

Addresses

Mar

v.f.

PRESS COPY
HOLD FOR RELEASE UNTIL
DEC 3 A.M.

Replies of the Chairman
of the
Board of Governors of the Federal Reserve System
to Questions Submitted by the
Subcommittee on Economic Stabilization
of the
Joint Committee on the Economic Report
in connection with
Subcommittee Hearings on December 7, 1954

**Federal Reserve Bank
of
Philadelphia
LIBRARY**

November 26, 1954

(1) What role did monetary policy play in the period of relative stability following the Treasury-Federal Reserve "accord" in 1951, in the months of boom late in 1952 and early 1953, and in the recession of 1953-54?

Inflationary dangers in prospect in 1951 made essential a shift in credit and monetary policies of the sort envisaged in the Treasury-Federal Reserve accord. Review of subsequent developments supports the conclusion that the policies pursued were helpful in bringing about and maintaining a reasonable degree of both stability and growth in the economy. The country encountered an economic problem of unprecedented nature, namely, carrying out, with no further price inflation after the 1950-51 spurt, a defense program of exceptional magnitude short of war while permitting moderate expansion in private expenditures. Private demands for goods and services were still in the process of overcoming the effects of war and postwar scarcities. Credit and monetary measures, together with fiscal and debt management policies, helped to make it possible to cope with this situation through the mechanism of competitive markets and a free price system. As a result, the various direct controls imposed early in the defense period could be eliminated, thus relieving markets of the rigidities and inefficiencies inherent in such controls.

The Treasury-Federal Reserve accord was reached after an earlier inflationary outburst of overbuying, overborrowing, and overpricing in the private economy. In the first year after its adoption, private spending and borrowing moderated while the defense program expanded. In the second year, however, from the spring of 1952 to the

late spring of 1953 there was a vigorous expansion in private spending and in private credit demands, just as defense expenditures were reaching a peak and the Federal Government faced the need for heavy borrowing to meet a deficit. Large capital expenditures, inventory accumulation, and heavy consumer purchases of durable goods--all financed to a large extent by credit--together with overtime operations in industry and exceptionally full utilization of resources generally, threatened to develop into an unsustainable boom. Credit restraints helped to keep total demands within the limits of the capacity of the economy to produce and to spread the volume of spending over a longer period.

The boom was checked without collapse and was followed by an orderly and moderate downward adjustment in activity. The adjustment was cushioned by progressive action to ease credit markets, as well as by tax reductions and other fiscal measures. It has not developed into a disastrous depression, as many quite reasonably feared.

The defense program has now been curtailed to a level more likely to be sustained over an extended period. Many of the more urgent domestic and foreign shortages resulting from war destruction and postwar reconstruction have been satisfied. Inventories have been reduced appreciably and current production is more nearly in balance with demand. The problem of economic policy has thus become one of facilitating, yet keeping within sustainable bounds, the normal growth forces of a free enterprise, competitive economy.

In the remainder of this answer, credit and related economic developments in the 1951-54 period are described and analyzed in some detail.

Treasury-Federal Reserve Accord

When the Korean outbreak occurred, the financial policies of this country were hampered by problems and methods of operation inherited from the Second World War and its aftermath. Federal Reserve credit policies for many years had been handicapped by trying to combine appropriate credit action with the support of Government securities prices. These practices, which were adopted to meet wartime conditions, contributed in the early postwar period to an inflation that had raised the price level to almost double the prewar average before it came to an end in 1949.

Following the Korean outbreak and adoption of a greatly enlarged defense program, inflation resumed. Various attempts to restrain credit expansion while continuing to support prices of Government securities had unsatisfactory and diminishing results as mounting sales of securities to the Federal Reserve by banks and other holders made funds abundantly and cheaply available for spending, investing, and speculation.

In a move to correct this situation, on March 4, 1951, the Secretary of the Treasury and the Chairman of the Board of Governors of the Federal Reserve System announced that "the Treasury and the Federal Reserve System have reached full accord with respect to debt management and monetary policies to be pursued in furthering their common purpose to assure the successful financing of the Government's requirements and, at the same time, to minimize monetization of the public debt."

Following this accord, monetary policies were reoriented. Open market operations were altered over a period so as to adjust the supply of bank reserves to levels consistent with stable economic growth rather

than to support prices of Government securities. The discount mechanism through which member commercial banks borrow from the Federal Reserve Banks was gradually restored to an effective instrument of credit regulation. Various selective regulatory and voluntary means for restraining credit extensions in particular areas were utilized for a time, but to an increasing extent reliance came to be placed upon the more general measures that operate through the quantity of bank reserves and through flexible interest rate movements.

Imposition of Credit Restraints--Spring of 1951 to Spring of 1952

Following the accord, Federal Reserve operations in the short-term Government securities market, except for limited purchases during periods of Treasury refunding, were only for the purpose of influencing the volume of bank reserves in accordance with the broad objectives of Federal Reserve policy, namely, to contribute to stable economic growth. Purchases of long-term securities by the Federal Reserve were continued in diminishing volume for a number of weeks following the accord, but after mid-1951 the Federal Reserve bought practically no long-term bonds.

Under these policies, any bank or other investor wishing to sell Government securities generally had to depend on buyers in the market, and the free play of market forces resulted in some fluctuation as well as some rise in rates. Such price and interest rate fluctuations perform important functions of a self-corrective and stabilizing nature, as is explained more fully in the answers to Questions 3 and 5.

It had been widely feared that because of the magnitude of the public debt the removal of pegs on prices of Government securities would

leave the market with insufficient buyers and holders to carry the debt, and thus would produce a catastrophic decline in bond values and panic conditions in the Government bond market. These fears proved unfounded. Would-be sellers either found buyers at prices they were willing to accept or refrained from selling. New issues were offered at yields which attracted sufficient buyers. Until late 1952, market yields on long-term bonds averaged less than 2-3/4 per cent, with prices fluctuating between 95 and 99. The rate on Treasury bills gradually increased, but until 1952 remained generally below the Federal Reserve discount rate of 1-3/4 per cent.

The Federal Reserve purchased short-term securities at times of Treasury refunding operations in order to steady the market. During periods of peak seasonal needs for reserves by the banking system, the Federal Reserve bought securities either outright in the market or from dealers under repurchase agreements for limited periods. At other times, however, System holdings of securities were reduced in order to absorb reserves in excess of current needs. For the year ending April 30, 1952, although there were wide variations during the period, total Federal Reserve holdings of U. S. Government securities declined slightly as shown in Table I.

During this period banks were supplied with some reserves on balance by other factors, primarily a gold inflow, offset in part by a growing currency demand. To obtain additional reserves, banks resorted increasingly to borrowing at the Federal Reserve Banks; these borrowings fluctuated considerably in response to temporary needs for reserves and showed a gradual rising tendency. This was the first time banks had had

to borrow to any significant extent since the early Thirties. Since banks are generally averse to borrowing steadily and the Federal Reserve Banks endeavor to discourage continuous borrowing by individual members, the result of such a situation was to exert restraint on bank credit extension and thus on growth of deposits.

Table I

FEDERAL RESERVE CREDIT AND BANK RESERVES
Changes from April 1951 to April 1952*
(In billions of dollars)

Federal Reserve credit	
U. S. securities	-0.5
Discounts and advances	+0.2
Other factors affecting reserves (Sign indicates effect on reserves)	
Gold stock and foreign balances at FR Banks	+1.8
Currency in circulation	-1.3
Other - net	+0.3
Member bank reserve balances, total	<u>+0.5</u>
Required reserves	+0.6
Excess reserves	-0.2

* Changes derived from monthly averages of daily figures for the two months indicated. Figures may not balance because of rounding.

In addition to the adoption of more restrictive monetary measures following the Treasury-Federal Reserve accord, direct controls were imposed on prices early in 1951 and the allocation of materials in short supply was made more rigorous. A general reaction set in from the overbuying, overpricing, and overborrowing of the previous months. In the following twelve months, Government expenditures for defense increased sharply, but expansion in business and consumer expenditures for durable goods

halted, and the rate of accumulation of business inventories was reduced. Consumer expenditures for nondurable goods and services continued to increase moderately. Private credit expansion slackened. Prices in general showed little change. Some prices that had previously risen most sharply declined, while some other prices advanced moderately.

Private credit expansion continued in this period, but the rate of growth was much slower than immediately after the outbreak in Korea. Commercial banks, while slowing down their loan increases, added somewhat to their holdings of short-term Government securities, being motivated to do so by the attraction of higher rates and by the fact that their longer-term holdings were less liquid than they had been under the bond support policy. Credit developments in this and other periods are indicated in Table II, which shows changes in outstanding amounts of selected types of credit and also by selected groups of lenders or investors for years ending June 30, 1950 to 1954.

Although corporate security issues increased from mid-1951 to mid-1952, as a result especially of needs to finance expanding defense activities, the rate of expansion in bank loans to businesses and in mortgage credits slackened considerably. Increases in consumer credit and in borrowing by State and local governments were kept within moderate limits, notwithstanding continuing strong demands. The moderation in credit growth was due in part to regulation of consumer and mortgage credit terms and to the voluntary credit restraint program carried on by lending institutions. To a considerable extent, however,

Table II

GROWTH IN MAJOR TYPES OF DEBT AND EQUITY FINANCING
(Net increase in amounts outstanding, in billions of dollars)

Distribution of growth by--	12 months ending June 30			
	1954	1953	1952	1951
Major types:				
Federal cash borrowing	2.2	2.9	-0.5	-5.8
State and local government issues	5.5	3.1	2.6	2.8
Real estate mortgages	9.9	9.4	8.2	11.3
Corporate bond and stock issues	6.7	7.7	7.3	4.7
Bank loans to business	-1.3	2.0	1.5	6.5
Consumer credit by banks and other lenders	0.4	4.9	2.3	1.8
Bank credit not included above	2.4	0.2	1.4	1.0
Total, major types of financing	25.8	30.2	22.8	22.3
Selected holders:				
Federal Reserve Banks	0.3	1.8	-0.1	4.7
Commercial banking system	8.2	3.5	8.4	4.0
United States securities	4.9	-2.5	2.7	-7.2
Other loans and investments	3.3	6.0	5.7	11.2
Nonbank holders:				
Mutual savings banks	1.9	2.0	1.4	0.9
Savings and loan associations	3.9	4.0	2.4	2.1
Life insurance companies	4.5	5.2	3.7	3.7
Others--U.S. Govt. securities only:				
Individuals	0.0	1.5	-0.9	-2.0
Corporations	-2.6	-0.2	-1.1	1.6
Miscellaneous investors	0.9	1.2	0.9	1.0
Total holdings of above financing types accounted for by selected holders	17.1	19.0	14.7	16.0

Note.--Table shows net changes in selected types of loan extensions and new equity financing. Among types not included are trade credit other than consumer credit; interbank loans; security issues by foreign agencies, international organizations, nonprofit and eleemosynary institutions; nonbank loans for purchasing securities; and claims such as shares, pass books, and insurance policies issued by financial organizations. Among holders, the most important exclusions are nonfinancial corporations, trusts, governments and individuals, except for U. S. Government bonds.

the slackened pace in making loans and investments resulted from the limitation on the availability of bank reserves, higher interest rates, and the reluctance of lenders and others to sell Government securities at the lower prices then prevailing.

These latter changes constituted in effect a decrease in liquidity and resulted in an increased demand for cash balances. The changed liquidity needs and the expanding volume of economic activity made possible a further substantial growth in bank credit and the money supply without generating inflationary pressures. Demand deposits and currency showed a further expansion of about 7 billion dollars or 6 per cent in the 12 months ending April 1952. Savings deposits, which had actually contracted following the Korean outbreak, increased substantially as did savings in other forms.

In summary, it may be said that after the Treasury-Federal Reserve accord the Federal Reserve endeavored to adjust its policies so as to influence the level of bank reserves and the money supply in accordance with seasonal requirements, the capacity of the economy to produce goods and services, and sustainable economic growth in the economy. The discount function was restored as a means of supplying temporary needs for Federal Reserve credit in a manner that exerted restraint on unwarranted uses of such credit, thereby complementing open market operations in influencing the availability of credit at member banks. Discontinuation of rigid pegging of Government security prices removed the possibility of monetizing the public debt through sale to the Federal Reserve System at the initiative of the holders, nonbank as well as bank, and without loss to them. The excess liquidity of the economy was thereby removed.

Resumption of Expansionary Tendencies--Spring of 1952 to Spring of 1953

Beginning in the spring of 1952, the rate of increase in defense spending slackened, but there was a renewed expansion of private expenditures and private credit demands became more vigorous. Around the middle of that year, direct regulation of consumer instalment and real estate credit and the voluntary credit restraint programs were discontinued. These actions increased the dependence on general credit measures for restraining excessive credit and monetary expansion. Total national product increased in the following year as a result of growing private expenditures both for consumption and investment, including a building up of inventories. By late 1952 the economy generally was operating on an overtime basis. Wage rates again rose substantially and consumer prices advanced slightly; at the same time, however, wholesale prices continued to show more declines than advances.

All major kinds of credit increased more sharply in the twelve months ending June 1953 than in the preceding twelve months, as shown in Table II. The biggest change was in consumer credit, which increased five billion dollars as compared with only little change during most of the previous year. The United States Government became a net borrower of about three billion from the public, as compared with a reduction in its indebtedness in the previous year. The volume of mortgage loans completed and of corporate and State and local government securities issued was moderately larger than in the preceding year. Bank loans to businesses, reflecting inventory accumulation, expanded very sharply in late 1952 and failed to show the usual seasonal decline in early 1953.

A significant characteristic of this period was the amount of credit demands met from the genuine savings of the public. The net expansion in credit supplied by nonbank lenders was much greater than in the preceding year, while bank credit showed a smaller rate of increase. Furthermore, a larger portion of the bank credit represented the investment of savings deposits, which increased by 7 per cent. Demand deposits and currency continued to expand but the annual rate of growth declined from 6 per cent to 3 per cent.

The Federal Reserve occasionally bought Government securities in this period but the objective of monetary policy continued to be restraint on undue credit and monetary expansion. Purchases were made at times of Treasury refundings during 1952 and subsequently offset in part by sales. Open market operations were also undertaken in response to seasonal influences affecting bank reserve needs.

Over the whole period April 1952 to April 1953, as shown in Table III, net purchases were less than enough to cover the drains on bank reserves resulting from gold outflow and larger currency demands. Banks had to borrow substantial amounts from the Federal Reserve in order to meet growing demands for credit. Discounts and advances at Federal Reserve Banks generally exceeded a billion dollars from July 1952 to May 1953, and they averaged 1.6 billion in December 1952. This made banks much more restrained in their willingness to supply these demands. To make the policy of restraint more effective, the Federal Reserve discount rate was raised from 1-3/4 to 2 per cent in January 1953.

Table III

FEDERAL RESERVE CREDIT AND BANK RESERVES
Changes from April 1952 to April 1953*
(In billions of dollars)

Federal Reserve credit	
U.S. securities	+1.4
Discounts and advances	+0.8
Other factors affecting reserves (Sign indicates effect on reserves)	
Gold stock and foreign balances at FR Banks	-0.7
Currency in circulation	-1.3
Other - net	+0.1
Member bank reserve balances, total	+0.2
Required reserves	+0.3
Excess reserves	-0.1

* Changes derived from monthly averages of daily figures for the two months indicated. Figures may not balance because of rounding.

The restraints did not stop credit and monetary growth. The growth that occurred apparently corresponded closely to the capacity of the economy to absorb more money without inflation. Since the resources of the economy were generally fully utilized, any more credit might have resulted in inflationary price rises and moreover might have built up an unsustainable debt structure. Inflation was prevented, notwithstanding strong pressures of demand for more credit, and prices remained relatively stable. In some lines, particularly instalment loans to consumers and inventory loans to business, the rate of expansion was apparently more rapid than could be sustained.

The money market showed a marked response to the strong demand for credit and the restraints on its availability. Interest rates rose

during the period, reflecting the pressures of credit demand in excess of the available supply. The rise in interest rates was particularly great in the spring of 1953 when yields on high-grade securities and loans generally reached the highest levels for 15 to 20 years. Treasury bill rates approached 2-1/2 per cent; the average yield on long-term Treasury bonds rose above 3 per cent; and a small new issue of 30-year Treasury bonds bore a coupon rate of 3-1/4 per cent. Rates on new issues of high-grade corporate bonds exceeded 3-1/2 per cent, and Federally guaranteed mortgages sold at discounts in the secondary market.

By May 1953 the market developed a condition of tension that threatened to become unduly severe. This reflected a number of converging factors. Apprehension arose regarding the ability of the credit market to meet borrowing demands of the State and local governments, consumers, home buyers, and business corporations, together with rising Treasury financing needs. The combination of a Government deficit and large private credit demands is exceptional for a period other than one of active war and it was difficult to gauge the problems that it might present. At that time the Treasury made its offer on a one billion dollar issue of 30-year 3-1/4 per cent bonds to raise new money from nonbank investors. This offering gave probably the first tangible evidence of a striking nature, not only of the fact that the Treasury had to borrow substantial amounts, but also that it had to compete against large private borrowing demands for the available supply of savings at competitive rates if resort to the creation of an undue volume of new money through the banking system were to be avoided.

In addition to Treasury borrowing, private credit demands of various sorts were exceptionally large. New security issues by corporations and State and local governments exceeded 7 billion dollars in the first half of the year--larger than in any previous half-year, and the amount of future issues scheduled was still large. Some of this borrowing was in anticipation of further stringency. About this time, also, the ceiling rates on the FHA and VA mortgages were raised after months of consideration, and a large volume of mortgages which had been held back pending the authorization of higher rates suddenly came on the market. The new rates, however, proved low relative to the tight market at the time, and such mortgages sold at discounts in the secondary market.

The continued high level of member bank borrowing from the Federal Reserve and the limited availability of reserve funds were keeping banks under pressure. The effect on the money market was a marked rise in interest rates, which exerted a considerable amount of restraint on private credit demands. The heavy pressures on the market were due to the growing demand for credit. The supply of credit actually increased substantially but did not meet all demands.

Slackening of Activity after Spring of 1953

Early in May 1953 Federal Reserve officials recognized that as a result of a combination of circumstances, some of which were unexpected, undue tension was developing in the credit market. They concluded that steps should be taken to temper restraints currently imposed on member banks, particularly in view of prospective seasonal credit and currency demands.

The Open Market Committee began early in May to supply reserves by purchasing Government securities and by midyear about one billion dollars of securities had been acquired. Early in July some 1.2 billion

dollars of reserves were released to the banking system by a reduction in member bank reserve requirements. These actions made it possible for banks to decrease their borrowings sharply and to subscribe for a new issue of short-term Government securities early in July, as well as to meet seasonal credit and currency demands around the midyear.

Inflationary forces abated after the spring of 1953 and economic activity commenced to recede from the all-time high level reached in the second quarter of that year. Business inventory expansion slackened and subsequently contraction in inventories set in. Home building plans were temporarily held up because of financing difficulties. Substantial cutbacks in defense expenditures began to be made by the Government.

As these evidences of business slackening became clearer, the Federal Reserve further eased credit conditions by purchasing additional securities in the market. Reserves thus made available were enough to cover the effects of a gold outflow and the customary seasonal rise in currency and credit demands, but the increases that actually occurred in currency and required reserves were smaller than expected. Member banks were thus able to use a part of the reserves made available to them to reduce their borrowings at the Federal Reserve Banks. In February 1954 the Federal Reserve discount rate was reduced to 1-3/4 per cent.

Developments for the first 12 months following the change in policy are summarized in Table IV. In that period the reduction in reserve requirements of 1.2 billion dollars and Federal Reserve purchases of securities of 1.3 billion enabled member banks to meet a small further gold outflow, to decrease appreciably their borrowings at the Reserve Banks, and to obtain reserves needed to cover further deposit expansion.

TABLE IV

FEDERAL RESERVE CREDIT AND BANK RESERVES
Changes in billions of dollars*

	April 1953 to <u>April 1954</u>	April 1954 to <u>Oct. 1954</u>
Federal Reserve credit		
U.S. securities	<u>1/</u> +1.3	-0.2
Discounts and advances	-1.0	+0.1
Other factors affecting reserves (Sign indicates effect on reserves)		
Gold stock and foreign balances at FR Banks	-0.5	-0.2
Currency in circulation	0	-0.3
Other	<u>1/</u> -0.4	0
Member bank reserve balances - total	-0.6	-0.5
Required reserves, due to--		
Reduction in requirements	-1.2	-1.6
Growth in deposits	+0.4	+1.1
Excess reserves	+0.2	0

* Changes derived from monthly averages of daily figures for the two months indicated. Figures may not balance because of rounding.

1/ Exclude effect of 500 million dollar sale of Government securities to Treasury in exchange for free gold carried in Treasury cash balance.

Since April 1954, reserves needed for customary seasonal and other purposes have been supplied largely by a further reduction of about 1.6 billion dollars in member bank reserve requirements. Reserves were supplied at times by Federal Reserve purchases of Treasury bills, while at other times to absorb redundant reserves, bills were sold or not replaced at maturity. Thus banks have been able to meet seasonal credit and monetary demands and also to purchase new issues of Treasury securities with little borrowing.

Total credit demands, particularly for long-term purposes, continued substantial during the latter part of 1953 and in 1954, although less than in the preceding year. There was a decline in bank loans to business and consumer credit showed little increase from the middle of 1953 until recently. Mortgage lending began to pick up in the autumn of 1953 and has since been in record volume, stimulated in part by considerably liberalized downpayment and maturity terms, especially under Government mortgage programs. New security issues by corporations were slightly less than in the preceding year but those of State and local governments were much larger. The Federal Government remained a substantial net borrower.

Savings continued to meet a large portion of total credit demands as reflected in the figures of insurance companies, savings and loan associations, and mutual savings banks as well as in time deposits of commercial banks. The total of demand deposits and currency, which changed little from the spring of 1953 to the spring of 1954, except for normal seasonal movements, showed a more than seasonal increase after mid-1954.

As a result of the increased availability of funds and the slackened credit demands, yields on short-term Treasury securities declined by the summer of 1954 to the lowest level since 1949. Since the spring of 1954 yields on long-term Government securities and those on high-grade corporate bonds have been generally at the lowest level since the Treasury-Federal Reserve accord. Rates charged by banks on customer loans remained at about last year's higher levels until mid-March, when the rate to prime borrowers was reduced. Mortgage interest rates declined somewhat and discounts on guaranteed and insured mortgages were reduced substantially, with small premiums appearing in some areas.

Summary and Conclusion

The role and objective of the Federal Reserve in the defense mobilization period have been to make possible the provision of adequate credit and money for full utilization of, and growth in, the country's economic resources. At the same time, policy endeavored to prevent excessive credit and monetary expansion beyond the limits of productive capacity that would lead to inflationary developments and threaten the maintenance of stable growth.

During the period of restraint in 1952-53 Federal Reserve policy looked toward the avoidance of credit excesses which could cause real trouble once a downturn had come. This policy sought to even out the flow of capital investment by fostering deferment of some projects until slack had developed in the economy. During the period of ease since May 1953, the major contribution has been to facilitate as large a volume of bank lending as the economy required, and to provide support for mortgage lending and utility and State and municipal financing which has had its counterpart in a high volume of construction of residential property, utilities installations, public buildings, and roads construction. These activities have been a substantial offset to declines in defense expenditures and in business inventories.

November 24, 1954

(2) How has the emphasis in the use of monetary instruments changed during the period since mid-1952? For example, how have the various instruments--open market operations, discount policy, and reserve requirement changes--been used under varying conditions? Has there been any reliance on moral suasion during this period?

At any given time, the Federal Reserve System pursues the policy it believes appropriate for the credit and economic situation. It has three major instruments available for effectuating its policy -- open market operations, discount policy, and changes in reserve requirements. These instruments are complementary and mutually reinforcing. Extent of reliance on any one of the instruments depends upon the System's judgment as to what may be most appropriate under the circumstances to further the general credit policy being pursued.

Description of the Instruments

Open market operations are carried out at the initiative of the System by making purchases or sales of Government securities in the market. Purchases of securities supply reserves to member banks. Sales of securities absorb or extinguish member bank reserves. These operations can be used to offset losses or gains in reserves from changes in such factors as currency in circulation or gold stock or to expand or reduce the volume of bank reserves.

Discount policy relates to Federal Reserve Bank lending to member banks. The initiative in such credit extensions is taken by individual member banks when it is necessary for them to build up their reserve positions to required levels. The discount rates at which the Federal Reserve Banks will lend to member banks are established by each Reserve Bank from time to time, subject to review and determination by the Board of Governors, in accordance with the credit and economic situation.

Member banks, as a matter of well-established banking practice, are generally reluctant to operate on borrowed funds, or to stay long in debt. Therefore, under ordinary circumstances, borrowing at the Federal Reserve by individual banks is usually on a temporary, short-term basis. In unusual or emergency situations, of course, Federal Reserve discount credit may be outstanding to individual banks for longer periods. The general principles governing Reserve Bank administration of the discount window arise out of law, regulation, and Federal Reserve discount experience.

By raising or lowering reserve requirements of the various reserve classes of member banks -- within specified limits for each class as permitted by law -- the Federal Reserve at its initiative may diminish or enlarge the volume of funds which member banks have available for lending. Action of this type thus influences the liquidity position of banks and their ability to expand deposits in relation to their reserves. By their nature, changes in reserve requirements affect at the same time and to the same extent all member banks within each reserve class subject to the action.

Interrelationship of the Instruments

Although any one of these three major instruments will tighten or ease credit conditions, each of them has a somewhat unique role in carrying out System credit and monetary policy. Open market operations have become the chief instrument by which the System influences on a current basis the volume of unborrowed reserves of member banks. Such operations are also actively used to exert important restrictive or expansive pressure on bank credit conditions when the economic situation calls for fundamental change in these conditions. Since a purchase or sale of Government securities by the System adds to or subtracts from the

reserves of the member banks, it will be reflected initially, other things unchanged, in the volume of excess reserves held by member banks or in the volume of reserves that member banks need to obtain by borrowing at the Federal Reserve Banks. Reflecting the reluctance of member banks to incur indebtedness or remain long in debt, changes in the volume of member bank excess reserves or borrowing are promptly reflected in conditions of credit availability and interest rates in the money market. Bank credit is restricted as banks become increasingly indebted and eased as the volume of that indebtedness is diminished or the amount of excess reserves is increased. Open market operations are thus a flexible means for helping to achieve whatever condition of credit tightness, ease, or moderation may be appropriate.

The Federal Reserve discount rate is a pivotal interest rate in the credit market. In particular, short-term open market rates tend to array themselves in relationship to the Federal Reserve discount rate, except in a period when the reserve positions of member banks are so easy as to obviate the need for borrowing at the Reserve Banks. When through open market operations bank reserve positions have been put under pressure (or have been allowed to get under pressure as bank credit and deposits expand), money rates will tend to range higher in their relationship to the discount rate. Conversely, as bank reserve positions ease, they will be lower in relation to that rate.

In a period, for example, when restraint on bank credit and monetary expansion is needed, open market operations and changes in the discount rate need to be used to reinforce each other. In the first instance, increasing pressure on bank reserve positions (increased need

for borrowing) may be developed through use of the open market instrument alone. At a point, however, it will become appropriate to support the effectiveness of this open market action by an increase in the discount rate, strengthening the reluctance of member banks to remain indebted to the Federal Reserve by making borrowing more expensive as a means of adjusting bank reserve positions. Such discount rate adjustments tend to lag behind adjustments in market rates in a tightening credit situation. With an upward adjustment of the discount rate, market rates may shift further upward over a period of time as they re-form around the new and higher discount rate.

In a period when it is appropriate to ease credit conditions, open market operations may be undertaken to supply reserve funds. Member banks may use these funds initially to reduce their borrowing. Since this action will put banks in a stronger position to increase their lending and investing activities, it will tend to be reflected in a stronger tone in money markets and in lower market rates in relation to the discount rate. To reinforce this credit-easing action, it may be appropriate at some stage to lower the discount rate, thereby keeping the cost of using this avenue for the temporary adjustment of bank reserve positions more nearly in line with the cost of making these adjustments through the sale and subsequent repurchase of market paper or securities.

Changes in reserve requirements can be used, like open market operations, to tighten or ease bank reserve positions. As with open market operations, the effect shows up initially in changes in the volume of member bank excess reserves and borrowing at the Reserve Banks. Its impact on the money market and the availability of bank credit is, therefore, similar in many respects to that of a comparable open market action.

The reserve requirement instrument, however, is not interchangeable with the open market instrument. Unlike open market operations, the results affect immediately and simultaneously all banks in each reserve class. Changes in requirements, moreover, can not be made frequently -- especially on the up side -- without unduly disturbing the operations of individual banks, since in our country adherence to reserve requirements is a basic rule to be observed in conducting a banking business. Changes in reserve requirements are, therefore, made infrequently and typically involve a fairly sizable volume of funds. The effects tend to be large and concentrated within a short period of time. The instrument is more appropriate for making a major change in the volume of available bank reserves than it is for short-run adjustments. It is not adaptable to affecting bank reserve positions on a day-to-day and week-to-week basis, as are open market operations. Nor is the instrument as sensitive and flexible a means of affecting general credit conditions as is the combined use of open market and discount operations. In fact, it may be desirable to engage in partially offsetting open market actions in order to cushion the impact of reserve requirement changes in credit markets.

Use of the Instruments Since Mid-1952

In an appended tabulation, Exhibit A, the various credit actions taken by the Federal Reserve after mid-1952 are set forth, together with a summary of the surrounding credit and economic circumstances. A chart, Exhibit B, shows the interrelated effects of these actions on member bank borrowings and excess reserves. Examination of these measures will make clear the interaction and interrelation of the major instruments following a pattern similar to that described above. As may be seen from the

accompanying chart, the System did not fully meet through open market operations the heavy demands of banks for reserves in the fall of 1952, with the result that there was a build-up in the volume of discounts. This pressure on bank reserves was reflected in a rise in interest rates, particularly in the short-term sector. The restrictiveness of this development was reinforced in early 1953 by an increase in the discount rates of the Reserve Banks from 1-3/4 to 2 per cent. Restraint on bank reserve positions was maintained over the first several months of 1953. Reflecting the very strong demand for credit from a variety of sources, interest rates, both long- and short-term, rose further.

The revival in this period in the use of the discount instrument, little used since the early 1930's, raised some problems of discount administration for the System. Through a lapse of time some member banks had lost familiarity with the principles of law and regulation relating to the appropriate occasions for borrowing at the Reserve Banks. Under the excess profits tax law then in effect, it was profitable for member banks in excess profits tax brackets to borrow to increase their tax base, and, in order to improve their tax situations, a few of these banks began to rely on borrowing at the Reserve Bank rather than adjustments in asset positions in maintaining their reserve positions. Some other banks seemed willing to remain indebted at the Reserve Banks for extended periods in order to profit from differentials between market rates of interest and the discount rate. As these developments became apparent, they were dealt with administratively by the Reserve Banks on a case-by-case basis.

With signs of an abatement of the inflationary threat in the spring of 1953, the Federal Reserve modified its credit policy. Easing actions were first undertaken through open market purchases begun in early May and made on an increasing scale through June. These open market purchases were supplemented at mid-1953 by a reduction in reserve requirements. Taken together these actions made available sufficient reserve funds to meet seasonal reserve drains and credit needs at the midyear, including large Treasury needs, and at the same time greatly to ease pressures on bank reserve positions and to reduce member bank borrowing needs.

Additional open market actions were taken over the second half of 1953 to expand further the supply of reserves available to member banks in accordance with usual seasonal factors. Actual credit demands did not come up to seasonal expectations, however, and member banks used surplus reserve funds to reduce their borrowings at the Reserve Banks. By early 1954 banks were largely out of debt to the Reserve Banks and over the first half of the year excess reserves increased steadily, largely reflecting seasonal factors. Easing actions by the open market instrument were supported by reductions in the discount rates of the Reserve Banks first in February and again in April and May. Interest rates declined sharply over the period in response to this combination of actions and the reduced demand for short-term credit.

In May of 1954 the Federal Reserve again began to supply bank reserves through open market operations and around midyear reserve requirements of member banks were further reduced. This action was taken in order to promote further bank credit and monetary expansion and to make available funds to meet seasonal reserve drains and credit needs,

including those of the Treasury. It was foreseen that the action would supply more reserves than were called for at the time and accordingly open market sales were made to absorb a part of the funds. It was anticipated that these funds would be released to the market over the fall months as needed by open market purchases and this was done. The dovetailing of reserve requirement and open market actions in the summer of 1954 illustrates how the impact of a change in reserve requirements may be cushioned and spread over time by temporarily offsetting open market measures.

Selective Credit Actions^{1/}

In addition to its general credit instruments, the System had during this period one continuing instrument of selective credit action, namely, margin requirements on stock market credit. Margin requirements established by the Board of Governors limit the amount which brokers, dealers, and banks may lend to customers in order to purchase or carry securities. Their statutory purpose is to prevent undue use of credit for stock market transactions. From the standpoint of credit and monetary administration, margin requirement regulation serves to minimize the bearing that stock speculation might have on the use of the general instruments of System policy discussed above.

^{1/} At times during the past the Board has also had temporary authority to regulate the terms of consumer and real estate credit. Most recently, for example, regulation of consumer credit was undertaken in the early fall of 1950 under temporary authority granted by the Defense Production Act. The Board suspended such regulation in May 1952, and in the Defense Production Act amendments approved June 30, 1952, Congress repealed the authority to regulate consumer credit. In the fall of 1950 the Board was also given temporary authority to regulate real estate credit terms. Such regulation was begun in mid-fall of that year and suspended in September 1952 to conform with the provisions of the Defense Production Act as amended. That Act continued the authority for real estate credit regulation until mid-1953, but required that the regulation be relaxed earlier if the estimated number of dwelling units started in each of three successive months was below a seasonally adjusted annual rate of 1.2 million.

In February 1953 margin requirements on stock market credit were reduced from 75 to 50 per cent. The 75 per cent margin requirement had been set in January 1951 as a preventative measure during that inflationary period. The action in early 1953 was taken in the judgment that a 50 per cent requirement would be adequate to prevent an excessive use of credit for purchasing and carrying securities.

Use of Moral Suasion

Moral suasion is generally taken to refer to oral or written statements, appeals, or warnings made by the banking and monetary authorities to all or special groups of lenders with the intent of influencing their credit extension activities. During the period under review only minor use was made of this instrument within the Federal Reserve System.^{1/}

The term moral suasion is sometimes given a broader meaning to include any public or private statements made by Federal Reserve officials in the discharge of their responsibilities. As so defined it would include statements made to promote awareness and understanding of current credit and monetary problems on the part of the public and the financial community. It would also include conferences with member banks, individually and in groups, and with others in connection with the administration of various System functions, including particularly the discount function. On the basis of this broader definition, it may be said that moral suasion is constantly being employed by the System to promote public understanding of System actions and to ensure compliance with the law and with regulations issued pursuant to the law.

^{1/} For example, the Federal Reserve Bank of Boston, on May 15, 1953, addressed a letter to all commercial banks in the First Federal Reserve District calling attention to relaxation of credit standards taking place in the market for instalment credit.

USE OF FEDERAL RESERVE INSTRUMENTS

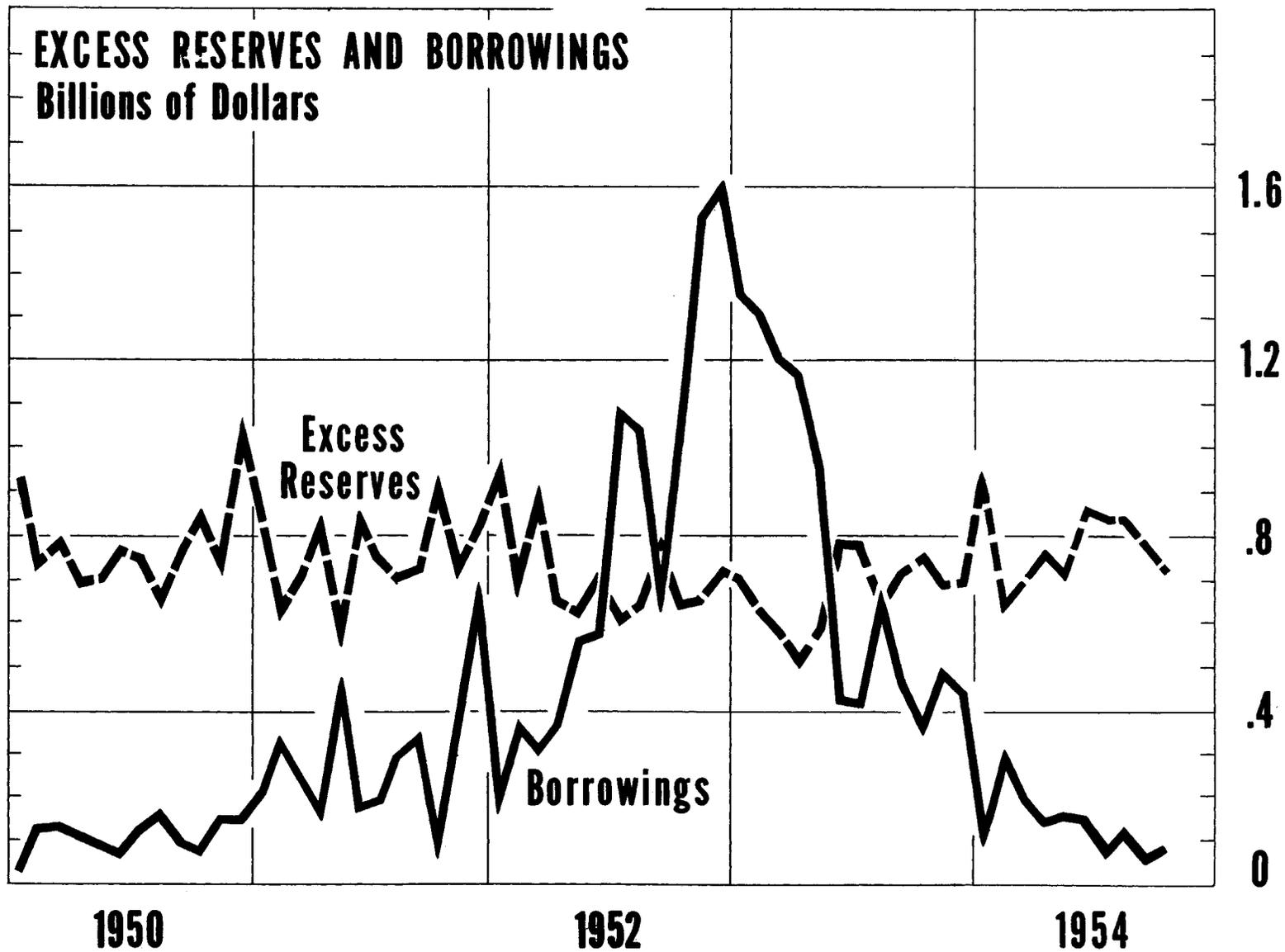
July 1952 - October 1954

Date	Action	Purpose of action	
		Intent with respect to effect on credit and money	Explanation
September 1952	Suspension of regulation of real estate credit.	None	To conform with the terms of the Defense Production Act, as amended, requiring suspension of regulation if housing starts in each of three consecutive months fell short of an annual rate of 1,200,000 units, seasonally adjusted.
July - December, 1952	Limited net purchases of U. S. Government securities in open market to 1.8 billion dollars.	Restrictive	To meet seasonal and other reserve drains only in part, requiring banks to borrow some of the reserves needed so as to restrain bank credit and deposit expansion at a time when credit demand was very large and the economy was fully employed. Purchases in August and September were made primarily at times of Treasury refunding operations and were offset in part by subsequent sales.
January - April 1953	Sold or redeemed 800 million dollars net of U. S. Government securities.	Restrictive	To offset seasonal changes in factors affecting reserves and thus to maintain pressure on member bank reserve positions.

Date	Action	Purpose of action	
		Intent with respect to effect on credit and money	Explanation
January, 1953	Raised discount rates from 1-3/4 to 2 per cent and buying rates on 90-day bankers' acceptances from 1-7/8 to 2-1/8 per cent.	Restrictive	To bring discount rates as well as buying rates on acceptances into closer alignment with open market money rates and to provide an additional deterrent to member bank borrowing from the Reserve Banks.
February, 1953	Reduced margin requirements on loans for purchasing or carrying listed securities from 75 to 50 per cent of market value of securities.	None	To reduce margin requirements from the high level imposed early in 1951, in the judgment that the lower requirement would be adequate to prevent excessive use of credit for purchasing and carrying stocks.
May-June, 1953	Purchased in open market about 900 million U. S. Government securities.	Relief of credit market tensions	To provide banks with reserves and to permit a reduction of member bank borrowing from the Reserve Banks at a time when such borrowing was high, credit and capital markets were showing strain, and seasonal needs for funds were imminent.
July, 1953	Reduced reserve requirements on net demand deposits by 2 percentage points at central reserve city banks and by 1 percentage point at reserve city and country banks, thus freeing an estimated 1.2 billion of reserves.	Expansive	To free additional bank reserves for meeting expected seasonal and growth credit demands, including Treasury financing needs, and to further reduce the pressure on member bank reserve positions.

Date	Action	Purpose of action	
		Intent with respect to effect on credit and money	Explanation
July-December, 1953	Made net purchases in open market of U. S. Government securities totaling 1.7 billion dollars.	Expansive	To provide banks with reserves to meet seasonal and growth needs and to offset a continuing gold outflow with little or no additional recourse to borrowing. This action and the one below were taken in pursuance of a policy of active ease adopted in view of the business downturn.
January-June, 1954	Limited net sales to about 900 million dollars of U. S. Government securities in open market.	Expansive	To absorb only part of the reserves made available by the seasonal deposit contraction and return flow of currency thereby further easing bank reserve positions.
February, 1954	Reduced discount rates from 2 to 1-3/4 per cent and buying rates on 90-day bankers' acceptances from 2-1/8 to 1-3/4 per cent.	Expansive	To bring discount rates as well as buying rates on bankers' acceptances into closer alignment with market rates of interest and to eliminate any undue deterrent to bank borrowing from the Reserve Banks for making temporary reserve adjustments.
April-May, 1954	Reduced discount rates from 1-3/4 to 1-1/2 per cent and buying rates on 90-day bankers' acceptances from 1-3/4 to 1-1/2 per cent.		

MEMBER BANKS



November 26, 1954

(3) What is the practical significance of shifting policy emphasis from the view of "maintaining orderly conditions" to the view of "correcting disorderly situations" in the security market? What were the considerations leading the Open Market Committee to confine its operations to the short-end of the market (not including correction of disorderly markets)? What has been the experience with operations under this decision?

The matters referred to in this question relate to changes in techniques of System open market operations adopted in the spring of 1953. At that time, the full Federal Open Market Committee decided to amend its directive to the executive committee by dropping the clause authorizing operations to maintain orderly conditions in the market for U. S. securities and by substituting therefor a clause authorizing operations to correct a "disorderly situation" in the securities market. At the same time, the executive committee was instructed to confine its operations to the short-end of the market. Closely associated was a decision taken earlier to discontinue direct supporting operations during periods of Treasury refinancing with respect both to maturing issues and to new issues being offered, as well as issues comparable to those being offered in exchange.

These three decisions did not change basic policy objectives. They were taken after intensive reexamination in 1952 of the techniques then employed in System open market operations with particular reference to the potential impact of such techniques on market behavior. Their purpose was to foster a stronger, more self-reliant market for Government securities. Improvement in this market was desired (1) in order that the Federal Reserve might better implement flexible monetary and credit policies, (2) to facilitate Treasury debt management operations, and

(3) to encourage broader private investor participation in the Government securities market.

The decisions were taken to remove a disconcerting degree of uncertainty that existed at that time among market intermediaries and financial specialists. The market was uncertain, first, with respect to the limits the Federal Open Market Committee had in mind in its directive to "maintain an orderly market in Government securities." A second uncertainty pertained to the occasions when the System might decide to operate directly in the intermediate and long-term sectors of the market to further its basic monetary policy objectives, i.e., to ease intermediate and long-term interest rates in periods of economic slack or to firm these rates in periods of exuberance.

Both of these uncertainties related solely to transactions initiated by the System outside the short-end of the market, transactions which had as their immediate objective results other than a desire to add to or absorb reserves from the market. The effect, however, was to limit significantly the disposition of market intermediaries and financial specialists to take positions, make continuous markets, or engage in arbitrage in issues outside the short-end of the market.

The constant possibility of official action, which from the standpoint of investors and market intermediaries would often seem capricious, constituted a market risk which private investors could in no reasonable way anticipate and evaluate in formulating their advance judgment about market prospects. Even a financial intermediary who appraised correctly the emergence of a situation, where the Committee might decide to intervene, would have little basis for estimating the

exact timing of that intervention, the issues in which it might be concentrated or the levels at which it might take place. Such estimates are important to the sensitive rapid trading at very small spreads that is characteristic of a self-reliant securities market. Inability to make them may add a degree of risk that is more than financial intermediaries are willing to accept.

It became apparent that these uncertainties, so long as they persisted, would tend to perpetuate a condition of thin markets and sluggish adjustment as between sectors of the market. This impaired the attraction of Government securities as a medium of investment, since their very high status with investors rests on ready salability as well as on credit quality. From the point of view of the Federal Reserve System, such uncertainties might increase the probability of situations arising in which the Open Market Committee would be forced to intervene in various sectors of the market, either to prevent disorderly situations from arising or to see to it that funds it added to or absorbed from bank reserves in the pursuit of monetary policies found effective and appropriate response throughout the credit structure. In taking these decisions, the Federal Open Market Committee is not absolving itself from concern with developments in the longer-term sector of the market. It is particularly concerned that its policies shall be reflected in the cost and availability of credit in those markets.

In the case of all three decisions, subsequent experience with actual operating results has, on the whole, tended increasingly to substantiate the judgments that led to their adoption. This is particularly true of operating experience since June 1953. Without any intervention

from the Federal Open Market Account, except in the short-end, the market for U. S. Government securities has become progressively broader, stronger, and more resilient throughout all maturity ranges. Experience during April and May 1953, just after the new techniques were adopted, and before their import was understood, is less clear. This was the period of mounting tension in the credit and capital markets analyzed in the answer to Question 1.

In the twenty-months' period of operations under these decisions, the economic climate has changed from one of boom to one of reduced levels of activity. Accordingly, Federal Reserve policies have been shifted from restraint against inflation to the active promotion of ease in the credit markets. Ease in the long-term markets, as well as the short-term money market, has been an important objective of these policies. Although all open market operations, for technical reasons cited below, have been confined to the short-end of the market, there appears to be no example that can be cited from Federal Reserve history where the cost and availability of credit in all sectors of the securities market has been more sensitively responsive to shifts in Federal Reserve policy than during these months. This applies as fully to the market for long-term funds as for short-term funds; to the market for mortgage money, for business and industrial, state, municipal and public financing.

It is important to keep in mind the scope of the decisions relating to the new open market techniques. They are decisions of the full Open Market Committee adopted for the guidance of its executive committee and the Manager of the Open Market Account. They do not mean that no operations will be undertaken henceforth outside the short-end of

the market. They do mean, unless modified by the Committee, that operations in other than the short-end of the market will have to be specifically authorized by the full Open Market Committee, except operations to correct a disorderly situation. In that case the executive committee, which can be convened quickly by telephone if necessary, is empowered to authorize such corrective operations.

Background of New Techniques

These three interrelated decisions are designed to hold to a minimum the technical market repercussions that result in some degree from any operation on the part of the Federal Open Market Account. In one sense it may be said that any purchase or sale in a market by any party, private as well as public, small as well as large, disturbs the market in that it results in a change in demand and supply conditions in that market. The new operating techniques are not designed to prevent this type of repercussion. Such market response is necessary and desirable if a market is to perform efficiently the function of continuously equilibrating changes in demand with changes in supply. On the contrary, it is the primary objective of the techniques to contribute, so far as possible, to the development of such responsiveness in the market for U. S. Government securities. For this end to be realized, the market must be able to translate swiftly an increase in the availability of funds in any one sector of the market to increased availability in all sectors, and to soften the impact of decreased availability of funds on any one sector by spreading that impact over other sectors of the market. In a well functioning market capable of such resilient response, Federal Reserve policies can make their greatest contribution to economic stability and growth.

Technical characteristics peculiar to System transactions. The danger that operations by the Federal Open Market Account may, if executed through faulty techniques, exert an unduly disturbing or even disruptive effect upon the market for U. S. Government securities arises from four characteristics of these operations by which they are differentiated from purchases and sales of securities for the account of private firms and individuals.

First, the dollar amounts of reserve funds that are required to be injected into or withdrawn from the markets in the course of ordinary day-to-day operations are likely to be quite large, much larger than the average amounts bought or sold in the course of a day for any individual private account. This naturally puts some strain on the market mechanism which is likely to function most effectively when the aggregate of its transactions is made up of numerous individual transactions of relatively small magnitude.

Second, the Open Market Account deals in reserve funds which provide a basis for a multiple expansion of credit. This means that when it buys it does more than merely add to the demand side of the market, as do other purchasers. The Account pays for its purchases with a check on the Reserve Banks. Consequently, it simultaneously adds to the reserve base sufficient buying power to absorb a much larger volume of securities. Conversely, when the Open Market Account sells a Government security, the problem of the market is more than finding a buyer for that issue, as it must in the case of sales of securities by others. The purchasers must simultaneously pay for the security with commercial bank reserve funds which will be subtracted from the reserve base. This

withdrawal of reserve funds will affect positively the supply of securities offered for sale.

Third, transactions by the Open Market Account are not motivated by profit or loss considerations. They differ, consequently, from private purchases and sales which are so motivated. Private firms or individuals motivated by profit and loss considerations will not pursue purchases when prices rise or yields fall to levels that appear less remunerative than comparable alternative outlets for their funds, neither will they press sales and take losses with respect to either price or yield when alternative courses of action open to them appear less costly. The result of these motivations in a market with large numbers of participants is to generate forces that tend to slow down, or counteract, or limit movements in either direction. The importance of these counteracting forces was effectively illustrated after the accord when the unwillingness of investors to take losses reduced offerings in the market for U. S. securities. This restrained expenditures and helped materially to prevent a continuation or resumption of the Korean inflation. These same motives do not govern transactions initiated by the Federal Open Market Account, which are undertaken for policy reasons, and pursued, until policy goals are achieved, without regard to their effect upon the earnings of the Reserve Banks.

Fourth, the Federal Open Market Account is the largest portfolio of U. S. securities under single control. Its holdings of marketable U. S. securities approximate 25 billion dollars or nearly one out of six of all such securities outstanding with the public. Its potential buying power is also very large. Transactions initiated by the Federal Open

Market Account differ, therefore, from privately initiated transactions not only with respect to their motivation but also with respect to the potential financial power that lies back of them.

Role of financial intermediaries. These four basic respects in which transactions in U. S. Government securities initiated by the Federal Open Market Account differ from privately initiated transactions find a reflection in the technical organization of the market for U. S. securities. They are particularly important in circumscribing the role which primary dealers in U. S. Government securities and other professional intermediaries are willing to assume in that market.

In general, a market such as the market for U. S. Government securities achieves depth, breadth, and resiliency when there are active within it, at all times, professional intermediaries alert and willing, on their own capital and risk, to make continuous markets and to engage in arbitrage. To make continuing markets, they must stand willing continuously to quote firm prices at which they will buy reasonably large quantities of securities from any and all sellers, including each other. They must be prepared, if necessary, to hold such securities in their portfolio, pending subsequent resale. Similarly, a professional intermediary must stand ready to quote firm prices at which he will sell securities in reasonably large quantities to any and all purchasers, and must be prepared to enter into such contracts for sale even if the particular issues in demand are not in his portfolio at the time but must subsequently be purchased from others.

To make continuous markets successfully with his own capital and at his own risk, the professional intermediary must be alert to

possibilities for arbitrage, i.e., he must sense when various issues are offered for sale or sought for purchase at prices which are mutually inconsistent with each other in terms of price relationships which may be expected to prevail in the near future. In such cases, the professional intermediary seeks to sell the issue that is overvalued and simultaneously to purchase the issue for which there is momentarily less demand. This requires a keen sense of values, and has the effect of keeping market quotations for comparable values in close alignment with each other. The sensing of such minor inconsistencies is less difficult when the two issues are in the same maturity sector of the market. It requires great skill, however, when they lie in different maturity sectors, for then the professional intermediary must stake his capital on a judgment as to price and interest rate relationships that may be expected to emerge as between the various maturity sectors of the list. When the financial intermediary, alert to possibilities for arbitrage as between the various maturity sectors, is able to make such judgments successfully, and is willing to act on them aggressively, the effect is to impart continuity and responsiveness to the whole market. Continuity exists when variations in quotations as between successive transactions are minor. Responsiveness obtains when the impact of sales in any particular sector, instead of being concentrated in that sector, is cushioned and dispersed in greater or less degree throughout all maturity sectors.

Technical repercussions of transactions for System Account. These technical factors, taken in conjunction, pose the problem dealt with in the decisions discussed in this answer. Since transactions in U. S. securities initiated by the Federal Open Market Account differ in important

respects from similar transactions for private account, there is a danger that they may set off adverse repercussions that impair the efficiency of the market as an equilibrating factor in the economy. The nature of these repercussions may be illustrated by analysis of a sales transaction initiated by the Federal Open Market Account.

In any market, a transaction initiated by the seller is likely to have as one effect a lowering of price for the commodity sold. In the market for Government securities, this means that sales initiated by any seller are likely to find their first expression in a softening of quotations for the particular security offered for sale. The softening is likely to be larger, the larger the amount that is offered. It is also likely to be larger if there is ground to expect that the specific offer for sale is only the first of a series of further offers. In the case of offers from the Federal Open Market Account, these typical reactions and expectations are likely to be accentuated because such sales not only supply issues to the market for which purchasers must be found but also withdraw reserve funds from the market and diminish its ability to carry securities. They are made, furthermore, from the largest portfolio of U. S. Government securities available for sale in the market. For all the market knows, they may be the forerunner of many more sales to come. Since they are not motivated by the twin incentives of maximizing gains or minimizing losses that motivate most other offers that appear in the market, but are made solely in the execution of monetary policy, they are properly regarded as a possible signal of the attitude of the monetary authorities with respect to the state of the economy. These reactions acquire peculiar significance when transactions are initiated outside the

short-end of the market because prices fluctuate most widely in these sectors in response to changes in the availability of securities relative to the demand for them.

This imposes a handicap upon private dealers and other professional intermediaries in the market whose function it is, first, to provide continuous markets by carrying portfolios and taking positions throughout all maturity sectors of the list, and, second, to maintain a consistent relationship between prices of different individual securities by being alert to possibilities for arbitrage. The gross operations of these professional elements are very large relative to their capital at risk. They maintain markets by trading at very small spreads. If they are alert, they can function effectively when variations in price from one transaction to the next are small, as they are likely to be when selling and buying is on private account, limited in volume by the needs of private investors for outlets for funds on the one hand, or for cash on the other.

Private professional intermediaries face a very different problem when prices in any group of securities vary sharply between transactions. Then the risk of making continuous markets and of engaging in arbitrage becomes too great. They tend to retire to the sidelines so far as putting their own capital at risk is concerned. They cease, under these conditions, to make continuous markets, and confine their activities mainly to acting as brokers. As a result, the market for issues characterized by such risks becomes thin and moves over a relatively wider range between transactions. Such a market reacts sharply to relatively small bids or offers, and quotations that characterize an individual transaction become a poor guide to the values that would prevail on normal volume.

Technical advantages of operations in the short-end of the market. The danger that transactions initiated by the Open Market Account may unduly disturb the efficient functioning of the market is much less acute when they are confined to the short-end of the market. There are three main considerations which contribute to this result.

In the first place, the risk assumed by professional intermediaries when they trade in bills is much less than when they trade in longer-term securities. Bills are traded on a discount basis and the great preponderance of bills outstanding at any one time have a maturity of less than three months. This means they will always appreciate to par within that period. Bills are ideal collateral, furthermore, and can always be used as security for loans. It is not too difficult, therefore, to hold them to maturity. The main financial hazard attending professional operations in bills is that the holder will have to pay more in interest when he borrows to carry them than they gain in price as they approach maturity.

Another reason is that the bill market is accustomed to relatively large transactions such as the Open Market Account must undertake in absorbing and releasing reserves. It is the market in which all financial institutions typically adjust their day-to-day positions. Trading is continuous and the market is accustomed to a large volume of individual transactions.

Finally, the financial markets do not attach the same significance to System operations when they are transacted in bills as they do to transactions in other sectors of the market. Financial experts know that the

Federal Open Market Committee is more or less continuously engaged in putting funds into or absorbing funds from this market as it compensates for large day-to-day fluctuations in the amount of float, in Treasury balances, in the demand for currency, and in other factors. The appearance in the bill market of purchase or sell orders initiated by the Federal Open Market Account has no general long-term policy significance in the great majority of cases, and therefore does not so readily give rise to apprehensions that a change in policy is imminent.

Summary of technical considerations. To summarize, transactions initiated by the Federal Open Market Account, particularly transactions in intermediate and long-term issues, may seriously affect the efficiency of the market. The initial impact of such transactions falls first on the professional intermediaries of the market whose willingness to take positions gives continuity to the market and whose willingness to engage in arbitrage works to cushion a concentrated impact of such sales on part of the price structure by spreading their effect in greater or less degree throughout all maturity sectors.

These intermediaries confront great difficulty in estimating how large transactions for the Federal Open Market Account may be, how long they may continue, or how large are the losses the seller may be willing to absorb. Such estimates, however, are essential to the efficient performance of the professional intermediary whose operations make continuous sensitive markets possible. Without them, dealers and other professional intermediaries have less basis for decision as to the amounts of securities they can afford to take into portfolio, or the points at which they can undertake an arbitrage operation. The ability to make

such supply and demand estimates correctly on the average is a rare skill which a professional intermediary in the market must possess in high degree to survive.

When market conditions are such that approximate supply and demand estimates cannot be made, the continuity and sensitiveness of the market is seriously impaired. Dealers and other professional intermediaries in the market become reluctant to take positions and to undertake arbitrage. Instead, they tend to confine their role to that of brokers, operating mainly on a commission basis. In this role, they offer to find buyers for issues pressed for sale, and other sellers for issues in demand, but they do not themselves purchase or sell securities at their own risk. They do not, therefore, perform the function of giving breadth and continuity to the market by their willingness to take securities into position.

This situation presents a very real dilemma to the monetary authorities. Monetary policy is most effective and can make its maximum contribution to economic stability and growth without inflation at high levels of output and employment when the entire credit structure is sensitively responsive to its operations. Federal Reserve operations exert their constructive influence most effectively when they affect the cost and availability of credit throughout all sectors of the market. This is particularly true of the long-term market where the rate of saving and the cost and availability of funds register on capital formation. The effectiveness of monetary policies is definitely hampered when markets are thin.

Historical Background of New Techniques

Market conditions, adverse to the proper functioning of dealers and other professionals in the market for Government securities, were strongly in evidence during the period of pegging prior to the Treasury-Federal Reserve accord of March 1951. Dealers in U. S. Government securities tended to confine their operations to the broker function, coming to the Federal Open Market Account for securities when they were in demand in the market and disposing of securities to the Federal Open Market Account when they were in supply. Under these conditions, the Account itself performed the function of making continuous markets for most maturity sectors even including the very short-end of the market. It did so, of course, at the expense of monetary policies appropriate to the stability of the economy. The reserve funds that were made available almost automatically under the technique of pegging operated to augment the availability of credit and thus to increase the demand for commodities to a volume that was in excess of what could be supplied. The result was to incorporate into the base of the price structure a spiral of rising costs and prices.

This inflationary process was stopped early in 1951 when the Federal Open Market Committee discontinued pegging the prices of U. S. Government securities. Thereafter, as is brought out in the reply to Question 1, the reserve funds released or absorbed through open market operations were adjusted more closely to the needs of a growing economy operating without inflation at high levels of activity. The market for U. S. Government securities showed its basic strength at that time by adjusting to the new situation with much less disturbance than many close and informed observers had expected, and within a few months the operations of the Open Market

Account were almost wholly confined in practice to the short-end of the market.

The Federal Open Market Account continued during this period, however, to engage in operations in support of Treasury refinancing. The volume of reserve funds released in these supporting operations became, as time passed, a matter of increasing concern to the Federal Open Market Committee. They were large in volume and had later to be recovered by offsetting sales if the fueling of inflationary forces was to be avoided. Concurrently, there was increasing concern at the failure of certain sectors of the market, particularly the long-term sectors, to develop the degree of depth, breadth, and resiliency that would be desirable from the point of view (1) of effective refinancing of the public debt, (2) of the effective execution of monetary policies, and (3) of the effective operation of the market in shifting or allocating funds among various users.

Specifically, following the accord, the long-end of the market was described by competent observers as "thin." This was illustrated by the fact that prices of long-term Government bonds fluctuated over a relatively wide range in response to the appearance of relatively small buying or sales orders. It indicated that, so far as the longer sectors of the market were concerned, dealers and other professional intermediaries still tended, on the whole, to confine their operations to the broker function. Operations undertaken at their own risk, either to maintain continuous markets or for arbitrage, remained limited on the whole to relatively small commitments, too small to give the market a desirable degree of self-reliance.

It was in this setting that the Federal Open Market Committee

undertook, in 1952, to reexamine intensively the techniques employed by the System itself in its contacts with the market for U. S. Government securities to see whether any changes could be made in those techniques that would contribute to a stronger, more smoothly-functioning market. This examination led, among other things, to the three interrelated decisions that are dealt with in this reply. These decisions have fostered a more effective and efficient market for U. S. Government securities in two ways: first, by reducing to a minimum the direct disturbing or disruptive impacts on the market of transactions initiated by the System; and, second, by establishing a climate of expectations in the market that would encourage private operators to engage more actively in making continuous markets and in arbitrage.

The accomplishment of these results has had beneficial effects on System open market operations from a monetary point of view. These operations are now confined to the amounts necessary to effectuate basic monetary policies. That is to say, they have come to be limited to providing or withdrawing reserve funds in amounts and at times appropriate to the general economic situation.

Decision to Discontinue Support of Treasury Refinancing

The decision to discontinue support operations during periods of Treasury refinancing was mainly important in improving the timing, reducing the volume, and minimizing the disturbing or disruptive effects of System operations on the market. Its importance in minimizing the volume of operations initiated by the Open Market Account and in improving their timing shows up strikingly in the record of System operations between July 1, 1951, i.e., after the market had adjusted itself to the accord,

and September 30, 1952, the last month in which direct support was given to a Treasury refunding issue. During these fifteen months, direct operations for System Account put reserve funds into the market amounting to 2,418 million dollars net, during periods when the Treasury was refinancing. During the same fifteen months, the net effect of all open market operations initiated by the System in the intervals between these periods of refinancing was to withdraw 1,658 million dollars. In other words, during those fifteen months, a large volume of sales from System Account were made solely to absorb reserve funds in excess of basic needs that had previously been put into the market to support Treasury refundings.

This phenomenon has entirely disappeared since the autumn of 1952 when the practice of giving direct support to Treasury refinancing was discontinued. At the same time, the rate of attrition incident to Treasury refunding operations, i.e., the relative proportion of maturing Treasury securities that have been presented for cash payment at maturity, has averaged lower than it did in the period when such direct support was given. This wholly satisfactory result reflects, of course, the nature and pricing of new securities offered by the Treasury since supporting operations were discontinued as well as improved performance on the part of the market under the new operating techniques.

Decision to Confine Operations to the Short-End of the Market

The technical considerations that account for the decision to confine operations to the short-end of the market have already been discussed. The decision was taken to remove an obstacle that appeared to account, in part at least, for an undesirable degree of "thinness" in the

intermediate and long-term sectors of the U. S. Government securities market after the accord. It was not taken without consideration of alternative techniques from the point of view both of the possible effects of these techniques on market behavior and of their implications in the development and effectuation of credit and monetary policy.

Alternative to operations at the short-end of the market. The problem of how to deal with the effects of central bank transactions on market behavior are not confined to this country. They are present in greater or less degree in all countries with highly developed credit structures where open market operations are used as a principal means of effectuating monetary policies. Some monetary authorities have tried to meet the problem by themselves assuming primary responsibility for making continuous markets and for arbitrage. They do this by being themselves prepared to buy or sell in all maturity sectors of the Government securities market. When a particular issue in demand is in relatively scarce supply in the market, the monetary authority is prepared to make the desired securities available from its own portfolio. It may then have to purchase other securities from other sectors of the list to offset the effect of the sale upon bank reserves, if the basic objectives of monetary policy do not justify an absorption of reserves from the credit base.

This procedure resembles in many respects that which was employed by the Federal Reserve System when it was engaged in pegging the prices of Government securities prior to the accord and for a period afterward during periods of Treasury refinancing. It has the important difference that no attempt is made to perpetuate any particular price level for Government securities. Rather, when this is done, the monetary

authority comes to a judgment not only as to the general interest rate level but also as to what structure of rates would be most appropriate in the various maturity sectors of the market and is prepared in its operations to make these levels effective. As economic conditions change, requiring a different level of interest rates or a different structure of rates as between the various maturities, the monetary authority uses its own operations to move the prices of securities quoted in the market and market rates of interest to levels it regards as more appropriate to the new situation.

When monetary authorities adopt this technique, the problem of thin markets and sluggish arbitrage is in a sense eliminated, since the monetary authority is itself prepared to maintain continuous markets and to establish directly and to change from time to time the levels of prices and of interest rates which it regards as appropriate to the various maturity sectors of the market. The various securities in its portfolio become part of the potential market supply and it takes over the role of primary jobber to the market. At the same time, for reasons already noted, dealers and other professional middlemen operating on their own capital and at their own risk tend to confine their activities to that of brokerage.

It has been recognized within the Federal Reserve System since the accord that the technique described above not only had intrinsic defects but was inapplicable to the American economy. Considerable thought has, however, been given to a variant of this approach, namely, one in which the Federal Open Market Committee would normally permit the interplay of market forces to register on prices and rates in all the

various maturity sectors of the market but would stand ready to intervene with direct purchases, sales, or swaps in any sector where market developments took a trend that the Committee considered was adverse to high level economic stability.

It will be readily appreciated that this variant differs decisively from that described above. Instead of taking affirmative responsibility to make continuous markets and to establish interest rates and prices in all the various sectors of the list, the Committee under this variant would operate normally in the short-end of the market, absorbing or releasing reserve funds from day to day in accordance with general policy directives. It would stand continuously ready, however, to intervene in any sector of the list when it considered such intervention might further the objectives of monetary policy.

Such intervention would not necessarily have to be decisive. The fact that the Committee purchased or sold securities at any given quotation would not mean that it was prepared to engage in similar subsequent transactions to maintain the same price. Rather, it would seek, by occasional purchases and sales at the fringe of the market, to cushion or reverse declines or advances at some times and to accelerate them at others. In each case of intervention, the decision whether to accelerate or cushion would be based on an evaluation of what was considered most appropriate at the time to the achievement of the objectives of monetary policy.

This variant, which paralleled closely the actual pattern of System operations during the period following the accord up to the spring of 1953, was not adopted because it did not appear to offer real promise

of removing obstacles to improvement in the technical behavior of the market.

System open market experience from the accord to March 1953.

During the greater part of the first two years after the accord, the great bulk of transactions actually undertaken by the System was confined, in fact, to the short-end of the market. These included purchases to support Treasury refinancings, most of which were executed in the short-end of the market. At the same time, the policy statement of the Federal Open Market Committee directed the executive committee to maintain orderly conditions in the market for U. S. Government securities. It was generally understood during this period, both within the System and in informed market quarters, that it was the policy and desire of the System that a free market for U. S. Government securities should develop and be permitted to make its maximum contribution to economic stability both in the sense of equating the demand for funds for investment with the supply of savings (with due allowance for the growth factor in the money supply) and of being permitted to allocate these demands and supplies as between the various sectors of the market. At the same time, it was understood that the System stood ready through open market operations, without restriction as to maturity, to check undesirable movements in prices and interest rates.

In comparison with the preceding period in which the practice of pegging prices and yields contributed to the inflationary potential, this shift in policy and technique was in the right direction. Despite the forebodings of many who prophesied that the dropping of the pegs would be followed by chaos, a free market did develop when the pegs were

dropped and did play a major role in stopping the inflation and in sustaining the economy at high levels of activity. There was no catastrophic shift in prices of Government securities. There was no panic. Confidence in the stability of the dollar was restored. The results of the action in all major respects, except one, corroborated the judgment of those who took the responsibility for its initiation.

The exception, already noted, was the thinness that continued to characterize the intermediate sector and the long-end of the market for U. S. Government securities. At first, this was generally explained by the fact that a return to a free market after so long an interval would necessarily be accompanied by some frictions. It would necessarily take time, it was felt, for appropriate mechanisms to develop in the market before it could perform its normal functions at high efficiency. As time went on, however, these mechanisms failed to develop adequately and the problem of thin long-term markets continued to exist. It was in this setting and, in part, to consider how to deal with this problem, that the Federal Open Market Committee in 1952 undertook the studies that led to the three decisions treated in this question.

Decision to Change Directive with Respect to Orderly Markets

During the period from the accord to March 1953 there was considerable misapprehension and confusion with respect to the interpretation of the phrase "orderly markets," a situation which in many respects was justified. The clause in the directive requiring the executive committee to maintain orderly markets was in the directive prior to the accord and was the authority under which many stabilizing operations were taken at that time. The fact that the phrase had not been changed after the accord

but instead had been interpreted less restrictively left legitimate grounds for uncertainty with respect to the interpretation that might be placed upon it in future operations.

The decision to change the directive to the executive committee "to maintain orderly markets for U. S. Government securities" to read "to correct a disorderly situation in the Government securities market" was made to remedy this misapprehension and confusion. This gave notice that the Federal Open Market Committee would not intervene to prevent fluctuations of prices and yields such as normally and necessarily occur as markets seek to establish equilibrium between supply and demand factors and to allocate savings as between the different maturity sectors. Instead, it indicated that the market would have to be clearly disorderly before such intervention would occur.

The primary aim of this shift in operating objectives was to foster in the market a climate of expectation with respect to System intervention that would encourage maximum private participation in market activities. In combination with confinement of operations to the short-end of the market, the shift also contributed to minimizing the disturbing or disruptive effects of System operations.

Experience with the New Techniques

These decisions were taken in March of 1953 in the hope and expectation that they would provide an environment in which professional intermediaries in the market would begin to broaden the scope of their operations in a way that would give greater depth, breadth, and resiliency to the intermediate and longer sectors. Specifically, it was hoped that these intermediaries, faced mainly by business and market risks which they

were in a position to evaluate and freed from the risk of disturbing or disruptive repercussions arising from direct intervention by the Federal Open Market Committee, would begin to make more continuous markets and engage more promptly in arbitrage through all maturity sectors. It was hoped that they would sufficiently improve the market so as to minimize the occasions for direct System intervention in these sectors of the market, intervention either to correct the development of a disorderly situation or intervention to hasten the market's response to changes in credit and monetary policy. These expectations to date have been on the whole fulfilled, although, of course, it is recognized that this approach is still experimental and that insufficient time has elapsed to draw firm conclusions.

The first and most difficult test came in the spring of 1953, within a very short time after the new techniques were adopted, and before their impact had been evaluated or understood. This was the period described in the answer to Question 1 when great tension developed in the long-term investment market, sufficient tension to require vigorous offsetting action by the Federal Reserve System. There were many at that time who felt that direct System intervention in the long-term money market was the only remedy that would relieve the situation. This view gained adherents when the first purchases of bills, initiated by the System early in May 1953, found relatively small immediate response in relieving tension in the long-term sector of the market even though the Treasury with its own funds made some purchases in that sector during this period. Finally, as the Treasury made larger purchases and the Open Market Account undertook to supply reserves in large volume through an

aggressive purchase of bills, the tension began to subside.

Subsequently, all sectors of the market, long, intermediate, and short, have been characterized by great improvement with respect to their depth, breadth, and resiliency. Private arbitrage has brought about a sensitive response to the System's monetary policy in the long-term sectors of the market. The ease that for some time has pervaded the money and credit markets may account for part, but it does not by any means account for all, of these results.

It has been a primary objective of System credit and monetary policy during this period to encourage an expansion in private activity financed by long-term funds. This has also been a main objective of Treasury debt management policy which has refrained from competing with mortgage borrowers and other potential users of long-term savings. While, under the new techniques, open market operations to help effectuate this policy objective have been confined entirely to putting reserves into the short market, the response in the form of increased availability of funds in the long-term capital markets, including even the semi-isolated mortgage market, has been gratifying.

The recession of industrial activity during this period has been exceptionally mild as compared to other periods, even milder than the recession of 1949 when U. S. security prices were pegged. It would be very difficult to make a case that direct intervention in the long-term markets during this period would have induced an even better response.

Such is the experience with the new techniques to date. As previously pointed out, it remains for them to be tested in other more normal periods of Federal Reserve operations. Only time and further

experience will tell whether problems not now foreseen will or will not emerge. If they do, it will be the duty of the Federal Open Market Committee to deal with them in the light of its accumulated experience.

Conclusion

The formulation of appropriate credit and monetary policy is at best difficult. It requires, first, painstaking search for all the relevant facts that may bear on the economic and financial outlook, second, all the wisdom and insight that experience and operating contacts can bring to the interpretation of those facts, and, finally, and perhaps most important, humility with respect to any emerging situation. There are relatively few occasions when the meaning of developing events is so clear that the monetary authorities can say, "As of today, our policy should be changed from restraint to ease." A shift in policy emphasis more typically emerges from a succession of market developments and administrative decisions in which the range for variation needed in pursuit of any particular policy gradually shifts from the side of ease to the side of restraint or vice versa.

The various factors that exert an impact on bank reserve positions are at best difficult to forecast in advance. There is a considerable margin of uncertainty in any forecast of factors absorbing or supplying reserves. Yet these forecasts or projections must be made in planning open market operations. In consequence, there is frequently much discussion, when prospective purchases or sales are authorized, of whether it would be wiser to deal with the area of uncertainty in the forecast in the direction of restraint or in the direction of ease. These changing shifts in emphasis do not necessarily mean that a new policy direction is

emerging. Usually, however, by the time the facts of the economic situation are sufficiently clear to lead to the adoption of a changed policy directive, it will be found that these day-to-day allowances for uncertainties in the forecasts of reserve availabilities have begun to be increasingly resolved on the side later indicated by the new policy directive.

Such tentative testing and probing of the responsiveness of the economy to monetary actions would be much more difficult if the Federal Reserve were to make itself responsible not only for adding to and withdrawing marginal amounts of reserve funds from the money market but also for making continuous markets and establishing interest rates and prices prevailing in all sectors of the security markets. Then any changes in such interest rates and prices could result only from direct administrative decisions. Such decisions would carry considerable significance in themselves and would require adequate justification.

Such justification might not be too difficult to find if the American economy customarily relied on the import of capital for its development. In that case, the necessary signals would usually be furnished by movements of prices and interest rates in the various sectors of the foreign financial market from which the capital was imported. In fact, however, the American economy is a high saving economy that exports rather than imports capital. In this country if the structure of interest rates were too closely controlled, it would be difficult to tell from the character of the market response whether and when new trends were developing within the economy. The allocation functions of the market place in determining relationships between the cost and availability of funds in

the various sectors of the market, short-term, intermediate, and long-term, would be in abeyance, and responsibility for efficient performance of these important economic functions would be transferred to the area of official discretionary action.

In conclusion, it needs to be emphasized once more that it is not contemplated that these new techniques will never be changed. The Federal Open Market Committee must always be prepared to tailor the techniques of its operations to the requirements of the economy. In the development of those techniques, situations may well arise when the Federal Open Market Committee will want to operate directly outside the short-end of the market.

It must also be emphasized that the new techniques do not imply that the Federal Open Market Committee is unconcerned about developments throughout the securities market or that it is committed to dealing only in the short-end of the market whatever may happen to prices and yields of long-term securities. The Federal Open Market Committee directive specifically and positively enjoins the executive committee to operate to correct a disorderly situation in the market for U. S. Government securities if one develops. Such situations rarely do develop in efficiently functioning markets. History indicates, however, that there are occasions when a market becomes clearly disorderly and in itself threatens economic stability. This happens when a selling or buying movement feeds on itself so rapidly and so menacingly as to prevent counteracting forces from developing within the market mechanism. Usually, these situations reflect a serious deficiency or excess of reserve funds and can be corrected by operating to adjust the volume of reserves to the requirements of the economy.

Sometimes, however, they occur in response to other factors. Under the Federal Open Market Committee's present directive, the executive committee is responsible for diagnosing such a situation if one develops and for dealing with it decisively without any restriction whatever as to sectors of the market in which transactions are initiated.

November 23, 1954

(4) What is the policy with respect to volume of money?

The policy of the Federal Reserve System with respect to the volume of money is to provide as nearly as possible a money supply which is neither so large that it will induce inflationary pressure nor so small that it will stifle initiative and growth. Put another way, the policy is to help maintain a volume of money sufficient to facilitate the consumption and investment outlays necessary to sustain a high level of production and employment, without leading to spending and investing at a rate which would outstrip the supply of available goods at prevailing prices and generate speculative conditions. Judged from this standpoint, the amount of money required varies with such factors as: the productive capacity of the economy; the state of business expectations; economic dislocations of various kinds; seasonal fluctuations; and changes in money turnover or velocity reflecting variations in liquidity and the demand for liquidity on the part of businesses and consumers.

In the past, the monetary supply has shown considerable fluctuation over the course of business cycles. It is the policy of the Federal Reserve System to counteract, in so far as possible, the tendency for excessive cyclical swings in the volume of money.

An economy which is expanding requires an increasing supply of money to facilitate its growing volume of transactions. Additions to population and productive capacity and a growing complexity of economic organization give rise to increased needs for cash balances. It is the policy of the Federal Reserve System to foster growth in the money supply in accordance with these needs.

Like any other modern monetary system, the monetary system of the United States is complex. In view of its complexities, it is not feasible to rely upon any mechanical formula for the determination of the volume of money appropriate to a given economic situation. This subject is one requiring continuous examination and study -- historically, currently, and prospectively -- of the various changing forces affecting the economy's need for money.

Our monetary organization and its complexities were discussed at considerable length in the reply of the Chairman of the Board of Governors to Question 28 of the questionnaire addressed to him in 1951 by the Subcommittee on General Credit Control and Debt Management, under the chairmanship of Representative Patman. They were also treated again in an article under the title "The Monetary System of the United States" published in the Federal Reserve Bulletin for February 1953, a copy of which is attached.

Attachment

November 24, 1954

(5) Has monetary machinery (a) worked flexibly, and (b) has the market demonstrated flexibility in its responses to changes in policy? For example, how has the policy of "active ease" been reflected in the level and structure of interest rates, the volume of credit, and the roles of various types of lenders?

The monetary machinery since mid-1952 has worked flexibly, and the market has responded flexibly to changes in credit and monetary policy. The effectiveness of credit and monetary policy is due in part to its adaptability to changing economic circumstances. During late 1952 and early 1953, inventories were rising, the Federal cash deficit was increasing sharply, consumer instalment indebtedness was growing rapidly, capital outlays were being made on a large scale, credit demands generally were very strong, and forward commitments were taking on a speculative hue. With the economy already operating at virtually full capacity and producing in excess of final takings from the market, these developments constituted a threat to long-term stability and growth. Accordingly, Federal Reserve policy from mid-1952 to late spring 1953 was directed toward restraint of further increases in spending financed by bank credit. With abatement of inflationary pressures in the late spring of 1953, the Federal Reserve readapted its policies to promote orderly realignment of activities and to foster a climate favorable to resumption of economic growth.

The influence of credit and monetary policy can be traced through observations of changes in five interrelated factors: the availability of credit relative to demand, the volume of money, the cost of borrowing, capital values, and the general liquidity of the economy. Examination of each of these factors helps to illustrate the points of "flexibility" and "responsiveness" raised in this question.

In considering these factors it is important to keep in mind that credit and monetary action is only one of the many factors, although an important one, affecting the general level of economic activity. The influence of credit and monetary policy in any period is necessarily conditioned by various other policies and programs of the Federal Government, by economic and political developments abroad, and by public responses to a variety of unpredictable events. Also, the effectiveness of credit and monetary policy in a particular period needs to be judged in the light of broad experience and observation. One of the difficulties with such judgments is that financial and institutional practices are constantly changing so that close comparison with past periods may not be entirely appropriate. These changes result in financial adjustments which differ in responsiveness and degree of lag from one period to another.

Availability of Credit

Changes in the availability of credit, while not subject to statistical documentation, may be observed in a general way from the terms and conditions which lenders require in granting credit, from their passivity or aggressiveness in seeking out new outlets for loan funds, and by the response that borrowers experience to their applications for credit. During the period of credit tightening through late spring of 1953, for example, the very large demands for credit exceeded the substantial volume of funds available for lending and lenders had to adjust their operations to this fact. Some lenders, particularly banks, tended to favor short-term credits and reduced their longer-term lending.

Other actions to discourage undue borrowing were adopted by various lenders. Commercial banks tended to require larger minimum

deposit balances from borrowers. Insurance companies tended to write more restrictive call provisions and other features into their private-placement agreements. Mortgage lenders generally tended to favor paper with shorter terms and to require larger downpayments. Also, lenders cut back their activities for developing new credit outlets, became reluctant in many cases to accept new borrowing customers, and reduced the volume of their lending to borrowers who were marginal in terms of risk and long-run profitability. These tendencies became more pronounced as the tightening movement progressed.

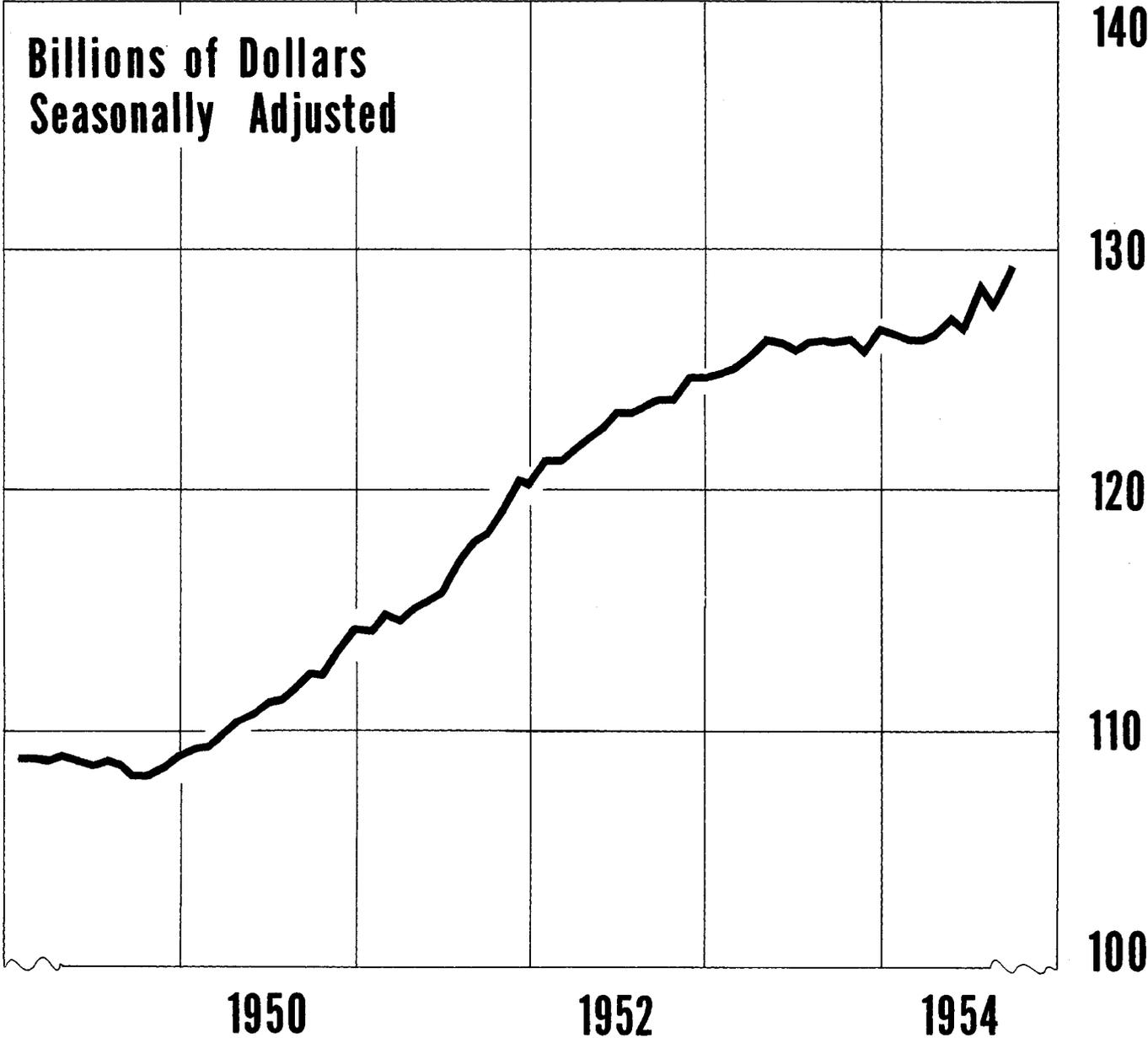
With credit easing after the late spring of 1953, these developments were reversed. In general, lenders found themselves with more funds available relative to the demand than earlier, and were under pressure to keep such funds fully invested. As a result, uses of credit were promoted that under tighter money conditions had been postponed or curtailed. The volume of new security issues was maintained at a very high level throughout the period of business decline, and a number of these issues, particularly State and local government revenue issues, were of a type that would not have been brought out in the earlier period of restraint. Mortgage credit became available on more liberal terms with respect to downpayment and maturity, and lending commitments to builders again came to be readily arranged. Consumer credit standards and terms also eased, although with more lag than in the case of mortgage credit. Commercial banks, moreover, became more aggressive in term-lending and tended to lengthen somewhat the maturities of their investment portfolios as well as to widen the area of their investment interest. In some cases these liberalizations went further than had been attained in the preceding period of credit ease.

Volume of Money

The accompanying chart shows the movement in demand deposits adjusted plus currency in circulation, seasonally adjusted, since mid-1952. Federal Reserve restraints on the expansion of bank credit during the period of inflationary threat from mid-1952 to late spring of 1953 were effective in curbing growth in the money supply at a time when pressures for bank credit and monetary expansion were very strong. During this period, the demand deposit and currency holdings of individuals and businesses increased by 3 billion dollars, or about 2-1/2 per cent. This compares with a growth of over 6 per cent in each of the preceding two years.

Over the past year and a half, the money supply increased further even though business activity declined over the first half of that period. Demand deposits and currency of businesses and individuals leveled off during the second and third quarters of 1953, after allowances for usual seasonal movement, rose moderately thereafter through mid-1954, and subsequently increased sharply. Over the year ending September 1954, the money supply expanded by 3 billion dollars, or approximately 2-1/2 per cent. This expansion, which reflected primarily an increase in bank holdings of Government securities, is in contrast to the behavior of the money supply in most previous periods of business decline. In some previous recession periods the money supply contracted, reflecting a significant liquidation of bank credit as a factor of economic recession. Under such circumstances, curtailed liquidity put consumers and businesses under pressure to reduce their spending, thus contributing to further recession in activity.

DEMAND DEPOSITS AND CURRENCY



Cost of Borrowing

The accompanying table of selected market interest rates since mid-1952 shows the changes that have taken place in the cost of borrowing. Reflecting the combined influence of heavy credit demands and restrictive Federal Reserve policy, interest rates began a general advance in the second half of 1952. The advance accelerated in early 1953, with peaks for this movement reached in June. Thereafter, the interest rate movement was reversed as Federal Reserve policy shifted from one of restraint to one of actively fostering credit ease. Market interest rates declined appreciably through the early part of 1954 and subsequently have shown little change.

The movement in interest rates spread throughout the credit market, affecting all types of credit paper and securities, although in different degree. For example, rates charged by banks on customer loans were more sluggish in their response on the downside than were open market rates. However, the responsiveness of market interest rates to the policy of "active ease" was very marked; the decline in money and capital market rates after mid-1953 was as sharp and widespread as in the comparable phase of any other business downturn since World War I.

SELECTED MONEY RATES
(Monthly Averages)

	U.S. Gov't securities			Prime Com'l. Paper	Bank rates to customers	Corporate Bonds			Muni- cipal bonds
	Bills	3 - 5 years	Long-term Old series			Aaa	A	Baa	
1952 - June	1.700	2.04	2.61	2.31	3.51	2.94	3.20	3.50	2.10
July	1.824	2.14	2.61	2.31		2.95	3.19	3.50	2.12
Aug.	1.876	2.29	2.70	2.31		2.94	3.21	3.51	2.22
Sept.	1.786	2.28	2.71	2.31	3.49	2.95	3.22	3.52	2.33
Oct.	1.783	2.26	2.74	2.31		3.01	3.24	3.54	2.42
Nov.	1.862	2.25	2.71	2.31		2.98	3.24	3.53	2.40
Dec.	2.126	2.30	2.75	2.31	3.51	2.97	3.22	3.51	2.40
1953 - Jan.	2.042	2.39	2.80	2.31		3.02	3.25	3.51	2.47
Feb.	2.018	2.42	2.83	2.31		3.07	3.30	3.53	2.54
Mar.	2.082	2.46	2.89	2.36	3.54	3.12	3.36	3.57	2.61
Apr.	2.177	2.61	2.97	2.44		3.23	3.44	3.65	2.63
May	2.200	2.86	3.09	2.67		3.34	3.58	3.78	2.73
June	2.231	2.92	3.09	2.75	3.73	3.40	3.67	3.86	2.99
Change June 1952-June 1953	+ .531	+ .88	+ .48	+ .44	+ .22	+ .46	+ .47	+ .37	+ .89
1953 - July	2.101	2.72	2.99	2.75		3.28	3.62	3.86	2.99
Aug.	2.088	2.77	3.00	2.75		3.24	3.56	3.85	2.88
Sept.	1.876	2.69	2.97	2.74	3.74	3.29	3.56	3.88	2.88
Oct.	1.402	2.36	2.83	2.55		3.16	3.47	3.82	2.72
Nov.	1.427	2.36	2.85	2.31		3.11	3.40	3.75	2.62
Dec.	1.630	2.22	2.79	2.25	3.76	3.13	3.40	3.74	2.59
1954 - Jan.	1.214	2.04	2.68	2.11		3.06	3.35	3.71	2.50
Feb.	.984	1.84	2.60	2.00		2.95	3.25	3.61	2.39
Mar.	1.053	1.80	2.51	2.00	3.72	2.86	3.16	3.51	2.38
Apr.	1.011	1.71	2.47	1.76		2.85	3.15	3.47	2.47
May	.782	1.78	2.52	1.58		2.88	3.15	3.47	2.49
June	.650	1.79	2.54	1.56	3.60	2.90	3.18	3.49	2.48
July	.710	1.69	2.47	1.45		2.89	3.17	3.50	2.31
Aug.	.892	1.74	2.48	1.33		2.87	3.15	3.49	2.23
Sept.	1.007	1.80	2.51	1.31	3.56	2.89	3.13	3.47	2.29
Oct.	.987	1.85	2.52	1.31		2.87	3.14	3.46	2.32
Change June 1953-Oct. 1954	-1.244	-1.07	-.57	-1.44	-.17	-.53	-.53	-.40	-.67

Capital Values

Changing interest rates have also affected the economy through the recapitalization of future income, that is, through lowering or raising the dollar value of existing capital assets, particularly long-lived assets. This response has been especially noteworthy in the securities markets where prices of outstanding bonds and investment-type stocks have registered the influence of interest rate movements as well as, of course, of other factors. The attached table shows the percentage changes in values in selected types of capital asset over the past two and one-half years.

From mid-1952 to mid-1953, the increase in yields and consequent decline in prices of U. S. Government securities and corporate and municipal bonds reduced significantly the market value of investors' portfolios of such securities. Stock prices also showed moderate decline over this period despite prosperous business conditions. These developments were an influence helping to damp down the boom in capital outlays in this period.

Since mid-1953, rising prices of bonds and stocks have reflected in part the influence of falling interest rates. This movement in values has tended to help sustain private capital expenditures during the period when business activity in other lines was receding somewhat in consequence of the work-off of excess inventories and reduced defense expenditures following the settlement in Korea. In some investment areas, such as the farm and existing residential real estate areas, values declined somewhat despite falling interest rates. These declines reflected the overriding effect of other factors, for example, the reduction in agricultural income

in the case of farm real estate values and the increasing supply of new homes in the case of residential real estate values. Even in these areas, however, there is reason to believe that the higher capitalization factor helped to cushion the decline in market values.

Percentage Changes in Selected
Capital Values

	<u>June 1952- June 1953</u>	<u>June 1953- Oct. 1954</u>
Government bonds (long-term)	- 7	+ 9
Corporate bonds (high-grade)	- 6	+ 8
Municipal bonds (high-grade)	-12	+10
Preferred stocks (high-grade)	- 9	+14
Common stocks* (Standard & Poor's series)	- 3	+33

*Values of common stocks are, of course, particularly affected by important variables other than the capitalization factor. These include, for example, changes in earnings and dividends and changes in expectations as to general business developments.

General Liquidity of the Economy

Changes in the volume of money and other highly liquid assets and in the value of existing assets affect the liquidity of businesses and individuals and influence their willingness to spend and invest. They also affect the liquidity of financial institutions and their willingness to lend and invest.

The restrictive credit policy from mid-1952 to last spring 1953 caused existing assets to decline in liquidity. This development influenced consumers and businesses to screen expenditures more carefully either because they were reluctant to dispose of interest bearing securities at the prices currently prevailing, or because they were encouraged by rising yields to save and invest in securities or other savings forms. Also, the desire for liquidity was heightened by the fact that access to credit was not as assured as it had been earlier. This put a greater premium on holding cash balances and other liquid assets rather than spending. The relative stability of prices over this period, moreover, fostered confidence in the value of the dollar so that holders of deposits and currency did not feel pressed to make expenditures immediately in anticipation of higher prices.

In contrast, falling interest rates in the recent period of monetary ease tended to make individuals and businesses, as well as financial institutions, more liquid and increased the proportion of their assets that could be sold at cost or profit. This is particularly true of investment portfolios where the rise in prices of marketable U. S. Government bonds, corporate bonds, State and local government bonds, and corporate stocks made holders more willing to lend and to spend. The fact of ready availability of credit, furthermore, reduced the requirements of businesses and individuals generally for liquidity.

Concluding Comment

Viewed as a whole it appears that credit and monetary policy exerted a wholesome restrictive influence in the 1952-53 period of boom and a desirable cushioning and sustaining influence in the economic decline which followed. In so doing, it made a necessary and positive contribution to stable economic growth.