Chapter 19
The Demand for Money

19.1 Quantity Theory of Money

1) The quantity theory of money is a theory of how
   A) the money supply is determined.
   B) interest rates are determined.
   C) the nominal value of aggregate income is determined.
   D) the real value of aggregate income is determined.

Answer: C
Ques Status: Revised

2) Because the quantity theory of money tells us how much money is held for a given amount of aggregate income, it is also a theory of
   A) interest-rate determination.
   B) the demand for money.
   C) exchange-rate determination.
   D) the demand for assets.

Answer: B
Ques Status: Revised

3) The average number of times that a dollar is spent in buying the total amount of final goods and services produced during a given time period is known as
   A) gross national product.
   B) the spending multiplier.
   C) the money multiplier.
   D) velocity.

Answer: D
Ques Status: Previous Edition

4) The velocity of money is
   A) the average number of times that a dollar is spent in buying the total amount of final goods and services.
   B) the ratio of the money stock to high-powered money.
   C) the ratio of the money stock to interest rates.
   D) the average number of times a dollar is spent in buying financial assets.

Answer: A
Ques Status: Revised
5) If the money supply is $500 and nominal income is $3,000, the velocity of money is
   A) 1/60.
   B) 1/6.
   C) 6.
   D) 60.
   Answer: C
   Ques Status: Revised

6) If the money supply is $600 and nominal income is $3,000, the velocity of money is
   A) 1/50.
   B) 1/5.
   C) 5.
   D) 50.
   Answer: C
   Ques Status: Revised

7) If the money supply is $500 and nominal income is $4,000, the velocity of money is
   A) 1/20.
   B) 1/8.
   C) 8.
   D) 20.
   Answer: C
   Ques Status: Revised

8) If the money supply is $600 and nominal income is $3,600, the velocity of money is
   A) 1/60.
   B) 1/6.
   C) 6.
   D) 60.
   Answer: C
   Ques Status: Revised
9) If nominal GDP is $10 trillion, and the money supply is $2 trillion, velocity is
   A) 0.2.  
   B) 5.   
   C) 10.  
   D) 20.  
   Answer: B

10) If nominal GDP is $8 trillion, and the money supply is $2 trillion, velocity is
   A) 0.25. 
   B) 4.  
   C) 8.  
   D) 16.  
   Answer: B

11) If nominal GDP is $10 trillion, and velocity is 10, the money supply is
   A) $1 trillion.  
   B) $5 trillion.  
   C) $10 trillion.  
   D) $100 trillion.  
   Answer: A

12) If the money supply is $2 trillion and velocity is 5, then nominal GDP is
   A) $1 trillion.  
   B) $2 trillion.  
   C) $5 trillion.  
   D) $10 trillion.  
   Answer: D
13) If the money supply is $20 trillion and velocity is 2, then nominal GDP is
   A) $2 trillion.
   B) $10 trillion.
   C) $20 trillion.
   D) $40 trillion.
   Answer: D
   Ques Status: Revised

14) Velocity is defined as
   A) \( P + M + Y \).
   B) \( (P \times M)/Y \).
   C) \( (Y \times M)/P \).
   D) \( (P \times Y)/M \).
   Answer: D
   Ques Status: Revised

15) The velocity of money is defined as
   A) real GDP divided by the money supply.
   B) nominal GDP divided by the money supply.
   C) real GDP times the money supply.
   D) nominal GDP times the money supply.
   Answer: B
   Ques Status: Revised

16) The equation of exchange states that the quantity of money multiplied by the number of times
    this money is spent in a given year must equal
   A) nominal income.
   B) real income.
   C) real gross national product.
   D) velocity.
   Answer: A
   Ques Status: Previous Edition
17) In the equation of exchange, the concept that provides the link between M and PY is called

A) the velocity of money.
B) aggregate demand.
C) aggregate supply.
D) the money multiplier.

Answer: A

Ques Status: Previous Edition

18) The equation of exchange is

A) $M \times P = V \times Y$
B) $M + V = P + Y$
C) $M + Y = V + P$
D) $M \times V = P \times Y$

Answer: D

Ques Status: Revised

19) Irving Fisher took the view that the institutional features of the economy which affect velocity change _____ over time so that velocity will be fairly _____ in the short run.

A) rapidly; erratic
B) rapidly; stable
C) slowly; stable
D) slowly; erratic

Answer: C

Ques Status: Previous Edition

20) In Irving Fisher’s quantity theory of money, velocity was determined by

A) interest rates.
B) real GDP.
C) the institutions in an economy that affect individuals’ transactions.
D) the price level.

Answer: C

Ques Status: Revised
21) The classical economists' conclusion that nominal income is determined by movements in the money supply rested on their belief that _____ could be treated as _____ in the short run.

A) velocity; constant
B) velocity; variable
C) money; constant
D) money; variable

Answer: A

Ques Status: Previous Edition

22) The view that velocity is constant in the short run transforms the equation of exchange into the quantity theory of money. According to the quantity theory of money, when the money supply doubles

A) velocity falls by 50 percent.
B) velocity doubles.
C) nominal incomes falls by 50 percent.
D) nominal income doubles.

Answer: D

Ques Status: Previous Edition

23) Cutting the money supply by one-third is predicted by the quantity theory of money to cause

A) a sharp decline in real output of one-third in the short run, and a fall in the price level by one-third in the long run.
B) a decline in real output by one-third.
C) a decline in output by one-sixth, and a decline in the price level of one-sixth.
D) a decline in the price level by one-third.

Answer: D

Ques Status: Revised

24) The classical economists believed that if the quantity of money doubled,

A) output would double.
B) prices would fall.
C) prices would double.
D) prices would remain constant.

Answer: C

Ques Status: Previous Edition
25) The classical economists' contention that prices double when the money supply doubles is predicated on the belief that in the short run velocity is _____ and real GDP is _____.

A) constant; constant  
B) constant; variable  
C) variable; variable  
D) variable; constant  

Answer: A  
Ques Status: Previous Edition

26) For the classical economists, the quantity theory of money provided an explanation of movements in the price level. Movements in the price level result

A) solely from changes in the quantity of money.  
B) primarily from changes in the quantity of money.  
C) only partially from changes in the quantity of money.  
D) from changes in factors other than the quantity of money.  

Answer: A  
Ques Status: Previous Edition

27) If initially the money supply is $1 trillion, velocity is 5, the price level is 1, and real GDP is $5 trillion, an increase in the money supply to $2 trillion

A) increases real GDP to $10 trillion.  
B) causes velocity to fall to 2.5.  
C) increases the price level to 2.  
D) increases the price level to 2 and velocity to 10.  

Answer: C  
Ques Status: Revised

28) If initially the money supply is $2 trillion, velocity is 5, the price level is 2, and real GDP is $5 trillion, a fall in the money supply to $1 trillion

A) reduces real GDP to $2.5 trillion.  
B) causes velocity to rise to 10.  
C) decreases the price level to 1.  
D) decreases the price level to 1 and decreases velocity to 2.5.  

Answer: C  
Ques Status: Revised
29) According to the quantity theory of money demand,
   A) an increase in interest rates will cause the demand for money to fall.
   B) a decrease in interest rates will cause the demand for money to increase.
   C) interest rates have no effect on the demand for money.
   D) an increase in money will cause the demand for money to fall.

   Answer: C
   Ques Status: Previous Edition

30) Fisher's quantity theory of money suggests that the demand for money is purely a function of _____, and _____ no effect on the demand for money.
   A) income; interest rates have
   B) interest rates; income has
   C) government spending; interest rates have
   D) expectations; income has

   Answer: A
   Ques Status: Revised

31) _____ quantity theory of money suggests that the demand for money is purely a function of income, and interest rates have no effect on the demand for money.
   A) Keynes's
   B) Fisher's
   C) Friedman's
   D) Tobin's

   Answer: B
   Ques Status: Previous Edition

32) Irving Fisher's view that velocity is fairly constant in the short run transforms the equation of exchange into the
   A) Friedman's theory of income determination.
   B) quantity theory of money.
   C) Keynesian theory of income determination.
   D) monetary theory of income determination.

   Answer: B
   Ques Status: Previous Edition
19.2 Is Velocity a Constant?

1) The empirical evidence regarding the velocity of money indicates that velocity tends to be _____; that is, velocity _____ when economic activity contracts.
   A) procyclical; declines
   B) countercyclical; declines
   C) countercyclical; increases
   D) procyclical; increases

   Answer: A
   *Ques Status: Revised*

2) Evidence since 1915 indicates that velocity has
   A) grown at a fairly constant rate, even in the short run.
   B) fluctuated too much in the short run to be viewed as a constant.
   C) trended downward since 1950 due to technological and financial innovations.
   D) remained fairly constant in the short run, but tends to slowly increase.

   Answer: B
   *Ques Status: Revised*

3) In the 20th century, velocity
   A) has been quite stable over periods as long as a decade.
   B) has grown at a constant rate.
   C) has been quite volatile.
   D) has been quite stable over short, two year periods.

   Answer: C
   *Ques Status: Revised*

4) Velocity, over the business cycle, tends to
   A) rise during economic contractions.
   B) fall during economic expansions.
   C) stay constant.
   D) fall during economic contractions.

   Answer: D
   *Ques Status: Previous Edition*
5) Until the Great Depression, economists did not recognize that velocity
   A) increases during severe economic contractions.
   B) declines during severe economic contractions.
   C) declines during rapid economic expansions, since money growth fails to keep pace.
   D) fails to decline during economic contractions.
   Answer: B

19.3 Keynes’s Liquidity Preference Theory

1) The Keynesian theory of money demand emphasizes the importance of
   A) a constant velocity.
   B) irrational behavior on the part of some economic agents.
   C) interest rates on the demand for money.
   D) expectations.
   Answer: C

2) Keynes hypothesized that the transactions component of money demand was primarily
determined by the level of
   A) interest rates.
   B) velocity.
   C) income.
   D) stock market prices.
   Answer: C

3) Keynes argued that the transactions component of the demand for money was primarily
determined by the level of people’s _____, which he believed were proportional to _____.
   A) transactions; income
   B) transactions; age
   C) incomes; wealth
   D) incomes; age
   Answer: A
4) Keynes hypothesized that the precautionary component of money demand was primarily determined by the level of
   A) interest rates.
   B) velocity.
   C) income.
   D) stock market prices.
Answer: C
Ques Status: Revised

5) Keynes argued that the precautionary component of the demand for money was primarily determined by the level of people’s _____, which he believed were proportional to _____.
   A) incomes; wealth
   B) incomes; age
   C) transactions; income
   D) transactions; age
Answer: C
Ques Status: Previous Edition

6) The demand for money as a cushion against unexpected contingencies is called the
   A) transactions motive.
   B) precautionary motive.
   C) insurance motive.
   D) speculative motive.
Answer: B
Ques Status: Previous Edition

7) Keynes hypothesized that the speculative component of money demand was primarily determined by the level of
   A) interest rates.
   B) velocity.
   C) income.
   D) stock market prices.
Answer: A
Ques Status: Revised
8) The speculative motive for holding money is closely tied to what function of money?
   A) Store of wealth.
   B) Unit of account.
   C) Medium of exchange.
   D) Standard of deferred payment.
   
   Answer: A
   Ques Status: Revised

9) Of the three motives for holding money suggested by Keynes, which did he believe to be the most sensitive to interest rates?
   A) The transactions motive.
   B) The precautionary motive.
   C) The speculative motive.
   D) The altruistic motive.
   
   Answer: C
   Ques Status: Revised

10) Because Keynes assumed that the expected return on money was zero, he argued that people would
    A) never hold money.
    B) never hold money as a store of wealth.
    C) hold money as a store of wealth when the expected return on bonds was negative.
    D) hold money as a store of wealth only when forced to by government policy.
    
    Answer: C
    Ques Status: Revised

11) The Keynesian theory of money demand predicts that people will increase their money holdings if they believe that
    A) interest rates are about to fall.
    B) bond prices are about to rise.
    C) expected inflation is about to fall.
    D) bond prices are about to fall.
    
    Answer: D
    Ques Status: Revised
12) If people expect nominal interest rates to be higher in the future, the expected return to bonds _____, and the demand for money _____.
   A) rises; increases
   B) rises; decreases
   C) falls; increases
   D) falls; decreases
   Answer: C
   Ques Status: Previous Edition

13) If people expect nominal interest rates to be lower in the future, the expected return to bonds _____, and the demand for money _____.
   A) increases; increases
   B) increases; decreases
   C) decreases; increases
   D) decreases; decreases
   Answer: B
   Ques Status: Previous Edition

14) Keynes argued that when interest rates were low relative to some normal value, people would expect bond prices to _____ so the quantity of money demanded would _____.
   A) increase; increase
   B) increase; decrease
   C) decrease; increase
   D) decrease; decrease
   Answer: C
   Ques Status: Previous Edition

15) Keynes argued that when interest rates were high relative to some normal value, people would expect bond prices to _____, so the quantity of money demanded would _____.
   A) increase; increase
   B) increase; decrease
   C) decrease; decrease
   D) decrease; increase
   Answer: B
   Ques Status: Revised
16) According to Keynes's theory of liquidity preference, velocity increases when
   A) income increases.
   B) wealth increases.
   C) brokerage commissions increase.
   D) interest rates increase.

   Answer: D
   Ques Status: Revised

17) Keynes's theory of the demand for money implies that velocity is
   A) not constant but fluctuates with movements in interest rates.
   B) not constant but fluctuates with movements in the price level.
   C) not constant but fluctuates with movements in the time of year.
   D) a constant.

   Answer: A
   Ques Status: Revised

18) Because interest rates have substantial fluctuations, the _____ theory of the demand for money
    indicates that velocity has substantial fluctuations as well.
    A) classical
    B) Cambridge
    C) liquidity preference
    D) Pigouvian

   Answer: C
   Ques Status: Previous Edition

19) Keynes's liquidity preference theory indicates that the demand for money
    A) is purely a function of income, and interest rates have no effect on the demand for money.
    B) is purely a function of interest rates, and income has no effect on the demand for money.
    C) is a function of both income and interest rates.
    D) is a function of both government spending and income.

   Answer: C
   Ques Status: Previous Edition
20) Keynes's theory of the demand for money is consistent with
   A) countercyclical movements in velocity.
   B) a constant velocity.
   C) procyclical movements in velocity.
   D) a relatively stable velocity.
   Answer: C
   Ques Status: Revised

21) Keynes's theory of the demand for money is consistent with _____ movements in _____.
   A) countercyclical; velocity
   B) procyclical; velocity
   C) countercyclical; expectations
   D) procyclical; expectations
   Answer: B
   Ques Status: Revised

22) Keynes's model of the demand for money suggests that velocity is
   A) constant.
   B) positively related to interest rates.
   C) negatively related to interest rates.
   D) positively related to bond values.
   Answer: B
   Ques Status: Revised

23) Keynes's liquidity preference theory indicates that the demand for money is
   A) constant.
   B) positively related to interest rates.
   C) negatively related to interest rates.
   D) negatively related to bond values.
   Answer: C
   Ques Status: Revised
24) Keynes's model of the demand for money suggests that velocity is _____ related to _____.
   A) positively; interest rates
   B) negatively; interest rates
   C) positively; bond values
   D) positively; stock prices

   Answer: A

25) Keynes's liquidity preference theory indicates that the demand for money is _____ related to _____.
   A) negatively; interest rates
   B) positively; interest rates
   C) negatively; income
   D) negatively; wealth

   Answer: A

26) The Keynesian demand for real balances can be expressed as
   A) Md = f(i,Y).
   B) Md/P = f(i).
   C) Md/P = f(Y).
   D) Md/P = f(i,Y).

   Answer: D

27) Explain the Keynesian theory of money demand. What motives did Keynes think determined money demand? What are the two reasons why Keynes thought velocity could not be treated as a constant?

   Answer: Keynes believed the demand for money depended on income and interest rates. Money was held to facilitate normal transactions and as a precaution for unexpected transactions. For both of these motives, money demand depended on income. People also held money as an asset, for speculative purposes. The speculative motive depends on income and interest rates. People hold more money for speculative purposes when they expect bond prices to fall, generating a negative return on bonds. Since money demand varies with interest rates, velocity changes when interest rates change. Also, since money demand depends upon expectations about future interest rates, unstable expectations can make money demand, and thus velocity, unstable.
19.4 Further Developments in the Keynesian Approach

1) The Baumol–Tobin analysis suggests that
   A) velocity is relatively constant.
   B) the transactions component of the demand for money is negatively related to the level of interest rates.
   C) the speculative motive is nonexistent.
   D) velocity is unrelated to the transactions motive.

   Answer: B
   Ques Status: Revised

2) The Baumol–Tobin analysis suggests that an increase in the brokerage fee for buying and selling bonds will cause the demand for money to ______ and the demand for bonds to ______.

   A) increase; increase
   B) increase; decrease
   C) decrease; increase
   D) decrease; decrease

   Answer: B
   Ques Status: Previous Edition

3) The Baumol–Tobin analysis suggests that a decrease in the brokerage fee for buying and selling bonds will cause the demand for money to _____ and the demand for bonds to _____.

   A) increase; increase
   B) increase; decrease
   C) decrease; decrease
   D) decrease; increase

   Answer: D
   Ques Status: Previous Edition

4) In the Baumol–Tobin analysis of transactions demand for money, either an increase in _____ or a decrease in _____ increases money demand.

   A) income; interest rate
   B) interest rates; brokerage fees
   C) brokerage fees; income
   D) interest rate; income

   Answer: A
   Ques Status: Revised
5) In the Baumol–Tobin analysis of the demand for money, either an increase in _____ or an increase in _____ increases money demand.

A) income; interest rates  
B) brokerage fees; interest rates  
C) interest rates; the price level  
D) brokerage fees; income  

Answer: D

Ques Status: Revised

6) In the Baumol–Tobin analysis of transactions demand, scale economies imply that an increase in real income increases the quantity of money demanded ______, while an increase in the price level increases the quantity of money demanded ______.

A) proportionately; less than proportionately  
B) more than proportionately; proportionately  
C) less than proportionately; proportionately  
D) proportionately; more than proportionately  

Answer: C

Ques Status: Revised

7) Tobin's model of the speculative demand for money improves on Keynes's analysis by showing that

A) the speculative demand for money is interest insensitive.  
B) the transactions demand for money is interest insensitive.  
C) people will hold a diversified portfolio.  
D) people will hold money or bonds but not both.  

Answer: C

Ques Status: Previous Edition

8) Tobin's model of the speculative demand for money shows that people hold money as a store of wealth as a way of

A) reducing risk.  
B) reducing income.  
C) avoiding taxes.  
D) reducing transactions cost.  

Answer: A

Ques Status: Revised
9) Tobin's model of the speculative demand for money shows that people hold money as a _____ as a way of reducing _____.
   A) medium of exchange; transaction costs
   B) medium of exchange; risk
   C) store of wealth; transaction costs
   D) store of wealth; risk
   Answer: D
   Ques Status: Previous Edition

10) Tobin's model of the speculative demand for money shows that people can reduce their ____ by ____ their asset holdings.
    A) wealth; diversifying
    B) risk; specializing
    C) return; diversifying
    D) risk; diversifying
    Answer: D
    Ques Status: Revised

11) Because Treasury bills pay a higher return than money and have no risk
    A) the transactions demand for money may be zero.
    B) the precautionary demand for money may be zero.
    C) the speculative demand for money may be zero.
    D) all three of the above motives for holding money will be zero.
    Answer: C
    Ques Status: Revised

12) The speculative demand for money may not exist because
    A) banks now pay interest on some types of checkable deposits.
    B) there are alternative riskless assets paying higher returns than the return on money.
    C) the transactions demand can be shown to depend on interest rates.
    D) government regulations have eliminated risk in the financial markets.
    Answer: B
    Ques Status: Revised
13) What factors determine the demand for money in the Baumol–Tobin analysis of transactions demand for money? How does a change in each factor affect the quantity of money demanded?

Answer: The factors are real income, the price level, interest rates, and the brokerage cost of shifting between money and bonds. Increases in real income increase money demand less than proportionately, since the model predicts scale economies in transactions demand. Increases in prices increase money demand proportionately, since the demand is for real balances. The quantity of money demanded varies inversely with interest rates, since interest is the opportunity cost of holding money. The brokerage fee is the cost of converting other assets (bonds) into money. An increase in this cost increases money demand.

**Ques Status: Previous Edition**

### 19.5 Friedman's Modern Quantity Theory of Money

1) Friedman's argument that competition among banks will tend to keep the difference between the return on bonds and money relatively constant implies that changes in ____ will have ____ on the demand for money.

A) interest rates; a big impact  
B) income; a big impact  
C) income; little effect  
D) interest rates; little effect  

Answer: D  
**Ques Status: Revised**

2) Since the elimination of interest rate ceilings on deposits, the implicit interest rate on money more closely approaches bond interest rates. This suggests that changes in interest rates will

A) have a larger impact on money demand.  
B) have a smaller impact on money demand.  
C) no longer affect the speculative demand for money.  
D) no longer affect the transactions demand for money.  

Answer: B  
**Ques Status: Revised**

3) According to Milton Friedman, the demand for money is insensitive to interest rates because

A) the demand for money is insensitive to changes in the opportunity cost of holding money.  
B) competition among banks keeps the opportunity cost of holding money relatively constant.  
C) people base their investment decisions on expected profits, not interest rates.  
D) transactions are not subject to scale economies as wealth increases.  

Answer: B  
**Ques Status: Revised**
4) In Friedman’s modern quantity theory, velocity depends upon the ratio of
   A) money to prices.
   B) actual to permanent income.
   C) interest rates to actual income.
   D) prices to interest rates.

Answer: B
Ques Status: Revised

5) In Friedman’s modern quantity theory, velocity is procyclical because
   A) money demand depends on permanent income, which is more stable than actual income.
   B) money demand depends on actual income, which is more stable than permanent income.
   C) velocity depends upon interest rates, which are stable over the business cycle.
   D) velocity depends upon interest rates, which move procyclically.

Answer: A
Ques Status: Revised

6) In Friedman’s modern quantity theory, the implied formula for velocity is
   A) \( V = \frac{Md}{f(i)} \).
   B) \( V = \frac{Y}{f(Y_p)} \).
   C) \( V = \frac{f(Y_p)}{Y} \).
   D) \( V = \frac{Y}{f(i)} \).

Answer: B
Ques Status: Revised

7) According to Milton Friedman, income declines relative to permanent income during a
   business cycle contraction, causing the demand for money relative to actual income to
   increase, thereby causing velocity to
   A) rise.
   B) decline.
   C) remain unchanged, since velocity depends only on interest rates.
   D) decline, provided that interest rates increase when the economy contracts.

Answer: B
Ques Status: Revised
8) What factors determine money demand in Friedman’s modern quantity theory? How does each affect money demand? What determines velocity in Friedman’s theory? What effect do interest rates have on velocity?

Answer: In Friedman’s theory, increases in permanent income increase money demand. Increases in the returns on bonds relative to money and the returns on equities relative to money decrease money demand. Increases in the returns on goods relative to the return on money, which is the expected rate of inflation relative to the return on money, decrease money demand. Velocity is determined by the ratio of actual to permanent income. As actual income increases in an expansion, permanent income increases less rapidly, so money demand increases less rapidly than income, and velocity rises (and vice versa for contractions). Interest rates do not affect velocity in Friedman’s theory, since the relative returns on money and other assets are predicted to remain relatively constant.

Ques Status: Previous Edition

19.6 Distinguishing Between the Friedman and Keynesian Theories

1) According to Milton Friedman, income rises relative to permanent income during a business cycle expansion, causing the demand for money relative to actual income to decrease, thereby causing velocity to
   A) rise.
   B) decline.
   C) remain unchanged, since velocity depends only on interest rates.
   D) decline, provided that interest rates increase when the economy contracts.

Answer: A
Ques Status: Revised

2) A central question in monetary theory is whether or to what extent the quantity of money demanded is affected by changes in
   A) the price level.
   B) inflation.
   C) income.
   D) interest rates.

Answer: D
Ques Status: Previous Edition

3) If interest rates do not affect the demand for money, then velocity is _____ likely to be _____.
   A) more; stable
   B) more; unstable
   C) more; procyclical
   D) less; stable

Answer: A
Ques Status: Previous Edition
4) True or False: The more sensitive is the demand for money to interest rates, the more unpredictable velocity will be.

Answer: TRUE
Ques Status: Revised

5) The more sensitive is the demand for money to interest rates, the _____ unpredictable velocity will be, and the link between the money supply and aggregate spending will be _____ clear.

A) more; more
B) more; less
C) less; more
D) less; less

Answer: B
Ques Status: Previous Edition

19.7 Empirical Evidence on the Demand for Money

1) The evidence on the interest sensitivity of the demand for money suggests that the demand for money is _______ to interest rates, and there is _______ evidence that a liquidity trap exists.

A) sensitive; substantial
B) sensitive; little
C) insensitive; substantial
D) insensitive; little

Answer: B
Ques Status: Previous Edition

2) In the liquidity trap a small change in interest rates produces _______ change in the quantity of money demanded.

A) a small
B) no
C) a proportionate
D) a very large

Answer: D
Ques Status: Revised
3) In a liquidity trap, monetary policy has ______ effect on aggregate spending because a change in the money supply has ______ effect on interest rates.

   A) no; no
   B) no; a large
   C) no; a small
   D) a large; a large

   Answer: A
   Ques Status: Revised

4) In the liquidity trap, monetary policy

   A) has a large impact on interest rates.
   B) has a small impact on interest rates.
   C) has no impact on interest rates.
   D) has a proportionate impact on interest rates.

   Answer: C
   Ques Status: Revised

5) In the liquidity trap, the money demand curve

   A) is horizontal.
   B) is vertical.
   C) is negatively sloped.
   D) is positively sloped.

   Answer: A
   Ques Status: Revised

6) The reason that economists are so interested in the stability of velocity is because if the demand for money is not stable, then steady growth of the money supply

   A) is going to promote price stability at the expense of low unemployment.
   B) is going to promote low unemployment at the expense of price stability.
   C) is an ineffective way to conduct monetary policy.
   D) can still be used to conduct monetary policy if the goal is price stability.

   Answer: C
   Ques Status: Revised
7) Describe what the liquidity trap is. Explain how it can be problematic for monetary policymakers.

Answer: The liquidity trap describes the situation in which the demand for money is ultrasensitive to changes in interest rates (i.e., the money demand curve is infinitely elastic). In this case, monetary policy has no direct effect on aggregate spending because a change in the money supply will not effect interest rates.

Ques Status: New

19.8 Web Appendix 1: A Mathematical Treatment of the Baumol–Tobin and Tobin Mean–Variance Models

1) The absence of money illusion means that
   A) as real income doubles, the demand for money doubles.
   B) as interest rates double, the demand for money doubles.
   C) as the money supply doubles, the demand for money doubles.
   D) as the price level doubles, the demand for money doubles.

Answer: D
Ques Status: Revised

2) If there are economies of scale in the transactions demand for money, as income increases, money demand
   A) increases proportionately.
   B) increases less than proportionately.
   C) increases more than proportionately.
   D) does not change.

Answer: B
Ques Status: Revised

3) Comparing Tobin’s model of the speculative demand for money with Keynesian speculative demand
   A) both models imply that individuals hold only money or only bonds.
   B) the Keynesian model implies individuals diversify their asset holdings, while the Tobin model predicts that individuals hold only money or only bonds.
   C) the Tobin model implies individuals diversify their asset holdings, while the Keynesian model predicts that individuals hold only money or only bonds.
   D) both models imply that individuals diversify their asset holdings.

Answer: C
Ques Status: Revised
4) In the Baumol–Tobin model, given that total costs for an individual equals \( \frac{bT_0}{C} + \frac{iC}{2} \), where 

- \( T_0 \) = monthly income,
- \( b \) = brokerage costs,
- \( C \) = amount raised from each bond transaction,

derive the so-called square root rule.

Answer: An individual will minimize their costs. Thus, the optimal level of \( C \) is found as follows:

\[
\begin{align*}
\text{COSTS} &= \frac{bT_0}{C} + \frac{iC}{2} \\
\frac{d\text{COSTS}}{dC} &= -\frac{bT_0}{C^2} + \frac{i}{2} = 0 \\
C^* &= \sqrt[2]{\frac{2bT_0}{i}}
\end{align*}
\]

Since money demand is the average desired holdings of cash balances, \( C/2 \):

\[
M_d = \frac{1}{2} \sqrt{\frac{2bT_0}{i}} = \sqrt{\frac{bT_0}{2i}}
\]

The last expression is the square root rule.

Ques Status: New

19.9 Web Appendix 2: Empirical Evidence on the Demand for Money

1) In one of the earliest studies on the link between interest rates and money demand using United States data, James Tobin concluded that the demand for money is

A) sensitive to interest rates.
B) not sensitive to interest rates.
C) not sensitive to changes in income.
D) not sensitive to changes in bond values.

Answer: A

Ques Status: Previous Edition

2) Starting in 1974, the conventional M1 money demand function began to

A) severely underpredict the demand for money.
B) severely overpredict the demand for money.
C) predict more precisely the demand for money.
D) do none of the above.

Answer: B

Ques Status: Previous Edition
3) Starting in 1974, the conventional M1 money demand function began to severely _______ the demand for money. Stephen Goldfeld labeled this phenomenon "the case of the missing _________."

   A) underpredict; velocity
   B) overpredict; velocity
   C) underpredict; money
   D) overpredict; money

Answer: D

4) Conventional money demand functions tended to _______ money demand in the middle and late 1970s, and _______ velocity beginning in 1982.

   A) overpredict; overpredict
   B) overpredict; underpredict
   C) underpredict; overpredict
   D) underpredict; underpredict

Answer: A

5) Researchers at the Federal Reserve found that M2 money demand functions performed _______ in the 1980s, with M2 velocity moving _______ with the opportunity cost of holding M2.

   A) poorly; erratically
   B) poorly; closely
   C) well; erratically
   D) well; closely

Answer: D

6) In the early 1990s, M2 growth underwent a dramatic _______, which some researchers believe _______ be explained by traditional money demand functions.

   A) surge; cannot
   B) surge; can
   C) slowdown; cannot
   D) slowdown; can

Answer: C
7) In the late 1990s, M2 velocity _______, suggesting a _______ normal relationship between M2 and macroeconomic variables.

   A) stabilized; less
   B) stabilized; more
   C) slowed; less
   D) slowed; more

Answer: B

Ques Status: Previous Edition