



Statistics Canada's integration of the debtor and creditor securities databases, linked to the Centralized Business Register

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IMF's Special Data Dissemination Standards Plus (SDDS+) of 2015 prescribes the dissemination of debt securities data covering holdings (stocks only) of debt securities by issuer and holder on a from-whom-to-whom basis for the institutional sectors and non-residents. Debt securities include negotiable financial instruments serving as evidence of debt, as well as debt securities derived from the securitization of assets, both presented as market values. The from-whom-to-whom framework provides a detailed presentation of financing via debt securities, which allows the analysis between institutional sectors and subsectors within an economy and with non-residents (which can, in turn, be broken down by country or sector). Such an analysis sheds light on the sectoral composition of assets and liabilities, potential strengths and vulnerabilities in portfolios, interconnectedness, and potential spill-overs. International guidelines on statistical business registers (SBR) were also published in 2015, which recommend a SBR coverage including government, financial corporations, non-financial corporations, non-profit institutions serving households and registered household enterprises. Linking debt securities to the institutional sectors covered in the SBR makes it possible to construct the from-whom-to-whom tables. This paper will describe how Statistics Canada is in the process of rolling out a multi-year programme to produce debt securities issues and holdings in a from-whom-to-whom framework by 2021.

Keywords: debt securities; statistical business register; SDDS-plus; from-whom-to-whom framework

Background

Over the past decade, particularly in the wake of the financial crisis, there has been increasing pressure to enhance Canada's financial datasets. These requirements have been further emphasized by international initiatives such as G20 Data Gaps Initiative and IMF SDDS+. To reach this goal, it became clear that Canada would need to invest in the current securities program. The path forward has been to better leverage data collected from survey sources, commercial databases and the Centralized Business Register (CBR) to better address information gaps and strengthen analytical capacity.

In 2013 Statistics Canada initiated a project to overhaul and expand the current International Accounts securities by securities database in order to leverage the rich data sets on cross-border transactions and holdings of Canadian and foreign securities. This enhanced database will serve as the central hub for statistical information on flows, positions, revaluations and income related to securities held by residents and Canadian securities held by non-residents. These will feed into various statistical programs of the Agency. The redesigned product will lead to better integration, greater coherence, increased coverage and functionalities. In addition, outputs from the redesigned securities databases will better assist partner agencies and international organisations to monitor financial market activities and make decisions that are evidence-based.

This project eliminates the duplication of work regarding securities within the Agency whilst improving the integrity, consistency, timeliness and completeness of securities statistics.



Overall, a complete integration of the debtor and creditor securities databases, linked to the Agency's Centralized Business Register, will form the basis to develop aggregated statistics in the from-whom-to-whom framework for all dimensions of securities data; flows, positions, income and revaluations. A micro data file combining both characteristics of financial instruments issued/held and characteristics of issuers will represent a key output to be made available to users for analytical purposes. These objectives are met through improved coverage and centralization, two vehicles elaborated below.

Improved coverage

One of the primary goals of the securities project is to improve the data coverage of the securities program. Traditionally, the detailed securities program at the Agency was developed in the International Accounts area, with a focus on the measurement of cross-border transactions and holdings of Canadian and foreign securities. Until recently, only limited details on this activity were disseminated. One of the key measures was the dissemination of information on the value of Canadian bonds held by foreigners, by aggregated sector of Canadian issuers. This measure did not provide any insight into the nature of the deals, namely the exposure to currency risk and maturity risk.

The expanded securities program provides users with additional variables which will shed light on the nature and risk of the transactions in the financial market. For example, in the second year of the project, Statistics Canada began to publish information on the currency of issue and remaining maturity of those bonds held by non-residents, by sector of Canadian issuer. One of the key finding is the large exposure of Canadian private corporations to foreign currencies in their borrowing activities in comparison to the central government, as well as the impact of currency fluctuations on the value of this debt.

Coverage improvements will occur to virtually all aspects of the transactions. The issuer/debtor dimension will have increased coverage of the types of securities included in the databases and will be benchmarked to other sources of data used in the Agency, namely in the compilation of the Financial Wealth Accounts. The same applies to the creditor dimension for which the basis of measurement is the Coordinated Portfolio Investment Survey. This survey will be enhanced and benchmarked to ensure adequate coverage of resident holdings of domestic securities and will be fully integrated to the CBR in order to provide a creditor perspective on risk and return profile of debt securities. Furthermore the scope of transactions will be expanded to better cover holdings of individuals outside of the traditional collective investment vehicles that are mutual funds and pension plans.

A centralized source for securities data

As the Business Register is a centralized source of business frame information, the securities database will be the centralized source of securities data incorporating data from:

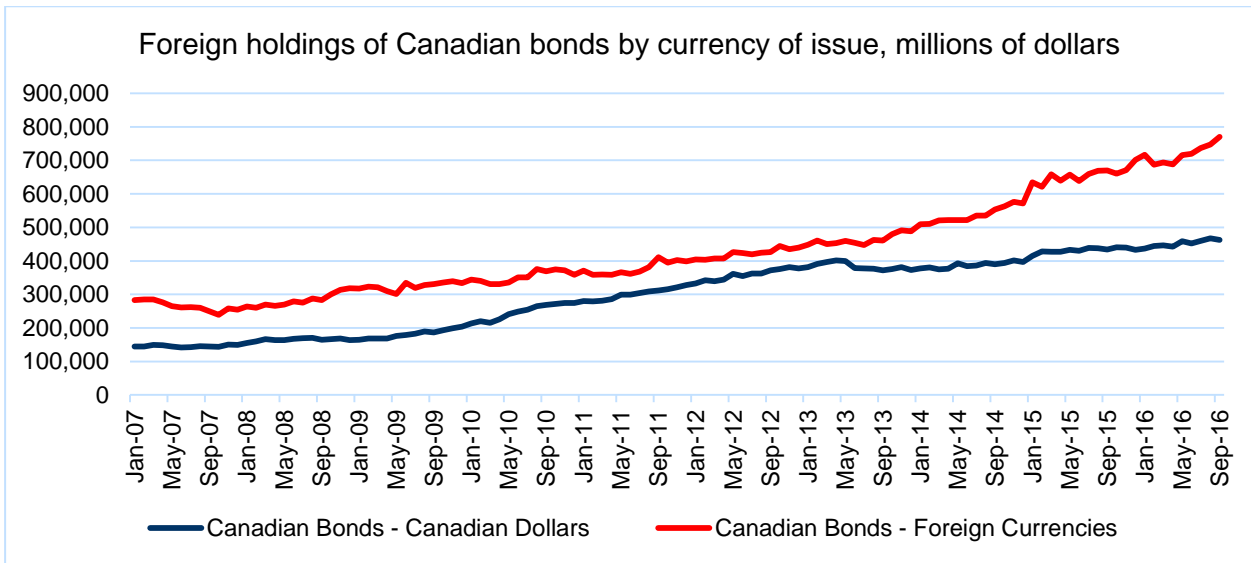
- Canada's international transactions in securities
- the Canadian Portfolio Investment Survey
- annual benchmark surveys on debt liabilities of Canadian public and private debtors
- government debt issues for all levels of government
- Bank of Canada's Business and Capital Market Statistics
- Various administrative sources, including commercial and tax data

The centralized securities database will serve a number of programs within the Agency, such as Balance of Payments, Financial flows and wealth accounts under the from-whom-to-whom framework, Government statistics, Quarterly Financial statistics, and Monthly GDP for banking and financial services industry. The database could also feed into other organizations such as the Bank of Canada in aggregated form and be made available to researchers at a more detailed level.

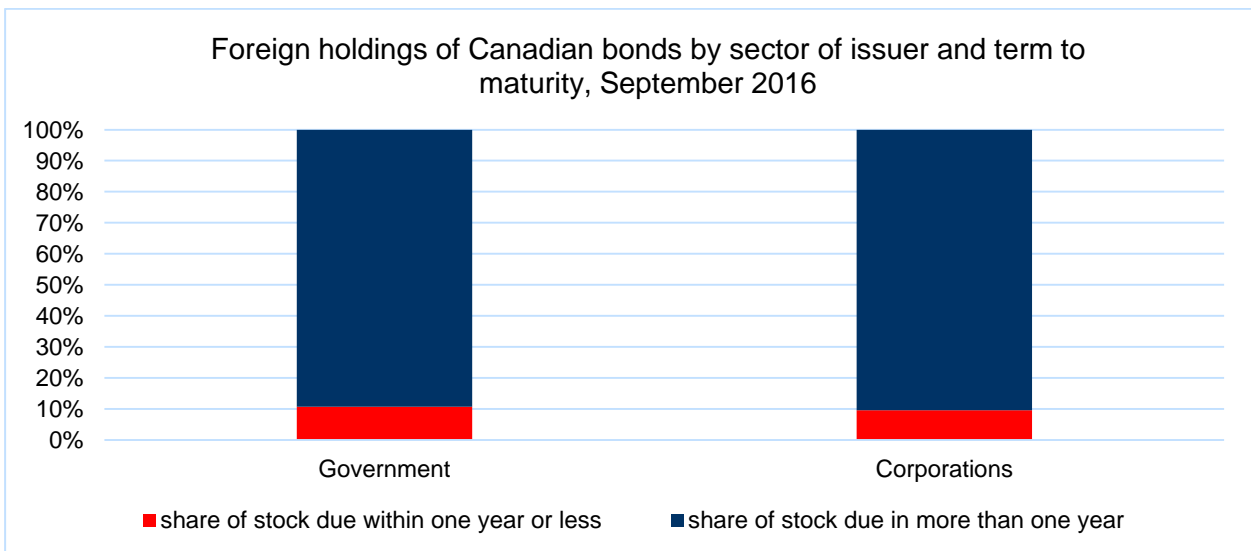


Benefits

The new securities database provides the detail to allow the decomposition of foreign holdings of Canadian bonds by multiple characteristics of instruments as well as issuers. One of the key measures recently implemented is the availability of data on the currency of issue. This in turn provides users with an improved understanding of the risk associated with total bonds.



The increased instrument detail also provides additional information on the term to maturity. Users can now gauge whether there are a large proportion of long-term bonds that are coming due in the short-term. This provides a more accurate picture of the obligations faced by issuers with respect to debt repayment and refinancing.

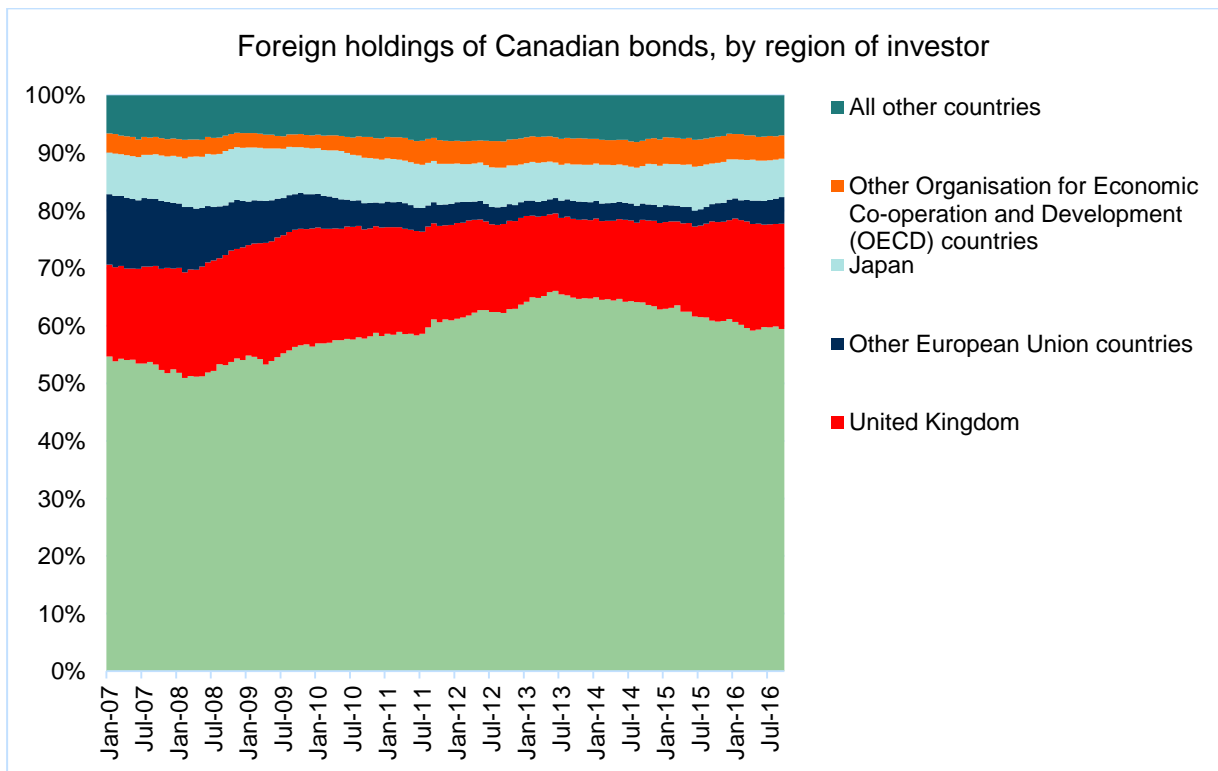
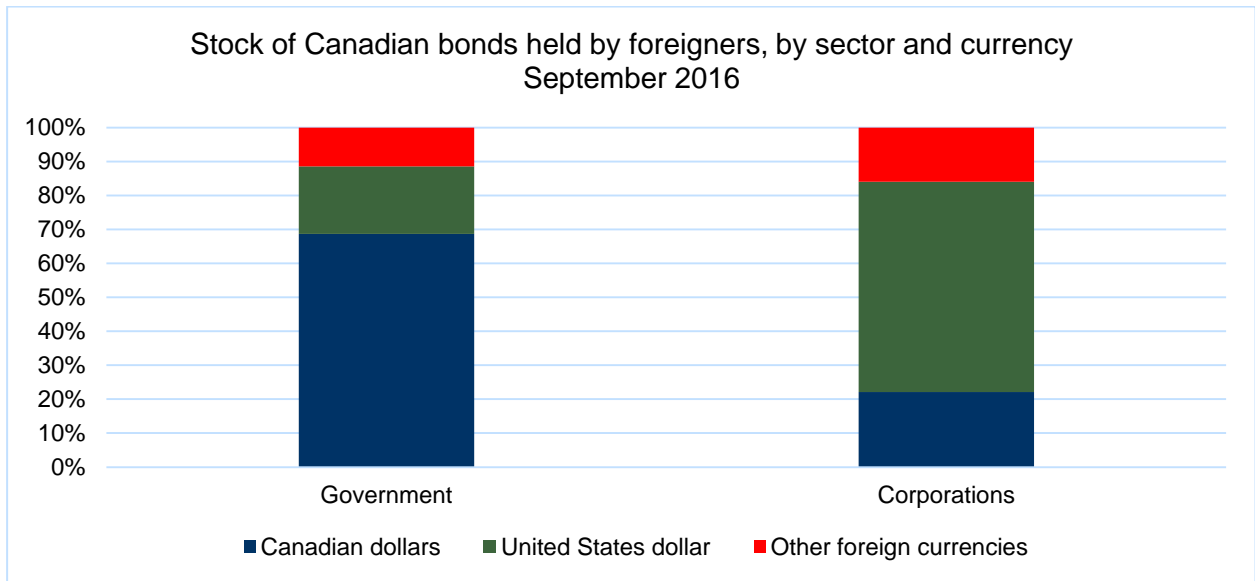


The currency dimension, combined with the sector information, provides insight into which sectors are exposed to currency fluctuations. For instance, the majority of bonds issued by the central government are denominated in Canadian dollars while the majority of corporate bonds are in foreign currencies,



led by US\$, thereby taking on a greater share of the risk associated with a depreciation of the Canadian dollar.

Users are also concerned with our interconnectedness and the source of our creditors. Our data can be broken down by country of foreign investor as in the example below. It is clear that many of our investors stem from the western world, particularly U.S. and the U.K.

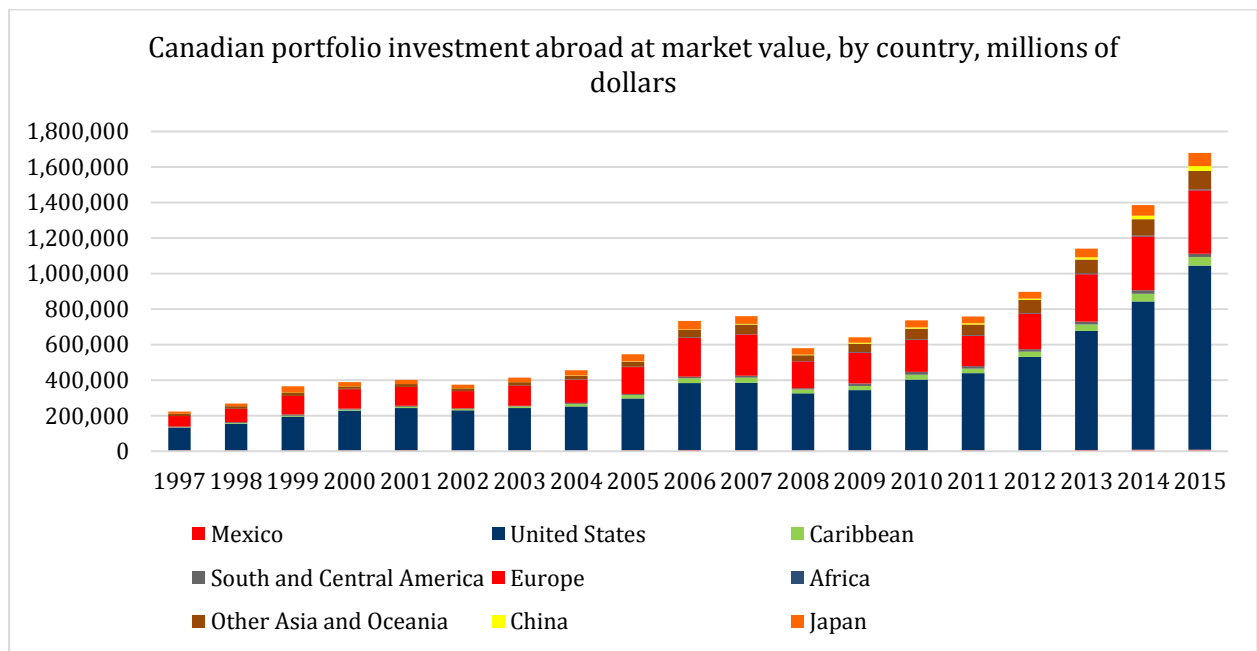


While it is important to better understand the risk associated with repaying our liabilities to non-residents, it is equally important that we understand the risk associated with our international assets.



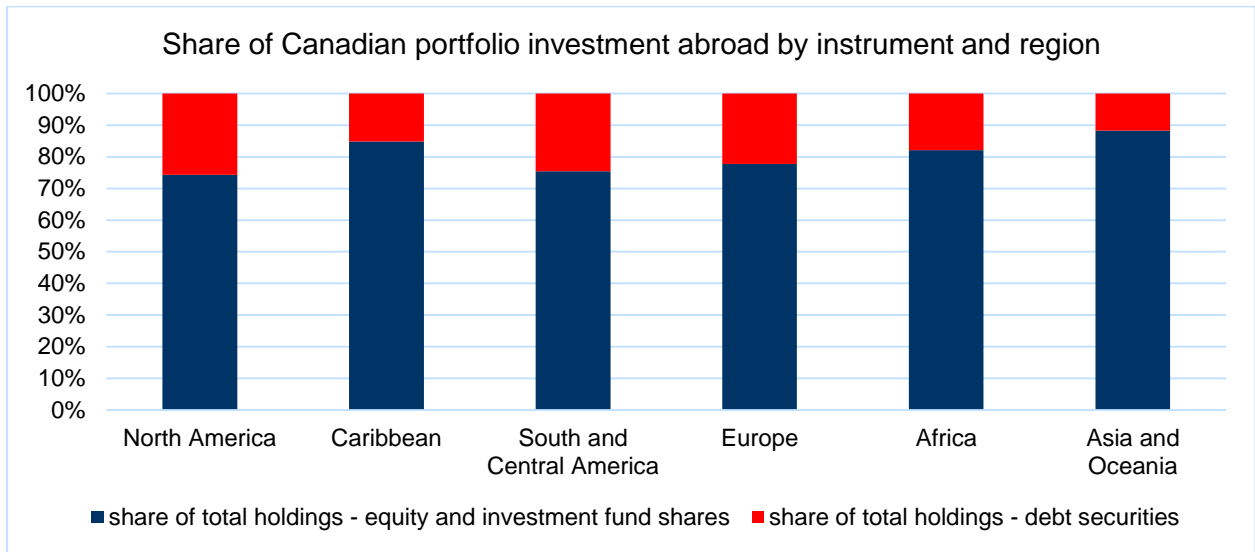
Through the securities project, Statistics Canada has produced quarterly estimates of Canadian portfolio investment abroad that are broken down between debt and equity securities. The data are broken down by 138 countries and regions in order to get a good picture of our geographical risk. To get a more complete picture, the instrument detail can be combined with the regional data to get a picture by geography as to whether the exposure is to stock market fluctuations or global credit markets.

Statistics Canada is currently working on adding additional dimensions to this database, which look at the foreign sector that issued the security as well as the currency of issue of the security. For example, not only do we want to know if Canadians invested in the United States, but we also want to know if they invested in U.S. government or corporate bonds, and if those corporate bonds are with non-financial or financial enterprises. We also want to know to which currencies Canadian investors are exposed to. It is only by adding this additional granularity that we begin to understand the risk associated with our international assets. Linking to the business register will help us to gain this additional sector detail.



While looking at the creditor and debtor sides, each provides important insight into financial risk, there is still a need to merge the two to provide a more complete picture of interconnectedness between institutional sectors. This work can be leveraged to create a from-whom-to-whom framework, which will provide information on who is financing whom in the economy, the extent of this financing and in which type of securities this financing is taking place.

Canada’s approach in creating this broader framework consists in integrating its two securities databases, the issuer/debtor component and the creditor component. Information for these two components is largely collected on a security by security basis. It is therefore possible, for each instrument, to assign who the holders are, with characteristics of both holders and issuers derived from the CBR.



A key to the success of the project is therefore the link with the statistical Business Register. This redesigned securities databases will integrate up to date survey frame and will reconcile classifications so that they are consistent with the sector coding on the business register. This will facilitate the integration of the securities data within the Financial and Wealth Accounts by the use of coherent institutional sectors classification.

In addition to improving the integration of the securities data within the broader framework of the macroeconomic accounts, the link to the BR will enable to profile further the nature of the borrowers and holders of securities, for example the extent to which these entities are domestically- or foreign-owned firms, their level of employment, etc. The link to the CBR will provide additional analytical capacity by leveraging existing information collected from other survey activities of the Agency in the context of the securities data to better understand risk associated with this growing activity in the country.