

Post-Accord Monetary Developments in the United States

Perhaps the most worthwhile perspective from which to review post-Accord monetary developments in the U.S.A. is in terms of the light they shed on the "new theory of credit control" (1). This doctrine, developed and sponsored by the Federal Reserve Bank of New York in the days when the Treasury still dominated the scene, was later adopted by the Board of Governors of the Federal Reserve. As the official System position at the time of the Accord, it served as a justification for the Federal Reserve's desire to abandon once-and-for-all the wartime pattern of rigidly pegged interest rates. The theory's influence on monetary policy was thus of some significance — certainly such as to warrant a detailed examination now that sufficient time has elapsed to provide a reasonable test period.

Today, it is true, the Federal Reserve does not defend its overall policy views by deliberate reliance on the ideas of the new

(1) The new theory, as it has been termed here, is also referred to as the "Roosa doctrine" and the "availability doctrine". R. ROOSA, "Interest Rates and the Central Bank", in *Money, Trade and Economic Growth: Essays in Honor of John Henry William*, Macmillan, 1951, is perhaps the single most important source, though the articles by A. SPROUL ("Changing Concepts of Central Banking") and H. ELLIS ("The Rediscovery of Money") in the same volume are also of interest. In addition, some of the ideas of this doctrine can be found in the Federal Reserve statements presented at the Patman Hearings (known officially as *Monetary Policy and the Management of the Public Debt: Their Role in Achieving Price Stability and High-Level Employment*, Joint Committee on the Economic Report, 82nd Congress, 2nd Session, Washington, U. S., Government Printing Office, 1952, 4 Parts). By far the best short statement of the new theory, together with a description of the context in which it developed, is to be found in J. TOWN, "Monetary Policy and the Management of the Public Debt: The Patman Inquiry", *Review of Economics and Statistics*, V, XXXV, May 1953. See also JOHN H. KARBEN, "Lenders' Preferences, Credit Rationing and the Effectiveness of Monetary Policy", in *The Review of Economics and Statistics*, No. 3, August 1957, p. 292.

theory. System spokesmen no longer publicly recognize the need to limit the magnitude of interest rate fluctuations; nor do they talk, as they did before the Accord, of their ability to control inflationary pressures by means of only very modest increases in yields. Perhaps it was to be expected that the authorities, when more comfortable in the freedom granted them by the Accord and when no longer surrounded by a hostile political administration, would move toward a more traditional defense of the classical techniques of monetary control. But this change in attitude should not be allowed to obscure the fact that the basic issue with which the new theory dealt — namely, the relationship between the existence of a large outstanding public debt and the use of traditional monetary policy — continues in the present to be of considerable relevance. Indeed, the aim of this essay is to show that the legacy of the war years (a large national debt) remains as an obstacle to the effective working of such a policy.

The New Theory

The substance of the new theory of credit control derived directly from the awkwardness of the position in which the Federal Reserve found itself at the close of World War II. Nearly everyone thought at that time that private lenders (in particular, those of the institutional sort), having been forced by wartime circumstances to take on disproportionately large quantities of government securities, were anxious to achieve a better balance in their portfolios. It was felt that they would certainly attempt to sell Treasury securities and acquire private obligations with the proceeds as soon as private credit demand revived sufficiently. For the authorities to hold to a rigid structure of interest rates in such a situation would mean passing the initiative for open-market operations into the hands of private lenders, with inflationary pressures as a possible consequence. Quite understandably, the Federal Reserve was reluctant to follow such a course.

Yet, what of the alternative? Allowing the markets for private and public funds to find their respective equilibrium levels, with little or no buying support, might well under then prevailing conditions have resulted in very considerable increases in yields. This, apparently, is what Treasury officials feared, though not

because they thought of interest charges as an important determinant of investment spending. Of course, they stressed continuously the meaning of higher rates for the cost of debt service. But more basic to their fear was the belief that any modification of System support operations would precipitate a wave of speculative selling of government securities; small System-induced increases in yields would, it was thought, cumulate into much larger changes, with the result that both borrowers' and lenders' expectations would be adversely affected. It was, however, precisely this interpretation of the likely effect of a break with wartime policy that proponents of the new theory denied. In their view, very small increases in yields on Treasury issues would actually check any movement out of these securities and into private debt claims. There would therefore be no need for the authorities to buy heavily in defense of any particular (i.e., slightly higher) Treasury yield curve, so that an expansion of the money supply could be prevented by an upward adjustment of interest rates so small as to give the Treasury no cause for alarm.

The new theory's version of the probable outcome of an abandonment of market support rested on some specific notions (old, as well as new) about 1) the structure of the various loanable funds markets, and 2) the nature of institutional lenders' asset preferences. For example, it was suggested that since interest rates in certain markets (notably, for bank loans) are administered, and therefore less flexible than market determined rates, any increase in yields on government securities would turn relative yields against an expansion of private debt claims subject to administered prices.

This, however, was not the most interesting argument adduced in support of the contention that modest increases in yields on government securities would restrain lenders from switching into private obligations. Rather, the novelty of the new theory lay in the assertion that classical monetary measures are effective because of their influence on lenders, not borrowers. It was this emphasis that provided a basis for the belief that lenders would hold onto their Treasury issues even if relative yields turned increasingly in favor of other types of debt, or if other market pressures dictated an expansion of private debt holdings — which, of course, was just the sort of situation that could be expected to prevail in the post-war period. The emphasis took the form of specific asset preference hypotheses, although reference was also made to changes

in the structure of the loanable funds market: specifically, the growth of the public debt and the increase in contractual saving, as, for example, life insurance. Yet, it does seem that the latter are important only insofar as they increase the actual significance of the asset preference hypotheses. That is to say, the growth of the public debt is meaningful in this context because of the assumptions made by the proponents of the new theory concerning the sensitivity of various types of lenders to fluctuations in the capital values of government securities in their portfolios (see below); similarly, the importance of the increase in "institutionalized saving" stems from the alleged investment behavior of financial intermediaries like life insurance companies.

One asset preference hypothesis of the new theory was concerned with the behavior of commercial banks. It was suggested that a small increase in yields would force commercial banks to keep what government securities they had because it would — by reducing the market value of such holdings, and, at the same time, creating a feeling of uncertainty as to the course of events — directly and indirectly impair their over-all liquidity positions. That is, following a fall in the prices of Treasury issues, commercial banks would be less able, or less willing to expand their loan portfolios. For nonbank, institutional lenders (especially insurance companies) the argument was somewhat different. Such lenders do not have the same kind of liquidity needs as commercial banks. But they do have to keep a sharp eye on the default-risk character of their investments. Thus, so the hypothesis runs, Treasury obligations are particularly attractive for financial intermediaries, provided only that they pay a sufficiently high return to allow such lenders to meet their own (contractually determined) obligations. This is why, according to the new theory, nonbank lenders might reasonably be expected to tolerate an increasing spread between yields on private and public securities as yields generally rise. As a final example of the new theory's asset preference hypotheses, there is the so-called "pinned-in" effect. It is an argument based on a supposed irrational aversion — which is to say, an aversion resting in turn on considerations other than relative prices — of institutional lenders to taking capital losses. Given this fear, small increases in yields would "pin" securities into institutional portfolios, thus preventing lenders from expanding their

private debt holdings at the expense of their holdings of Treasury obligations.

The brief summary given here, while not doing anything like full justice to the richness of detail in the arguments of the new theory, does nevertheless indicate the type of thinking which underlays its central thesis: that the Federal Reserve could, using classical techniques, successfully fulfill its traditional function without creating instability in the market for government securities. In fact, the specific hypotheses cited are not so important as such; they should rather be taken simply as illustrations of the primary emphasis of the doctrine. But, now, having outlined the theory, we can turn to an examination of post-Accord developments.

The Post-Accord Experience

Even though it is impossible in this small space to trace out step-by-step the policy maneuvers of the Federal Reserve, it is essential that we have in mind some idea of actual credit conditions during the post-Accord period. Fortunately, all that is really needed is a brief summary aimed simply at marking off in a general way the "easy" from the "tight money" intervals; and, because of the particular phrasing of the arguments of the new theory, the most important criterion for distinguishing the different periods is the Federal Reserve's own definition of its policies. Nor is it possible, considering the same space limitations and the inadequacy of data, to pursue in detail the specific lines of argument set out above, or to examine the activities of all types of lenders; our attention must instead be confined to the over-all behavior of the more important classes of lenders. As was suggested above, however, the central thesis of the doctrine under review here is from the policy viewpoint more significant than the individual hypotheses. And the question of how lenders actually handled their holdings of government securities can be appraised satisfactorily even though there is not available sufficient information to examine specific hypotheses (as, for example, the "pinned-in" effect).

In attempting to establish test periods, it is doubtless best to ignore the four months immediately after the Accord; dominated by very special circumstances, this interval was clearly unique. And, as it happens, the year starting July 1951 can also be ruled

out. (2). This was a period of growing credit ease, during which the System followed a policy of "neutrality" rather than "restraint". For the entire year, the modest reduction in Federal Reserve holdings of Treasury securities affected was not sufficient to offset the gain in bank reserves resulting from changes in the other determinants of reserves (Table 1) (3). Then, too, the avail-

TABLE I

CHANGES IN SELECTED FACTORS AFFECTING BANK RESERVES
BY SIX MONTH INTERVALS: JUNE 1951-DECEMBER 1956
(in billions of dollars) (1)

	Federal Reserve's Government Securities Portfolio	Monetary Gold Stock	Currency in Circulation
July-December 195182	.94	1.40
January-June 1952	— .90	.65	— .18
July-December 1952	1.79	— .16	1.41
January-June 195305	— .72	— .31
July-December 1953	1.17	— .43	.66
January-June 1954	— .88	— .10	— .86
July-December 1954	— .11	— .21	.59
January-June 1955	— 1.33	— .04	— .28
July-December 1955	1.18	.01	.93
January-June 1956	— 1.03	.11	— .44
July-December 1956	1.16	.15	1.08

(1) Source: *Federal Reserve Bulletins*. Signs indicate actual movements, not the influence on bank reserves.

able evidence suggests that the inflationary pressures which developed at the outbreak of the Korean War had moderated considerably by mid-1951 (4). With the reduced demand for private credit,

(2) Because of limitations on data, "mid-year" and "year-end" dates are used exclusively to mark off the various periods. This practice, while not strictly accurate, really involves no substantial distortion.

For additional background information on the post-Accord period, see the articles on credit conditions published periodically in the *Federal Reserve Bulletin*, and, for the relevant years, the "Economic Report of the President".

(3) All references such as this one in () are to the Tables in the text.

(4) See, for example, H. G. HICKMAN, "The Korean War and United States Economic Activity", Occasional Paper 49, National Bureau of Economic Research.

the upward adjustment in interest rates was less pronounced than in the preceding year.

After mid-1952, however, conditions in the credit markets grew progressively tighter. With the settlement of the steel strike in the first half of 1952, industrial activity picked up sharply; spurred by increased consumer expenditures (particularly on durable goods), by a boom in industrial and residential construction, and by an inventory build-up of considerable proportions, the advance continued through mid-1953. Against this background, the authorities moved increasingly in the direction of outright restraint, as indeed the behavior of interest rates indicates. Yields on government securities rose more over the last half of 1952 than in the comparable period one year earlier, though, on the other hand, private yields increased less. During the following six months, however, the entire structure of rates moved up much more sharply than in like intervals in previous years (Table II). System open-market operations were more restrictive in the months after July

1952 than in the year before, since (with the higher level of credit demand) total purchases failed to fully offset even the influence of movements in the gold stock and currency-in-circulation.

Moreover, other steps were taken to put pressure on interest rates. In October 1952 the Federal Reserve stopped direct, continuous support of Treasury refinancing operations. Then, in mid-January 1953, the rediscount rate was increased from $1\frac{3}{4}$ to 2 percent; along with this, System spokesmen began to make increasingly clear (publicly) their unhappiness over the high level of member bank borrowing. And, finally, in March 1953 came the much discussed changes in open-market procedure. It was at that time that the "bills only" doctrine — a policy which confined System open-market dealings to the short end of the maturity distribution (Treasury bills) — was first made public. The other modification of open-market working rules, announced at about the same time, was a rewording of the Board of Governors' policy directive to its Open Market Committee. Prior to that time, the directive had read that open-market operations were to be conducted with the aim of "maintain(ing) orderly markets for U.S. Government securities"; thereafter, such operations were to be used only to "correct (any) disorderly situation in the Government securities market". All of these developments were, to say the least, unsettling.

In May-June the authorities executed an abrupt about-face, in large part because of the crisis-like situation in the securities markets. A good share of the responsibility for this development in the markets, which really got underway in April, lies with the Treasury rather than the Federal Reserve; for, one of the main causes of the extreme unsettledness of those months was the April long-term financing, the terms of which were set by the Treasury, not the System. In any event, the reversal of policy was well advised, since signs of recession began to appear in the economy. Those factors responsible for the high level of activity over the previous year (expenditure on consumer durables, business inventories, etc.) underwent a significant decline in the third quarter of 1953, and did not really recover until twelve months later; only residential and business construction continued apace after mid-1953. It is true that Federal Reserve open-market operations during the year and a half after June 1953 were again aimed only at offsetting the influence of other factors affecting bank reserves, but, of course, until October

TABLE II

PERCENTAGE CHANGES IN INTEREST RATES FOR SELECTED SECURITIES
BY SIX MONTH INTERVALS: JUNE 1951-DECEMBER 1956 (1)

	U. S. Government securities				Municipals (4)	Corporate Securities	Commercial Paper (4-6 months)	Average Rate on Bank Loans to Business (5)
	Bills (new issues)	Certificates 9-12 months (2)	Notes and Bonds (3-5 years)	Bonds (over 12 years) (3)				
July-December 1951 . . .	15.3	1.1	4.5	1.9	5.4	3.4	4.3	6.5
January-June 1952 . . .	1.7	1.7	2.4	3.3	—	3.0	—	7.5
July-December 1952 . . .	24.7	16.7	12.7	5.4	14.3	0.3	—	—
January-June 1953 . . .	5.2	21.2	27.0	12.4	24.6	4.9	15.0	6.3
July-December 1953 . . .	-26.9	-34.6	-20.5	-9.7	-13.4	-1.6	18.2	-0.8
January-June 1954 . . .	-60.1	-52.8	-19.4	-9.0	-4.2	-6.7	-30.7	-4.3
July-December 1954 . . .	80.0	44.7	8.4	1.2	-3.2	-1.1	-16.0	-1.4
January-June 1955 . . .	22.2	55.5	24.7	7.4	3.8	1.7	52.7	—
July-December 1955 . . .	79.0	49.7	16.9	4.3	8.4	3.1	49.5	10.4
January-June 1956 . . .	1.6	5.1	1.4	—	—	3.6	13.5	5.3
July-December 1956 . . .	27.6	23.8	27.1	27.1	31.8	16.5	7.4	5.8

(1) Source: Federal Reserve Bulletins.

(2) Also includes notes and bonds in this maturity range.

(3) Prior to December 1951, the figure is for Treasury bonds over 15 years to maturity.

(4) Includes Aa and A rated bonds, as well as Aaa and Baa.

(5) The average is for 19 cities, as reported by the Federal Reserve.

1954 they were conducted against the background of a considerably reduced demand for credit. Furthermore, reserve requirements were lowered in July 1953 and again in July 1954, while the rediscount rate was dropped $\frac{1}{4}$ percent in February 1954 and again by the same amount (to a level of $1\frac{1}{2}$ percent) two months later. With all these changes, the rate structure moved steadily down from the July 1953 high; it was not until mid-1954 that short-term rates began to rise again, nor until the fourth quarter of 1954 that the entire rate structure began to advance.

When in the fourth quarter of 1954 the economy showed signs of revival, the monetary authorities moved first to a "neutralist" policy. By the second quarter of the following year, however, it had become one of outright restraint. And, though there have been brief variations to compensate for temporary weaknesses in the economy, such has been the policy right down to the present. Over the period from January 1955 through December 1956, open-market operations more than offset other influences on bank reserves, so that on balance a modest restrictive effect was achieved. During this same interval the rediscount rate was raised six successive times, from a level of $1\frac{1}{2}$ percent in March 1955 to 3 percent in August 1956. Pressing against these restraining influences, an exceedingly high level of private credit demand forced interest rates generally to new post-war highs; yields advanced very rapidly all through 1955, and again over the last six months of 1956.

Summarizing, we have then two distinct instances of monetary restraint which can serve as test periods for the argument of the new theory: the year following June 1952 (but especially the first six months of 1953), and the two year interval, January 1955 through December 1956. In both periods the Federal Reserve was free to influence interest rates as it saw fit, as is indicated by the increases in yields which in one way or another it forced on the market. It would seem therefore that the preconditions for the type of behavior which proponents of the new theory had in mind were in fact fulfilled during these periods. Yet, as the subsequent review will show, lenders did not behave in accordance with the pattern outlined in the new theory.

First of all, there is on the face of things little in the activities of life insurance companies and mutual savings banks which supports the new theory's view. For example, over the last half of 1952 and the first half of 1953, life insurance companies reduced

their (aggregate) holdings of Treasury issues by \$.28 billion (2.7 percent); and, in the two years after December 1954, they accomplished another reduction, this time of roughly \$1.5 billion (16.5 percent) (Table III). Only once, over the first six months of 1955, did they

TABLE III
LIFE INSURANCE COMPANIES' TOTAL ASSETS (in billions of dollars) AND TYPES OF ASSETS AS A PERCENT OF TOTAL ASSETS BY SIX MONTH INTERVALS: DECEMBER 1949-DECEMBER 1956 (1)

End of Month	Total Assets	U. S. Government Securities	Other Government Securities (2)	Total Business Securities (3)	Mortgages	Loans and Other Investments
December 1949 . . .	\$ 59.56	25.6%	4.2%	38.9%	21.6%	9.6%
June 1950 . . .	61.68	24.0	4.1	39.1	23.9	9.8
December 1950 . . .	63.89	20.9	4.0	39.5	25.2	10.1
June 1951 . . .	66.05	18.0	4.1	40.5	27.3	10.1
December 1951 . . .	67.98	16.1	3.9	41.2	28.4	10.4
June 1952 . . .	70.33	14.7	3.6	42.5	28.9	10.3
December 1952 . . .	73.75	14.0	3.4	43.0	29.1	10.5
June 1953 . . .	75.40	13.3	3.2	43.8	29.5	10.2
December 1953 . . .	78.20	12.5	3.3	44.0	29.8	10.5
June 1954 . . .	80.98	11.5	3.6	44.1	30.1	10.6
December 1954 . . .	84.07	10.7	3.6	43.8	30.8	11.0
June 1955 . . .	86.97	10.4	3.5	43.5	31.6	11.0
December 1955 . . .	90.22	9.5	3.4	43.2	32.6	11.3
June 1956 . . .	92.88	8.6	3.7	40.0	33.7	11.1
December 1956 . . .	95.82	7.9	3.6	41.0	36.4	11.3

(1) Source: Federal Reserve Bulletins.

(2) U. S. State and Local and Foreign Issues.

(3) Includes Bonds and Stocks.

in the face of rising interest rates increase their holdings of government securities, and then it was by a very small amount — \$.03 billion or .3 percent. Moreover, as Table III indicates, life insurance companies' aggregate portfolio of Treasury obligations declined in relative importance during each of the periods of credit restraint.

The story is substantially the same for mutual savings banks. For, while they did in the aggregate increase their total holdings of government securities by a very small amount over the first six months of 1953 (at a time when interest rates were rising sharply),

they reduced their total holdings in every other period of credit tightness. And, again, such holdings declined steadily in relative importance through the tight money intervals (Table IV).

TABLE IV

MUTUAL SAVINGS BANKS' TOTAL SELECTED ASSETS (in billions of dollars)
AND TYPES OF ASSETS AS A PERCENT OF TOTAL ASSETS
BY SIX MONTH INTERVALS: DECEMBER 1949-DECEMBER 1956 (1)

End of Month	Total of Selected Assets	Total Loans	Total U. S. Government Securities	Total Other Securities	Total Cash Assets
December 1949	\$ 21.27	30.9%	53.7%	11.2%	4.1%
June 1950	22.02	32.7	52.5	11.0	3.8
December 1950	22.15	36.7	49.1	10.6	3.6
June 1951	22.55	40.0	45.3	11.0	3.8
December 1951	23.15	42.6	42.4	11.1	3.8
June 1952	24.07	43.7	39.9	12.4	4.0
December 1952	24.92	45.5	37.8	13.0	3.7
June 1953	25.99	46.5	36.4	13.7	3.3
December 1953	26.79	48.3	34.3	13.8	3.7
June 1954	27.95	49.7	32.3	14.5	3.5
December 1954	28.90	51.9	30.3	14.3	3.6
June 1955	29.98	53.9	29.0	13.8	3.3
December 1955	30.87	55.6	27.4	12.9	3.2
June 1956	31.98	58.3	26.0	12.9	2.9
December 1956	32.86	60.2	24.2	12.6	2.8

(1) Source: Federal Reserve Bulletins.

A glance at the record for the entire post-Accord period shows, however, that life insurance companies and savings banks did not confine their attempts to reduce their portfolios of Treasury issues to times of monetary restraint, but sold on balance during intervals of credit ease as well. This suggests that insofar as the argument of the new theory is concerned, perhaps the rate at which selling took place is more to the point than simply the changes in dollar holdings; that is, it is possible to argue that there is no difference between 1) a situation in which holdings of government securities rise in periods of credit restraint and fall in periods of credit ease, and 2) a situation in which the rate of decline in holdings falls off

in periods of restraint. And, in fact, the decline in insurance companies' and mutual savings banks' portfolios of government securities over the year following June 1952 was less (in absolute and percentage terms) than in the previous like intervals or in the subsequent period of credit ease. But selling during the final period of restraint (January 1955-December 1956) was generally heavier than at any time after mid-1952 — which indicates that, in this interval at least, higher yields on Treasury obligations did not prevent these institutions from taking advantage of increased opportunity for acquiring additional private debt claims. Here again, then, the evidence seems to offer no unambiguous confirmation of the new theory's argument.

Commercial banks, as a group, behaved somewhat differently than life insurance companies and mutual savings banks during the post-Accord period, though there is in this difference even less support for the thesis under review here. The former did, it is true, show the same marked preference for private obligations over the entire interval since the Accord; loans, as a percent of total loans and investments, increased from roughly 44 percent in mid-1951 to about 55 percent at the end of 1956, while holdings of government securities, approximately 46 percent of total loans and investments in mid-1951, comprised only about 35 percent of this total at the end of 1956 (5) (Table V). Interestingly enough, however, what interruptions there were in this over-all pattern occurred during periods when private credit demand was slack. That is, commercial banks in the aggregate were net sellers of government securities only when the demand for loans was high.

Over the first half of 1953, at the same time that interest rates were climbing to new highs, all commercial banks reduced their holdings of government securities by approximately \$4.7 billion (7.7 percent). Again, between the end of December 1954 and the end of December 1956, holdings fell by roughly \$10.7 billion (15.3 percent). In only two instances were System moves in the direction of credit restraint accompanied by increases in total commercial bank holdings of Treasury issues: over the last six months of 1952, while the authorities were really only in the process of

(5) At the end of 1945, loans were approximately 21 percent of total loans and investments for all commercial banks; government securities, on the other hand, made up roughly 73 percent of the total.

switching to a tight money policy, total holdings rose \$2.1 billion (3.5 percent); and, over the last six months of 1956, total holdings again increased, this time by \$1.7 billion (3 percent). Neither increase was sufficient, however, to prevent an over-all decline in each of the respective periods of credit restraint. On the other hand, commercial banks were actually net purchasers of government securities over the last half of 1951; total holdings rose \$3.2

TABLE V

LOANS AND INVESTMENTS OF ALL COMMERCIAL BANKS:
BY SIX MONTH INTERVALS: DECEMBER 1949-DECEMBER 1956
(in billions of dollars) (1)

End of Month	Total Loans and Investments	Total Loans	Government securities				Other Securities
			Total	Bills	Certificates	Notes and Bonds	
December 1949 *	\$ 120.20	\$ 67.01	\$ 42.81	\$ 3.86	\$ 12.69	\$ 50.35	\$ 10.23
June 1950 *	121.39	44.63	65.56	4.03	6.20	55.37	11.20
December 1950	126.68	52.25	62.03	4.24	1.97	55.81	12.40
June 1951 *	125.72	54.71	58.33	4.00	3.16	51.20	12.68
December 1951	132.61	57.75	61.52	7.34	7.66	46.51	13.34
June 1952	134.44	59.23	61.18	6.24	7.80	47.11	14.03
December 1952	141.62	64.16	63.32	7.76	5.58	49.96	14.14
June 1953	137.96	65.03	58.64	5.05	5.09	48.38	14.28
December 1953	145.69	67.59	63.43	5.00	10.24	48.15	14.67
June 1954	146.83	67.34	63.51	4.70	5.57	53.20	15.54
December 1954	155.92	70.62	68.98	5.07	5.36	58.53	16.32
June 1955	155.26	75.18	63.27	3.22	1.71	58.33	16.81
December 1955	160.88	82.60	61.59	4.22	2.32	55.04	16.69
June 1956	160.01	86.89	56.62	2.82	1.25	52.54	16.50
December 1956	165.69	91.24	58.55	5.92	2.00	50.62	16.15

(1) Source: Federal Reserve Bulletins.

* Data for these dates are estimated.

billion (or about 5.8 percent). Then, between mid-1953 and the end of 1954, when loan demand was again slack, their aggregate portfolio of government securities increased more than \$10 billion, so that by the end of 1954 total holdings were larger than at any time since mid-1947.

It should also be noted that commercial banks as a group did not in the period under review make a consistent attempt to

strengthen their liquidity position in other ways to compensate for the over-all shift from government securities to private loans. For, while they ran down their excess reserves and increased their average indebtedness to the System during intervals of credit restraint, they did not vary their holdings of short-term issues (bills and certificates) so as to offset the reductions in total holdings of Treasury securities (Table V). Nor did they in each instance, when private loan demand was high, attempt to increase their holdings of government securities maturing in less than one year (Table VI).

TABLE VI

INDICES OF COMMERCIAL BANK LIQUIDITY FOR ALL COMMERCIAL BANKS
BY SIX MONTH INTERVALS: DECEMBER 1949-DECEMBER 1956 (1)

End of Month	Ratio of Total Holdings Government Securities Maturing in Less Than One Year to Total Loans and Investments	Ratio of Total Holdings Government Securities Maturing in Less Than One Year to Total Demand and Inter-Bank Deposits
December 1949	20.0%	22.1%
June 1950	13.2	15.0
December 1950	16.4	17.5
June 1951	8.1	8.9
December 1951	10.7	11.1
June 1952	9.5	10.4
December 1952	12.0	12.9
June 1953	14.2	15.9
December 1953	17.2	18.9
June 1954	12.1	13.8
December 1954	10.1	11.4
June 1955	5.1	5.3
December 1955	4.8	5.4
June 1956	4.6	5.4
December 1956	7.0	8.2

(1) Source: Federal Reserve Bulletins.

Thus, there is not in the aggregate behavior of commercial banks any appearance of consistent support for the new theory. One can of course find isolated instances where changes in commercial banks' portfolios did conform to its predictions. Overall, however, these institutions do not seem to have been deterred by

increases in interest rates from expanding their portfolios of private obligations at the expense of their holdings of Treasury issues. In fact, as was indicated above, they showed interest in the latter only during periods of credit ease, that is, when yields on government securities were falling (6). Obviously, one could argue that commercial banks — or, for that matter, life insurance companies and savings banks as well — were actually deterred from reducing their holdings of government securities by increases in interest rates, but that other forces were sufficiently strong so as to dominate the influence of changes in yields. This is possible, though we will never know. Also, it is to be doubted that such an argument as this salvages much of the new theory — insofar, that is, as its implications for policy are concerned.

The belief, so widespread in the immediate post-war, that institutional lenders were unhappy holding such large quantities of government securities (given the then current structure of interest rates) is thus seen to have been quite an accurate prediction. For the increase in the relative importance of private obligations in institutional portfolios has been almost uninterrupted over the entire periods since the end of World War II, and has been carried to the point where now private debt holdings of commercial banks, life insurance companies and mutual savings banks are actually slightly more important relatively than before the war. In part, this switch was effected by the simple expedient of using new funds exclusively for purchasing private debt claims; but, as the previous discussion indicated, there was also a considerable amount of selling of government securities in an attempt to speed up the conversion of institutional portfolios to their pre-war composition. Of course, in the pre-Accord days, while the authorities were still supporting the market for Treasury issues (particularly long-term obligations) within fairly narrow limits, even heavy selling could

(6) There is in the present tax law, as it applies to commercial banks, a partial explanation for this pattern. These banks, unlike industrial firms, are allowed to deduct in full net capital losses from income in determining taxable income; and, in addition, they are allowed to pay the usual reduced capital gains rate on net capital gains. These provisions provide an incentive for switching between comparable assets during periods of high interest rates. More important, they make the prospect of a capital loss (as the "price" of a switch from securities to loans) much less of an inhibiting factor. It is also possible that general switching for tax purposes, insofar as it gives rise to a thicker market, makes it easier for banks wanting to make loans to find buyers for their securities.

not be expected to influence the level of yields very much. But more interesting is the observation that even after the Accord, when automatic System support could no longer be counted on, the liquidation of portfolios by institutional lenders was still remarkably orderly. True, fluctuations in interest rates were rather considerable by pre-Accord standards; yet, only once (April-May 1953) was there a real crisis in the market, and this was not so much the fault of the Federal Reserve as the Treasury. It is in this very limited sense that the most general implication of the new theory has been born out by post-Accord developments.

It is to be doubted that this interpretation means much (if anything) as far as the new theory itself is concerned, though, of course, the fact that the market was kept orderly argues well for the Federal Reserve in its application of monetary restraint. The point is that the specific arguments on which the new theory's prediction was based have not been so kindly treated by post-Accord developments. Any explanation of the fact that the System was able to withdraw its support from the market for government securities without producing intolerable instability must be rooted more in the behavior of non-institutional lenders — an element in the picture quite unnoticed by proponents of the new theory — than in the hypotheses outlined above. As Table VII shows, non-financial lenders' holdings of marketable government securities increased approximately \$22 billion (nearly 33 percent) between mid-1951 and the end of 1956 (7). Furthermore, the sharpest increases (absolutely and as a percent) were recorded in periods of credit restraint. Only once during a period of rising interest rates (the first half of 1956) did total holdings decline; and then there was an equivalent increase in the following six months. The other break in this pattern of increase in non-financial holdings of Treasury marketable issues took place in the first six months of 1954, at a time when interest rates were declining; but here too there was an offsetting increase in the following half-year interval.

(7) This group of lenders, known in the Federal Reserve statistics as "others", is dominated by the behavior of the non-financial sector of the economy, particularly individuals and non-financial corporations. No separate figures are published on the "dealer and broker" component of this category, but Savings and Loan Associations' holdings, which are also included, are given separately; such holdings increased at a fairly even pace from about \$1.5 billion in December 1949 to roughly \$2.8 billion in December 1956.

It is also of some interest to note the changes by "type" in private lenders' holdings of government securities which have taken place, since, presumably, they represent the growing influence of

TABLE VII

OTHERS' * HOLDINGS OF MARKETABLE PUBLIC DEBT
BY SIX MONTH INTERVALS: DECEMBER 1949-DECEMBER 1956
(in billions of dollars) (1)

End of Month	Total	Bills	Certificates	Notes	Bonds
December 1949	41.8	3.9	11.0	1.8	25.0
June 1950	43.7	5.8	7.3	5.1	25.3
December 1950	44.4	7.9	1.4	10.0	24.9
June 1951	45.6	8.4	3.2	8.8	22.1
December 1951	46.7	10.1	8.8	2.5	22.1
June 1952	47.4	10.3	9.1	2.6	21.6
December 1952	51.0	12.5	6.4	5.0	23.1
June 1953	53.7	13.2	6.1	5.7	24.9
December 1953	55.2	11.4	10.5	5.8	23.7
June 1954	52.1	12.2	6.5	6.5	23.0
December 1954	55.2	12.1	9.5	7.3	22.5
June 1955	59.3	15.2	4.0	12.5	23.9
December 1955	67.7	16.0	7.6	14.7	25.7
June 1956	64.9	17.1	3.9	13.4	26.9
December 1956	67.7	17.7	6.0	13.4	27.0

* Includes non-financial corporations (*i.e.*, other than banks and insurance companies), individuals, corporate pension funds, non-profit institutions, dealers and brokers, and savings and loan associations.

(1) Source: *Federal Reserve Bulletins*.

non-financial corporations in the market for such issues (8). In the interval since the Accord, holdings of short-term obligations have increased more relatively than holdings of longer-term issues; in particular, holdings of bills seem to have been more sensitive to changes in the level of interest rates than were holdings of other

(8) No separate figures are published on holdings, by "type", of government securities for non-financial corporations. The opinion seems to be, however, that business firms have of late become increasingly active in the market for short-term government securities (especially bills). For a discussion of the growing influence of non-financial corporations, see HYMAN P. MINSKY, "Central Banking and Money Market Changes", *Quarterly Journal of Economics*, V. LXXI, May 1957, pp. 171-88.

types of government securities. This may well reflect the willingness of non-financial corporations to switch between bills and cash, depending on the level of the bill rate.

TABLE VIII

FEDERAL RESERVE SYSTEM'S HOLDINGS OF GOVERNMENT SECURITIES
BY SIX MONTH INTERVALS: DECEMBER 1949-DECEMBER 1956
(in billions of dollars) (1)

End of Month	Total	Bills	Certificates	Notes	Bonds
December 1949	\$ 18.9	\$ 4.8	\$ 6.3	\$.6	\$ 7.2
June 1950	18.3	3.9	5.4	3.5	5.6
December 1950	20.8	1.3	2.3	12.5	4.6
June 1951	22.9	.5	3.2	12.4	6.8
December 1951	23.8	.6	12.8	5.1	5.3
June 1952	22.9	.4	11.8	5.6	4.4
December 1952	24.7	1.3	5.1	13.8	4.5
June 1953	24.7	1.5	5.0	13.8	4.5
December 1953	25.9	3.0	6.0	13.3	3.7
June 1954	25.0	2.3	6.6	13.0	3.1
December 1954	24.9	2.2	13.9	6.0	2.8
June 1955	23.6	.9	8.3	11.6	2.8
December 1955	24.8	1.7	6.0	14.3	2.8
June 1956	23.8	.9	10.9	9.2	2.8
December 1956	24.9	1.9	11.0	9.2	2.8

(1) Source: *Federal Reserve Bulletins*.

The Significance of Post-Accord Developments

It does seem, judging from the information presented here, that it was the willingness of non-financial lenders to take up large quantities of government securities at only slightly higher interest rates which, more than anything else, kept rates from rising more than they did. This, of course, is not to deny that there were other influences. The simple passage of time sapped much of the force from the dilemma in which the monetary authorities found themselves in the immediate post-war. By the time of the Accord, institutional portfolios were much more nearly in balance than they were in mid-1945. Then, too, the Accord represented no really sharp break with the past, since lenders were only gradually

reintroduced to the idea of flexible interest rates. Nor did the authorities leave the post-Accord market completely to its own devices. Treasury debt and Trust Account operations doubtless eased market pressures some, if only on a seasonal basis. For, while the total debt did increase from about \$257 billion in December 1950 to roughly \$277 billion six years later, net reductions in the total were recorded for the second quarter of 1953, the first half of 1955, and the year 1956 as a whole. Moreover, the Federal Reserve, besides offsetting seasonal pressures regularly, increased its own holdings of government securities modestly in the period from the Accord to the end of 1956 (9).

Without considerable buying support from the non-financial sector, however, the System would probably have had to either take up much larger quantities of Treasury issues than was actually the case, which would have meant a further expansion of the money supply, or else allow interest rates to rise even more than they did, which no doubt it was also reluctant to do. Admittedly, this interpretation does assume a considerable interest-inelasticity in the private demand for loanable funds, as well as a willingness on the part of institutional lenders to continue to trade public for private obligations even as yields on the former rise appreciably. But then there have been present throughout the post-war period strong pressures — in addition, that is, to rate differentials — on commercial banks and financial intermediaries to expand their portfolios of private debt claims. And the evidence of the post-Accord years suggests that borrowers, with the possible exception of state and local governments, are not much (if at all) influenced by changes in interest rates *per se*. This, it would seem, is in accord with previous experience, and is perhaps one of the reasons for the new

(9) System holdings of government securities increased \$2 billion between the end of March 1951 and the end of December 1956. Because of the strong seasonal influence in open-market operations, however, this figure probably overstates some the effect of such operations. When like dates are used — as, say, from July 1951 through June 1956, or from January 1952 through December 1956 — the increase is seen to be about \$.8-.9 billion. (Table VIII). Of course, Federal Reserve holdings rose dramatically in the first three months of 1951 (\$1.1 billion) because of the unsettled conditions which prevailed immediately before the Accord; and, no doubt, some sales of government securities during this period were in anticipation of actual acquisition of private obligations, so that banks probably had available during the post-Accord period more reserves (supplied by System purchases) than the change in the System's portfolio would suggest.

theory's emphasis on the significance of market structure and on the behavior of lenders rather than borrowers.

That the behavior of non-financial lenders was neglected as an explanation by the new theory does not mean that the monetary authorities looked upon it as an unfortunate development. Quite the opposite, in fact. They have been content to point out that, because of this willingness of non-financial lenders to hold Treasury securities at interest rates only slightly higher than those which prevailed in pre-Accord years, the expansion of commercial bank loans during periods of credit restraint (at the expense of bank holdings of government securities) has taken place within a constant (nominal) money supply: the presumption being that the Federal Reserve has thus, for whatever reason, been able to hold the line against inflation without precipitating demoralizingly large fluctuations in interest rates. This, however, while in part accurate, is really an overly simple interpretation of post-Accord developments. It does not take into account the unfavorable aspects of the pattern described here; nor does it, in implicitly basing monetary policy on such a pattern, recognize the unhappy consequences which could result from future applications of monetary restraint by classical methods.

If one looks only at changes over time in the nominal money supply, as of late the authorities have tended to do, the fact that the economy has been making more intensive use of the given supply during periods of monetary restraint escapes notice (10). This, of course, is what is involved in the transfer of government securities from institutional lenders generally (but particularly commercial banks) to the non-financial sector during the recent instances of credit tightness. For, while relatively idle balances have been cancelled by non-financial purchases, more active deposits have been created by the ensuing loans made possible by the original sales, with the result that the income-velocity of the money supply has been increased (11).

(10) Even a sympathetic reading of Federal Reserve statements — for example, the "Annual Reports", of either the Board of Governors or the Federal Reserve Bank of New York — will show a lack of concern for this aspect of the problem of monetary control. On this, as well as other issues raised in this section, see W. L. SMITH, "On the Effectiveness of Monetary Policy", *American Economic Review*, V. XLVI, September 1956, pp. 588-606.

(11) For evidence on this point, see SMITH, *ibid.*, pp. 600-3.

In the same vein, another interesting development is the increasing use dealers in government securities have been making of repurchase agreements with non-financial corporations to carry their inventories (12). To the extent that securities dealers can rely on such an arrangement, commercial bank reserves can be shifted from the support of dealer loans to the support of business loans; and, where banks lend to industrial firms because dealers have already obtained their finance by means of repurchase agreements, an increase in velocity results, since it is unlikely that the velocity of dealer loans is in general greater than the velocity of business loans. The underlying assumption here (which, it seems, has some foundation in fact) is that dealers are for many reasons better able than (say) industrial firms to tap heretofore idle balances. Moreover, if a repurchase agreement is for non-financial corporations a more suitable arrangement than an outright purchase of Treasury issues, as has been suggested, then its widespread use makes possible a larger transfer of government securities (for the same change in interest rates) than would otherwise be the case. This in turn makes room for an additional increase in velocity through the ordinary "switching" process described above.

It should also be pointed out that the use of repurchase agreements, besides tending to increase the effective money supply, may well have an impact on the allocation of loanable funds. In the situation where dealers rely on repurchase agreements with non-financial corporations, firms with good bank connections are in a relatively more favorable position; where this arrangement is not used extensively, firms possessing supplies of liquid assets (Treasury bills) are relatively better off.

An additional change in structure, the growth of the "federal funds" market, should perhaps be commented on here, even though it does not have quite the same significance in the present context as the patterns outlined in the above paragraphs. This market is

(12) See MINSKY, *op. cit.*, pp. 176-81, for a description and analysis of this development. A repurchase agreement between a securities dealer and a non-financial corporation is, to quote Professor Minsky, "... ostensibly a sale of government debt instruments with a tied-in repurchase agreement, (but) in truth the transaction is a collateral loan callable both ways". The only difference between a repurchase agreement with a non-financial corporation and one with the Federal Reserve — and it is an important difference — is that the latter is always at the initiative of the System, whereas the former can be initiated by the dealer.

simply an arrangement for trading in member bank excess reserves, made possible by the very efficient communications network supplied by the Federal Reserve and by private correspondent relations. Commercial banks with temporary excess reserves are able to lend to those with temporary deficiencies — usually on an unsecured, over-night basis, and at a rate somewhat below the official System discount rate (13).

The increase in the importance of federal funds has resulted in a more efficient use of bank reserves; banks are now able to utilize each other's excess reserves, whereas formerly excess reserves could exist in the banking system and still some loan applicants could go begging. Unlike the process of commercial bank sales of Treasury securities, however, the increased reliance on federal funds shows up directly as an increase in the money supply. Also, its influence is more likely to be of a transitory nature; as soon as the full development of the market is achieved, its significance as a difficulty for the authorities declines. Nevertheless, in a period in which increasing use is being made of federal funds, as, for example, in the interval since the Accord, there is a problem. In part, it is a problem of judgment, if that previous experience would lead the authorities to underestimate the expansionary effect (or underestimate the restrictive effect) of a given increase (decrease) in Federal Reserve credit outstanding. When increasing use is being made of such funds, a purely passive policy (i.e., holding Federal Reserve credit constant) is less restrictive than it would otherwise be.

Behavior such as that described here, when taken as a means of expanding the effective money supply, raises a question about the degree of restraint actually achieved by the authorities in the tight money periods since the Accord. It is clear that monetary operations have not been as restrictive as a reading of changes in the nominal money supply alone would suggest, though, obviously, this cannot be interpreted as a necessary criticism of the Federal Reserve. It is unlikely that the System has not in its private calculations taken fully into account the influence of velocity changes. Moreover, a case can be made for the view that the close rein kept on the nominal money supply by the authorities during

(13) MINSKY, *ibid.*, pp. 173-5.

the post-Accord intervals of expanding business activity would have been unduly severe were it not for the offsetting increases in velocity. Certainly this would be the opinion of those who (for whatever reason, some of which are discussed below) believe an aggressive monetary policy to be a dangerous weapon, or, alternatively, that monetary policy should attempt only a very modest contribution to economic stabilization. It is in fact from just this perspective that the post-Accord operations of the System come off rather well — and not, it should be added, because only little is expected of such activities. That the Federal Reserve has demonstrated a considerable technical skill in reintroducing the money markets to the discomforts of flexible interest rates can scarcely be denied. More importantly, it has all along steered rather a middle-course, thereby avoiding sudden strictures in the market in either direction, while at the same time keeping the over-all liquidity of the economy generally in tune with the needs of the moment.

Yet the actions of the authorities can be praised precisely because they (apparently) did not try to do too much. It is only when classical monetary policy is thought of as a primary (or, indeed, the only) weapon to be used against powerful destabilizing forces that the developments outlined above become more serious in their implications. For they do prompt some considerable doubts about the wisdom of relying solely on quantitative techniques of monetary control, as of late the Federal Reserve has preferred to do. Such measures, by their very nature, aim only at a control of the total nominal money supply; they cannot therefore deal effectively with changes in the rate of spending out of a given supply. Now, probably, there is some sort of institutionally defined upper limit on increases in velocity, particularly in the short-run (14). But even if this is granted, the difficulty is not resolved; for it is not simply a question of squeezing harder on bank reserves by means of (say) open-market operations, thereby offsetting any increases in velocity by holding the effective money supply constant (15). Under

(14) Professor Minsky's argument (*ibid.*, pp. 181-4) is that the high interest rates associated with periods of credit restraint "breed" institutional innovations which serve as mechanisms for increasing velocity even more, in which case the existence of an upper limit on velocity changes, even in the short-run, is less likely.

(15) On this point, see W. L. SMITH and R. F. MIRESELL, "The Effectiveness of Monetary Policy: The British Experience", *Journal of Political Economy*, V. LXV, February 1957, p. 35. See also, SMITH, *op. cit.*, pp. 605-6.

present circumstances, it is altogether likely that real barriers to a quick realization of monetary tightness do in fact exist. The authorities just cannot proceed at a very rapid pace. A restrictionist policy obviously cannot be applied at a rate which will demoralize securities markets; nor can the authorities ignore the possibility that such action will, when it comes with suddenness, produce a greater stringency than is really desired and disrupt economic activity generally. The outcome of this tactic would be a policy which is effective because it is at the same time too effective. This, of course, is a criticism of classical monetary policy which is often made even where the assumption is that restrictive measures will be applied only gradually; it is all the more relevant when the authorities are required to exert considerable pressure in a short space of time.

It would thus seem that the recent structural changes in the money markets (especially the growth of the short-term public debt) have had the effect of weakening the influence of quantitative techniques of monetary control; that is to say, there is now a greater interval between the time when the first move in the direction of monetary restraint is made and the time when the pressure is first really felt. Furthermore, there is the chance (how serious, it is hard to judge) that these changes, in facilitating the extension of the economy's liquidity to support a greater volume of spending, inject a dangerous element of instability into the picture. When the processes described above have gone on for some time, prompted, that is, by a policy of credit restraint, sudden changes in the demand for liquidity have more far-reaching consequences. The vulnerability of economic units (financial or non-financial) to changes in asset values is also increased. And, since the Federal Reserve (qua "lender of last resort") deals directly only with commercial banks, its ability to protect other types of institutions may be too limited to prevent a decline in general economic activity.

There appears then, on the basis of the foregoing, to be good reason for giving serious thought to the possibility of supplementing the classical techniques of monetary control already available with additional selective controls. Unlike the former, selective measures can prevent the financial system from increasing velocity, and thereby reduce the "operational lag" of monetary policy and curb

the above-mentioned tendency to instability (16). An example of this type of control is the so-called "secondary reserve plan," a device much discussed in the early post-war period. As applied to commercial banks, it would involve the imposition of an additional reserve requirement to be held in the form of Treasury obligations; like the present cash requirement, the securities requirement would be variable at the will of the authorities. Such an arrangement would — depending on the level at which the reserve would be set — prevent banks from switching out of government securities in an attempt to expand their loan portfolios. Hence, borrowers having access to finance through commercial banks alone could be prevented from obtaining funds. Moreover, if careful attention were at the same time paid to the behavior of the total money supply, banks would not be able to supply funds by monetizing securities.

The ultimate significance of this policy depends of course on the degree of mobility in the credit markets; that is, other institutions — particularly those possessing government securities and having previously established contacts with the loan markets — could take over the function of tapping idle balances when commercial banks are prevented from doing so. This, however, is not really too imposing a hurdle. If a secondary reserve requirement were to be applied to commercial banks, there is no good reason why it could not be extended to cover financial intermediaries. But, recognizing this additional complication, it is likely that the former remain the most important "middlemen" in the process by which idle funds are tapped; they, after all, are the lenders who have in the past built up their portfolios of Treasury issues during periods of slack loan demand, thus readying themselves for the next period of restraint.

Some portions of the credit markets would, it is true, be left untouched by a secondary reserve plan, even where the requirement is taken as applying broadly. For example, consumer credit companies could, by issuing their own commercial paper, tap the idle balances of industrial corporations. Then, too, by restraining exist-

(16) For a more detailed discussion of some of the points raised here, see the very interesting article by ERVIN MILLER, "Monetary Policy in a Changing World", *Quarterly Journal of Economics*, V. LXX, February 1956, pp. 23-43. See also ALVIN H. HANSEN, *The American Economy* (McGraw-Hill, 1957), Chapter 3.

ing institutional lenders, one might simply spawn others who would fulfill the same function. For this reason, other selective controls would have to be placed on specific types of credit: in particular, consumer and real estate credit, since these kinds are of such overriding importance today (17). Without going into all of the complexities involved, the point is simply that such an arrangement would curb the motivation to activate idle deposits.

Other benefits would flow from an extension of the authorities power to include the direct measures mentioned here. The reason is simply that selective controls do not require considerable fluctuations in interest rates to be effective. If it could confidently be expected that relatively modest changes in interest rates would provoke sharp reactions among borrowers, there would be no cause for dwelling on this aspect of the problem of quantitative vs. selective controls. But the appearance is that demand in many segments of the total loanable funds market is insensitive to changes in yields (18).

For one thing, with such a large outstanding public debt as exists today, the question of the cost of service charges is indeed relevant. Because it is not always possible politically (as at the present moment) to raise tax rates sufficiently to offset increases in debt costs, other aspects of the total government program will suffer as a result of an increase in interest rates. There is then a problem of income redistribution.

Furthermore, even though the authorities currently pretend to an indifference to the level of interest rates, they are clearly mindful of it (if not for the reason given above). Thus, a downward pressure on the prices of government obligations might well defeat a tight money policy by forcing the System into support of the

(17) It should be noted that we have in fact had a type of selective control in the mortgage market in this country over the post-Accord period. Since yields on government guaranteed mortgages are set by legislative action, they are less flexible than market-determined rates. This is in part simply due to legislative delays, but it also reflects the feeling, shared by many Congressmen, that such yields should be kept low as a subsidy to low-income house buyers: this, in spite of the fact that in periods of credit restraint no funds are forthcoming for such mortgages. Whatever the reason, this is clearly a form of direct price control.

(18) One of the few areas in which there has been any suggestion of sensitivity to interest rate changes is that of state and local financing, particularly for school construction. From the welfare point of view, this is perhaps a perversity, and one which could be overcome only by direct intervention.

market. Nor is this a fear for the future alone; for, while there is a considerable operational lag in monetary policy, the switching of government securities to the non-financial sector of the economy cannot go on forever. Once non-institutional lenders have run down their idle cash balances, then a failure on the part of the Federal Reserve to buy in the open market will produce large fluctuations in interest rates. Whether or not the authorities will tolerate even greater increases in yields than have so far been experienced is at least open to some doubt, their protestations notwithstanding.

Finally, there is the problem of the influence of changes in capital values, a point which has received a good deal of attention of late (19). It arises now because, as contrasted with say the 19th century, assets of all types are today much more liquid or more easily transferred. From the standpoint of monetary policy, this could be all to the good; the danger is that the magnitude of fluctuations in interest rates required to achieve a given effectiveness in the credit markets will be such as to also have distinctly unfavorable effects on overall expectations. Since the authorities cannot overlook the chance of introducing an even greater instability into the economy by pursuing monetary restraint with classical weapons alone, direct controls (as supplements) become all the more necessary if monetary policy is to be sufficiently meaningful.

It would probably be a mistake to suppose that the authorities are unmindful of these points favoring greater reliance on direct controls; and perhaps in the future, when inflationary pressures are stronger than they have been in the past few years, they will again show a willingness to make use of them. Lately, however, the appearance has been of an increasing reluctance to do so. Not that this is necessarily inappropriate to current conditions, although it does seem somewhat inconsistent when matched up against the ever present preoccupation with the dangers of inflation. Nevertheless, it is really impossible to tell from its public utterances alone the extent to which the System's present desire to rely exclusively on traditional monetary techniques is a thing of principle; all that can be said is that it apparently does not now feel the need for additional powers.

(19) For an interesting perspective on this point, see HANSEN, *op. cit.*, Chapter 3.

True enough, the secondary reserve proposal mentioned above was given Federal Reserve backing in the days when Eccles was Chairman of the Board of Governors. Yet, even then the endorsement was mixed with internal opposition; and when (in 1948) McCabe was made Chairman, official support waned. For some time now the System has been opposed to the institution of this or similar requirements. Also, the Federal Reserve only just recently came out after long study against the reimposition of consumer credit controls, even on a standby basis. Use was made of this kind of regulation during the Korean War, although the necessary power was granted the authorities before the Accord, at a time, that is, when market pegging operations still stood in the way of a complete utilization of traditional techniques. Even on the question of central bank autonomy, which is not unrelated (in attitude, at least) to the problem of direct controls, the System has in recent years reversed itself. Before the Accord, it favored the establishment of a cabinet-level committee, the purpose of which would have been to coordinate the activities of all federal bodies having anything to do with monetary matters. But, as early as 1952, when the Patman Sub-Committee Hearings were held, the Federal Reserve showed no interest in such a committee.

Before concluding some mention should be made of funding as a technique of monetary control. For the Treasury has attempted over the last few years to utilize it, and it has but recently received quite a bit of attention in the literature (20). Because the process of switching public debt holdings from financial to non-financial lenders is in part made possible by the existence of a large short-term debt, a funding operation could well be of help to the authorities. Yet, the recent experience has been rather disappointing, and it does seem that unless those responsible are equipped with (and use) direct controls as an adjunct to fundings, such will most often be the case. The Treasury did, it is true, manage to increase the average maturity of the marketable debt slightly during the most recent period of credit ease (1953-54). But over the past two and a half years some ground has been lost, so that the average maturity

(20) See especially W. M. DACZY, "The Floating-Debt Problem", *Lloyds Bank Review*, April 1956, and the series of articles by KING, BALOGH, *et. al.*, in the April through November (1956) issues of *The Banker*.

is now somewhat shorter than in 1952 (21). The ultimate issue is of course that of the cost (in increased interest payments) of funding, and this raises the further question of just when a large-scale funding operation could be undertaken. As the recent behavior of the Treasury (admittedly very sympathetic to this line of attack) shows, it is an unlikely thing to do during periods of credit restraint. Nor does it seem well advised to embark on such a program during a recession or (worse) a depression, if for a different reason; funding would tend to keep long-term rates above what they otherwise be.

Thus, it appears that relatively lengthy interval of stability, accompanied by low interest rates, is required if much is to be accomplished by means of funding operations; and even then the advantages of funding would become available only in subsequent periods of credit restraint. If, however, use were made of direct controls, in which case interest rates would be lower, then funding could more reasonably be attempted as an immediate attack on inflationary pressures.

Conclusion

The intent of the preceding discussion has been to make clear just what the existence of a large public debt means to the monetary authorities. To be sure, the problem is not now the same as in the immediate post-war, though it is no less serious for that. Overriding all else at the close of World War II was the fear that an abandonment of pegging operations would bring on a collapse of the securities markets. In fact, however, while there were some difficult moments, nothing like this came to pass when (in 1951) the final break with wartime policy was made. Still, it is likely that the transition would not have been so smooth, had free markets been imposed sooner. And, more important, the fact that it was possible to return to a more traditional monetary policy without dire consequences cannot be accounted for in terms of the arguments of the new theory. Quite the contrary; the evidence indicates that it has been the willingness of non-financial lenders to hold

(21) See E. L. DALE, JR., "Managing the U. S. Debt Is Anderson's Big Task", *New York Times*, August 4, 1957, Section 4.

government securities rather than the unwillingness of institutional lenders to part with their portfolios of such issues which has made it possible for the Federal Reserve to avoid large-scale support of the market.

Nor is this all to the good. It has meant that offsetting increases in velocity have accompanied attempts by the authorities at monetary restraint. The significance of the existence of a large public debt lies then in the fact that it has facilitated this expansion of the effective money supply. It has served to reduce whatever effectiveness classical monetary policy had, since the traditional techniques cannot deal with attempts at a more intensive utilization of a given nominal money supply. For this reason, the very existence of a large public debt suggests the need for a far greater reliance on direct methods of monetary control.

The point of all this is that the Federal Reserve itself has, at least in its public pronouncements, been too prone to overlook the shortcomings of classical monetary policy. No other interpretation can reasonably be put on its refusal to seek additional powers. There obviously is nothing necessarily inappropriate in this attitude, provided only that the limitations of such a program are kept constantly in mind: that is, if monetary policy is treated as an auxiliary weapon, the main reliance being placed on fiscal measures. The cause for alarm therefore is that the Accord itself, often judged to be the vindication of traditional policy, will continue to be misinterpreted, and that we will try to pile on more weight than the camel can bear.

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