Chapter Two
Deposit-taking Institutions

Learning Objectives

LO1: Discuss the size, structure, and composition of the banking industry in Canada.
LO2: Discuss the nature and importance of off-balance-sheet assets and liabilities for Canadian banks.
LO3: Explain the types of regulations that are applied to banks in Canada.
LO4: Explain how credit unions and caisses populaires differ from banks.

Chapter Outline

Introduction

Banks

- Size, Structure, and Composition of the Industry
- Balance Sheet and Recent Trends
- Other Activities
- Regulation
- Industry Performance

Credit Unions and Caisses Populaires

- Size, Structure, and Composition of the Industry and Recent Trends
- Balance Sheets
- Regulation
- Industry Performance

Global Issues: The Financial Crisis

Appendix 2A: Financial Statement Analysis Using a Return on Equity (ROE) Framework

Appendix 2B: Who Regulates Bank Financial Groups in Canada?

Appendix 2C: Technology in Commercial Banking

INTERNET EXERCISE

1. Go to the website of the Office of the Superintendent of Financial Institutions (OSFI) at http://www.osfi-bsif.gc.ca/ and find the most recent monthly balance sheet for Canadian chartered banks. Click on "Financial Institutions" to see the drop-down menu. Under the heading, "View Institutions", click on "Financial Data". Scroll down and click on "Banks." Click on "Submit" to download the latest Consolidated Balance Sheet. Repeat the process for foreign banks by selecting "Foreign Bank Branches" and select the most recent balance

sheet. Compare the balance sheet of the domestic banks with that of the foreign banks. How have the assets changed from Table 2–4?

2. Go to Credit Union Central of Canada's website at http://www.cucentral.ca/ and download the most recent information on number, assets, and membership in credit unions and caisses populaires using the following steps. Click on "Policy & Advocacy" and select "Publications" from the drop down menu. Find and download the pdf fie for the latest System Brief that is available to the public. How has the number of CUs and CPs, their size, and membership changed?

Solutions for End-of-Chapter Questions and Problems: Chapter Two

1. What are the differences between Schedule I, Schedule II, and Schedule III banks?

Schedule I banks are domestic Canadian banks who are widely-held and chartered in Canada under the Bank Act. They are able to offer the full range of services permitted under the Bank Act. Schedule II banks are subsidiaries of a foreign bank who are authorized to conduct business under the Bank Act in Canada. A Schedule III bank is a foreign bank branch that is authorized to accept deposits in excess of $150,000 under the Bank Act. All banks in Canada are regulated by the Office of the Superintendent of Financial Services (OSFI).

2. What changes have banks implemented to deal with changes in the financial services environment?

Corporations have utilized the commercial paper markets with increased frequency rather than borrow from banks. In addition, many banks have sold loan packages directly into the capital markets (securitization) as a method to reduce balance sheet risks and to improve liquidity. Finally, the decrease in loan volume during the early 1990s and early 2000s was due in part to the recession in the economy.

Further, as deregulation of the financial services industry occurred during the 1990s, the position of banks as the primary financial services provider eroded. North American banks of all sizes increased the use of off-balance sheet activities in an effort to generate additional fee income. Letters of credit, futures, options, swaps and other derivative products are not reflected on the balance sheet, but do provide fee income for the banks.

3. What are the major uses of funds for banks in Canada? What are the primary risks to the bank caused by each use of funds? Which of the risks is most critical to the continuing operation of a bank?

Loans and investment securities are the primary assets of the banking industry. Non-mortgage loans are relatively more important. Mortgage loans are also a large part of the banks' assets. Each of these types of loans creates credit, and to varying extents, liquidity risks for the banks. The security portfolio normally is a source of liquidity and interest rate risk, especially with the increased use of various types of mortgage backed securities and structured notes. In certain environments, each of these risks can create operational and performance problems for a bank.

4. What are the major sources of funds for banks in Canada? How is the landscape for these funds changing and why?

The primary sources of funds are deposits. The amount of retail (consumer) demand deposits declines when small investors look for higher returns and move their funds into fixed term deposits and other higher yielding investments such as mutual funds. In general, a significant portion of consumer demand deposits are core funding for Canadian banks. The banks also purchase wholesale funds such as corporate deposits and interbank deposits. Short-term

liabilities other than deposits may decline as banks institute the liquidity requirements of Basel III (see Chapters 12 and 20).

5. How does the liability maturity structure of a bank's balance sheet compare with the maturity structure of the asset portfolio? What risks are created or intensified by these differences?

Deposit and non-deposit liabilities tend to have shorter maturities than assets such as loans. The maturity mismatch creates varying degrees of interest rate risk and liquidity risk.

6. What types of activities normally are classified as OBS activities?

Off-balance-sheet activities include the issuance of guarantees that may be called into play at a future time, and the commitment to lend at a future time if the borrower desires.

a. How does an OBS activity move onto the balance sheet as an asset or liability?

The activity becomes an asset or a liability upon the occurrence of a contingent event, which may not be in the control of the bank. In most cases the other party involved with the original agreement will call upon the bank to honour its original commitment such as a loan commitment or a letter of credit.

b. What are the benefits of OBS activities to a bank?

The initial benefit is the fee that the bank charges when making the commitment. If the bank is required to honour the commitment, the normal interest rate structure will apply to the commitment as it moves onto the balance sheet. Since the initial commitment does not appear on the balance sheet, the bank avoids the need to fund the asset with either deposits or equity. Thus the bank avoids possible additional deposit insurance premiums while improving the earnings stream of the bank.

c. What are the risks of OBS activities to a bank?

The primary risk to OBS activities on the asset side of the bank involves the credit risk of the borrower. In many cases the borrower will not utilize the commitment of the bank until the borrower faces a financial problem that may alter the creditworthiness of the borrower. Moving the OBS activity to the balance sheet may have an additional impact on the interest rate and foreign exchange risk of the bank, and as well, may pose a liquidity risk if the FI has difficulty making the funds available to the borrower. Further, at the heart of the financial crisis were losses associated with off-balance-sheet mortgage-backed securities created and held by FIs. Losses resulted in failure, acquisition, or bailout of some of the largest global FIs and a near meltdown of the world's financial and economic systems.

7. How is mobile and online banking expected to provide benefits in the future?

The extent of the impact of mobile and online banking remains unknown. However, the existence of new technology allows banks to open markets and to develop products that did not exist prior to the Internet. Efforts have focused on the retail customer and business customers and have changed cash management for both. The trend should continue with the advent of faster, more customer friendly products and services, and the continued technology education of customers.

8. What factors are given credit for the strong performance banks in the early 2000s?

The lowest interest rates in many decades helped bank performance on both sides of the balance sheet. On the asset side, many consumers refinanced homes and purchased new homes, an activity that caused fee income from mortgage lending to increase and remain strong. Meanwhile, the rates banks paid on deposits shrank to all-time lows. In addition, the development and use of new financial instruments such as credit derivatives and mortgage backed securities helped banks move credit risk off their balance sheets. Finally, information technology helped banks manage their risk more efficiently through better and quicker access to financial markets.

9. How does the asset structure of CUs compare with the asset structure of banks?

The relative proportions of credit union assets are similar to banks with loans and mortgages representing the major portion of assets. However, nonmortgage loans of credit unions are predominantly consumer loans. On the liability side of the balance sheet, credit unions differ from banks in that they have less reliance on large term deposits, and have only a small amount of debt from any source. The primary sources of funds for credit unions are small term deposits and chequing and savings accounts.

10. Compare and contrast the performance of Canadian DTIs with U.S. and global FIs during and after the financial crisis.

Quickly after it hit the U.S., the financial crisis spread worldwide. As the crisis started, banks worldwide saw losses driven by their portfolios of structured finance products and securitized exposures to the subprime mortgage market. Losses were magnified by illiquidity in the markets for those instruments. As with U.S. banks, this led to substantial losses in their marked to market valuations. In Europe, the general picture of bank performance in 2008 was similar to that in the U.S. That is, net income fell sharply at all banks. The largest banks in the Netherlands, Switzerland and the United Kingdom had net losses for the year. Banks in Ireland, Spain and the United Kingdom were especially hard hit as they had large investments in mortgages and mortgage-backed securities. Because they focused on the domestic retail banking, French and Italian banks were less affected by losses on mortgage-backed securities. Continental European banks, in contrast to UK banks, partially cushioned losses through an increase in their net interest margins.
A number of European banks averted outright bankruptcy thanks to direct support from the central banks and national governments. During the last week of September and first week of October 2008, the German government guaranteed all consumer bank deposits and arranged a bailout of Hypo Real Estate, the country's second largest commercial property lender. The United Kingdom nationalized mortgage lender Bradford & Bingley (the country's eighth largest

mortgage lender) and raised deposit guarantees per account. Ireland guaranteed deposits and debt of its six major financial institutions. Iceland rescued its third largest bank by purchasing 75 percent of the bank's stock and a few days later seized the country's entire banking system. The Netherlands', Belgium's, and Luxembourg's central governments together agreed to inject US$16.37 billion into Fortis NV (Europe's first ever cross-border financial services company) to keep it afloat. However, five days later this deal fell apart, and the bank was split up. The Dutch bought all assets located in the Netherlands for approximately US$23 billion. The central bank in India stepped in to stop a run on the country's second largest bank ICICI Bank, by promising to pump in cash. Central banks in Asia injected cash into their banking systems as banks' reluctance to lend to each other led the Hong Kong Monetary Authority to inject liquidity into its banking system after rumours led to a run on Bank of East Asia Ltd. South Korean authorities offered loans and debt guarantees to help small and midsize businesses with short term funding. The United Kingdom, Belgium, Canada, Italy, and Ireland were just a few of the countries to pass an economic stimulus plan and/or bank bailout plan. The Bank of England lowered its target interest rate to a record low of 1 percent hoping to help the British economy out of a recession. The Bank of Canada, Bank of Japan, and Swiss National Bank also lowered their main interest rate to 1 percent or below. All of these actions were a result of the spread of the U.S. financial market crisis to world financial markets.

The worldwide economic slowdown experienced in the later stages of the crisis meant that bank losses became more closely connected to macroeconomic performance. Countries across the world saw companies scrambling for credit and cutting their growth plans. Additionally, consumers worldwide reduced their spending. Even China's booming economy slowed faster than had been predicted, from 10.1 percent in the second quarter of 2008 to 9 percent in the third quarter. This was the first time since 2002 that China's growth was below 10 percent and dimmed hopes that Chinese demand could help keep world economies going. In late October, the global crisis hit the Persian Gulf as Kuwait's central bank intervened to rescue Gulf Bank, the first bank rescue in the oil rich Gulf. Until this time, the area had been relatively immune to the world financial crisis. However, plummeting oil prices (which had dropped over 50 percent between July and October) left the area's economies vulnerable. In this period, the majority of bank losses were more directly linked to a surge in borrower defaults and to anticipated defaults as evidenced by the increase in the amount and relative importance of loan loss provision expenses.
International banks' balance sheets continued to shrink during the first half of 2009 (although at a much slower pace than in the preceding six months) and, as in the U.S., began to recover in the latter half of the year. In the fall of 2009, a steady stream of mostly positive macroeconomic news reassured investors that the global economy had turned around, but investor confidence remained fragile. For example, in late November 2009, security prices worldwide dropped sharply as investors reacted to news that government-owned Dubai World had asked for a delay in some payments on its debt. Further, throughout the spring of 2010 Greece struggled with a severe debt crisis. Early on, some of the healthier European countries tried to step in and assist the debt ridden country. Specifically, in March 2010 a plan led by Germany and France to bail out Greece with as much as US$41 billion in aid began to take shape. However, in late April Greek bond prices dropped dramatically as traders began betting a debt default was inevitable, even if the country received a massive bailout. The selloff was the result of still more bad news for Greece, which showed that the 2009 budget deficit was worse than had been previously reported, and as a result politicians in Germany began to voice opposition to a Greek bailout. Further, Moody's Investors Service downgraded Greece's debt rating and warned that additional

cuts could be on the way. Greece's debt created heavy losses across the Greek banking sector. A run on Greek banks ensued. Initially, between €100 and €500 million per day was being withdrawn from Greek banks. At its peak, the run on Greek banks produced deposit withdrawals of as high as €750 billion a day, nearly 0.5 percent of the entire €170 billion deposit base in the Greek banking system.

Problems in the Greek banking system then spread to other European nations with fiscal problems, such as Portugal, Spain, and Italy. The risk of a full blown banking crisis arose in Spain where the debt rating of 16 banks and four regions were downgraded by Moody's Investor Service. Throughout Europe, some of the biggest banks announced billions of euros lost from write downs on Greek loans. In 2011, Crédit Agricole reported a record quarterly net loss of €3.07 billion ($4.06 billion U.S.) after a €220 million charge on its Greek debt. Great Britain's Royal Bank of Scotland revalued its Greek bonds at a 79 percent loss—or £1.1 billion ($1.7 billion U.S.)—for 2011. Germany's Commerzbank's fourth quarter 2011 earnings decreased by a €700 million due to losses on Greek sovereign debt. The bank needed to find €5.3 billion euros to meet the stricter new capital requirements set by Europe's banking regulator. Bailed out Franco-Belgian bank Dexia warned it risked going out of business due to losses of €11.6 billion from its break-up and exposure to Greek debt and other toxic assets such as U.S. mortgage-backed securities. Even U.S. banks were affected by the European crisis. In late 2010, U.S. banks had sovereign risk exposure to Greece totaling $43.1 billion. In addition, exposures to Ireland totaled $113.9 billion, to Portugal totaled $47.1 billion, and to Spain $187.5 billion. Worldwide, bank exposure to these four countries totaled $2,512.3 billion. Default by a small country like Greece cascaded into something that threatened the world's financial system.

Worried about the effect a Greek debt crisis might have on the European Union, other European countries tried to step in and assist Greece. On May 9, 2010, in return for huge budget cuts, Europe's finance ministers and the International Monetary Fund approved a rescue package worth $147 billion and a "safety net" of $1 trillion aimed at ensuring financial stability across Europe. Through the rest of 2010 and into 2012, Eurozone leaders agreed on more measures designed to prevent the collapse of Greece and other member economies. In return, Greece continued to offer additional austerity reforms and agreed to reduce its budget deficits. At times, the extent of these reforms and budget cuts led to worker strikes and protests (some of which turned violent), as well as changes in Greek political leadership. In December 2011, the leaders of France and Germany agreed on a new fiscal pact that they said would help prevent another debt crisis. Then French President Nicolas Sarkozy outlined the basic elements of the plan to increase budget discipline after meeting with German Chancellor Angela Merkel in Paris. The pact, which involved amending or rewriting the treaties that govern the European Union, was presented in detail at a meeting of European leaders and approved. Efforts by the EU and reforms enacted by the Greek and other European country governments appear to have worked. As on December 18, 2012, Standard & Poor's raised its rating on Greek debt by six notches to B minus from selective default Tuesday. S&P cited a strong and clear commitment from members of the euro zone to keep Greece in the common currency bloc as the main reason for the upgrade.

In contrast to the global impacts above, the major disruption in Canada came from the freezing of the non-bank sponsored asset-backed commercial paper market (See Chapter 26 for details). Approximately $35 billion of ABCP was unable to be rolled over in 2008 and the issue was not resolved until 2010. No banks failed in Canada as a result of the global liquidity and credit crisis.

11. Who are the major regulators of banks in Canada?

The major regulator of Canadian DTIs is OSFI, who supervises, inspects and disciplines Canadian banks. CDIC provides deposit insurance and also rates the banks for the level of premiums they pay for deposit insurance. See Figure 2-2.

12. What is a *prudential regulator*?

A prudential regulator is a government agency charged with setting regulations and ensuring an FIs' compliance with the rules. Prudential regulators can be federal (e.g. OSFI) or provincial. Their focus is the safety and soundness of the financial system.

13. What is a *market conduct regulator*?

A market conduct regulator is a government agency responsible for overseeing an FI's behavior towards consumers of financial services.

14. What is a *self-regulating organization (SRO)*?

An SRO is an industry group which sets and enforces regulations for its members.