

## Chapter 22

# The Demand for Money

### ■ Multiple Choice

- 1) The quantity theory of money is a theory of
- (a) how the money supply is determined.
  - (b) how interest rates are determined.
  - (c) how the nominal value of aggregate income is determined.
  - (d) all of the above.

Answer: C

Question Status: Previous Edition

- 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) none of the above.

Answer: B

Question Status: Previous Edition

- 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

Question 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) none of the above.

Answer: A

Question Status: Previous Edition

- 5) If the money supply is 500 and nominal income is 3,000, the velocity of money is
- (a) 60.
  - (b) 6.
  - (c)  $1/6$ .
  - (d) undefined.

Answer: B

Question Status: Previous Edition

- 6) If the money supply is 600 and nominal income is 3,000, the velocity of money is
- (a) 5.
  - (b) 50.
  - (c)  $1/5$ .
  - (d) undefined.

Answer: A

Question Status: Previous Edition

- 7) If the money supply is 500 and nominal income is 4,000, the velocity of money is
- (a) 20.
  - (b) 8.
  - (c)  $1/8$ .
  - (d)  $1/20$ .

Answer: B

Question Status: Previous Edition

- 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

Question Status: Previous Edition

- 9) If nominal GDP is \$10 trillion, and the money supply is \$2 trillion, velocity is
- (a) 20.
  - (b) 10.
  - (c) 5.
  - (d) .2.
  - (e) none of the above.

Answer: C

Question Status: New

- 10) If nominal GDP is \$8 trillion, and the money supply is \$2 trillion, velocity is
- (a) 16.
  - (b) 8.
  - (c) 4.
  - (d) .25.
  - (e) none of the above.

Answer: C

Question Status: New

- 11) If nominal GDP is \$10 trillion, and velocity is 10, the money supply is
- (a) \$100 trillion.
  - (b) \$10 trillion.
  - (c) \$5 trillion.
  - (d) \$1 trillion.
  - (e) none of the above.

Answer: D

Question Status: New

- 12) If the money supply is \$2 trillion and velocity is 5, then nominal GDP is
- (a) \$2 trillion.
  - (b) \$5 trillion.
  - (c) \$10 trillion.
  - (d) \$1 trillion.
  - (e) \$25 trillion.

Answer: C

Question Status: New

- 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.
  - (e) \$100 trillion.

Answer: D

Question Status: New

- 14) Velocity is defined as
- (a)  $P + M + Y$ .
  - (b)  $(P \times M)/Y$ .
  - (c)  $(Y \times M)/P$ .
  - (d)  $(P \times Y)/M$ .
  - (e)  $(Y - P)/M$ .

Answer: D

Question Status: New

- 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.
  - (e) a proportional ratio of the money supply and the price level.
- Answer: B  
Question Status: New
- 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  
Question 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  
Question 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)  $M/V = Y/P$ .
  - (e)  $M \times V = P \times Y$ .
- Answer: E  
Question Status: New
- 19) According to the classical economists, velocity could be regarded a constant in the short run since
- (a) institutional factors, such as the speed with which checks are cleared by the banking system, change slowly over time.
  - (b) the opportunity cost of holding money was close to zero.
  - (c) financial innovation tended to offset changes in interest rates.
  - (d) all of the above are true.
  - (e) none of the above are true.
- Answer: A  
Question Status: Study Guide

- 20) 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

Question Status: Previous Edition

- 21) 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.
  - (e) government regulations on institutions.

Answer: C

Question Status: New

- 22) In Irving Fisher's quantity theory of money, velocity changes slowly over time because
- (a) institutional and technological features of an economy that effect velocity change slowly.
  - (b) interest rates change very slowly over time.
  - (c) the economy grows slowly over time.
  - (d) inflation does not affect velocity.
  - (e) government regulations require that velocity be stable.

Answer: A

Question Status: Previous Edition

- 23) 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

Question Status: Previous Edition

- 24) 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

Question Status: Previous Edition

- 25) 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.
  - (e) none of the above are true.

Answer: D

Question Status: Study Guide

- 26) 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

Question Status: Previous Edition

- 27) 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

Question Status: Previous Edition

- 28) 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

Question Status: Previous Edition

- 29) 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.
  - (e) has no effect on any of the other variables.

Answer: C

Question Status: New

- 30) 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.
  - (e) has no effect on any of the other variables.

Answer: C

Question Status: New

- 31) 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) both (a) and (b) of the above are correct.

Answer: C

Question Status: Previous Edition

- 32) 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

Question Status: Previous Edition

- 33) Fisher's quantity theory of money suggests 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 purely a function of government spending, and interest rates have no effect on the demand for money.
  - (d) is purely a function of expectations, and income has no effect on the demand for money.

Answer: A

Question Status: Previous Edition

- 34) Fisher's quantity theory of money suggests that the demand for money is purely a function of \_\_\_\_\_, and \_\_\_\_\_ have no effect on the demand for money.
- (a) expectations; prices
  - (b) expectations; interest rates
  - (c) income; prices
  - (d) income; interest rates

Answer: D

Question Status: Revised

- 35) \_\_\_\_\_ 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

Question Status: Previous Edition

- 36) 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

Question Status: Revised

- 37) The empirical evidence regarding the velocity of money indicates that
- (a) velocity tends to be procyclical; that is, velocity declines (increases) when economic activity contracts (expands).
  - (b) velocity tends to be countercyclical; that is, velocity declines (increases) when economic activity contracts (expands).
  - (c) velocity tends to be countercyclical; that is, velocity increases (declines) when economic activity contracts (expands).
  - (d) velocity behaves randomly over the business cycle.
  - (e) velocity is constant.

Answer: A

Question Status: Study Guide

- 38) 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) done none of the above.

Answer: B

Question Status: Revised

- 39) 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) both (a) and (b) of the above.

Answer: C

Question Status: Previous Edition



- 40) Velocity, over the business cycle, tends to
- (a) rise during economic contractions.
  - (b) fall during economic expansion.
  - (c) stay constant.
  - (d) fall during economic contractions.

Answer: D

Question Status: Previous Edition

- 41) 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

Question Status: Previous Edition

- 42) 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) all of the above.

Answer: C

Question Status: Previous Edition

- 43) Keynes's 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

Question Status: Previous Edition

- 44) 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

Question Status: Previous Edition

- 45) Keynes's 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

Question Status: Previous Edition

- 46) 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

Question Status: Previous Edition

- 47) 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

Question Status: Previous Edition

- 48) Keynes's 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

Question Status: Previous Edition

- 49) 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) None of the above

Answer: A

Question Status: Previous Edition

- 50) Of the three motives for holding money suggested by Keynes's, 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

Question Status: Previous Edition

- 51) Because Keynes's assumed that the expected return on money was zero, he argued that
- (a) people would never hold money.
  - (b) people would never hold money as a store of wealth.
  - (c) people would hold money as a store of wealth when the expected return on bonds was negative.
  - (d) people would hold money as a store of wealth only when forced to by government policy.

Answer: C

Question Status: Previous Edition

- 52) 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.
  - (e) none of the above are true.

Answer: D

Question Status: Study Guide

- 53) 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

Question Status: Previous Edition

- 54) 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

Question Status: Previous Edition

- 55) 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

Question Status: Previous Edition

- 56) Keynes's 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

Question Status: Previous Edition

- 57) According to Keynes' theory of liquidity preference, velocity increases when
- (a) income increases.
  - (b) wealth increases.
  - (c) brokerage commissions increase.
  - (d) interest rates increase.
  - (e) the money supply falls.

Answer: D

Question Status: Study Guide

- 58) Keynes's theory of the demand for money implies
- (a) that velocity is not constant but fluctuates with movements in interest rates.
  - (b) that velocity is not constant but fluctuates with movements in the price level.
  - (c) that velocity is not constant but fluctuates with movements in the time of year.
  - (d) that velocity is a constant.

Answer: A

Question Status: Previous Edition

- 59) 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

Question Status: Previous Edition

- 60) 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 both a function of income and interest rates.
  - (d) is both a function of government spending and income.

Answer: C

Question Status: Previous Edition

- 61) Keynes's theory of the demand for money (the liquidity preference function) is consistent with
- (a) countercyclical movements in velocity.
  - (b) a constant velocity.
  - (c) procyclical movements in velocity.
  - (d) a relatively stable velocity.

Answer: C

Question Status: Previous Edition

- 62) Keynes's theory of the demand for money (the liquidity preference function) is consistent with \_\_\_\_\_ movements in \_\_\_\_\_.
- (a) countercyclical; velocity
  - (b) procyclical; velocity
  - (c) countercyclical; expectations
  - (d) procyclical; expectations

Answer: B

Question Status: Previous Edition

- 63) 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.
  - (e) none of the above.

Answer: B

Question Status: Previous Edition

- 64) 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.
  - (e) none of the above.

Answer: C

Question Status: Previous Edition

- 65) 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

Question Status: Previous Edition

- 66) 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

Question Status: Previous Edition

- 67) The Keynesian demand for real balances can be expressed as
- (a)  $M^d = f(i, Y)$ .
  - (b)  $M^d/P = f(i)$ .
  - (c)  $PY/M$ .
  - (d)  $M^d/P = f(i, Y)$ .
  - (e)  $M^d/P = f(Y)$ .

Answer: D

Question Status: New

- 68) In the Keynesian theory of liquidity preference, velocity is equal to
- (a)  $MY/P$ .
  - (b)  $VM/PY$ .
  - (c)  $1/f(i, Y)$ .
  - (d)  $Y/f(i, Y)$ .
  - (e)  $M/f(i, Y)$ .

Answer: D

Question Status: New

- 69) 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) both (a) and (b) of the above are true.
  - (e) both (b) and (c) of the above are true.

Answer: B

Question Status: Study Guide

- 70) The Baumol-Tobin analysis suggests that
- (a) velocity is positively related to changes in interest rates.
  - (b) the transactions component of the demand for money is negatively related to the level of interest rates.
  - (c) the speculative component of the demand for money is positively related to the level of interest rates.
  - (d) all of the above are true.
  - (e) only (a) and (b) of the above are true.

Answer: E

Question Status: Previous Edition

- 71) The Baumol-Tobin analysis suggests that
- (a) velocity is negatively related to changes in interest rates.
  - (b) the transactions component of the demand for money is negatively related to the level of interest rates.
  - (c) the speculative component of the demand for money is positively related to the level of interest rates.
  - (d) only (a) and (b) of the above are true.

Answer: B

Question Status: Previous Edition

- 72) The Baumol-Tobin analysis suggests that
- (a) velocity is positively related to changes in interest rates.
  - (b) the transactions component of the demand for money is positively related to the level of interest rates.
  - (c) the speculative component of the demand for money is positively related to the level of interest rates.
  - (d) only (a) and (b) of the above are true.

Answer: A

Question Status: Previous Edition

- 73) In the Baumol-Tobin analysis, the transactions demand for money is
- (a) positively related to the level of income.
  - (b) negatively related to the level of interest rates.
  - (c) negatively related to the expected return on other assets.
  - (d) all of the above.
  - (e) only (a) and (b) of the above.

Answer: D

Question Status: Previous Edition

- 74) In the Baumol-Tobin analysis, the transactions demand for money is
- (a) negatively related to the level of income.
  - (b) negatively related to the level of interest rates.
  - (c) positively related to the expected return on other assets.
  - (d) only (a) and (b) of the above.

Answer: B

Question Status: Previous Edition

- 75) In the Baumol-Tobin analysis, the transactions demand for money is
- (a) negatively related to the level of income.
  - (b) positively related to the level of interest rates.
  - (c) negatively related to the expected return on other assets.
  - (d) only (a) and (b) of the above.

Answer: C

Question Status: Previous Edition

- 76) In the Baumol-Tobin analysis, the transactions demand for money is
- (a) positively related to the level of income.
  - (b) negatively related to the level of interest rates.
  - (c) positively related to the expected return on other assets.
  - (d) all of the above.
  - (e) only (a) and (b) of the above.

Answer: E

Question Status: Previous Edition

- 77) In the Baumol-Tobin analysis, the transactions demand for money is
- (a) not related to the level of income.
  - (b) negatively related to the level of interest rates.
  - (c) not related to the expected return on other assets.
  - (d) only (a) and (b) of the above.

Answer: B

Question Status: Previous Edition

- 78) In the Baumol-Tobin analysis, the transactions demand for money is
- (a) positively related to the level of income.
  - (b) not related to the level of interest rates.
  - (c) not related to the expected return on other assets.
  - (d) only (a) and (b) of the above.

Answer: A

Question Status: Previous Edition

- 79) In the Baumol-Tobin analysis, the transactions demand for money is
- (a) negatively related to the level of interest rates.
  - (b) negatively related to the expected return on other assets.
  - (c) positively related to the expected return on other assets.
  - (d) only (a) and (b) of the above.

Answer: D

Question Status: Previous Edition



- 80) 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

Question Status: Previous Edition

- 81) 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

Question Status: Previous Edition

- 82) 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 fee
  - (c) brokerage fee; income
  - (d) interest rate; income
  - (e) income; brokerage fee

Answer: A

Question Status: New

- 83) 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) the brokerage fee; interest rates
  - (c) interest rates; the price level
  - (d) the brokerage fee; income
  - (e) expected inflation; income

Answer: D

Question Status: New

- 84) 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; proportionately
  - (b) more than proportionately; proportionately
  - (c) less than proportionately; proportionately
  - (d) proportionately; more than proportionately
  - (e) proportionately; less than proportionately

Answer: C

Question Status: New

- 85) In the Baumol-Tobin analysis, the precautionary demand for money is
- (a) positively related to the level of income.
  - (b) negatively related to the level of interest rates.
  - (c) negatively related to the expected return on other assets.
  - (d) all of the above.

Answer: D

Question Status: Previous Edition

- 86) In the Baumol-Tobin analysis, the precautionary demand for money is
- (a) positively related to the level of income.
  - (b) negatively related to the level of interest rates.
  - (c) positively related to the expected return on other assets.
  - (d) all of the above.
  - (e) only (a) and (b) of the above.

Answer: E

Question Status: Previous Edition

- 87) In the Baumol-Tobin analysis, the precautionary demand for money is
- (a) positively related to the level of income.
  - (b) positively related to the level of interest rates.
  - (c) negatively related to the expected return on other assets.
  - (d) only (a) and (c) of the above.

Answer: D

Question Status: Previous Edition

- 88) In the Baumol-Tobin analysis, the precautionary demand for money is
- (a) negatively related to the level of interest rates.
  - (b) positively related to the expected return on other assets.
  - (c) negatively related to the level of income.
  - (d) only (a) and (b) of the above.

Answer: A

Question Status: Revised

- 89) 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

Question Status: Previous Edition

- 90) Tobin's model of the speculative demand for money shows that people hold money as a store of wealth
- (a) as a way of reducing risk.
  - (b) as a way of reducing income.
  - (c) as a way of avoiding taxes.
  - (d) for each of the above reasons.

Answer: A

Question Status: Previous Edition

- 91) 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

Question Status: Previous Edition

- 92) Tobin's model of the speculative demand for money shows that people can reduce their \_\_\_\_\_ by \_\_\_\_\_ their asset holdings.
- (a) return; normalizing
  - (b) risk; specializing
  - (c) return; diversifying
  - (d) risk; diversifying
  - (e) wealth; diversifying

Answer: D

Question Status: New

- 93) 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.
  - (e) both (b) and (c) of the above.

Answer: C

Question Status: New

- 94) The speculative demand for money may not exist because
- (a) interest rates paid on money are zero.
  - (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.
  - (e) banks now pay interest on some types of checkable deposits.

Answer: B

Question Status: New

- 95) According to Friedman's modern quantity theory approach, the return to money includes
- (a) the services provided by banks on checkable deposits.
  - (b) the interest payments on money balances.
  - (c) both of the above.
  - (d) none of the above.

Answer: C

Question Status: Previous Edition

- 96) Friedman's assumption that money and goods are substitutes indicates that
- (a) changes in the money supply have only indirect effects on aggregate spending.
  - (b) changes in the money supply may have a direct effect on aggregate spending.
  - (c) interest rates have no effect on money demand, implying the velocity is constant.
  - (d) both (b) and (c) of the above are true.

Answer: B

Question Status: Previous Edition

- 97) Friedman's argument that competition among banks will tend to keep the difference between the return on bonds and money relatively constant implies that
- (a) changes in interest rates will have a big impact on the demand for money.
  - (b) changes in income will have a big impact on the demand for money.
  - (c) changes in income will have little effect on the demand for money.
  - (d) changes in interest rates will have little effect on the demand for money.

Answer: D

Question Status: Previous Edition

- 98) Since the elimination of interest rates ceilings on deposits, the implicit interest rate on money more closely approaches bond 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.
  - (e) cause velocity to become more volatile.

Answer: B

Question Status: Study Guide

- 99) 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.
  - (e) the economy is always in a liquidity trap.

Answer: B

Question Status: Study Guide

- 100) Since Friedman believes that money demand is insensitive with respect to interest rates
- (a) the quantity of money is the primary determinant of aggregate spending.
  - (b) velocity is countercyclical.
  - (c) velocity is determined by interest rates.
  - (d) all of the above are correct.
  - (e) none of the above are correct.

Answer: A

Question Status: Study Guide

- 101) Although Milton Friedman does not hold that velocity is a constant, he does conclude that
- (a) the money supply is the primary determinant of nominal income.
  - (b) changes in velocity will be highly predictable.
  - (c) changes in velocity are not predictable.
  - (d) both (a) and (b) of the above are correct.
  - (e) both (a) and (c) of the above are correct.

Answer: D

Question Status: Previous Edition

- 102) In Friedman's modern quantity theory, velocity depends upon
- (a) interest rates.
  - (b) the ratio of actual to permanent income.
  - (c) the ratio of interest rates to actual income.
  - (d) the ratio of prices to interest rates.
  - (e) the ratio of money to prices.

Answer: B

Question Status: New

- 103) 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.
  - (e) velocity depends upon the money supply, which is controlled by the Federal Reserve System.

Answer: A

Question Status: New

- 104) In Friedman's modern quantity theory, the implied formula for velocity is
- (a)  $V = M^d/f(i)$ .
  - (b)  $V = M^d/P$ .
  - (c)  $V = f(Y_p)/Y$ .
  - (d)  $V = Y/f(i)$ .
  - (e)  $V = Y/f(Y_p)$ .
- Answer: E  
Question Status: New
- 105) According to Milton Friedman, income declines relative to permanent income during a business cycle contraction, causing the demand for money with respect 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.
  - (e) become more volatile.
- Answer: B  
Question Status: Study Guide
- 106) 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  
Question Status: Previous Edition
- 107) 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  
Question Status: Previous Edition
- 108) The \_\_\_\_\_ sensitive is the demand for money to interest rates, the \_\_\_\_\_ unpredictable velocity will be.
- (a) more; more
  - (b) more; less
  - (c) less; more
  - (d) less; less
- Answer: A  
Question Status: Previous Edition

- 109) 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

Question Status: Previous Edition

- 110) 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

Question Status: Previous Edition

- 111) In the liquidity trap
- (a) a small change in interest rates produces a small change in the quantity of money demanded.
  - (b) a small change in interest rates produces no change in the quantity of money demanded.
  - (c) money demand is not affected by interest rates.
  - (d) a small change in interest rates produces a very large change in the quantity of money demanded.
  - (e) a small change in interest rates produces a proportionate change in the quantity of money demanded.

Answer: D

Question Status: New

- 112) 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) a large; a large
  - (c) a small; a small
  - (d) a large; a small
  - (e) a small; a large

Answer: A

Question Status: New

- 113) 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.
  - (e) has an undetermined impact on interest rates.

Answer: C

Question Status: New

- 114) In the liquidity trap, monetary policy
- (a) has a large impact on aggregate spending.
  - (b) has a small impact on aggregate spending.
  - (c) has no impact on aggregate spending.
  - (d) has a proportionate impact on aggregate spending.
  - (e) has an undetermined impact on aggregate spending.
- Answer: C  
Question Status: New
- 115) In the liquidity trap, the money demand curve
- (a) is horizontal.
  - (b) is vertical.
  - (c) is negatively sloped.
  - (d) is positively sloped.
  - (e) does not exist.
- Answer: A  
Question Status: New
- 116) 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 is
- (a) going to promote price stability at the expense of low unemployment.
  - (b) going to promote low unemployment at the expense of price stability.
  - (c) an ineffective way to conduct monetary policy.
  - (d) can still be use to conduct monetary policy if the goal is price stability.
- Answer: C  
Question Status: Previous Edition

### **Appendix 1—Mathematical Treatment of Baumol-Tobin and Tobin Mean-Variance Models**

- 117) 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.
  - (e) none of the above.
- Answer: D  
Question Status: New



- 118) If there are economies of scale in the transactions demand for money,
- (a) as income increases, money demand increases proportionately.
  - (b) as income increases, money demand increases less than proportionately.
  - (c) as income increases, money demand increases more than proportionately.
  - (d) as income increases, money demand does not change.
  - (e) none of the above.

Answer: B

Question Status: New

- 119) 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.
  - (e) both models predict that individuals always hold only money.

Answer: C

Question Status: New

## Appendix 2—Empirical Evidence on the Demand for Money

- 120) 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

Question Status: Previous Edition

- 121) 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

Question Status: Previous Edition

- 122) 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

Question Status: Previous Edition

123) 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

Question Status: Previous Edition

124) 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

Question Status: Previous Edition

125) 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

Question Status: Previous Edition

126) 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

Question Status: Previous Edition

## ■ Essay Questions

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

Answer: Keynes felt 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 rate. 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.

- 2) 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.

- 3) 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.

- 4) In the liquidity trap the demand for money becomes horizontal. Depict this graphically. Demonstrate and explain why increases in the money supply do not affect interest rates, and thus aggregate spending, in the liquidity trap.

Answer: The graph should at least have a horizontal line for money demand. There should be an increase in the money supply, which does not change rates when money demand is horizontal. Since monetary policy affects aggregate spending by changing interest rates, aggregate spending is unaffected.

