

Lecture 15:  
Money and Banking  
Reference – Chapter 11

LEARNING OBJECTIVES

1. The definition and functions of money.
2. What constitutes the supply of money.
3. What backs Canada's money supply.
4. The components of money demand.
5. How the equilibrium interest rate is determined in the money market.
6. About the structure of the Canadian financial system.
7. About recent developments in money and banking.

# I. The Definition and Functions of Money

“Money is what money does”. Anything that performs the function of money is *money*.

A. Medium of exchange: Money can be used for buying and selling goods and services.

B. Unit of account: Prices are quoted in dollars and cents.

C. Store of value: Money allows us to transfer purchasing power from present to future. It is the most liquid (spendable) of all assets, a convenient way to store wealth.

1) Inflation can erode the value of money to some extent.

## II. Supply of Money

A. Narrow definition of money: M1 includes currency and demand deposits (see Table 11-1).

1. Currency (coins + paper money) held by public.

a. All coins are token money, which means its intrinsic value is less than the face value of the coin. The metal in a dime is worth less than 10¢.

b. All paper currency consists of Bank of Canada Notes issued by the Bank of Canada.

2. Demand deposits are included in M1, since they can be spent almost as readily as currency and can easily be changed into currency.

a. Chartered banks are a main source of demand deposits for households and businesses.

B. Money Definition:  $M2 = M1 +$  personal saving deposits and non-personal notice deposits at chartered banks. (See Table 11-1)

C. Money Definition:  $M2+ = M2 +$  deposits at trust and mortgage loans companies, deposits at *caisse populaires* and credit unions, plus money market mutual funds, and at other non-bank deposit taking institutions. (See Table 11-1)

D. Which definitions are used?  $M1$  will be used in this text, but  $M2$  and  $M2+$  are watched closely by the Bank of Canada in determining monetary policy.

1. M2 and M2+ are important because they can easily be changed into M1 types of money and influence people's spending of income.
2. The ease of shifting between M1, M2, and M2+ complicates the task of controlling spendable money supply.
3. The definition becomes important when authorities attempt to measure control and the money supply.

## D. CONSIDER THIS ... Are Credit Cards Money?

Credit cards are not money, but their use involves short-term loans; their convenience allows you to keep M1 balances low because you need less for daily purchases.

### III. What “backs” the money supply?

A. The government’s ability to keep its value stable provides the backing.

B. Money is debt; paper money is a debt of Bank of Canada. Demand deposits are liabilities of chartered banks because depositors own them.

C. Value of money arises not from its intrinsic value, but its value in exchange for goods and services.

1. It is acceptable as a medium of exchange.
2. Currency is legal tender or fiat money. It must be accepted by law. (Note that cheques are not legal tender but, in fact, are generally acceptable in exchange for goods, services, and resources.)
3. The relative scarcity of money compared to goods and services will allow money to retain its purchasing power.

E. Money's purchasing power determines its value. Higher prices mean less purchasing power.

F. Excessive inflation may make money worthless and unacceptable. An extreme example of this was German hyperinflation after World War I, which made the mark worth less than 1 billionth of its former value within a four-year period.

1. Worthless money leads to use of other currencies that are more stable.

2. Worthless money may lead to barter exchange system.



## G. Maintaining the value of money

1. The government tries to keep supply stable with appropriate fiscal policy.
2. Monetary policy tries to keep money relatively scarce to maintain its purchasing power, while expanding enough to allow the economy to grow.

## IV. The Demand for Money: Two Components

- A. Transactions demand,  $D_t$ , is money kept for purchases and will vary directly with GDP (Figure 11-1a).

B. Asset demand,  $D_a$ , is money kept as a store of value for later use. Asset demand varies inversely with the interest rate, since that is the price of holding idle money (Figure 11-1b).

C. Total demand will equal quantities of money demanded for assets plus that for transactions (Figure 11-1c).

## V. The Money Market: Interaction of Money Supply and Demand

A. Key Graph 11-1c illustrates the money market. It combines demand with supply of money.

B. Figure 11-2 illustrates how equilibrium changes with a shift in the supply of money.

C. If the quantity demanded exceeds the quantity supplied, people sell assets like bonds to get money. This causes bond supply to rise, bond prices to fall, and a higher market rate of interest.

D. If the quantity supplied exceeds the quantity demanded, people reduce money holdings by buying other assets, like bonds. Bond prices rise, and lower market rates of interest result (see example in text).

E. Monetary authorities can shift supply to affect interest rates, which in turn affect investment and consumption and aggregate demand and, ultimately, output, employment, and prices.

## VI. Recent Developments in Money and Banking

A. Convergence of services provided has made financial institutions more similar.

B. Globalization of financial markets: Significant integration of world financial markets is occurring and recent advances in computer and communications technology suggest the trend is likely to accelerate.

C. Electronic transactions: Internet buying and selling, electronic cash and “smart cards” are examples.

1. In the future, nearly all payments could be made with a personal computer or “smart card.”
2. Unlike currency, E-cash is “issued” by private firms rather than by government. To control the money supply the Fed will need to find ways to control the total amount of E-cash, including that created through Internet loans.