

FEDERAL RESERVE BANK OF NEW YORK



MONTHLY REVIEW

JANUARY 1967

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Volume 49

No. 1

The Business Situation

At the turn of the year, demand pressures in the economy appear to have eased on balance, but cost increases continue to threaten both the maintenance of orderly economic expansion and the country's balance-of-payments position. Industrial production has advanced only slightly since August. Retail sales have remained on a high plateau since last spring, even though personal income has continued to grow vigorously. At the same time, the expansion of business fixed investment spending—while it has moderated—is continuing and defense expenditures are rising. Moreover, the economy is operating with only a narrow margin of unutilized resources. Unit labor costs are increasing sharply, thus seriously threatening the recent stability of industrial wholesale prices. As for consumer prices, the substantial advances in the prices of services and nonfood commodities show no sign of abating. To be sure, food prices have recently declined at both the wholesale and retail levels, but this is likely to be only a temporary lull.

PRODUCTION, ORDERS, AND INVENTORIES

Industrial output eased in November, returning to a level only barely above that of midsummer (see Chart I). The Federal Reserve Board's seasonally adjusted production index, after having increased by 0.5 per cent in October, declined by 0.2 per cent in November to 158.3 (1957-59 = 100). The small November decline was largely the result of substantial cutbacks in automobile assemblies and in iron and steel production. At the same time, however, the output of all other goods, on balance, increased more slowly than earlier in the year.

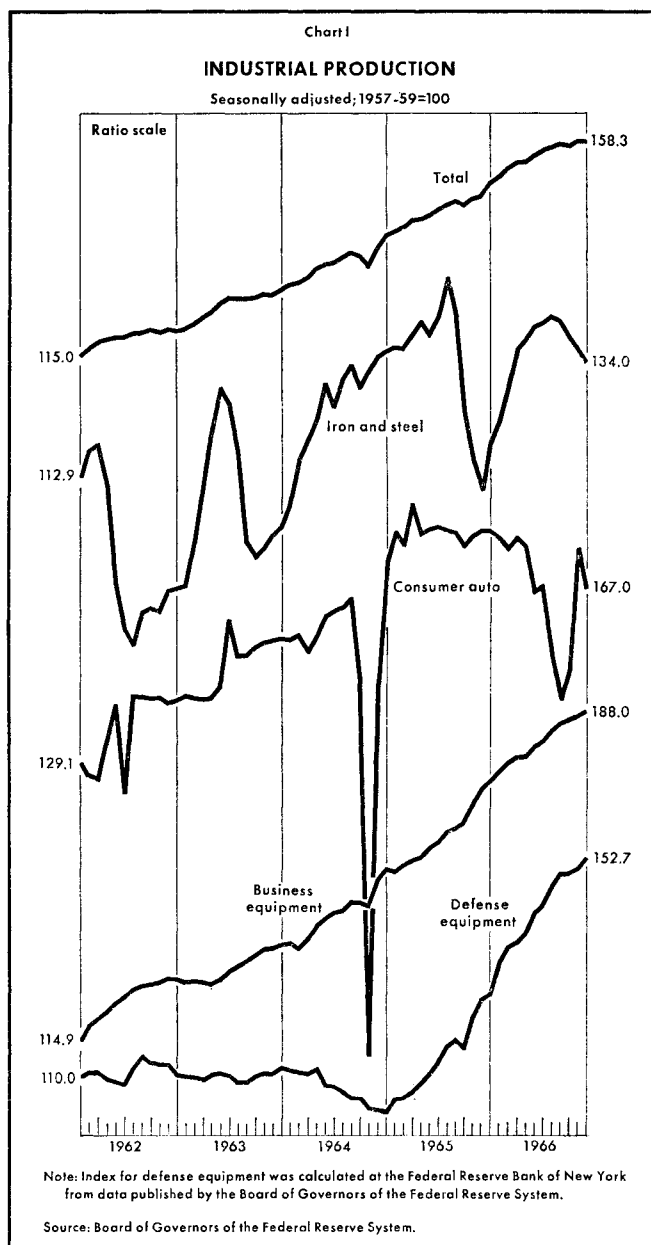
Automobile production, which had jumped ahead by 20 per cent in October, fell back 6 per cent in November. Assemblies reached a seasonally adjusted annual rate of 8.5 million units during that month, and this rate was maintained in December as well. The recent softening of new domestic auto sales—which contrasts with the continued brisk sales of imported cars—has led producers to lower their sights for the coming months. Although the cur-

rent levels of auto assemblies are well below those recorded throughout 1965 and early in 1966, they still compare most favorably with prior years. The moderation in the rate of automobile assemblies—along with the housing slump, inventory cutbacks, and stronger competition from abroad—has contributed significantly to the continued decline in iron and steel output. Such output was cut back by 2½ per cent in November, bringing the cumulative decline in iron and steel production from the July peak to almost 7 per cent.

The output of goods other than automobiles and iron and steel, on the other hand, edged up further in November. Defense equipment production, in particular, again rose steeply, while business equipment output also showed a strong advance in November; both rises were, indeed, sharper than in the preceding month (see Chart I). The production of consumer goods other than autos also increased in November, but the output of raw and semi-finished materials declined, even after the exclusion of the iron and steel group.

The volume of new orders received by durables manufacturers fell by \$1.1 billion in November, to \$23.1 billion—the lowest level in a year. As in the preceding month, when new orders had dropped by \$1.0 billion, the decline reflected to a large extent a reduction in the volatile series covering defense orders, with a particularly sharp drop in aircraft and parts. The substantially lower volume of new orders resulted in a fractional decline in unfilled orders—the first decline in the orders backlog in three years. The backlogs of transportation equipment and primary metals producers declined, but other manufacturers—notably of machinery—registered a further lengthening of their unfilled orders. The overall backlog, which has risen by \$33 billion or 77 per cent since this expansion began, remains of course extremely high and represents the equivalent of 3.3 months of sales at present rates of shipment.

Recent data indicate that inventory accumulation has been proceeding at a high rate. Total manufacturing and trade inventories rose by as much as \$1.3 billion (seasonally



adjusted) or 1 per cent in October, as wholesalers' and retailers' inventories rose sharply. The growth of manufacturing inventories, which had been very steep during the summer months—notably in work-in-process stocks at durables manufacturers—on the other hand, moderated in September and October but still remained substantial. In November, however, inventory accumulation rose again to the July-August rate. Work-in-process inventories held

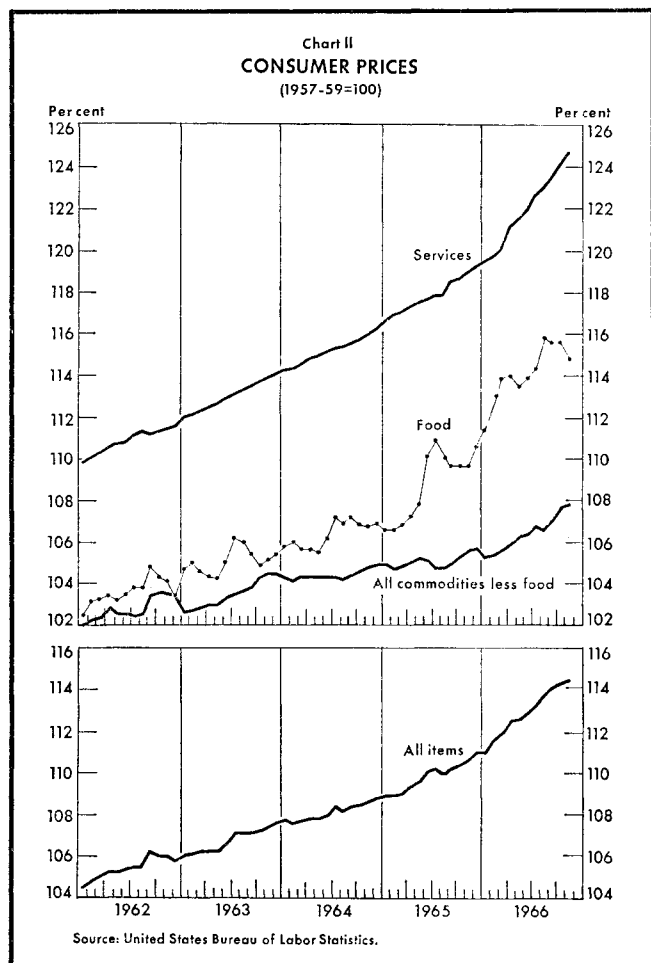
by producers of transportation equipment and of machinery increased sharply, and durables manufacturers' stocks of finished goods expanded significantly. The rise in inventories of materials and supplies, in contrast, was moderate. Even though inventory-sales ratios are currently relatively high, further—albeit slower—increases in inventories appear likely. A recent Department of Commerce survey indicates that durables manufacturers foresee further substantial additions to their stocks in the first quarter of 1967.

There are indications that the downtrend in housing construction may be bottoming out even though private residential construction outlays declined further in November. Indeed, residential construction contracts rose sharply in November, by 13 per cent, building permits for new private housing units edged up, and private nonfarm housing starts—a highly erratic series—jumped 20 per cent after having dropped 22 per cent in October. For October and November combined, both permits and starts indicate a relatively small rate of decline—as against the very considerable drop recorded over the spring and summer months—while residential construction contracts increased.

CONSUMER DEMAND, EMPLOYMENT, AND PRICES

Personal income advanced by \$3.2 billion in November, to a seasonally adjusted annual rate of \$597.6 billion. This increase, the smallest one since July, falls well below the average monthly rise of \$4.8 billion recorded in the three months August to October. About one third of the easing from the August-October average increase reflected a lower growth in Government transfer payments; these had, of course, increased very rapidly in the months immediately following the introduction of the Medicare program. Fully half of the slowdown in personal income growth, however, represented a slower expansion in wage and salary disbursements. The November advance in these payments was the smallest monthly increase since April. Nevertheless, the November rise in personal income was substantial, and fully equal to the advances registered in the first half of 1966.

Despite the continuing large rises in consumer incomes, retail sales have changed only little since last spring. In December, sales dropped by about 1 per cent to a \$25.4 billion seasonally adjusted level, according to preliminary data subject to major revisions. The December decrease, which followed a smaller increase in November, was apparently the outcome of declines in most sales categories. Paralleling the relative stability of retail sales over the last months, the growth of instalment credit outstanding had slowed substantially, reaching in October a low for the last two years. In November, however, there



was a significant acceleration dominated by an increase in automobile credit.

Even though demand pressures have moderated, the labor market remains tight. The overall unemployment rate, which had dropped by 0.2 percentage point in November, increased by 0.1 percentage point in December to 3.8 per cent. For the entire fourth quarter, the unemployment rate averaged 3.8 per cent—a level equal to that of the first quarter of 1966 and the lowest since 1953. Reflecting continuing manpower shortages, as well as lower productivity gains, labor costs per unit of output in manufacturing have risen sharply month after month since July. At the same time, wage increases in excess of productivity gains have also been characteristic in other sectors of the economy, and notably in service industries.

Wholesale prices declined in November, by 0.3 per cent, after having fallen by 0.6 per cent in October. The declines in both months are entirely ascribable to reductions in the prices of farm products and processed foods. Industrial wholesale prices, in contrast, edged up by 0.1 per cent in both October and November. Further rises in the prices of furniture and other household goods, metal and metal products, and machinery were largely offset by continued declines in the prices of lumber and wood products and of hides, skins, and leather products.

In November, a more than seasonal drop in food prices held the overall increase in consumer prices to 0.1 per cent—the smallest advance since May (see Chart II). However, the bulk of this slowdown reflected seasonal factors. Food prices in grocery stores fell by 0.9 per cent in November, and total food prices, which include restaurant prices, by 0.7 per cent. Outside the food area, however, prices continued to advance briskly. The prices of services, led again by those for medical care, rose at the same rapid pace as in the last few months. The increase in the prices of commodities other than food moderated somewhat; however, apparel prices and housing costs advanced substantially.

The Money and Bond Markets in December

The improved tone that had emerged in the money and bond markets in November strengthened further in December when the conviction spread among market participants that monetary policy was moving in a somewhat less restrictive direction. Some indications that the pace of economic expansion might be slowing also bolstered market hopes that credit demands would eventually relax and that the apparent shift in monetary policy would be prolonged. In this setting, observers became quite optimistic about the outlook for lower interest rates, and almost every market development during the month was interpreted in a way that reinforced this optimism. Toward the end of the period, the money and bond markets took further encouragement from the announcement that, due to changed circumstances, the special factors referred to in the Federal Reserve System's September 1 policy statement on business loans and discount administration were no longer applicable.¹

In the market for Treasury obligations, a very strong and broadly based demand for all maturities prevailed during the month. A lively professional demand developed as dealers entered the market to replenish their inventories, especially since funds were readily available to finance their positions. At the same time, investment demand was quite spirited. Against this background, prices of Treasury notes and bonds advanced sharply, rising by as much as $3\frac{3}{4}$ points in December. The three-month Treasury bill rate declined to as low as 4.78 per cent, its lowest level since early August, and sharply below the 5.59 per cent level to which it had climbed in September. In the corporate and tax-exempt bond sectors, where a large volume of new issues reached the market in December, keen investor buying interest developed and prices of most new and seasoned bonds rose steadily.

The money market displayed a generally comfortable tone during the month. In this environment, the churn-

ing associated with the quarterly corporate dividend and tax payments was accommodated without strain. Thus, most Federal funds trading occurred in a 5 to $5\frac{1}{2}$ per cent range during the month, compared with the $5\frac{1}{2}$ to 6 per cent rate range which had predominated in November, and by the end of December several other short-term money market rates were below their late November levels. Both net borrowed reserves and member bank borrowings from the Federal Reserve Banks also declined somewhat on average during the month. Total bank credit expanded at a fairly rapid pace in December, after a sluggish performance in the autumn.

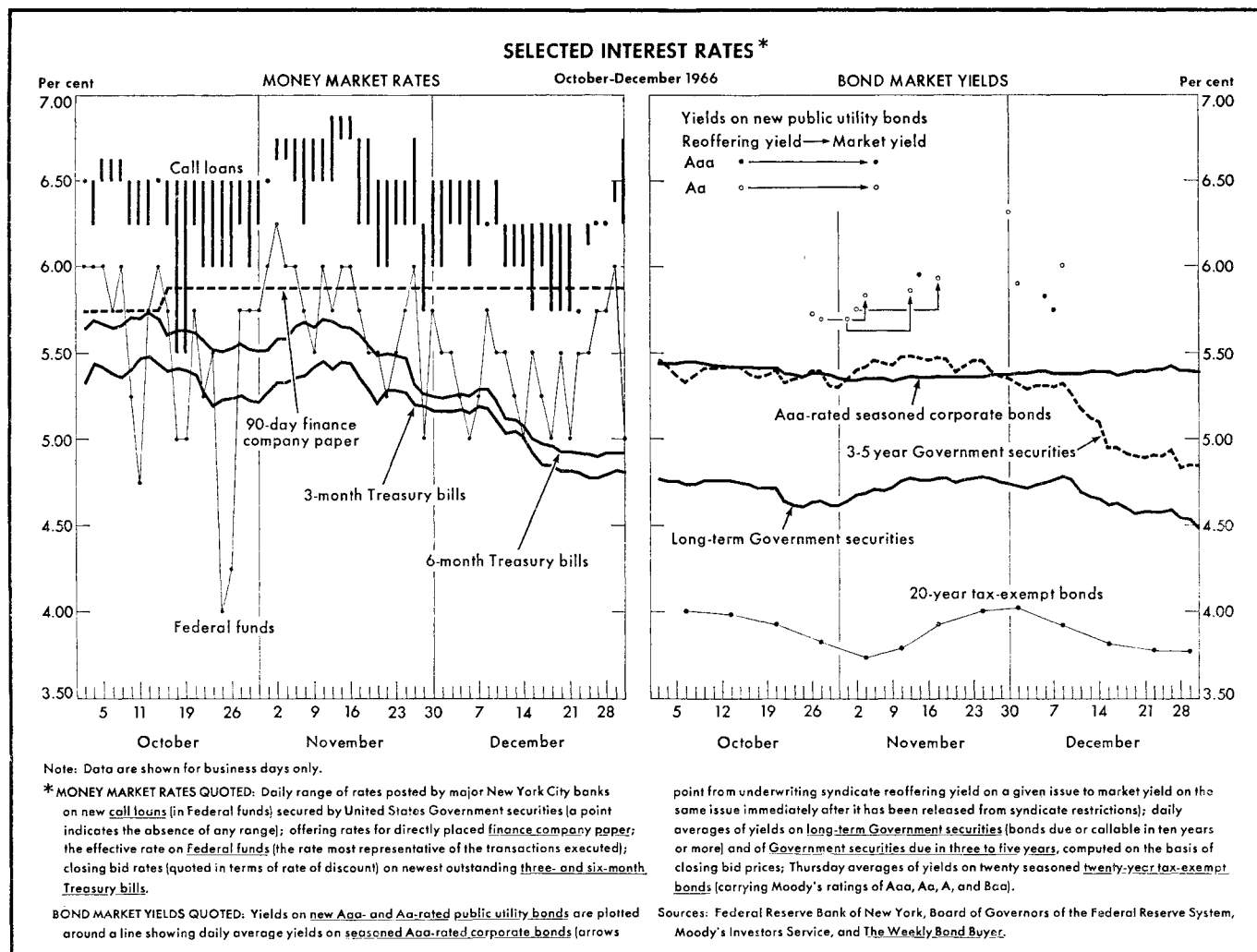
THE GOVERNMENT SECURITIES MARKET

After having declined sharply in late November, Treasury bill rates fluctuated narrowly in early December and then resumed their downward trend. Early in the month, investment demand temporarily slackened somewhat at the lower prevailing yield levels, and offerings from professional sources increased. During this period, dealers cautiously awaited the approaching quarterly corporate dividend and tax payment period, when a large portion of their repurchase agreements with corporations would mature and market supplies of bills would increase. On balance, however, dealers remained fairly optimistic about the general outlook in the bill sector. Consequently, bidding was quite aggressive at the December 6 auction of \$800 million of additional June tax anticipation bills, which were sold at an average issuing rate of 5.246 per cent.²

Subsequently, the tone of the bill market again strengthened markedly. Demand from a broad spectrum of investors—including public funds, corporations, and commercial banks—expanded sharply, stimulating lively professional demand as well. Both the heavy corporate dividend payments over the December 9-12 period and the

¹ For the full text of the September 1 policy statement, see this *Review* (September 1966), page 209.

² For the details of the offering, see this *Review* (December 1966), page 267.



midmonth quarterly corporate tax date passed without giving rise to any real pressure in the bill market, and dealers were able to refinance with little difficulty the bills returned to them when a large volume of corporate repurchase agreements matured. The underlying tone of the bill market became progressively more bullish through most of the month, and very aggressive bidding took place at most of the bill auctions. In the last half of the month, commercial bank demand for Treasury bills expanded considerably when banks actively added bills to their portfolios in preparation for the publication of their year-end statements. Against this background, bill rates declined steeply from December 9 until late in the month, when they fluctuated narrowly. (See the left-hand panel of the chart.) At the regular monthly auction of new nine- and twelve-

month bills on December 27, average issuing rates were set at 4.920 per cent and 4.820 per cent, respectively, some 63 and 70 basis points below average rates set a month earlier (see Table III on page 8). At the final regular weekly auction of the month on December 30, average issuing rates were set at 4.822 per cent and 4.911 per cent, respectively, 38 and 43 basis points below average rates at the comparable auction a month earlier.

In the market for Treasury notes and bonds, the more confident undertone that had emerged in November carried over into early December. To be sure, the coupon sector was somewhat restrained at the beginning of the month by the prospect of the very large volume of new corporate and tax-exempt bonds scheduled for sale in December, by talk that the sale of participation cer-

tificates might soon be resumed, and by the continuing uncertainty surrounding the outlook for Federal fiscal action. Activity was dominated by sizable year-end switching transactions by commercial banks and other investors. Prices moved irregularly, with some gains recorded by high-coupon issues maturing in five to ten years, which were in strong demand during the first statement week of the month. During the same period, offerings of longer term coupon issues expanded, partly reflecting sales by investors switching into new corporate bonds.

Around December 9, a very strong tone began to appear in all sectors of the coupon market. Sentiment was buoyed by the growing belief that monetary policy was in the process of shifting toward a posture of somewhat less credit restraint. Some market observers also felt that the rate of domestic economic expansion might be slowing, which might portend an easing of credit demands. In addition, the coupon sector was very much encouraged by the good investor receptions being accorded the heavy December volume of new corporate and tax-exempt bonds, even at their rising price levels. Against this background, an aggressive professional demand developed as dealers eagerly attempted to add to their inventories. A strong investment demand for many issues of Treasury notes and bonds also arose from commercial banks, mutual funds, corporations, and public funds, and substantial switching activity for tax purposes persisted. At the same time, market participants seemed to be optimistically awaiting an expected Treasury announcement that the sale of participation certificates would soon be resumed. Indeed, when this announcement was actually made on December 19, market sentiment became even more buoyant, and dealers reported that customers were showing strong interest in the forthcoming certificates. In this setting, prices of notes and bonds generally surged higher throughout the maturity spectrum from December 9 through the end of the month. (The right-hand panel of the chart illustrates the decline in yields which accompanied the rise in prices.) Late in December, some profit taking occurred and prices occasionally edged slightly lower. These setbacks were short-lived, however, and market sentiment quickly recovered. At the close of December, yields on three- to five-year coupon issues were at, or close to, their lows of the year, and more than 1 full percentage point below their midsummer peaks. At the end of the year, yields on long-term issues were also close to their 1966 lows and roughly 45 basis points below their August highs.

A buoyant atmosphere also emerged in the market for Government agency issues in December, when demand from commercial banks and others expanded, and prices

generally advanced. New offerings during the month totaled approximately \$750 million and were accorded good receptions. In December, the Federal Reserve Bank of New York, acting for the first time under authority recently granted, purchased Government agency issues under repurchase agreements with securities dealers. On December 19, it was announced that the Federal National Mortgage Association would on January 5 sell \$1.1 billion of participation certificates, of which \$600 million would be publicly offered—less than had generally been expected by the market—and \$500 million would be placed directly with Treasury trust accounts. The public offerings included \$150 million of five-year maturities, \$150 million of ten-year maturities, and \$300 million of fifteen-year maturities—considerably less than the amount anticipated in this maturity area. Market reaction to the announcement was quite enthusiastic. When considerable stress developed in the capital markets during the summer, offerings of participation certificates were temporarily suspended. Thus, the January sale of participation certificates represented the first since June.

OTHER SECURITIES MARKETS

The markets for corporate and tax-exempt bonds opened the month anticipating a heavy supply of new flotations in December. Market sentiment soon became quite confident, however, that the offerings could be digested without great difficulty. Subsequently, investors bid aggressively for all of the new securities and prices of most issues rose steadily during the month. As was the case in the Government securities market, the corporate and tax-exempt bond sectors drew encouragement from the view that monetary policy might be shifting toward somewhat less restraint, and that a possible slowdown in the rate of economic growth might ease demand pressures in the credit markets. In the corporate sector, underwriters bid quite aggressively for the new bonds which reached the market in December and, even at resulting lower re-offering yields, readily placed the new securities with investors. In subsequent trading, many of these issues quickly moved to premium prices. Demand for tax-exempt bonds from commercial banks and other sources also expanded in December, and investors generally accorded the substantial volume of new offerings fairly good receptions. However, a more restrained tone prevailed in the tax-exempt sector than was evident in the corporate sector during the period.

Over the month as a whole, the average yield on Moody's seasoned Aaa-rated corporate bonds rose slightly by 2 basis points to 5.39 per cent. *The Weekly Bond*

Table I

**FACTORS TENDING TO INCREASE OR DECREASE
MEMBER BANK RESERVES, DECEMBER 1966**

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

Factors	Changes in daily averages— week ended				Net changes
	Dec. 7	Dec. 14	Dec. 21	Dec. 28	
"Market" factors					
Member bank required reserves*	— 227	+ 4	— 685	— 42	— 950
Operating transactions (subtotal)	— 108	+ 325	+ 601	— 253	+ 565
Federal Reserve float	+ 112	+ 18	+ 639	+ 106	+ 875
Treasury operations†	+ 115	+ 345	— 57	— 146	+ 257
Gold and foreign account	— 72	— 19	+ 26	+ 2	— 63
Currency outside banks*	— 289	— 214	— 35	— 186	— 724
Other Federal Reserve accounts (net)‡ ..	+ 26	+ 195	+ 27	— 29	+ 219
Total "market" factors	— 335	+ 329	— 84	— 295	— 385
Direct Federal Reserve credit transactions					
Open market instruments					
Outright holdings:					
Government securities	+ 141	— 120	— 66	+ 137	+ 92
Bankers' acceptances	+ 4	+ 5	+ 5	+ 3	+ 17
Special certificates	—	+ 72	— 72	—	—
Repurchase agreements:					
Government securities	+ 115	— 154	+ 26	+ 315	+ 302
Bankers' acceptances	+ 15	— 27	+ 44	+ 22	+ 54
Federal agency obligations	+ 9	+ 7	+ 7	+ 3	+ 26
Member bank borrowings	— 187	+ 198	— 175	+ 76	— 88
Other loans, discounts, and advances.....	— 1	+ 8	— 8	— 2	— 3
Total	+ 96	— 10	— 238	+ 554	+ 402
Excess reserves*	— 239	+ 319	— 322	+ 259	+ 17

Daily average levels

Member bank:					
Total reserves, including vault cash*.....	23,197	23,512	23,875	24,176	23,690§
Required reserves*	22,098	22,094	23,679	23,721	23,348§
Excess reserves*	199	518	196	455	342§
Borrowings	449	647	472	548	529§
Free reserves*	- 250	- 129	- 276	- 93	- 187§
Nonborrowed reserves*	22,748	22,865	23,403	23,628	23,161§

Changes in Wednesday levels

System Account holdings of Government securities maturing in:					
Less than one year	- 208	- 143	+ 374	+ 31	+ 54
More than one year	-	-	+ 8	+ 12	+ 20
Total	- 208	- 143	+ 382	+ 43	+ 74

Note: Because of rounding, figures do not necessarily add to totals.

* These figures are estimated.

† Includes changes in Treasury currency and cash.

‡ Includes assets denominated in foreign currencies.

§ Average for four weeks ended December 28.

Table II

**RESERVE POSITIONS OF MAJOR RESERVE CITY BANKS
DECEMBER 1966**

In millions of dollars

Factors affecting basic reserve positions	Daily averages—week ended				Average of four weeks ended Dec. 28
	Dec. 7	Dec. 14	Dec. 21	Dec. 28	
Eight banks in New York City					
Reserve excess or deficiency(—)*.....	20	31	36	17	26
Less borrowings from Reserve Banks.....	—	121	75	183	95
Less net interbank Federal funds purchases or sales(—)	455	319	586	735	524
<i>Gross purchases</i>	1,261	1,390	1,527	1,520	1,425
<i>Gross sales</i>	806	1,071	941	786	901
Equals net basic reserve surplus or deficit(—)	— 434	— 410	— 626	— 901	— 593
Net loans to Government securities dealers	294	440	688	869	573

Thirty-eight banks outside New York City

Reserve excess or deficiency(-) *.....	10	14	41	231	74
Less borrowings from Reserve Banks..	85	237	148	130	150
Less net interbank Federal funds purchases or sales(-)	776	1,130	1,413	774	1,023
Gross purchases	1,773	1,773	1,986	1,597	1,782
Gross sales	997	642	573	823	759
Equals net basic reserve surplus or deficit(-)	- 852	- 1,353	- 1,521	- 674	- 1,100
Net loans to Government securities dealers	234	329	394	242	300

Note: Because of rounding, figures do not necessarily add to totals.

* Reserves held after all adjustments applicable to the reporting period less required reserves and carry-over reserve deficiencies.

Table III

**AVERAGE ISSUING RATES*
AT REGULAR TREASURY BILL AUCTIONS**

In per cent

Maturities	Weekly auction dates—December 1966				
	Dec. 5	Dec. 12	Dec. 16	Dec. 23	Dec. 30
Three-month	5.198	5.048	4.842	4.747	4.822
Six-month	5.281	5.129	4.939	4.856	4.911
	Monthly auction dates—October-December 1966				
	October 25	November 23	December 27		
Nine-month	5.567	5.552	4.920		
One-year	5.544	5.519	4.820		

* Interest rates on bills are quoted in terms of a 360-day year, with the discounts from par as the return on the face amount of the bills payable at maturity. Bond yield equivalents, related to the amount actually invested, would be slightly higher.

Buyer's series for twenty seasoned tax-exempt issues, carrying ratings ranging from Aaa to Baa, declined by 23 basis points to 3.77 per cent, considerably below the 4.24 per cent peak reached in late August (see the right-hand panel of the chart). These indexes are, however, based on only a limited number of seasoned issues and do not necessarily reflect market movements fully, particularly in the case of new and recent issues.

THE MONEY MARKET AND BANK RESERVES

A relatively comfortable tone prevailed in the money market in December. Federal funds traded mainly in a 5 to 5½ per cent range, somewhat below the 5½ to 6 per cent range which had predominated in November (see the left-hand panel of the chart). From December 21 through December 23, dealers in bankers' acceptances reduced their rates by ⅛ of a percentage point, making the rate on ninety-day unendorsed acceptances 5⅝ per cent (bid). Both the average level of net borrowed reserves of all member banks and average member bank borrowings from the Federal Reserve Banks contracted moderately from the month before (see Table I).

A substantial volume of funds flowed through the money market in December in connection with quarterly corporate dividend and tax payments, year-end switching transactions in the securities markets, and commercial bank portfolio adjustments in preparation for the publication of their December statements. However, this activity produced very little pressure in the money market. The banking system readily accommodated the credit demands of securities dealers, commercial and industrial borrowers, and nonbank financial intermediaries which converged upon the major money market banks over the December 9-12 popular dividend payment period and the midmonth tax date. During the two-week interval ended December 21, which included both the dividend and tax payment periods, total loans³ and investments at the weekly reporting banks increased by approximately \$4 billion, with the rise in loans accounting for about two thirds of the gain. For the month as a whole, bank credit at all commercial banks expanded much more than seasonally, in contrast to the relatively weak September-November performance.

Banks in the major money centers accumulated fairly large basic reserve deficits during the four December statement periods, mainly reflecting an expansion in their dealer lending operations (see Table II). In general, these banks managed to fill the bulk of their enlarged reserve needs in the Federal funds market, where a fairly good supply of reserves was usually available, and satisfied their residual reserve needs through moderate borrowing from the Federal Reserve Banks.

An estimated \$5½ billion of negotiable time certificates of deposit matured at large commercial banks over the four statement periods ended December 28. As yields on some competing money market instruments—notably Treasury bills and bankers' acceptances—declined during the period, the 5½ per cent ceiling rate generally being offered on new time certificates became somewhat more attractive to investors. Consequently, banks were able to replace a substantial amount of the certificates which matured in December. Indeed, after declining for eighteen consecutive statement weeks, the amount of certificates outstanding at the large reporting banks in New York City expanded by approximately \$100 million in the final statement period of the year. Moreover, a fair amount of the new certificates sold in December will not mature for three or four months, in contrast to the autumn sales pattern when many of the new certificates sold by banks were in the shortest maturity area. As a result, commercial bankers generally seemed much more optimistic about their ability to replace the large amount of certificates which will reach maturity in January.

PERSPECTIVE '66

Every January the Federal Reserve Bank of New York publishes *Perspective*, a brief, informative review of the economy's performance during the preceding year. This nine-page booklet serves as a layman's guide to the economic highlights of the year. A more comprehensive treatment is presented in this Bank's *Annual Report*, available in early March. *Perspective '66* is available without charge from the Publications Section, Federal Reserve Bank of New York, 33 Liberty Street, New York, N. Y. 10045. A Spanish version of *Perspective* is also available upon request.

³ Exclusive of loans to banks and after deduction of valuation reserves.

The Maturity of Loans at New York City Banks*

The business of commercial banking has traditionally been viewed as one in which the banker accepts deposits and places these funds in short-term liquid assets—primarily Government securities and short-term business loans. It is now recognized that the banker fulfills a much broader financial function; in particular, he is looked upon as a source of finance for a wide range of business activity. As a result, banks have increasingly engaged in medium- and long-term lending. Such lending has, however, raised questions regarding bank liquidity and solvency. This article seeks to provide some of the information needed to explore these questions by reviewing the maturity structure of loans at large banks in New York City.¹ The review has been confined to city banks, owing to the limited availability of nationwide data.

The average effective time to maturity of the total loan portfolio of the city banks has lengthened by about one quarter of a year (to about 1½ years) since 1961. However, this lengthening does not reflect longer maturities in individual loan categories, since the maturity of individual loans within each broad classification appears to have remained about unchanged. Instead, the composition of the loan portfolio has shifted. The volume of long- and medium-term loans has risen faster than short-term loans, resulting in a lengthening in the average maturity of the loan portfolio taken as a whole. This increase in the volume of medium- and long-term lending appears to be attributable primarily to the mounting demand for medium-term credit by business in the mid-1960's, reflecting the rapidly growing capital expenditures of corporations. The sharp rise in time deposits may also have been a factor affecting maturity considerations, inducing some of these banks to enter the long-term residential mortgage market on a limited scale.

THE MATURITY STRUCTURE OF LOANS AT NEW YORK CITY BANKS IN 1966

Term loans to business, the largest single loan category at New York City banks, account for more than one third of total loans (see table). Ordinary term loans make up about five sixths of the term loan total, and revolving credits account for the balance.² Real estate loans, which constitute about one tenth of total loans, represent another significant type of predominantly medium-term lending by city banks. All other loans are primarily short term, with an original term of less than one year (or, in the case of consumer loans, of somewhere around two years).

ORDINARY TERM LOANS. Commercial and industrial loans with an original term of more than one year, and repayable in a lump sum or in periodic instalments, are defined as ordinary term loans. (The *original term* of a loan is the length of time from the date the loan was made to the date of the final repayment scheduled in the loan agreement.) At New York City banks these loans are made for periods of up to ten years, but most of them are found in the five- to eight-year range. While the average original term indicates the time period over which a bank is willing to commit funds to borrowers, it does not provide much information about the average maturity or liquidity of the bank's loan portfolio. For this purpose, a more useful concept is the *average effective time to maturity*, which measures the average remaining life of the loans in a bank's portfolio as of a given point in time, taking into account the due date of each individual loan instalment.³

The average effective time to maturity of the ordinary

* George Budzeika, Economist, Statistics Department, had primary responsibility for the preparation of this article.

¹ A review of loan maturity and turnover developments in the 1950's was presented in "Turnover of Business Loans at New York City Banks", this *Review* (January 1962), pages 10-15.

² Term loan statistics currently released by this Bank include both ordinary term loans and revolving credits. These statistics were described in "Term Lending by New York City Banks", this *Review* (February 1961), pages 27-31. The city banks classify term loans in their internal reports in the same manner.

³ The *average effective time to maturity* for a loan portfolio is calculated by multiplying (i.e., weighting) each scheduled loan instalment by the length of time to its due date, summing the results, and dividing the total by the outstanding loan volume.

**LOANS OUTSTANDING AT WEEKLY REPORTING MEMBER BANKS
IN NEW YORK CITY**

September 1961 and 1966

Averages of Wednesday figures

Loan category	Loans outstanding (billions of dollars)		Percentage distribution		Compound annual rate of growth (per cent)
	1961	1966	1961	1966	
Long- and medium-term loans:					
Commercial and industrial loans with an original term of more than one year*	5.70	11.97	31.2	35.0	16.0
Real estate loans†					
Secured by residential property	.52	2.11	2.9	6.2	32.3
Secured by nonresidential property	.26	1.13	1.4	3.3	34.2
Subtotal	6.48	15.22	35.5	44.5	18.6
Other loans:					
Commercial and industrial loans with an original term of one year or less	4.74	7.57	25.9	22.1	9.8
Loans for purchasing or carrying securities	1.98	2.74	10.8	8.0	6.7
Loans to foreign banks	.27	.84	1.5	2.4	25.5
Loans to domestic banks	.36	.91	2.0	2.6	20.4
Loans to nonbank financial institutions	1.47	3.07	8.0	9.0	15.9
Agricultural loans	‡	.01	§	§	21.1
All other loans	2.97	3.90	16.3	11.4	5.6
Total	18.27	34.25	100.0	100.0	13.4

* The breakdown of commercial and industrial loans into those with an original term of more than one year and those with one year or less was estimated for 2 per cent of the total on the basis of the breakdown available for 98 per cent of the total.

† The breakdown of real estate loans into those secured by residential and nonresidential property was estimated on the basis of Report of Condition data for June 1961 and June 1966.

‡ Less than \$5 million.

§ Less than 0.5 per cent.

|| The "all other loans" category for September 1966 is subdivided as follows (in billions of dollars): consumer instalment loans \$1.28; loans to foreign governments \$0.75; all other loans \$1.87.

Source: Weekly reports of New York City banks.

term loan portfolio at New York City banks was estimated in 1966 at about three years.⁴ This is substantially lower than the average original term because, at any given point in time, the remaining life of most loans has shortened somewhat due to the passage of time. In addition, the instalment repayment feature, which characterizes the bulk of ordinary term loans at city banks, further reduces the

⁴ The maturity figures given in this article were derived from bank examination reports and from reports by city banks to this Bank's Statistics Department. Figures on loans outstanding were obtained from weekly reports of New York City banks published in the *Federal Reserve Bulletin*.

effective time to maturity: at the time an instalment loan is put on the books, it will have an average effective time to maturity about one half its original term. On the other hand, the three-year estimate for the average effective time to maturity is somewhat longer than would be true for a loan portfolio consisting exclusively of instalment loans.⁵ This reflects the inclusion in term loan portfolios of so-called "balloon" notes—loan arrangements in which the last repayment of an instalment loan is substantially larger than the others. It is estimated that balloon notes account for about 10 to 20 per cent of the amount outstanding of ordinary term loans at city banks.⁶

REVOLVING CREDITS. Although loans extended under revolving credit agreements are of short-term maturity—usually ninety days—the agreement underlying such loans permits the borrower to renew the note at maturity for the next ninety-day period, and so on, with the credit remaining on the books for as long as two or more years. Since revolving credit agreements are legally binding commitments of banks and since the borrower typically enjoys relatively long-term use of bank credit, such loans are usually classified as term loans.⁷ The original term of a revolving credit is measured from the date the loan agreement was signed to its expiration date, at which time the revolving credit is assumed to be repaid in a lump sum or converted into an ordinary term loan. (The original term of these agreements was estimated somewhere between two and three years in 1966.) The effective time to maturity

⁵ The average effective time to maturity approximates one third of the original term if the term loan portfolio of a bank consists of loans which have an identical original term and are paid off in equal instalments and if the bank has been extending term credit for several years.

⁶ Another maturity concept that is frequently used is *final term*. This concept measures the length of time from a given point in time to the due date of the loan. However, the due date is not the repayment of each individual loan instalment, as is the case in the measurement of the effective time to maturity, but the due date of the last instalment. The final term concept is less useful analytically than the effective time to maturity, since it does not take into account the instalment repayment feature of loans. Nevertheless, it is used frequently, probably because of the ease with which it can be employed in statistical surveys. It was employed in the 1955 and 1957 Commercial Loan Surveys and the 1966 Agricultural Loan Survey conducted by the Federal Reserve System. The average final term of ordinary term loans at New York City banks is estimated roughly in the range of 4½ to 5½ years.

⁷ Informal line-of-credit arrangements are not classified as term loans even though they resemble the formal revolving credit in some respects. For one thing, they are not legally binding on the bank. Moreover, informal line-of-credit arrangements are usually reviewed once a year, placing them in a category of agreements with an original term of one year or less.

city of revolving credits at New York City banks was calculated in 1966 at about one and one-half years.

THE CASH FLOW OF THE TERM LOAN PORTFOLIO. Cash flow—which measures repayments of outstanding loans over a period of time—is another loan maturity measure. It may be expressed either as the percentage of the dollar volume of outstanding loans that is expected to be repaid or, alternatively, as the percentage that has been repaid during a one-year period. The cash flow figures for New York City banks are currently available only on the basis of the scheduled repayments flow for the entire term loan portfolio and thus combine into one figure the expected flow originating in the ordinary term loan and the revolving credit portfolios. In 1966, the cash flow on term loans, so defined, was estimated at about 25 per cent to 30 per cent of the total amount of such loans outstanding. A cash flow of that size implies repayments during 1966 of about \$3 billion to \$3.5 billion out of the \$11.6 billion average of term loans outstanding during the year.

This cash flow appears to be relatively large in light of the widely held notion that term loans are “long-term” loans which “freeze” bank funds for prolonged periods of time. As noted above, the relatively large size of cash flows at city banks reflects the instalment repayment feature built into virtually all term loans, which, in turn, stems from the principle of tailoring the maturities of term loans to the projected flow of earnings of the borrower, provided such terms meet the broad maturity requirements of banks. Generally, the city banks now require that all term loans be put on an amortization schedule and that this schedule be firmly adhered to by the borrower.

TERM LOAN MATURITIES BY INDUSTRY. The most striking feature of the maturity distribution of term loans by industry is a lack of any really large variability in the maturity of ordinary term loans. However, some differences in maturities by industry arise from the greater use of revolving credit by some borrowers.

The longest effective time to maturity was recorded in loans to petroleum extracting and refining businesses. This was due in part to the longer maturity of ordinary term loans (by about half a year) but primarily reflected the limited use of revolving credit facilities. The shortest effective time to maturity was evident in loans to manufacturers of transportation equipment: these borrowers are heavy users of revolving credit facilities with about three quarters of their term loans outstanding in such form. Term loans to public utilities also were of shorter maturity than the overall average due to the shorter effective time to maturity of their ordinary term loans (by about half a year).

REAL ESTATE LOANS. About two thirds of total real estate loans at New York City banks were classified in June 1966 as residential mortgage loans. The original term of many of these loans ranges up to twenty-five years or more but, since practically all of them are repayable in frequent instalments, the effective time to maturity is considerably less. Furthermore, a significant proportion of the residential mortgage loans held by city banks are in the “warehouse” for only six to twelve months as institutional investors “store” them temporarily with commercial banks under repurchase agreements.

The remaining one third of real estate loans at city banks is accounted for by loans secured by nonresidential properties. A significant portion of these loans consists of construction loans, the effective time to maturity of which is relatively short, probably somewhere around one year. Another significant portion of nonresidential real estate loans is made to business, and is akin to ordinary term loans in respect to both purpose and maturity. The average effective time to maturity of the entire real estate loan portfolio at New York City banks appears to be somewhat longer than the effective time to maturity of the ordinary term loan portfolio.

OTHER LOANS. The original term of short-term commercial and industrial loans was generally reported in 1966 at about ninety days or less. Many of these loans, however, remain on the books for longer than the original term since they are frequently renewed when they come to maturity. Some of these nominally short-term loans are thus, in effect, continuous loans. It was estimated in 1961, for instance, that the existence of continuous loans in the short-term business loan category had lengthened the average duration of short-term loans to some six months or more.⁸

No specific estimate is available regarding the average maturity of loans to nonbank financial institutions—a category which includes loans to sales and commercial finance companies, mortgage firms, and other business finance companies—but the information that is available suggests that they fall in the short-term area, with an original term well below one year. Loans for purchasing and carrying securities are of very short maturity. The average original term of consumer instalment loans at city banks appears to be somewhere around two years, and their effective time to maturity less than one year.

⁸ See “Turnover of Business Loans at New York City Banks”, this *Review* (January 1962), page 13.

ALL LOANS. Although specific estimates of the effective time to maturity are not available for several loan categories, enough is known about their order of magnitude to estimate the maturity of the total loan portfolio of New York City banks. (The missing figures refer to short-term loans, where the range of the possible error is small in relation to the maturity of term loans.) Thus, it appears that the average effective time to maturity of the entire loan portfolio of large New York City banks in 1966 was in the range of $1\frac{3}{8}$ to $1\frac{1}{2}$ years.

MATURITY CHANGES, 1961-66

While average maturities in individual loan categories have apparently shown very little net change over the past five years, the average effective time to maturity of the total loan portfolio is estimated to have risen by about one quarter of a year. This increase resulted mainly from changes in the composition of the loan portfolio, with long- and medium-term loans growing faster than short-term loans.

TERM LOAN PORTFOLIO. The average effective time to maturity of the term loan portfolio at large New York City banks, combining both ordinary term loans and revolving credits, was estimated in the range of $2\frac{2}{3}$ to $2\frac{3}{4}$ years in 1961-62 and at about $2\frac{3}{4}$ years in 1966.⁹ Because of the large element of uncertainty involved in obtaining these figures, the slight difference between these averages is probably not significant. There were, however, some significant changes in average maturities in the intervening years. In the early 1960's the maturities of term loans lengthened, with the effective time to maturity rising to about three years by 1965. However, in late 1965 and during 1966 the upward trend was reversed, and the average dropped by about one quarter of a year to return to the level prevailing five years ago.

A combination of factors accounted for the maturity rise in the early part of the 1961-66 period. One of these factors was the lengthening of the original term of new loans. Faced with a relatively plentiful supply of funds in the early 1960's, New York City banks were willing to allow somewhat longer maturities on new loans than in the preceding years. Beginning in 1962, another factor contributing to the rise in the average maturity was the

acceleration of the rate of growth of the portfolio itself. The average effective time to maturity (given the original term) is longer for a growing loan portfolio than a stationary one, since a growing portfolio is more heavily weighted with recently made loans which, for this reason alone, have a relatively longer time to maturity. The term loan portfolio of New York City banks grew slowly between late 1957 and late 1961—3 per cent a year on the average. After 1961, however, term loans of city banks grew at a rate of about 9 per cent a year, and accelerated to a rate of almost 30 per cent during 1965 and early 1966. The transition from the slow-growing to the rapidly expanding portfolio could have added about one tenth of a year to the average effective time to maturity of the entire term loan portfolio over the period from 1961 to 1965.

Still another factor contributing to the rise of the average maturity was the decline in the proportion of revolving credits—which generally carry shorter maturities than ordinary term loans—in the term loan total. In 1962, revolving credits constituted about 20 per cent of the term loan total at city banks, but by 1965 the proportion had declined to an estimated 15 per cent and remained at this level in 1966.

The reversal of the upward trend in the average effective time to maturity in 1966 was brought about by the shortening of the original term of new loans in the latter part of 1965 and 1966 in response to tighter credit conditions. The maximum maturity the city banks were willing to allow on newly made term loans declined to an average of six years in 1966 from an average of nine years in 1964.

Information on maturity changes in other loan categories is scanty, but suggests that average maturities in individual loan categories remained about unchanged between 1961 and 1966.

TOTAL LOAN PORTFOLIO. The maturity of the total loan portfolio of city banks has risen in the past five years, with the average effective time to maturity in 1966 estimated about three months longer than in 1961. This lengthening was brought about primarily by changes in the composition of the portfolio, with long- and medium-term loans rising faster than short-term loans. Long- and medium-term loans as a proportion of total loans advanced from 35 per cent in September 1961 to 44 per cent in September 1966.

The most significant factor contributing to the increase in the share of long- and medium-term loans was the rise in the proportion of term loans—from 31 per cent to 35 per cent. The share of real estate loans also has risen—from 3

⁹ The average for ordinary term loans was estimated at about three years in both 1961-62 and 1966, but the average for revolving credits appears to have lengthened slightly over the period as a whole.

per cent to 6 per cent for residential mortgage loans and from 1 per cent to 3 per cent for nonresidential real estate loans. The increase in the proportion of residential mortgage loans reflected primarily the decision of several city banks to enter the long-term residential mortgage market in the early 1960's.¹⁰ This decision appears to have been influenced by the sharp rise in time deposits and the need to earn a higher return—real estate loans usually carry higher interest rates than other loans—in order to pay higher interest on time deposits after the change in Regulation Q in 1962.

FACTORS AFFECTING MATURITY OF TERM LOANS

The sharp increase in the proportion of term loans at city banks was brought about mainly by the surging demand for medium-term credit by business in the mid-1960's. The large banks in New York City are oriented mainly toward lending to business. Such lending (both short- and medium-term) accounts for nearly three fifths of the city banks' outstanding loans, compared with about one third at banks outside New York and Chicago. By virtue of their long-time preoccupation with business lending, the city banks have acquired great skill and experience in this type of activity and have developed close customer relationships with corporate borrowers throughout the country. Many of these customers, moreover, maintain sizable deposit balances with city banks. Thus, whenever the demand for funds on the part of these customers rises, the city banks are under strong competitive pressure to satisfy their needs. The mid-1960's was such a period. The rapid growth of business investment in 1963 and the following years generated a heavy demand for medium-

and long-term funds by business. This was particularly true in 1965 and the first half of 1966, when corporate capital expenditures (including inventories) exceeded internal cash flows (retained earnings and depreciation allowances) by nearly \$3 billion and by \$9 billion (annual rate), respectively.¹¹ It was in this period that term loans were expanding at New York City banks at an unprecedented rate of nearly 30 per cent a year. Consequently, the proportion of term loans in the city banks' business loan total rose to 62 per cent by mid-1966, from an average 58 per cent in 1964 and an average 55½ per cent in 1961.¹²

While the heavy business demand for medium-term funds from the city banks has brought about a sharp rise in the proportion of term loans and thus has contributed to the lengthening of the average maturity of the entire loan portfolio of these banks, the maturity of the term loan portfolio itself, as emphasized in the preceding paragraphs, has remained about unchanged between 1961 and 1966. In general, the city banks in the 1960's followed policies similar to those in previous cyclical swings: they lengthened maturities of new loans in the easy money conditions of the early 1960's but shortened them with the tightening of credit in the mid-1960's. Apparently, there was no dearth of demand in the mid-1960's for bank credit in the medium-term area, which is traditionally preferred by city banks, so that there was no real pressure on city banks to lengthen, as a matter of policy, the maturities on individual term loans.

¹⁰ Prior to the 1960's, the city banks generally did not purchase residential mortgages for permanent holding. The residential mortgages that were reported in their portfolios at that time were primarily of the "warehousing" type acquired for brief periods from institutional investors under repurchase agreements.

¹¹ The figures are from the flow-of-funds statistics of the Board of Governors of the Federal Reserve System.

¹² The responsiveness of New York City banks to financial needs of corporations engaging in capital expenditures was also illustrated by the developments in the mid-1950's. At that time, as in the mid-1960's, a sharp increase in capital expenditures by business was accompanied by a rapid acceleration of term lending by city banks—between October 1955 and October 1957, term loans advanced at a 23 per cent annual rate and the share of term loans in the business loan total increased from 47 per cent to 51 per cent.

New Central Banks*

The desire to help build up a soundly based banking system and develop an active and independent monetary policy has continued to encourage the establishment of central banks, particularly in the newly independent countries. During the last three years alone, fifteen such institutions have opened their doors. Ten of these began operations in 1964: the Bank of Lebanon, the Central Bank of Jordan, the Bank of Sierra Leone, the National Bank of the Congo (Kinshasa), the National Bank of Rwanda, the Bank of the Republic of Burundi, the Reserve Bank of Rhodesia, the Reserve Bank of Malawi, the Bank of Zambia, and the Central Bank of Trinidad and Tobago. In 1965 the list was extended by the opening of the Bank of Guyana and the Central Bank of the Republic of Brazil. The Central Bank of Kenya, the Bank of Tanzania, and the Bank of Uganda were set up in 1966.

These banks are indeed new, in that they are operating under new statutes and have an expanded arsenal of monetary policy instruments at their disposal. But each of them is the successor to one or more institutions that previously exercised some form of monetary authority. Thus, in two of the countries, commercial banks formerly carried out many central banking functions. The Central Bank of the Republic of Brazil has taken over powers hitherto held by the Bank of Brazil, with a new policy-making body—the National Monetary Council—replacing the previous Superintendency of Money and Credit (SUMOC). Lebanon's new central bank has assumed responsibilities formerly discharged by the largely foreign-owned Bank of Syria and Lebanon. Six of the new institutions are derived from former central banks in territories or political units that were subsequently split up: the dissolution of the Federation of Rhodesia and Nyasaland in late 1963 led to

the separate central banks of Zambia, Malawi, and Rhodesia,¹ and new central banks have replaced the former Bank of Issue of Rwanda and Burundi and the Congo's temporary Monetary Council (both of which had superseded the Central Bank of the Belgian Congo and Ruanda-Urundi in 1961). The seven other new central banks in the group grew out of currency boards, which issued currency and conducted foreign exchange operations. In this category are the new central banks in Kenya, Tanzania, and Uganda (which replace the East African Currency Board) and those in Guyana, Sierra Leone, Trinidad-Tobago, and Jordan.

The new central banks in Lebanon, the Congo, Rwanda, and Burundi—as well as several others established in 1959-63—have been analyzed in a previous article, and their statutes will not be dealt with here.² The functions, powers, and organization of the remaining eleven banks are discussed below.

BACKGROUND

All these new central banks have been established in less developed countries, where overseas trade and foreign capital play a large role in the economy; furthermore, many of them operate in areas where the existing commercial banks are often branch offices or subsidiaries of major banks based elsewhere. However, the financial and monetary environments of these countries differ consider-

* John S. Stockton, Assistant Economist, International Research Department, had primary responsibility for the preparation of this article.

¹ On December 3, 1965, after Rhodesia's unilateral declaration of independence, the United Kingdom dismissed the existing Board of Governors of the Reserve Bank of Rhodesia and named a new Board domiciled in London. The Reserve Bank of Rhodesia continues to operate in that country, however, with a Board appointed locally. In this article, discussion of the bank is confined to a description of its statutory powers as they are set forth in the 1964 law.

² See "New Central Banks", this *Review* (July 1964), pages 133-37.

ably in structure and stage of development. Financial dualism—wherein sophisticated and advanced mechanisms are found side by side with the most rudimentary facilities—is a common situation. The wide diversity in the extent to which banking habits have developed is evident in the variation of the ratio of currency to total money supply,³ which ranges from 70 per cent in Sierra Leone to 20 per cent in Brazil (the current figure for the United States is 22 per cent). Population per banking office, another measure of the development of banking, ranges from 19,000 in Trinidad-Tobago to 45,000 in Jordan and 137,000 in Tanzania (the figure for the United States is 6,400).

The nature of a central bank in any country is, in part, determined by its relationship to the government, both as defined in the statutes and in actual practice. Among the major issues involved in this relationship are the degree of independence the central bank exercises vis-à-vis executive and legislative authority and the extent to which the government is limited in using central bank credit to finance its operations. The nature of the central bank is shaped also by its relationship to the financial community. Here a balance must be struck between the needs to assure the stability of the banking and financial system and to foster the growth of that system—so necessary for the evolution of less developed countries. Finally, there is the problem of external monetary stability, which calls for the maintenance of an orderly exchange market for a country's currency and the attainment of a level of international reserves which is adequate to meet the swings in the country's balance of payments. Because financial institutions and experience vary so greatly among nations, the theory and practice of central banking do not provide a single set of prescriptions which deals with all these issues. Thus, the statutory provisions reviewed here describe a variety of techniques by which the new central banks will endeavor to resolve these and related problems within the context of their own environment.

OBJECTIVES, FUNCTIONS, AND STRUCTURE

The statutes of the new central banks often specify economic and social goals to be served by the monetary authorities. In line with the trend of central banking legislation since World War II, most of the new banks stress

economic growth and development as the primary goal. The statute of the Central Bank of Trinidad and Tobago specifies this goal most concretely, emphasizing the expansion of production, trade, and employment. More conventional objectives are internal monetary stability, set forth in all the new banks' charters, and stable exchange rates, which only Guyana does not specifically include. While all the banks maintain research facilities, the statute of Trinidad-Tobago underscores the role of the central bank in aiding development by requiring continuous economic, financial, and monetary research.

To serve these objectives, the new central banks are given the following powers: the sole right of note issue,⁴ authorization to buy and sell gold and foreign exchange, and freedom to engage in open market operations. All the institutions serve as banker and financial adviser to their respective governments and, with the exception of Brazil,⁵ act as government fiscal agent. Moreover, to aid in the control of credit and the supervision of commercial banks, the new banks are vested with at least some of the following powers: implementation of minimum reserve requirements; establishment of minimum liquid asset ratios; direct control of the volume, terms, and conditions of commercial bank credit; regulation of interest rates charged or paid by banks; and examination of bank records.

The central banks in this discussion are legally defined as corporate bodies, with authorized capital ranging from \$1.4 million equivalent for Malawi to \$5.6 million equivalent for Uganda. This capital is fully held by the respective governments, except in Brazil where the central bank owns its equity capital outright. In all cases provision is made for reserve funds, from one to three times the authorized capital, to which a varying percentage of central bank profits is allocated. Beyond the maximum limit of these reserve funds, profits accrue to the governments, except in Brazil, where the central bank keeps all earnings from its operations.

In most cases responsibility for bank policy and administration is vested in a board of governors, ranging in size from five members in Sierra Leone, Malawi, and Guyana, to nine members in Uganda, Zambia, and Rhodesia. The governor and deputy governor are usually appointed by the executive head of government, and serve

³ The money supply definition used here is that of the International Monetary Fund, which includes currency outside banks and demand deposits; government deposits are excluded.

⁴ In Guyana, however, a subsidiary of Barclays Bank Limited retains the right to issue bank notes so long as certain United Kingdom laws continue to apply as part of the banking code of the country.

⁵ In that country, the Bank of Brazil continues in its former capacity as fiscal agent of the government.

terms of three to seven years. Exceptions are Jordan, where appointments are made by the government's Council of Ministers, and Tanzania, where the length of term for governor and deputy governor is not specified by statute. In Brazil central bank policy is set by the autonomous National Monetary Council. This body has nine members: the finance minister, who acts as chairman, the presidents of the Bank of Brazil and the National Economic Development Bank, and six Brazilians of financial and banking background. Four of these last six serve as directors, with one acting as president, of the central bank and have the responsibility of implementing decisions of the National Monetary Council.

RELATIONS WITH THE GOVERNMENT

Along with their powers and duties, the new central banks' relations with the government are usually closely defined in the founding statutes. Important sections of these concern the coordination of monetary policy with the government's general economic policies. In Kenya and Tanzania, a Treasury representative is a voting member of the central bank's board of governors. In Tanzania he may postpone any of the board's decisions, and in Kenya he may suspend a vote by the board and refer the matter to the finance minister, whose decision is binding. In Trinidad-Tobago, Zambia, and Guyana, the minister of finance or his representative attends board meetings but does not vote; however, after consulting the central bank's governor he may, except in Guyana, issue general directives that bind the bank to implement government monetary and fiscal policies. Brazil provides for close government supervision through the fact that central bank policy is determined by the National Monetary Council headed by the finance minister.

A number of the statutes require government approval for specific operations by the central bank. Approval of the finance minister is needed by the central banks of Zambia, Malawi, Uganda, Tanzania, Sierre Leone, and Trinidad-Tobago if they wish to hold, sell, or subscribe to shares of any registered corporation.⁶ Although the Rhodesian central bank may buy and sell foreign currencies outright, it may borrow them only with the finance minister's consent.

As fiscal agents to their governments, the central banks

(except that of Brazil) have responsibility for administering government accounts, managing the public debt, and acting as depository for government funds. As bankers to their governments, all of them may grant short-term loans or advances to offset temporary deficiencies in budget revenues. Most of the statutes set limitations on these advances in respect to both maturity (usually a maximum of three months) and amount (figured as a percentage of estimated revenues for the current year). Sierra Leone, which limits advances to 5 per cent of current government budget revenues, appears to be the most stringent in this respect; in most of the other countries, the figure is 15 per cent to 20 per cent. The major exception is Brazil, which requires the National Monetary Council to authorize the central bank to cover, by direct purchase of Treasury bills, any portion of the government deficit not financed through other means.

RELATIONS WITH THE BANKING SYSTEM

Each of the new central banks has the power to control the supply of money and credit in its economy. The means for exercising this control include rediscount and open market operations, reserve requirements and minimum liquid-asset ratios, direct controls over commercial bank credit, and licensing, supervision, and inspection of commercial banks.

All the statutes except those of Jordan and Sierra Leone contain authorization to require the commercial banks to maintain a percentage of their deposit liabilities in the form of reserves at the central bank. In some of the countries, this reserve ratio—which must be uniform for all commercial banks—can be freely determined by the central bank, up to a given percentage of the banks' deposit liabilities. In Kenya, Tanzania, Uganda, and Guyana, the maximum is 20 per cent. In Brazil, where the National Monetary Council sets the ratio, it is 25 per cent, of which half may be required in the form of Treasury bills or public debt certificates. Trinidad-Tobago, on the other hand, sets only a minimum reserve requirement (5 per cent). In Zambia, Rhodesia, and Malawi, neither a ceiling nor a floor is established in the statutes. Rhodesia's central bank appears to have statutory authority to impose reserve requirements against the assets of commercial banks.

The bank statutes of Malawi, Jordan, Rhodesia, Guyana, and Zambia allow the central bank to require commercial banks and other financial institutions to maintain minimum liquid-asset ratios. Rhodesia's statute permits these percentage requirements to differ as between banks and acceptance houses.

All the new central banks can buy, sell, discount, and

⁶ The Reserve Bank of Rhodesia may also buy and sell shares of registered corporations, but endorsement by the finance minister is not required.

rediscount securities of their governments but, except in Brazil, limitations are placed on the amount of such purchases. Three of the statutes set an absolute limit: those of Kenya and Trinidad-Tobago (both of which apply to total lending to government) and that of Jordan (which applies only to securities). In Uganda, Malawi, Sierra Leone, and Zambia, the limitation on holdings of government securities is a specified percentage of the bank's deposit liabilities; in Rhodesia it is defined as the bank's paid-in capital and general reserve fund plus 20 per cent of its deposit liabilities; and in Tanzania and Guyana it is a specified percentage of average government revenues over the preceding three financial years. In two countries—Brazil and Rhodesia—the central banks also may deal in securities issued by themselves.

All the statutes empower the central banks to purchase, sell, and rediscount credit instruments of commercial banks, generally including bills of exchange and promissory notes for commercial transactions involving the storage and movement of goods and for agricultural and industrial production. A number of the banking laws spell out in detail the permissible maturities for various categories of eligible paper. Instruments for financing agricultural or industrial production are usually acceptable for longer maturities than those covering commercial transactions—a differentiation through which the central banks can encourage the development and financing of certain sectors in their economies, while limiting credit flows to other sectors. Thus, Sierra Leone and Uganda rediscount paper for commercial transactions with maturities of up to 90 days and allow maturities of up to 180 days for paper financing the movement and marketing of agricultural or mineral products. In Jordan, the respective maximum maturities are three and nine months. Kenya, Tanzania, Guyana, and Trinidad-Tobago allow maturities of 180 days for all types of paper, but the first three of these countries provide that the limit may be extended to 270 days for paper financing agricultural or industrial production if it fosters the development of the economy. Brazil does not specify the types of assets that can be rediscounted, bought, or sold by the central bank. The latter has taken over the functions of the rediscount department of the Bank of Brazil, but the policy governing such operations is decided by the National Monetary Council.

All the central bank statutes specify the conditions under which loans and advances, backed by adequate collateral, may be extended to commercial banks. In Uganda, Jordan, Sierra Leone, and Malawi the maximum maturity is three months, while in Kenya, Tanzania, Trinidad-Tobago, and Guyana it is six months. Zambia, Rhodesia, and Brazil set no maximum. In Brazil, policy

governing loan operations is established by the National Monetary Council.

Several of the new central banks have the power to establish interest ceilings. Those of Kenya, Uganda, Tanzania, and Guyana, and also the National Monetary Council in Brazil, are authorized to limit the interest rate that commercial banks may pay on deposits and other liabilities. With the exception of the central banks in Kenya and Tanzania, these same institutions may set minimum or maximum rates also on bank charges for loans, advances, and other forms of credit, including the establishment of preferential rates to encourage or limit credit to any particular sector of the economy.

Authority for direct controls on the amount and availability of commercial bank credit exists in a number of the statutes. The central banks of Kenya, Tanzania, Uganda, Zambia, Guyana, and also Trinidad-Tobago with the approval of the finance minister, may all prescribe ceilings—either general or selective—on the amount of loans and advances that commercial banks may grant during any period. These same banks, except that of Zambia, may issue instructions specifying the purposes and conditions under which loans, advances, or investments may be made. In Zambia and Rhodesia, it may be required that a specified percentage of any increase in total advances and bills discounted be deposited with the central bank.

Trinidad-Tobago, as well as Zambia with ministerial consent, has statutory provisions whereby the central bank may set a minimum ratio of commercial banks' local assets to their local liabilities, to go into effect six months from official notice. Any variation in this ratio shall not exceed 10 per cent (Trinidad-Tobago) or 5 per cent (Zambia), during a given six-month period. Thus, these two countries could gradually require that foreign banks operating in their territories increase their proportionate holdings of domestic assets.

INTERNATIONAL RESERVES

All the countries hold international reserves as a means of maintaining the exchange value of their monetary units. Thus, the statutes for their new central banks require that a certain part of the banks' assets be held in some internationally acceptable form to constitute these reserves. Gold is listed for this purpose by all the central bank acts and, except in Brazil and Guyana, foreign currencies that are freely convertible into gold are also specifically included. Brazil and Guyana include all types of foreign exchange, convertible or not, as part of their international reserves. Again with the exception of Brazil, holdings of

foreign Treasury bills and of securities denominated in convertible currencies qualify as external reserves.⁷ A number of the central bank statutes allow inclusion of foreign bills of exchange. Other assets that may qualify are securities of international financial institutions (Trinidad-Tobago, Guyana, Tanzania, and Kenya) and automatic drawing rights at the International Monetary Fund (Guyana and Trinidad-Tobago).

Uganda, Jordan, Sierra Leone, and Malawi set specific limits on the maturities and amounts of the foreign instruments that may be held for international reserve purposes. In general, three-month bills of exchange, six-month Treasury bills, and medium-term securities meet the requirements.

All the countries except Brazil state the level below which these international reserves may not fall, but the level is expressed in varying ways. Most of the countries express it as a percentage of central bank demand liabilities: in Jordan, 100 per cent; in Trinidad-Tobago, Guyana, Sierra Leone, and Malawi, 50 per cent; in Uganda, 40 per cent; and in Rhodesia, 25 per cent. In Zambia the requirement is 50 per cent of total liabilities held in June 1965, when the Bank of Rhodesia and Nyasaland was dissolved, and 25 per cent of all increases in liabilities since that time. Kenya and Tanzania, the two other countries that have central bank reserve requirements, relate the level to balance-of-payments needs: their international reserves

may not fall below the value of four months' imports as recorded and averaged for the three preceding years.

Special provision is made in Rhodesia and Zambia for the temporary suspension of these reserve requirements. In those countries, the finance minister may waive the statutory conditions for as long as six months, and even longer if legislative approval is given.

CONCLUSION

In general, the new central banks have been asked to help create an atmosphere conducive to economic development in their respective countries, while at the same time maintaining monetary stability. The majority of these countries lack fully developed financial institutions that could effectively channel available savings into productive investment, and hence the central banks' basic objectives include the responsibility of encouraging the development of such institutions. In fact, rather than being involved primarily with the implementation of monetary policy in the more narrow sense, many of the recently established central banks have come to concern themselves also with the broader goals of economic policy. In particular, some of the new central banks have been conceived as organs for financing—or arranging the finance for—long-term basic economic development, as well as for building up a tightly knit and comprehensive system of banks and related financial institutions. In addition, the new banks should aim to manage foreign financial and monetary relations in such a fashion that the inflow of foreign capital is encouraged and balance-of-payments crises are avoided.

⁷ The statutes of Tanzania and Guyana do not specifically require that the securities be issued in convertible currencies.