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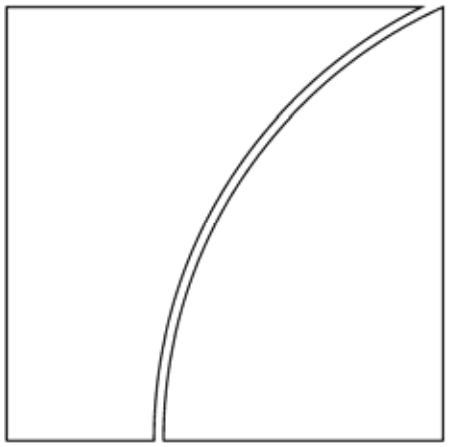

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Cooperation between Central Banks and National Statistical Institutes: the cases of Australia, Canada, and the Netherlands

by Gillian Nicoll, Maureen Tootle, Art Ridgeway, Barteld Braaksma and Pim Claassen

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Abstract

This working paper on cooperation between central banks, supervisors and national statistical institutes consists of country contributions from Australia, Canada and the Netherlands. In those countries, the before-mentioned institutions recently intensified their cooperation in order to face the challenges they are increasingly confronted with. The main challenge is to fulfil increasing needs for information while at the same time limiting the response burden to reporting agents. All three contributions clearly illustrate that cooperation between central banks and national statistical institutes provides key benefits.

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Contents

Cooperation between Central Banks and National Statistical Institutes: the cases of Australia, Canada and the Netherlands

Gillian Nicoll,[1] Maureen Tootle,[2] Art Ridgeway,[3]
Barteld Braaksma[4] and Pim Claassen[5]

I. Introduction

This working paper on cooperation between central banks, supervisors and national statistical institutes consists of country contributions from Australia, Canada and the Netherlands. In those countries, the before-mentioned institutions recently intensified their cooperation in order to face the challenges they are increasingly confronted with. The main challenge is to fulfil increasing needs for information while at the same time limiting the response burden to reporting agents. Australia, Canada and the Netherlands shared their experiences with other countries during the Conference on "Data collection by central banks: statistical methods, data quality and the reporting burden", which was organised by and held at De Nederlandsche Bank in Amsterdam, 30 November – 1 December 2006. The first contribution is that of Australia. The Australian experience clearly shows the benefits of having a single institution responsible for collecting all relevant data in an integrated way from a certain group of institutions and have this information subsequently shared with other authorities. More specifically, the Australian Prudential Regulation Authority (APRA) collects data from the institutions it supervises and shares the data with the Reserve Bank of Australia and the Australian Bureau of Statistics, which need the data for monetary and statistical purposes. The Australian Bureau of Statistics, in this way, also benefits from the reporting discipline a regulator is naturally able to establish.

The second contribution is that of Canada. It explains how Statistics Canada and the Bank of Canada and other regulators involved, continuously renew efforts to further minimize the reporting burden on financial institutions. This has resulted, among others, in a integration of reporting forms for banking data. Also, the central bank and the regulatory authorities have set up a Tri-Agency Database System, housed at the Bank of Canada and jointly owned and operated by all three agencies. Sharing of this database with Statistics Canada could be considered in the future. The Bank of Canada and Statistics Canada have agreed on a clear division of tasks with respect to the data collection from financial institutions, with the Bank focussing on monthly reports and Statistics Canada on quarterly and annual reports.

The third contribution is that of the Netherlands, where the cooperation between Statistics Netherlands and De Nederlandsche Bank, which is also the prudential supervisor for

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[1] Director, Financial Statistics Section, Australian Bureau of Statistics.

[2] Assistant Chief, Data Resources Division, Monetary and Financial Analysis Department, Bank of Canada.

[3] Director, Balance of Payments Division, Statistics Canada.

[4] Project Manager in the Development and Support Department at Statistics Netherlands, responsible for the development of Quarterly Sector Accounts.

[5] Head, Balance of Payments and Statistical Publications Department, De Nederlandsche Bank; corresponding author, phone: +31205242355, e-mail: h.m.m.claassen@dnb.nl.

financial institutions, has recently been intensified. This cooperation had started in the field of the balance of payments, where the changeover to a direct reporting system led to a first reshuffling of tasks between both institutions. New European statistical obligations in the field of quarterly sector accounts together with the need to minimise the statistical reporting burden led to a further intensified cooperation (laid down in an official Cooperation Agreement) concentrating data collection for supervisory, monetary and statistical purposes with De Nederlandsche Bank and macro-economic integration with Statistics Netherlands.

All three contributions clearly illustrate that cooperation between central banks and national statistical institutes provides key benefits.

II. Australian experiences with a single collection of financial sector data for statistical, regulatory and monetary purposes

This chapter describes Australia's experience with a single agency collecting financial sector data on behalf of three key agencies, which then use the data for statistical, regulatory, and monetary purposes.

The first section describes the major reforms that occurred in Australia's financial system during the late 1990s, and how these reforms led to an *integrated regulatory framework*. This process culminated in the establishment of a new agency, the Australian Prudential Regulation Authority (APRA), responsible for the prudential regulation of most of Australia's financial institutions.

In the second section, the attention is turned to the development of an integrated framework for the *collection of statistical information* from the institutions regulated by APRA, as well as for registered financial corporations.[6] These data are used by three key agencies.

The final section describes the *benefits and challenges* that arose from the collection of statistical information from a single agency (APRA).

1. Major reforms in Australia's financial system

In 1997, the Wallis committee of enquiry into the financial system in Australia recommended wide-ranging reforms to financial regulation in Australia. In particular, the enquiry recommended that financial system regulation be organised on a functional basis, so as to address the four main sources of market failure in the financial system. The functions of regulation, and the market failures they seek to address, are shown in Table 1.[7]

The Australian Federal Government accepted the proposals put forward by the Wallis committee, and by mid 1998, legislative changes had been effected to introduce the integrated regulatory framework. Table 1 outlines the agencies responsible for each of the regulatory functions under that framework.

A new agency, the Australian Prudential Regulation Authority (APRA), was established to take over responsibility for the prudential regulation of all Australian financial institutions from 11 predecessor organisations. Previously the responsibilities were: the Reserve Bank of Australia (RBA)[8] regulated the banks; the Insurance and Superannuation Commission regulated life and general insurance offices, and superannuation funds; and building societies, credit unions and friendly societies used to be covered by the Financial Institutions Scheme.[9]

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6 Registered Financial Corporations are not subject to regulation by APRA.

7 Experiences with integrated regulation, APRA Insight, 1st quarter 2002.

8 Australia's central bank.

9 The Scheme was a cooperative, state-based system of prudential supervision and regulation set up by the States and Territories in 1992. The Australian Financial Institutions Commission was the lead regulator of the Scheme for the eight states and territories, and was responsible for: the development of prudential standards; the direct supervision of Special Services Providers to building societies and credit unions; and the coordination of supervision for the groups covered. Day-to-day responsibility for supervision and corporate regulation rested with the State Supervision Authorities, which were independent statutory authorities based in each State and Territory.

Table 1

Functions of regulation

Function	Market failure	Agency responsible for regulation
Competition regulation, to ensure that financial markets remain competitive and contestable	Anti-competitive behaviour	Australian Competition and Consumer Commission
Regulation directed at disclosure of information, to promote efficient and fair conduct in financial markets	Market misconduct, such as fraud, market manipulation and other forms of false and misleading behaviour	Australian Securities and Investments Commission
Prudential regulation aimed at reducing the probability of institutional failure to an acceptable level, so that losses to depositors and policyholders are minimised	Asymmetric information (where buyers and sellers are on different footings, and may have access to different information)	Australian Prudential Regulation Authority
Regulation of the payments system, to ensure confidence in, and the stability of, the financial system	System instability	Reserve Bank of Australia

Sources: Australian Bureau of Statistics

It was considered that a single agency would achieve consistency in prudential regulation – a single, consistent set of prudential rules for all deposit-takers would reduce opportunities for institutions to 'shop around' jurisdictions to find a relative benefit, thereby achieving a level playing field' among different groups of financial institutions.

APRA's direct responsibilities cover more than 85% of the assets in Australia's financial system. The remaining 15% of assets are held by financial groups that APRA does not oversee, for example, registered financial institutions (such as merchant banks, finance companies, and general financiers), collective investment schemes outside superannuation (eg funds held in non-superannuation unit trusts), and health insurance schemes. The Australian Government has judged that these groups do not warrant prudential regulation.[10]

Roles of APRA and the RBA under the new regulatory framework

APRA's mission is to establish and enforce prudential standards and practices so that, under all reasonable circumstances, financial promises made by the institutions supervised are met within a stable, efficient and competitive financial system.[11]

As such, it encourages and promotes prudent behaviour by regulated institutions so as to reduce the likelihood that they will be unable to meet their obligations to their depositors and

[10] Market conduct and disclosure is still covered by the Australian Securities and Investments Commission.

[11] APRA also acts as the national statistical agency for the Australian financial sector, and plays a role in preserving the integrity of Australia's retirement incomes policy.

beneficiaries. It does this, for example, by setting minimum standards for capitalisation and liquidity, and by measuring the risk associated with individual entities.

Secondly, APRA has a role when the position of a financial institution has become unviable. In this role, it has clearer and stronger powers to act in the interests of depositors than were previously available (in the case of Banks) to the RBA. APRA has extensive powers of investigation, intervention and administration. For example, it has the power to revoke licenses, to make prudential standards or issue enforceable directions, and to resolve the situation of authorised deposit-taking institutions in difficulty.

Under the integrated regulatory framework, the RBA retains responsibility for monetary policy and for overall financial system stability. It no longer has responsibility for protecting the interests of bank depositors, and has no powers to direct the affairs of individual institutions. Instead, its task is to help ensure that shocks to any part of the financial system do not ultimately threaten the health of the Australian economy.

Given that a safe and robust payments system has been recognised as being vitally important to financial stability, another of the RBA's key roles is in the regulation of the payments system, overseen by a Payments System Board within the RBA. The Board tends to treat its powers as 'reserve powers' to be exercised if other methods of persuasion and implementation prove ineffective.[12]

The RBA is responsible for conducting settlement accounts of the participants in the payments system in a 'real-time' gross settlement system.[13] Its involvement in the system allows the RBA to quickly identify any emerging liquidity pressures. The RBA retains the discretionary role of 'lender of last resort' for emergency liquidity support in the event of threats to financial stability.

2. The collection of statistical information

Prior to 1999, information relating to financial institutions was collected for regulatory, monetary and statistical purposes by a number of agencies:

- the RBA and the Australian Bureau of Statistics (ABS)[14] collected information from the *banks*;
- the RBA and the states and territories collected information about *other authorised deposit-taking institutions*;
- the ABS collected information about *cash management trusts, unit trusts, and common funds*;
- the Insurance and Superannuation Commission and the ABS collected information from *life offices*;
- the Insurance and Superannuation Commission collected information from *general insurers*;

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[12] The Reserve Bank of Australia – Post Wallis, Keynote Lecture to Monash University Law School Foundation, Melbourne, 28 October 1999, page 10.

[13] Under a real-time gross settlement system, a participant must have sufficient funds in its Exchange Settlement Account with the RBA to settle its obligations with banks at 9 am each day. If it has insufficient funds, its payments will be held until it has sufficient funds.

[14] Australia's National Statistical Office.

- the ABS collected information quarterly from *superannuation* funds and the Insurance and Superannuation Commission collected information annually; and
- the ABS collected *foreign investment for all types of financial institutions*.

After the new integrated regulatory framework was introduced, APRA was given responsibility for the collection of information from financial institutions it regulated, and from other registered financial institutions. To enable this to occur, the ABS, the RBA and APRA commenced a joint project in 1999 (the Statistics Project) to develop a statistical framework for the *collection of statistical information* from these institutions.[15]

The development of the statistical framework was influenced by a number of different data requirements for each of the three agencies, which in turn was influenced by each agency's regulatory, monetary or statistical roles. Typically, APRA required a continuous stream of data about financial institutions to enable it to determine the risk of a regulated institution's failure, and the potential impact of such a failure. The RBA required aggregated information from financial institutions for financial stability and monetary policy purposes. The ABS required information to measure, and report on, the financial sector. In addition, consistent with its legislative responsibilities, the ABS sought to: increase the range and quality of non-ABS data available to the community; implement agreed sets of standards across non-ABS data sets; and reduce provider load by reducing duplication of data collection across Government.

There were a number of improvements that could be made to the data collected under the Statistics Project that would improve the quality of non-ABS data, and reduce provider load. For example, the statistical systems within and across the agencies were disparate and were not able to 'talk to each other'. In addition, although there was an exceptional amount of data available, it could not always be aggregated or analysed in a manner that was useful, nor was it easy to access. Further, the collections used by the agencies overlapped, or were outdated, causing excessive provider load for regulated institutions.[16] An integrated framework for the collection of statistical information would both expand and improve the quality of statistics available to the community.

2.1 Objectives of the project

The key objectives of the Statistics Project were to provide accurate, timely and relevant information about regulated institutions to APRA, the RBA and the ABS, as well as to enable regulated institutions to provide one set of financial information to APRA, which would act as the central repository of this information.

These key objectives would be achieved through a number of strategies, for example: by reviewing, harmonising and modernising the existing returns; by aligning collections to public disclosure requirements (for example, accounting standards and international standards) and seeking the development of legislation to support the project. A common user interface and new analytical tools were developed so that users were able to conduct analysis and produce reports through various mechanisms.. Secured access to relevant data was granted to all parties.

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[15] The transfer of data collection transferred from the RBA to APRA when APRA was established. The framework was developed subsequent to that.

[16] One estimate indicated that initially there was up to a 40 per cent overlap between the data collected by the ABS, and the data collected by APRA.

2.2 Governance of the project

A Statistics Steering Committee, comprising APRA, ABS and RBA members, was set up to direct and control the implementation of the Statistics Project, and to ensure that project objectives were achieved on time and within budget. The Committee also: ensured that principles and practices for the project were developed and complied with; stakeholder interests were served and where conflicting, reconciled; short-term milestones were established and reached on time, and expenditures and resources were utilised appropriately. It also assessed how project risks were identified and handled.

In addition to the Steering Committee, there were a range of governance arrangements including Memoranda of Understanding between the agencies, and operational meetings held approximately every six months.

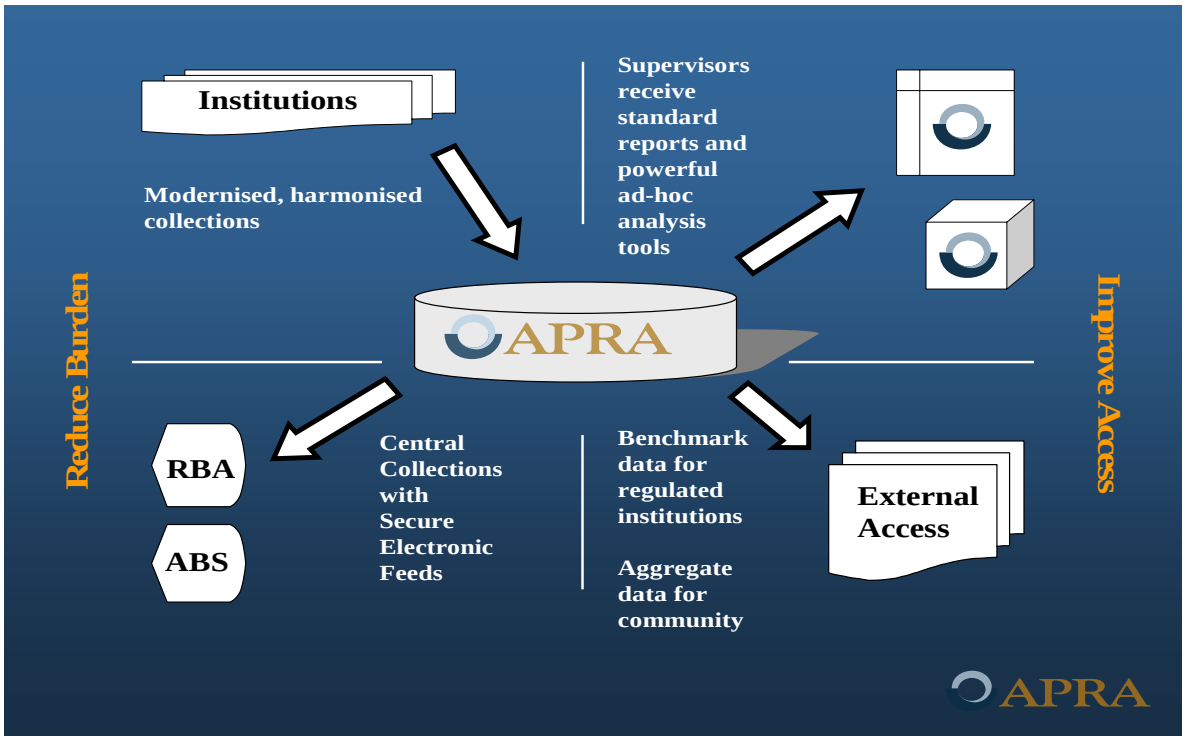
2.3 Phases

The Statistics Project comprised two key aspects that were developed over the three years, 1999 to 2002. The first phase consisted of the development of the conceptual framework (such as the data items to collect, the appropriate standards underpinning the data items, and associated metadata). The second phase comprised the development of the new computer system infrastructure (including the electronic collection system, the return management module, the warehouse as well as the dissemination and customised reporting systems).

The flows into the final system are depicted in Diagram 1. The conceptual framework and new computer system are discussed in more detail below.

Diagram 1

The flows into the final system



2.4 The conceptual framework

As described above, prior to 1999, financial institutions were required to provide returns to both regulatory and statistical organisations. There were a number of issues that made it

difficult or onerous for providers to complete these returns. In some instances, the returns overlapped, so institutions provided the same information more than once.

Furthermore, information requested was not always consistent with the accounting framework or management information that institutions used for their own decision making. Therefore, providers found it difficult to readily extract the information required, which led to poor quality returns. Occasionally, institutions provided different answers to the same questions on different returns. Another issue was that the timing of returns was slightly different. For example, the reference period for RBA returns completed by the banks was the last Wednesday of the month, while it was the last day of the month for ABS returns.

Finally, providers often had insufficient understanding of the definitions underpinning the data items, and limited knowledge about what should be included or excluded in their responses. Some of the definitions accompanying the questionnaires were as many as 30 pages long, so providers did not read them, while others were two lines long which led to confusion about what was actually required.

Part of the first stage of the Project was, therefore, to review, harmonise and modernise the existing returns, with the aim of reducing provider burden. This was to be achieved by aligning the reporting requirements with accounting standards where possible, and making the reporting of data to APRA quicker and more accurate.

Rationalising the reporting requirements and removing redundant data

A Tripartite Data Committee (TDC) was established to coordinate content redesign for and on behalf of APRA, the RBA, and the ABS. The TDC was responsible for reaching agreement on a single set of data items from each regulated entity, as well as the underlying definitions applying to those data items.

The first step was to determine the 'set of returns' that was required, and the frequency of each. For example, a quarterly bank return was required to assist the ABS in measuring the financial sector, in accordance with the System of National Accounts standards.

Once the 'set of returns' had been agreed, the TDC had to determine what individual data items had to be collected in each return. An inventory of data items currently being collected was conducted, and duplicated data items were discarded. In addition, data items being collected, but not used, were also discarded.

The quality of some data items was found to be poorer than expected, as suppliers were not able to provide the data at the detail required. For example, the RBA required information on the value of mortgages granted to investors, as investment is an important indicator of economic activity. However, the banks did not differentiate between mortgages granted to investors and those granted to owner occupiers, as there was no longer a difference in the credit decision required when granting a mortgage to the two groups. Therefore, providers were estimating the value of mortgages granted to owner occupiers and those granted to investors. In this instance, after much debate, the two data items remained on the reports, but the limitation in the figures was recognised.

To determine the data items required, the TDC had to assess the definitions associated with all the data items. Agreement had to be reached on a single definition when different definitions applied to the same data item (previously collected by more than one agency). For some items this was easy, but for other items, such as the definitions associated with repurchase agreements, it was a complex time-consuming process, including reaching agreement with industry stakeholders.

Final data items

The final set of data items, and the frequency of their provision was approved by the parties to the agreement. For example:

- *monthly* information from authorised deposit-taking institutions is used by: the RBA to produce financial (money and credit) aggregates;[17] APRA for supervisory analysis; and the ABS for releasing statistics;
- *quarterly* balance sheet information from superannuation funds is used by the ABS in its quarterly publication *Managed Funds*; *Australia*, and by APRA for its *Quarterly Superannuation Performance* publication;
- *annual* audited life offices profit and loss statements are used by APRA for supervisory analysis.

Units

The TDC also had to reach agreement on the unit that was required to complete the data returns. The prudential focus was on the licensed entity and on the internationally consolidated group, whereas the statistical focus was on the discrete business activities needed for economic aggregation, and on the activities of only those units resident in Australia.

Trying to integrate the two requirements was an extremely challenging process. It was agreed that both objectives could be achieved by collecting from three reporting entities: domestic books; offshore; and a consolidated entity.

Metadata

Developing and recording the metadata - information *about* information – was a crucial element of developing the conceptual framework.[18] Sufficient detail was required to allow providers to understand the requirements for filling in a data item, or for users to use a data item in a report.

For example, for each data item, the metadata contains definitions, derivations, validations, and technical information. The metadata was stored in APRA's new data warehouse, built for this purpose.

2.5 Computer systems

The design of the computer systems was a major task for APRA. APRA had inherited six disparate legacy systems, with varying quality and user-friendliness, from the predecessor regulators.

Improvements to these legacy systems were made immediately, but it was extremely resource intensive. The data structures were complex, and were only understood by a few specialists. The systems were manually driven and poorly integrated among one another. For optimum efficiency, it became clear that a single high-quality reporting system was required, covering all the systems that APRA supervised.[19]This new computer system was named 'Direct to APRA' (D2A). In summary, its functionally is such that the metadata attributes are embedded in statistical returns. Relevant returns are provided to institutions to complete electronically using a direct internet connection or email. Information can be provided by typing in the relevant data, by cutting and pasting from an Excel spreadsheet, or by importing data from another application. The contents of the completed returns are

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[17] As well as information from registered financial corporations, which are not regulated by APRA.

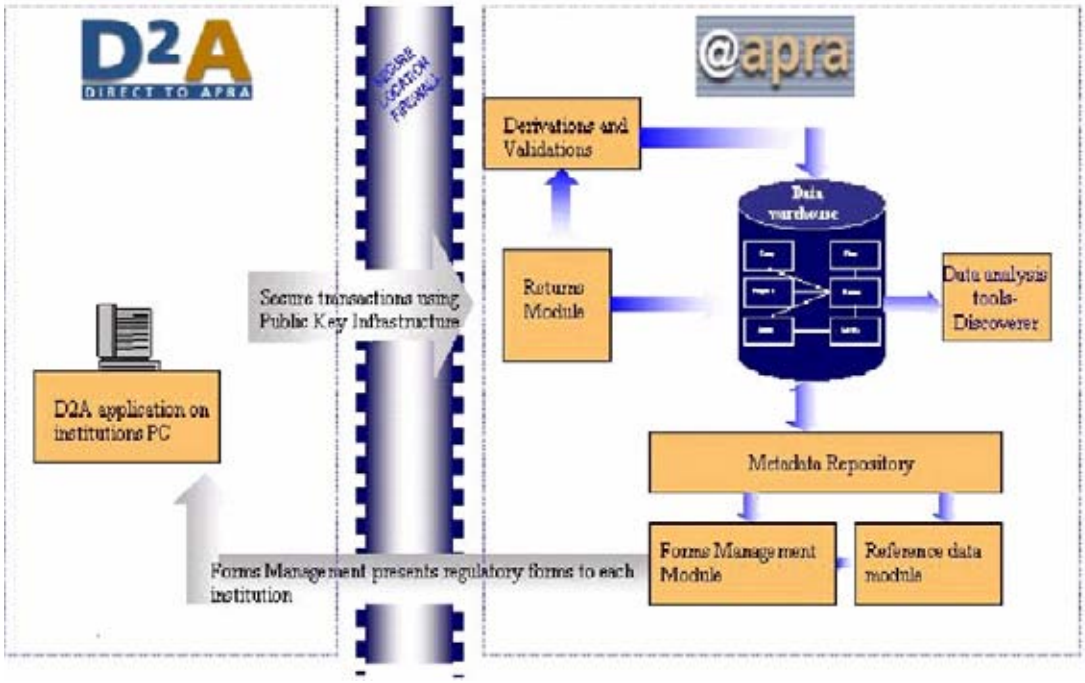
[18] Metadata describes the content and characteristics of a data item held in a database.

[19] APRA Annual Report 2001, page 24.

automatically validated against the rules in the metadata.[20] When all quality checks are passed, the data are transferred from a traditional database to a data warehouse (which is populated with information about the return such as geography, purpose, structure, time and institution). The data are aggregated and transformed using analysis and data access tools. Data required by the ABS and RBA are sent electronically, using secure electronic connections. A large range of standard reports is available, together with user-friendly analytical tools which allow users to select aggregate data, construct ratios, and/or analyse these figures through time or against different industry cohorts.

Diagram 2

A representation of the system



2.6 Legislation

A number of legislative changes were required to enable the integrated prudential framework and the integrated statistical framework to occur.

APRA was established by the *Australian Prudential Regulation Authority Ac*t 1998. Another act, the *Financial Sector (Collection of Data) Act 2001*, effectively removed information collection and reporting elements from individual regulation acts, and combined them into one single act. It also outlines the information that financial institutions are to provide to APRA, and provides for APRA to forward these data to other specified agencies, such as the ABS and the RBA.[21] Records received by the ABS from APRA are collected under the

[20] Using the Return Management Module which has an authorisation; de-encryption; smart validation; and 'data upload into warehouse' aspect.

[21] The APRA Act (paragraph 56(5)(a) and subsection 56(5A)) enables APRA to provide information collected under sections 9 or 13 of the Financial Sector (Collection of Data) Act 2001 to the ABS for the purposes of the Census and Statistics Act 1905. The ABS is bound by the general secrecy obligations under subsection 56(2)

provisions of the Census and Statistics Act 1905 and are protected under the strict secrecy provisions of that Act. The Census and Statistics Act 1905 prohibits the disclosure of information furnished under authority of that Act (other than to the person from whom it was obtained) except in accordance with a determination, or for the purposes of that Act.

The Census and Statistics Act provides for the publication or dissemination of statistical aggregates, but only in a manner that is not likely to enable the identification of a particular person or organisation.

Similar provisions are contained in the Reserve Bank Act 1959.

Under each of the parties' legislation, information that may identify an individual entity must not be released without the consent of the individual.

2.7 Communication

It was imperative that the *parties to the Statistical Project* have a strong relationship with each other, as well as a good understanding of the other agencies' requirements. The ABS had been collecting information for APRA prior to this Statistical Project, so the two agencies already had a good relationship. An ABS officer was posted to APRA for six months to ensure that there was a smooth transition (Section 3 provides more information on the challenges involved in ensuring good communication continued throughout the project).

Detailed consultation with *providers* occurred at every stage of the process. The new returns were the subject of an intensive consultation process with providers during the implementation phase. In addition, *users* of the data were consulted extensively. Users confirmed their preference that, in order to identify financial risks early and effectively, the data collection should be subject to regular change.

The new draft questionnaires were published on APRA's website so that comments from users and providers could be captured and tracked.

2.8 Provider load

Provider load is a term used to denote the costs, time and effort expended by institutions that are required to provide statistics to government agencies. This load needs to be balanced against the public policies to which this information is put.

APRA inherited 153 forms, containing 17,500 individual items. Information is not available on the overall change in load (for all regulated financial institutions) associated with the move to a single reporting system. However, we know that for some sub-sectors, more data were required, while for other sub-sectors, fewer data items were required. For example, the amount of data collected from banks decreased from 2,500 data points per month to 1,600 per quarter. Conversely, the number of data items collected from superannuation funds increased from 180 to several hundred every quarter.

The validation rules for banks, and for other sub-sectors, also changed, becoming more numerous and sophisticated. Those institutions not meeting the validation rules are required to provide explanations to APRA, and if the data are found to be incorrect, must resubmit their data. This potentially increases provider load, but improves the quality of returns.

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of the APRA Act and any conditions imposed by APRA under subsection 56(9) of the APRA Act, as well as the secrecy obligations in the Census and Statistics Act 1905.

Despite the fact that some sub-sectors were required to provide more data items, the harmonisation and modernisation of returns and the alignment (where possible) of the reporting requirements with accounting and other public standards, has made the reporting of data to APRA easier for providers.

In the case of the major banks, considerable time and cost was expended on the building of new systems which provide data to APRA automatically, therefore reducing the time and effort required on an on-going basis (Section 3.3 provides more information on this topic).

3. The ongoing framework – does it work?

The Wallis Inquiry foresaw a number of potential benefits of an integrated prudential regulator. Amongst other things, these included a more consistent functional (risk-based) approach to supervision, and enhanced supervision of financial conglomerates. Many of the changes to statistical arrangements have been consistent with these broad aims.

Now that the relationship between the three agencies has reached maturity, it is probably time to undertake a strategic review of the cost- effectiveness of the current operations, practices and output of the three agencies. These perspectives are outlined below.

3.1 The ABS's perspective

There have been many benefits from the tripartite arrangements. The consistency of standards and definitions have made it easier for providers to complete their returns, allowing the ABS to better compare data across sub-sectors. There have been efficiency gains as APRA has taken over the regulation of more financial sub-sectors, which has enabled APRA to improve the quality of series at no extra cost to the ABS (for example, APRA undertakes more provider queries/edits now than initially).

The quality of the returns has steadily increased, in part because of the consistent reporting and standards, but also because the regulator (APRA) has the power to penalise institutions. Therefore, institutions appear to be taking more care with their returns, including for those data items that are not material. Moreover, poor response rates are no longer a concern to the ABS, as most institutions comply according to the time frame set by APRA. We expect that the quality of reporting will improve over time because of the visits program initiated by APRA. This program ensures that expert risk analysts conduct 'on-site' visits to key providers over a two year period, to review the operation of risk management policies, systems and procedures. Provider load and duplication across government agencies has been reduced – 80% of the APRA data collected across all financial sub-sectors is now shared by the agencies involved in the tripartite agreement.[22] Electronic data provision is now available to all providers. This is a positive step for most institutions, as they are sophisticated technology users.

However, there are also a number of challenges that ideally could have been sorted out before the start of the Statistics Project.

Firstly, a *memorandum of understanding* (MoU) and/or cooperative working agreement was not been signed by the ABS and APRA until seven years after the start of the statistical project. This means that there was no formal documented process for implementing change, which ran the risk that the data were no longer relevant for statistical purposes. Ideally, the

[22] Prior to APRA collecting information from financial institutions, a number of agencies collected information but generally did not share this across agencies (see Parts 1 and 2).

MoU and cooperative working agreement should have been signed *before* the Statistics Project started, so that there was an agreed position on introducing change into the process.

As part of the MoU, cost sharing arrangements for changes should have been agreed to prior to the transfer of statistical returns to APRA. For example, there is no agreed cost mechanism to use for updating forms, or for changing the data provided to the ABS under the agreement. At this point in time, APRA provide information on the additional costs as each update is considered. This makes it difficult for the ABS to develop budgets for forward work programs.

Secondly, a key part of the Statistics Project was to provide information with the associated metadata tags so that the ABS can identify the data it receives from APRA. However, the ABS strips off the tags prior to use, as the ABS metadata system are not compliant with the APRA systems. The ABS systems were not updated when the statistics project was introduced, therefore some of the efficiencies identified from having a single metadata system across the three agencies did not materialise.

Thirdly, one of the benefits for providers of having a regulator that collects regulatory and statistical data is that providers will not have multiple agencies contacting them to resolve data queries. The tripartite agreement is that all provider queries are handled by APRA, and providers are typically given five working days to respond.[23] However, in limited cases, if a significant query has not been satisfactorily resolved in a timely manner, APRA provides the ABS with the contact details so that direct contact can occur.

Thus there is trade-off for the ABS between improved data quality from having APRA collect the data, and a lengthier process for the ABS to resolve queries because it does not query providers directly.

Fourthly, in the initial phase of the Statistics Project, considerable work was undertaken by the three agencies to determine the broad data set required from authorised deposit-taking institutions, and the reporting framework that would be applied to this dataset. The priorities of the participating agencies diverged as the project progressed. Statistical and monetary data requirements continued to remain a high priority for the ABS and RBA. APRA's key responsibility was ensuring it had the required regulatory data, and to do this, it had to concentrate on building the reporting infrastructure to collect these data. This caused some concern amongst the RBA and ABS, and expectations about APRA's priorities and what it could achieve quickly, had to be clarified. Following substantial development of the systems, the priorities merged again.

Finally, the number of updates to returns has been controlled to reduce provider load. A formal two-to-three year cycle of reviews of returns has been initiated for major updates, with minor changes being considered more frequently.

The timing of reviews is considered by the TDC at each of its meetings, with members considering whether data items and/or standards have become dated, the need for new data items for prudential or other purposes, and whether new systems will be required by providers before they are able to report accurate data to APRA.

Providers prefer limited updates to returns, as they do not have to update their systems frequently. In addition, less frequent updates provide greater stability in time series estimates. However, they also require the ABS to be far more disciplined in planning changes to returns, something that has taken some time to adapt to. In addition, the need for

[23] APRA has a list of edits that has been agreed by the three agencies, but when the ABS and the RBA subsequently evaluate the unit record or aggregate data, further queries may arise.

APRA to provide appropriate notice to providers of forthcoming changes makes it harder for the ABS to influence change, which could conceivably lead to less relevant information being collected.

3.2 The RBA's perspective

The RBA is an intensive user of data supplied directly by APRA. Much of the data collected by APRA for prudential purposes are also of relevance, in aggregate form, to the RBA in the context of fulfilling its mandate for ensuring the overall stability of the financial system.

APRA data are also used as an input into the monetary policy process. In particular, the monthly balance sheet returns are used to compile the RBA's financial (money and credit) aggregates.

With a few notable exceptions, the RBA does not typically perform an exhaustive investigation of individual bank data as it is no longer the supervisor. Three exceptions are:

- The international banking statistics, covering the overseas claims and liabilities of Australian banks, which are submitted to the Bank for International Settlements as part of Australia's international statistical obligations. The RBA's ongoing involvement mainly reflects resource constraints at APRA with respect to non-prudential data;
- For much the same reason, the RBA also performs extensive checks on the 'Business Finance Statistics' that are published in the RBA *Bulletin*;
- As noted, the RBA uses APRA data to compile the financial aggregates, and performs extensive checks on the monthly balance sheet returns. In part, this is to identify breaks in series that are used to calculate the break-adjusted growth rates for the money and credit data published by the RBA.

For the most part, the new statistical arrangements are now working well. The RBA receives electronic data feeds from APRA three times a day, ensuring timely access to the information submitted by financial institutions. Moreover, there are processes in place that allow the RBA to query, via APRA, the data that are submitted by institutions. These processes both assist the RBA with its analysis, as well as they contribute to the ongoing quality of the data.

The transition to the new framework has not, however, been without its challenges. As mentioned above, there are considerable logistical obstacles that must be overcome in establishing and staffing a new organisation, and many of those have been relevant to the collection of financial statistics.

The move to a single statistical agency has also highlighted the importance of effective cooperation and coordination between the authorities and, as noted, there are a number of formal and informal arrangements in place to facilitate this. Nonetheless, the process of ensuring inter-agency cooperation can be a challenging one.

Moreover, experience has shown that the priorities of the various agencies with respect to data collection can diverge from time to time, reflecting differences in mandate, resourcing and culture. For instance, changes to statistical collections that are of interest from a monetary policy perspective may be of lower priority for prudential purposes.

3.3 APRA's perspective

The project, and system, was successful as almost all entities now use D2A to submit information to APRA. There is minimal data entry work within APRA, and the quality of timely information coming into APRA has greatly improved.

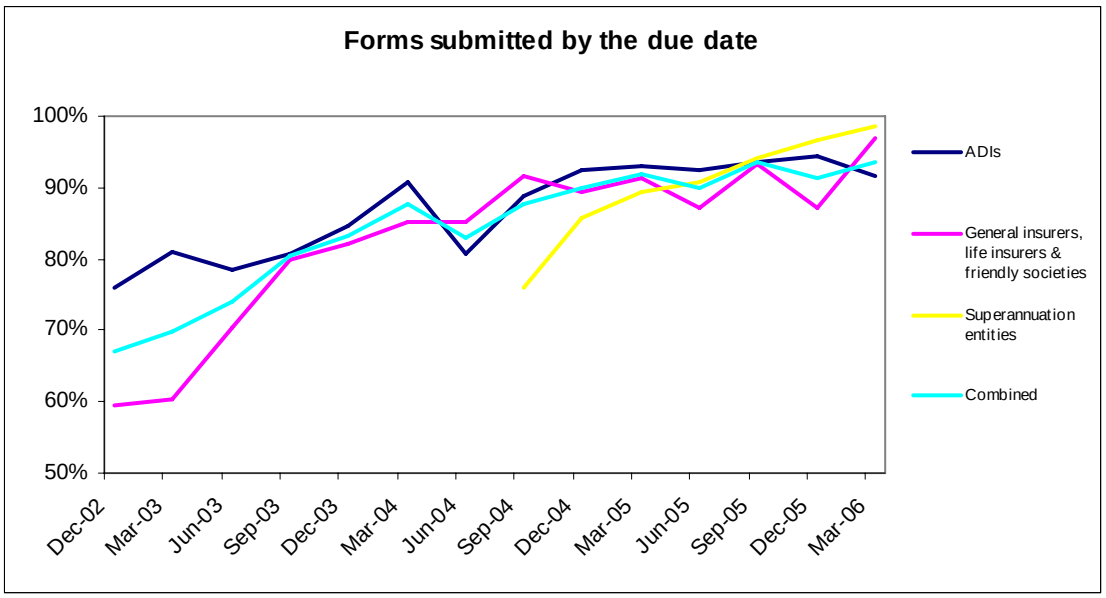
APRA introduced performance metrics to measure operational success of its data collection. By 2006, timeliness and accuracy of the data collected by APRA was at record high levels.

APRA supervisors, the RBA and the ABS can now rely on APRA's Statistics Unit to provide at least 95 percent of quarterly data by the due date, compared with less than 20 percent when APRA first collected these data in 2000.

These improvements are shown in Graph 1.

Graph 1

Percentage of forms submitted by the due date



By 2006, APRA resolved over 95 per cent of errors uncovered through its data quality assurance work within four weeks of the due date. APRA supervisors are therefore able to trust information provided by institutions; the RBA can rely on the data it uses to set monetary policy; and APRA and the ABS can be confident about the veracity of data they release into the marketplace.

One of the key successes of the project was returning unit level data to the institutions that provided it. By March 2003, feedback to building societies and credit unions had been introduced. Building societies and credit unions received their own information as well as benchmark data from defined peer groups on a quarterly basis. The benchmark information consisted of the financial ratios generated for internal prudential analysis.

Using these ratios, institutions are able to compare their performance against that of their peers. This action is very positive as it improves the quality of the data received by APRA, and means that APRA supervisors and the institution are 'talking the same language' when APRA supervisors visit the company. A more ambitious step is to have all companies disclose their information publicly. APRA has published unit record information for banks in *Monthly Banking Statistics* and for general insurers in the *Half Yearly General Insurance Bulletin*. Such disclosure of information will lead to better behaviour by institutions.

The introduction of D2A and an increasingly standardised collection practice required reorganisation of APRA's collection team. This involved closing the Canberra office and centralising operations in Sydney, as this was where its head office was located.

APRA also needed a different skills-set as a result of the changes. The predecessor agencies mainly had clerical staff; many of whom left as part of the reorganisation. By March 2003, the group in Sydney numbered about 40; one quarter of these were systems people, the others were a combination of economists and statisticians, with good analytical skills.

With the new systems and skill set, APRA was able to focus on quality assurance and analysis rather than data processing.

This revolution in the financial information supply chain depends on companies adopting XBRL. The finance industry is still cautious about this adoption. Less than five institutions regulated by APRA have written software that extracts the information from their systems and put it directly into XBRL format for upload to D2A. Most banks wrote systems that exported the data to Excel spreadsheets, and used an Excel-to-XBRL converter to convert it to XBRL for upload to APRA. Providers advise that they prefer to see the completed return before it is sent from their systems to APRA.

3.4 Conclusion

The implementation of an integrated statistical framework, and the collection of statistical information by a single agency on behalf of other agencies, was a bigger project than initially anticipated, and it took considerable effort to fully implement.

Now fully implemented, it has provided many benefits. For example, there has been greater consistency of standards and definitions across sub-sectors of financial institutions, allowing agencies to better confront data across sub-sectors. This, as well as efficiency gains, has contributed to on-going improvements in data quality.

The load on providers has been reduced, partly because of the harmonisation and modernisation of returns, and partly because of the alignment of reporting requirements with accounting standards.

There were some lessons learnt along the way. For example, priorities of agencies involved diverged over time, and agencies had to work together to agree on priorities and timeframes for undertaking high quality collections. A memorandum of understanding was not signed between two of the agencies for seven years, so the procedures for managing change were not well understood.

Participants from the three agencies were strongly committed to the project. Without this level of commitment, the project would not have been so successful.

III. Data management at the Bank of Canada and Statistics Canada: partnerships and data quality

The Bank of Canada (the Bank) and Statistics Canada (STC) have a long-standing relationship with respect to the collection of data and the construction of monetary and other statistics. They meet regularly to review how processes and data compilation techniques could be improved or better coordinated. Together with their sister federal agencies, they have developed a framework for addressing all needs for data from commercial banks operating in Canada. They also cooperate on initiatives that, for example, strive to meet the evolving data standards that are set by international agencies. And, perhaps most importantly, they also make great use of each others' databases.

1. Financial Information Committee and data rationalization

There exists in Canada a Financial Information Committee (FIC). The Office of the Superintendent of Financial Institutions (OSFI), the Canada Deposit Insurance Corporation (CDIC), the Department of Finance, and the Bank are members, with STC participating in FIC-initiated activities as appropriate.[24] FIC's mandate is essentially to ensure that the ongoing financial information requirements of all member agencies are met in a coordinated and cost-effective manner, and to support cost effective collection and exchange of information between FIC members and financial institutions. FIC will invite non-member agencies to participate in FIC-sponsored initiatives as required.

It is understood that regulators and other government agencies should make efforts to minimize the reporting burden on financial institutions and other respondents, while still collecting the information they need to fulfil their mandates. Recently in Canada, the regulatory reporting burden was viewed by financial institutions as being excessively high, especially given the looming reporting requirements of Basel II. For that reason, in November 2003 the President and CEO of the Canadian Bankers Association wrote to the Assistant Deputy Minister of Finance requesting a review of the reporting burden in Canada. In turn, the FIC Data Rationalization Project was launched in 2004 and was essentially completed in November 2005. The outcome of the project resulted in a more streamlined and consistent set of reporting forms and definitions, which are expected to be implemented in 2009. Other positive outcomes were: 1) the commercial banks now have a greater understanding of why FIC agencies need certain data (and going forward FIC agencies have agreed to provide rationale for any new data requests), and 2) all agencies have now agreed to a more formal framework for consulting each other before requesting new data, thus avoiding duplication.

The integration of reporting forms has been a feature of the reporting system for banking data for many years. During a major review of the reporting forms in 1993, it was acknowledged that it was necessary to harmonize terminology and definitions across the agencies. This would serve to reduce the reporting burden and to encourage high-quality consistent data. However, at the time there was no formal framework in place for ongoing cooperation, and so it proved to be difficult for diverging needs to be recognized and adequately addressed over time. In the most recent review, the approach taken was to document ownership of returns and of particular data elements, especially if only one agency required the data item. This should provide better accountability for future reviews.

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[24] In Canada, the Office of the Superintendent of Financial Institutions is the supervisor of commercial banks. This is unlike the situation in many countries where the supervision is conducted by the central bank. Also, the Balance of Payments in Canada is the responsibility of Statistics Canada, not the Bank of Canada.

One challenge associated with the exercise was getting the necessary attention and time commitment from all stakeholders, i.e., current and potential users of the data, data compilers, and statisticians.

A key pitfall to be avoided in such a review is the elimination of data that might not be actively used at the time, but that could become very valuable for policy relevant research in the future.

2. Sharing of systems for data collection

In 1998, the Bank, in partnership with OSFI and CDIC, developed a system to collect, validate, manage, and maintain financial returns from federally-regulated deposit-taking institutions. This system, known as the Tri-Agency Database System (TDS) is housed at the Bank but is jointly owned and operated by all three agencies. At this time, STC is not a direct user of the TDS system; however, that could change in the future.

TDS is comprised of an Oracle application and a rules-based engine that are used to:

- define the data to be reported;
- validate the information received from the financial institutions;
- distribute the data to the three agencies.

The system is very flexible in that it is easy to modify existing returns, add new returns, modify or add new business rules, add or change reporting schedules (i.e., the lists of specific returns to be filed by each institution and their due dates), etc.

Financial institutions send their data returns electronically to TDS using the internet and employing a secured sockets layer (SSL), and they receive e-mail confirmation that each return transmitted has been received by TDS and whether or not it failed any validation rules. TDS also provides reports on each individual institution's filing record, i.e., number of returns filed late or filed with errors, as well as the number of revisions to previously reported data that were filed in a given period.

Each of the three agencies exports data from TDS into their own systems, which they use for monitoring, aggregation, and analysis. Each agency has developed their own system to meet their specific needs.

For example, the Bank converts the TDS data into time series using Forecasting, Analysis and Modeling Environment (FAME) software, and also uses FAME to produce most of its statistical data and graphics.

3. Data exchanges between the Bank and STC

The data exchange between the Bank and the STC cover monetary and credit aggregates as well as balance of payments and international investment position data. This section describes the data integration issues facing different agencies, as well as the challenges emanating from the ensuing coordination efforts. Joint work in the area of the IMF's Financial Soundness Indicators (FSIs) is an illustration of such collaboration.

3.1 Monetary and credit aggregates

The source information for monetary and financial statistics are summarized in Table 2. The source data for commercial banks are monthly and quarterly returns either sourced from OSFI or collected directly by the Bank. The total assets for the monetary authorities and commercial banks represent over 80 percent of the depository corporations sector. The Bank is satisfied that these data, together with quarterly data collected by STC (that are used to

Table 2

Canada: Sources of Information for Statistics on the Financial Corporations Sector

	Monetary Statistics		Financial Statistics
	-the Bank Credit measures and monetary aggregates	**-the Bank Full balance sheet approach**	**-STC**
Central bank (provided by the Bank)	n.a.	Weekly & Monthly	Annual/quarterly
Commercial banks (the Bank and OSFI questionnaires)	Monthly average	Monthly (end of period)	Annual/quarterly
Other depository corp. (STC questionnaires)	Monthly data	Quarterly (end of quarter)	Annual/quarterly
Other Financial Corp. (STC questionnaires)	Monthly data	Quarterly (end of quarter)	Annual/quarterly

Sources: Bank of Canada

compile comprehensive credit and monetary aggregates) give a reasonable picture of the Canadian financial system. Quarterly financial statements for commercial, trust and mortgage loan companies, local, central credit unions, caisses populaires, mutual funds, life insurers, segregated funds, investment dealers, securitization and non-depository credit intermediaries are collected by STC. In summary, the Bank's use of data from STC's Industrial Organization and Finance Division can generally be categorized as providing aggregates for:

- Non-bank depository corporations;
- Non-depository corporations;
- Other financial corporations.

As it relates to financial institutions, the quarterly survey of financial statements in the Industrial Organization and Finance Division is largely modelled on regulatory returns administered by OSFI. Relative to OSFI, STC chooses the data it requires from these forms and separately collects and captures these elements according to the general specification that these variables are "booked-in-Canada". These financial statistics are collected, processed and published according to Canadian Generally Accepted Accounting Principles (GAAP) and applicable international protocols such as Basel II in the case of commercial banks. As such, the data are coherent with those used and produced by respondents. In addition, where the GAAP-based accounts do not correspond wholly with internationally accepted standards used in the System of National Accounts (SNA), supplemental detail is gathered to support the conversion of Canadian GAAP-based accounts to SNA-based accounts. All offices (i.e., branches and subsidiaries) that are within the scope of the consolidated institution are reported on a consolidated, booked-in-Canada basis, and generally on a calendar quarter basis. Data collected from commercial banks and credit unions by STC are censuses.

To accommodate the diversity in financial reporting across industries, 15 different questionnaires (3 for the non-financial industries and 12 for the financial industries) are utilized in STC's quarterly survey of financial statements. The content of these

questionnaires has remained largely unchanged for several years; however, a project to update the data content of the survey is nearing completion.

The content review will incorporate data SNA requirements related to: financing activities, consumer credit receivables, leasing, derivatives, resident/non-resident lending, software expenses, stock options compensation, pension funding, income trusts and market valuation. In addition, the content has been revised to take into account new GAAP disclosure guidelines including the addition of comprehensive income, fair value and restating certain equities as liabilities among other important GAAP refinements.

STC's quarterly financial survey data that are collected from the head office of companies cover the entire domestic activities of the enterprise, i.e., all branches in Canada. Most questionnaires are transmitted in a variety of different means convenient to the respondent e.g., paper copy, facsimile, email, etc.

Credit union data are obtained from 16 provincial Credit Union Centrals which include stabilization funds and multiple central credit unions in some provinces. Information pertaining to business and consumer financing intermediaries is collected on a sample basis. While the response rates tend to be low for the preliminary estimates, they are much higher for the final estimates. The response rates are published each quarter in STC's quarterly financial survey publication.

The STC collects comprehensive quarterly financial information from commercial banks, trust and mortgage loan companies, credit unions and caisses populaires, and non depository credit intermediation institutions. The questionnaire, which comprises a balance sheet, an income statement, and a statement of changes in financial position, is an enterprise-based survey that draws its sample from the Business Register. The overall estimates are derived from two different components. A sample survey is conducted for larger businesses above a prescribed size threshold using the mailed questionnaire. Sample results are multiplied by a weighting factor to represent the universe from which the sample was drawn. For businesses below the size threshold, the (take-none or non surveyed population) estimates are modelled using annual data compiled from financial statements filed with the Canadian Revenue Agency as part of income tax declarations. The model projects the value of the take-none portion of the population for each of the 77 categories of the Level III aggregation using estimates from the surveyed population and other parameters. The proportion of each of the two components of the final estimate (survey estimates and take-none model) varies significantly between industry aggregations. The proportion represented by the surveyed component ranges from 5 percent to 100 percent of the population for both revenue and assets at the Level III aggregation.

The quarterly survey program uses income statement and retained earnings statement data (to derive changes in financial position). Respondents complete a variety of other schedules as well (reported through regulatory institutions such as OSFI and the CDIC). Balance sheet related schedules are (1) allowance for impairment; (2) capital continuity report; (3) mortgage loans report; (4) securities report; (5) non-mortgage loans; (6) assets by institutional sector; and (7) deposit liabilities by institutional sector.

3.2 Balance of Payments (BOP) and International Investment Position (IIP)

The Balance of Payments Division of STC has a security-by-security database focusing on Canadian liabilities that is used for both the BOP and the IIP. The Bank also has a security-by-security database on Canadian liabilities. STC receives data updates each month from the Bank. While the Statistics Act prevents micro records being shared with the Bank, STC does reconcile information from the Bank with its own records and provides the results and related publicly available sources to the Bank for use in improving its own database.

The debt of municipal governments which represents a small portion of the overall government liabilities is collected only by STC and provided in aggregate form to the Bank for its needs.

The Bank has been an important source for the Balance of Payments and the International Investment Position beyond the security-by-security data. The collection vehicle used to collect data from the Canadian banking sector for purposes of reporting to the BIS Locational Banking Statistics has been extended to provide additional data for the BOP program at STC. This report entitled the Geographical Distribution of Assets and Liabilities (GDAL) provides the BOP with information on the booked in Canada positions of the banking sector by both currency and location of resident counterparty.

This report is used only by the Bank and STC so that the content and definitions for this form are coordinated between the two agencies only rather than the multilateral agency approach used for most financial sector reporting. The two agencies coordinate the review and correction of these data ensuring better data for both BOP and BIS reporting while minimizing respondent burden.

Data on international precious metal transactions is collected by STC from the commercial banks and this data is shared with the Bank.

3.3 Data integration issues

Data integration involve the definition and classification of units, which differ from institution to institution.

Definition of units

The units used to collect data by the Bank and STC differ in some cases. It must be noted that in general STC collects data for the sector accounts of the National Accounts using a unit that is more consolidated than the Institutional Unit as described in SNA93. The Canadian enterprise is defined to be the highest level consolidation within Canada. There are exceptions to this, particularly in the financial sector, where an attempt to define units that respect sub-sectors of the financial sector is made.

However, even given the unit of observation for most regulatory based data collected by the Bank is at a more consolidated level than that used by STC, the more consolidated the reporting unit the less homogeneous the unit will be. This can mean that when the two data sets are combined, there are overlaps in reporting that must be eliminated.

Classification of units

In Canada, some units that are legally “commercial banks” under the Bank Act will have a principal economic activity other than that of depository corporations. In these cases STC will classify them to the industrial activity based on their principal economic activity.

These units will then be surveyed by STC’s quarterly financial survey based on this classification. There are relatively few of these cases but they do exist and adjustments must be made when combining data from the two agencies.

To facilitate this operation by the Bank, the Chief Statistician has authorized that information from the central Business Register at STC be provided to the Bank for use in developing their statistics. This information is updated on a quarterly basis. This procedure also allows the Business Register at STC to benefit from updates and corrections to the structures recorded for the banking sector based on the expertise of the Bank.

3.4 Challenges associated with coordination across agencies

Challenges and tensions do of course arise when coordinating with other agencies. There are, for example, occasional difficulties associated with the sharing of information between STC and the Bank, due to different confidentiality requirements.

Under the Statistics Act, STC is limited as to what data can be shared with the Bank. Indeed, even information on which corporations are included in individual surveys is restricted.

Since the Bank collects banking data directly from the banks, and then combines them with non-bank data collected by STC to produce aggregates, it is important to understand the composition of the data in order to avoid the double-counting or leakage that occurs when there are overlaps or gaps in coverage.

Differing work priorities across agencies can also pose challenges. For example, in a recent multi-agency initiative, OSFI was unable to contribute any resources. As a result, the project did not benefit from their substantial expertise.

3.5 Joint projects such as the IMF Financial Soundness Indicators (FSIs)

Both the Bank and STC are involved in the IMF project to provide a standard set of Financial Soundness Indicators (FSIs). It is expected that these FSIs will help national authorities, the international community, and the public to better assess vulnerabilities in financial systems. The Bank assumed the role of National Coordinator for the FSI Coordinated Compilation Exercise (CCE), and both STC and the Bank acted in the role of FSI compilers. While the Bank collects data directly from the commercial banks, all other data needed for FSIs are compiled by STC. Accordingly, the logical distribution of work was to have the Bank complete the meta data and compile the data for the FSIs on deposit-takers, and for STC to assume responsibility for all other sectors. This particular STC/Bank collaboration was vitally important because of the volume of work involved.

Canada's final submission of FSI data and meta data for the CCE was delivered on time, and covered all 12 core indicators and most of the 27 encouraged indicators. Neither agency collected any new data for the CCE exercise. Furthermore, in the case of FSIs on deposit-takers, the data used were only from Canadian commercial banks. Non-banks such as credit unions and trust companies were excluded due to the lack of data on a basis that was consistent with the banking data. While this approach resulted in no new reporting burden on respondents, it did necessitate the writing of detailed meta data notes to explain deviations from the FSI Guide.

Now that the data have been provided to the IMF, staff at the Bank will be working to analyze the indicators, and where appropriate, the new measures will be incorporated into internal monitoring packages. An internal paper discussing the measures was completed in 2007.

4. Conclusion

As illustrated in this contribution, collaboration across agencies in data collection has a number of advantages. It helps improve reporting forms and facilitates the sharing of taxonomies and other meta data. It streamlines reporting systems and reduces the duplication of effort. It also contributes to a more efficient allocation of resources and improves data coherence.

IV. Statistical cooperation between Statistics Netherlands and De Nederlandsche Bank

On 23 January 2006, Gosse van der Veen, Director General of Statistics Netherlands (CBS)[25] and Henk Brouwer, member of the Executive Board of De Nederlandsche Bank (DNB), officially signed a Cooperation Agreement between their two institutions. This was the result of a long period of thorough and extensive preparations. The need for intensified cooperation was felt strongly in both institutions. In the past, both CBS and DNB had their own areas of statistical activity, but national and international developments made it necessary to re-evaluate the division of labour.

New European statistical obligations, in particular in the field of Quarterly Sector Accounts, require major efforts from both institutions. The main goal of the Cooperation Agreement is to deal with these obligations as effectively as possible, while keeping the additional reporting burden for Dutch society as low as possible and taking into account the relative strengths of both institutions.

Staff from both organisations have worked closely together, in order to realise the aims of the Cooperation Agreement. This intensive cooperation has already led to many fruitful results. It is expected that the cooperation will expand further in the future.

In this chapter the background and the legal and practical steps that were taken to deal with the rapidly changing statistical landscape are described. Section 1 gives some background information, including the new European obligations and the need for reducing the response burden on society. Section 2 focuses on the legal framework, while Section 3 presents practical results of cooperation that have been achieved so far. Finally, Section 4 contains concluding remarks and a brief preview of additional opportunities for further cooperation.

1. Background

CBS is responsible for the general statistical work programme established by the Central Statistical Committee of the Netherlands, including European obligations, and for data transmissions to Eurostat. DNB is responsible for statistics supporting monetary policy, including ECB obligations, for statistics derived from data collected under its supervisory task, the Balance of Payments and for data transmissions to the European Central Bank (ECB).

1.1 First steps

A first stimulus for closer cooperation came from the fields of International Trade statistics, Balance of Payments and the Rest-of-the-World Accounts as part of the National Accounts. Some ten years ago both institutions felt that these interrelated statistics should be further harmonised. A Steering Group and Working groups were established to discuss the way forward.

A key decision taken by this Steering Group concerned the division of labour after DNB introduced a new direct reporting system for the Balance of Payments in early 2003. It was agreed that DNB would continue to take care of the collection of data for the financial account and the related income flows, but that CBS would take over the collection of data on

[25] In Dutch: Centraal Bureau voor de Statistiek.

international services, in addition to the data on the international trade in goods. This redivision of labour matches the main areas of expertise of both institutions.

In order to harmonise the compilation of statistics from the data collected, including the Rest-of-the-World Account in the (quarterly and annual) National Accounts, there were regular quarterly meetings between compilers of both institutions in order to discuss and harmonise results prior to dissemination.

1.2 European legislation

Further stimuli for cooperation came from international developments. In the new millennium, new European statistical legislation has been adopted to support further European integration in the context of the Economic and Monetary Union (EMU).

The EMU was launched in the Maastricht Treaty[26] in order to create a single internal market. The third and final stage of the EMU started in 1999 with the introduction of the euro, the single currency for all EMU countries, and with the entry into force of the Stability and Growth Pact.[27]

It was felt that more timely and high-frequency statistical information was needed to support ECB monetary policy and to monitor convergence of member states' economic policies.

The Action Plan on Economic and Monetary Union Statistical Requirements, endorsed by the Ecofin Council in September 2000, identified the need for development of a set of Quarterly Accounts by Institutional Sector as one of the major issues. Both Eurostat and the ECB responded to the Action Plan by establishing Working groups[28] leading to legislation in this field, in particular the European Regulation on Quarterly Accounts by Institutional Sector (QSA)[29] and the ECB Guideline on Monetary Union Financial Accounts (MUFA).[30] A key element in the QSA regulation is that the quarterly sector accounts should be based on direct source data as much as possible. Although the MUFA Guideline does not mention this element explicitly, it is clear that the ECB has the same intention. Many efforts of both CBS and DNB have since been directed at achieving a satisfactory source data situation.

1.3 Reduction of administrative burden

Another stimulus for intensified cooperation derives from the national pressure to reduce the administrative burden on the business sector. Although statistical reporting is only a small part of the total administrative burden, the private sector and politicians insist that this burden

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[26] The Treaty on European Union, signed in Maastricht on 7 February 1992, which entered into force on 1 November 1993.

[27] Resolution of the European Council on the Stability and Growth Pact Amsterdam, 17 June 1997; Council Regulation (EC) No 1466/97 of 7 July 1997 on the strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies; Council Regulation (EC) No 1467/97 of 7 July 1997 on speeding up and clarifying the implementation of the excessive deficit procedure.

[28] Joint Eurostat-ECB Task Force on Quarterly Sector Accounts (TF QSA) and ECB Working Group on Monetary Union Financial Accounts (WG MUFA).

[29] Regulation (EC) No 1161/2005 of the European Parliament and of the Council of 6 July 2005 on the compilation of quarterly non-financial accounts by institutional sector.

[30] Guideline of the ECB of 21 November 2002 on the statistical reporting requirements of the ECB in the field of quarterly financial accounts (ECB/2002/7); Guideline of the ECB of 17 November 2005 amending Guideline ECB/2002/7 on the statistical reporting requirements of the ECB in the field of quarterly financial accounts (ECB/2005/13); and Guideline of the ECB of 20 April 2006 amending Guideline ECB/2002/7 on the statistical reporting requirements of the ECB in the field of quarterly financial accounts (ECB/2006/6).

should be reduced. CBS and DNB fully support this endeavour. For example, the reform of the Balance of Payments system in 2003 explicitly aimed at a reduction of the reporting burden for society.[31] The pressure to minimize the reporting burden is illustrated by a recent proposal,[32] endorsed by a majority of the Dutch Parliament, which requires that CBS stops all data collection from small and medium-sized enterprises. Although the Dutch government immediately replied that European obligations make it impossible to carry out the proposal, it indicated that major efforts must be made to reduce statistical reporting.

CBS and DNB felt that combining the different reporting requirements in a single data flow or to a single recipient (the 'single-counter idea') would serve this purpose.

1.4 Preparations for quarterly sector accounts

In the year 2000, CBS and DNB started to make preparations to comply with the expected new reporting obligations for QSA and MUFA. From 2001 onwards, both institutions started to work more and more closely together in this field. A Task Force was set up between CBS and DNB to discuss the division of labour at the operational level, including methodological issues that would need to be agreed upon. When the cooperation in the field of quarterly sector accounts took shape, it soon became clear that that task was huge and would require major efforts from both institutions.

The division of labour agreed upon was based on the strengths and priorities of both institutions: the priority of CBS is to compile integrated statistics on the whole economy, while DNB wanted to focus on collecting and publishing primary statistics on the financial sector. Therefore, it was decided that CBS would be responsible for the compilation of both QSA and MUFA, while DNB would publish primary statistics on the financial sector and would collect and provide CBS with the required information from the financial sector. This approach mirrored the annual national accounts situation. In the meantime DNB had started to provide the ECB with MUFA data, apart from a number of derogations that had been granted. This was meant as a transitional situation, until CBS would have developed a full set of quarterly sector accounts, including financial accounts and balance sheets.

Early in 2003 it became clear that the legal framework for financial accounts on a quarterly basis would be different from the arrangements for the annual situation. Through the MUFA Guideline, the ECB had imposed reporting obligations directly on national central banks (NCBs). From this perspective, DNB and CBS reassessed the earlier decision about the division of labour on QSA and MUFA. Also, the NCBs of many Euro area countries compiled the quarterly financial accounts. Many alternative scenarios were discussed, including a scenario where DNB would become fully responsible for MUFA compilation and associated data collection; a scenario where DNB would provide ESA95-compliant 'building blocks', while CBS would be responsible for compilation and balancing of the final QSA/MUFA data set; and a scenario where DNB would provide its primary statistics to CBS, while CBS would be responsible for their transformation to ESA95 categories, compilation and balancing of the quarterly sector accounts.

After intensive discussions, also at the highest management levels, the latter approach turned out to be most suitable for both institutions. The approach implies that CBS acknowledges ECB requirements as national statistical obligations. It also implies that DNB takes into account CBS data needs resulting from Eurostat obligations. Moreover, in October

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[31] See Statistical Bulletin DNB, The Road to a Modern Survey System, special edition, May 2003.

[32] Motion of Aptroot and Van As, members of the House of Representatives of the Dutch Parliament, 2005-2006, 29 515, no 111.

2004, DNB merged with the Supervisory Authority on Insurance Corporations and Pension Funds. Financial stability had become its main policy goal, and DNB felt that further developing primary statistics for the financial sector would optimally serve its strategy.

Steps were taken to formalize the division of labour in a legal structure, and work on the implementation started. As a result, even before the Cooperation Agreement was signed, CBS already took over MUFA compilation and reporting duties from DNB in the autumn of 2005. In the first MUFA transmission carried out by CBS on 3 November 2005, the remaining derogations could be abrogated to the full satisfaction of the ECB.

2. Institutional framework

In January 2004, CBS became an autonomous agency with legal personality. The previous hierarchical relationship between the Minister of Economic Affairs and CBS ceased to exist.[33] The legal basis for CBS and its work is the Act of 20 November 2003 governing the Central Bureau of Statistics, also known as the CBS Act ('CBS-wet'). When the Act was established, the special relation between CBS and DNB was acknowledged and elaborated upon only for specific fields, in particular for Balance of Payments and Money and Banking.

Next, a formal Cooperation Agreement was developed since both institutions felt that their intensified cooperation in the field of sector accounts needed a specific formal basis beyond the existing legal framework. Clear advantages of a formal basis over informal agreements are better mutual accountability and improved transparency of institutional arrangements.

2.1 General principles

As a general rule, it has been agreed for the sector accounts that DNB is responsible for data collection from the Financial Institutions sector[34] (excluding financial auxiliaries), while CBS is responsible for data collection from the General Government sector, from the Non-financial Corporations sector, from the Households sector, including Non-Profit Institutions Serving Households, and from the Financial auxiliaries sub-sector.

Furthermore, since DNB already surveyed domestic custodians for BoP purposes, it was agreed that DNB would collect information on securities holdings for the Households sector from them. As a rule, the same institution that collects data is also responsible for data processing and the compilation of primary statistics. Given the long experience of CBS in the field of compiling annual National Accounts, including Annual Financial Accounts and Balance Sheets, it was decided that it was natural and more efficient that CBS would also compile the full set of quarterly accounts, including the transformation from primary statistical data to ESA95 concepts, the balancing process and reporting to Eurostat and ECB. In particular, it was agreed that CBS would fulfil the MUFA reporting obligations of DNB.

One of the main issues for which general principles were established concerns the division of tasks between both institutions in the area of data dissemination. This issue is important from a users' point of view, because users can easily be confused by contradictory or seemingly contradictory published figures. And it is important from an institutions' point of view, because

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[33] The Minister of Economic Affairs, however, is still politically responsible for legislation and budget, for the creation of conditions for an independent and public production of high quality and reliable statistics. The costs of tasks and activities undertaken to put this legislation into practice are accountable to the government's budget.

[34] Including Monetary Financial Institutions, Insurance Corporations, Pension Funds, and Other Financial Intermediaries like Investment Funds, Financial Holdings and Special Purpose Entities.

the profile of institutions depends on their publications. It was decided that primary statistics would first be published by the main data collector, including possible press releases. The area of 'integrated' statistics, compiled from many different sources available, would be the primary concern of Statistics Netherlands. Important examples for this area are National and Financial Accounts.

If an institution wishes to publish about an area where it does not have the first rights, it should make sure that the figures or statements about results do not deviate from what has been published by the original institution responsible.

2.2 The Cooperation Agreement and the Mandating Order

Two specific arrangements were established in the field of sector accounts and related statistics. The first is the Cooperation Agreement concluded between CBS and DNB. This document describes the division of labour between the two institutions. It deals with all elements involved, like responsibilities for data collection, data processing, data exchange, compilation of primary and derived statistics, reporting to international institutions and the publication of statistical results.

The second arrangement concerns a Mandating Order, granted by the Director-General of CBS to DNB and targeted at the data collection with financial institutions. As DNB lacked the legal instruments to collect domestic economic and financial data from financial institutions for QSA and MUFA purposes, the data collection could only be enforced under the CBS Act. The Mandating Order ensures that DNB is officially entitled to collect such data on behalf of CBS.

2.3 Consultation with the European System of Central Banks

Since the MUFA Guideline applies in principle to national central banks only, it was felt necessary to consult the ECB on the national agreement. Hence, in the summer of 2005 a draft text of the Cooperation Agreement was prepared for a written procedure within the European System of Central Banks (ESCB).[35] Subsequently, the text was revised, taking into account the comments received on data accessibility under the ECB confidentiality regime and exchange of confidential documents. Consultation with Eurostat was not necessary, since statistical EU regulations apply to member states and leave them free to organise their statistical duties at the national level.

2.4 Exchange of micro-data

Safeguarding the confidentiality of data is of the utmost importance for both CBS and DNB. Therefore, one of the main elements regulated in the Cooperation Agreement concerns the exchange of data on individual reporting agents. This new opportunity greatly enhances the possibilities for in-depth analyses of source material and application of sophisticated processing and compilation techniques, whilst ensuring that confidentiality rules remain strictly applied. For example, the exchange agreement grants DNB access to the general business register maintained by CBS. This enables DNB to improve the quality of BoP/IIP data collection from non-financial corporations.

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[35] Opinion on cooperation between De Nederlandsche Bank and the Centraal Bureau voor de Statistiek on the statistical reporting requirements of the ECB (CON/2005/27).

The exchange of micro-data collected for the purpose of cross-border statistics had already been dealt with in the relevant laws.[36] While composing the Cooperation Agreement, a point of special interest concerned the legal constraints regarding the exchange of other sets of micro-data, for example regarding the protection of privacy. In the Agreement these elements were taken into consideration. A number of guarantees is laid down which ensure that the confidentiality of the exchanged data has been taken care of. Furthermore DNB is only allowed to provide CBS with micro-data to the extent that CBS has its own legal authority and CBS data may only be used by DNB for statistical purposes.

2.5 Law enforcement

Under the Mandating Order, DNB has a mandate not only to collect data from financial institutions but also to impose sanctions. Sanctions can take the form of cease and desist orders under penalty and/or administrative fines on financial institutions that fail to furnish the requested data in time, correctly or in full. In practice, DNB shall apply its own sanctions policy developed for the purpose of executing the External Financial Relations Act of 1994 in cases in which a reporting agent would fail to comply with reporting obligations based on both the CBS Act and the External Financial Relations Act of 1994. In the event that an entity fails to comply with reporting obligations based on the CBS Act only, DNB will apply the sanctions policy of CBS. DNB would also decide on any notices of objection to its sanction decisions.

3. Practical examples of cooperation

The cooperation between CBS and DNB has materialised in many different ways. We will give some examples below. One of the main areas where cooperation between CBS and DNB has materialised is data collection. This is also the area to which the national goal to reduce the administrative burden on the business sector applies. Methodological treatments and quality standards for the data collected have been agreed. Moreover, the institutions now actively share their experiences, knowledge and best practices.

3.1 Quarterly Survey on non-financial corporations

One of many new data sources that was developed in order to comply with quarterly sector accounts requirements concerns three hundred of the most important non-financial corporations in the Netherlands. These corporations are asked to complete a quarterly questionnaire, including a profit-and-loss account and a balance sheet. When the questionnaire was designed, it was decided at an early stage not to include questions on financial cross-border positions and transactions, since these data were already being collected by DNB for BoP/IIP purposes. This enabled a reduction in the size of the questionnaire by a quarter.

Data collection has started in May 2005. In practice, unfortunately, it turned out to be difficult to match the results from the new survey and the BoP/IIP reporting. Discrepancies were observed at the level of individual reporting agents. In order to investigate the reasons behind discrepancies, CBS and DNB have analysed in a joint effort the data they receive from the largest corporations, where necessary also contacting the data providers themselves. This has already led to significant improvements. More recently, both institutions

[36] The Dutch Statistical Law of 2003 and the 2003 amendment of the External Financial Relations Act of 1994.

have concluded that a further integration of data collection for both BOP/IIP and QSA/MUFA purposes should be strived at.

3.2 Insurance corporations and pension funds

CBS and DNB have conducted a joint sample survey on balance sheet positions of insurance corporations and pension funds for a long time. Data were collected and processed on a quarterly basis by CBS and published by both CBS and DNB. In 2003, DNB started the direct collection of cross-border positions and transactions with insurance corporations and pension funds for BoP/IIP purposes. It was subsequently felt that integrating the data collection for both BoP/IIP and QSA/MUFA purposes would reduce the administrative burden on reporting agents, and be more efficient at the same time.

In 2004 DNB, CBS and representatives of insurance corporations and pension funds started preparations for a harmonised reporting framework. Reporting agents can choose to provide the required information on domestic financial accounts and associated income flows, which is (where applicable) collected on a security-by-security basis, with a quarterly or monthly frequency. In the latter case, reporting is fully integrated with BoP-reporting. Additional QSA-related information, for instance on premiums received and claims paid, is collected with a quarterly frequency.

One consideration was to incorporate data collection for two other goals, supervisory data and international services statistics. However, it was decided not to do this. The overlap between those reporting agents relevant for international services and those relevant for the integrated BoP/IIP and QSA/MUFA purposes turned out to be limited. The merit of incorporating the international services data collection into the harmonised framework would not outweigh the cost of unnecessary reporting for many agents.

At the same time quarterly supervisory reports were still under development and expected to become more risk-oriented and therefore more divergent.[37]

After work on preparations for data collection had finished, DNB and CBS extensively discussed the statistical treatments that would be needed to compile statistics from the data collected. The methods and approaches discussed included data editing and data processing, transformation to macro-economic variables according to ESA95 standards, grossing up and other estimation techniques for unobserved parts.

Data collection under the new framework has started in February 2006. In order to avoid double reporting, CBS ended its quarterly balance sheet data collection at the same time. First results were published by DNB in June 2006. The results are also used in the compilation of the Dutch sector accounts transmitted to the ECB and Eurostat.

3.3 Health insurance corporations

On 1 January 2006, a completely new health care system came into effect in the Netherlands. Late in 2005, the Dutch government decided that it needed financial data on the health insurance corporations on a quarterly basis, to be collected under the supervisory authority of DNB. When preparations for the new supervisory reporting system started, CBS

[37] A new supervisory framework for pension funds and insurance corporations is currently under construction. Statistical (CBS) requirements are taken into account as much as possible in developing the new supervisory data reports. This is particularly important for the annual data reports, which incorporate both National Accounts and Structural Business Statistics data requirements. As such, they continue to be an essential reference basis providing nearly full coverage of the population.

was consulted to ensure that data collected were also sufficient for sector accounts purposes. Data collection has started in May 2006 and first results were published by DNB in June 2006. Results are also used in the compilation of the Dutch sector accounts transmitted to the ECB and Eurostat.

3.4 Profit-and-loss accounts of large banks

When CBS and DNB first started to cooperate on the development of quarterly sector accounts, one of the information gaps identified concerned the non-financial accounts of monetary financial institutions (MFIs). The quarterly supervisory data collected by DNB cover worldwide consolidated activities of Dutch MFIs, while sector accounts aim at describing only the activities of national (resident) MFIs. This is a major drawback, given the international orientation of the Dutch MFI sector. Moreover, the supervisory data do not contain sufficient detail for sector accounts purposes. Hence, it was decided to introduce a specific questionnaire for resident MFI activities, including a profit-and-loss account and other data requirements for the non-financial sector accounts. The questionnaire would only have to be completed by the four largest MFIs, which together account for 80% of the Dutch MFI sector. It was designed in cooperation between CBS, DNB and the four MFIs involved. Data collection has started in August 2005. As a side effect, the compilation of quarterly GDP figures will also benefit from this new data source.

3.5 Securities holdings of households

Securities holdings of households have always been difficult items in the Dutch financial sector accounts. Formerly, as data sources were lacking, they were calculated as residuals. Given the importance of the household sector in macro-economic analysis, this is a major drawback of the system. Since it is not feasible to collect data directly from households, the best solution is to collect data from the custodians that keep securities for their clients. Although the CBS Act does not provide for such an indirect form of data collection, custodians agreed to provide DNB with the required data within the existing framework of the Bop/IIP reporting system.[38]

3.6 MFI balance sheets

DNB collects detailed MFI balance sheet data on a monthly basis. These data have to be sent to the ECB with such tight deadlines that DNB has very little room for processing, including grossing up. CBS already made extensive use of these data for annual financial accounts. Given its different goal and the time available, CBS made many adjustments to the source data. For example, grossing up was carried out in a more sophisticated way, using additional information available like annual reports data. This led, however, to large gaps between the original source data and the results presented by CBS in the annual financial accounts. The introduction of quarterly sector accounts gave a new stimulus to the processes needed to bridge these gaps. A more elaborate grossing up method was implemented by DNB based on a more sophisticated ‘cutting of the tail’ procedure and the use of quarterly supervisory data.

[38] DNB has also investigated the feasibility of collecting data on securities holdings by non-profit institutions serving households. Custodians indicated, however, that they would not be able to identify such institutions without significant costs (which were felt to exceed the merits).

3.7 Web-portals and secure e-mail

A dedicated tool for exchanging data was needed because of the large amounts of data to be exchanged between both institutions, and the confidential nature of much of the data. A secure web-portal environment was developed, which has been operational since January 2006. The system is based on Virtual Private Network technology. Firewalls on either side ensure that confidential data can be exchanged in a fast and secure way. The portals look like a normal Windows environment with a folder structure on both sides. Both institutions only grant a limited number of (statistical) staff access to specific data folders. In the meantime, both institutions also implemented a secure e-mail connection, also enabling an exchange of confidential information by regular e-mail.

3.8 Other business

Apart from the specific topics discussed above, the cooperation also extends to several more general aspects. Areas of common interest at the managerial and operational levels are discussed in many formal and informal contacts. For example, directors from both institutions meet at least three times a year.

At the international level, both institutions try to achieve common positions on strategic issues. Where appropriate, both CBS and DNB participate in national or international meetings. For example, CBS and DBS both participate in the ECB Working Group MUFA and the Eurostat Working Group on Quarterly Sector Accounts.

The two institutions try to actively share expertise, knowledge and experiences in many different ways. A DNB specialist has visited CBS to explain the ins and outs of financial derivatives. When quarterly data collection on insurance corporations and pension funds at DNB was extended in 2006, DNB organised a workshop to learn from the experience of CBS specialists. The institutions also exchange staff. For instance, a senior CBS methodologist advises DNB on sampling techniques, an area of expertise in which CBS historically has more know-how. Furthermore, both institutions cooperate in providing technical assistance to selected countries.

4. Concluding remarks

The sections above show that much progress has been made in intensifying the cooperation between CBS and DNB in the area of statistics. Data collection and the compilation of statistics that meet the needs of end users were harmonized in a way that is beneficial to the institutions themselves and society as a whole. The basis for the intensified cooperation is laid down in formal documents. Cooperation itself took shape in the practical examples mentioned above. It would not have been possible without the enthusiasm of employees from both institutions, sharing experiences and showing a will to actively work together on solving the many problems encountered.

It is expected that cooperation will be extended beyond the topics discussed above. We mention two examples. The first example concerns the introduction of new legislation on reporting for Other Financial Institutions (OFIs), that is currently being prepared by the ESCB and is expected to cover much of the information needs for the MUFA requirements. When the new legislation enters into force, DNB will take remaining CBS data requirements into account as much as possible, in particular with respect to the QSA requirements. The projected way forward is similar to the approach described above for insurance corporations and pension funds: integration with the BoP/IIP reporting system.

The second example of future cooperation concerns the exchange of business register information. Both CBS and DNB maintain such registers. While the main expertise of CBS lies in the area of non-financial corporations, the main area of expertise of DNB is financial institutions. The new possibility of exchanging micro-data offers an opportunity to harmonize

the registers and thus improve their quality. As seen above, progress in exploiting the sharing of register information has already been made in some specific areas. In this area further steps could easily be envisaged after the necessary fine-tuning of existing registers has taken place. For instance, institutions could start using each others registers.

Many of the specific cooperation details as described above are probably specific for the Dutch situation. The general approach, however, seems to be applicable in a broader context. All EU member states have to efficiently cope with meeting European requirements, and in many countries both the central banks and the statistical institutes face pressure on institutional efficiency and the reduction of the administrative burden. We hope that they may benefit from the experience we already gained in the Netherlands.