# Delineation and sub-sectoring of financial corporations in the Canadian System of National Accounts

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## Introduction

The Canadian System of National Accounts (CSNA) is an integrated set of accounts with most of the component accounts articulated by institutional sector. There are two main sets of accounts. The *Income and Expenditure Accounts* (IEA) comprise sector current accounts and sector capital accounts. The current accounts articulate incomes flowing to the sector (including current transfers from other sectors) and current expenditures of the sector (including transfers to other sectors). The 'balancing item' of this account is net saving, making it possible to determine the savings behaviour of a group of economic agents during a period. The sector saving estimates are carried into the CSNA capital account where these sources, along with capital consumption allowances and capital transfers, are presented alongside the acquisition of non-financial capital. The balancing item of this account is net lending or net borrowing. These accounts are broken down into four institutional sectors[1]: persons and unincorporated businesses, corporations, governments and non-residents.

The second set of accounts is the sectoral Canadian Financial and Wealth Accounts (FWA). This account is made of up of the *Financial Flow Accounts* (FFA) and the *National Balance Sheet Accounts* (NBSA). The Financial Flow Accounts present the financial transactions that occur during a quarter, and provide for a second measure of net lending or net borrowing. The quarterly National Balance Sheet Accounts present the value of non-financial and financial assets and the value of liabilities at the end of each quarter, with the balancing item being sectoral net worth. The Financial and Wealth Accounts are presented in considerable sub-sector and instrument detail (thirty sectors and twenty-five distinct types of financial instruments), showing the financing of economic activity and accumulation of wealth.

Given that the financial corporate sub-sector details are only presented in the Canadian Financial and Wealth Accounts, this paper will focus on challenges in delineating financial corporations in the context of these accounts. This paper first provides a very brief overview of the Canadian Financial and Wealth Accounts. It then discusses the differences between the Canadian financial corporation sub-sector[2] and the one proposed by 2008 SNA. It examines how

[1] Government subsector detail is produced for the income and outlay accounts. The capital account is divided between financial corporations and non-financial corporations as well as by government sub-sector. In October of 2012 with the release of the historical revisions to the CSNA, the corporate sector current accounts will be split between non-financial and financial sectors.

[2] The Canadian FWA is undergoing a comprehensive revision with results scheduled to be published in October 2012. This paper refers to the structure of the accounts that will be released at that time, rather than the current SNA 1993-based structure.

financial corporations are delineated within the CSNA, and the data sources used to identify and maintain the frame of financial corporations. The paper concludes by looking at two case studies—one examining the challenges in delineating the Canadian mutual funds sector and the other highlighting recent challenges in compiling data for issuers of asset back securities.

# Structure of the Canadian Financial and Wealth Accounts

## History

The Canadian Financial Flow Accounts stem from development work done for the Royal Commission on Canadian Economic Prospects in 1959, and published in W.C. Hood's '*Financing Economic Activity in Canada*'. The years covered by the prototype financial flows were 1946 to 1954 and they were known as "national transactions accounts". Statistics Canada first published financial flows in their present form in 1969, commencing with the year 1962. Since their inception, the accounts have been available on a quarterly basis. In addition, year-end levels of outstanding financial assets and liabilities were made available for the years 1961 forward. In 1984 these partial balance sheets, which excluded non-financial assets and net worth estimates, were superseded by full balance sheet accounts..

Over the last 25 years, development of both the *Financial Flow Accounts* and the *National Balance Sheet Accounts* has continued. In 1993, an improvement in timeliness allowed the financial account to be released at the same time as the *Income and Expenditure Accounts* and *Balance of International Payments Account*. In 1997 Statistics Canada produced, for the first time, seasonally adjusted quarterly sector accounts. A quarterly balance sheet, at book value, was added in 2003, commencing with the year 1990. Market valuation for marketable securities was added in 2004, resulting in the release of both a book value and market value National Balance Sheet. In the fall of 2009 Statistics Canada published revised FWA sector and category detail, in order to provide more relevant sector and category information.

## Structure

The Canadian quarterly FFA is most simply seen as a series of tables which show the evolution of activity by sector, or sub-sector, over time. The sector accounts include six major sectors of the economy: households plus non-profit institutions serving households[3], non-financial corporations, financial corporations, governments and non-residents. The non-resident sector comprises the detail of Canada's Balance of International Payments. The corporate sectors are divided into a number of sub-sectors, with the bulk of this detail comprising the transactions of various types of financial institutional units, reflecting the importance of the financial system in transferring funds from surplus to deficit sectors. The government sector transactions are available by level of government. In total, there are 30 unique sectors tables in the FWA. Each column shows transactions by sector for a quarter and each row shows the transactions of a particular instrument.

[3] Households and Non-profit Institutions serving households will be split into separate sectors with when CSNA 2012 is released in October 2012.

The transaction categories grouped under financial assets and liabilities show the financial instruments through which the sector’s lending or borrowing is carried out. The categories record transactions by instrument type. Examples include currency and deposits, marketable short-term paper, longer term marketable debt instruments (bonds) and equities, negotiated instruments such as loans and mortgages and a variety of other items such as trade accounts receivable. Each asset category has an equivalent liability category, not necessarily in the same sector. A category called ‘net financial investment’ records the sector's overall net purchase of financial assets less the net incurrence of liabilities. Net financial investment is the conceptual equivalent of net lending or borrowing and should equal it. For some sectors, however, there is a difference, attributable to the use of different data sources in obtaining the two numbers. This difference is recorded in a distinct category as ‘statistical discrepancy’ and offers a rudimentary check on the quality, or, more accurately, the consistency of the data. The equality of net lending or borrowing and net financial investment arises from the more general constraint in the sector accounts that sources of funds equal uses of funds.

The *National Balance Sheet Accounts* share the sectoring and to a great extent, duplicate the category detail of the *Financial Flow Accounts*. The presentation of data is similar; the database is again an array which can be viewed as matrices of either inter-sectoral claims at a certain period of time, or of the evolution of any sector's balance sheet over time.

## Delineating the financial corporations in the CSNA

The financial corporations’ sub-sectors comprise a wide variety of institutions, monetary authorities including banks and near-banks, investment dealers, insurance (by type), sales finance companies, investment funds, pension funds, issuers of asset-backed securities, government business enterprises and investment management and holding companies. Estimates are largely constructed from a quarterly enterprise-based survey, supplemented by other sources of information. . Quality is relatively higher than for non-financial corporations, as most financial industries tend to have universe coverage (or very close to it). It should be noted that the financial sub-sectors provide the overwhelming proportion of the counterpart data (instrument detail) used in other sectors.

Given that the majority of data used to compile information on financial corporations in the CSNA originates from a quarterly enterprise financial survey, the primary method of delineation is through mapping from the North American Industry Classification System (NAICS) to CSNA sectors. Statistics Canada maintains a comprehensive business register which classifies each enterprise in Canada to an industry code, representing its primary activity. In total, 57 detailed NAICS industries are mapped to the 12 CSNA financial corporation sectors, as shown in Appendix A. This approach to delineation restricts, to a certain extent, the program’s ability to follow the sub-sectoring proposed by the 2008 SNA.

SNA 2008 proposes that the financial corporation sector be broken into nine sub-sectors, and that for each of these sub-sectors the data be further disaggregated between public, national and foreign sectors, and each of these sub-sectors be further delineated between not for profit

(NPI) and for profit (FPI) institutions. The CSNA financial corporation sub-sectoring (see table 1 below) is a hybrid of the proposed 2008 SNA structure.

**Table 1: Mapping between CSNA and SNA 2008**

| CSNA financial corporation sub-sector detail | SNA 2008 |
|---|---|
| **Total monetary authorities**[4] | Central Bank |
| **Total chartered banks and quasi-banks** | Deposit-taking corporations except the central bank |
| Chartered banks | |
| Quasi-banks | |
| **Insurance and pension funds** | Insurance corporations |
| Life insurance business | |
| Property and casualty insurance companies | |
| Segregated funds of life insurance companies | |
| Trusteed pension plans | Pension funds |
| **Total other private financial institutions** | |
| **Mutual funds** | |
| Money Market Funds | Money-market funds (MMF) |
| Other mutual funds | Non-MMF investment funds |
| Sales, finance and consumer loan companies | Other financial intermediaries except insurance corporations and pension funds |
| Other private financial institutions | Financial auxiliaries |
| Issuers of asset-backed securities | Captive financial institutions and money lenders |
| Financial government business enterprises | |

There are a number of important differences between the CSNA presentation and the proposed 2008 SNA presentation. These include:

1. In the CSNA, all public financial corporations are placed in a single sector called 'Financial Government Business Enterprises' rather than breaking out each sector between public and national or foreign. This practice pre-dates 1993 and 2008 SNA and is regarded as a more efficient and relevant[5] presentation.
2. There is no breakdown between national and foreign institutional units in the CSNA. This would be a large undertaking, which is more germane to types of globalization studies than it is to the core CSNA accounts.

[4] This is the one instance where the CSNA sector detail (built on a functional basis) exceeds the NAICS industry detail coverage.

[5] For example, it matches the sub-sectoring of the "public sector" in the new G-20 Data Gaps OECD-IMF-World Bank government debt table.

3. The CSNA does not provide a breakdown between for profit and not for profit institutions
4. For certain sectors—such as insurance corporations and governments, the CSNA provides additional subsector detail.

There are a number of reasons why the CSNA has chosen to deviate from the proposed SNA structure. The primary reason revolves around whether or not additional detail would substantially change the analysis. For example, in most of the financial sub-sectors in Canada there are very few not for profit institutional units. As such, providing a 'for profit' and a 'not for profit' sub-sector would not provide any analytical benefit. In addition, in most cases confidentially rules would need to be applied which would limit the amount of data that could be published.

Delineating between domestic and foreign control would not add substantially to the analytical usefulness to the core SNA data. Table 2 shows the assets of domestically controlled and foreign controlled enterprises for the finance and insurance industry. The prevalence of foreign ownership in the Canadian financial sector is not large, representing about one-sixth of total assets.

**Table 2**

| Assets | Foreign | Canadian | Total | % Canadian |
|---:|---:|---:|---:|---:|
| 2007 | 509,122 | 2,734,632 | 3,243,754 | 84.3% |
| 2008 | 473,389 | 2,445,066 | 2,918,455 | 83.8% |

A second reason for the differences is the result of data availability, given the nature of the source data. The majority of source data for the financial sub-sectoring originates from an enterprise based survey (the Quarterly Survey of Financial Statements, (QFS)) whose primary classification is the North American Industrial Classification Standard (NAICS). The statistical unit used in the QFS is the enterprise; and, for purposes of national accounts, this is the domestically-consolidated enterprise. In other words, for complex enterprises we survey above the level of the legal entities. An enterprise is a business or a family of businesses under common majority ownership for which a set of consolidated financial statements is produced on an annual basis.

The enterprise survey is a sample survey with a cross-sectional design. The frame used for sampling purposes is Statistics Canada's Business Register (BR). A stratified random sample is drawn from this frame, based on the size of the unit. The Quarterly Survey of Financial Statements is stratified by assets and revenues for the non-financial industries while the finance and insurance industries are stratified by assets only. The sample includes a take-all portion, for the largest enterprises within an industry, and these units are sampled with certainty. In addition, there are either one or two take-some portions (depending on the industry) for which, on average, one out of eight units are sampled. Finally there is a take-none portion, from which no units are sampled, rather an estimate is derived by applying the quarter to quarter movement of sample responses to annual data compiled from the Canada Revenue

Agency financial statements which represent the non-sampled portion of the business population. The take-none portion covers the vast majority of the simple enterprises, which maps well to the legal entities in the taxation-based data. The sample size is approximately 5,500 enterprises.

The sample is selected to optimize for coverage by industry. Sample selection is not stratified based on whether or not the corporation is public, private, national or foreign. Public enterprises are surveyed separately, outside of this survey and (as mentioned above) are covered separately in the FWA. In order to fully meet the SNA 2008 sub-sectoring requirements — especially, the national-foreign split — the sample would need to be redesigned with reference to the business register to take these strata into account.

A third reason centers on the fact that the number of public financial enterprises in Canada is limited. Deconstructing the financial enterprises by sub-sector would result in a number of the series being suppressed for reasons of confidentiality. Statistics Canada has therefore taken the approach whereby at the aggregate sector level the public versus private split is provided, by putting all public enterprises in a sector of their own. This is a good compromise given the limited number of public financial enterprises in Canada.

Table 3 provides a breakdown of the number of financial corporation's within each CSNA financial corporation sub-sector for the year 2010. The bulk of the enterprises are included in the other private financial institutions sector. This sector includes financial corporations such as insurance brokers, mortgage brokers, investment advisors and security brokers. Holding companies are also included in this group and represent the group that holds the largest amount of assets.

**Table 3 – Number of Financial Corporations by Sector - 2011**

| Financial Sector | Number of Units | Total Assets |
|---|---:|---:|
| Chartered banks and Quasi-banks | 164 | 3,178,895 |
| Financial government business enterprises | 21 | 266,275 |
| Issuers of asset backed securities | 56 | 310,662 |
| Life insurance business | 60 | 289,866 |
| Money Market Funds<br>Other mutual funds | 2,110 | 759,496 |
| Other private financial institutions | 187,495 | 1,267,531 |
| Property and casualty insurance companies | 101 | 134,768 |
| Sales, finance and consumer loan companies | 918 | 86,951 |
| Segregated funds of life insurance | | |

| | | |
|---|---|---|
| companies | 33 | 200,619 |
| Total monetary authorities | 3 | 135,852 |
| Trusteed Pension Funds | 7,870 | 1,016,998 |
| Financial Government Business Enterprises | 6 | |
| **Total** | **188,736** | **7,647,913** |

## Maintaining the list of financial corporations

Given that the CSNA delineates the financial corporation sector through its central business register, the method of updating the business register is critical in ensuring proper coverage. The following outlines how the lists of private and public financial enterprises are maintained at Statistics Canada.

### Private financial enterprises

Certain financial sub-sectors are highly regulated in Canada. As such, entry into these sectors is limited by the regulatory 'costs' that are imposed. This facilitates the maintenance of the list of financial enterprises. The main source of frame updates comes from regulatory lists generated by the Canadian Office of the Superintendent of Financial Institutions (OFSI). OSFI regulates financial Institutions and pension plans; safeguards policy holders, depositors and pension plan members from undue loss; and administers a regulatory framework that contributes to public confidence in a competitive financial system. The lists maintained by OFSI cover federally regulated banks, trust and mortgage companies, life insurance companies and property and causality reinsurers and insurers.

A frame of investment funds is maintained by the Investment Funds Institute of Canada (IFIC). IFIC is a trade association that supports the Canadian investment funds industry. They provide services to fund managers, distributors and industry service organizations. This frame, at least until recently, has been the main source of information used to identify and delineate the investment funds sector. The use of IFIC data and other investment fund data is discussed in the first case study presented at the end of this paper.

Asset-backed securities (ABS) are identified using the Dominion Bond Rating Service, which tracks the issues of Canadian securities. The trust that issued the security is also identified in this data source. This information is therefore used to both maintain the list of trusts as well as identify whether or not a given trust is active. The implementation of the International Financial Reporting System in Canada has resulted in some specific challenges associated with the ABS sector in Canada. These challenges are mainly associated with the linkage between the ABS sector and the originator of the mortgages that are being securitized. These are explained in detail in the second case study presented below.

The delineation and update of other financial corporations' sub-sectors is accomplished through a variety of mechanisms and sources, such as updates from administrative sources, feedback received during collection of survey information, feedback from subject matter experts and periodic profiling of larger enterprises. The main source of update information depends, for the most part, on the size of the institutional unit. For small simple legal entities, the main sources of information are administrative data and collection feedback. For the more complex institutional units (e.g., units that have multiple legal entities and operate in multiple industries and in multiple regions) two additional processes are utilized—reactionary profiles and proactive profiles. Reactionary profiles are triggered when an external source of information is received that indicates a major change in the structure of the unit (e.g., a merger/acquisition), which necessitates a profiling exercise. The decision to undertake a reactionary profile is done on a priority basis. Proactive profiles are full profiles done every two to three years, depending on the impact to the survey area and the changes signaled by messages received from the survey manager, collection area or from external data sources.

### Public financial enterprises

The delineation of public financial enterprises is the responsibility of a classification unit within the Public Statistics Sector Division of Statistics Canada. This unit classifies public financial enterprises as set out in the *Public Sector Manual*. The classification team works through a set of criteria to determine whether or not a unit is in the public sector by looking at (i) who controls the unit and, if deemed a public sector entity, (ii) whether the unit meets conditions to delineate it from government (that is, classify it as a public enterprise). Once a unit is deemed part of the public sector enterprise universe it is assigned both an industry (NAICS) code and a sector code. The unit is then either birthed (if it did not already exist) or updated with the latest profile information in Statistics Canada's business register.

In general, the use of the central business register to identify enterprises in financial corporation's sector ensures an accurate representation of the sector. At times there are cases where work is required outside of this framework to ensure proper coverage and delineation of the units in the universe. To such recent cases are the mutual fund sector and the asset-backed securities sector.

## Enterprise as the Statistical Unit of Measurement

Given that the majority of information for the financial corporations' sub-sectors originate from enterprise based surveys or regulatory information which classifies units more as enterprises than legal entities there are a number of implications for the FWA program. The first revolves around consolidation. The data reported to Statistics Canada generally reflects the domestically-consolidated operations of the enterprise. In many cases, the large financial institutions in Canada operate a number of different lines of business. For example, deposit accepting institutions can also sell insurance products, operate brokerage arms and manage large investment funds. When these activities are significant, Statistics Canada has taken care to ensure that each of these units is identified as a separate enterprise on the central business registrar. This facilitates the construction of institutional sectors, by say ensuring that the activities of the insurance arm of a large financial corporation do not get consolidated into the activities of its investment funds. For the most part, separate enterprises have been identified on the central business register, but this is not always the case – particularly for the smaller firms. In these cases the principal activity of the unit identifies it to a particular industry and the industry is mapped to a sector. There is no attempt to try and split out the secondary activities of the firms when mapping it from its industry to its sector.

In addition to the efforts that are required to properly identify the enterprises, care is also taken to ensure that only 'booked in Canada' data are provided. Most of the large financial corporations in Canada have foreign affiliates and therefore construct globally-consolidated financial statements. While, regulatory authorities require globally-consolidated financial statements, national accounts' compliers require national estimates; and, it is an on-going challenge to work with financial corporations to compile data pertaining to their Canadian operations.

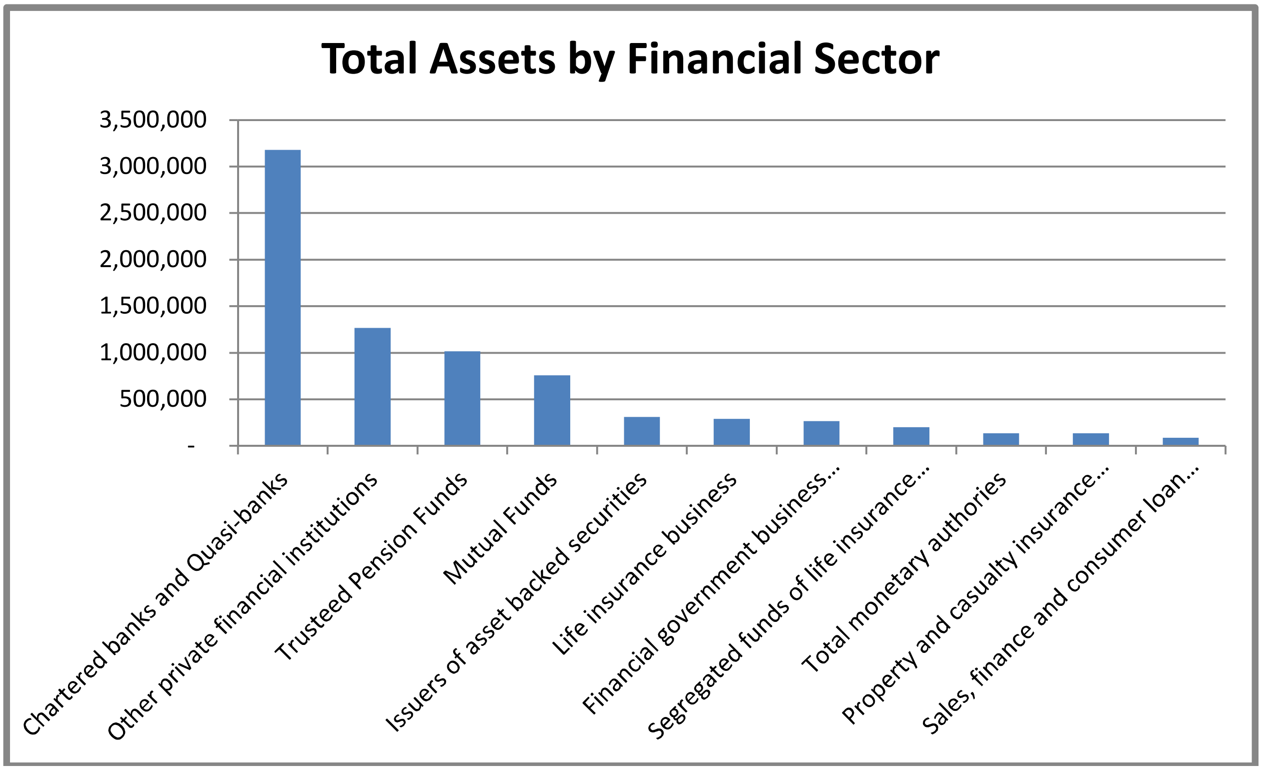
## Mutual funds' sector[6]

Given the importance of the investment fund sector in the Canadian economy (see chart 1) and the fact that the CSNA is conducting a historical revision, over the last year a significant amount of work and research has gone into the delineation of the units in this sector. The following is an excerpt from an internal working paper outlining the work that has been undertaken as well as the data sources used to update the frame.

The Quarterly Survey of Financial Enterprises (QFS) has been used to collect mutual fund information since the 1980's. At that time the number of mutual funds numbered around 200. Since then, that number has grown to more than 2000. With the rapid change in this sector, the maintenance of the frame of mutual funds has been a major challenge, particularly given the dynamic nature of the sector and the new types of mutual funds that have emerged, such as fund of funds and exchange traded funds (ETFs). As noted earlier, the Investment Funds Institute of Canada (IFIC) is the main source of information used to maintain the list of mutual funds in the CSNA. IFIC is not a regulatory body and therefore there is no requirement for mutual funds to register with, or provide information to, IFIC. Since funds can opt in and out of reporting to IFIC, frame maintenance is a major issue—it is not always evident whether a fund is missing from the list because it no longer exists or simply because it decided to no longer report. As such, the CSNA sought other options for maintaining the frame of mutual funds, as well as to obtain the associated balance sheet information to compile the quarterly Financial

[6] This section, highlighting the mutual funds sector, is an excerpt from an unpublished paper by Statistics Canada economist Julie Chartrand.

and Wealth Accounts. The focus of the research centered on three areas—the frame of stand-alone Canadian investment funds; funds of funds; and, exchange traded funds (ETF).




As noted, the current source used to identify the mutual fund universe (IFIC) has some limitations in that mutual fund companies are not obliged to report and therefore the universe can change, depending on the reporting habits of companies. A careful examination of the current universe has identified that around 730 funds are currently missing from the universe, representing approximately $108 billion in net assets. For the last number of years, the source data (QFS) has been adjusted substantially, using complimentary data to account for these missing assets and ensuring an accurate measure of assets for the mutual fund sector.

In addition to missing a number of stand-alone mutual funds, the current Canadian list of investment funds does not include fund of funds. Simply put, fund of funds are investment funds that invest in other investment funds. The rationale for excluding these in the past was to avoid double counting mutual fund assets, since these funds are simply investing in other mutual funds. A closer analysis of these funds indicates that a number of fund of funds invest in mutual funds as well as stocks, bonds and other securities. These funds should therefore form part of the universe of funds.

In addition to the need to include the secondary investments of these funds, their inclusion is in line with Flow of Funds and Balance Sheet national accounting which articulates all the transactions of the sector. If a Canadian mutual fund invests in another Canadian mutual fund this investment should appear in both the assets and liabilities of the sector. If these funds are not included in the universe of funds this important to-whom-from-whom information would be missing.

Exchange traded funds (ETFs) form a growing segment of the investment fund market. ETFs are a basket of stocks that track a specific market index, sector group or commodity. They are becoming increasingly popular as they provide the benefits associated with mutual funds (diversification of investment) with lower administrative costs. Currently, the market value of EFTs in Canada is around $45 billion. Given the growing popularity of these funds, frame maintenance is an issue. A number of these funds are currently missing from the frame used to compile the quarterly investment fund income, expense, flow of fund and balance sheet information.

Considering the increasing complexity of the investment fund market, new sources of information were examined to ultimately enable a timely and comprehensive list of investment funds. As well as various in-house activities, Statistics Canada has also investigated the use of third-party privately sold mutual fund databases. One such source is a database sold by Morningstar.

Morningstar sells a database called Morningstar – Direct. This database is rich in information and covers 94% of stand-alone mutual funds and fund of funds, and 97% of the ETFs in Canada. The database provides detailed balance sheets and flow of fund information at the fund level. In terms of timeliness, 27% of the funds report on a monthly basis, 42% on a quarterly basis. In total, around 84% report at least every six months. While mutual fund companies do not have a regulatory obligation to report to Morningstar or any other private operator, they do have a business incentive, as this is an important part of the marketing of the fund. This marketing incentive becomes a strong ally in keeping the frame up-to-date and properly delineates the mutual fund sector.

The mutual fund sector in the Canadian System of National Accounts is unique in that the institutional unit represents the fund itself rather than the company associated with the fund or the fund manager. Properly accounting for this sector requires national account compilers to stay on top of industry changes, such as the type of fund offered to investors, the number of funds, and the constantly changing rules around foreign holdings.

## Issuers of asset-backed securities' sector[7]

Compiling statistics for issuers of asset-backed securities has been a challenge over the last year (2011) as many chartered banks have converted to the international financial report standard (IFRS). While it has not been difficult to delineate units in this sector the challenge has been to determine the linkages between the issuers of asset-backed securities and the chartered banks. The following is an excerpt from a paper written by Mark Joshua, analyst at Statistics Canada, highlighting the recent challenges and the impact the move to IFRS has had on both the chartered bank sector and the issuers of asset-backed securities sector.

"*Over the course of 2011 to 2013, many Canadian companies reporting their financial statements under Canadian Generally Accepted Accounting Principles (CGAAP) will be switching to the International financial reporting standards (IFRS), as set forth by the International Accounting Standards Board. Most federally regulated entities are required to implement IFRS for their fiscal year commencing in 2011. Of particular interest to the Canadian System of National Accounts is how this change-over will affect the way in which Canadian corporations value and report assets and liabilities on their balance sheets. One important change concerns the recording of securitized receivables as well as the associated asset-backed securities (ABS).*

*In securitization, companies raise funds through the issuance of debt (asset-backed securities) that is secured by their receivables (securitized assets). For example, when a bank issues a mortgage to a homeowner, the bank has an asset (the mortgage) and the homeowner has a liability (the mortgage). The bank, either on its own or through a third party, can then take this mortgage and package it with other mortgages, then issue an asset-backed security. The periodic payments from the mortgages provide the regular income stream to back the periodic coupon and/or maturity payments of the ABS. Like a bond, the ABS can be structured to have specific yield and maturity characteristics and can be sold to an investor.*

*Under the outgoing CGAAP, through the process of securitization, and due to the subsequent sale of the corresponding debt or ABS, the originators of ABS do not report the securitized receivables and the corresponding securities on their own balance sheets. Under the incoming IFRS, these ABS and receivables will now be reported on the balance sheets of the companies themselves, as the originators of the ABS. This is an important change in financial reporting. As previously mentioned, the transfers of receivables off balance sheet are currently reported as sale transactions, but this will not be the case under IFRS. The consolidation on the originators' balance sheets will be the biggest change with respect to the Financial Flow Accounts and the National Balance Sheet Accounts. It is worth noting that at the economy-wide level, neither*

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[7] Joshua, Mark, 2011. Impact of New Accounting Standards on the Financial and Wealth Accounts, Ottawa, Ontario. Statistics Canada. Reproduced here as published in the Latest Developments in the Canadian Economic Accounts

*lending via credit markets nor credit market debt will change; only the sectoral composition or distribution of the credit market assets and liabilities will be affected.*

*Securitized assets are reported to Statistics Canada through the Quarterly Survey of Securitized Receivables and Asset-Backed Securities. This survey collects balance sheet and income statement information according to specific instrument, revenue and expense classifications. Most importantly, the survey requires a breakdown of the types and amounts of assets that were securitized. The estimates of flows and levels of securitized assets and asset-backed securities are incorporated in the Issuers of Asset Backed Securities (IABS) institutional sector in the Financial Flow Accounts and the National Balance Sheet Accounts framework.*[8] *The primary assets of this sector are the securitized receivables; and the primary liabilities are the asset-backed securities.*

*A securitized asset can be any form of receivable with a predictable cash flow, such as a loan, lease or a mortgage that can be pooled and used as collateral to issue fixed-income securities. Due to the nature of these receivables, the original lenders are typically financial institutions or financial intermediaries, such as banks, near-banks, sales financing and consumer loan companies—however, many companies that are in the business of making loans or extending credit to their customers, for example the sales financing arm of a major retailer, also avail themselves of this procedure. The primary benefit of this method to companies was that it allowed them to move assets and their related liabilities off of their balance sheet. Moving the assets and liabilities allowed companies to reduce capital adequacy ratios, which are monitored by regulators.*[9] *This practice, in turn, enabled companies to increase lending activities. However, any assets and liabilities that are accounted for on balance sheets under IFRS and are sold through securitization will now be required to be included in the calculation of a regulated institution's regulatory capital ratios and may cause many companies and trusts to reduce their participation in securitization transactions.*

*The two broad classes of asset-backed securities in Canada are:* National Housing Act-*insured mortgage-backed securities (NHA-MBS); and other asset-backed securities. Each is structured uniquely, is host to a different range of investors and can be originated in different sectors of the Canadian economy.*

*In 1987, the federal government created a program that would enable financial institutions (e.g. banks, life insurance companies, credit unions, caisse populaires, trusts or mortgage loan companies) registered with the Canada Mortgage and Housing Corporation (CMHC) to securitize mortgages that are federally insured under the* National Housing Act *(NHA). The purpose of this CMHC program was to provide additional sources of funds for residential mortgage financing (including social housing), while encouraging lower interest rates and*

8 The Financial Flow Accounts and National Balance Sheet Accounts provide data for the IABS sector beginning in 1987 on an annual basis, and 1990 on a quarterly basis.

9 Such as the asset-to-capital multiple of deposit-taking institutions, the borrowing multiple of cooperative credit associations and the capital equivalency deposit of foreign bank branches.

*longer-term mortgage financing.*[10] *Under this program, an approved issuer pools all or some of their NHA-insured mortgages and issues mortgage-backed securities backed by the future cash flows on these assets. Under current Canadian accounting rules, this enables the lender to remove the pool of mortgages from their balance sheet. Similarly, the securities are not reported as liabilities. As the mortgage holders make their periodic payments, these funds are channeled to the investors in the NHA-MBS. The mortgage borrowers are generally unaffected by, and are even unaware of, the transaction.*

*The second type of securitization applies to all other types of assets, such as commercial loans, car leases, credit card balances, agricultural and equipment retail sales contracts, inventory credit, franchise loans, heavy equipment leases, office equipment leases, non-NHA-insured residential and commercial mortgages, and other miscellaneous receivables as securitized assets. The particular securitized assets are presently detailed on the asset side of the IABS sector in the Financial Wealth Accounts.*

*These involve the creation of what is known as a special purpose vehicle (SPV). They are essentially investment trusts that are set up either by a particular company or by a third party, such as a bank, for the purpose of issuing ABS and holding the assets. In either case, the SPV is a completely separate entity from the original lender and their financial reports are not consolidated.*

*The role of the SPV is to purchase, at arm's length, a pool of loans or receivables from the originating company or financial intermediary. Under CGAAP the originator is able to sell the securitized assets to the trust and remove them from their own balance sheet. In turn, the trust issues fixed-income securities, and uses the proceeds to pay the lender for the assets. Again, the debtors are generally unaware of the transaction between the lending institution and the special purpose trust.*

*Also included in this category, are a particular type of ABS issued by the Canada Housing Trust (CHT), a special purpose vehicle and variable interest entity reported in the consolidated annual financial statements of the CMHC. The CHT sells Canada mortgage bonds to investors and uses the proceeds to purchase pools of mortgage-backed securities (MBS) that have been created by CMHC-approved lenders.*

*The size of the IABS sector in the* National Balance Sheet Accounts *is roughly $635 billion as of the fourth quarter of 2010. Of this value, $332 billion correspond to NHA-MBS, and almost $303 billion fall under the "other ABS" category outlined above.*

*The wide variety of receivables underlying asset-backed securities means that the originators of these receivables range over a number of sectors of the economy. As a result, once these assets and associated liabilities are consolidated with the accounts of the originators as required under IFRS, the data for this wide range of sectors will be affected. Based on the fourth quarter 2010*

10 See the Canada Mortgage and Housing Corporation, NHA *Mortgage-backed Securities: Your questions answered, 1990 and Strategic Plan* 1992 – 1996, Ottawa: CMHC, 1991.

*data, the value of all ABS (except CHT) held in the IABS sector originated from other NBSA sectors in the proportions shown in the following table.*

**Table 3: Distribution of the originators of asset-backed securities across National Balance Sheet Accounts sectors**

| **Sector** | **%** |
|---|---|
| Chartered banks | 79 |
| Other financial institutions | 11 |
| Investment dealers | 4 |
| Sales finance and consumer loans corporations | 1 |
| Private non-financial companies | 1 |
| Credit unions | 2 |
| Other | 2 |

*As companies and trusts have varying year-ends, the changes in reporting will not all occur at once, but will be completed over the course of the entire implementation period, beginning in 2011.*

*The implementation of IFRS entails significant challenges—not least of which will be that the standards are yet to be finalized. Further complicating any anticipation of the effects of IFRS implementation are the two different ways SPVs can be structured in Canada. SPVs may be structured as either single-sellers, which securitize the receivables of their "parent" company only; or as multi-sellers, which provide a financial service to other companies by securitizing their receivables for a fee. The multi-seller structure significantly obscures the originators of the receivables backing the ABS issued from that SPV, making it difficult to estimate which sectors will show these changes to asset and liability positions with the implementation of IFRS.*

*Also, the changes to the regulatory capital ratios calculated under IFRS accounting alluded to earlier, may cause many companies to make adjustments to their holdings of ABS throughout the coming year, either through sale or non-renewal upon maturity. Therefore, the constitution of the IABS sector itself will likely undergo sizable changes beyond just the direct effects of IFRS implementation.*

*Finally, some federally regulated entities will not fully implement IFRS until the quarter ending on or after December 31, 2012. Given the above uncertainties, it is only over the course of the implementation process that the complete effects of IFRS on the IABS sector within the NBSA will become fully evident*".

The largest challenge with the adoption of the IFRS in Canada is not the delineation of financial corporations but rather identifying the relationships between the financial corporations and the trusts under which the assets have been securitized. In the fourth quarter of 2011 most of the large chartered banks adopted the IFRS. This meant that in constructing the financial flows and balance sheets analysts had to distinguish between for example, new mortgage transactions and those assets moving back onto the originators' balance sheets from the asset-backed securities sector, only due to the change in accounting. The first task was to identify the type of trust — that is, whether the trust was a multi-seller or single seller. If the trust was a multi-seller the assets were kept in the ABS sector[11]. If the trust was a single seller then a certain portion of the assets had to be moved back to the originator's balance sheet. The difficulty was that each trust needed to be contacted to determine the amount of mortgage assets returning to the originator's balance sheet versus the amount that remained with the trust.

Table 4 shows the change in the stock of mortgage assets and bond liabilities for both the chartered bank and issuers of asset backed securities for the third and fourth quarter of 2011.

**Table 4 – Mortgage Assets and Bond Liabilities (Chartered Banks and ABS)**

| **Chartered Banks** | **Q4 - 2010** | **Q1 - 2011** | **Q2 - 2011** | **Q3 - 2011** | **Q4 - 2011** | **Change Q3 to Q4** |
|---|---|---|---|---|---|---|
| Mortgages - Assets | 509,054 | 536,695 | 560,211 | 568,882 | 832,935 | 264,053 |
| Bond - Liabilities | 53,343 | 74,822 | 75,723 | 76,894 | 345,577 | 268,683 |
| | | | | | | |
| **Issues of ABS** | | | | | | |
| Mortgages - Assets | 354,528 | 297,259 | 293,765 | 302,628 | 53,032 | - 249,596 |
| Bonds - Liabilities | 584,737 | 526,242 | 533,223 | 537,224 | 275,855 | - 261,369 |

## Conclusion

The approach that Canada takes in delineating financial corporations' sectors and sub-sectors within the Canadian System of National Accounts is primarily a pragmatic one. In addition it links with[12], and leverages, statistical programs elsewhere in the agency. Also, given the high degree of regulation in certain financial sub-sectors Statistics Canada is able to utilize regulatory information to complement the information obtained from Statistics Canada programs.

In terms of advice for statistical organizations looking to sub-sector their financial corporations' sector, there are some important considerations in the implementation of the sub-sectoring recommended by 2008 SNA:

- The first step should be the careful examination of the financial industry itself — that is, what is the structure of the financial system and how is it evolving? This will help prioritize the sectoring in a forward-looking fashion.

[11] We are still trying to confirm whether all multi-sellers are exempt from consolidation to the originator's balance sheet under IFRS. Some financial statements from banks imply that they are moving back to the originator's balance sheet.

[12] The domestically enterprise based approach dovetails with the approach taken in the international accounts surveys used to compile the balance of payments and international investment position.

- Further, questions such as whether the industry is dominated by a few large institutions or if it is highly regulated will dictate to a large degree how the financial corporations can and should be portrayed within a country's national accounts.
- Sources of data outside surveys should be carefully evaluated (i.e., for coverage and conceptual appropriateness) and used to supplement (i.e., for detail) or as a substitute for survey data.
- The suggested sub-sectoring by profit and not for profit, domestic and foreign, should be considered on material grounds. If either of these are immaterial, or if they do not behave in a substantially different manner would suggest that the cost associated with the additional sub-sectoring would not outweigh the benefits.
- Finally, some compromises are required to leverage the existing statistical system. Statistics Canada has a well developed quarterly enterprise-based survey which compiles data on an industrial basis. While an industry does not equal a sector, a very good mapping can be developed with adjustments being made at the margin.

Even with the luxury of a highly concentrated financial sector and well defined financial enterprise-based statistical programs, Statistics Canada has had a number of challenges in compiling flows and stocks in the mutual fund sector and the asset-backed securities sector. The previous two sections of this paper present a case study for each of these sectors and the recent challenges confronted in producing these statistics.

Statistical compilation challenges, in the context of financial corporations and their institutional sub-sectors and financial instruments, can be expected to continue as the financial system evolves and as financial innovation continues.

## Appendix A – Detaliled mapping between CSNA industry classification and CSNA sector classification

| CSNA sector description | Industry description |
|---|---|
| Total monetary authorities | Monetary authorities - central bank |
| Chartered banks | Personal and commercial banking industry |
| | Corporate and institutional banking industry |
| Quasi-banks | Local credit unions |
| | Central credit unions |
| | Other depository credit intermediation |
| Life insurance business | Direct individual life, etc., insurance |
| | Direct group life, etc., insurance carriers |
| | Life reinsurance carriers |
| Property and casualty insurance companies | Direct general property and casualty insurance |
| | Direct, private, automobile insurance |
| | Direct property insurance carriers |
| | Direct liability Insurance carriers |
| | Other direct insurance (excluding life, etc.) |
| | Accident and sickness reinsurance carriers |
| | Automobile reinsurance carriers |
| | Property reinsurance carriers |
| | Liability reinsurance carriers |
| | General and other reinsurance carriers |
| Segregated funds of life insurance companies | Segregated (except pension) funds |
| Trusteed pension funds | Trusteed pension funds |
| | Non-trusteed pension funds |
| Money market funds | Money market funds |
| Other mutual funds | Open-end investment funds |
| | Equity funds - Canadian |
| | Equity funds - Foreign |
| | Mortgage funds |
| | Bond and income / dividend funds - Canadian |
| | Bond and income / dividend funds - foreign |
| | Balanced funds / asset allocation funds |
| | Other open-ended investment funds |
| | Mortgage investment funds |
| Sales, finance and consumer loan companies | Credit card issuing |
| | Sales financing |
| | Consumer lending |
| Issuers of asset backed securities | Securitization vehicles |
| Other private financial institutions | Investment banking and securities dealing |
| | Securities brokerage |

| | |
|---|---|
| | Commodity contracts dealing |
| | Commodity contracts brokerage |
| | All other non-depository credit intermediaries. |
| | Mortgage and other loan brokers |
| | Other financial transactions processing and clearing house activities |
| | Other activities related to credit intermediation. |
| | Securities and commodity exchanges |
| | Miscellaneous intermediation |
| | Portfolio management |
| | Investment advice |
| | All other financial investment activities |
| | Insurance agencies and brokerages |
| | Claims adjusters |
| | All other insurance related activities |
| | All other miscellaneous funds and financial vehicles |
| | Holding companies |
| | Head offices |
| Financial government business enterprises | Direct, public, automobile insurance plus all government business enterprises identified within the above industries |

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