SECTION 11.3 HOW BANKS CREATE MONEY

- Financial intermediaries in Canada include depositary institutions, contractual savings institutions and investment intermediaries. Canada's banking system is widely considered to be the most efficient and safest in the world. The "Big Six" banks hold 90 per cent of the financial assets in the banking industry and 70 per cent of total domestic assets.

***Exhibit 1**: Relative Shares of Financial Institutions in Canada- 2010*

- Banks offer a large number of financial functions. Most important, they accept demand deposits and savings deposits from individuals and firms. They can create money by making loans. In making loans, financial institutions act as intermediaries between savers, who supply funds, and borrowers.
- How did the assets in a chequing account get there in the first place? Perhaps it was through a loan made by a chartered bank. When a bank lends to a person, it typically gives the borrower the funds by a cheque or by adding funds to the borrower's existing chequing account. If you go into a bank and borrow $1,000, the bank probably will simply add $1,000 to your chequing account at the bank. In doing so, a new demand deposit—money—is created.
- Banks make loans and create demand deposits in order to make a profit. They make their profit by collecting higher interest payments on the loans they make than the interest they pay their depositors for those funds. If you borrow $1,000 from Loans R Us National Bank, the interest payments you make, less the expenses the bank incurs in making the loan, including their costs of acquiring the funds, represent profit to the bank.
- Because the way to make more profit is to make more loans, the banks want to make a large volume of loans. So what keeps banks from making nearly infinite quantities of loans?
- A prudent bank would put some limit on its loan (and therefore deposit) volume. Why? For people to accept demand deposits as money, the cheques written must be generally accepted in exchange for goods and services. People will accept cheques only if they know that they are quickly convertible at par (face value) into legal tender. For this reason, banks must have adequate cash reserves on hand (including reserves at the Fed that can be almost immediately converted to currency, if necessary) to meet the needs of customers who wish to convert their chequable deposits into currency or spend them on goods or services.
- Our banking system is sometimes called a **fractional reserve system**, because banks, by law as well as by choice, find it necessary to keep cash reserves on hand equal to some fraction of their chequable deposits. Even in the absence of reserve regulations, few banks would risk maintaining fewer reserves on hand than they thought prudent for their amount of deposits (particularly demand deposits).
- Reserve requirements exist primarily to control the amount of demand and time deposits, and thus the size of the money supply; they do not exist simply to prevent bank failures.
- While banks must maintain a prudent level of reserves, they do not want to keep any more of their funds as additional reserves than necessary for safety, because cash reserves do not earn any interest for the bank.
- Money is created when banks make loans. To look more closely at the process of bank lending and its impact on the stock of money, we will take a closer look at the structure and behavior of our hypothetical bank, the Loans R Us National Bank. To get a good picture of the size of the bank, what it owns, and what it owes, we look at its **balance sheet**.

Exhibit 2: *Balance Sheet, Loans R Us National Bank*

- The assets of a bank are those things of value that the bank owns (e.g. cash reserves), including contractual obligations of individuals and firms to pay funds to the bank (loans). The largest asset item for most banks is loans. Banks maintain most of their assets in the form of loans because interest payments on loans are the primary means by which they earn revenue.
- Some assets are kept in the form of non-interest-bearing cash reserves to meet the cash demands of its customers. Banks also keep some assets in the form of bonds that are quickly convertible into cash and also earn interest revenue.
- All banks have liabilities, which are financial obligations that the bank has to other people. The predominant liability of virtually all banks is deposits. Basically, the bank owes you the amount in your chequing account. Term and savings deposits similarly constitute a liability of banks.
- For a bank to be healthy and solvent, its assets, or what it owns, must exceed its liabilities, or what it owes others – the difference constitutes the bank's **capital.** Note that this definition of capital differs from the earlier definition, which described capital as goods used to further production of other goods (machines, structures, tools, etc.). Capital is included on the right side of the balance sheet so that both sides of the balance sheet (assets and liabilities plus capital) are equal. Any time the aggregate amount of bank assets changes, the aggregate amount of liabilities and capital also must change by the same amount, by definition.
- Suppose that the Loans R Us National Bank desires to hold cash reserves equal to 10 percent of its deposits. This means that the bank must keep cash or bonds equal to 10 percent of its deposits.
- **Excess reserves** = Actual reserves – Desired reserves. Reserves in the form of cash earn no revenue for the bank. Whenever excess reserves appear, banks will convert the non-interest earning reserves into other interest-earning assets, sometimes bonds but usually loans.
- What happens to a new deposit of $100,000? The bank is required to hold $10,000 in required reserves. The remaining 90 percent, or $90,000, becomes excess reserves, and most of this will likely become available for loans. However, this is not the end of the story. Say the bank lends out all of its excess reserves of $90,000. At the time the loan is made, the money supply will increase by $90,000, as that amount is added to the borrower's chequing account. Since demand deposits are money, the issuers of the loan have created money.
- Further, borrowers are not likely to keep the money in their chequing accounts for long, as people usually take out a loan to buy something. When the borrower pays for the goods desired, the recipient will likely deposit the money in his account at another bank to add even more funds to additional money expansion.

Exhibit 3: *Fractional Reserve Banking System*

- When banks create more money, they make the economy more liquid, but they do not directly create wealth. Borrowers have more money, but they also have a new liability—loans.
- Banks create money when they increase demand deposits through the process of creating loans. In the next section, we will see how the process of loans and deposits has a multiplying effect throughout the banking industry.