Chapter 16
Determinants of the Money Supply

■ Multiple Choice

1) Money supply models tend to focus on the monetary base rather than on reserves since

   (a) Fed actions have no effect on reserves but have a predictable effect on the monetary base.
   (b) Fed actions in general have little effect on reserves but have a predictable effect on the monetary base.
   (c) Fed actions have a more predictable effect on the monetary base.
   (d) none of the above.

   Answer: C
   Question Status: Previous Edition

2) Models describing the determination of the money supply and the Fed's role in this process normally focus on _____ rather than _____, since Fed actions have a more predictable effect on the former.

   (a) reserves; the monetary base
   (b) reserves; high-powered money
   (c) the monetary base; high-powered money
   (d) the monetary base; reserves

   Answer: D
   Question Status: Previous Edition

3) The Fed can exert more precise control over _____ than it can over _____.

   (a) high-powered money; reserves
   (b) high-powered money; the monetary base
   (c) the monetary base; high-powered money
   (d) reserves; high-powered money

   Answer: A
   Question Status: Previous Edition

4) The ratio that relates the change in the money supply to a given change in the monetary base is called the

   (a) money multiplier.
   (b) required reserve ratio.
   (c) deposit ratio.
   (d) discount rate.

   Answer: A
   Question Status: Previous Edition

5)   The formula linking the money supply to the monetary base is

   (a) $M = m/MB$.

   (b) $M = m \times MB$.

   (c) $m = M \times MB$.

   (d) $MB = M \times m$.

   (e) $M = m + MB$.

   Answer: B

   Question Status: New

6)   The variable that reflects the effect on the money supply of changes in factors other than the monetary base is the

   (a) currency-checkable deposits ratio.

   (b) required reserve ratio.

   (c) money multiplier.

   (d) nonborrowed base.

   Answer: C

   Question Status: Previous Edition

7)   The equation linking the monetary base to the levels of checkable deposits and currency is

   (a) $MB = R + C$.

   (b) $MB = (r \times D) + ER$.

   (c) $MB = (r \times D) + ER + C$.

   (d) both (a) and (b) are correct.

   (e) both (a) and (c) are correct.

   Answer: E

   Question Status: New

8)   The equation linking the monetary base to the levels of checkable deposits and currency is

   (a) $MB = (r \times D) + R + C$.

   (b) $MB = (r + D) + ER + C$.

   (c) $MB = (r/D) + ER + C$.

   (d) $MB = (r - D) + ER - C$.

   (e) $MB = (r \times D) - ER - C$.

   Answer: A

   Question Status: New

9)   An increase in the monetary base that goes into _____ is not multiplied, while an increase that goes into _____ is multiplied.

   (a) deposits; currency

   (b) excess reserves; currency

   (c) currency; excess reserves

   (d) currency; deposits

   (e) deposits; excess reserves

   Answer: D

   Question Status: New

10) An increase in the monetary base that goes into currency is _____, while an increase that goes into deposits is _____.

    (a) multiplied; multiplied

    (b) not multiplied; multiplied

    (c) multiplied; not multiplied

    (d) not multiplied; not multiplied

    (e) added; subtracted

Answer: B
Question Status: New

11) During the Christmas holiday season, depositors typically withdraw more currency from their accounts. This implies that

    (a) the money multiplier falls during the Christmas season.

    (b) the money multiplier rises during the Christmas season.

    (c) discount borrowing falls during the Christmas season.

    (d) excess reserves fall during the Christmas season.

    (e) none of the above occur.

Answer: A
Question Status: Study Guide

12) If the Fed injects reserves into the banking system and they are held as excess reserves, then the money supply

    (a) increases by only the initial increase in reserves.

    (b) increases by only one-half the initial increase in reserves.

    (c) increases by a multiple of the initial increase in reserves.

    (d) does not change.

Answer: D
Question Status: Previous Edition

13) If the Fed injects reserves into the banking system and they are held as excess reserves, then the monetary base _____ and the money supply _____.

    (a) remains unchanged; remains unchanged

    (b) remains unchanged; increases

    (c) increases; increases

    (d) increases; remains unchanged

Answer: D
Question Status: Previous Edition

14) The formula for the money multiplier that includes excess reserves and currency is

    (a) $m = 1/(r + e + c)$.

    (b) $M = 1/(r + e + c)$.

    (c) $M = (1 + c)/(r + e + c)$.

    (d) $D = 1/(r + e + c)$.

    (e) $m = (1/(r + e + c)) \times MB$.

Answer: A
Question Status: New

15)   The formula for the checkable deposits that includes excess reserves and currency is

(a) $m = 1/(r + e + c)$.

(b) $M = 1/(r + e + c)$.

(c) $M = (1 + c)/(r + e + c)$.

(d) $D = 1/(r + e + c)$.

(e) $D = (1/(r + e + c)) \times MB$.

Answer: E

Question Status: New

16)   The formula for the money supply that includes excess reserves and currency is

(a) $m = 1/(r + e + c)$.

(b) $D = 1/(r + e + c)$.

(c) $M = (1 + c)/(r + e + c)$.

(d) $D = (1/(r + e + c)) \times MB$.

(e) $M = ((1 + c)/(r + e + c)) \times MB$.

Answer: E

Question Status: New

17)   If the required reserve ratio is 10 percent, currency in circulation is $400 billion, checkable deposits are $800 billion, and excess reserves total $0.8 billion, then the money supply is

(a) $8000.

(b) $1200.

(c) $1200.8.

(d) $8400.

Answer: B

Question Status: Previous Edition

18)   If the required reserve ratio is 10 percent, currency in circulation is $400 billion, checkable deposits are $800 billion, and excess reserves total $0.8 billion, then the money multiplier is approximately

(a) 2.5.

(b) 1.67.

(c) 2.0.

(d) 0.601.

Answer: A

Question Status: Previous Edition

19)   If the required reserve ratio is 10 percent, currency in circulation is $400 billion, checkable deposits are $800 billion, and excess reserves total $0.8 billion, then the currency ratio is

(a) .25.

(b) .50.

(c) .40.

(d) .05.

Answer: B

Question Status: Previous Edition

20)   If the required reserve ratio is 10 percent, currency in circulation is $400 billion, checkable deposits are $800 billion, and excess reserves total $0.8 billion, then the excess reserves–checkable deposit ratio is

(a) 0.001.

(b) 0.10.

(c) 0.01.

(d) 0.05.

Answer: A
Question Status: Previous Edition

21)   If the required reserve ratio is 10 percent, currency in circulation is $400 billion, checkable deposits are $800 billion, and excess reserves total $0.8 billion, then the monetary base is

(a) $480 billion.

(b) $480.8 billion.

(c) $80 billion.

(d) $80.8 billion.

Answer: B
Question Status: Previous Edition

22)   If the required reserve ratio is 15 percent, currency in circulation is $400 billion, checkable deposits are $800 billion, and excess reserves total $0.8 billion, then the money multiplier is approximately

(a) 2.5.

(b) 1.67.

(c) 2.3.

(d) 0.651.

Answer: C
Question Status: Previous Edition

23)   If the required reserve ratio is 5 percent, currency in circulation is $400 billion, checkable deposits are $800 billion, and excess reserves total $0.8 billion, then the money multiplier is approximately

(a) 2.5.

(b) 2.72.

(c) 2.3.

(d) 0.551.

Answer: B
Question Status: Previous Edition

24)   If the required reserve ratio is 10 percent, currency in circulation is $400 billion, checkable deposits are $1000 billion, and excess reserves total $1 billion, then the money supply is

(a) $10,000.

(b) $4000.

(c) $1400.

(d) $10,400.

Answer: C
Question Status: Previous Edition

25)   If the required reserve ratio is 10 percent, currency in circulation is $400 billion, checkable deposits are $1000 billion, and excess reserves total $1 billion, then the money multiplier is approximately

(a) 2.5.

(b) 2.8.

(c) 2.0.

(d) 0.7.

Answer: B
Question Status: Previous Edition

26)   If the required reserve ratio is 10 percent, currency in circulation is $400 billion, checkable deposits are $1000 billion, and excess reserves total $1 billion, then the currency ratio is

(a) .25.

(b) .50.

(c) .40.

(d) .05.

Answer: C
Question Status: Previous Edition

27)   If the required reserve ratio is 10 percent, currency in circulation is $400 billion, checkable deposits are $1000 billion, and excess reserves total $1 billion, then the excess reserves–checkable deposit ratio is

(a) 0.01.

(b) 0.10.

(c) 0.001.

(d) 0.05.

Answer: C
Question Status: Previous Edition

28)   If the required reserve ratio is 10 percent, currency in circulation is $400 billion, checkable deposits are $1000 billion, and excess reserves total $1 billion, then the monetary base is

(a) $400 billion.

(b) $401 billion.

(c) $500 billion.

(d) $501 billion.

Answer: D
Question Status: Previous Edition

29)   If the required reserve ratio is 15 percent, currency in circulation is $400 billion, checkable deposits are $1000 billion, and excess reserves total $1 billion, then the money multiplier is approximately

(a) 2.55.

(b) 2.67.

(c) 2.35.

(d) 0.551.

Answer: A
Question Status: Previous Edition

30) If the required reserve ratio is one-third, currency in circulation is $300 billion, and checkable deposits are $900 billion, then the money supply is
   (a) $2700.
   (b) $3000.
   (c) $1200.
   (d) $1800.

   Answer: C
   Question Status: Previous Edition

31) If the required reserve ratio is one-third, currency in circulation is $300 billion, and checkable deposits are $900 billion, then the money multiplier is approximately
   (a) 2.5.
   (b) 2.8.
   (c) 2.0.
   (d) 0.67.

   Answer: C
   Question Status: Previous Edition

32) If the required reserve ratio is one-third, currency in circulation is $300 billion, and checkable deposits are $900 billion, then the currency ratio is
   (a) .25.
   (b) .33.
   (c) .67.
   (d) .375.

   Answer: B
   Question Status: Previous Edition

33) If the required reserve ratio is one-third, currency in circulation is $300 billion, and checkable deposits are $900 billion, then the level of excess reserves in the banking system is
   (a) $300 billion.
   (b) $30 billion.
   (c) $3 billion.
   (d) 0.

   Answer: D
   Question Status: Previous Edition

34) If the required reserve ratio is one-third, currency in circulation is $300 billion, and checkable deposits are $900 billion, then the monetary base is
   (a) $300 billion.
   (b) $600 billion.
   (c) $333 billion.
   (d) $667 billion.

   Answer: B
   Question Status: Previous Edition

35) Because an increase in the monetary base will mean an increase in the level of currency in circulation,

(a) the actual money multiplier will be smaller than the simple deposit multiplier.

(b) a given change in the monetary base will lead to a smaller increase in checkable deposits than indicated by the simple deposit multiplier.

(c) a given change in the monetary base will lead to a larger increase in checkable deposits than indicated by the simple deposit multiplier.

(d) both (a) and (b) of the above will occur.

Answer: D
Question Status: Previous Edition

36) Because an increase in the monetary base will mean an increase in the level of currency in circulation,

(a) the actual money multiplier will be larger than the simple deposit multiplier.

(b) a given change in the monetary base will lead to a smaller increase in checkable deposits than indicated by the simple deposit multiplier.

(c) a given change in the monetary base will lead to a larger increase in checkable deposits than indicated by the simple deposit multiplier.

(d) both (a) and (c) of the above will occur.

Answer: B
Question Status: Previous Edition

37) Comparison of the simple model of money creation with the money supply model accounting for depositor and bank behavior indicates that

(a) an increase in the monetary base that goes into currency is not multiplied.

(b) the money multiplier is negatively related to the currency ratio.

(c) the money multiplier is positively related to the excess reserve ratio

(d) all of the above occur.

(e) only (a) and (b) of the above.

Answer: E
Question Status: Study Guide

38) The money multiplier is smaller than the simple deposit multiplier when

(a) the currency–checkable deposit ratio is zero.

(b) the currency–checkable deposit ratio is greater than zero.

(c) banks choose to hold excess reserves.

(d) only (b) and (c) of the above are true.

(e) only (a) and (b) of the above are true.

Answer: D
Question Status: Previous Edition

39) The money multiplier is smaller than the simple deposit multiplier when
   (a) the excess reserves ratio is zero.
   (b) the currency–checkable deposit ratio is zero.
   (c) the excess reserves ratio is greater than zero.
   (d) only (a) and (b) of the above are true.
   Answer: C
   Question Status: Previous Edition

40) The money multiplier is smaller than the simple deposit multiplier when
   (a) the excess reserves ratio is greater than zero.
   (b) the currency–checkable deposit ratio is greater than zero.
   (c) the excess reserves ratio is zero.
   (d) all of the above are true.
   (e) only (a) and (b) of the above are true.
   Answer: E
   Question Status: Previous Edition

41) For a given level of the monetary base, an increase in the required reserve ratio on checkable deposits will mean
   (a) a decrease in the money supply.
   (b) an increase in the money supply.
   (c) an increase in checkable deposits.
   (d) an increase in discount borrowing.
   Answer: A
   Question Status: Previous Edition

42) All else constant, an increase in the required reserve ratio on checkable deposits will cause
   (a) the money supply to rise.
   (b) the money supply to remain constant.
   (c) the money supply to fall.
   (d) checkable deposits to rise.
   Answer: C
   Question Status: Previous Edition

43) For a given level of the monetary base, a decrease in the required reserve ratio on checkable deposits will mean
   (a) a decrease in the money supply.
   (b) an increase in the money supply.
   (c) a decrease in checkable deposits.
   (d) an increase in discount borrowing.
   Answer: B
   Question Status: Previous Edition

44)   For a given level of the monetary base, an increase in the required reserve ratio on checkable deposits causes the money multiplier to _____ and the money supply to _____.

(a) decrease; increase

(b) increase; increase

(c) decrease; decrease

(d) increase; decrease

Answer: C
Question Status: Revised

45)   For a given level of the monetary base, a decrease in the required reserve ratio on checkable deposits causes the money multiplier to _____ and the money supply to _____.

(a) decrease; increase

(b) increase; increase

(c) decrease; decrease

(d) increase; decrease

Answer: B
Question Status: Revised

46)   Assuming initially that r = 10%, c = 40%, and e = 0, an increase in r to 15% causes

(a) the money multiplier to increase from 2.55 to 2.8.

(b) the money multiplier to decrease from 2.8 to 2.55.

(c) the money multiplier to increase from 1.82 to 2.

(d) the money multiplier to decrease from 2 to 1.82.

(e) no change in the money multiplier.

Answer: A
Question Status: New

47)   Assuming initially that r = 10%, c = 40%, and e = 0, a decrease in r to 5% causes

(a) the money multiplier to increase from 2.8 to 3.11.

(b) the money multiplier to decrease from 3.11 to 2.8.

(c) the money multiplier to increase from 2 to 2.22.

(d) the money multiplier to decrease from 2.22 to 2.

(e) no change in the money multiplier.

Answer: A
Question Status: New

48)   For a given level of the monetary base, an increase in the currency–checkable deposit ratio will mean

(a) an increase in currency in circulation and an increase in the money supply.

(b) an increase in money supply but no change in reserves.

(c) a decrease in the money supply.

(d) an increase in currency in circulation but no change in the money supply.

Answer: C
Question Status: Previous Edition

49) Given the monetary base, a decrease in the currency ratio means
   (a) an increase in the nonborrowed base, but an equal decrease in the borrowed base.
   (b) an increase in the borrowed base offset by an equal decrease in the nonborrowed base.
   (c) an increase in the money supply.
   (d) a decrease in the money supply.
   (e) none or the above.

   Answer: C
   Question Status: Study Guide

50) For a given level of the monetary base, a decrease in the currency–checkable deposit ratio will mean
   (a) an increase in currency in circulation and an increase in the money supply.
   (b) an increase in money supply.
   (c) a decrease in the money supply.
   (d) an increase in currency in circulation but no change in the money supply.

   Answer: B
   Question Status: Revised

51) For a given level of the monetary base, an increase in the currency ratio causes the money multiplier
   to _____ and the money supply to _____.
   (a) decrease; increase
   (b) increase; decrease
   (c) decrease; decrease
   (d) increase; increase

   Answer: C
   Question Status: Revised

52) For a given level of the monetary base, a decrease in the currency ratio causes the money multiplier
   to _____ and the money supply to _____.
   (a) decrease; increase
   (b) increase; increase
   (c) decrease; decrease
   (d) increase; decrease

   Answer: B
   Question Status: Revised

53) Assuming initially that $r = 10\%$, $c = 40\%$, and $e = 0$, an increase in c to 50% causes
   (a) the money multiplier to increase from 2.5 to 2.8.
   (b) the money multiplier to decrease from 2.8 to 2.5.
   (c) the money multiplier to increase from 2.33 to 2.8.
   (d) the money multiplier to decrease from 2.8 to 2.33.
   (e) no change in the money multiplier.

   Answer: B
   Question Status: New

54)   Assuming initially that r = 10%, c = 40%, and e = 0, an decrease in c to 30% causes
   (a) the money multiplier to increase from 2.8 to 3.25.
   (b) the money multiplier to decrease from 3.25 to 2.8.
   (c) the money multiplier to increase from 2.8 to 3.5.
   (d) the money multiplier to decrease from 3.5 to 2.8.
   (e) no change in the money multiplier.

   Answer: A
   Question Status: New

55)   All else being constant, when banks increase their holdings of excess reserves,
   (a) the monetary base falls by an amount equal to the increased holdings of excess reserves.
   (b) the money supply falls by a multiple of the increased holdings of excess reserves.
   (c) the money supply falls by an amount equal to the increased holdings of excess reserves.
   (d) none of the above will occur.

   Answer: B
   Question Status: Previous Edition

56)   When banks reduce their holdings of excess reserves
   (a) the monetary base increases.
   (b) the monetary base falls.
   (c) the money supply increases.
   (d) the money supply falls.
   (e) the money multiplier falls.

   Answer: C
   Question Status: Study Guide

57)   Given the level of the monetary base, a drop in the excess reserve ratio
   (a) increases the money supply.
   (b) decreases the money supply.
   (c) increases the nonborrowed base.
   (d) decreases the nonborrowed base.
   (e) decreases discount loans.

   Answer: A
   Question Status: Study Guide

58)   For a given level of the monetary base, a decrease in the excess reserves ratio causes the money
   multiplier to _____ and the money supply to _____.
   (a) decrease; increase
   (b) increase; increase
   (c) decrease; decrease
   (d) increase; decrease

   Answer: B
   Question Status: Revised

59) For a given level of the monetary base, an increase in the excess reserves ratio causes the money multiplier to _____ and the money supply to _____.

(a) decrease; increase
(b) increase; increase
(c) decrease; decrease
(d) increase; decrease

Answer: C
Question Status: Revised

60) Assuming initially that r = 15%, c = 40%, and e = 5%, a decrease in e to 0% causes

(a) the money multiplier to increase from 2.33 to 2.55.
(b) the money multiplier to decrease from 2.55 to 2.33.
(c) the money multiplier to increase from 1.67 to 1.82.
(d) the money multiplier to decrease from 1.82 to 1.67.
(e) no change in the money multiplier.

Answer: A
Question Status: New

61) Assuming initially that r = 15%, c = 40%, and e = 5%, an increase in e to 10% causes

(a) the money multiplier to increase from 2.15 to 2.33.
(b) the money multiplier to decrease from 2.33 to 2.15.
(c) the money multiplier to increase from 1.54 to 1.67.
(d) the money multiplier to decrease from 1.67 to 1.54.
(e) no change in the money multiplier.

Answer: B
Question Status: New

62) The excess reserve ratio of the banking system is

(a) negatively related to the market interest rate and expected deposit outflows.
(b) positively related to the market interest rate and expected deposit outflows.
(c) positively related to the market interest rate and negatively related to expected deposit outflows.
(d) negatively related to the market interest rate and positively related to expected deposit outflows.
(e) unaffected by the market interest rate and expected deposit outflows.

Answer: D
Question Status: Study Guide

63) The excess reserves ratio is _____ related to expected deposit outflows, and is _____ related to the market interest rate.

(a) negatively; negatively
(b) negatively; positively
(c) positively; negatively
(d) positively; positively

Answer: C
Question Status: Previous Edition

64)   Factors that cause the excess reserves ratio to rise include:

(a) a rise in expected deposit outflows.

(b) a decline in market interest rates.

(c) a rise in market interest rates.

(d) only (a) and (b) of the above.

(e) only (a) and (c) of the above.

Answer: D
Question Status: Previous Edition

65)   Factors that cause the excess reserves ratio to fall include:

(a) a decline in expected deposit outflows.

(b) a rise in market interest rates.

(c) a decline in market interest rates.

(d) only (a) and (b) of the above.

(e) only (a) and (c) of the above.

Answer: D
Question Status: Previous Edition

66)   The money supply is _____ related to expected deposit outflows, and is _____ related to the market interest rate.

(a) negatively; negatively

(b) negatively; positively

(c) positively; negatively

(d) positively; positively

Answer: B
Question Status: Previous Edition

67)   The money multiplier is negatively related to

(a) the currency–checkable deposit ratio.

(b) the required reserve ratio.

(c) discount borrowings from the Fed.

(d) all of the above.

(e) both (a) and (b) of the above.

Answer: E
Question Status: Previous Edition

68)   The money multiplier is negatively related to

(a) high-powered money.

(b) the excess reserves ratio.

(c) discount borrowings from the Fed.

(d) both (a) and (b) of the above.

Answer: B
Question Status: Previous Edition

69) The money multiplier is

    (a) negatively related to the currency–checkable deposit ratio.

    (b) positively related to the required reserve ratio.

    (c) positively related to holdings of excess reserves.

    (d) both (a) and (b) of the above.

Answer: A

Question Status: Previous Edition

70) The money multiplier is

    (a) negatively related to high-powered money.

    (b) positively related to the excess reserves ratio.

    (c) negatively related to the required reserve ratio.

    (d) positively related to holdings of excess reserves.

Answer: C

Question Status: Previous Edition

71) Factors that increase the value of the money multiplier include

    (a) an increase in the currency ratio.

    (b) an increase in the excess reserve ratio.

    (c) a decrease in the required reserve ratio.

    (d) an increase in the required reserve ratio.

    (e) an increase in discount loans.

Answer: C

Question Status: Study Guide

72) Factors that cause an increase in the money multiplier include:

    (a) a lowering of the required reserve ratio.

    (b) an increase in the market interest rate.

    (c) a decline in expected deposit outflows.

    (d) all of the above.

Answer: D

Question Status: Previous Edition

73) Factors that cause an increase in the money multiplier include:

    (a) a lowering of the required reserve ratio.

    (b) an increase in the market interest rate.

    (c) an increase in expected deposit outflows.

    (d) only (a) and (b) of the above.

Answer: D

Question Status: Previous Edition

74)   Factors that cause an increase in the money multiplier include:

(a) a lowering of the required reserve ratio.

(b) a decrease in the market interest rate.

(c) an increase in expected deposit outflows.

(d) only (a) and (b) of the above.

Answer: A

Question Status: Previous Edition

75)   Factors that cause an increase in the money multiplier include:

(a) a lowering of the required reserve ratio.

(b) an increase in market interest rates.

(c) an increase in expected deposit outflows.

(d) all of the above.

(e) only (a) and (b) of the above.

Answer: E

Question Status: Previous Edition

76)   Factors that cause an increase in the money multiplier include:

(a) an increase in the required reserve ratio.

(b) a decrease in market interest rates.

(c) an increase in expected deposit outflows.

(d) none of the above.

Answer: D

Question Status: Revised

77)   The money multiplier is inversely related to

(a) the excess reserve ratio.

(b) the currency ratio.

(c) the required ratio on checkable deposits.

(d) all of the above.

(e) both (a) and (b) of the above.

Answer: D

Question Status: Study Guide

78)   Factors that cause a decline in the money multiplier include:

(a) an increase of the required reserve ratio.

(b) an increase in the market interest rate.

(c) a decline in expected deposit outflows.

(d) only (a) and (b) of the above.

Answer: A

Question Status: Previous Edition

79)   Factors that cause a decline in the money multiplier include:

(a)   a lowering of the required reserve ratio.

(b)   an increase in the market interest rate.

(c)   an increase in expected deposit outflows.

(d)   all of the above.

Answer: C

Question Status: Previous Edition

80)   Factors that cause a decline in the money multiplier include:

(a)   a lowering of the required reserve ratio.

(b)   a decrease in the market interest rate.

(c)   an increase in expected deposit outflows.

(d)   only (b) and (c) of the above.

Answer: D

Question Status: Previous Edition

81)   Factors that cause a decline in the money multiplier include:

(a)   an increase in the required reserve ratio.

(b)   a decrease in the market interest rate.

(c)   an increase in market interest rates.

(d)   all of the above.

(e)   only (a) and (b) of the above.

Answer: E

Question Status: Previous Edition

82)   Factors that cause a decline in the money multiplier include:

(a)   a lowering of the required reserve ratio.

(b)   a decrease in the market interest rate.

(c)   a decrease in expected deposit outflows.

(d)   only (b) and (c) of the above.

Answer: B

Question Status: Previous Edition

83)   Factors that cause a decline in the money multiplier include:

(a)   an increase in the required reserve ratio.

(b)   a decrease in the market interest rate.

(c)   an increase in expected deposit outflows.

(d)   all of the above.

(e)   only (a) and (b) of the above.

Answer: D

Question Status: Previous Edition

84) The Fed does not tightly control the monetary base because it does not completely control
   (a) open market purchases.
   (b) open market sales.
   (c) discount loans.
   (d) the discount rate.
   (e) all of the above.

   Answer: C
   Question Status: New

85) The Fed does not completely control the monetary base because
   (a) it cannot set the required reserve ratio on checkable deposits.
   (b) it cannot perfectly predict the amount of discount borrowing by banks.
   (c) it cannot perfectly predict shifts from deposits to currency.
   (d) of each of the above.
   (e) of both (a) and (b) of the above.

   Answer: B
   Question Status: Study Guide

86) Because the Fed does not completely control _____, it does not tightly control the monetary base.
   (a) open market purchases
   (b) open market sales
   (c) discount loans
   (d) the discount rate
   (e) reserve requirements

   Answer: C
   Question Status: New

87) Subtracting discount loans from the monetary base obtains
   (a) reserves.
   (b) high-powered money.
   (c) the nonborrowed monetary base.
   (d) the borrowed monetary base.
   (e) excess reserves.

   Answer: C
   Question Status: Study Guide

88) The relationship between discount loans, the nonborrowed monetary base, and the monetary base is
   (a) $MB = MB_n - DL$.
   (b) $DL = MB_n - MB$.
   (c) $DL = MB - MB_n$.
   (d) $MB = DL - MB_n$.
   (e) $MB_n = MB + DL$.

   Answer: C
   Question Status: New

89) Recognizing the distinction between discount loans and the nonborrowed monetary base, the money supply model is specified as

(a) $M = m \times (MB_n - DL)$.

(b) $M = m \times (MB_n + DL)$.

(c) $M = m + (MB_n - DL)$.

(d) $M = m - (MB_n + DL)$.

(e) $M = m/(MB_n + DL)$.

Answer: B
Question Status: New

90) An increase in the nonborrowed monetary base, ceteris paribus, will cause:

(a) the money supply to fall.

(b) the money supply to rise.

(c) no change in the money supply.

(d) demand deposits to fall.

Answer: B
Question Status: Previous Edition

91) The money supply is _____ related to the nonborrowed monetary base, and _____ related to the level of discount loans.

(a) positively; negatively

(b) not; not

(c) negatively; not

(d) positively; positively

(e) negatively; negatively

Answer: D
Question Status: New

92) The amount of discount loans is _____ related to the discount rate, and is _____ related to the market interest rate.

(a) negatively; negatively

(b) negatively; positively

(c) positively; negatively

(d) positively; positively

Answer: B
Question Status: Previous Edition

93) A _____ in market interest rates relative to the discount rate will cause discount borrowing to _____

(a) fall; increase

(b) rise decrease

(c) rise; remain unchanged

(d) rise; increase

(e) fall; decrease

Answer: D
Question Status: New

94)   The Fed lacks complete control over the money supply because it cannot perfectly predict

    (a) the amount of discount borrowing by banks.

    (b) shifts from deposits to currency.

    (c) the level of excess reserves held by banks.

    (d) any of the above.

Answer: D
Question Status: Previous Edition

95)   The Fed lacks complete control over the money supply because

    (a) it cannot determine the amount of discount borrowing by banks.

    (b) it has no control over shifts from deposits to currency.

    (c) it has no control over the level of reserves in the banking system.

    (d) of all of the above.

    (e) of only (a) and (b) of the above.

Answer: E
Question Status: Previous Edition

96)   Other things equal, rising market interest rates encourage banks to

    (a) increase discount borrowings from the Fed.

    (b) hold more excess reserves.

    (c) hold fewer excess reserves.

    (d) do both (a) and (b) of the above.

    (e) do both (a) and (c) of the above.

Answer: E
Question Status: Previous Edition

97)   Other things equal, an increase in the discount rate encourages banks to

    (a) hold fewer excess reserves.

    (b) increase discount borrowing from the Fed.

    (c) decrease discount borrowing from the Fed.

    (d) do both (a) and (b) of the above.

Answer: C
Question Status: Previous Edition

98)   Equal increases in the discount rate and market interest rates cause banks to

    (a) hold fewer excess reserves.

    (b) increase discount borrowing from the Fed.

    (c) decrease discount borrowing from the Fed.

    (d) do both (a) and (b) of the above.

Answer: A
Question Status: Previous Edition

99)   All else constant, a rise in market interest rates leads to
      (a) a rise in excess reserves and a rise in the money supply.
      (b) a rise in discount borrowing and a rise in the money supply.
      (c) a fall in excess reserves and a fall in the money supply.
      (d) a fall in discount borrowing and a rise in the money supply.
      (e) none of the above.

      Answer: B
      Question Status: Previous Edition

100) The money supply is _____ related to high-powered money, and is _____ related to the discount
      rate.
      (a) negatively; negatively
      (b) negatively; positively
      (c) positively; negatively
      (d) positively; positively

      Answer: C
      Question Status: Previous Edition

101) The money supply is _____ related to excess reserves ratio, and is _____ related to the currency
      ratio.
      (a) negatively; negatively
      (b) negatively; positively
      (c) positively; negatively
      (d) positively; positively

      Answer: A
      Question Status: Previous Edition

102) Factors that cause an increase in the money supply include:
      (a) a lowering of the required reserve ratio.
      (b) an increase in the market interest rate.
      (c) a decline in the discount loan rate.
      (d) all of the above.

      Answer: D
      Question Status: Previous Edition

103) Factors that cause an increase in the money supply include:
      (a) a lowering of the required reserve ratio.
      (b) an increase in the market interest rate.
      (c) an increase in expected deposit outflows.
      (d) all of the above.
      (e) only (a) and (b) of the above.

      Answer: E
      Question Status: Previous Edition

104) Factors that cause an increase in the money supply include:

(a) a decline in the discount loan rate.

(b) a decline in market interest rates.

(c) an increase in expected deposit outflows.

(d) only (a) and (b) of the above.

Answer: A

Question Status: Previous Edition

105) Factors that cause a decline in the money supply include:

(a) a lowering of the required reserve ratio.

(b) a decline in the discount rate.

(c) an increase in expected deposit outflows.

(d) only (b) and (c) of the above.

Answer: C

Question Status: Previous Edition

106) Factors that cause a decline in the money supply include:

(a) a decrease in the nonborrowed monetary base.

(b) a decrease in market interest rates.

(c) an increase in expected deposit outflows.

(d) all of the above.

(e) only (a) and (b) of the above.

Answer: D

Question Status: Previous Edition

107) Over the long run the primary determinant of movements in the money supply is

(a) the currency deposit ratio.

(b) the excess reserve ratio.

(c) the required reserves ratio for checkable deposits.

(d) the nonborrowed base.

Answer: D

Question Status: Revised

108) Which of the following is the most important determinant in explaining movements in the money supply over time?

(a) Changes in the required reserve ratios

(b) Changes in the discount rate

(c) Changes in the currency ratio

(d) Changes in the nonborrowed monetary base

Answer: D

Question Status: Previous Edition

109) The examination of the 1980–2002 period suggests that
- (a) the longer the time period, the better control the Fed has over the money supply.
- (b) factors other than changes in the nonborrowed base influence money supply growth over short periods of time.
- (c) a decline in the money multiplier from January 1987 to April 1991 is explained by a rise in the currency ratio.
- (d) all of the above are true.
- (e) only (a) and (b) of the above are true.

Answer: D
Question Status: Revised

110) The examination of the 1980–2002 period suggests that
- (a) the longer the time period, the better control the Fed has over the money supply.
- (b) factors other than changes in the nonborrowed base influence money supply growth over short periods of time.
- (c) the rise in the money multiplier from January 1987 to April 1991 is explained by a rise in the currency ratio.
- (d) all of the above are true.
- (e) only (a) and (b) of the above are true.

Answer: E
Question Status: Revised

111) The examination of the 1980–2002 period suggests that
- (a) the Fed has no better control over the money supply in the long run than they do in the short run.
- (b) factors other than changes in the nonborrowed base influence money supply growth over short periods of time.
- (c) the rise in the money multiplier from January 1987 to April 1991 is explained by a rise in the currency ratio.
- (d) only (a) and (b) of the above are true.

Answer: B
Question Status: Revised

112) During the bank panics of the Great Depression, and to a lesser extent in 1893 and 1907,
- (a) the currency–checkable deposits ratio increased sharply.
- (b) the currency–checkable deposits ratio decreased sharply.
- (c) the currency–checkable deposits ratio did not change, confirming that the theory of asset demand provides a the correct framework for understanding fluctuations in the currency–checkable deposits ratio.
- (d) the currency–checkable deposits ratio declined modestly, confirming that the theory of asset demand provides a the correct framework for understanding fluctuations in the currency–checkable deposits ratio.

Answer: A
Question Status: Previous Edition

113) In the early 1930s, the currency ratio rose, as did the level of excess reserves. Money supply analysis predicts that, all else constant, the money supply should have

(a) risen.

(b) fallen.

(c) remain unchanged.

(d) Any of the above are possible, since the two factors work in opposite directions.

Answer: B
Question Status: Previous Edition

114) During the banking panic that occurred between October 1930 and January 1931,

(a) both currency ratio and excess reserve ratio rose.

(b) excess reserve ratio more than doubled.

(c) the money supply declined sharply.

(d) all of the above occurred.

(e) only (a) and (b) of the above occurred.

Answer: D
Question Status: Revised

115) During the banking crisis that ended in March 1933,

(a) the money supply (M1) had declined by over 25 percent—by far the largest decline in American history.

(b) the money supply declined despite a 20 percent rise in the monetary base.

(c) both currency ratio and excess reserve ratio rose.

(d) all of the above.

Answer: D
Question Status: Previous Edition

Internet Appendix for M2

116) The M2 money multiplier is negatively related to

(a) the currency ratio.

(b) the time deposit ratio.

(c) the money market fund ratio.

(d) both (a) and (b) of the above.

Answer: A
Question Status: Previous Edition

117) The M2 money multiplier is positively related to

(a) the currency ratio.

(b) the time deposit ratio.

(c) the money market fund ratio.

(d) both (b) and (c) of the above.

Answer: D
Question Status: Previous Edition

118) The M2 money multiplier is positively related to
    (a) high-powered money.
    (b) the time deposit ratio.
    (c) discount borrowings from the Fed.
    (d) both (a) and (b) of the above.

    Answer: B
    Question Status: Previous Edition

119) The M2 money multiplier is
    (a) negatively related to the currency ratio.
    (b) positively related to the required reserve ratio.
    (c) positively related to the excess reserves ratio.
    (d) both (a) and (b) of the above.

    Answer: A
    Question Status: Previous Edition

120) The M2 money multiplier is
    (a) negatively related to high-powered money.
    (b) positively related to the time deposit ratio.
    (c) positively related to the required reserve ratio.
    (d) positively related to the excess reserves ratio.

    Answer: B
    Question Status: Previous Edition

121) The M2 money multiplier is negatively related to
    (a) the currency ratio.
    (b) the required reserve ratio.
    (c) the excess reserves ratio.
    (d) all of the above.
    (e) both (a) and (b) of the above.

    Answer: D
    Question Status: Previous Edition

122) The M2 money multiplier is negatively related to
    (a) the excess reserves ratio.
    (b) the time deposit ratio.
    (c) discount borrowings from the Fed.
    (d) both (a) and (b) of the above.

    Answer: A
    Question Status: Previous Edition

123) The M2 money multiplier is
   (a) negatively related to the currency ratio.
   (b) positively related to the required reserve ratio.
   (c) positively related to the excess reserves ratio.
   (d) both (a) and (b) of the above.

   Answer: A
   Question Status: Previous Edition

124) The M2 money multiplier is
   (a) positively related to the time deposit ratio.
   (b) negatively related to the required reserve ratio.
   (c) positively related to the excess reserves ratio.
   (d) both (a) and (b) of the above.

   Answer: D
   Question Status: Previous Edition

125) The M2 money multiplier is
   (a) positively related to the time deposit ratio.
   (b) negatively related to the required reserve ratio.
   (c) positively related to the money market fund ratio.
   (d) all of the above.
   (e) both (a) and (b) of the above.

   Answer: D
   Question Status: Previous Edition

126) For a given level of the monetary base, an increase in the currency ratio will mean a(n) _____ in the M2 money multiplier and a(n) _____ in the M2 money supply.
   (a) increase; increase
   (b) increase; decrease
   (c) decrease; increase
   (d) decrease; decrease

   Answer: D
   Question Status: Previous Edition

127) For a given level of the monetary base, a decrease in the currency ratio will mean a(n) _____ in the M2 money multiplier and a(n) _____ in the M2 money supply.
   (a) increase; increase
   (b) increase; decrease
   (c) decrease; increase
   (d) decrease; decrease

   Answer: A
   Question Status: Previous Edition

128) For a given level of the monetary base, an increase in the required reserve ratio will mean a(n) _____ in the M2 money multiplier and a(n) _____ in the M2 money supply.

   (a) increase; increase
   (b) increase; decrease
   (c) decrease; increase
   (d) decrease; decrease

   Answer: D
   Question Status: Previous Edition

129) For a given level of the monetary base, a decrease in the required reserve ratio will mean a(n) _____ in the M2 money multiplier and a(n) _____ in the M2 money supply.

   (a) increase; increase
   (b) increase; decrease
   (c) decrease; increase
   (d) decrease; decrease

   Answer: A
   Question Status: Previous Edition

130) Other things equal, an increase in the required reserve ratio will result in a(n) _____ in M1 and a(n) _____ in M2.

   (a) increase; increase
   (b) increase; decrease
   (c) decrease; increase
   (d) decrease; decrease

   Answer: D
   Question Status: Previous Edition

131) For a given level of the monetary base, an increase in the time deposit ratio will mean a(n) _____ in the M2 money multiplier and a(n) _____ in the M2 money supply.

   (a) increase; increase
   (b) increase; decrease
   (c) decrease; increase
   (d) decrease; decrease

   Answer: A
   Question Status: Previous Edition

132) For a given level of the monetary base, a decrease in the time deposit ratio will mean a(n) _____ in the M2 money multiplier and a(n) _____ in the M2 money supply.

   (a) increase; increase
   (b) increase; decrease
   (c) decrease; increase
   (d) decrease; decrease

   Answer: D
   Question Status: Previous Edition

133) For a given level of the monetary base, an increase in the money market fund ratio will mean a(n) _____ in the M2 money multiplier and a(n) _____ in the M2 money supply.

(a) increase; increase

(b) increase; decrease

(c) decrease; increase

(d) decrease; decrease

Answer: A

Question Status: Previous Edition

134) For a given level of the monetary base, a decrease in the money market fund ratio will mean a(n) _____ in the M2 money multiplier and a(n) _____ in the M2 money supply.

(a) increase; increase

(b) increase; decrease

(c) decrease; increase

(d) decrease; decrease

Answer: D

Question Status: Revised

135) Other things equal, an increase in the time deposit ratio will result in _____ in M1 and _____ in M2.

(a) an increase; an increase

(b) no change; an increase

(c) a decrease; a decrease

(d) no change; a decrease

Answer: B

Question Status: Previous Edition

136) Other things equal, a decrease in the time deposit ratio will result in _____ in M1 and _____ in M2.

(a) an increase; an increase

(b) no change; an increase

(c) a decrease; a decrease

(d) no change; a decrease

Answer: D

Question Status: Previous Edition

137) Other things equal, an increase in the money market fund ratio will result in _____ in M1 and _____ in M2.

(a) an increase; an increase

(b) no change; an increase

(c) a decrease; a decrease

(d) no change; a decrease

Answer: B

Question Status: Previous Edition

138) Other things equal, a decrease in the money market fund ratio will result in _____ in M1 and _____ in M2.

   (a) an increase; an increase
   (b) no change; an increase
   (c) a decrease; a decrease
   (d) no change; a decrease

   Answer: D
   Question Status: Previous Edition

Internet Appendix for the Currency Ratio

139) The currency ratio is _____ related to _____.

   (a) positively; wealth
   (b) not; wealth
   (c) negatively; wealth
   (d) positively; income
   (e) not; income

   Answer: C
   Question Status: New

140) Factors causing an increase in currency holdings include

   (a) an increase in the interest rates paid on checkable deposits.
   (b) an increase in the cost of acquiring currency.
   (c) a decrease in bank panics.
   (d) an increase in illegal activity.
   (e) all of the above.

   Answer: D
   Question Status: New

141) Part of the increase in the 1960s and 1970s can be attributed to

   (a) increases in income tax rates.
   (b) the switch from progressive to proportional income taxes.
   (c) the adoption of regressive taxes.
   (d) bracket creep due to inflation and progressive income taxes.
   (e) none of the above.

   Answer: D
   Question Status: New

142) In 2002, the amount of outstanding currency per capita in the United States is

   (a) $100.
   (b) $500.
   (c) $1000.
   (d) $2000.
   (e) $5000.

   Answer: C
   Question Status: New

143) The steepest increase in the currency ratio since 1892 occurred during

   (a) World War I.
   (b) World War II.
   (c) the Great Depression.
   (d) the interwar years.
   (e) the most recent twenty years.

   Answer: C
   Question Status: New

144) The factor accounting for the steepest rise in the currency ratio since 1892 is

   (a) taxes.
   (b) bank panics.
   (c) illegal activity.
   (d) an increase in wealth.
   (e) all of the above.

   Answer: B
   Question Status: New

145) The increase in the currency ratio during World War II was due to

   (a) bank panics.
   (b) a drop in the rate of interest paid on checking deposits.
   (c) the spread of ATMs.
   (d) high taxes and illegal activities.
   (e) all of the above.

   Answer: D
   Question Status: New

■ Essay Questions

1) Explain the complete formula for the money supply, and explain how changes in required reserves, excess reserves, the currency ratio, the nonborrowed base, and discount borrowing affect the money supply.

   Answer: The formula is

   $$M = \frac{1+c}{r+c+e} \times (MB_n + DL)$$

   The formula indicates that the money supply is the product of the multiplier times the base. Increases in any of the multiplier components, required reserves, r; excess reserves, e; or the currency ratio, c, reduce the multiplier and the money supply. Increases in the nonborrowed base and discount borrowing both increase the base and the money supply.

2)   What factors determine a banks holdings of excess reserves? How does a change in each factor affect excess reserves, the money multiplier, and the money supply?

Answer: An increase in market interest rates reduces excess reserves because banks profit from increase lending. An increase in expected deposit outflows increases excess reserves. An increase in interest rates reduces excess reserves, increasing the multiplier and the money supply. An increase in expected outflows increases excess reserves, reducing the multiplier and the money supply.

3)   The monetary base increased by 20% during the contraction of 1929–1933, but the money supply fell by 25%. Explain why this occurred. How can the money supply fall when the base increases?

Answer: The banking crisis caused the public to fear for the safety of their deposits, increasing both the currency ratio and bank holdings of excess reserves in anticipation of deposit outflows. Both of these changes reduce the money multiplier and the money supply. In this case, the fall in the multiplier due to increases of currency and excess reserves more than offset the increase in the base, causing the money supply to fall.