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INVESTMENTS IN UNITED STATES GOVERNMENT SECURITIES BY NONFINANCIAL CORPORATIONS, 1952–56: COMMENT

By Colin D. Campbell

In "Central Banking and Money Market Changes,"[1] Hyman Minsky finds that financial institutions and money market usages change so as to counteract a tight money policy. As one example, he states that high interest rates have influenced nonfinancial corporations to hold more and more of their cash in short-term U. S. government securities and have thus freed bank resources to finance other activities. Although a shift in the ownership of short-term federal securities from commercial banks to nonfinancial corporations could counteract a tight money policy, such a shift has probably not occurred. Minsky's interpretation of the statistical data on the ownership of federal debt from December 1952 to June 1956 is very questionable.

To show that there has been a shift of short-term federal debt from commercial banks to nonfinancial corporations, Minsky presents data from the Treasury Survey of Ownership showing (1) that commercial bank holdings of marketable issues maturing within one year declined sharply from December 1952 to June 1956 and (2) that during this period such investments by "other investors" including nonfinancial corporations expanded $5.7 billion. The series on "other investors" is an inappropriate measure of the changes in the holdings of federal securities by nonfinancial corporations because there are other important groups in this category — state and local governments, individuals (including partnerships and personal trust accounts), "miscellaneous investors" (including savings and loan associations, dealers and brokers, foreign accounts, corporate pension trust funds, and nonprofit institutions), and those banks and insurance companies not reporting in the Treasury survey. In addition, Minsky's estimate of changes in the amount of short-term federal securities owned by nonfinancial corporations omits Treasury savings notes, a nonmarketable issue.[2] From 1941 to April 1956 these notes were widely used by corporations as liquid assets, but in 1953 the

1. This *Journal*, LXXI (May 1957).

2. Treasury savings notes could be used without notice for payment of taxes two months after issue date at purchase price plus accrued interest, and they were redeemable for cash four months after issue.

Treasury suspended sales of Treasury savings notes, and none was outstanding in June 1956. The Treasury survey shows that in December 1952 "other investors" held $5.7 billion of these notes.[3] If Treasury savings notes and marketable U. S. government securities maturing within one year are added together, the total amount of these securities owned by "other investors" was approximately the same in June 1956 as in December 1952. In spite of this, during this period the amount of these types of securities owned by commercial banks declined $9.6 billion. This was primarily the result of a decrease of $4.1 billion in the amount of these securities issued by the Treasury and the addition of $5.5 billion of such securities to the portfolios of the Federal Reserve Banks. Although point-of-time comparisons are tricky and shifts of only a few months give different results, the above analysis shows some of the factors that are involved.

Minsky could have obtained a better measure of changes in the amount of short-term federal securities owned by nonfinancial corporations from Treasury estimates of their total holdings.[4] This is because the bulk of their holdings consists of short-term issues. Persons closely associated with the government securities market generally believe that nonfinancial corporations invest primarily in short-term securities.[5] Also, a study of the composition of the investments of the 100 largest nonfinancial corporations in 1951 shows that the bulk of their holdings consisted of short-term issues.[6] Table I shows that the total amount of federal securities owned by nonfinancial corporations declined $2.5 billion from December 1952 to June 1956.

Contrary to what Minsky says, the amount of U. S. government securities owned by nonfinancial corporations does not appear to be closely related to changes in interest rates. The following charts show that from 1951 to 1956 there appears to have been a slightly downward long-run trend in holdings of federal securities by nonfinancial corporations and an upward long-run trend in short-term

3. *Treasury Bulletin*, Mar. 1953, p. 38.

4. The Treasury publishes monthly estimates of the total amount of the national debt owned by nonfinancial corporations, state and local governments, individuals, and "miscellaneous investors." No regular data on the kinds of federal securities owned by these groups are available. The estimates of the total amount of federal securities owned by nonfinancial corporations are based on quarterly data compiled by the Securities and Exchange Commission and published in its report on Current Assets and Liabilities of Corporations. See *Federal Reserve Bulletin*, XLIII (May 1957), 558.

5. See M. Nadler, S. Heller, and S. S. Shipman, *The Money Market and Its Institutions* (New York, 1955), pp. 268–69.

6. J. S. Sprowls, "Short-Term Investment Practices of Large Non-Financial Corporations," Table 2, MBA Thesis, University of Pittsburgh, 1953.

TABLE I

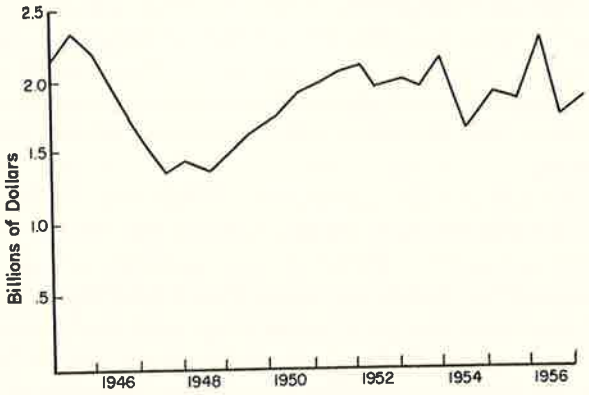
OWNERSHIP OF UNITED STATES GOVERNMENT SECURITIES, 1952–1956

(In billions of dollars)

End of Month	Total Public Holdings[1]	Commercial Banks	Other Financial Institutions[2]	Nonfinancial Corporations	State and Local Governments	Individuals		Miscellaneous Investors[3]
						Savings Bonds	Other Securities	
Dec. 1952	196.9	63.4	25.6	19.9	11.1	49.2	16.0	11.7
Dec. 1953	201.0	63.7	25.0	21.6	12.7	49.4	15.4	13.2
Dec. 1954	204.3	69.2	23.8	19.2	14.4	50.0	13.7	13.9
Dec. 1955	204.3	62.0	22.8	23.3	15.1	50.2	15.4	15.6
June 1956	195.5	57.1	21.7	17.4	15.7	50.3	17.2	16.2

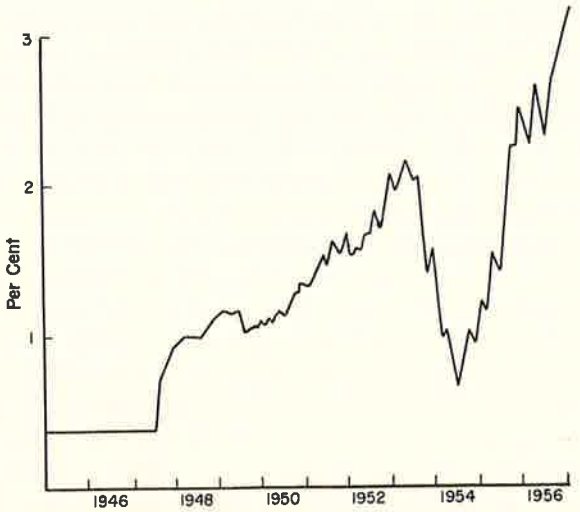
Source: *Treasury Bulletin*, August 1957, p. 40.
1. U. S. government securities held outside Federal Reserve Banks and U. S. investment accounts.
2. Includes mutual savings banks and insurance companies.
3. Includes savings and loan associations, dealers and brokers, foreign accounts, corporate pension trust funds, and nonprofit institutions.

U. S. GOVERNMENT SECURITIES OWNED BY NONFINANCIAL CORPORATIONS, JUNE AND DECEMBER, 1945–1956



Source: *Treasury Bulletin*

YIELDS ON U. S. TREASURY BILLS



Source: Federal Reserve Charts.

interest rates. Also, in several years changes in such holdings were in the opposite direction from changes in short-term interest rates. From December 1946 to December 1948 the amount of federal securities owned by nonfinancial corporations fell even though the bill rate rose sharply. In 1949 their holdings increased substantially even though the bill rate fell slightly. In 1952 their holdings dropped even

though the bill rate rose. During some years regular fluctuations have resulted from the accumulation of federal securities prior to corporation income tax payment dates. In these years the amount of these investments fell during the first half of the year and rose in the second half of the year. Investments by nonfinancial corporations in federal securities are not sensitive to changes in interest rates, probably because the principal purpose of such investments is to provide liquidity.

From December 1952 to June 1956 commercial banks, mutual savings banks, and insurance companies obtained over $10 billion in loanable funds through the decline in their holdings of U. S. government securities, even though commercial bank holdings rose sharply in 1954. These securities were absorbed by state and local governments, individuals, and "miscellaneous investors" rather than by nonfinancial corporations. Table I shows that investments in U. S. government securities by state and local governments expanded $4.6 billion during this period. Although the principal reason for this expansion is the growth in their retirement systems, which invest primarily in long-term issues, state highway and construction funds have purchased large amounts of federal securities in recent years. Since these funds are usually the proceeds of state bonds sold for construction purposes, they can be invested only in short-term issues.[7]

Table I also shows that the amount of federal securities owned by "miscellaneous investors" expanded $4.5 billion. Foreign accounts probably acquired more federal securities during this period than any of the other groups in this category. From December 1952 to June 1956 investments of foreign banks and official institutions in bills and certificates increased $2.4 billion.[8] During these years foreign countries and international institutions have held approximately half of their dollar balances in U. S. government securities, and favorable balances of trade have caused their total dollar balances to increase more than one-third.[9] Also, during this period the amount of U. S. government securities owned by savings and loan associations increased $.9 billion, and those owned by corporate pension trust funds by $.5 billion.[1] Both of these groups invest primarily in intermediate and long-term issues.

7. C. D. Campbell, "Investments in United States Government Securities by State and Local Governments," *National Tax Journal*, X (Mar. 1957), 85.

8. *Treasury Bulletin*, Mar. 1953, p. 69; *ibid.*, Aug. 1956, p. 67.

9. "International Gold and Dollar Flows," *Federal Reserve Bulletin*, XLIII (Mar. 1957), 249.

1. For data on the assets of savings and loan associations, see *Federal*

The amount of U. S. government securities other than savings bonds owned by individuals rose $1.2 billion during this period. This estimate is a residual figure after estimates have been made for other ownership groups, and little is known about the composition of these investments.

Recent changes in debt ownership are not as alarming as Minsky expected primarily because a large part of the funds used for expanding the loans of banks and other financial institutions has been obtained through a shift of *intermediate* and *long-term* issues — either through direct sale or Treasury refinancing operations — to state pension funds, corporate pension funds, and savings and loan associations. As Minsky suggests, if nonfinancial corporations substituted *short-term* securities for bank deposits, and financial institutions selling short-term securities expanded their loans, the effect on the supply of loanable funds or on total spending would be expansionary. This is because the change in the composition of the current assets of nonfinancial corporations would probably not affect their spending. To the extent that financial institutions have shifted short-term federal securities to foreign banks or to state construction funds, the effect on the supply of loanable funds could be just as expansionary as shifting such securities to nonfinancial corporations. A crucial factor in this expansionary process is usually the willingness of banks to hold smaller amounts of secondary reserve. However, because bank portfolios of U. S. government securities become more liquid as outstanding issues approach maturity, banks are frequently in a position to dispose of some of their short-term issues without reducing secondary reserve.

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Reserve Bulletin, XLIII (May 1957), 549, and for estimates of investments in federal securities by corporate pension trust funds, see *Treasury Bulletin*, Mar. 1954, p. 30; *ibid.*, Sept. 1956, p. 35.

REPLY

By HYMAN P. MINSKY

In my article "Central Banking and Money Market Changes," I discussed two recent institutional changes: the growth of the federal funds market and the development of a new financing technique for government bond houses, the sales and repurchase agreements between the bond houses and nonfinancial corporations. In com-

menting upon the second change, I drew attention to a number of alternative forms by means of which nonfinancial corporations can achieve liquidity: demand deposits, short term Treasury debt, sales and repurchase agreements with bond houses and loans to other financial intermediaries such as consumer credit houses. Observing that short term debt holdings by commercial banks markedly decreased while the holdings of other investors (which include nonfinancial corporations) increased in the period December 31, 1952 to June 30, 1956, I imputed these observed changes to the rise in interest rates over this period.

In his note Professor Campbell correctly points out that the class "other investors" includes important groups, such as state and local governments, individuals, etc., in addition to nonfinancial corporations. He argues that it would have been better to use the available data on the "Ownership of United States Government Securities, 1952–1956" (his Table I), even though "no regular data on the kinds of federal securities owned are available." Using these data, which show that holdings by nonfinancial corporations of U. S. government securities have gone down slightly in this period, he reaches two conclusions of interest:

(1) "Investments by nonfinancial corporations in federal securities are not sensitive to changes in interest rates. . . ."

(2) "Recent changes in debt ownership are not as alarming as Minsky expected primarily because a large part of the funds used for expanding the loans of banks and other financial institutions has been obtained through a shift of *intermediate* and *long term* issues . . . to state pension funds, corporate pension funds, and savings and loan associations."

Campbell errs in interpreting my argument with regard to the holdings of short term government debt by the other category as implying that the amount of U. S. government securities owned by nonfinancial corporations is closely related to the interest rate. What I argued was that the form in which *liquidity* is held is sensitive to the quality of the available assets and the relative interest rates. As long as the interest rate on demand deposits is zero, any increase in interest rates increases the attractiveness of alternative acceptable assets, and hence a substitution of such assets for demand deposits will take place.[1] However, nonfinancial corporations also hold government securities as investments (that is, these assets are superfluous to the current operations of the firm), and a tightening money market during a boom would make firms with favorable opportunities draw upon their superfluous assets to finance expansion. The decrease in

the holdings of government securities by nonfinancial corporations (see Campbell's chart) immediately after World War II can be explained in this manner. The observed changes in the total holdings of government debt by nonfinancial corporations, to which Campbell refers, is consistent with a running down of investment holdings of longer term debt at the same time as short-term government debt is substituted for demand deposits.

Campbell is correct in pointing out that I neglected Treasury savings notes. However, he does not mention that since 1950 the acceleration of corporate income tax payments has been operating to decrease the need of corporations for liquidity. Whereas in 1950 corporate income tax payments lagged by one year behind the earning of income, the acceleration of payments will reduce this lag to six months by 1960. On June 30, 1952 corporations which kept their books on a calendar year basis still owed 30 per cent of the tax on their 1951 income, and on December 31, 1952 none of the tax on 1952 income had been paid. On June 30, 1956 such corporations had paid all of the tax on 1955 incomes, and by December 31, 1956 they had paid 20 per cent of the tax on their estimated 1956 income.[2] My estimate is that between 1952 and 1956 the need of corporations for liquidity on account of their income tax liability was reduced by 20 to 25 per cent; that is, the income tax liability of corporations on December 31, 1956, which was $16.6 billions,[3] was $4 to $5 billions less than it would have been if the payment schedule had not been changed since 1952.

Treasury savings notes were a liquid asset particularly suited for corporations with an income tax liability. Even though in the period 1952–56 approximately two-thirds of the redemptions were for cash (in sharp contrast with earlier experience), the elimination of the Treasury savings notes and the reduction in corporation liabilities on account of the acceleration of tax payments roughly offset one another. Hence I would argue that the existence of nonmarketable Treasury savings notes in 1952 can be ignored in considering the effects of interest rate changes upon the form in which nonfinancial corporations achieve liquidity.

1. Incidentally Campbell is aware of this in so far as state and local governments are concerned: see C. D. Campbell, "Investments in United States Government Securities by State and Local Governments," *National Tax Journal*, X (Mar. 1957), 86.

2. U. S. Treasury Department: *Annual Report for the Fiscal Year Ending June 30, 1954*, pp. 285–86.

3. U. S. Department of Commerce: *Statistical Abstract of the United States, 1957*, No. 592, "Current Assets and Liabilities of United States Corporations, 1945–1956," p. 486.

Over this period the government debt holdings of commercial banks decreased by 6.3 billions, with an essentially unchanged volume of government debt outside government trust funds and Federal Reserve Banks. As a result, the lending ability of commercial banks was increased by operations which are equivalent to the banks selling government debt to other holders. Contrary to what Campbell concludes in his final paragraph, the monetary effect of such transactions is independent both of the particular category in the other investors group that acquired the government debt, and of the dating of the debt.

If current savings were used to purchase the government debt which was shifted from the portfolios of commercial banks, then the current savings would appear as a supply of funds in the form of an increase in the lending ability of commercial banks. On a net basis the transactions would not be inflationary. On the other hand, if such sales were effected by using previously accumulated demand deposits, the resulting increase in the lending ability of commercial banks does not offset some current savings. Such a development is inflationary. The effects are independent of the dating of the government debt shifted, and the tendency to identify the monetary effect of a shift in government debt with the dating of the securities is erroneous. For example, Campbell notes a net purchase of intermediate and long term issues by savings and loan associations. If the increase in savings and loan deposits is a result of a shift from demand deposits to interest-earning time deposits, then the net acquisition of government debt by savings and loan associations at the same time as commercial bank deposits were decreasing is inflationary.[4] On the other hand, the shift of government debt to the various pension funds, which can be considered as savings intermediaries, is not inflationary.

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4. In the United States, commercial banks have both demand and time (savings) deposits. An increase in commercial bank time deposits can also be the result of savings (in which case it is actually deflationary due to the member bank reserve requirements against savings deposits) or of a shift in liquidity (in which case it is inflationary). Conceptually commercial banks can be departmentalized, and an increase in their holdings of long and intermediate term government debt in response to an increase in savings deposits could occur at the same time as their holdings of short term government debt decreased in response to their "unsatisfactory" returns.