

1914 FIFTIETH ANNIVERSARY 1964

**FEDERAL RESERVE
BANK
OF NEW YORK**



MONTHLY REVIEW

NOVEMBER 1964

ANNIVERSARY ISSUE

**WITH SPECIAL ARTICLES BY
W. RANDOLPH BURGESS
AND ALLAN SPROUL**

Volume 46

No. 11

CONTENTS

| | Page |
|--|------|
| The Business Situation | 208 |
| The Money and Bond Markets in October | 211 |
| Recent Banking and Monetary Developments | 214 |

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Special Articles Commemorating the Fiftieth Anniversary of the Federal Reserve System and the Federal Reserve Bank of New York

| | |
|---|-----|
| Introduction | |
| By Alfred Hayes | 217 |
| Reflections on the Early Development of Open Market Policy | |
| By W. Randolph Burgess | 219 |
| The "Accord"—A Landmark in the First Fifty Years of the Federal Reserve System | |
| By Allan Sproul | 227 |

* * *

| | |
|--|-----|
| Opening Day, Monday, November 16, 1914 | 237 |
|--|-----|

The Business Situation

The firm upward course of economic activity has continued. Despite a drop in the pace of inventory accumulation, gross national product registered another substantial rise in the third quarter. Most of this gain reflected a strong rebound in the rate of increase in consumption expenditures following a lag immediately after the March tax cut. Among the monthly indicators, appreciable increases were scored in September in personal income, non-farm payroll employment, and in the backlog of unfilled orders for durable goods. To be sure, the industrial production index barely edged forward in September, but this modest showing was largely attributable to the General Motors strike, which started on September 25. That strike, lasting four weeks or more at the various company installations, dampened business activity again in October, as sharp declines in the automotive sector inhibited over-all production and retail sales. With all the General Motors labor disputes now settled—and the very recent strikes at a number of Ford plants expected to be of short duration—activity should intensify to meet the pent-up and continuing demands for automobiles.

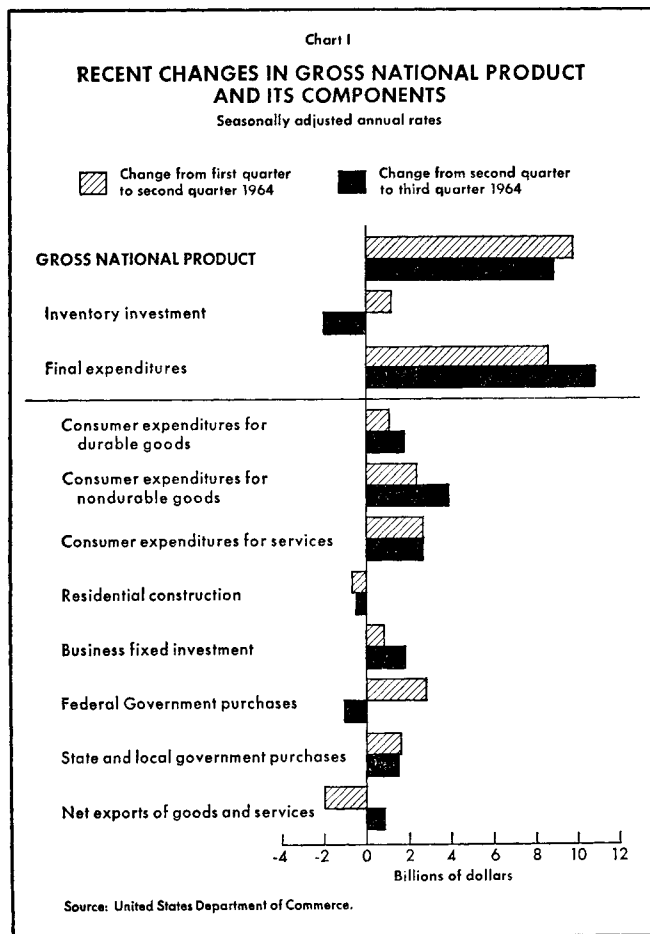
As the economy continues to move ahead, attention is being increasingly focused on the possibility that upward pressures on prices may become more intense. The broad price indicators have continued to reflect a substantial degree of over-all stability. Thus, the consumer price index has increased somewhat less so far this year than in the comparable period of 1963, and weekly October data suggest that the industrial component of the wholesale index was only faintly above its year-earlier level, in part reflecting a slight rise since mid-September. Yet, announcements of specific price increases have become more numerous of late, affecting such important products as sulphuric acid, zinc, lead, reinforcing steel bars, and steel pipes. With very high operating rates in a number of industries, reports of shortages of several types of skilled labor, and the possible spread of labor cost pressures spurred by the substantial gains obtained by the auto workers, price stability may now be approaching a period of testing.

RECENT DEVELOPMENTS IN KEY DEMAND SECTORS

Gross national product rose by \$8.9 billion in the third quarter to a seasonally adjusted annual rate of \$627.5 billion, according to preliminary estimates of the Department of Commerce (see Chart I). The increase was slightly less than the gain achieved in each of the first two quarters of the year, but a bit higher than the average quarterly advance since the end of 1962. Indeed, excluding inventory changes, the third-quarter advance in expenditures was the second largest quarterly increase since 1961. Furthermore, the \$2 billion decline in the rate of inventory accumulation—on top of an already conservative ratio of stocks to sales at midyear—makes it even more likely that a continued rise in demand in the current period will be accompanied by increased output.

The most important factor in the rise in over-all spending in the third quarter was the \$8.4 billion expansion in consumer outlays. The consumption increases were widespread among durables, nondurables, and services. At the start of the fourth quarter, however, spending on durables was retarded when strike-induced shortages caused October new-car sales to decline by 30 per cent. With cars now rolling off the assembly lines at an improved rate, trade sources expect the automotive sector to contribute significantly to retail volume in the final two months of 1964.

Business fixed investment has continued to be a major source of strength in the economy, rising at a seasonally adjusted annual rate of \$1.8 billion in the third quarter. A further substantial increase in plant and equipment expenditures is expected in the current quarter, according to the August Commerce Department-Securities and Exchange Commission survey of businessmen's plans (made public some two months ago). Two surveys bearing on capital spending next year have recently been released. According to one, taken in July by the National Industrial Conference Board, major manufacturing corporations estimated that their third-quarter appropriations for plant and equipment



ceding quarter (both at seasonally adjusted annual rates). The latest forward-looking indicators of housing activity, moreover, do not suggest any near-term strengthening in this area. Thus, in September nonfarm housing starts were only moderately above August's nineteen-month low, and the number of building permits issued dropped to its lowest rate since February 1963. Over the longer term, of course, the continued rise in family formation makes it likely that residential construction will show renewed vigor.

In the government sector, spending at the state and local levels continued on its long-term uptrend in the third quarter. This increase was almost offset, however, by a sizable decline in Federal purchases of goods and services. Over the past year as a whole, the rate of increase in Federal expenditures has been substantially less than in the previous several years, and current estimates suggest that this sector will provide little further push to economic activity over the next few quarters.

PRODUCTION AND EMPLOYMENT

The Federal Reserve's seasonally adjusted index of industrial production inched up by 0.2 percentage point in September to a record 133.9 per cent of its 1957-59 average. This was the smallest monthly advance since last November, but the smallness of the advance of course reflected the special impact of a 12 per cent drop in automobile assemblies associated with the General Motors strike. Had that large concern been able to meet its original production schedules, the over-all index would have registered about the same sizable gain as in August. Iron and steel production edged up again, to its highest rate since the period of inventory accumulation just after the long strike in 1959, and output of most nondurable goods also increased. Moreover, business equipment output remained at an all-time high despite the reduced production of General Motors trucks. Partial data for October indicate a further 44 per cent cut in automobile assemblies but an additional rise in steel ingot production. The strength in steel output may well in part have reflected some hedging against the possibilities of a price boost and a strike which, under the terms of the steel labor agreement, could take place after April 30, 1965.

The number of persons on nonfarm payrolls increased by a moderate 103,000 in September (after seasonal adjustment). A rise in manufacturing employment and the increased hiring of teachers to instruct the expanding school population more than offset the drop in construction jobs. Compared with a year earlier, nonfarm payroll employment was up by 1.6 million persons, a somewhat greater gain than in the previous twelve-month period. In

would be 14 per cent higher, after seasonal adjustment, than the record rate achieved in the previous three months. In the past, appropriations have tended to be reflected in actual expenditures some two to three quarters later. The second recent survey, taken by McGraw-Hill in October and early November, indicated that businessmen plan to raise their plant and equipment spending next year by 5 per cent over the level for 1964 as a whole. A year ago this survey pointed to a 4 per cent rise from 1963 to 1964, far less than the 13 per cent increase that is now expected to be realized. Indeed, all the previous McGraw-Hill fall surveys which preceded a full year of business expansion underestimated the extent of the rise in capital spending that actually occurred. On the other hand, the survey has tended to be on the high side for those years when the economy turned down.

Residential construction has weakened somewhat of late. Private housing outlays declined by \$0.5 billion in the third quarter, following a \$0.7 billion drop in the pre-

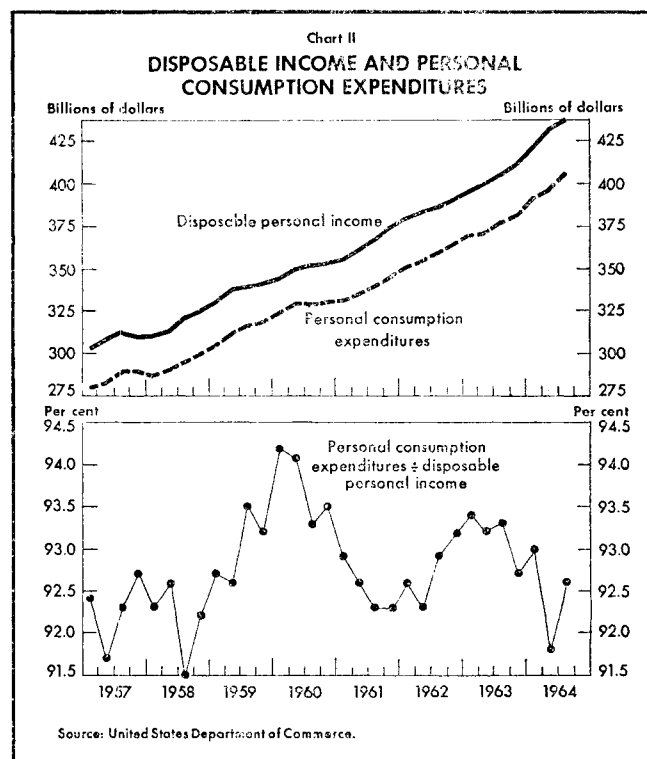
October, total employment (as measured by the Government's household survey) was unchanged, and the unemployment rate remained at 5.2 per cent. Over the past four months the rate has averaged 5.1 per cent, or 0.5 percentage point less than in the comparable period of 1963.

RECENT CONSUMER BEHAVIOR

The large third-quarter increase in personal consumption outlays noted earlier suggests that the additional income provided by this year's tax cut is now being used more freely for consumption purposes. One of the aims of the new tax law was the stimulation of consumer buying through an increase in the amount of disposable income in the hands of the public. The results for the April-June quarter—the first full quarter in which the tax cut was in effect—suggested that its immediate impact on spending had been relatively limited. During that period, disposable personal income increased at a seasonally adjusted annual rate of some \$12 billion—roughly \$5 billion of which was directly attributable to a decline in tax payments—while consumer spending rose by \$6 billion. Thus, only about half of the additional income was used to purchase goods and services, and the ratio of consumption expenditures to disposable income dropped to 91.8 per cent, the lowest level for any quarter since 1958 and significantly less than at any other time during the current business expansion (see Chart II). In the third quarter of 1964, however, consumer spending rose by \$3 billion more than disposable income, and the consumption ratio increased to 92.6 per cent, very close to the 92.8 per cent average of the past ten years.

The behavior of consumption in relation to disposable income over the past two quarters should not have been totally unexpected. As indicated in the August 1964 issue of this *Review*, empirical studies suggest the existence of

a historical tendency for the consumption ratio to decline over the short run when disposable income is advancing very rapidly. It is still too early to attempt a definitive evaluation of the effects of the tax cut on consumer spending. Nevertheless, the third-quarter experience is at least consistent with the view that increases in disposable income stemming from tax reductions are having much the same impact on consumer spending as do increases in after-tax income stemming solely from an expansion of economic activity.



The Money and Bond Markets in October

A firm tone generally prevailed in the money market in October, although easier conditions emerged from time to time during the month. The major banks in New York City and other important cities were under substantially less reserve pressure than in the previous month when they bore the brunt of special pressures associated with quarterly dividend and tax payments. Treasury bill rates edged upward at the beginning of the month, primarily in response to heavy dealer inventories and high financing costs, but then eased as investment demand reappeared and special pressures subsided.

Prices of Government notes and bonds edged narrowly lower in quiet trading during the first half of the month, as participants continued to appraise cautiously the outlook for interest rates. International developments temporarily accentuated the underlying feeling of hesitancy around midmonth, but neither these nor domestic economic and balance-of-payments considerations had any major impact on prices. Prices rebounded later in the month as market participants came to feel increasingly that a near-term rise in the British bank rate was unlikely. In the market for corporate bonds, a cautious undertone was evident through much of the month, but prices improved toward the close. Prices of tax-exempt issues showed little change until late in October when they also rose.

THE MONEY MARKET AND BANK RESERVES

Federal funds continued to trade predominantly at $3\frac{1}{2}$ per cent during October, although crosscurrents in reserve distribution produced redundant reserves on some occasions, leading to considerable trading below the $3\frac{1}{2}$ per cent level on several days. One such occasion arose during the week ended October 14 when float moved erratically around the Columbus Day partial holiday, providing an unexpectedly large supply of reserves that caused the Federal funds rate to drop sharply. A comparatively small volume of Federal funds traded during the month at $3\frac{5}{8}$ per cent, $\frac{1}{8}$ per cent above the Federal Reserve discount rate. Trading at this rate was initiated by a major New York City bank, which stated that it was seeking to in-

roduce greater flexibility into the Federal funds market.

Rates posted by the major New York City banks on call loans (in Federal funds) to Government securities dealers were largely in a $3\frac{5}{8}$ to 4 per cent range during the month. At the beginning of the month when dealer financing needs were quite heavy, rates were as high as $4\frac{1}{8}$ per cent, but funds were made available to dealers at rates as low as $3\frac{1}{4}$ per cent in the easy money market environment of October 14. Offering rates for new time certificates of deposit issued by the leading New York City banks, as well as the range of rates at which such certificates traded in the secondary market, rose somewhat in early October but held generally steady thereafter. Rates on bankers' acceptances were generally unchanged throughout the month, but one dealer lowered his bid and asked rates for bills maturing prior to the year end in order to stimulate a supply of shorter maturities, which were in good demand. Early in the month, demand from nonbank investors permitted dealers to work down positions considerably, but subsequently portfolios again expanded.

Net reserve availability in the banking system as a whole averaged \$88 million in the four weeks ended October 28, as against \$84 million (revised) in the five weeks ended September 30. Member bank borrowings from the Reserve Banks averaged \$305 million in the October period, compared with \$341 million the month before. Reserve availability bulged sharply in the week ended October 14, as System open market operations absorbed less reserves during that week than were provided by unexpected movements in the market factors.¹ In this environment the major money market banks, on average, were able to increase their purchases of Federal funds and reduce their borrowings from the Reserve Banks. By the week's close, as "country" banks came to the end of their reserve averaging period, a sizable volume of excess reserves piled up unused in the money centers and Federal funds traded at

¹ Operating transactions (as detailed in the table), cash allowed as reserves, and required reserves.

**CHANGES IN FACTORS TENDING TO INCREASE OR DECREASE
MEMBER BANK RESERVES, OCTOBER 1964**

In millions of dollars; (+) denotes increase,
(-) decrease in excess reserves

| Factor | Daily averages—week ended | | | | Net changes |
|---|---------------------------|---------|---------|---------|-------------|
| | Oct. 7 | Oct. 14 | Oct. 21 | Oct. 28 | |
| Operating transactions | | | | | |
| Treasury operations* | + 58 | - 53 | - 169 | + 199 | + 35 |
| Federal Reserve float | - 123 | + 55 | + 673 | - 553 | + 52 |
| Currency in circulation | - 135 | - 256 | + 33 | + 99 | - 259 |
| Gold and foreign account | + 32 | - 3 | + 4 | - 8 | + 25 |
| Other deposits, and other Federal Reserve accounts (net)† | - 55 | + 102 | + 50 | + 45 | + 142 |
| Total | - 224 | - 156 | + 592 | - 217 | - 5 |
| Direct Federal Reserve credit transactions | | | | | |
| Open market operations | | | | | |
| Purchases or sales‡ | | | | | |
| Government securities | + 392 | - 11 | - 623 | + 2 | - 246 |
| Bankers' acceptances | + 3 | + 3 | - 2 | - 2 | + 2 |
| Repurchase agreements | | | | | |
| Government securities | + 181 | - 79 | - 131 | - | - 29 |
| Bankers' acceptances | + 19 | - 5 | - 56 | + 27 | - 15 |
| Member bank borrowings | + 92 | - 131 | + 141 | - 150 | - 48 |
| Other loans, discounts, and advances | - | - | - | + 1 | + 1 |
| Total | + 687 | - 230 | - 671 | - 122 | - 336 |
| Member bank reserves | | | | | |
| With Federal Reserve Banks | + 463 | - 386 | - 79 | - 339 | - 341 |
| Cash allowed as reserves§ | - 344 | + 112 | + 82 | + 121 | - 39 |
| Total reserves¶ | + 119 | - 274 | + 3 | - 218 | - 370 |
| Effect of change in required reserves | - 74 | + 251 | + 2 | + 118 | + 297 |
| Excess reserves§ | + 45 | - 23 | + 5 | - 100 | - 73 |
| Daily average level of member bank: | | | | | |
| Borrowings from Reserve Banks | 370 | 239 | 380 | 230 | 805 |
| Excess reserves§ | 433 | 410 | 415 | 315 | 393 |
| Free reserves‡ | 63 | 171 | 35 | 85 | 88 |

Notes: Because of rounding, figures do not necessarily add to totals.
* Includes changes in Treasury currency and cash.
† Includes assets denominated in foreign currencies.
‡ May also include redemptions.
§ These figures are estimated.
|| Average for four weeks ended October 28, 1964.

rates as low as ¼ per cent. In the following week, possibly anticipating another end-of-week easing, many banks were content to accumulate sizable reserve deficiencies as the period progressed. At the end of that week, however, these banks were unable to meet their accumulated needs in the Federal funds market, and total member bank borrowings from the Reserve Banks bulged to over \$1.1 billion on Wednesday, October 21. Subsequently, the distribution of reserves shifted in favor of banks in the major money centers, and total borrowings from the Reserve Banks declined.

On balance, over the four-week period ended October 28, the weekly average of System outright holdings of Government securities contracted by \$246 million, while average holdings of Government securities under repurchase agreements declined by \$29 million. Average System holdings of bankers' acceptances, both outright and under re-

purchase agreement, fell by \$13 million over the period. From Wednesday, September 30, through Wednesday, October 28, System holdings of securities maturing in less than one year decreased by \$205 million, while holdings of issues maturing in more than one year rose by \$73 million.

THE GOVERNMENT SECURITIES MARKET

A cautious atmosphere pervaded the market for Government notes and bonds in early October, as market participants continued to appraise the interest rate outlook warily. The market was influenced by persisting uncertainties regarding prospective balance-of-payments developments and the possible emergence of inflationary tendencies. In the absence of a clear consensus about the outlook, many investors continued to postpone the commitment of funds or to limit purchases to shorter maturities. Against this background of light activity, which largely involved switching operations, prices of Government notes and bonds drifted lower through October 16. However, while investment demand was limited, selling was also light, and the price declines primarily reflected dealer efforts to stimulate some outright buying interest. Market activity was especially restrained around midmonth while participants digested the important developments reported from London, Moscow, and Peking. The market performed smoothly, however, and no real pressures emerged. Soon after mid-October, investor interest began to develop at the lower price levels and over-all activity picked up somewhat. The market's underlying sentiment improved steadily over the balance of the month. It was particularly buoyed in the final week of the month when the British authorities chose to employ selective measures to deal with the country's balance-of-payments problems and stated that they had no present intention of raising the Bank of England's rate. United States bond market participants generally interpreted this action as diminishing the likelihood of near-term interest rate increases in this country. In this improved atmosphere, investors—who had remained on the side lines earlier in the month—showed renewed interest in coupon issues. At the month's close, prices of Treasury notes and bonds maturing before 1973 were generally ½ to ¾ higher than end-of-September levels, while longer term issues were generally ½ to 1½ higher.

On October 28, the Treasury announced a cash offering of approximately \$9¼ billion of new eighteen-month 4 per cent notes to be dated November 15, 1964, and priced at par. Subscription books for the new issue were open only on November 2, with payment and delivery scheduled for November 16. The proceeds of the offering will be used mainly to redeem \$8.7 billion of notes scheduled to mature

on November 15, of which only about \$2.3 billion is publicly held.

On November 5 the Treasury announced that subscriptions for the new 4 per cent notes of 1966 totaled approximately \$21.8 billion, of which \$9.5 billion was accepted. Subscriptions from states, Federal Reserve Banks, and other official institutions, totaling \$6.6 billion, will be allotted in full. Subscriptions from other sources will be allotted in full up to \$100,000, while larger subscriptions will be subject to a 16.5 per cent allotment, although assured of a minimum allotment of \$100,000. Preliminary reports indicate that subscriptions subject to allotment include about \$8.8 billion from commercial banks for their own account and \$6.5 billion from other sources.

A new type of instrument was floated in the market for Government agency issues in October when the Federal National Mortgage Association sold through an underwriting group \$300 million of participation certificates representing beneficial interest in mortgages held in the Government's Mortgage Liquidation Trust. The offering—at yields ranging from 4.10 per cent for certificates maturing in November 1965 to 4.375 per cent for certificates maturing in November 1974—was accorded a favorable reception, with investor interest in the shorter maturities particularly good.

In the Treasury bill market, rates moved slightly higher in the early days of October. Although a moderate demand for bills was evident during this period, offerings continued to press upon the market as dealers—confronted with relatively high financing costs—attempted to trim their positions. Subsequently, an expanded demand for bills from public funds and corporations pared dealer supplies and strengthened the market's technical position. At the same time, the increasing availability of corporate funds for repurchase agreements and the occasional easing in the money market brought about a reduction in dealer financing costs. These developments contributed to a steadier tone in the bill market, and bill rates fluctuated narrowly from October 6 through October 21, with rate declines—concentrated in short-dated issues—outnumbering increases.

The market took in stride the Treasury's October 14 announcement that it would auction on October 20 \$1.5 billion of 147-day March 22 tax anticipation bills to be issued on October 26. (The securities represent additions to an outstanding \$1 billion issue of tax anticipation bills originally dated September 2, 1964.) Commercial banks were permitted to make 50 per cent of the payment for the bills through credit to Treasury Tax and Loan Accounts, and this had a moderate strengthening effect on market psychology. Only minor rate increases, largely in

March and April maturities, followed the announcement. In the auction, commercial banks bid strongly to obtain the accompanying Tax and Loan deposits—estimated to be worth about 15 to 20 basis points in yield—and the average issuing rate was set at 3.518 per cent.

From October 22 through the end of the month, rates tended lower. The confidence in current rate levels generated by the developments noted above stimulated both investment and professional demand. Over the month as a whole, rates on outstanding bills were generally unchanged to 2 basis points lower, although most 1964 maturities registered larger declines.

At the last regular weekly auction of the month, held on October 26, average issuing rates were 3.567 per cent for the new three-month issue and 3.724 per cent for the new six-month bill, in each case 1 basis point higher than the average rates at the final weekly auction in September. The October 27 auction of \$1 billion of new one-year bills resulted in an average issuing rate of 3.790 per cent, compared with a rate of 3.773 per cent on the comparable issue sold in September. The newest outstanding three-month bill closed the month at 3.55 per cent (bid), unchanged from the end of September, while the newest outstanding six-month bill was quoted at 3.71 per cent (bid) at the end of October, compared with 3.72 per cent (bid) on September 30.

OTHER SECURITIES MARKETS

Prices of corporate and tax-exempt bonds moved narrowly in quiet trading during most of the month but rose toward the close. A somewhat hesitant undertone prevailed during much of the period, particularly in the corporate sector, as participants in these markets also assessed cautiously the outlook for interest rates. The new corporate issues publicly marketed in October as well as several previous recent offerings encountered some investor resistance, partly because private placements continued to absorb a substantial amount of investment funds from the corporate market. Syndicates marketing a number of corporate issues were terminated around midmonth, and most of the issues involved subsequently sold readily at the slightly lower prices to which they moved in free trading. In the tax-exempt sector, most new issues reportedly moved well during the month, while slight price concessions stimulated investor interest in the unsold balances of recent offerings still on dealers' shelves. The relatively light calendar of scheduled corporate and tax-exempt flotations on tap exerted a steadying influence on both sectors during the period. A sharp improvement in the tone of the corporate and tax-exempt markets occurred in the latter part of the month,

largely in response to the firming of expectations regarding near-term interest rate stability noted earlier. Over the month as a whole, the average yield on Moody's seasoned Aaa-rated corporate bonds rose by 1 basis point to 4.43 per cent, while the average yield on similarly rated tax-exempt bonds remained unchanged at 3.11 per cent. (These indexes are based on only a limited number of issues.)

The volume of new corporate bonds floated in October

amounted to approximately \$180 million, compared with \$365 million in the preceding month and \$510 million in October 1963. New tax-exempt flotations in October totaled approximately \$735 million, as against \$850 million in September 1964 and \$1,245 million in October 1963. The Blue List of tax-exempt securities advertised for sale closed the month at \$570 million, compared with \$673 million on September 30.

Recent Banking and Monetary Developments

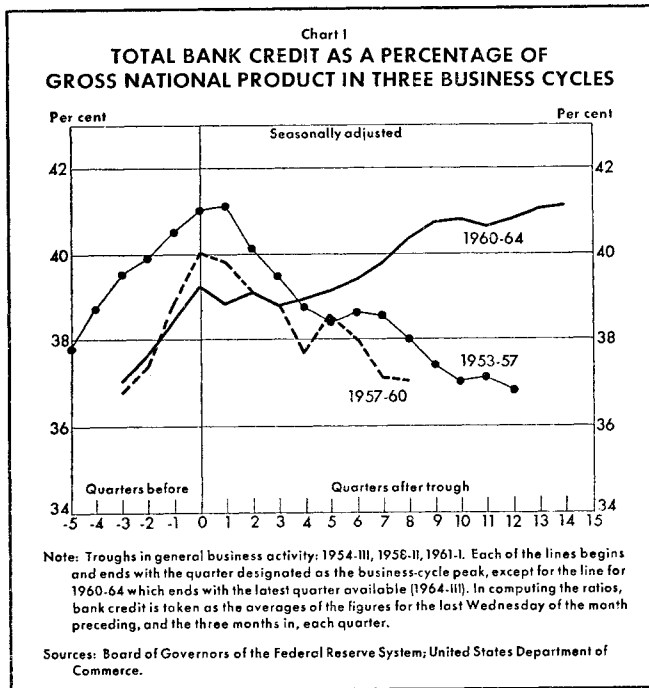
Bank credit and deposits continued to expand at a good clip in the third quarter, as the economy moved further ahead. Bank credit, in fact, has advanced at a relatively steady rate throughout the current expansion. The growth in demand deposits caused a spurt in the money supply during the quarter, but over the year as a whole the money supply has shown about the same rate of increase as last year. Commercial bank time deposits, in contrast, have grown less rapidly this year than in 1963.

The third-quarter rise in total bank credit included a sizable increase in loans to commercial and industrial businesses. The growth in such loans this year, though nowhere near a match for the record postwar surge in 1955-56, has been at a more rapid pace than in earlier years of the current business upswing. While these recent developments suggest that banks for the most part have not felt inhibited in making new loans, the putting-on of these loans has gradually reduced the liquidity position of the banking system as a whole. Indeed, the aggregate loan-deposit ratio at all commercial banks at the end of September was at 58.5 per cent, up from 56.5 per cent a year earlier. Moreover, there have been reports of more frequent requests by some smaller banks to have their big city correspondents participate in new loans, a development which indicates that the especially rapid rise in loan-deposit ratios at banks outside the money centers is already having an effect on lending practices. To the extent that banks as a whole are becoming somewhat less willing to allow their loan-deposit ratios to rise appreciably further, additional gains in bank loans may be more closely dependent on

deposit increases, and ultimately on advances in bank reserves, than has been true thus far in the current expansion.

CHANGES IN LOANS AND INVESTMENTS

Total bank credit at all commercial banks increased by \$5.4 billion (seasonally adjusted) in the third quarter, or at an annual rate of 8.4 per cent. This gain extended further the relatively steady upward trend in commercial bank loans and investments that has now persisted for several years. Indeed, the steadiness of the growth rate in total bank credit over the past three years of general economic upswing is one of the striking aspects of the current business expansion. Federal Reserve policy during the upswing as a whole has, of course, shifted gradually toward supplying member bank reserves—the underlying support for bank credit—a little more reluctantly and toward allowing credit demands to produce a firmer tone in the money market and somewhat higher levels of short-term interest rates. On the other hand, public demand for bank deposits and credit—stemming from the growing pace of economic activity—has increased. In terms of bank credit, the net result of these two forces has been to leave the actual growth rate since 1961 essentially unchanged. To be sure, the period can be divided into two distinct parts. Between the fourth quarter of 1961 and the second quarter of 1963, bank credit grew at a faster rate than the over-all economy, as evidenced by the appreciable rise in the ratio of bank credit to gross national product (see Chart I). Since the middle of 1963, on the other hand,



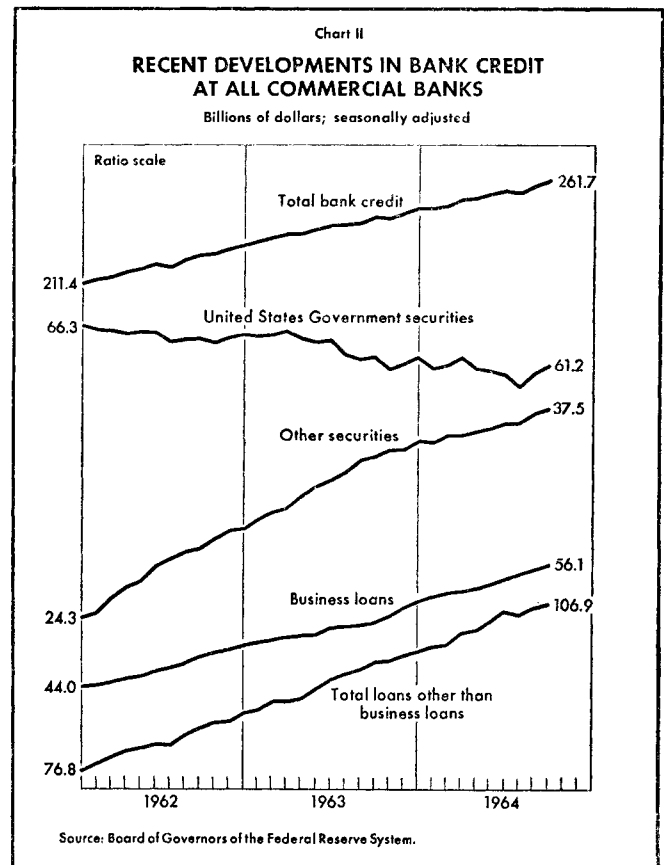
GNP and bank credit have grown at about the same rate and the bank credit-GNP ratio has shown only a very small net upward movement. In the two previous business-cycle expansions, in contrast, the bank credit-GNP ratio declined rather steadily throughout the upswing.

The third-quarter advance in total bank credit reflected gains in most loan categories and a particularly sharp rise of \$2.4 billion in bank holdings of securities. Until this recent rise, bank investments in securities had fluctuated around a \$96 billion level since March 1963, as a net decline in holdings of Governments was about offset by an uptrend in holdings of other securities. Investments in other securities continued to rise in the third quarter (see Chart II), but, departing from the pattern of earlier in 1964, this advance was accompanied by a \$1.2 billion increase in holdings of Governments.

Judging from data for the weekly reporting member banks, holdings of Government issues maturing in over five years have actually risen since the end of 1963, reflecting in part the success of the Treasury's advance and regular debt refunding programs. Positions in one- to five-year issues and in Treasury bills and certificates of indebtedness, on the other hand, drifted downward through the end of July. During August and September, however, the weekly reporting banks increased their bill holdings by more than \$1.6 billion, and this probably accounts for a

good portion of the third-quarter rise in over-all commercial bank holdings of all Government securities. Banks apparently preferred during this period to invest their excess funds in bills rather than even more heavily in higher yielding long-term securities—a preference possibly reflecting a desire to maintain sufficient liquidity to be able to meet loan demands expected during the coming months. With Treasury bill rates up and longer term yields essentially unchanged since midyear, the costs of maintaining such liquidity (in terms of additional income foregone) were not so great as they had been.

The largest rise in commercial bank loan portfolios during the third quarter was apparently in commercial and industrial loans ("business loans"). At weekly reporting member banks, such loans rose by \$1.2 billion over the quarter, substantially more than the increases registered in the comparable quarters of preceding years. After a rather sluggish rate of growth during the first two and one-half years of the current business upswing, business loans surged last fall; in the first nine months of this year these loans have been growing at an annual rate of about 10 per

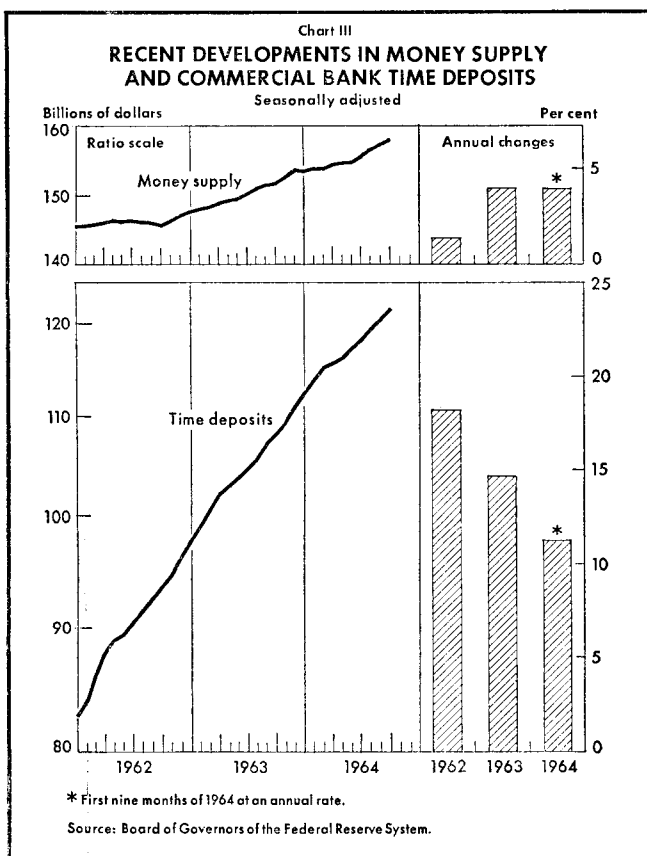


cent at all commercial banks. It should be noted, however, that such a growth rate still reflects a relatively moderate business loan demand. Business inventory accumulation has so far remained relatively modest, and corporations have generated a large internal flow of funds as a result of record corporate profits and depreciation allowances. Hence, businesses simply have not needed to borrow to the extent required in some earlier economic expansions. In 1955 and 1956, for example, business loans at all commercial banks grew at record postwar rates averaging about 20 per cent per year.

MONEY SUPPLY AND TIME DEPOSITS

As a closely related counterpart of the rise in bank credit during the third quarter, commercial bank deposit liabilities also rose appreciably, which in turn contributed to a sizable increase in the money supply.¹ On a daily average basis, the seasonally adjusted money supply in September was \$158.0 billion, or \$2.4 billion above the June average. While this recent increase in the money supply substantially exceeds the long-term rate of growth in this series, it should be noted that money supply growth had been fairly slow earlier in the year (see Chart III). For the first nine months of the year as a whole, the money supply grew at an average annual rate of 3.9 per cent, virtually the same as the 4.0 per cent growth registered during 1963.²

Time deposits at commercial banks also moved further ahead in the third quarter, but their rate of growth throughout this year has been noticeably slower than the rapid increases registered in 1962 and 1963.³ Time deposit growth benefited in those years both from increases in interest rates paid on such deposits (following changes in Regulation Q) and from the development of the negotiable certificate of deposit (C/Ds). These factors have not been so important in 1964. Thus, over the first nine months of 1964, time deposits grew at an annual rate of 11.2 per cent, compared with increases of 14.7 per cent during 1963 and 18.2 per cent in 1962.



¹ Defined to include demand deposits at commercial banks other than those of the United States Treasury (and certain other net adjustments) plus currency held by the nonbank public.

² These growth rates for the full year of 1963 and for the first nine months of 1964 have both been computed on the basis of a three-month (November-January) average figure for the money supply at the end of 1963. Monthly averages are used for the figures for December 1962 and September 1964. The annual changes shown in Chart III are computed in the same way.

³ It might be noted that bank capital apparently has risen at a faster rate this year than in 1963. The effect of this acceleration has been to absorb a greater portion of the counterpart of bank credit growth, relative to deposits, than was the case in the previous year.

**Special Articles by
W. Randolph Burgess
and Allan Sproul**

**Commemorating the Fiftieth Anniversary
of the Federal Reserve System and the
Federal Reserve Bank of New York**

INTRODUCTION BY ALFRED HAYES

President, Federal Reserve Bank of New York

The month of November is of special significance to the Federal Reserve Bank of New York during this, the fiftieth anniversary year of the Federal Reserve System. It was during this month in 1914 that the Federal Reserve Banks opened for business, after months of intensive preparations following enactment of the Federal Reserve Act in December 1913.

We felt that there was no better way to mark the occasion than to make a contribution to knowledge and understanding of Federal Reserve history. Such a contribution, it was clear, could best be made by persons who are acquainted intimately with the System's problems and policies during earlier decades. We found these persons in two prominent former Federal Reserve officials, W. Randolph Burgess and Allan Sproul; and we are deeply indebted to them for the articles that appear on the following pages.

Mr. Burgess, who reflects on the early development of Federal Reserve open market operations, is uniquely qualified to deal with this topic. After receiving a doctorate from Columbia University and serving as a Government statistician during World War I, Mr. Burgess joined this Bank in 1920 as chief of the Reports Division and editor of the *Monthly Review* in what is now called the Research Department. Advancing rapidly, he became Manager of the Department and then Assistant Federal Reserve Agent in 1923. Seven years later, he was made Deputy Governor and placed in charge of open market operations. When titles were changed in 1936, he became a Vice President and was named Manager of the System Open Market Account, serving in these capacities until 1938. While at the Bank, he wrote *The Reserve Bank and the Money Market* and edited *The Speeches and Writings of Benjamin Strong*.

Mr. Burgess went on to a distinguished career in commercial banking until 1952, and subsequently he occupied several important Government positions including those of Under Secretary of the Treasury for Monetary Affairs and United States Ambassador to the North Atlantic Treaty Organization. Now 75 years

young, he continues to provide leadership to a variety of private organizations that are devoted to the public good, including the Atlantic Treaty Association and the Atlantic Council of the United States. He is also Chairman of the Per Jacobsson Foundation, which was established to carry forward the ideas and the work of the late Managing Director of the International Monetary Fund.

Mr. Sproul, in writing about the Treasury-Federal Reserve "Accord" of 1951, deals with one of the crucial events in the System's history, and one that occurred while he was President of this Bank. Allan Sproul received his bachelor's degree from the University of California, and served as a pilot in the United States Army Air Service during World War I. He joined the Federal Reserve Bank of San Francisco in 1920 to head the Analysis and Research Division and to edit the *Monthly Review*. In 1924 he was promoted to Assistant Federal Reserve Agent and Secretary of that Bank. An offer from Governor Harrison to come east brought him to this Bank in 1930, where he became Assistant Deputy Governor in the Foreign function, and Secretary. He became First Vice President in 1936 and, two years later, succeeded Mr. Burgess as Manager of the System Open Market Account. In 1941, Mr. Sproul was named President of the Bank and Vice Chairman of the Federal Open Market Committee. He thus became the Bank's third chief executive, following Governors Strong (1914-28) and Harrison (1928-40), and he held this key position until he resigned in 1956 at the age of 60.

In retirement in his native California, Mr. Sproul is serving as director of Wells Fargo Bank and Kaiser Aluminum and Chemical Corporation. He is also continuing his public service in various ways. Thus, he is a member of a special committee of the Business Council to advise the President of the United States on the balance of payments, a trustee of the Committee for Economic Development, and a member of the Committee's Research and Policy Committee. Throughout his career, Mr. Sproul has made major contributions, in speeches and articles, to our knowledge of monetary problems and policies. His achievements, like those of Mr. Burgess, have been recognized by special awards and honorary degrees.

It is indeed rare that central bankers who made history can be persuaded to write history. In requesting such contributions from Mr. Burgess and Mr. Sproul, we naturally left it to them to choose their own topics out of their vast knowledge and experience, and then to develop these topics as they saw fit. I hope—indeed I am convinced—that our readers will find these articles as absorbing and fruitful as I did.

Reflections on the Early Development of Open Market Policy

By W. RANDOLPH BURGESS

Over the fifty years of its life, the Federal Reserve System has gradually been forged into one of the most important instruments for making money serve the economic goals of democracy. Nowhere is this process better depicted than in open market operations. For in them are interwoven two great endeavors.

One of these has been the effort to manage money in the public interest rather than treat it as a semiautomatic and somewhat occult mechanism.

The second struggle has been to subject money management to an effective *unified* control, while preserving the *local* and *practical* participation which is inherent in our concept of democracy. This is, in effect, the story of how the twelve Federal Reserve Banks, conceived in the democratic tradition as regional in spirit, learned to act in coordination with a Government Board, as one unit, inspired wholly by public motives.

How progress was made in these two directions is revealed in the early history of the Reserve System in which I was a young, eager, and enthusiastic participant.

ORIGINS OF OPEN MARKET PRACTICE

When the Federal Reserve System opened for business in 1914, there was little intimation that open market operations in Government securities would become a principal instrument of policy. The reports of the National Monetary Commission, known as the "Aldrich Commission", and other writings of that period pointed to the virtues of a "bill market", meaning bankers' acceptances, as an essential part of a broad international money market. This was largely by reason of its value as a means of financing trade and also as an avenue for the employment of short-term funds, in addition to the Stock Exchange call loan market. A bill market was regarded as necessary to make the New York money market broader and more attractive, and competitive with London. At that time, New York had no such market.

Federal Reserve participation in the bill market was to be for the purpose primarily of creating and nurturing the bill market. But it was also believed that a bill market would provide an almost automatic mechanism, along

with member bank borrowing, for drawing Federal Reserve money into use when needed. This thinking followed closely the example set by the London money market.

One of the first people that Benjamin Strong, the first Governor of the Federal Reserve Bank of New York, sought out for his staff was a man familiar with the practices of the London bill market. He found him in the person of Edwin R. Kenzel, an officer of the Chemical National Bank, who knew well the mysteries of the market and applied his knowledge to encouraging the creation of bankers' acceptances and to opening up a market in which they could be bought and sold. Mr. Kenzel became the high priest of the bill market, who understood and ministered to its highly complicated operations. We younger officers of the Bank sat at his feet to learn, but were rash enough at times to question the sanctity of his conclusions.

The Reserve Bank was necessarily involved in the bill market, because the dealers needed a place to come for money at times when it was not available from the surplus funds of banks. Without such an additional source of funds, a bill market could hardly develop. This kind of operation resulted generally in putting Reserve money into the market at tight periods, usually, but not always, at just the times when the central bank should put money into the market. It was on this point that differences of opinion arose, for sometimes the bill market needed money when central bank policy called for restraint.

The fact is that the effort to transplant the market for bankers' acceptances into this country's financing machinery has not been very successful. A large proportion of short-term financing is still done through direct bank loans, and the bill market has never reached such size or become as large a factor in the money market and in Federal Reserve policy as had been hoped.

The other potential avenue for open market operations was the Government security market, and that was, at the beginning, a closed road. For there was, at first, no supply of short-term Government securities. Total Government debt was only about \$1 billion and most of that was in the form of long-term bonds carrying the circulation privilege, which were closely held by national banks. It

was only after the United States entered the war in 1917 that a real supply of short-term Government securities became available.

Federal Reserve operations in Government securities were at first dominated, not so much by broad policy considerations as (1) the need to provide the Treasury with a market for its securities, and (2) to help the earnings of the Reserve Banks. So open market operations as an instrument of credit policy did not really appear until 1923. Policy before then was expressed principally by changes in the discount rate.

An interesting indication of the absence of an "open market policy" is revealed in a speech on "Credit Control" given by Benjamin Strong in November 1922 at the Harvard School of Business Administration. In that speech to an informed academic audience, Governor Strong did not mention open market operations. His discussion was focused on lending policies and the discount rate. There is a corresponding gap in the Annual Reports and monthly publications of the Federal Reserve Board and the Reserve Banks.

THE GREAT DISCOVERY

The real significance of the purchase and sale of Government securities was an almost accidental discovery. During World War I member banks borrowed heavily from the Federal Reserve Banks, and the interest from these loans brought the Reserve Banks substantial earnings. But, due to the deflation of credit in 1921, a substantial return flow of currency, and heavy receipts of gold from abroad, the banks were then able to pay off a large part of their borrowings. Hence the Reserve Banks found their income cut to a point where they had difficulty in meeting their current expenses. So a number of the Reserve Banks went into the market in 1922 and bought Government securities to eke out their earnings.

Then they made two important discoveries. First, as fast as the Reserve Banks bought Government securities in the market, the member banks paid off more of their borrowings; and, as a result, earning assets and earnings of the Reserve Bank remained unchanged. Second, they discovered that the country's pool of credit is all one pool and money flows like water throughout the country. When Government securities were bought in Dallas, the money so disbursed did not stay in Dallas, but flowed through the whole banking system and reappeared in New York or Chicago or Kansas City, and vice versa. These funds coming into the hands of the banks enabled them to pay off their borrowings and feel able to lend more freely.

Two obvious conclusions followed from these results:

first, the effect of open market operations had to be carefully studied as it was not what it appeared on the surface and, second, operations had to be treated as *System* policy, rather than as separate policies for each Reserve Bank.

There were no substantial historical precedents for this new venture in central banking. The Bank of England had seldom used the term "open market operations" as applying to Government securities, and when they did so they meant purchases or sales in small amounts for short periods for the purpose of market stabilization. Their funds reached the market mostly through the bill market; and the principal policy instrument was the discount rate at which bills were bought, and that was used mostly in response to changes in their gold reserves.

Indeed, in the early twenties, the position of the United States was unique in holding such large gold reserves that policy decisions were largely free from the dictation of protecting reserves. For the first time in history, a bank of issue could direct its policy decisions to the whole economic picture.

USE OF ECONOMIC ANALYSIS

In this situation, it was fortunate that the Reserve System had introduced into its organization the tools of economic and statistical analysis. The first Secretary of the Federal Reserve Board, Professor H. Parker Willis, from Columbia University, encouraged by Dr. Adolph Miller, a Board member, organized a statistical office for the Board (in New York) and began the publication of the *Federal Reserve Bulletin*. The New York Reserve Bank also set up an office for research and analysis, and began publishing a *Monthly Review of Credit and Business Conditions*. I was brought into the Bank in December 1920 to edit that publication. At that time, we had a Statistics Department of over fifty people, compiling and analyzing current statistics. Because of Congressional criticism of "fancy spending", we later called it our "Reports Department". The chief statistician was Carl Snyder, a man of wide experience and ranging mind, which he applied to a searching analysis of the relation of money and economic trends.¹

Governor Strong and other officers of the Bank used

¹ The extended studies by Carl Snyder and his associates of the relation of business activity, the volume and velocity of money, and the movement of prices were reported in a number of articles in the *Journal of the American Statistical Association* and more fully in a book, *Business Cycles and Business Measurement* (New York, 1927) and his later book, *Capitalism the Creator* (New York, 1940).

our department to help them with operating problems. My first real contact with the Governor was in the summer of 1921 when he was called before the Joint Commission on Agricultural Inquiry of the Congress. He kept me and my associates busy analyzing the pertinent statistics and preparing charts for his testimony on monetary policy in relation to agricultural problems. This was the beginning of a close association. His inquiring mind sought out the facts—and theories—bearing on the problem he was trying to solve. He read widely, and loved to match wits with professors of economics, including such men as Sprague and Bullock of Harvard, Kemmerer of Princeton, and Hollander of Johns Hopkins. A few years later, when I was preparing a book, *The Reserve Banks and the Money Market*, Governor Strong, though ill and absent from the Bank, read every chapter of the manuscript and sent me voluminous and helpful comments written by hand on a yellow pad.

The research staff of the Federal Reserve Board was greatly strengthened in late 1922 by the appointment as its director of Walter W. Stewart, Professor of Economics at Amherst and a former associate of Professor Wesley C. Mitchell in the conduct of economic studies for the War Production Board. The Reserve Board's research office (Division of Reports and Statistics) was at that time moved from New York to Washington. Under Stewart's leadership, his office and mine worked closely together, and he soon gained the confidence of Governor Strong and other leaders in the Reserve System.

In this sort of atmosphere, the "discovery" of open market operations was followed promptly by a number of steps in their analysis, and organization for their execution.

OPERATING ORGANIZATION

At their spring meeting in 1922, the Governors of the twelve Federal Reserve Banks appointed a Committee of Governors of four of the Reserve Banks (later increased to five) to coordinate purchases and sales of Government securities at the request of the different Reserve Banks. In October of that year, the duties of the Committee were extended into the field of policy, and the Committee was asked by the Conference of Governors of the Federal Reserve Banks to make recommendations as to the purchase or sale of Government securities. The execution of these recommendations was carried out by the Federal Reserve Bank of New York. The Deputy Governor of the Bank in charge of these operations until 1930 was J. Herbert Case, a man of wide experience who commanded everyone's respect.

It was in the next few months that the people in the

Reserve System generally began to recognize the significance of open market operations as an instrument of policy. This led to a clash between the Federal Reserve Board and the Federal Reserve Banks. The Board was not content to leave this potent mechanism solely in the hands of the Banks, and, in a stormy session with the Governors in March 1923, issued a ruling by which the Open Market Committee of five Governors was taken over as a Board-appointed committee and subject to its general supervision. In practice, this meant that the Committee would meet normally in Washington and submit its findings to the Board for approval or disapproval.

At the same time, the Board issued a statement of objectives of policy to make clear that open market operations should have the same aims as discount policy, as follows:

That the time, manner, character, and volume of open market investments purchased by the Federal Reserve Banks be governed with primary regard to the accommodation of commerce and business, and to the effect of such purchases or sales on the general credit situation.

In view of ambiguities in the Federal Reserve Act, differences of opinion as to relative authorities in this and other matters were not surprising, and they were frequent. The arrangements for open market decisions arrived at in the spring of 1923 actually worked pretty well. They were supplemented in the autumn of that year by the establishment, by mutual consent, of a "System open market account" entrusted to the Committee of five Governors with the approval of its actions from time to time by the Federal Reserve Board. The securities purchased were prorated by formula among the Reserve Banks, which decided by vote of their directors whether to participate or not. This general plan was in operation until 1930, when, in response to pressure by several Reserve Banks, the Committee was enlarged to include the Governors of all twelve Reserve Banks and renamed the "Open Market Policy Conference"; the smaller group of five constituted the Executive Committee.

These various organizational steps had the effect of bringing about gradually the essential unity of action in a structure designed as regional. They moved the System away from the sort of semiautomatic mechanism visualized by the founding fathers to the exercise of deliberate decisions.

The 1923 action did leave some loopholes. Each Reserve Bank was permitted to decide whether it would participate in any operation, and it could in addition have independent accounts of its own. These privileges were at

times exercised at some cost to unity and effectiveness of action.

It would have been a miracle if the whole leadership of the System had thus suddenly adopted a new interpretation of their functions and policies. The theory that the discount and bill windows could be relied upon to put out almost automatically the amount of funds that the country's economy really needed was deeply imbedded and persisted. That theory coincided with each Reserve Bank's pride in its own autonomy. There were also differences of view about the formula on the basis of which each Bank should participate in the System Account.

These last difficulties were finally eliminated only in the Banking Act of 1935, under which all Reserve Banks were required to participate in all System operations and lost the right to hold separate portfolios.

But, looking back, the process of gradually unifying the System in this essential operation, of making the Reserve System "one out of many", was surprisingly successful. The managements of the Reserve Board and the Reserve Banks, as they accumulated experience, saw the necessity for unity. In the early days, the leadership of Benjamin Strong had great influence for cohesion. The practices developed to deal with open market operations have also proved a unifying force for other System operations and the Open Market Committee has increasingly become an organ for discussion of many problems.

AGREEMENTS ON PRINCIPLES

Pari passu with these changes in organization was corresponding progress in what may be called the ideology of open market operations—the understanding of principles.

As part of the basic materials, Walter Stewart, and his staff, began in 1922 and in 1923 a series of studies of economic trends, including, for example, the compiling of a reliable index of industrial production, with the help of statisticians from some of the Reserve Banks, and using also the work of Professor Edward E. Day of Harvard. The liaison was especially close with the New York Bank, which was engaging in similar studies.

One result of Stewart's work appeared in the *Annual Report of the Federal Reserve Board for the Year 1923*, published early in 1924. That *Report* contained a full and careful statement of principles and consequences of open market operations as a major instrument of policy, supplementing the discount rate.

Of particular interest is the extent to which this discussion had moved away from the concept of the Reserve System as a mechanism responding semiautomatically to the demands made upon it to that of an organization re-

sponsible for taking the initiative. This appears in the review of guides to credit policy, which the *Report* recognized as including consideration of the quantity of credit (as well as the quality) to see that it is "neither excessive or deficient in maintaining credit in due relation to the volume of credit needs for the operating requirements of agriculture, industry, and trade". For this purpose, the *Report* said, the System must follow economic trends by the use of indexes of production, employment, trade, etc.

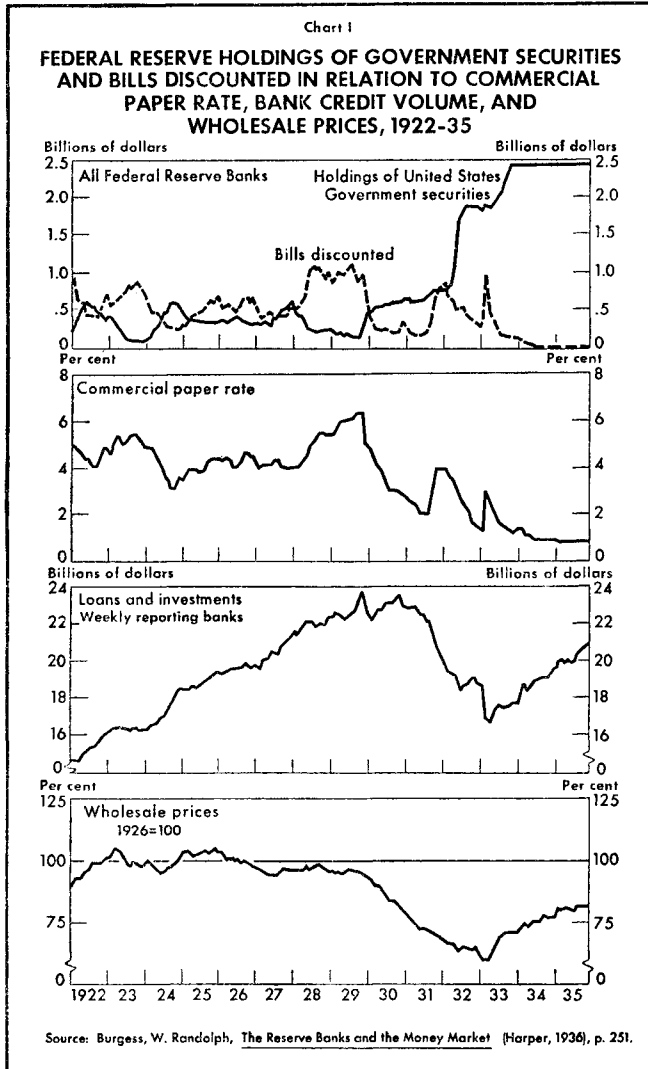
It is revealing to see how close this review of the objectives of policy comes to the stated purposes of the Employment Act of 1946. I can testify that these expressions in this 1923 *Annual Report* of the Board did indeed represent the broad objectives of System policy as they were considered by the Open Market Committee from that time forward.² Thus, very promptly after the "discovery" of open market operations, a mechanism had been set up for reaching decisions and executing them, and an understanding had been achieved by leaders in the Reserve System of principles which should serve as guidelines.

It was at this time that my own close association with the Open Market Committee began. I was invited to meetings, first as an economist, and prepared memoranda for the Committee on the economic and credit situation. Later I became Secretary of the Committee, and Manager of the System Open Market Account.

EARLY OPERATIONS—1923 TO 1928

As a framework for some comments on the actual operations undertaken in accordance with the foregoing organizational arrangements, it may be helpful to insert here two diagrams. One of these (Chart I) was included in the first edition of my book, *The Reserve Banks and the Money Market*, published in 1927. It was brought up to date and included in the second edition published in 1936. The other diagram (Chart II) was published only in the second edition. These diagrams show the principal changes in holdings of Government securities by the Federal Reserve System in relation to various factors in the economic situation, all of which were under scrutiny at the Open Market Committee meetings in the form of memoranda and charts.

² I should add that this same *Report* also included a section advocating as one policy instrument direct supervision by the Reserve Banks of the use of credit by member banks, a concept which represented the views of some members of the Federal Reserve Board, but was regarded by most Reserve Banks as theoretical and impractical. That difference in point of view was to impair the effectiveness of Federal Reserve action in the late twenties.



There is logic in discussing as one unit the first five years of conscious open market operations from 1923 until Governor Strong's death in 1928. Not only was his the leading voice in decisions, but also there were several overriding influences upon action through the period. I am tempted to call this the tender period, when the action we took appeared to produce the results hoped for. Afterwards came the tough period, when nothing we did seemed to work well.

The operations in the early period seem small compared with the huge amounts of today. The largest amount of Governments purchased by the System Open Market Account in this period was \$510 million from December 1923 to September 1924; and half of that was sold by March 1925, during a time of business recovery and ris-

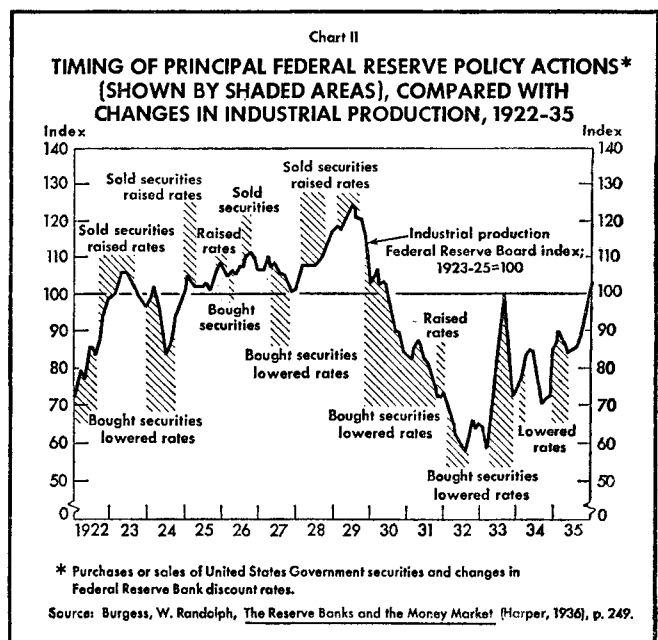
ing prices. The next important operation was the purchase of \$230 million in late 1927. This purchase came at a time when production and prices were showing some weakness, but when speculation was beginning to boil and bank credit was moving up.

Thus, the two major operations, after such transactions had become an accepted weapon of Federal Reserve policy, were in the direction of monetary ease. Both had the expected effects in enabling the banks to reduce their debt to the Reserve Banks; hence, they felt able to lend more freely. Money rates declined, bank loans and investments increased, industrial production turned up, gold imports slackened off.

From the point of view of hindsight, these operations have been criticized as having fed the fires of inflation and laid the base for the great speculative boom. Since Governor Strong was the chief architect of these actions, it is interesting to recall his reasoning. In his mind, as I often heard him explain, this five-year period was one in which it was wise to lean on the side of credit ease, for several reasons.

One of these reasons was the condition of agriculture and farm credit. He had been greatly impressed by his appearance before the Joint Commission on Agriculture Inquiry mentioned earlier. Farm prices had taken a terrific tumble; farmers were in trouble; and farm banks were failing throughout the decade of the twenties. Postwar readjustments were still going on in other industries.

A second factor of increasing importance was the



newly acquired international influence of United States financial policies. Europe was struggling for recovery and monetary stability after the great postwar depression, while America's influence, with her new strength relatively unscarred from war damage, was becoming ever greater. It was increasingly clear that United States monetary policies, which tended to make money easier or dearer, affected the flow of funds across the Atlantic. Gold was pouring in from Europe and building up a base for possible credit inflation. It therefore seemed desirable for this country to keep money rates as low and its lending markets as freely open as was consistent with domestic stability.

Governor Strong took the leadership in establishing relations between the Federal Reserve Bank and the Bank of England, and other central banks of Europe. He made a practice of taking a trip abroad every year to nurture these contacts, and European central bankers (Governors Norman, Rist, Schacht, Vissering, Franck, and Bachmann) returned the visits.

I well remember a meeting of the officers of the Federal Reserve Bank in the late spring of 1924 when the Governor, returning from a visit abroad, discussed with us the relation of these factors to our policies. Not many months later, the New York Reserve Bank was taking the lead in a credit to the Bank of England, to aid the British return to the gold standard.

Governor Strong and others were also always acutely conscious of the danger of speculative inflation in this country built on the flood of gold imports, which in the three years 1921 through 1923 had increased the country's gold reserves by 40 per cent. In fact, the economic discussions of that period are full of suggestions that, from the point of view of the world situation, an increase in commodity prices in the United States would be a logical and desirable result of these large gold imports. It would greatly facilitate Europe's recovery. Of course, in that case, higher security prices and speculative fever, a little inflation, would be hard to avoid.

Governor Strong had two answers to this threat. One was to follow a money policy which attracted as little gold as possible. The other was his belief that, if inflation began to flare up, it could be damped by vigorous monetary policies. At the beginning of 1928, he felt this was beginning to happen. In late February, George Harrison, Deputy Governor, who later succeeded Mr. Strong as Governor, and I went to see him in Atlantic City, where he was recovering from an illness. As always, he had been studying our daily reports of operations, and told us very vigorously that the New York banks were getting too much out of debt, were expanding credit, and that more restraint was necessary.

To meet this situation, securities were sold from the System account in the early months of 1928, in larger amounts than the purchases in 1927, bringing the total holdings by the System down to a minimum and forcing member banks to borrow up to a billion dollars.

Governor Strong's death in October 1928 really brought this period in Federal Reserve open market history to a close. As far as open market operations were concerned, the System had by that time used up almost all of its striking power for restraint, for it held very few more Government securities to sell. It still had the discount rate to use and did so belatedly, but effectively, in August 1929.

The period from the death of Governor Strong to the stock market crash almost a year later was an unhappy one in Federal Reserve history, marred by serious disagreements. Since the problem was not one of open market policy a full discussion of it does not belong in this paper.

It was and is my belief that if the open market sales of securities in 1928, and discount rate increases early in the year, had been followed up promptly by further increases, as voted by the directors of the New York Reserve Bank and other Reserve Banks, the speculative boom could have been checked earlier, and the later terrible recession would not have been as severe.

But week after week by a split vote the Federal Reserve Board disagreed, and failed to approve the rate increases. The disagreement was not as to the dangers of the situation but as to methods of dealing with it. The dissenting members of the Board hoped that the result could be achieved by a kind of moral suasion upon the banks to reduce lending for speculative purposes, a quite impractical program. Back of this was, I believe, reluctance to take the responsibility for decisive action, having in mind the criticism incurred by the Board for increasing the discount rate in 1920. In the nature of the case, a board sitting in Washington is more conscious of the political hazards of action than those closer to the banking and business communities.

So I leave this question to the historians and go forward with the open market account.

THE SECOND STAGE— THE RECOVERY EFFORT, 1928-33

In anticipation of a possible serious break in the securities markets and business, the Open Market Committee began early to plan the use of its powers as an instrument for meeting an emergency. In a meeting with the Federal Reserve Board in August 1928, there was sober consideration of the economic effect of the monetary pressures then

being felt: the 5 per cent discount rate and the heavy borrowing by member banks at the Reserve Banks. There was fear that money might not be freely available for moving the crops, or that there might indeed be a break in security prices and a serious credit strain, endangering the economy. It was decided that bankers' acceptances should be purchased freely at the prevailing rate of 4½ per cent. The purchase of up to \$100 million of Government securities if an emergency should occur was also authorized with Board approval. The break, however, did not come at that time and no securities were then purchased under that authority.

The action taken at that meeting has quite properly been criticized as ambivalent. There was in reality no way of making credit easy for agriculture and business and tight for speculation. The money disbursed to purchase bills by the Reserve Banks at the 4½ per cent buying rate flowed into the whole credit structure and offset in part the pressures to check speculation. The only policy that might have worked to stop the boom would have been a prompt and vigorous use of the discount rate following the precedent of the Bank of England, which, whenever it raised its discount rate in such a situation, raised it by a full 1 per cent to show that it meant business.

For succeeding months, while the Reserve Board and the Reserve Banks quarreled over raising the discount rate, the Open Market Committee was largely on a standby basis. Its continued meetings were useful as a medium for discussion of policies, but it had no ammunition to use in the open market.

Then at last in August 1929, the Reserve Board consented to an increase in discount rates to 6 per cent, but again with the compromise that bill rates should be kept low. But the medicine worked. In October, the securities and commodity markets broke, and badly. In a near panic, out-of-town banks, and lenders other than banks, began calling their loans and pulling money out of the call loan market. In this situation the Reserve Banks took the action contemplated at the August 1928 meeting: they bought Government securities in substantial amounts to enable the New York Banks to rescue the money market from complete chaos. Then, and in the following months, the New York Reserve Bank and the Federal Reserve Board wanted to go further in purchases than the majority of the Open Market Committee was ready to go. But before long other influences operated to ease money. The considerable liquidation of bank loans released reserves, currency circulation declined, and gold came in from abroad.

These factors, continuing through 1930 and early 1931, enabled the member banks to pay off a major part of their

debt at the Reserve Banks. By the summer of 1931 money rates had dropped and money was freely available. But all was not well. Industrial production and commodity prices were falling at home and abroad. The *Annual Report* of the Federal Reserve Bank of New York for the year 1931 described the situation as a "World Crisis of Confidence".

In September Great Britain suspended gold payments. France began withdrawing gold from New York. Gold exports and currency hoarding again drove the member banks heavily into debt at the Reserve Banks. Rumors were in the air. In late September, Governor Harrison sent me to a meeting of the Governors of European Central Banks at the Bank for International Settlements at Basle, to explain that our newly organized National Credit Corporation to help banks in trouble was not an engine of inflation. In reality, it was not half strong enough medicine to cure the disease. Passing through Paris, I helped prepare some explanatory articles for the local English-language press.

This was the background against which the Reserve System's most massive open market operation was conceived. Carl Snyder and I had been urging such an undertaking. Large purchases of Government securities would put money into the banks and enable them to lend more freely. The System bought less than my colleagues and I in the New York Bank advocated.

The amount that could be purchased at that time was limited by a technicality of the law. Under the then-existing terms of the Federal Reserve Act, the only legal collateral for Federal Reserve notes was gold, commercial paper, and promissory notes of member banks. So if purchases of Government securities had the result of reducing borrowing by member banks, there would be a shortage of cover for Federal Reserve notes. Thus, in the autumn of 1931 we found ourselves blocked from further substantial purchases of securities by this technicality.

By a curious set of circumstances, the way was opened to do something about this. Senator Carter Glass, the "father" of the Federal Reserve Act, was working on revisions of that Act to prevent the recurrence of such a boom and collapse as that of 1929. He had asked the help of Governor Harrison and of Eugene Meyer, Governor of the Federal Reserve Board. As a consequence, I had gone to Washington in January 1932, and was working over this problem with Dr. Emanuel Goldenweiser, Director, Division of Research and Statistics, and Walter Wyatt, the Board's General Counsel, and their staffs. We included, in our suggestions, amendments to the Federal Reserve Act which would make Government securities eligible in emergencies as collateral for Federal Reserve notes, and

would thus remove the shackles which were at that moment tying the hands of the Reserve System. We also had drafted proposals for broadening the lending powers of the Reserve Banks.

In early February 1932, Governor Meyer and Ogden Mills, Secretary of the Treasury, who had been following our work, proposed lifting these sections out of the draft bill and putting them through Congress promptly to relieve the current desperate situation. They and Governor Harrison, with the support of President Hoover, persuaded Senator Glass to introduce the legislation, as the Glass-Steagall Bill. He did so with reluctance, saying to me in his Virginia drawl, "You tell George Harrison that I am now just a corn-tassel Greenbacker". The bill was passed by the end of February.

The Open Market Committee, now renamed Conference, then agreed on a program, and the System began purchases the first week of March, at a too modest rate of \$25 million a week, but stepped it up to \$100 million a week in April, and continued buying until early August. Total purchases amounted to \$1 billion. This resulted in offsetting some further gold losses, and also in cutting indebtedness of member banks to the Reserve Banks to about half a billion dollars. It brought about a substantial easing in money conditions and money rates. There was again some difference of opinion: the New York Reserve Bank and the Board would have preferred to carry this program faster and further than most of the other Reserve Banks. From the point of view of hindsight, I believe larger purchases would have proved helpful.

In a sense, this massive purchase in 1932 concluded the preliminary stages of the development of open market operations as an instrument of policy. It marked the breaking away from certain limits in both the law and the conceptions governing these operations. In this first decade, the pattern had been set both in terms of freedom of movement, and in terms of the organization for the practice of unity of action in the Reserve System.

In the summer of 1932, there seemed reasonable hope that the corner had been turned in this great recession. There was an upturn in industrial production and some other indexes. But the full force of world-wide deflation was not yet spent, and the banking position was weak. The reasons why the bank crash came in the spring of 1933 constitute a separate and unhappy story, partly political.

The point that should be recognized here is that the evil forces at work in early 1933 were not ones that could be dealt with by open market operations. The Bank reserve position was comfortable, money rates were low, commercial paper under 2 per cent. The principal value of the Open Market Conference in this period was as a medium

for the discussion of policy problems, which were many, rather than for open market action. The Conference did buy some \$500 million of securities during the second half of 1933, but thereafter for many months the problem became one of dealing with excess reserves.

The Conference was involved during 1933 in an interesting chapter of Federal Reserve history having to do with the relation between the System and the Administration. But that is part of a separate and broader story. The important thing, from the point of view of our present subject, is that the Reserve System came through this difficult struggle with its integrity intact. The general pattern of decision-making and operations worked out by practical experience over the System's first decade provided a solid basis for making these operations the most flexible and pervasive tool of monetary policy in the United States.

SUMMARY

I suggest the following broad conclusions from the experience of the first decade of Federal Reserve open market policy.

1. Federal Reserve responsibility is not just the technical one of operating a complicated semiautomatic mechanism, but is more broadly the management of money in the public interest.

2. Open market operations have shown their great value in influencing the supply of money in relation to the country's volume of business.

3. Usually this influence is indirect and impersonal, but powerful. By controlling reserves, Federal Reserve action affects the money supply, and this action is reinforced by changes in the sentiment and behavior of lenders and borrowers.

4. This means that the Federal Reserve, while powerful, is one of many influences, and its action is more or less effective depending on circumstances, and on public reactions.

5. Through trial and error, the Reserve System has devised effective means of coordinating the views of twelve regional Reserve Banks and the Federal Reserve Board in the determination and execution of a unified System policy. Over the years the System has also gained greatly in knowledge and understanding of its function.

6. Whether this unique organization will have the wisdom and courage to deal promptly and effectively with possible future crises such as those of the late twenties and early thirties, will depend on the quality of its leadership and on the public understanding and support this leadership receives.

**The "Accord"—
A Landmark in the First Fifty Years
of the Federal Reserve System**

By ALLAN SPROUL

Personal recollections of the history of institutions may range widely, following the broad avenue of the development of the institution itself, or the high road of the careers of individuals who served it, or they may focus on episodes which stand out in historical perspective as having a special significance. Such an episode in the history of the first fifty years of the Federal Reserve System is the web of events which found its denouement in the "Accord" of the Treasury and the Federal Reserve System in March 1951.

Having chosen to write about this controversial episode, because of special familiarity with it, I faced certain hazards which I have tried to avoid. One such hazard is that episodes of historical significance do not spring into being without a past and, inevitably, they have a future. So it is with the "Accord"; its roots go deep into the past of the Federal Reserve System and its influence is still being felt and its results are still being challenged. Yet, in an article such as this, if one is to avoid the trap of trying to write a history of the Federal Reserve System in a few thousand words, it is possible only to brush over the past of the "Accord" and touch only lightly on its future. A second hazard is that in treating an episode in which one has participated, there is a tendency to embrace the benefits of hindsight. Recourse to records written at the time, and not since "improved", has helped me to avoid this hazard, I hope. But even if the advantages of hindsight are eliminated in this way, there remains the fact that most of the contemporary records I have consulted are the records of individuals or groups who were in the contending forces and only on one side—my side. I have had to try to avoid the hazard that my recollections, refreshed by a reading of written records, are subject to institutional and personal bias.

A fundamental cause of the controversy which led to the "Accord" was the growth in the importance of the overlapping responsibilities of the Treasury and the Federal Reserve during the years 1914-51. On the one side, the deficit financing of two world wars had made the management and cost of the Federal debt a matter of major

economic and administrative concern, and the proliferation of Government securities of various maturities brought the Treasury to the market, for financing and refinancing, with increasing frequency. On the other side, the development of credit policy as one of the primary means of Government influence on the total economy, and the open market techniques which the monetary authorities evolved to discharge their responsibilities under law, meant that an overlapping area was created in which understanding and accommodation took the place of rigid legislative directives.

The first sprouting of the conflict inherent in such a situation appeared when the young Federal Reserve System was plunged into the problem of financing the participation of the United States in World War I. The then Secretary of the Treasury notified the Federal Reserve, early in 1917, of his desire to float an issue of certificates of indebtedness at a rate well below the market, which meant that the issue would have to be bought by the Federal Reserve Banks. Subsequently, the Secretary "undertook not to unload anything further on the Federal Reserve Banks, certainly not without notice, and in consideration of his attitude in the matter it was agreed that every effort should be made to bring about a satisfactory organization for shifting Treasury requirements to member banks and, through them, to the public".¹ A working entente was arranged by the System and the Treasury and, eventually, preferential discounting arrangements and preferential discount rates were established to facilitate Treasury financing through the banks of the country. These arrangements—the "bank-borrow-and-buy policy"—persisted for a year after the armistice in November 1918, at the insistence of the Treasury, and were an increasing source of friction between the Treasury and the System as inflationary pressures built up in the postwar economy.

¹ *The Federal Reserve System* by H. Parker Willis (New York, 1923), pp. 1117-18.

The System, in the euphemistic words of the *Annual Report of the Federal Reserve Board for 1920*, was prepared during 1919 to "resort to the well-known method of advancing the rate of discount, as soon as Treasury exigencies permitted".

Perhaps the Federal Reserve System further mingled the areas of responsibility in 1937-38, when the fledgling Federal Open Market Committee, created by the Banking Act of 1935, announced in April 1937 that "with a view to exerting its influence toward orderly conditions in the money market . . . it was prepared to make open market purchases of United States Government securities, for the account of the Federal Reserve Banks, in such amounts and at such times as may be desirable". Since Treasury bills and other short-term Treasury paper had already become bellwethers of the money market, this was an acceptance of responsibility for orderly conditions in the Government security market. In fact, the *Annual Report of the Federal Reserve Bank of New York for the Year 1938* stated that "the open market operations in which this bank participated during the past year were not undertaken primarily with a view to affecting the reserve position of member banks, but rather with a view of exercising an influence toward the maintenance of orderly conditions in the market for Government securities".

This assumption by the credit authorities of a measure of responsibility for maintaining orderly conditions in the Government security market hardened into a compact with the Treasury for the maintenance of a "pattern of rates" in that market to facilitate the financing of the United States participation in World War II. It was recognized by the parties to the compact that, insofar as it was politically and economically possible, the war should be financed out of taxes and that, for the rest, borrowing from nonbank investors (borrowing of savings) would be preferable to borrowing from the commercial banks. It was also recognized, however, that a substantial residue of borrowing would have to be done through the banks, and that this would involve an increase in the money supply (and in the liquidity of the economy) which would not be matched by an increase in goods and services available for civilian use. There was an inevitable inflationary factor in war financing, which was held in check but not removed by direct controls, such as materials priorities and price ceilings. At the time that this general approach to the problems of financing the war was adopted, it was also agreed that to the extent the Treasury had to borrow from the banks, it should borrow at stable, not rising, rates of interest such as the financing methods of World War I had produced. This led to the establishment of a fixed "pattern of rates" which ranged from $\frac{3}{8}$ of 1 per cent on

ninety-day Treasury bills to $2\frac{1}{2}$ per cent for 20- to 25-year Government bonds (excluding Savings Bonds). As a by-product of this pegging of prices of Government securities, the initiative with respect to the creation of reserve credit was shifted from the Federal Reserve to the member banks.

In the reconversion period, at the end of the war in 1945, the problem facing the Federal Reserve System was how to proceed, and at what speed, to recapture from the banks of the country this initiative, and to restore the ability of the Federal Reserve Banks to place a price upon reserve credit and a check on its availability which could be varied to meet changes in economic circumstances. The Treasury, which had a proper concern for the functioning of the Government security market, which had become habituated to the convenience of the method used to finance the war, which still had the problems of rolling over the war-swollen debt, and which was dubious of the scope left for a flexible monetary policy in the existing circumstances, was reluctant to abandon support prices and a "pattern of rates" for Government securities. In a situation of overlapping responsibilities and on the basis of seniority in the Washington hierarchy, the Treasury assumed the role of final decision. The System wished to discontinue before the end of 1945 its preferential discount rate on Government securities maturing within one year. Treasury acquiescence was not forthcoming until April 1946. From the closing months of 1945, all through 1946, the System was pressing for an end of its artificially low buying rate— $\frac{3}{8}$ of 1 per cent—on ninety-day Treasury bills, but the Treasury would not agree until July 1947.

These small changes, important in themselves in terms of improving the structure of interest rates, were even more important as an indication of the intention of the Federal Reserve System gradually to restore its control over bank reserves and their availability. It was deemed to be an inevitable consequence of the great wartime increase in the money supply and in the total liquidity of the economy (of business, of consumers, and of the banking system) that inflationary pressures would assert themselves in time, and from time to time, as direct economic controls were removed. An appropriate credit policy would require restraint in the creation of additional bank reserves and would result in increases in short-term interest rates, including rates on short- and intermediate-term Government securities.

The hesitations and refusals of the Treasury meant that the defrosting of the wartime "pattern of rates" took place distressingly slowly, and then only in steps to a higher fixed rate curve ending with the $2\frac{1}{2}$ per cent long-term Government bonds. The supported rate of $\frac{7}{8}$ of 1 per cent

on one-year Treasury obligations was not raised to 1 per cent until August 1947, to 1½ per cent in November 1947 and to 1¾ per cent in October 1948. The discount rates of the Federal Reserve Banks had to be kept in line with these rates, and were raised equally slowly from 1 per cent to 1¼ per cent in January 1948 and to 1½ per cent in August 1948.

A slight business recession beginning in the fall-winter of 1948-49 provided an opportunity to emphasize the change which was gradually taking place in credit policy and, it was thought, in debt management. An official statement was published, couched in terms of the credit relaxation appropriate to a business downturn, that the "pattern of rates" had finally been abandoned. This was the statement issued on June 28, 1949:

The Federal Open Market Committee, after consultation with the Treasury, announced today that, with a view to increasing the supply of funds available in the market to meet the needs of commerce, business and agriculture, it will be the policy of the Committee to direct purchases, sales and exchanges of Government securities by the Federal Reserve Banks with primary regard to the general business and credit situation. The policy of maintaining orderly conditions in the Government security market, and the confidence of investors in Government bonds will be continued. Under present conditions the maintenance of a relatively fixed pattern of rates has the undesirable effect of absorbing reserves from the market at a time when the availability of credit should be increased.

Unfortunately, the acquiescence of the Treasury in the making of this statement by the Federal Open Market Committee was not meant to embrace a policy of flexibility in credit availability and interest rates, except when the flexibility was on the downside. As the economic climate changed and business moved up from the trough of recession, the System-Treasury debate over the coordination of debt management and credit policy resumed.

The persisting differences between the two agencies, of course, had not gone unnoticed in the Congress and in the public press. A subcommittee on Monetary, Credit and Fiscal Policies (Chairman, Senator Douglas of Illinois), of the Joint Committee on the Economic Report, held hearings during the latter part of 1949 and, subsequently, made a report to its parent committee which discussed monetary and debt management policies and took special cognizance of the dispute between the Treasury and the

Federal Reserve System. Among other things, it recommended "that an appropriate, flexible and vigorous monetary policy, employed in coordination with fiscal and other policies, should be one of the principal methods used to achieve the purposes of the Employment Act [of 1946]". And it went on to recommend, as a means of promoting monetary and debt management policies that would contribute most to the purposes of the Employment Act "... that Congress by joint resolution issue general instructions to the Federal Reserve and Treasury regarding the objectives of monetary and debt management policies and the division of authority over those policies. These instructions need not, and in our opinion should not, be detailed: they should accomplish their purpose if they provide, in effect that, (1) in determining and administering policies relative to money, credit and management of the Federal debt, the Treasury and the Federal Reserve shall be guided primarily by considerations relating to their effects on employment, production, purchasing power and price levels, and such policies shall be consistent with and shall promote the purpose of the Employment Act of 1946; and (2) it is the will of Congress that the primary power and responsibility for regulating the supply, availability and cost of credit in general shall be vested in the duly constituted authorities of the Federal Reserve System, and that Treasury actions relative to money, credit and transactions in the Federal debt shall be made consistent with the policies of the Federal Reserve".² The press, on the whole, also was favorable to the position of the Federal Reserve. Bankers, insofar as they expressed themselves, were reluctant to take sides.

The unfortunate failure of the Treasury and the Federal Reserve to find common ground for meeting the responsibilities delegated to them by Congress, where their fields of responsibility overlapped, was now approaching a climax. The economy was rapidly recovering from the slight downturn of 1949, when the outbreak of hostilities in Korea, in June 1950, "transformed the tone and the tempo of American economic life".³ An already buoyant economy became surcharged with inflationary pressures; anticipatory spending by consumers and business reflected expectations of increased Government spending and Gov-

² It should be noted that one member of the subcommittee, Congressman Patman, stated that these proposals did not make the Federal Reserve sufficiently responsible to the Executive Department of the Federal Government and that the Joint Committee in its reference to these recommendations of the subcommittee recommended "further careful study".

³ Federal Reserve Bank of New York, *Thirty-sixth Annual Report for the Year Ended December 31, 1950*, p. 5.

ernment demand for materials for military purposes; commodity prices were advancing rapidly; bank loans were rising, including business loans, as well as consumer loans and mortgage loans. Confronting this situation, President Truman, in a message to Congress on July 19, 1950 concerning the Korean crisis and the defense program, called for primary reliance upon strong fiscal and credit measures to reduce the volume of private purchasing power competing with the Government for available goods and services. And, in his midyear Economic Report (July 26, 1950) there was this statement: "First of all for the immediate situation, we should rely in major degree upon fiscal and credit measures . . . the more prompt we are with these general measures the less need there will be for direct controls. . . ."

So far as the Federal Reserve was concerned, these statements of over-all national policy confirmed its view of what it should be doing to help counteract the forces of inflation, not only by way of selective controls of consumers and mortgage credit but, more important, by general credit measures without which selective controls would not be effective. The Federal Reserve view, reaffirmed and reinforced in the light of the Korean crisis, had been given to the Secretary of the Treasury earlier in July, when it was stated that the System could not maintain the existing rate structure in the Government security market while going forward with the general policy of regaining control of the initiative with respect to bank reserves which it deemed essential; either short-term rates would have to rise or the long-term rate would have to come down, and both from the standpoint of countering inflationary pressures and correcting an artificial interest rate structure, it preferred the first alternative. The Treasury reply counseled delay until the situation became clearer, and emphasized that the nation was waiting to learn what domestic programs might be needed in order to utilize the full strength of the country in national defense. The Federal Reserve System believed that the messages of the President had now answered the question.

The action question, which remained on the agenda of the Federal Open Market Committee, was what contribution it would make to the general program in its sphere of primary responsibility; what it would do about making further reserve funds available to the banking system in an inflationary situation which could quickly become critical and in which the effectiveness of moderate general credit measures of restraint would depend upon the promptness of their use. The Federal Reserve felt that it was under the compulsions of statutory responsibility to meet a present danger, and that it had exhausted the possibilities of devising a mutually agreeable program with

the Treasury which would have permitted credit policy and debt management to go forward in tandem.

So it was, on August 18, 1950, the Board of Governors of the Federal Reserve System approved an increase in the discount rate of the Federal Reserve Bank of New York from 1½ per cent to 1¾ per cent (effective August 21), which had been held in abeyance for about a month, and the Federal Open Market Committee adopted a general policy of making reserves less readily available to the banks of the country, and then informed the Treasury of what it was doing. Up to this point, the Federal Reserve had presented its views concerning an appropriate combination of credit policy and debt management to the Treasury; the Treasury had decided what it was going to do and had then informed the Federal Reserve; and the Federal Reserve had followed along, attempting to adjust its open market operations, as best it could, to the debt management decisions of the Treasury. The August 1950 decision reflected the Federal Reserve's belief that the facts of the economic situation and the general economic program of the Government demanded that it break out of that pattern.

Advice of the actions taken was immediately given, orally, to the Secretary of the Treasury by the Chairman and Vice Chairman of the Federal Open Market Committee (afternoon of August 18, 1950). A delayed response without further conference came within the hour. The Treasury had decided to announce its September-October refunding—a \$13.5 billion operation—at once, maintaining the existing rate of 1¼ per cent for one-year obligations. (The actual offering was a thirteen-month note.) The result was an issue which was a market failure—the Federal Reserve had to purchase the larger part, upward of 80 per cent—of the maturing securities in order to make sure that the Treasury would not have an embarrassing cash redemption. At the same time, as an offset to the effect of these purchases on bank reserves, the Federal Reserve sold other securities from its portfolio at prices and yields in line with its actions on discount rates and open market policy.

There followed a period of confused and confusing attempts to re-establish a working formula for coordinating debt management and credit policy. The President of the United States was early brought into the embarrassing dispute by the Treasury. A temporary truce was evolved which permitted time to observe the results of the actions taken by the Federal Reserve and, in November 1950, there was a fairly amicable agreement embracing credit policy and the Treasury refunding of its December and January maturities with a 1¾ per cent five-year note. As it turned out, the new note did not fare well and, in terms

of the amount of the maturing issues which the Federal Reserve had to buy and the amount which the market redeemed for cash, the financing was not a success.

The Treasury evidently felt that it had been let down, and that some public statement had to be made to restore confidence in the Government security market. In a speech at New York, on January 18, 1951, the Secretary of the Treasury declared that "the delusion that fractional changes in interest rates can be effective in fighting inflation must be dispelled from our minds"; that "any increase in the 2½ per cent rate for long-term Government securities would seriously upset existing security markets"; and that "the Treasury Department had concluded, after a joint conference with President Truman and Chairman McCabe of the Federal Reserve Board, that refunding and new money issues of the Treasury will be financed within the pattern of that rate". This attempted re-establishment of a "pattern of rates" in Government financing, and the implication of a commitment by the Federal Reserve to support the 2½ per cent long-term rate on new as well as outstanding issues of Treasury securities was immediately challenged, most notably by Marriner Eccles, a member and former Chairman of the Board of Governors, in testimony at a hearing of the Joint Committee on the Economic Report which was then in session.

Amid a rising volume of public comment on, and Government concern over, the differences between the Treasury and the Federal Reserve System, it was announced on January 31, 1951, that President Truman had asked the members of the Federal Open Market Committee to come to the White House that afternoon. There followed a bizarre exchange of contradictory reports on what had taken place at the meeting. A White House press secretary said that the Federal Reserve had pledged its support to President Truman in maintaining the stability of Government securities as long as the emergency lasted. A Treasury spokesman said that the White House statement meant that the market for Government securities would be stabilized at their present levels and that these levels would be maintained during the emergency. These press reports, which left a cloud of doubt as to what had happened at the White House meeting, were given official sanction in a letter from the President to Chairman McCabe which was released to the press on February 1, 1951. In it the President wrote, "your assurance that you would fully support the Treasury defense financing program, both as to its refunding and new issues, is of vital importance to me. As I understand it, I have your assurance that the market on Government securities will be stabilized and maintained at present levels in order to assure the successful financing requirements and to establish in the minds of the people

confidence concerning Government credit".

This was at variance with what the Federal Open Market Committee believed had been said and done at the White House meeting. In a memorandum prepared immediately after the meeting, the Federal Reserve recorded that there had been no references to recent disputes with the Treasury; and that at no time had the President indicated that he had in mind support, or a pledge of support, of the financing program recently outlined by the Secretary of the Treasury (January 18, 1951 at New York). Shocked by the public letter of the President to Chairman McCabe, Governor Eccles released the Federal Reserve record to the press on his personal responsibility, on February 3, 1951.

An intolerable situation had been created in which, as the Federal Open Market Committee said in a letter to the President on February 7, 1951, "You as President of the United States and we as members of the Federal Open Market Committee have unintentionally been drawn into a false position before the American public—you as if you were committing us to a policy which we believe to be contrary to what we all truly desire, and we as if we were questioning you and defying your wishes as the chief executive of the country in this critical period". The letter went on to say that "in accordance with our assurance to you, we shall seek to work out with the Secretary of the Treasury as promptly as possible a program which is practical, feasible and adequate in the light of the defense emergency, which will safeguard and maintain public confidence in the values of outstanding Government bonds and which, at the same time, will protect the purchasing power of the dollar".

Concurrently with the sending of this letter to the President, a meeting of the Chairman and Vice Chairman of the Federal Open Market Committee was held with Senate leaders of the Banking and Currency Committee, a subcommittee of which had been named to inquire into the Treasury-Federal Reserve controversy. The general tenor of the senatorial advice was that it was no time for feuding and no time for a Congressional hearing, but a time for the Treasury and the Federal Reserve to try again to compose their differences. The same advice was given by the Senator Chairman of the Committee on the Joint Economic Report, the following day.

This counsel from members of the Congress, from which the Federal Reserve System derives its authority and powers, coincided with the wishes of the Federal Open Market Committee, which on the same day (February 7, 1951) that it had written to the President, drafted a letter to the Secretary of the Treasury expressing a desire "to discuss credit policy and debt management programs which

would assist in the highly important fight against inflation and improve public confidence in the market for Government securities", and suggesting a program as the basis for such a discussion. This letter was handed to and discussed with the Secretary of the Treasury by the Chairman and Vice Chairman of the Federal Open Market Committee. (At this meeting, for the first time, Mr. William McC. Martin, Assistant Secretary of the Treasury, took part in the discussion.)

The matters at issue were now back on the track of responsible discussion by the two agencies of Government whose overlapping responsibilities had erupted into controversy, although there were still a few detours to be traversed. Before the proposed discussions could begin, the Secretary of the Treasury had to enter a hospital to recuperate from an operation and the Treasury sought a commitment from the Open Market Committee that there would be no change in the existing situation in the Government security market during the period of his hospitalization. This was a commitment which the Committee felt unable to give in the face of mounting inflationary pressures, and a Government security market which was demanding heavy purchases by the Federal Reserve, contrary to the policy and program which it thought the economic situation required. The Committee asked the Secretary to name someone at the Treasury with whom it could talk, in the interim, and the Secretary named Mr. Martin.

Negotiations now took a turn for the better. Mr. Martin suggested that members of the staff of the Treasury Department and of the Federal Reserve meet as soon as possible to go over the proposals contained in the February 7 letter of the Federal Open Market Committee to the Secretary of the Treasury, and such other ideas as might be brought forward. (Chairman McCabe had previously suggested such staff conferences, but the Secretary of the Treasury had said he preferred to settle matters at the policy level and then have the details worked out at staff levels.) A working party was created⁴ and progress began to be made toward understanding at the "technical level" for referral to the "policy level", as the Treasury phrased it, although the negotiation faltered at times.

While these discussions were going on, the White House

again intervened. A meeting was called by the President on February 26, 1951, including the Director of Defense Mobilization, the Under Secretary of the Treasury (in the absence of the Secretary), the Assistant Secretary of the Treasury (Mr. Martin), the Chairman of the Securities and Exchange Commission, the Chairman and Vice Chairman of the Federal Open Market Committee, the members of the Council of Economic Advisers and the special counsel of the President. At this meeting the President began by reading a memorandum (which was also released to the press), in which he expressed his concern with the problem of reconciling the need to maintain stability in the Government security market and the need to restrain credit expansion; outlined the general economic program of the Administration; and requested the Secretary of the Treasury, the Chairman of the Federal Reserve Board, the Director of Defense Mobilization and the Chairman of the Council of Economic Advisers to study the problem of the overlapping responsibilities of the Treasury and the Federal Reserve System. He also expressed the hope that "while this study is under way, no attempt will be made to change the interest rate pattern, so that stability in the Government security market will be maintained". This intervention was different in form from previous interventions and came more nearly to grips with the problem, but it also failed to recognize that the Federal Reserve has duties laid upon it by the Congress which cannot be abandoned to the arbitration of *ad hoc* committees. Fortunately, the Treasury-Federal Reserve "Accord" was reached while the Presidential committee was still pondering the problem, and when its report was later completed it apparently was "filed".

The tenor of informed thinking in the Congress, which was the only place the dispute could be decided, in default of agreement by the two agencies directly involved, was indicated in a powerful speech by Senator Douglas in the Senate chamber on February 22, 1951, which he concluded with a plea "that the Treasury abate its policies and yield on this issue" and that "the Federal Reserve gird its legal loins and fulfill the responsibilities which I believe the Congress intended it to have".

Meanwhile, the negotiations of the principals in the dispute regained their momentum. On February 28, the staff negotiators felt that matters were sufficiently well in hand to warrant presentation to their principals and, that evening, the Secretary of the Treasury was consulted by Mr. Martin and the request was made by the Secretary that Mr. Martin and Mr. Bartelt be permitted, orally, to present to the Federal Open Market Committee the response of the Treasury to the Committee letter of February 7, 1951. Consideration of this report by the Commit-

⁴ Mr. Martin, Mr. George Haas, Director of Technical Research, and Mr. Edward Bartelt, Fiscal Assistant Secretary, from the Treasury and Mr. Winfield Riefler, Assistant to the Chairman of the Board of Governors and Secretary of the Federal Open Market Committee, Mr. Woodlief Thomas, economist of the Committee, and Mr. Robert Rouse, Manager of the System Open Market Account and Vice President of the Federal Reserve Bank of New York.

tee evoked a generally favorable response, and the staff group of the Committee was requested to resume its discussion with the Treasury group, in the light of the views expressed by the members of the Committee.

The Federal Open Market Committee met again on March 2 and Mr. Riefler reported the results of the final staff conference with the Treasury representatives. There ensued a further discussion of all of the points on which agreement was being sought, and a concise statement of a program acceptable to the Open Market Committee was written and given to Messrs. Martin and Bartelt for their consideration, and later discussed with them at length by Messrs. McCabe, Sproul, Riefler, and Thomas. A meeting of minds was achieved along the following lines:

1. Purpose—to reduce to a minimum the creation of bank reserves through monetization of the public debt, while assuring the financing of the Government's needs.

2. A conversion offering by the Treasury which would be designed to remove a substantial amount of the long-term restricted⁵ 2½ per cent bonds from the market.

3. Support of the market for the outstanding restricted 2½ per cent bonds by the Federal Open Market Committee at par or slightly above for a limited amount and only during the brief period of the conversion offering.

4. With the exception of this support, the maintenance of orderly market conditions, hereafter, to be without reference to the maintenance of the par value of any Treasury issues.

5. Reduction or discontinuance of purchases of short-term Government securities by the System Open Market Account, so as to permit yields on such securities to fluctuate around the discount rate (1¾ per cent) and thus to make that rate effective, with the understanding that it would not be changed during the remainder of the year, except in compelling circumstances.

6. Prior consultation between the Treasury and Federal Reserve on changes in debt management or credit policy, unless extraordinary circumstances made such prior consultation impossible.

7. The public statement of agreement to be brief, financial and nonpolitical.

The terms of agreement were taken by Mr. Martin to the Secretary of the Treasury, at the hospital, and the program was cleared with him and then with the members of the Federal Open Market Committee on March 3, 1951. The following statement and announcement appeared in the press on Sunday, March 4, 1951:

Joint announcement by the Secretary of the Treasury and the Chairman of the Board of Governors and of the Federal Open Market Committee of the Federal Reserve System.

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.

Simultaneously, the Secretary of the Treasury announced that there would be an offering for a limited period of a new investment series of long-term nonmarketable Treasury bonds in exchange for the two longest outstanding restricted Treasury bonds (the 2½ per cent bonds of June and December 1967-72). The details of this offering were announced March 19. The offering was a 2¾ per cent bond of 1975-80 which, while nonmarketable, could be converted at the holder's option into five-year marketable notes carrying a coupon of 1½ per cent. More than two thirds (\$13.6 billion) of the outstanding 2½ per cent bonds of 1967-72 were turned in for the new 2¾ per cent bonds in this first offering. (A year later another \$1.8 billion of the new bonds were issued in exchange for the four longest issues of outstanding restricted bonds.)

During the transition period, over the next six weeks, the System Open Market Account and some of the Treasury investment accounts purchased substantial amounts of long-term Treasury bonds at declining prices, in order to ease the adjustment in the market to the final abandonment of the "pattern of rates" and its long-term anchor of 2½ per cent. By April 12, 1951 the initial price adjustments were completed and the market "bottomed out". Happily, the inflationary pressures which had brought matters to a head between the Treasury and the Federal Reserve subsided after the first quarter of 1951, and for this the release of monetary policy from the shackles of a "pattern of rates" received a modicum of credit.

If it is too much to say that the Treasury and the Federal Reserve have lived happily ever after the "Accord", they at least have learned to get along together with a minimum of marital friction.

There could be discord again, of course, but it is less likely if the experience and lessons of the "Accord" period are remembered. As a contribution to this remembrance, here are some gleanings.

1. In situations and areas where debt management and credit policy overlap, neither the Treasury nor the Federal Reserve System should make final decisions without

⁵ I.e., purchase restricted to noncommercial bank investors.

responsive consultation and without due regard for the responsibilities and views of its partner.

2. Continuous communication provides the basis for such sharing of responsibility. In the pre-“Accord” period there was a failure of communication which helped to lead to the breaking of this rule. The Federal Reserve thought it understood the position of the Treasury, but it may not have. There is good reason to believe that the Treasury did not understand the position of the Federal Reserve. For the latter lack of understanding, the Federal Reserve bore some blame. Although its basic objective was to regain the initiative with respect to the creation of bank reserves, much of its argument with the Treasury was couched in terms of interest rates. The interest rate structure, of course, was the place where Federal Reserve policy would directly and obviously impinge on debt management, but concentration on small changes in interest rates tended to reduce discussion to a question of “hat sizes” in the minds of the Treasury and, to some extent, of the Congress and the public. The Federal Reserve had come to believe, however, that with a greatly enlarged Federal debt and a nearly homogeneous national money market, an opportunity had been created for effective action with limited variation in interest rates and that, for the time being, its objectives could be achieved by restoring modest rate flexibility at the short end of the rate structure.

3. In the absence of understanding and acceptance of this belief, the Treasury viewed with some doubt the strength of purpose of the Federal Reserve to maintain the 2½ per cent rate on outstanding long-term Treasury bonds, since the maintenance of this ceiling on the rate structure limited the permissible variation of rates lower down the maturity schedule. The Federal Reserve was aware of this restriction, but was willing to accept it for a time because of its belief that there would need to be an extensive shifting in the portfolios of investing institutions out of long-term Government securities and into corporate bonds, mortgages and other debt instruments of the private sector of the economy in the reconversion period, and that this shift would have to be eased along if serious market unsettlement was to be avoided. In performing this orderly market service, the Federal Reserve tried to offset the effect of its bond purchases on bank reserves by selling equivalent amounts of short-term Government securities, and had considerable success. Continued success in this maneuver, however, needed the assistance of higher interest rates on the short-term securities being sold.

4. Finally, in the catalogue of misunderstanding, there was the general Treasury opinion that the credit program which the Federal Reserve wished to follow would be of

little use in combating inflationary pressures, particularly in the Korean period, and that “experimenting” with the interest rate structure could weaken faith in the Government security market and in the credit of the Government at a time when major war financing might be necessary. The Federal Reserve, on the contrary, believed that faith in Government credit and confidence in Government securities would be destroyed if it became apparent that monetary policy was to be prevented from fighting inflationary pressures and that a dollar invested in Government securities would be a shrunken dollar when the securities matured.

Up to the time of the Korean crisis, the Federal Reserve was content to carry on a holding operation. It joined with the Treasury in opposing those who, in the immediate postwar years, counseled abrupt and vigorous use of credit policy to reduce the swollen money supply, inherited from the war, and to wring excess liquidity out of the economy. Rather, it took the position that the economy would have to grow up to the money supply (which it rapidly did) and that, meanwhile, release of inflationary pressures suppressed by direct control during the war period would be partially offset by increases in the national product (as they were). In the face of the economic repercussions of the Korean crisis, however, such an approach was no longer practical.

5. The Korean confrontation focused attention on the core of the problem. Coequal Government agencies, with certain overlapping responsibilities, had been unable to arrive at a common policy other than by the subordination of one agency to the other. Various answers to this problem were suggested.

(a) A clearer Congressional mandate. There is no clear mandate to the Treasury with respect to the broader economic implications of debt management and no clear mandate to the Federal Reserve System with respect to the maintenance of price stability and the international position of the dollar. As mentioned earlier, a subcommittee of the Joint Economic Committee—in 1950—recommended that it be expressed as the will of Congress that transactions with respect to money and credit and transactions in the Federal debt be made consistent with the policies of the Federal Reserve. This recommendation followed the dictum of Senator Douglas that “good fences make good neighbors”, but when the location of the property line is uncertain and the line may change at times, “good fences” are not an adequate answer.

Both the Treasury and the Federal Reserve have affirmed that, in addition to Congressional directives applying to them specifically, they consider themselves bound by the declaration of policy set forth in the Employment

Act of 1946. What remains to be done, in terms of a Congressional mandate to the Federal Reserve System, it seems to me, is to include a reference to price stability among the general guides to economic well-being in the preamble of the Employment Act, and to add a general directive with respect to price stability and the international position of the dollar to the Federal Reserve Act.

This will not satisfy those who believe that a central bank should pursue a primary objective—stable purchasing power of the monetary unit—without being diverted by a wider range of economic objectives such as are set forth in the Employment Act of 1946. Certainly the Federal Reserve System must have its own objectives in the field of monetary policy and realize its capacities and limitations, but I do not believe that it is possible in the light of the Employment Act, and what it reflects of national purpose, for the central bank to be completely free.

(b) Another suggestion for resolving conflicts of the Treasury and Federal Reserve, where their interest and duties overlap, and which usually draws considerable support, is the establishment of an interagency consultative committee or a national monetary and credit council, which would bring together the heads of a number of Government agencies having responsibilities related to credit policy and debt management. This would be expected to provide for informal collaboration, although the body would be without directive powers, which most agree would be an usurpation of Congressional authority. This sort of thing sounds good in conversation and looks good on paper, but the only people who can resolve differences arising out of overlapping statutory responsibilities are people who bear the responsibility and know what it is all about—that is the people at the Treasury and in the Federal Reserve System in this case. A committee or council of the sort proposed either languishes on the vine because of a lack of authority, or becomes a means of exerting executive pressure on a body (the Federal Reserve) which draws its powers from the Congress.

(c) There are some who think, of course, that the Federal Reserve System should be made more responsive to the Executive Branch of the Government and, presumably, that the President by virtue of his office or the power of his presence should be able to order a composition of contrary views held by Treasury and Federal Reserve officials. Whether as a three-man body, with the President holding the balance between Treasury and Federal Reserve, or as a council made up, on one side, of a number of individuals holding Presidential appointments and owing Presidential loyalty as a part of a political administration and, on the other side, by a representative of the Federal Reserve System, this kind of proposal has little

to recommend it. In the words of a witness (Beardsley Ruml, formerly Chairman of the Board of the Federal Reserve Bank of New York) at the hearing of the Patman subcommittee of the Joint Committee on the Economic Report in 1952, bringing the President in to settle differences between the Federal Reserve and the Treasury would mean that one or both parties to the disagreement would devote their efforts to procuring a favorable opinion from the President, and would lead to the use of force rather than reason in dealing with an agency of Congress which has statutory duties. "Nothing but harm to public confidence in both money and Government would result."

This is not to say that the Chairman of the Board of Governors should not discuss the problems of the Federal Reserve System with the President, alone or with the Secretary of the Treasury. That is natural and, at times, desirable. But to make this a regular means of coordination of policies can lead to dictation instead of persuasion, as the experience of the pre-"Accord" period attests.

(d) Then there are those who would substitute an invariable formula for fallible human judgment or weak human resolve in directing monetary affairs and, so long as the Federal Reserve followed the formula (if it retained its job at all), the Treasury (and everyone else) would have to accommodate its objectives to the working of the formula. Ideally, one exponent of this theory says⁶ "the surest way to achieve the aim of a stable monetary structure is . . . to legislate a rule specifying the behavior of the quantity of money. The rule I favor is one which specifies that the quantity of money shall grow at a steady rate from week to week, month to month, and year to year". But when this invariable formula is related to an existing and future state of affairs, and when account is taken of the lag between monetary action and its economic effects, he says that "the problem of lag in reaction and the fact that the effects are spread over a period is not a problem that can be solved by just looking at the quantity of money. In order to solve that problem or in order to eliminate that difficulty it would be necessary to forecast what is going to happen much better than we now can". So, in point of fact, except as an assertion that an invariable formula would have made fewer mistakes than have been made without such a formula, he says we do not "know enough now to set up a formula . . . which would do more good than harm". I am willing to wait, at

⁶ Professor Milton Friedman at the hearings on "The Federal Reserve System after Fifty Years", held by the Subcommittee on Domestic Finance of the Committee on Banking and Currency, House of Representatives, March 3, 1964.

least until we have more persuasive arguments that a rigid invariable formula can ride through the continuing changes in the economic environment, without the benefit of human judgment and without causing major errors instead of minor ones.

My own conclusion is that the experience of the "Accord" leads to a more human and natural solution of the problem of the overlapping responsibilities of the Treasury and the Federal Reserve than any of the corrective devices which have been suggested. It is the solution which has been working since the "Accord". It involves the recognition that Treasury and the Federal Reserve are coequals in the area of their overlapping responsibilities. It is based on the assumption that informed and responsible men recognize that, in our form of Government, such sharing of responsibility requires thorough discussion of divergent views and every effort to merge them into a common purpose. It demands that there be open and frequent communication between those who determine policy, that the makers of policy have staffs of the highest com-

petence which also are in open and frequent communication, and that the policy makers have a sufficient understanding of the theory and practice of their art to be able to add wisdom to knowledge when positions show signs of becoming unyielding. Finally, it assumes that the Congress, presumably through the Joint Economic Committee on the Economic Report, will continue to monitor performance and to provide evidence of the attitude of Congress toward performance because, if irreconcilable differences do arise, the Congress must be the final arbiter in matters concerning the power to regulate the "people's money".

The Federal Reserve challenge to the Treasury's assertion of dominance in the area of their overlapping responsibilities prior to the "Accord" had its ultimate justification in the achievement of coequal status in these matters, and not as an assertion of a false independence. The Federal Reserve does not have, never has had, and never has claimed to have an independence in monetary affairs which divorces it from the general economic policies of the Government.

Opening Day, Monday, November 16, 1914*

At 10 a.m., Monday, November 16, 1914, the Federal Reserve Bank of New York opened for business. The Bank had been incorporated May 18, 1914 and its directors elected and appointed by September 30. Pierre Jay had become Chairman of the Board of Directors and Federal Reserve Agent. At the first board meeting, on October 5, Benjamin Strong, Jr., President of Bankers Trust Company of New York, was elected Governor of the Bank. An acting deputy governor and a secretary-counsel also were appointed during October. Temporary offices were located at 27 Pine Street.

On October 26, Secretary of the Treasury W. G. McAdoo notified the twelve Reserve Banks that the Comptroller of the Currency planned to authorize their opening on November 16. Chairman Jay replied that he would endeavor to assemble a temporary organization so that the Bank could, in fact, begin to operate that day. Governor Strong wired Secretary McAdoo that the need to provide suitable safeguards for handling the amount of money involved in the Bank's opening might make it impossible to comply literally with the opening date announcement. Mr. Jay and Governor Strong promised, however, to do everything possible to meet the date.

Two weeks before the scheduled opening banking rooms were subleased at 62 Cedar Street. (The site of that building—a block from the Bank's present 33 Liberty Street address—was on what is now the Chase Manhattan Plaza.) The Bank moved into the Cedar Street quarters only one week before opening day. On Saturday, November 14, John Skelton Williams, Comptroller of the Currency, signed the certificates authorizing the twelve Banks to open, as provided for in the Federal Reserve Act.

Secretary McAdoo commented that the opening of the Banks marked a new era in the history of business and finance in this country. Paul M. Warburg, closely identified with the birth of the System and a member of the first

Federal Reserve Board, declared that coming generations would commemorate the date as the beginning of financial emancipation. *The Wall Street Journal* said the openings marked a new banking era and commented, "with the opening of the Federal Reserve Banks throughout the country today the consummation of the long standing agitation for currency reform in the United States may be said to have been attained".

Seven officers and eighty-five employees, mostly borrowed from banks and the subtreasury, made up the New York Bank's opening day staff. A permanent staff was organized during the next eight weeks. The main business during the opening day was accepting reserve deposits from Second District member banks. The National City Bank of New York was the first city member to deposit reserves (\$21 million including \$16 million in gold). By the end of the day, 221 of 480 Second District members had deposited about \$100 million in reserves, including \$82 million in gold and gold certificates and \$11 million in silver and silver certificates.

The Chemical National Bank of New York made the first application for rediscounting for the stated purpose of demonstrating its desire to support and use the facilities of the new reserve banking system. The bills submitted and accepted for rediscount under this application totaled \$2,182,500—the largest such operation by the New York Reserve Bank in its first year. At the close of business the first day the Bank had total assets of \$105 million, including payments on capital subscriptions received earlier in the month. By 8 p.m. the books had been proved and balanced, and the first daily report and balance sheet were sent to Washington. Chairman Jay and Governor Strong were quoted in the newspapers the next morning as commenting that everything had gone off as smoothly as if the Bank had been open for six months.

Years later, Governor Strong recalled the early days of the Bank in these words: ". . . we were a lot of 'green-horns' with no guide or compass, no experience, no cohesion—with everything to learn and, frankly, everything to lose as the result of our inexperience".

* The eleventh in a series of historical vignettes appearing during the System's anniversary year.