infrequently traded debt securities or treat frequently traded debt securities too conservatively. Alternatively, if categories are too narrowly defined or change too frequently, market participants may encounter operational complexity when using the data provided. We believe that the groups used in Table 1 are appropriate given principle 3.

Table 1 - Requirements for consultation. The table lists groups of debt securities under each of the proposed volume caps. A publication delay of T+1(5:00 pm ET) is proposed for all debt securities. Government of Canada (GoC) nominal bonds are divided by their years-to-maturity (YTM): less than or equal to 10 years to maturity (≤ 10 YTM) and greater than 10 years to maturity (> 10 YTM).

\$10M	\$5M	\$2M
Government of Canada (GoC Bills)	Government of Canada nominal bonds with over 10 years remaining to maturity (GoC >10) ²⁵	All provincial debt securities including Real Return Bonds (RRBs), Strip Coupons and Residuals
Government of Canada nominal bonds with 10 or less years remaining to maturity (GoC ≤ 10)		All municipal debt securities
All Canada Mortgage Bonds (CMB)		Government of Canada RRBs
		Government of Canada Strip Coupons & Residuals
		All Federal and Provincial Agency Bonds Other Than CMB

²⁵ GoC nominal bonds with less than 11 years at the time of issue will be subject to the \$10M cap to capture debt securities that become the 10-year benchmark relatively soon after issuance.

Data

We use data from the IIROC MTRS 2.0 over the period from January 2016 to mid-June 2017 to conduct our analysis.²⁶ The data includes all government debt securities trades to which an IIROC Dealer Member (we will refer to them as dealers for brevity) was at least one of the counterparties. The data includes: International Securities Identification Number (**ISIN**) which we use to identify unique securities; price; quantity; timestamp; identifiers for dealer-to-client or dealer-to-dealer trades; identifiers for buying or selling by the reporting dealer; and an identifier indicating if the dealer was trading with a retail client.

We enrich the dataset to include categories of debt securities (e.g., provincial, municipal) using data from FIPS and Thomson Reuters DataScope.²⁷ We use FIPS as the default classification and defer to Thomson Reuters in the absence of a classification in the FIPS data. We note that we are not able to classify all types of government debt securities. For example, to the best of our knowledge, no data source labels provincial agencies. In Table 1, the category *All Federal and Provincial Agency Bonds Other Than CMB* includes those government debt securities that we cannot easily classify. Below, we select a subsample of this category, *Federal Crown Corporations (excluding CMBs)* to present a partial analysis.

Identifying large trades

We identify the size of a large trade to form a basis for the volume caps of securities. Dealers have more difficulty managing inventory following large, unexpected trades. We exclude retail and retail-sized trades when calculating large trade sizes, namely those that are marked as retail or that are for under \$100K par value, since they do not have a material impact on dealers' trading practices and can skew the results of the analysis. For a given debt security, we define a large trade as the 75th percentile of trade size over all dealer-to-client trades in our sample.²⁸

Trading volume

We analyze the relationship between large trades and the potential for a dealer to trade a similar quantity for the purposes of managing inventory to inform the publication delay and volume caps. Inventory may be difficult to manage following a large trade when the trade is a significant fraction of total daily trading volume. For each debt security, we calculate the ratio of a large dealer-to-client trade to average daily trading volume. The statistic is useful to indicate debt securities where trading volume is relatively low in comparison to large trades, where smaller volume caps may be warranted.

²⁶ MTRS 2.0 data is collected by IIROC under IIROC Dealer Member Rule 2800C and contains trades in debt securities as reported by its Dealer Members. Until November 1, 2016, only Government Securities Dealers were reporting their trades.

²⁷ Both datasets are commercially available.

²⁸ We also carried out the analysis separately for buy and sell trades. The results were not materially different.

Results

Table 2 shows the results of the measures described above. The first column shows the category; the second column shows size of large trades; the third column shows the average daily volume; the fourth column shows the ratio of large trades to average daily volume; and the last column shows the number of ISINs in a category.

Categories with the highest large trade sizes include *GoC Bills*, *GoC Nominal Bonds (<=10 YTM)*, and *All CMB*. In each case, a large trade is greater than or very close to \$10M and the ratio of a large trade to the average daily volume is relatively low. *GoC Bills* have a large trade size of around \$9.5M, but they are short-term in nature, trade in high volume relative to other issues and present low duration risk. Together, these results indicate that these debt securities have relatively large trades and are highly liquid so we have proposed a volume cap of \$10M. *Federal Crown Corp. (excluding CMBs)* also have relatively large trades, but we note that average daily trading volume is very low. We have therefore proposed that these debt securities be categorized with *All Federal and Provincial Agency Bonds Other Than CMB* (see Table 1) with a \$2M cap.

Debt securities with intermediate large trade sizes include *GoC Nominal Bonds (>10 YTM)*. A large trade for these debt securities is around \$7.5M, and the ratio of a large trade to the average daily volume is relatively low, indicating a high degree of liquidity. We have therefore proposed a cap of \$5M for these debt securities.

Categories with lower large trade sizes are *GoC RRB*, *GoC Strip Coupons & Residuals*, *All Provincial Nominal Bonds*, *Provincial RRB*, *Provincial Strip Coupons & Residuals*, and *All Municipal Bonds*. For these debt securities, we have proposed the lowest cap considered, \$2M, since they are most like investment-grade corporate bonds (Principle 2). In addition, trading sizes for these debt securities are generally smaller and therefore less likely to introduce significant risks to dealers' trading practices. We note that trading volume is very low for municipal debt securities. This is likely driven by many small, unrated, municipal debt securities where trading is rare. Larger Canadian municipalities are typically investment-grade rated and trade much more frequently.

Table 2 – Results. *The table shows statistics for each category of bonds. Large Trade is the 75th percentile of dealer-to-client trades in \$M of par value; Average Daily Volume is the average volume per bond, in \$M of par value per day; Large Trade/Average Daily Volume is the ratio of a Large Trade to the Average Daily Volume; Number of ISINs is the number of securities in the category. YTM is years to maturity.*

	Large Trade	Average Daily Volume	Large Trade/Average Daily Volume	Number of ISINs
GoC Bills	9.38	242.39	0.04	89
GoC Nominal Bonds (<=10 YTM)	25.00	681.98	0.04	47

GoC Nominal Bonds (>10 YTM)	7.69	267.69	0.03	11
GoC RRB	4.50	14.97	0.30	7
GoC Strip Coupons & Residuals	1.00	0.13	7.69	138
All CMB	15.00	26.56	0.56	94
Federal Crown Corp. (excluding CMBs) ²⁹	10.25	0.89	11.52	311
All Provincial Nominal Bonds ³⁰	5.00	8.57	0.58	1706
Provincial RRB ³¹	2.65	0.38	6.97	7
Provincial Strip Coupons & Residuals	3.00	0.08	37.50	1738
All Municipal Bonds ³²	1.35	0.02	67.50	5512

²⁹ Other Federal Crown Corps does not include all crown corporation bonds. Among others, this category includes bonds issued by: Canada Post, Canada Pension Plan Investment Board, Export Development Canada and PSP Capital Inc. In Table 1, Other Federal Crown Corp would fall into *All Federal and Provincial Agency Bonds other than CMB*.

³⁰ All Provincial Nominal includes nominal bonds issued by Canadian provinces. It does not include provincial agencies.

³¹ Provincial RRB includes real-return bonds issued by Canadian provinces.

³² All Municipal Bonds includes bonds issued by municipalities as well as some municipal agencies, such as transit agencies.

SCHEDULE 2

DATA FIELDS FOR THE GOVERNMENT DEBT INFORMATION PROPOSED TO BE DISSEMINATED BY IIROC AS AN INFORMATION PROCESSOR

The data fields below will be made publicly available by IIROC as an information processor. They apply to all government debt securities subject to transparency requirements.

I. Summary level data for each bond

1. CUSIP and/or ISIN number, where available
2. Issuer name
3. Type of Bond (New)
4. Original Issue Date (New)
5. Maturity date
6. Coupon rate
7. Last traded price
8. Last traded yield
9. Total trade count (total trades done on the last trade date)
10. Last trade date
11. Highest traded price on the last trade date
12. Lowest traded price on the last trade date

II. Transaction level data for each bond

1. CUSIP and or ISIN number, where available
2. Issuer name
3. Maturity date
4. Coupon rate
5. Date of execution
6. Time of execution
7. Settlement date
8. Type (indicates whether the transaction is new, a cancellation or a correction)
9. Volume (subject to volume caps)
10. Price
11. Yield
12. Account type (retail or institutional counterparty)
13. An indication of whether a commission was recorded (“yes” or “no” answer)