

Preparations by the Canadian Financial Sector for the Year 2000

Clyde Goodlet, Department of Monetary and Financial Analysis

Over the past several years, Canadian financial sector participants have devoted significant time and resources to preparing for the year 2000. It is fully expected that the financial sector will operate on a “business as usual” basis heading into January 2000 and beyond. Early on, individual financial institutions and the operators of shared systems focused their efforts on the identification of potential problem areas and remediation of their mission-critical systems to make them year-2000 ready. Changes to systems shared by the financial sector are fully completed and tested, while changes to mission-critical systems at institutions are virtually all completed and tested. Nevertheless, testing will continue throughout the rest of 1999 to ensure the continued readiness of these systems to interact with each other in the year 2000. Also, moratoriums on changes to systems have been widely implemented. During the past six months, the focus of the preparations for the year 2000 has shifted to reviewing and enhancing contingency plans. In addition, increased attention has been paid to communicating information to users of the services provided by the Canadian financial sector with the objective of maintaining users’ confidence in the ability of the sector to function normally.

Bank of Canada Internal Operations

The Bank of Canada’s primary responsibility is the formulation and implementation of monetary policy. Other key responsibilities include supplying bank notes, settling financial transactions, acting as the lender of last resort, overseeing major clearing and settlement systems, and acting as fiscal agent for the Government of Canada (which includes payments of

principal and interest on government debt and providing banking services to the government). During 1997, the Bank of Canada identified its mission-critical systems supporting these responsibilities. By the end of 1998, all of these systems that required attention had been made ready and tested. In addition, work on most of the Bank’s non-mission-critical systems is expected to be completed by early July 1999. To maintain system integrity, the Bank has also put in place a controlled freeze on further developments to automated systems. Finally, the Bank is reviewing and modifying its contingency plans to take account of any year-2000 concerns. The Bank is confident that its ability to meet its responsibilities will not be impaired by any disruptions related to the year 2000.

Bank Notes

Bank notes are just one means by which payments can be made in Canada. Other means of payment include debit cards, credit cards, electronic debit and credit transfers, and chequing arrangements. The operators of these various means of payment are confident that these payment arrangements will function normally in a year-2000 environment.

The Bank routinely maintains a large reserve of notes to meet public demand in peak periods and in extraordinary circumstances, such as the 1998 ice storm in eastern Canada. Nevertheless, the Bank is working with financial institutions to prepare for a possible year-2000-related increase in demand for bank notes towards the end of 1999. While the Bank does not expect demand for bank notes to increase dramatically, it is important that Canadians be confident that

An earlier version of this article appeared in the Bank of England publication, Financial Sector Preparations for the Year 2000, Issue 5, July 1999. Available on the Bank of England Web site: www.bankofengland.co.uk

bank notes will be available to meet their needs in advance of the year 2000. Consequently, the Bank is taking action in 1999 to significantly increase the inventory of bank notes. Additional bank notes are being printed, and old notes that would otherwise have been destroyed are being stockpiled.

The Bank of Canada has also been working with private sector institutions (primarily the armoured car companies and the deposit-taking institutions) to ensure that the system used to distribute bank notes can meet increased demands for bank notes across the country. It is planned to hold the larger-than-normal inventory of bank notes at distribution centres in various parts of the country, to be prepared to expand the hours of operation for all entities involved in note distribution, and to increase the frequency of deliveries of bank notes to financial institutions.

Individual Canadian deposit-taking institutions have recently guaranteed to their customers that their money will be safe in their Canadian bank accounts and that their financial records will be fully protected before, on, and after 1 January 2000. This guarantee is intended to provide depositors with the confidence that there is no need to withdraw these deposits and convert them into bank notes. The Bank of Canada has noted in its communications that, in addition to foregoing interest payments, individuals who hold excess cash can put themselves at risk of theft or loss and perhaps personal injury.

Major Clearing and Settlement Systems

The Bank of Canada has the formal responsibility under the Payment Clearing and Settlement Act for overseeing major clearing and settlement systems in Canada. The Bank's task is to ensure that appropriate arrangements are in place to manage and control risk so that if a participant in one of these systems should fail, the financial system would not be seriously disrupted. Under the act, two systems have been designated as having the potential to pose systemic risk. These systems are the Large Value Transfer System (LVTS), operated by the Canadian Payments Association (CPA), and the Debt Clearing Service (DCS), operated by The Canadian Depository for Securities Limited (CDS).

The LVTS is a real-time funds-transfer system that handles large-value or time-sensitive Canadian dollar

payments. The system became fully operational on 4 February 1999 and was fully year-2000 ready when introduced. In addition, the CPA completed implementation of year-2000-ready versions of all of its other mission-critical systems by December 1998, including the Automated Clearing Settlement System (which is the system that handles the clearing and settlement of all Canadian dollar payments other than those made through the LVTS). All systems have been subjected to internal and "street testing" with users of these systems and no improvements to these systems will be made after 1 June 1999 without approval of the Board of Directors of the CPA. Backup arrangements, including manual backup procedures, are being tested. The focus of the CPA during the rest of 1999 will be on reviewing and enhancing its business continuity plans to take account of year-2000 concerns, continuing to monitor the readiness of its members, and retesting its systems. In regard to the latter activity, the CPA and its members participated in the successful mid-June year-2000 Global Payments Systems Test organized by the New York Clearing House.

The DCS is an electronic clearing and settlement system that handles Government of Canada securities as well as corporate money market securities. A year-2000-ready version of the DCS was implemented in July 1998. In addition, CDS implemented a year-2000-ready version of its other clearing and settlement system (the Securities Settlement Service) in November 1998. (This system processes transactions involving equities and certain other debt instruments not handled by the DCS system.) CDS intends to perform recertification tests throughout 1999 and has implemented a freeze on system changes effective 30 June 1999. CDS is participating in industry-wide testing coordinated by the Canadian Securities Administrators,¹ and organized a test of debt market infrastructure systems. This test, involving major market participants and the processing of a range of securities transactions, was successfully completed in March 1999. Since CDS is the only central facility in the Canadian debt markets, this test served as the industry test of Canada's debt markets and demonstrated that all components of the Canadian debt markets can operate together in a year-2000 environment. CDS has also reviewed and enhanced its contingency plans and has

1. The Canadian Securities Administrators are composed of the thirteen provincial and territorial securities regulatory authorities in Canada.

made provisions designed to deal explicitly with issues related to the year 2000.

In addition to these major clearing and settlement systems, a number of other systems operate in Canada to handle the processing of derivative transactions, equity trades, and mutual fund transactions. Industry-wide tests involving sample transactions covering the trading, order entry, validation, clearance, and settlement processes in these systems were successfully completed from 27 May to 9 June 1999. The tests involved all the key exchanges, clearing corporations, and service providers as well as a large representative sample of brokerage firms, mutual fund companies, mutual fund dealers, and custodians. The Canadian Securities Administrators are also monitoring the contingency planning by the securities industry. Given the progress to date, it is expected that the securities industry will be able to operate in a reliable and normal manner heading into the year 2000 and beyond.

Regulated Financial Institutions

The Bank of Canada, the Office of the Superintendent of Financial Institutions (the supervisor of federally incorporated financial institutions), and the Canada Deposit Insurance Corporation are members of a group coordinated by the Department of Finance that is gathering information on the state of preparedness for the year 2000 of the Canadian financial sector.

The Office of the Superintendent of Financial Institutions supervises over 400 institutions (banks, federally incorporated trust and loan companies, and federally incorporated insurance companies). The Office has established milestone dates (the last of which is 30 June 1999) for the completion of various activities related to the year 2000, including system renovations, system testing and implementation, review of counterparties and borrowers for year-2000-related credit risk, and the review and modification of contingency plans. The Office periodically surveys the progress of financial institutions in meeting these milestones, and at this time the vast majority of these institutions have met the milestones. For example, the Canadian banks' plans called for them to have their mission-critical systems ready for the year 2000 by 30 June 1999. These institutions will continue to retest their systems throughout the rest of the year, and a moratorium on system changes will be in place at all banks by the summer of 1999. The banks are also working with their correspondents in other countries to ensure that

international transactions will occur as usual before, during, and after the rollover into 2000. In addition, the Canadian Bankers Association has established a number of year-2000 working groups with broad representation from the Canadian financial sector. It has also held seminars to provide information to businesses on preparing for the year 2000, and has undertaken a number of communication initiatives to provide banks' customers with the confidence that Canadian banks will be able to operate in a reliable and normal fashion. Other institutions supervised by the Office are reporting similar progress and activities.

Similar progress is also being reported by provincially incorporated deposit-taking and insurance institutions. In the securities sector, the Canadian Securities Administrators have appointed the Ontario Securities Commission (OSC) to take the lead on their behalf in administering a year-2000 strategy. The OSC requires securities market participants to report on their readiness for the year 2000, and this information is publicly available on the OSC Web site.

Contingency Planning

As noted earlier, individual financial institutions and the operators of shared systems in the financial sector are actively reviewing and enhancing their contingency plans to take specific account of year-2000 concerns. Financial institutions are primarily responsible for having contingency plans to deal with possible year-2000 problems, including plans that address possible liquidity needs. In addition, the Bank of Canada, in co-operation with government and the private sector, is examining the role that it could play in dealing with the consequences of a highly unlikely interruption in the operation of major clearing and settlement systems, or with cases of extraordinary liquidity needs at financial institutions.

The central bank has the discretionary power to make secured loans to chartered banks in Canada and to certain other institutions. The Bank can take a wide range of collateral from borrowing institutions and these loans can be made for periods not exceeding six months (such loans could be renewed). In addition, the Bank can purchase a wide range of securities either outright or using repos. The purpose of such lending and asset purchases would be to provide liquidity to and preserve confidence in borrowing institutions that are solvent, other deposit-taking institutions, and the financial sector, including financial

markets, more generally. The Bank is making special preparations so that it will be able to respond quickly and effectively as a lender of last resort should significant liquidity needs develop. In addition, the Bank of Canada is consulting with a number of other central banks on a variety of issues related to the year 2000.

The Rollover Weekend

Financial markets and associated clearing and settlement systems in Canada will be open on 31 December 1999. Typically, the volume of activity is relatively low on the last business day of the year, reflecting preparations by market participants for the long holiday weekend. One might anticipate that volumes on 31 December will be even lower than usual since some market participants are considering adopting strategies that would see routine processing of transactions reduced on the business days around the millennium weekend.² Financial markets and clearing and settlement systems will be closed on Monday, 3 January 2000 for the normal New Year's Day holiday. The first day of business will be Tuesday, 4 January. This long weekend provides an opportunity to retest systems, both those of individual institutions and those operated as shared clearing and settlement systems.

Arrangements are being made among various public and private sector participants to ensure that information generated by these tests and other activities on this weekend can be readily shared with all financial sector participants. The operators of the key infrastructure services plan to establish "command centres" that will disseminate information to appropriate parties and coordinate any actions in the unlikely event that difficulties are encountered. Key staff at financial institutions, clearing and settlement systems, and public sector agencies will be on-site during this weekend, and other staff will be "on call" to quickly fix any year-2000 glitches that may surface.

Concluding Remarks

The potential for disruptions to systems related to the year 2000 has been recognized as an issue that must be addressed to prevent or limit interruptions to services

2. For example, the Canadian Foreign Exchange Committee, a group composed of foreign exchange market participants, is encouraging its members to settle foreign exchange transactions on days other than the first few days of January 2000.

that could have widespread implications. The financial sector in Canada has been identified as a key sector, and financial sector participants began to address this issue early. A considerable amount of time and resources has been devoted to identifying and correcting potential problems and a great deal of progress has been made. There is a strong expectation that the financial sector will be able to operate in a reliable and normal fashion before, during, and after 1 January 2000. Indeed, a number of knowledgeable year-2000 commentators have singled out the Canadian financial sector, particularly the banking sector, as a world leader in year-2000 readiness.

Nevertheless, there is still more to be done. Systems will continue to be retested throughout the rest of 1999. Increasing attention is being devoted to contingency planning. The government and private sector financial institutions are also closely monitoring the progress being made by key infrastructure providers (such as electricity and telecommunications) and are receiving regular status updates. They are confident that these suppliers will be year-2000 ready. The communication of information to interested parties is a vital activity that will continue to be addressed by private and public sector entities. But with sustained effort for the rest of 1999, it should be "business as usual" for the Canadian financial sector heading into the year 2000 and beyond.

Additional information is available at the following Web sites:

Bank of Canada: www.bank-banque-canada.ca

Canadian Bankers Association: www.cba.ca

Canadian Payments Association: www.cdnpay.ca

The Canadian Depository for Securities Limited:
www.cds.ca

Office of the Superintendent of Financial Institutions:
www.osfi-bsif.gc.ca

Ontario Securities Commission: www.osc.gov.on.ca

Interac Association: www.interac.ca