

Policy Tools

Reserve Requirements

As [announced](#) on March 15, 2020, the Board reduced reserve requirement ratios to zero percent effective March 26, 2020. This action eliminated reserve requirements for all depository institutions.

- [FAQs](#) 

The following content explains the Board's authority to impose reserve requirements and how reserve requirements were administered prior to the change in reserve requirement ratios to zero. Additional detail on this reserve requirement regime can be found in the archived Reserve Maintenance Manual: [HTML](#) | [PDF](#).

The Federal Reserve Act authorizes the Board to establish reserve requirements within specified ranges for purposes of implementing monetary policy on certain types of deposits and other liabilities of depository institutions.

The dollar amount of a depository institution's reserve requirement is determined by applying the reserve requirement ratios specified in the Board's Regulation D (Reserve Requirements of Depository Institutions, 12 CFR Part 204) to an institution's reservable liabilities (see table of [reserve requirements](#)). The Federal Reserve Act authorizes the Board to impose reserve requirements on transaction accounts, nonpersonal time deposits, and Eurocurrency liabilities.

Prior to the change effective March 26, 2020, reserve requirement ratios on net transactions accounts differed based on the amount of net transactions accounts at the depository institution. A certain amount of net transaction accounts, known as the "reserve requirement exemption amount," was subject to a reserve requirement ratio of zero percent. Net transaction account balances above the reserve requirement exemption amount and up to a specified amount, known as the "low reserve tranche," were subject to a reserve requirement ratio of 3 percent. Net transaction account balances above the low reserve tranche were subject to a reserve requirement ratio of 10 percent. The reserve requirement exemption amount and the low reserve tranche are indexed each year pursuant to formulas specified in the Federal Reserve Act (see table of [low reserve tranche amounts and exemption amounts since 1982](#)).

For more history on the changes in reserve requirement ratios and the indexation of the exemption and low reserve tranche, see the [annual review](#) table. Additional details on reserve requirements can be found in this *Federal Reserve Bulletin* [article \(119 KB PDF\)](#), the appendix of which has tables of historical reserve ratios.

Reserve Requirements

Liability Type	Requirement	
	% of liabilities	Effective date
Net transaction accounts	0	3/26/2020
Nonpersonal time deposits	0	12/27/1990
Eurocurrency liabilities	0	12/27/1990

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Notes: The Board's Regulation D (Reserve Requirements of Depository Institutions) provides that reserve requirements must be satisfied by holding vault cash and, if vault cash is insufficient, by maintaining a balance in an account at a Federal Reserve Bank. An institution may hold that balance directly with a Reserve Bank or with another institution in a pass-through relationship. Reserve requirements are imposed on "depository institutions," defined as commercial banks, savings banks, savings and loan associations, credit unions, U.S. branches and agencies of foreign banks, Edge corporations, and agreement corporations.

1. For a description of these deposit types, see Form FR 2900 at <http://www.federalreserve.gov/apps/reportforms/default.aspx>. [Return to table](#)

Low Reserve Tranche Amounts and Exemption Amounts since 1982

Effective date	Low reserve tranche amount (millions of U.S. dollars)	Exemption amount (millions of U.S. dollars)
January 14, 1982	26.0	n.a.
December 23, 1982	n.a.	2.1
January 13, 1983	26.3	***
January 12, 1984	28.9	2.2
January 3, 1985	29.8	2.4
January 2, 1986	31.7	2.6
January 1, 1987	36.7	2.9
December 31, 1987	40.5	3.2
December 29, 1988	41.5	3.4
December 28, 1989	40.4	3.4
December 27, 1990	41.1	3.4
December 26, 1991	42.2	3.6
December 24, 1992	46.8	3.8
December 23, 1993	51.9	4.0
December 22, 1994	54.0	4.2
December 21, 1995	52.0	4.3
December 31, 1996	49.3	4.4
January 1, 1998	47.8	4.7
December 31, 1998	46.5	4.9
December 30, 1999	44.3	5.0
December 28, 2000	42.8	5.5
December 27, 2001	41.3	5.7
December 26, 2002	42.1	6.0
December 25, 2003	45.4	6.6
December 23, 2004	47.6	7.0
December 22, 2005	48.3	7.8
December 21, 2006	45.8	8.5
December 20, 2007	43.9	9.3
January 1, 2009	44.4	10.3

Effective date	Low reserve tranche amount (millions of U.S. dollars)	Exemption amount (millions of U.S. dollars)
December 31, 2009	55.2	10.7
December 30, 2010	58.8	10.7
December 29, 2011	71.0	11.5
December 27, 2012	79.5	12.4
January 23, 2014	89.0	13.3
January 22, 2015	103.6	14.5
January 21, 2016	110.2	15.2
January 19, 2017	115.1	15.5
January 18, 2018	122.3	16.0
January 17, 2019	124.2	16.3
January 16, 2020	127.5	16.9
January 14, 2021	182.9	21.1
January 1, 2022	640.6	32.4
January 1, 2023	691.7	36.1
January 1, 2024	644.0	36.1
January 1, 2025	645.8	37.8

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*Not applicable [Return to table](#)

***No change [Return to table](#)

Regulatory Changes in Reserve Requirements and Indexation of the Low Reserve Tranche and the Reserve Requirement Exemption

The following list covers regulatory changes in reserve requirements and indexation of the low reserve tranche and the reserve requirement exemption beginning December 1, 1959, and their effects on required reserves.

106. Effective for the reserve maintenance period beginning March 26, 2020, the 10 percent required reserve ratio against net transaction deposits above the low reserve tranche level was reduced to 0 percent, the 3 percent required reserve ratio against net transaction deposits in the low reserve tranche was reduced to 0 percent. The action reduced required reserves by an estimated \$200 billion.

105. Effective for the reserve maintenance period beginning December 27, 2012, the low reserve tranche for net transaction accounts will rise from \$71.0 million to \$79.5 million. The reserve requirement exemption will rise from \$11.5 million to \$12.4 million. These actions will lower total required reserves by an estimated \$971 million.

104. Effective for the reserve maintenance period beginning December 29, 2011, the low reserve tranche for net transaction accounts will rise from \$58.8 million to \$71.0 million. The reserve requirement exemption will rise from \$10.7 million to \$11.5 million. These actions will lower total required reserves by an estimated \$1.33 billion.

103. Effective for the reserve maintenance period beginning December 30, 2010, the low reserve tranche for net transaction accounts was raised from \$55.2 million to \$58.8 million. The reserve requirement exemption remained at \$10.7 million. These actions lowered total required reserves by an estimated \$353 million.

102. Effective for the reserve maintenance period beginning December 31, 2009, the low reserve tranche for net transaction accounts was raised from \$44.4 million to \$55.2 million. The reserve requirement exemption was raised from \$10.3 million to \$10.7 million. These actions lowered total required reserves by an estimated \$1.24 billion.

101. Effective for the reserve maintenance period beginning January 1, 2009, the low reserve tranche for net transaction accounts was raised from \$43.9 million to \$44.4 million. The reserve requirement exemption was raised from \$9.3 million to \$10.3 million. The actions lowered total required reserves by an estimated \$270

million.

100. Effective for the reserve maintenance period beginning December 20, 2007, the low reserve tranche for net transaction accounts was reduced from \$45.8 million to \$43.9 million. The reserve requirement exemption was raised from \$8.5 million to \$9.3 million. The actions raised total required reserves by an estimated \$57 million.

99. Effective for the reserve maintenance period beginning December 21, 2006, the low reserve tranche for net transaction accounts was reduced from \$48.3 million to \$45.8 million. The reserve requirement exemption was raised from \$7.8 million to \$8.5 million. The actions raised total required reserves by an estimated \$146 million.

98. Effective for the reserve maintenance period beginning December 22, 2005, the low reserve tranche for net transaction accounts was increased from \$47.6 million to \$48.3 million. The reserve requirement exemption was raised from \$7.0 million to \$7.8 million. The actions lowered total required reserves by an estimated \$369 million.

97. Effective for the reserve maintenance period beginning December 23, 2004, the low reserve tranche for net transaction accounts was increased from \$45.4 million to \$47.6 million. The reserve requirement exemption was raised from \$6.6 million to \$7.0 million. The actions lowered total required reserves by an estimated \$506 million.

96. Effective for the reserve maintenance period beginning December 25, 2003, the low reserve tranche for net transaction accounts was increased from \$42.1 million to \$45.4 million. The reserve requirement exemption was raised from \$6.0 million to \$6.6 million. The actions lowered total required reserves by an estimated \$689 million.

95. Effective for the reserve maintenance period beginning December 26, 2002, the low reserve tranche for net transaction accounts was increased from \$41.3 million to \$42.1 million. The reserve requirement exemption was raised from \$5.57 million to \$6.0 million. The actions lowered total required reserves by an estimated \$201 million.

94. Effective for the reserve maintenance period beginning December 27, 2001, the low reserve tranche for net transaction accounts was reduced from \$42.8 million to \$41.3 million. The reserve requirement exemption was raised from \$5.5 million to \$5.7 million. The actions raised total required reserves by an estimated \$154 million.

93. Effective for the reserve maintenance period beginning December 28, 2000, the low reserve tranche for net transaction accounts was reduced from \$44.3 million to \$42.8 million. The reserve requirement exemption was raised from \$5.0 million to \$5.5 million. The actions raised required reserves by an estimated \$60 million.

92. Effective for the reserve maintenance period beginning December 30, 1999, the low reserve tranche for net transaction accounts was reduced from \$46.5 million to \$44.3 million. The reserve requirement exemption was raised from \$4.9 million to \$5.0 million. The actions raised required reserves by an estimated \$264 million.

91. Effective for the reserve maintenance period beginning December 31, 1998, the low reserve tranche for net transaction accounts was reduced from \$47.8 million to \$46.5 million. The reserve requirement exemption was raised from \$4.7 million to \$4.9 million. The actions raised required reserves by an estimated \$104 million.

90. Effective with the reserve maintenance period beginning July 30, 1998, the required reserve system was shifted from CRR to new lagged reserve requirements (LRR) with reserve computation periods for weekly reporters starting thirty days before the corresponding reserve maintenance periods. Under the new LRR regime, the lag in counting vault cash toward required reserves was lengthened from sixteen days to thirty days for institutions reporting weekly on the FR2900. In other words, the average vault cash held during a reserve computation period would be applied toward required reserves in its corresponding reserve maintenance period.

89. Effective with the reserve maintenance period beginning January 1, 1998, the low reserve tranche for transaction accounts was reduced from \$49.3 million to \$47.8 million. The reserve requirement exemption was raised from \$4.4 million to \$4.7 million. The actions raised required reserves by an estimated \$89 million.

88. Effective with the reserve maintenance period beginning December 31, 1996, the low reserve tranche for transaction accounts was reduced from \$52.0 million to \$49.3 million. The reserve requirement exemption was raised from \$4.3 million to \$4.4 million. The actions raised required reserves by an estimated \$298 million.

87. Effective with the reserve maintenance period beginning December 21, 1995, the low reserve tranche for transaction accounts was reduced from \$54.0 million to \$52.0 million. The reserve requirement exemption was raised from \$4.2 million to \$4.3 million. The actions raised required reserves by an estimated \$199 million.

86. Effective with the reserve maintenance period beginning December 22, 1994, the low reserve tranche for transaction accounts was raised from \$51.9 million to \$54.0 million. The reserve requirement exemption was also raised from \$4.0 million to \$4.2 million. The actions reduced required reserves by an estimated \$318 million.

85. Effective with the reserve maintenance period beginning December 23, 1993, the low reserve tranche for transaction accounts was raised from \$46.8 million to \$51.9 million. The reserve requirement exemption was

also raised from \$3.8 million to \$4.0 million. The actions reduced required reserves by an estimated \$738 million.

84. Effective with the reserve maintenance period beginning December 24, 1992, the low reserve tranche for transaction accounts was raised from \$42.2 million to \$46.8 million. The reserve requirement exemption was also raised from \$3.6 million to \$3.8 million. The actions reduced required reserves by an estimated \$699 million.

83. Effective November 12, 1992, the lag in counting vault cash toward required reserves was shortened from four weeks to two weeks for institutions reporting weekly on the FR2900, i.e. counting the average vault cash held during a reserve computation period toward required reserves in its corresponding reserve maintenance period.

82. Effective September 3, 1992, the carryover allowance for reserve balances, for institutions reporting weekly and quarterly on the FR2900, was doubled to the larger of \$50,000 or 4 percent of required reserves plus required clearing balances less the institution's required clearing balance penalty-free band.

81. Effective April 2, 1992, the 12 percent required reserve ratio against net transaction deposits above the low reserve tranche level was reduced to 10 percent. The action reduced required reserves by an estimated \$8.9 billion.

80. Effective with reserve maintenance period beginning December 26, 1991, the low reserve tranche for transaction accounts was raised from \$41.1 million to \$42.2 million. The reserve requirement exemption was also raised from \$3.4 million to \$3.6 million. The actions reduced required reserves by an estimated \$255 million.

79. Effective with reserve maintenance period beginning January 17, 1991, the 3 percent reserve requirement on nontransaction liabilities was reduced to zero for FR2900 quarterly reporters. The action reduced required reserves by an estimated \$460 million.

78. Effective with reserve maintenance period beginning December 27, 1990, the low reserve tranche for transaction accounts was raised from \$40.4 million to \$41.1 million. The reserve requirement exemption was kept at \$3.4 million. The action lowered required reserves by an estimated \$112 million.

77. Effective December 27, 1990, the 1-1/2 percent reserve requirement on nontransaction liabilities was reduced to zero for FR2900 weekly reporters. The action lowered required reserves by an estimated \$6.5 billion.

76. Effective December 13, 1990, the 3 percent reserve requirement on nontransaction liabilities was reduced to 1-1/2 percent for FR2900 weekly reporters. The action lowered required reserves by an estimated \$6.7 billion.

75. Effective with reserve maintenance period beginning December 28, 1989, the low reserve tranche for transaction accounts was reduced from \$41.5 million to \$40.4 million. The reserve requirement exemption was kept at \$3.4 million. The action raised required reserves by an estimated \$190 million.

74. Effective with reserve maintenance period beginning December 29, 1988, the low reserve tranche for transaction accounts was raised from \$40.5 million to \$41.5 million. The reserve requirement exemption was also raised from \$3.2 million to \$3.4 million. The actions reduced required reserves by an estimated \$210 million.

73. Effective with reserve maintenance period beginning December 31, 1987, the low reserve tranche for transaction accounts was raised from \$36.7 million to \$40.5 million. The reserve requirement exemption was also raised from \$2.9 million to \$3.2 million. The actions reduced required reserves by about \$740 million.

72. Effective September 10, 1987, according to the transitional phase-in program under the Monetary Control Act, required reserves of certain nonmember depository institutions were increased about \$1.70 billion.

71. Effective with reserve maintenance period beginning January 1, 1987, the low reserve tranche for transaction accounts was raised from \$31.7 million to \$36.7 million. The reserve requirement exemption was also raised from \$2.6 million to \$2.9 million. These actions reduced required reserves by about \$970 million.

70. Effective September 11, 1986, according to the transitional phase-in program under the Monetary Control Act, required reserves of certain nonmember depository institutions were increased about \$1.58 billion.

69. Effective April 24, 1986, money market deposit accounts (MMDA), which had previously been subject to full reserve requirements, were made subject to the transitional phase-in program of the Monetary Control Act. In addition, the order of application of the exemption applied to reservable liabilities was changed. These actions reduced required reserves by about \$260 million.

68. Effective with reserve maintenance period beginning January 2, 1986, the low reserve tranche for transaction accounts was raised from \$29.8 million to \$31.7 million. The reserve requirement exemption was also raised from \$2.4 million to \$2.6 million. These actions reduced required reserves by about \$340 million.

67. Effective September 12, 1985, according to the transitional phase-in program under the Monetary Control Act, required reserves of certain nonmember depository institutions were increased about \$1.23 billion.

66. Effective with reserve maintenance period beginning January 3, 1985, the low reserve tranche for transaction accounts was raised from \$28.9 million to \$29.8 million. The reserve requirement exemption was also raised from \$2.2 million to \$2.4 million. These actions reduced required reserves by about \$190 million.

65. Effective September 13, 1984, in conjunction with the transitional phase-in program under the Monetary Control Act, required reserves of certain nonmember depository institutions increased about \$1.08 billion.

64. Effective February 2, 1984, in conjunction with the transitional phase-in program under the Monetary Control Act, required reserves of member banks were reduced about \$2.0 billion.

63. Effective February 2, 1984, Regulation D was amended as follows for institutions reporting weekly on the FR2900: (1) change the reserve computation and maintenance periods from weekly to biweekly, with the former ending on Monday and the latter ending on Wednesday; (2) compute required reserves against net transaction deposits based on average deposits over the computation period ending two days before the end of the maintenance period; (3) compute required reserves against nontransaction deposits based on average deposits over a computation period ending 17 days before the beginning of the maintenance period; and (4) count the average vault cash held during a reserve computation period ending 17 days before the beginning of the reserve maintenance period toward required reserves.

62. Effective with reserve maintenance period beginning January 12, 1984, the low reserve tranche for transaction accounts at depository institutions was raised from \$26.3 million to \$28.9 million. Also, in accordance with the provisions of the Depository Institutions Act of 1982, the reserve requirement exemption was raised from \$2.1 million to \$2.2 million. These actions reduced required reserves a total of about \$350 million.

61. Effective October 20, 1983, required reserves were reduced an estimated \$100 million as a result of the elimination of reserve requirements on nonpersonal time deposits with maturities of 1-1/2 years to 2-1/2 years.

60. Effective September 1, 1983, in conjunction with the transitional phase-in program under the Monetary Control Act, required reserves of member banks were reduced about \$2.0 billion, and required reserves of other depository institutions were increased about \$0.9 billion.

59. Effective April 14, 1983, required reserves were reduced an estimated \$80 million as a result of the elimination of reserve requirements on nonpersonal time deposits with maturities of 2-1/2 years to 3-1/2 years.

58. Effective March 3, 1983, in conjunction with the transitional phase-in program under the Monetary Control Act, required reserves of member banks were reduced by approximately \$1.9 billion.

57. Effective January 13, 1983, the low reserve tranche for transaction accounts at depository institutions was raised from \$26.0 million to \$26.3 million. This action reduced required reserves approximately \$32 million.

56. Effective December 23, 1982, in accordance with provisions of the Depository Institutions Act of 1982 that exempted the first \$2.1 million of reservable liabilities at all depository institutions from reserve requirements, required reserves were reduced by an estimated \$800 million.

55. Effective October 28, 1982, in accordance with provisions of the Depository Institutions Act of 1982, required reserves of certain former member banks were reduced by approximately \$100 million.

54. Effective September 2, 1982, in conjunction with the transitional phase-in program under the Monetary Control Act, required reserves of member banks were reduced about \$2.1 billion, and required reserves of other depository institutions were increased about \$0.9 billion.

53. Effective August 12, 1982, in conjunction with the transitional phase-in program under the Monetary Control Act, required reserves of certain nonmember banks and foreign-related institutions increased about \$140 million.

52. Effective May 13, 1982, in conjunction with the transitional phase-in program under the Monetary Control Act, required reserves of certain nonmember banks and foreign-related institutions increased about \$150 million.

51. Effective March 4, 1982, in conjunction with the transitional phase-in program under the Monetary Control Act, required reserves of member banks decreased by about \$2.0 billion.

50. Effective February 11, 1982, in conjunction with the transitional phase-in program under the Monetary Control Act, required reserves of certain nonmember banks and foreign-related institutions increased about \$170 million.

49. Effective January 14, 1982, the low reserve tranche for transaction accounts at depository institutions was raised from \$25 million to \$26 million. This action reduced required reserves approximately \$60 million.

48. Effective November 12, 1981, in conjunction with the transitional phase-in program under the Monetary Control Act, required reserves of certain nonmember banks and foreign-related institutions increased about \$210 million.

47. Effective September 3, 1981, in conjunction with the transitional phase-in program under the Monetary Control Act, required reserves of member banks were reduced about \$2.0 billion, and required reserves of other depository institutions were increased about \$0.9 billion.

46. Effective August 13, 1981, in conjunction with the transitional phase-in program under the Monetary Control Act, required reserves of certain nonmember banks and foreign-related institutions increased approximately \$230 million.

45. Effective May 14, 1981, in conjunction with the transitional phase-in program under the Monetary Control Act, required reserves of certain nonmember banks and foreign-related institutions increased by approximately \$245 million.

44. Effective March 12, 1981, in conjunction with the transitional phase-in program under the Monetary Control Act, required reserves of small nonmember "quarterly reporters" increased about \$75 million.

43. Effective February 12, 1981, in conjunction with the transitional phase-in program under the Monetary Control Act, required reserves of certain nonmember banks and foreign-related institutions increased by approximately \$245 million.

42. Effective November 13, 1980, required reserves of member banks and Edge Act corporations were reduced about \$4.3 billion and required reserves of other depository institutions were increased about \$1.4 billion due to the implementation of the Monetary Control Act of 1980.

41. Effective July 24, 1980, the 5 percent marginal reserve requirement on managed liabilities and the 2 percent supplementary reserve requirement against large time deposits were removed. These actions reduced required reserves about \$3.2 billion.

40. Effective May 29, 1980, the marginal reserve requirement was reduced from 10 percent to 5 percent and the base upon which the marginal reserve requirement was calculated was raised. This action reduced required reserves about \$980 million.

39. Effective March 12, 1980, the 8 percent marginal reserve requirement was raised to 10 percent. In addition, the base upon which the marginal reserve requirement was calculated was reduced. This action increased required reserves about \$1.7 billion.

38. Effective October 11, 1979, a marginal reserve requirement of 8 percent was imposed on "managed liabilities" of member banks, Edge Act corporations, and U.S. agencies and branches of foreign banks above a base average for the two weeks ending September 26, 1979. Managed liabilities included large time deposits (\$100,000 and over with maturities of less than one year), repurchase agreements against U.S. government and federal agency securities, Eurodollar borrowings, and federal funds borrowings from a nonmember institution. On October 25, required reserves and reserves held by Edge Act Corporations were included in member bank reserves. (Previously reserves held by these institutions were recorded as "other deposits" by Federal Reserve Banks.) These actions raised required reserves approximately \$355 and \$320 million, respectively.

37. Effective November 30, 1978, the 10 percent minimum requirement on the domestic deposits of Edges was removed but Edges continued to be subject to the same reserve requirements as member banks.

36. Effective November 16, 1978, a supplementary reserve requirement of 2 percent was imposed on time deposits of \$100,000 or more. This action increased required reserves approximately \$3.0 billion.

35. Effective December 30, 1976, the reserve requirement against net demand deposits up to \$10 million was reduced by 1/2 percentage point, and the reserve requirement against net demand deposits over \$10 million was reduced by 1/4 percentage point. This action reduced required reserves by approximately \$550 million.

34. Effective January 8, 1976, the reserve requirement on time deposits maturing in 180 days to 4 years was reduced from 3 percent to 2-1/2 percent. This action reduced required reserves by approximately \$500 million.

33. Effective October 30, 1975, the reserve requirement against member bank time deposits with an original maturity of four years or more was reduced from 3 percent to 1 percent. This action reduced required reserves approximately \$360 million.

32. Effective May 22, 1975, the reserve requirement against foreign borrowings of member banks, primarily Eurodollars, was reduced from 8 percent to 4 percent. This action reduced required reserves approximately \$80 million.

31. Effective February 13, 1975, the reserve requirements against all categories of net demand deposits up to \$400 million were reduced by one-half of 1 percentage point, and the reserve requirement against net demand deposits of more than \$400 million was reduced 1 percentage point. This action reduced required reserves

approximately \$1,065 million.

30. Effective December 12, 1974, the reserve requirement against all time deposits with an original maturity of six months or longer was reduced from 5 percent to 3 percent; the reserve requirement against all time deposits with an original maturity of less than six months was increased from 5 percent to 6 percent; and the reserve requirement against net demand deposits over \$400 million was reduced from 18 percent to 17-1/2 percent. In addition, the 3 percent marginal reserve requirement on large certificates of deposit with an initial maturity of less than four months was removed. These actions reduced required reserves approximately \$710 million.

29. Effective September 19, 1974, the marginal reserve requirement against time deposits in denomination greater than \$100,000 and more than 4-month maturity was eliminated. This action reduced required reserves approximately \$510 million.

28. Effective December 27, 1973, the marginal reserve requirement against certain time deposits was reduced from 11 percent to 8 percent. This action reduced required reserves approximately \$360 million.

27. Effective October 4, 1973, the marginal reserve requirement against certain time deposits was increased from 8 percent to 11 percent. This action increased required reserves approximately \$465 million.

26. Effective July 19, 1973, the reserve requirement against all net demand deposits, except the first \$2 million was increased 1/2 percentage point. This action increased required reserves approximately \$760 million.

25. Effective July 12, 1973, reserve requirements were imposed against finance bills. This action increased required reserves approximately \$90 million.

24. Effective June 21, 1973, the Board amended its Regulation D to establish a marginal reserve requirement of 8 percent against certain time deposits and to subject to the 8 percent reserve requirement certain deposits exempt from the rate limitations of the Board's Regulation Q. In addition, reserves against certain foreign branch deposits were reduced from 10 percent to 8 percent. These changes had little effect on required reserves.

23. Effective November 9, 1972, Regulations D and J were revised to (1) adopt a system of reserve requirements against demand deposits of all member banks based on the amount of such deposits held by a member bank, and (2) to require banks--member and nonmember--to pay cash items presented by a Federal Reserve Bank on the day of presentation in funds available to the Reserve Bank on that day. These changes reduced required reserves approximately \$2.5 billion, effective November 9; \$1.0 billion, effective November 16; and increased required reserves \$300 million, effective November 23.

22. Effective January 7, 1971, the reserve requirement on certain foreign borrowings, primarily Eurodollars, by member banks, and the sale of assets to their foreign branches was raised from 10 percent to 20 percent. This action had little effect on required reserves.

21. Effective October 1, 1970, the reserve requirement of all member banks against time deposits (other than savings deposits) in excess of \$5 million was reduced from 6 percent to 5 percent. At the same time, a 5 percent reserve requirement was imposed against funds obtained by member banks through the issuance of commercial paper by their affiliates. This action reduced required reserves approximately \$500 million (net).

20. Effective October 16, 1969 a 10 percent marginal reserve requirement was established on certain foreign borrowings, primarily Eurodollars, by member banks and on the sale of assets to their foreign branches. This action increased required reserves approximately \$415 million.

19. Effective April 17, 1969, the reserve requirement of all member banks against net demand deposits was increased 1/2 percentage point. This action increased required reserves approximately \$660 million.

18. Effective September 12, 1968, Regulation D was amended to: (1) reduce the reserve computation and maintenance periods for country banks from two weeks to one week to coincide with one-week periods for reserve city banks; (2) change contemporaneous reserve requirements to lagged reserve requirements (LRR), which required all banks to compute weekly average required reserves for the maintenance week on the basis of average daily deposits two weeks earlier; (3) count average vault cash held two weeks earlier toward the required reserves for the present week; and (4) allow either excesses or deficiencies averaging up to 2 percent of required reserves to be carried forward to the next maintenance week.

17. Effective January 18, 1968, the reserve requirement of country banks against net demand deposits in excess of \$5 million was increased from 12 percent to 12-1/2 percent. This action increased required reserves approximately \$190 million.

16. Effective January 11, 1968, the reserve requirement of reserve city banks against net demand deposits in excess of \$5 million was increased from 16-1/2 percent to 17 percent. This action increased required reserves

approximately \$360 million.

15. Effective March 16, 1967, the reserve requirement of all member banks against savings deposits and the first \$5 million of time deposits was reduced from 3-1/2 percent to 3 percent. This action reduced required reserves approximately \$425 million.

14. Effective March 2, 1967, the reserve requirement of all member banks against savings deposits and the first \$5 million of time deposits was reduced from 4 percent to 3-1/2 percent. This action reduced required reserves approximately \$425 million.

13. Effective September 15, 1966, the reserve requirement of country banks against time deposits (other than savings deposits) in excess of \$5 million was increased from 5 percent to 6 percent. This action increased required reserves approximately \$75 million.

12. Effective September 8, 1966, the reserve requirement of reserve city banks against time deposits (other than savings deposits) in excess of \$5 million was increased from 5 percent to 6 percent. This action increased required reserves approximately \$370 million.

11. Effective July 21, 1966, the reserve requirement of country banks against time deposits (other than savings deposits) in excess of \$5 million was increased from 4 percent to 5 percent. This action increased required reserves approximately \$70 million.

10. Effective July 14, 1966, the reserve requirement of reserve city banks against time deposits (other than savings deposits) in excess of \$5 million was increased from 4 percent to 5 percent. This action increased required reserves approximately \$350 million.

9. Effective November 1, 1962, the reserve requirement of country banks against their time deposits was reduced from 5 percent to 4 percent. This action reduced required reserves approximately \$360 million.

8. Effective October 25, 1962, the reserve requirement of reserve city banks against their time deposits was reduced from 5 percent to 4 percent. This action reduced required reserves approximately \$410 million.

7. Effective July 28, 1962, the central reserve city classification was eliminated and the former central reserve city banks were reclassified as reserve city banks.

6. Effective December 1, 1960, the reserve requirement of central reserve city banks against their net demand deposits was reduced from 17-1/2 percent to 16-1/2 percent. This action reduced required reserves approximately \$250 million.

5. Effective November 24, 1960, the reserve requirement of country banks against their net demand deposits was increased from 11 percent to 12 percent. This action increased required reserves approximately \$380 million.

4. Effective November 24, 1960, member banks were allowed to count all vault cash as legal reserves.

3. Effective September 1, 1960, the reserve requirement of central reserve city banks against their net demand deposits was reduced from 18 percent to 17-1/2 percent. This action reduced required reserves approximately \$120 million.

2. Effective January 1, 1960, the reserve computation and maintenance periods for country banks were changed from semi-monthly to biweekly. (The reserve computation and maintenance periods for central reserve city banks and reserve city banks continued to be one week; and all banks, including country banks, continued to compute and hold reserves contemporaneously.) In addition, beginning with the period ending January 13, 1960, the reserve computation and maintenance periods for all banks were made to end on Wednesday.

1. Effective December 1, 1959, member banks were allowed to count part of their vault cash as legal reserves.