Chapter 11 Assignment

A

1. If the money supply is increased, then in the long run what effect does this have on the price level and the quantity of money?
   a. Both the price level and the quantity of money demanded increase.
   b. The price level increases, but the quantity of money demanded decreases.
   c. The price level decreases, but the quantity of money demanded increases.
   d. Both the price level and the quantity of money demanded decrease.

C

2. According to the principle of monetary neutrality, all things being equal, an increase in the money supply will cause which of the following?
   a. an increase in real GDP AND in the price level
   b. an increase in real GDP but NOT in the price level
   c. an increase in the price level but NOT in real GDP
   d. an increase in NEITHER the price level NOR in real GDP

B

3. Which of the following is true when a government prints money to finance its expenditures?
   a. This increases the value of money.
   b. This imposes an "inflation tax" on everyone who holds money.
   c. This is the principle method by which the Canadian government finances its expenditures.
   d. This increases the value of money.

A

4. Inflation is directly proportional to which of the following?
   a. Nominal wage growth and nominal interest rates.
   b. Nominal wage growth, but not nominal interest rates.
   c. governments that print too much money
   d. banks that have market power and refuse to lend money.

D

5. Wealth is distributed from borrowers to lenders when inflation is which of the following?
   a. high, but expected
   b. low, but expected
   c. unexpectedly high
   d. unexpectedly low

6. If the nominal interest rate is 8 percent and the inflation rate is 3 percent, what is the real interest rate?
C
   a. –5 percent
   b. 3 percent
   c. 5 percent
   d. 11 percent

7. A change in a price level indicates which of the following?
D
   a. the economy has experienced deflation
   b. the existence of inflation
   c. a decline in real GDP
   d. either inflation or deflation may exist

8. If the supply of money increases, which of the following occurs?
C
   a. the price level falls
   b. real output falls
   c. expenditures increase
   d. velocity increases

9. The revenue the government raises by creating money is known as which of the following?
D
   a. regressive taxation
   b. the deadweight loss of taxation
   c. the neutrality of taxation
   d. an inflation tax

10. When the money supply increases, which of the following occurs?
C
   a. The value of money increases.
   b. The demand for money increases.
   c. The value of money decreases.
   d. The demand for money decreases.

11. The primary result of inflation is which of the following?
C
   a. a decline in prices
   b. a rise in wages
   c. a decline in the value of money
   d. a rise in personal wealth

12. According to the classical dichotomy, which of the following is influenced by monetary factors?

C

a. real GDP
b. unemployment
c. nominal interest rates
d. the real wage rate

13. The relationship between the quantity of money demanded and the value of money is shown by which of the following characteristic of the money demand curve?

A

a. its downward slope
b. its upward slope
c. its horizontal position
d. its vertical position

14. The primary effect of an increase in the money supply would be which of the following?

D

a. an increase in real GDP
b. a reduction in velocity
c. a decrease in the unemployment rate
d. a proportional increase in prices

True or False?

T 15. In the long run, the overall level of prices adjusts to the level at which the demand for money equals the supply.

F 16. Nominal variables are variables measured in physical units, and real variables are variables measured in monetary units.

T 17. Monetary neutrality is the proposition that changes in the money supply do not affect real variables.

T 18. When the government creates money to raise revenue, this is referred to as an inflation tax.

F 19. When the Bank of Canada increases the rate of money growth, the result is both a lower inflation rate and a lower nominal interest rate.

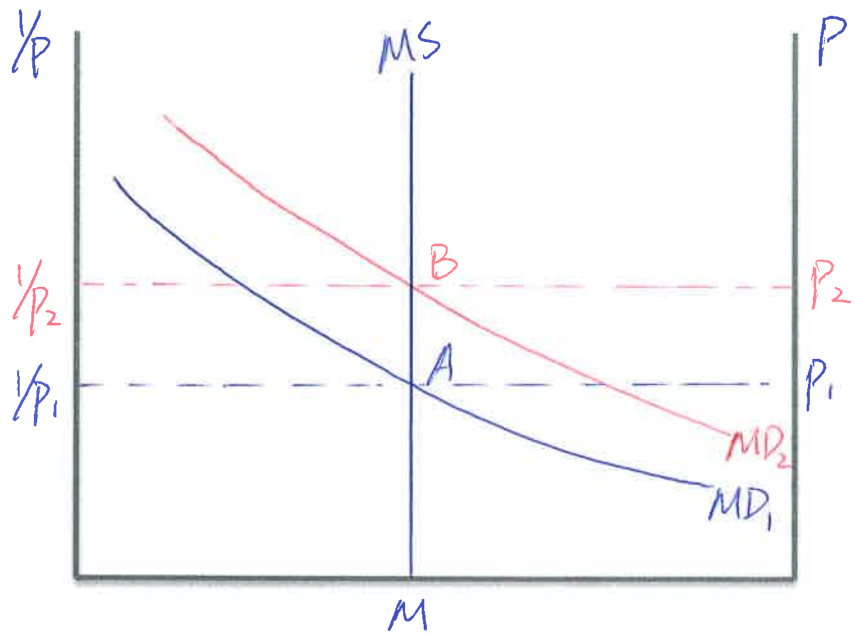
20. Suppose that the money supply in a particular country is $60 billion, the real GDP is $840 billion, and the price level is 2.0. What is the value of the nominal GDP? What is the velocity of money?

Nominal GDP $= P \cdot Y = 2 \times 840 = \$1680$

$V = \frac{PY}{M} = \frac{1680}{60} = 28$

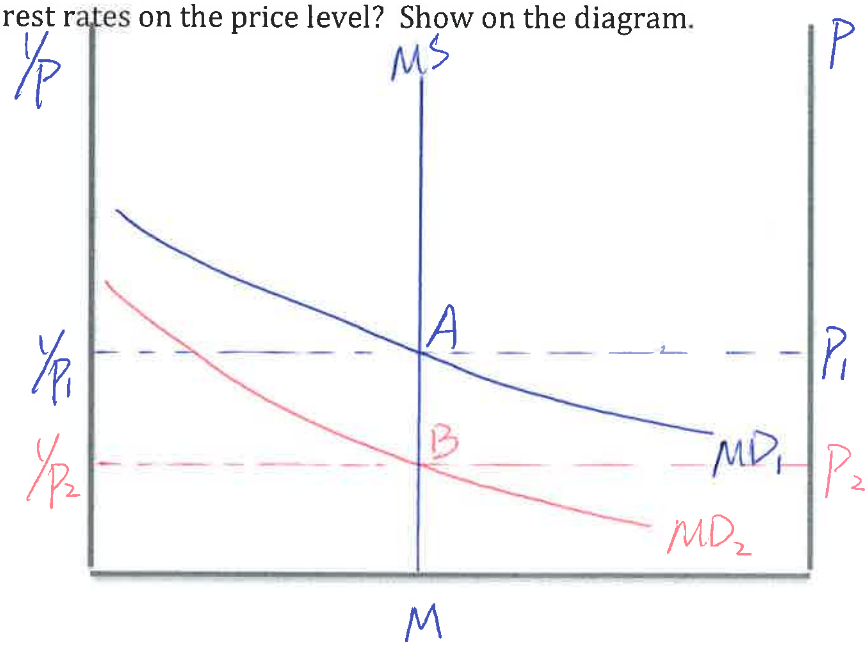
21. Draw a diagram of money supply and money demand model. Show what will happen to the equilibrium amount of money, the price level, and the value of money if there is an increase in money demand.

$\uparrow MD$
$\rightarrow P\downarrow$
$\rightarrow 1/P\uparrow$
$\rightarrow \overline{M}$



22. Everything else being the same, what is the effect of an increase in real interest rates on the price level? Show on the diagram.

$\uparrow r$
$\downarrow MD$
$\rightarrow P\uparrow$
$\rightarrow 1/P\downarrow$



23. Harry and Marge each earn a real interest rate on their savings account of 3 percent. However, Harry lives in a country with a 1 percent inflation rate, while Marge lives in a country with a 10 percent inflation rate. Both countries have a 20 percent tax on interest income. Fill in the following table. Who is likely to save more?

	Harry	Marge
Real interest rate	3%	3%
Inflation rate	1%	10%
Nominal interest rate	4%	13%
Reduced interest due to 20% tax	0.8%	2.6%
After-tax nominal interest rate	3.2%	10.4%
After-tax real interest rate	2.2%	0.4%

24. Identify each of the following as nominal or real variables.
   a. the physical output of goods and services R
   b. the overall price level N
   c. the dollar price of apples N
   d. the price of apples relative to the price of oranges R
   e. the unemployment rate R
   f. the amount that shows up on your paycheque after taxes N
   g. the amount of goods you can purchase with the wage you get each hour R
   h. the taxes that you pay the government N

25. Suppose that velocity and output are constant and that the quantity theory and the Fisher effect both hold. What happens to inflation, real interest rates, and nominal interest rates when the money supply growth rate increases from 5 percent to 10 percent?

$\uparrow M^S\% = 5\%$

$$\underset{5\%}{\Delta M\%} + \underset{0\%}{\Delta V\%} = \underset{5\%}{\Delta P\%} + \underset{0\%}{\Delta Y\%} \Rightarrow \pi = 5\%$$

$$r = i - \pi \Rightarrow \Delta r\% = \Delta i\% - \Delta\pi\% \Rightarrow \Delta r\% = 0 \text{ money is neutral}$$

$\Delta i\% = 5\%$ Fisher effect

26. Suppose Bob considers borrowing $100 from Sheila at a 10 percent interest rate. They both think that a 4 percent real interest rate would be fair.

a. What was the inflation rate they both expected?

$\pi = i - r = 10\% - 4\% = 6\%$

b. If the inflation rate turned out to be 8 percent, how much was the real interest rate? Who gained and who lost from this transaction, and how much because of unexpected inflation?

$r^a = i - \pi^a = 10\% - 8\% = 2\%$

sheila lost by 4% - 2% = 2% & Bob gains by 4% - 2% = 2%

c. If there was a capital gain tax of 30 percent, what is the after-tax real interest rate, with the inflation rate of 8 percent?

$$\begin{aligned} r_{a-t} &= (1-t)\cdot i - \pi \\ &= (1-30\%) \times 10\% - 8\% \\ &= -1\% \end{aligned}$$