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Contents

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Foreign Exchange Markets, July-December 1961

The heavy flows of short-term capital among major financial centers that had dominated the foreign exchange markets during the first six months of 1961[1] continued to exert a strong influence on these markets during the third quarter, owing mainly to the repercussions of the Berlin crisis and the especially sharp changes in the circumstances affecting the pound sterling. Cooperative exchange operations by the monetary authorities of the leading financial centers thus continued to be necessary and, by calming the markets, helped to moderate the effects of large movements of short-term capital and particularly of occasional speculative attacks. In the fourth quarter, speculative capital flows and those motivated chiefly by a desire for political safety tapered off appreciably. Exchange rate movements in that quarter chiefly reflected the various countries' underlying balance-of-payments conditions or the movements of capital funds by foreign commercial banks for balance-sheet "window dressing" in conjunction with the approaching year end, or other technical operations. Nevertheless, the exchange markets remained jittery and easily influenced by rumors throughout the second half of the year. One principal reason for this was that the basic payments balances underlying the two key currencies—the dollar and sterling —continued to be in substantial deficit in spite of noteworthy improvements for 1961 as a whole.

In general, the direction and intensity of exchange rate movements will be influenced primarily by the state of the current and long-term-capital accounts of the balance of payments. However, in a world of convertible currencies and freedom for short-term capital flows, such flows may temporarily overwhelm these basic balance-of-payments forces and result in exchange rate developments that are significantly different from what might be expected solely on the basis of longer term influences. This is what occurred during substantial parts of 1961.

Any large-scale international movement of funds is bound to affect the dollar, partly because of its pivotal role as a reserve currency and partly because most countries are obligated by international agreements to keep the value of their currencies within certain limits with respect to gold or the dollar.[2] Since the participants in the exchange markets know that central banks always stand ready to buy or sell dollars for their own currencies at the fixed intervention points (thus adding to, or reducing, their international reserves), the market for dollars is almost always the broadest and most active. Consequently, even when funds are transferred from one nondollar financial center to another, they generally move "through" dollars as the most readily acceptable means of payment. It was the enormous volume of transfers of this kind that pushed the dollar to its lower limit against some Continental currencies for prolonged periods during the past year, thus making desirable official United States action in the exchanges to defend the dollar.

The defense of exchange rate stability among major currencies took a variety of forms, including most importantly the extension of inter-central-bank credits and large IMF assistance to the United Kingdom. In addition, operations in the exchange markets by the United States Treasury (functioning through this Bank as fiscal agent), in cooperation and close consultation with the German, Swiss, and other European central banks, were of help.[3] Such exchange market operations were designed to reduce the abnormally large premiums on forward deliveries of foreign currencies (especially German marks and Swiss francs) that had developed following the March revaluations, thereby discouraging speculation and inducing some reversal of the earlier capital flows to Continental countries. They also were aimed at easing the downward pressure on dollar spot rates against these currencies. Frequent occasion to observe developing needs and to consult about appropriate action was provided by the continuing monthly meetings of central bankers in Basle—in which the Federal Reserve System is now taking an active part—as well

[1] For a review of the first half of 1961, see the *Monthly Review* for July 1961, p. 114.

[2] All countries that are members of the International Monetary Fund and that have adopted par values, except the United States, define their currencies in terms of the dollar. Foreign countries thus have to hold their exchange rates within 1 per cent above or below the dollar parity under IMF rules (in practice, ¾ of 1 per cent for most signatories of the European Monetary Agreement). The United States, of course, complies with its obligation by standing ready to buy and sell gold freely at a fixed price in transactions with foreign monetary authorities.

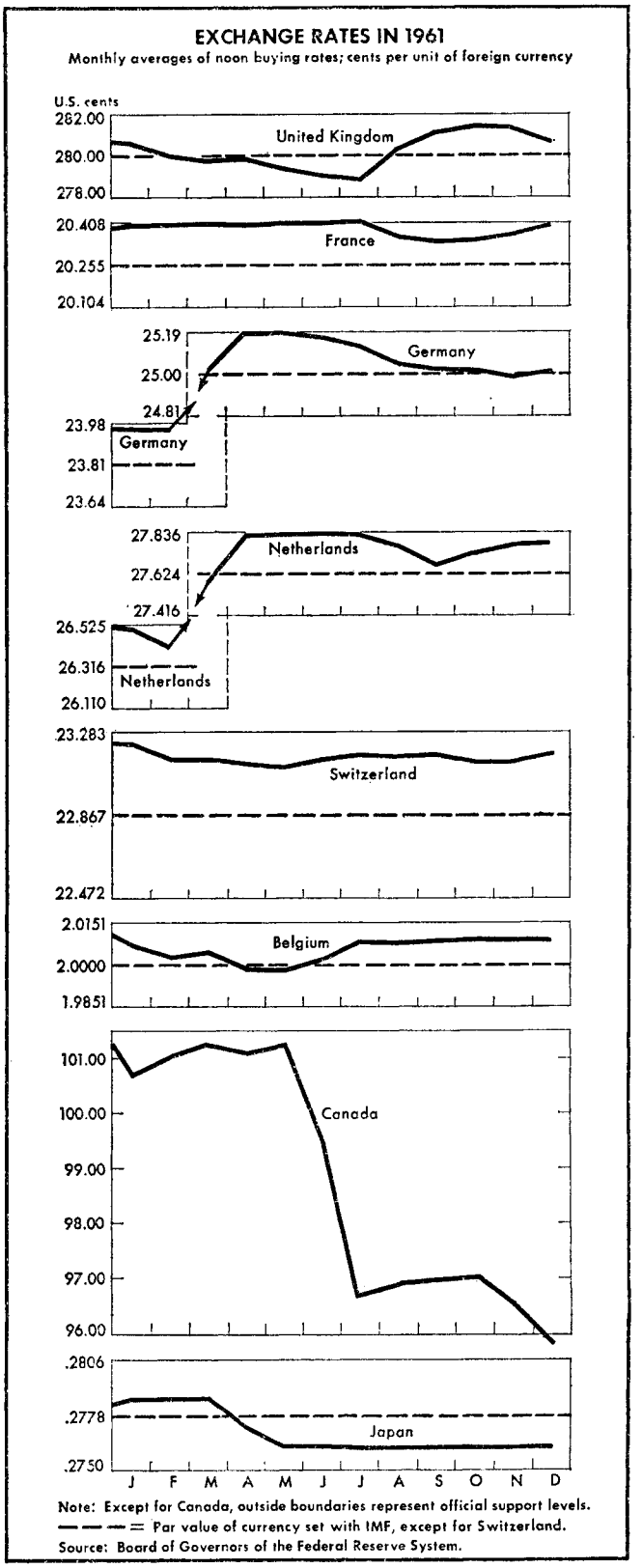
[3] For the background of these operations, see the *Monthly Review* for July 1961, p. 114.

as by the regular consultations by Treasury and Federal Reserve officials with their opposite numbers within the Organization for Economic Cooperation and Development.

By early summer, more normal exchange market conditions had been restored. In particular, a narrowing of the spread between spot and forward rates for several major Continental currencies had taken place. Moreover, at the end of July the United Kingdom had announced a variety of measures of domestic restraint (including a 7 per cent discount rate) designed to halt the short-term capital outflow and to improve the country's balance on current and long-term-capital accounts. These steps, combined with a record-breaking $1.5 billion British drawing and $0.5 billion stand-by credit from the IMF, announced in August, resulted in a reversal in the timing of commercial payments, which had previously been adverse to sterling. This brought about a strong recovery of sterling and enabled Britain to begin paying back the credits it had received. Between July 24 and August 9, spot sterling rose from $2.7855 to $2.8057, and it remained above par for the rest of the year.

The darkening shadow of the Berlin crisis, however, produced a new wave of capital flows in the summer months. As a result, and despite a deterioration in the United States balance of payments relative to the first half of the year, there was a decline in the mark, the Dutch guilder, and the French franc from their upper limits against the dollar as investors shifted funds to Switzerland for safe haven (see chart). The United States authorities thus found it necessary to intensify the Swiss franc operations that had been initiated earlier in the summer. They were, however, at the same time able to reduce the volume of transactions in Deutsche marks. The Swiss franc operations continued through the remainder of the year and helped significantly not only in calming the market but also in reducing the flow of dollars to Switzerland. The United States Treasury's ability to engage in these operations was enhanced by a SF200 million borrowing from the Swiss National Bank (acting as agent for the Swiss Confederation).

As the flow of funds tapered off during the fall months, following an easing of tensions over Berlin, exchange rates once again began to reflect more basic balance-of-payments conditions. The increase in the United States payments deficit after midyear, already noted, was particularly significant in this regard. In the third quarter, the seasonally adjusted annual rate of the United States deficit reached $3.1 billion, owing principally to sharply increased imports. Moreover, there appears to have been no improvement in the fourth quarter, when commercial bank lending to foreigners increased. In the United King-



Note: Except for Canada, outside boundaries represent official support levels.
— — — = Par value of currency set with IMF, except for Switzerland.
Source: Board of Governors of the Federal Reserve System.

dom, meanwhile, there was a considerable improvement in the trade balance in the third quarter, but over-all progress toward bringing the combined current and long-term-capital accounts into balance proved slow. In Japan, the deficit grew rapidly until restrictive monetary measures were adopted in the fourth quarter. Meanwhile, Switzerland's trade deficit increased so sharply that there was an over-all deficit on current account for the first time in many years. Germany's payments position, on the other hand, remained strong, although there was a significant decline in the size of the current account surplus. France, the Netherlands, Italy, and Belgium all maintained or further improved their positions of underlying strength. In Canada, there was a slight decline in the current account deficit in the third quarter.

In response to these underlying conditions, most Continental currencies as well as sterling showed continued strength vis-à-vis the dollar in the early fall months. Dutch guilder, French franc, and Belgian franc quotations rose, while the Italian lira remained at its ceiling against the dollar. The Swiss franc and the German mark, on the other hand, both weakened somewhat, the mark principally because of further capital outflows. In the forward markets, three-month premiums on the Deutsche mark and the Swiss franc declined to under 1 per cent per annum. Sterling, still bolstered by capital inflows, did not weaken at all until late October, and then only slightly. Forward sterling discounts meanwhile were steadily decreasing; by the end of October, for example, the three-month forward rate was down to about 2.7 per cent per annum from over 4 per cent at the end of August, and it remained around that lower level for the rest of the year. The decline in these discounts largely reflected an adjustment to reduced interest rate differentials between London and other financial centers, as the British discount rate was lowered in two steps to 6 per cent.

As the year drew to a close, short-term capital movements again began to dominate exchange developments in several currencies. These developments, however, reflected principally portfolio adjustments by foreign commercial banks rather than speculative or arbitrage flows, and their potentially disturbing exchange market effects were greatly ameliorated through central bank action. The Swiss franc, the Dutch guilder, the French franc, and the German mark rose because of repatriation of funds held abroad by commercial banks. In Switzerland and France, the commercial banks temporarily increased their liquid domestic assets for year-end statement purposes — a traditional procedure — and thus provided a large supply of dollars. Sterling, however, weakened relative to the dollar, since a good part of the funds going to the Continent were being withdrawn from London.

The Canadian dollar was not affected by the various factors influencing European exchange rates. The rate hovered just around $0.97 throughout the third quarter in a quiet market. The lack of activity in that period was attributable to the hurried operations to cover future commitments which were undertaken in June—when it was announced that the government would act to lower the rate—and to a slowing-down in capital movements as investors awaited further exchange rate developments. In late October, with renewed activity, the rate began to decline further; by the end of November, in fact, as heavy Canadian demand for United States dollars for year-end dividend payments was bolstered by some speculative selling of Canadian dollars, it dropped below $0.96, the lowest since 1951. To steady the rate, the Canadian authorities were active on both sides of the market at various times during this period.

The Japanese yen remained under considerable pressure throughout the second half of the year, due to Japan's continuing balance-of-payments deficit, and the rate was held at $0.002762 with substantial declines in official reserves. In Brazil, there was a "temporary" reversion to multiple currency practices in an attempt to insulate trade transactions from speculative capital flows. Separate exchange markets were re-established on October 27 for commercial and financial transactions, with a 50 per cent cruzeiro deposit required for financial exchange purchases. In addition to these two markets (in which rates in November were about 310 cruzeiros per dollar for trade and 315 for financial exchange), a non-official market for financial transactions seems to have developed where spot dollars are quoted at lower cruzeiro values.

Toward the year end, further action to strengthen the instruments of international monetary cooperation was pending. It was announced that ten main industrial countries (including the United States, the United Kingdom, the Common Market members, and others) had agreed with the IMF to provide facilities for quickly mobilizing large resources beyond those presently available to the Fund. These resources would be available for protecting the convertibility of currencies in the event that developments affecting one or more of the major currencies might threaten to impair the functioning of the international monetary system. Although detailed arrangements had not yet been announced as this *Review* went to press, it is anticipated that the exact size and composition of any special credits would be decided upon by agreement among the prospective lending countries and the Fund at the time such credits are required. This new plan (with which it is hoped

Switzerland—not a Fund member—may become associated) evolved in response to the need to offset the potentially disruptive effects of large-scale capital flows in a world of convertible currencies. Together with the further active use of inter-central-bank cooperation, such as has been practiced during the past year, the plan should significantly improve the chances for the stability of the foreign exchange markets in the future. In the long run, of course, exchange stability will depend not only on such temporary cooperative actions but also on broader policy adjustments by individual countries to correct imbalances in their fundamental balance-of-payments positions.

The Business Situation

Increased spending by business, consumers, and government during the final months of 1961 brought new strength to the economic expansion. Business investment, both in plant and equipment and in inventories, appeared to be on the rise and was expected to move up further in the first quarter of 1962. Consumer buying, which had spurted markedly in October, rose even more sharply in November, and seemed to be holding near that new high level in December. Defense orders and spending continued to exert an expansionary influence. Partly due to this new strength in demand, industrial production in November advanced for the second month in a row; moreover, gains in steel and automobile output in December suggested a further increase in total industrial production was likely. At the same time, the seasonally adjusted rate of unemployment moved sharply downward, to just above 6 per cent in November, after eleven consecutive months near the 7 per cent level.

RISE IN DEMAND

The latest survey of businessmen's capital spending plans and actual outlays, conducted in October and early November by the Commerce Department and Securities and Exchange Commission, showed that plant and equipment expenditures were expected to rise to $35.9 billion (seasonally adjusted annual rate) in the final quarter of 1961, up 3½ per cent over actual outlays in the preceding quarter. The estimated gains were widespread, with only spending by railroads due to decline. While both manufacturers of nondurables and mining firms had apparently scheduled somewhat smaller outlays than had been anticipated in last August's survey, such shortfalls are not uncommon during the early stages of a business upturn.

Total capital outlays were scheduled to increase further, by 1½ per cent to $36.5 billion, in the first quarter of 1962; only public utilities and transportation industries other than railroads planned to reduce their spending. The outlays expected for the first quarter of 1962 were almost 8 per cent above the level of capital spending four quarters earlier (i.e., in the first quarter of 1961), when the business cycle reached its trough. At similar stages of both of the two preceding business expansions, capital spending schedules for the fourth quarter after the trough showed a somewhat smaller gain from the level that had prevailed during the trough quarter (see Chart I). In those two previous cycles, moreover, the total outlays that were actually realized four quarters after the trough were higher than had been anticipated, even though a few individual industries spent less than originally planned.

That capital expenditures might again rise beyond the indicated levels is suggested by the recent gains in business sales—gains which may well have exceeded the expectations held when the survey was taken. At the time of the survey, sales were just recovering from the third-quarter slowdown which had culminated in the September sales decline. In October, however, total business sales moved up nearly 2 per cent to a record $63 billion (seasonally adjusted), mainly on the strength of advances in sales by manufacturers and retailers of durable goods. In November, seasonally adjusted sales by manufacturers of durables increased an additional 3¼ per cent, with almost all industries sharing in the gain.

In retail establishments, cash registers rang up a record $19.3 billion in November—3½ per cent more than in October and the first monthly sales volume to surpass the pre-recession peak. Continued strength in retail sales appeared to be evident in December, as Christmas shoppers pushed department store sales up by more than 1 per cent, seasonally adjusted. Sales of new automobiles, which normally decline in the pre-Christmas season, did so last month (although perhaps somewhat more than is cus-

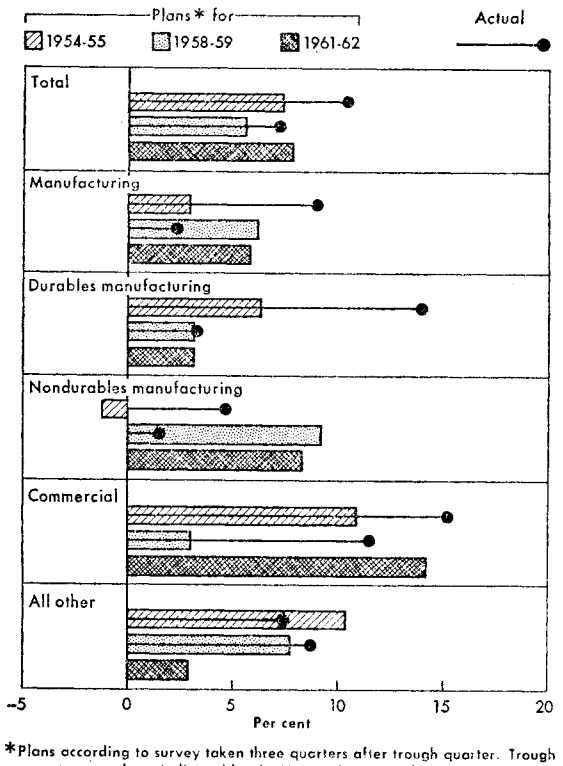
tomary), but dealers expected a strong demand to re-emerge in the new year. Further gains in retail sales in 1962 may be foreshadowed by the steady expansion in consumer incomes, which advanced another 1 per cent in November. The sharp October rise in newly extended consumer credit highlights the recent increase in the consumer's readiness to spend.

In addition to the possibility of further gains in final demand, the rate of inventory accumulation, particularly by manufacturers, may be increasing. According to a Commerce Department survey taken in November, manufacturers expected their (seasonally adjusted) inventories to reach $55.3 billion by the end of December—$0.9 billion above the end-of-September level—and were scheduling an additional $1 billion increase by March 1962. Manufacturers of durable goods account for the major portion of the planned first-quarter 1962 increase. This probably in part reflects hedging against a possible steel strike in mid-year. Such hedging may already have been in evidence in December, after the survey was taken, as steel users began to hop on the "order now" bandwagon, causing an appreciable rise in backlogs of unfilled orders in the steel industry.

Chart I

PLANT AND EQUIPMENT SPENDING PLANS IN THREE EXPANSIONS

Percentage increase from trough quarter to four quarters later
Seasonally adjusted



*Plans according to survey taken three quarters after trough quarter. Trough quarters are those indicated by the National Bureau of Economic Research chronology: III-1954, II-1958, and I-1961.

Sources: United States Department of Commerce; Securities and Exchange Commission.

EFFECTS ON PRODUCTION AND EMPLOYMENT

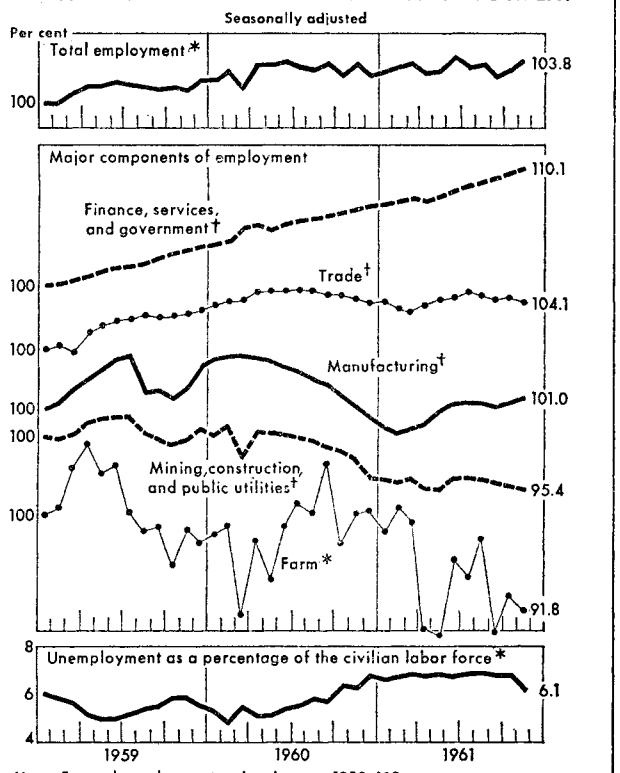
Responding to higher levels of demand, the index of industrial production in November moved up 1 per cent to a record 114 per cent of the 1957 average. Output by manufacturers of nondurable goods and by mining and utilities firms each advanced about ½ of 1 per cent. The largest gain, a 2 per cent rise over October, was scored by durables manufacturers. This resulted primarily from an increase in automobile output, which was no longer hampered by strikes and was spurred on by the sharp rise in the demand for new cars. More automobiles were produced this past November than in any November since 1955. In December, when auto production normally slows down, output in the first three weeks continued at the high November level, as producers sought to augment dealer's relatively modest inventories. For the month as a whole, auto output rose more than 9 per cent (seasonally adjusted) above the November pace. Also pointing to a December increase in industrial production was a rise in steel output. Toward the end of the month, unofficial estimates showed steel producers operating at about 75 per cent of capacity—up from around 70 per cent estimated for the end of November.

In contrast to the expansionary trend in most major sectors as 1961 drew to a close, total construction activity in December declined about 2 per cent (seasonally adjusted). The decrease reflected sharp reductions in highway outlays and in construction for military purposes, which more than offset a fairly substantial gain in private residential construction. Outlays for private residential building have now advanced for ten consecutive months and in December were higher than at any time since September 1959. According to Department of Commerce forecasts, private housing starts are expected to show an increase in 1962 over the average for 1961. The predicted 1962 average, however, is not much different from the rate of starts reached this past October, thus implying a possible leveling-off in outlays for residential construction in the coming months.

The general expansion in business activity helped to push up seasonally adjusted total employment in November by about 1 per cent (see Chart II) to 67.2 million persons. This was only fractionally below the record level of employment reached last June. The unevenness of November's

Chart II

RECENT TRENDS IN EMPLOYMENT AND UNEMPLOYMENT



Note: For each employment series, January 1959=100.
*Census Bureau household survey.
†Bureau of Labor Statistics payroll survey.
Sources: United States Departments of Commerce and Labor.

improvement was highlighted by the fact that a gain of more than 500,000 persons in nonfarm employment (as measured by the Census Bureau's household survey) was partly offset by a decline in the number of persons at work in agriculture. Nonfarm employment according to the Bureau of Labor Statistics payroll survey rose only slightly in November and was similarly characterized by divergent movements in major components. The largest gain came in manufacturing employment, which advanced to 3 per cent above last February's figure. There were also increases in the number of persons at work in finance, services, and government, as employment in each of these sectors continued its long-term upward trend. In contrast, fewer persons were employed in trade, construction, and public utilities, while mining employment increased only slightly.

The civilian labor force showed only a small rise in November. As a result, the substantial gain in employment brought seasonally adjusted unemployment down to 4.3 million persons; since December 1960 unemployment had been near the 5 million mark. The drop in unemployment —which, if alternative seasonal adjustment techniques are used, appears to have begun earlier and proceeded more gradually—pushed the unemployment rate (unemployment as a percentage of the civilian labor force) down to 6.1 per cent in November, the lowest rate reported since September 1960 (see Chart II). The November decline in unemployment was fairly widespread geographically. The Labor Department reduced to 60 the number of the country's 150 major labor market areas classified as having substantial unemployment (an unemployment rate of 6.0 per cent or higher). In October the number had been 68. It is interesting to note, however, that in November 1958 (which came at roughly the same stage of the business expansion) the unemployment rate also dropped sharply, from 6.9 to 6.1 per cent, but that it was not until six months later, in May 1959, that the rate fell another percentage point to 5 per cent.

PERSPECTIVE ON 1961

Each year in February the Federal Reserve Bank of New York publishes *Perspective,* a 12-page illustrated review of economic and financial developments in the preceding year. Many businessmen find *Perspective* useful as a layman's summary of the economic highlights treated more fully in the Bank's *Annual Report.* If you would like to receive without charge *Perspective on 1961* when it appears in mid-February, write to the Publications Section, Federal Reserve Bank of New York, 33 Liberty Street, New York 45, N. Y. For those who are not familiar with this publication, copies of *Perspective on 1960* are available upon request as long as the supply lasts.

The Money Market in December

The money market remained generally easy through the first three weeks of December, but in the fourth week year-end portfolio adjustments and the aftereffects of the reserve impact of tax and other borrowing in money center banks sharply increased market pressures. Thus the effective rate for Federal funds fluctuated in a fairly narrow range between 2 and 2¾ per cent through December 22, but generally held at the 3 per cent "ceiling" thereafter. Similarly, dealer loan rates posted by major New York City banks were in the neighborhood of 2¾ per cent during the first three weeks, but rose as high as 3¾ per cent in the fourth.

Rates on short-term money market instruments tended toward firmness through the entire month. Treasury bill rates rose to new highs for the year when average auction rates on December 29 climbed to 2.70 per cent and 2.94 per cent, respectively, for the three-month and six-month issues. As Treasury bill rates moved into higher ground and as the outstanding volume of other money market instruments increased, rates on these instruments moved up as well. The rate increases on short-term instruments followed the change in Regulation Q announced by the Board of Governors of the Federal Reserve System after the close of the securities markets on December 1. Under the Regulation as amended, effective January 1, 1962, member banks are permitted to pay up to 3½ per cent on all savings deposits and on time deposits having a maturity of at least six months, and up to 4 per cent on savings deposits left in the banks for one year or more and on time deposits having a maturity of at least one year. The maximum rate previously in effect was 3 per cent. In the announcement of the change in Regulation Q, the Board stated that its action was designed to increase the freedom of member banks to compete for savings and time deposits, including foreign deposits that might otherwise move abroad in search of higher returns. During December a substantial number of banks in New York and elsewhere announced that they would be paying higher rates in 1962.

Interest rates on longer term securities tended to rise somewhat during the first half of the month, as the markets reacted to the revision of Regulation Q, the improved tone of business, and the relatively heavy overhang of unsold corporate and municipal as well as Government securities in dealers' hands. By mid-December, however, following a month-long decline of prices, investor sentiment improved somewhat, bonds released from syndicate agreements found better investor acceptance at moderately higher rates, and dealer inventories were worked down. On December 18, the Treasury announced the results of its exchange offering made in November to holders of $970 million of Series F and G Savings bonds maturing in 1962. Holders of $320 million of Savings bonds accepted the Treasury's offer to exchange them into 3⅞ per cent Treasury bonds maturing May 15, 1968.

MEMBER BANK RESERVES

Operating transactions absorbed some $600 million reserves during the first two statement weeks of the month, as a decline in float during the first week was followed by a sizable pre-Christmas outflow of currency in the second. In the second half of the month, however, operating transactions added $860 million reserves, particularly in the third week when a record-high increase in float provided nearly $900 million reserves. This more than offset the sharp rise in required reserves that resulted from the midmonth and year-end bulges in loans to corporations making tax and dividend payments and to Government securities dealers. The pressures of year-end loan demand tended to be concentrated in the money center banks. As a result, these banks acquired sizable amounts of Federal funds and, in addition, borrowed fairly substantial sums from their Federal Reserve Banks. Such borrowings averaged more than $100 million and $200 million, respectively, in the third and fourth statement weeks of December.

System open market operations in December generally offset the fluctuations in reserves stemming from market factors. During the first two statement weeks, System operations supplied $460 million of reserves, while absorbing about $440 million in the second half of the month. Between Wednesday, November 29, and Wednesday, December 27, System holdings of securities rose by $265 million, with holdings maturing within one year increasing by $471 million and holdings in the more-than-one-year category declining by $206 million. The maturity distribution of System holdings during the month was influenced by the passage of one issue held by the System Account from the more-than-one-year to the less-than-one-year category.

Changes in Factors Tending to Increase or Decrease Member Bank Reserves, December 1961

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

Factor	Daily averages—week ended				Net changes
	Dec. 6	Dec. 13	Dec. 20	Dec. 27	
Operating transactions					
Treasury operations*	— 46	+ 38	— 143	+ 88	— 63
Federal Reserve float	— 213	+ 84	+ 877	+ 286	+ 1034
Currency in circulation	— 74	— 360	— 135	— 99	— 668
Gold and foreign account	— 6	— 45	— 9	— 23	— 83
Other deposits, etc.	— 45	+ 42	+ 38	— 23	+ 12
Total	— 384	— 241	+ 627	+ 231	+ 233
Direct Federal Reserve credit transactions					
Government securities:					
Direct market purchases or sales	+ 514	+ 60	— 327	— 162	+ 85
Held under repurchase agreements	— 114	—	—	+ 48	— 66
Loans, discounts, and advances:					
Member bank borrowings	— 66	+ 5	+ 69	+ 107	+ 115
Other	— 1	— 1	—	+ 2	—
Bankers' acceptances:					
Bought outright	+ 1	+ 2	+ 2	+ 2	+ 7
Under repurchase agreements	—	—	—	—	—
Total	+ 334	+ 65	— 256	— 2	+ 141
Member bank reserves					
With Federal Reserve Banks	— 50	— 176	+ 371	+ 229	+ 374
Cash allowed as reserves†	— 127	+ 153	+ 110	— 106	+ 30
Total reserves†	— 177	— 23	+ 481	+ 123	+ 404
Effect of change in required reserves†	—	+ 47	— 475	— 140	— 568
Excess reserves†	— 177	+ 24	+ 6	— 17	— 164
Daily average level of member bank:					
Borrowings from Reserve Banks	35	40	109	216	100‡
Excess reserves†	544	568	574	557	561‡
Free reserves†	509	528	465	341	461‡

Note: Because of rounding, figures do not necessarily add to totals.
* Includes changes in Treasury currency and cash.
† These figures are estimated.
‡ Average for four weeks ended December 27, 1961.

THE GOVERNMENT SECURITIES MARKET

A heavy tone developed in the market for Government notes and bonds during the first half of the month, as the announcement of the revision of Regulation Q was interpreted by some market participants as perhaps setting the stage for less easy credit conditions and a general rise in interest rates in the future. A similar interpretation was placed on the growing volume of optimistic business news, including the rise in the Federal Reserve index of production for November, the rising level of consumer spending, the increased demand for steel, and the surge of stock market price indexes to all-time highs on December 12-13. Fairly sizable offerings by investors and professionals of intermediate- and long-term issues appeared on the market intermittently during early December, with selling pressure centered on relatively new or recently reopened issues still in the process of market absorption. The 3⅞ per cent bonds of 1974, for example, which had begun the month at $98^{8}/_{32}$ traded as low as 97 on December 13 before closing at $97^{8}/_{32}$. (This issue was reopened by the Treasury in a November refunding at 99.) Liquidation by investors also developed in the 2½ per cent "tap" issues, one of which fell as much as a point by mid-December.

In the latter part of the month, liquidation tapered off and prices tended to stabilize. A feeling developed in the market that, after four weeks of price declines, the levels reached in mid-December might be sustainable for a time. This view was buttressed by a stronger tone in other bond markets and by weakness in the stock market. From mid-December to the month end, prices of Treasury notes and bonds moved generally 20/32 higher to 8/32 lower. Trading volume during most of December was light, although activity picked up a bit in the latter part of the month as commercial banks and others switched the maturity composition of their portfolios, primarily for tax purposes.

In the Treasury bill market, rates held at a generally higher level than during any prior month of the year, with outstanding three-month bills fluctuating narrowly around 2.60 per cent and six-month bill rates holding to a range between 2.85 and 2.90 per cent for most of the month. During the last week of the month, rates moved up further to reach 2.72 per cent and 2.97 per cent, respectively, for the two maturities. The upward movement of bill rates, which began in November, followed from expectations of increased credit demands, the change in Regulation Q, and a tighter money market toward the end of December.

Rates on other short-term instruments also rose during the month as a result of the growth in outstanding volume of these instruments in late 1961, as well as the rise in Treasury bill rates. The volume of bankers' acceptances outstanding rose by more than $60 million in November, to reach another record high (nearly $2.6 billion), while commercial paper outstanding rose by more than $200 million, reaching a record for the month ($5.3 billion). In the first half of December, the major sales finance companies selling paper directly to investors raised rates on two- to eight-month maturities by ⅛ to ¼ per cent, bringing the rate on 60- to 89-day maturities to 2¾ per cent. On December 15, dealers raised their rates on commercial paper by ⅛ per cent, making the rate on four- to six-month paper 3¼ per cent. Dealers in bankers' acceptances raised their rates by ⅛ per cent on December 14, and again on the 19th, bringing the rate on maturities up through 90 days to 3 per cent (offered).

OTHER SECURITIES MARKETS

The market for tax-exempt securities showed some heaviness early in the month, and a number of issues offered in preceding months and not fully distributed were "cut loose" from syndicate price restrictions. Subse-

quently, the tone of the market improved in line with developments in other sectors of the capital markets, and in response to buying by commercial banks trying to improve their earning power in the light of anticipated higher rates on savings deposits permissible after the first of the year. The Blue List of advertised dealer offerings was worked down from a near-record high of about $550 million early in the month to less than $400 million on December 19—the lowest level since September. Following the usual lull in new offerings in the final week of the year, the Blue List total was cut back further to $330 million at the year end. As the tone of the market improved, prices of issues released from syndicate restrictions early in the month rose from the levels reached immediately following syndicate terminations. Moody's average yield on seasoned Aaa-rated tax exempts stood at 3.31 per cent at the year end, unchanged for December.

The volume of new tax-exempt offerings during December remained relatively heavy at $555 million; this compares with $725 million in November and $440 million in December 1960. Investor response to new tax-exempt offerings ranged generally from fair to good. The largest tax-exempt issue of the period was a $157 million Florida Turnpike Authority 4¾ per cent revenue bond issue which will mature in 2001 and is noncallable for twelve years. Reoffered to yield 4.81 per cent, the issue was fairly well received.

The market for seasoned corporate bonds generally followed the same pattern as the market for tax exempts, steadying in the second half of the month following some price markdowns early in December. Although the announcement on December 20 of a $300 million utility flotation in February 1962 turned the market a bit easier, prices subsequently recovered. Over the month as a whole, Moody's average yields on seasoned Aaa-rated corporates rose by 6 basis points to 4.44 per cent. The volume of new offerings declined to $165 million in December, compared with $400 million in November and $300 million in December 1960. Most issues received a favorable investor response.

Turnover of Business Loans at New York City Banks*

At one time a bank's loan portfolio was regarded as sound only if it consisted largely of short-term "self-liquidating" business loans. This view is no longer widely held, as indicated by the sizable volume of term loans now outstanding. Nevertheless, there has been some concern that the trend toward longer term bank lending may entail certain drawbacks. In particular, term lending on an unduly large scale by commercial banks might eventually deprive some classes of borrowers of their only source of short-term credit. Some questions are also being raised as to whether the emergence of too large a proportion of long-term commercial bank loans might reduce the mobility of credit among industries and regions, and hamper the ability of the financial mechanism to make possible the rapid shifts of resources required in a dynamic economy.

This article presents new information on actual turnover rates and maturity patterns of bank loans. These data have been derived from the statistics on business loans outstanding and on loan extensions and repayments that are reported weekly by the large New York City banks. Similar information for certain other types of loans is also included.

MEASUREMENT OF LOAN MATURITIES

At least three different concepts of loan maturity are relevant for analytical purposes. These might be labeled as (1) original term, (2) effective time to maturity, and (3) actual duration of a loan. The *original term* concept is now employed in the series on "Commercial and Industrial Loans Outstanding at Large New York City Banks by Industry and by Term" issued weekly by this Bank.[1] Loans are classified in these statistics on the basis of the term of the loan at the time it was made. If, for instance, the original term of a note is one year or less, the loan is classified as a short-term loan; if the original term is more than one year, the loan is regarded as a term loan. It then remains in that category throughout its life.

Effective time to maturity may be defined as the length

* George Budzeika, Economist, Financial and Trade Statistics Division, had primary responsibility for the preparation of this article.

[1] These statistics were described in an article "Term Lending by New York City Banks" in this Bank's *Monthly Review* for February 1961, p. 27.

of time remaining till the due date of the loan. If repayment has been scheduled in instalments, there will be a series of due dates, and the time to maturity of the loan as a whole will be an average calculated on the assumption that each instalment represents full repayment of a separate and distinct loan.[2] The effective-time-to-maturity concept thus refers to the anticipated life of loans outstanding as of a given date. Changes in effective maturity are a useful index of changes in maturities of new loans and in the volume of repayment flows. Effective time to maturity differs from the concept of original term, which similarly refers to the anticipated life of loans, in two major ways. First, the passage of time affects the remaining time to maturity of a given loan, but not its original term. A loan originally contracted for, say, five years would after four years have only one year left to run; its original term, in contrast, would remain five years. Secondly, original term on an instalment loan is determined by the due date of the last repayment, while effective maturity recognizes that the average maturity of an instalment loan is shorter than that of a single-payment loan of identical term.

The *actual duration* of a loan may be described as the length of time for which the loan actually stayed on the books.[3] This is determinable, of course, only after the loan has been repaid. As far as an individual loan is concerned, calculation of the actual duration is relatively simple. It is, however, a much more complex matter, both conceptually and statistically, with respect to an entire loan portfolio, chiefly because during any period of reasonable length the same dollar may be lent, repaid, and relent several times, possibly to several different borrowers. A rough indication of average actual duration is given by the loan turnover rate. This rate is derived by dividing the volume of loan repayments over a given period by the average level of loan balances during that time. Thus, if loans outstanding over a year averaged $200 million, while total repayments amounted to $100 million, the annual loan turnover rate would be one half and the average actual duration of a loan dollar approximately two years.

Average loan duration, as calculated from the turnover figures, of course refers to the average life of loans in a past period. It does not necessarily indicate the time to maturity of loans outstanding at the end of the period or the typical or average term for which loans have been extended during the period.[4] The average duration of loans is a useful indicator, however, of changes in the over-all maturity structure of loans. For example, if the average duration of loans has been declining for some years, the over-all maturity structure of the loan portfolio has probably shortened during that period. On the other hand, if the actual duration of loans has been rising, the average maturity of the loan portfolio has presumably lengthened.

The present article is primarily concerned with the actual duration of loans, since this is the most useful concept for historical analysis of changes in the business loan maturity structure.

THE MATURITY AND TURNOVER STRUCTURE OF LOANS AT NEW YORK CITY BANKS IN 1961

SHORT-TERM BUSINESS LOANS. The rate of turnover of short-term business loans (i.e., loans with an original term of one year or less) at large New York City banks in 1961 was calculated at about 6.5 times a year (Table I).[5] This figure was arrived at by dividing the reported annual total of loan repayments by average weekly outstandings for all short-term loans. The loan repayment figures used include what might be called "bookkeeping" repayments: repayments of short-term loans that are immediately renewed.

As can be seen from the table, the turnover rates for a few categories of business loans were much greater than those for most others. Loans to commodity dealers and holdings of bankers' acceptances were calculated as having a turnover rate of fifteen times a year and an average duration of twenty-four days; loans to tobacco manufacturers were turned over about twenty-nine times a year and had an average duration of only thirteen days. The relatively high turnover rate for loans to tobacco manufacturers reflects semimonthly borrowings from banks for payment of the excise taxes. These loans are then repaid from sales receipts.

[2] The average time to maturity for a given loan or 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.

[3] Again, account has to be taken of any partial repayments that may have preceded the final due date.

[4] The actual duration of a loan may differ from its original term or from the effective time to maturity, because some borrowers may repay loans ahead of schedule while others receive extensions or renewals beyond the originally set repayment dates. In some instances, the right to renew the loan is given to the borrower in a formal agreement. Loans granted under such agreements are usually referred to as revolving credit loans and are classified in this Bank's weekly statistics as term loans. In many instances, however, renewals of short-term loans are granted more or less routinely even though no formal agreement exists. Because of the difficulty of identifying such loans, they are classified as short-term loans in the weekly statistics.

[5] The turnover estimate actually refers to a 52-week period starting with the week ended October 5, 1960 and terminating with the week ended September 27, 1961.

When loans to these few groups were excluded from the calculation of over-all turnover, the average for the remaining 86 per cent of business loans amounted to 4.7 times a year, giving an average duration of seventy-eight days. The turnover rates and loan durations ranged from 3.1 times and 118 days for loans to construction concerns to 5.4 times and sixty-eight days for loans to food and liquor producers.

"GENUINE" VERSUS "CONTINUOUS" SHORT-TERM BUSINESS LOANS. The reported rate of turnover of somewhat over four times annually for most loan groups conforms to the standard description of short-term loans as typically having a maturity not exceeding ninety days. In fact, however, the actual duration of these loans appears to average considerably longer than ninety days because many of these nominally short-term loans are continuous—that is, they are immediately renewed whenever they come to maturity.

For the purpose of this discussion, a *continuous* loan is defined as a loan with an original term of one year or less that has actually remained continuously on the books for more than a year. In principle, the way to determine whether an individual loan account is continuous is to inspect the daily loan balances in the account over a whole year. If the loan account has been fully "cleaned up" at least once, then the loan is not a continuous short-term loan. If, however, the loan account was not cleaned up during the one-year period, the lowest balance observed during the year is said to represent the amount of continuous borrowing.

Direct measurement of the actual amount of continuous loans by inspection of individual loan accounts would be a statistical undertaking of major magnitude. However, rough approximations of the order of magnitude of continuous loans at New York City banks in 1961 are derivable from data for extensions and repayments of business loans, which in turn permit inferences as to the volume of renewals. Once an approximate figure for the dollar volume of renewals is obtained, the dollar volume of continuous loans can be estimated by dividing the volume of renewals by the number of renewals, which is related to the rate of turnover of short-term loans generally.[6] If, for example, an outstanding loan of $100 is renewed four times during a year at evenly spaced intervals (so that total renewals for the year amount to $400), then $100 can be said to have been outstanding in continuous loans.

On the basis of this method, an amount approaching half the average volume of short-term loans outstanding at the City banks during 1961 appeared to be continuous. The highest proportion of continuous loans was found to occur in wholesale trade, metal manufacturing, and "other" manufacturing. The proportion seems to be negligible for such borrower groups as tobacco manufacturers and

Table I

RATE OF TURNOVER OF SHORT-TERM BUSINESS LOANS BY INDUSTRY GROUPS, AT LARGE NEW YORK CITY BANKS OCTOBER 1960 — SEPTEMBER 1961

Industry group	Annual volume of repayments (in millions of dollars)	Average amount outstanding		Annual rate of turnover	Average duration in days
		In millions of dollars	As per cent of total		
Manufacturing and mining:					
Food and liquor	1,250	230	5	5.4	68
Tobacco	3,430	120	3	28.6	13
Textile, apparel, and leather	2,320	520	11	4 5	81
Metals and metal products	4,790	970	21	4.9	75
Petroleum, coal, chemicals, and rubber	1,020	230	5	4.4	83
Other manufacturing and mining	1,420	340	7	4.2	87
Trade	3,110	620	13	5.0	73
Commodity dealers	4,290	280	6	15.3	24
Public utilities (including transportation)	2,210	450	10	4.9	75
Construction	440	140	3	3.1	118
All other business loans:					
Bankers' acceptances held	3,740	250	5	15.0	24
All other	2,020	450	10	4.5	81
Total classified loans	30,040	4,610	100	6.5	56
Memorandum item:					
All loans excluding those to tobacco manufacturing and commodity dealers, and holdings of bankers' acceptances	18,580	3,950	86	4.7	78

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

Source: Weekly reports by large New York City banks to the Federal Reserve Bank of New York.

[6] The volume of loan renewals was estimated by juxtaposing the loan extension data reported in the Weekly Reporting Bank Series with data for loan extensions shown in the Quarterly Interest Rate Survey. Loan renewals were not added to extensions (or repayments) in the Weekly Reporting Bank Series prior to 1960. Beginning with January 1960, however, reporting procedures were changed, so that renewals were included in both the loan repayment and extension figures. On the other hand, loan renewals have always been reported among extensions in the Quarterly Interest Rate Survey. A comparison of loan extension figures of both series for comparable periods in 1958 and 1961 provided the basis for estimating the dollar volume of renewals in 1961.

The average number of renewals per year of continuous loans was assumed to be four times per year, in accordance with the findings for the annual rate of turnover of all short-term loans. Short-term loans consist of genuine short-term and continuous loans. Given a turnover rate of close to four times a year for the aggregate of *all* short-term loans, and assuming the typical duration of genuine short-term loans to be close to ninety days, the nominal maturity of continuous loans must also be close to ninety days.

commodity dealers.[7]

Because of this large volume of continuous loans, the average duration of short-term loans (excluding holdings of bankers' acceptances and loans to commodity dealers and tobacco manufacturers) is in actuality about six months or more, rather than seventy-eight days.[8]

TERM BUSINESS LOANS. It was not feasible to make a separate calculation of the turnover of term loans outstanding at New York City banks by the same method, because the available statistics for term loan repayments are inflated by the inclusion of repayments of revolving credits. More detailed data covering a few of these banks suggest a turnover rate for term loans of less than ½ times per year, indicating an average duration of two to three years.

ALL BUSINESS LOANS. The results of these turnover and maturity calculations for business loans at New York City banks may be summarized as follows. The average duration for the bulk of short-term loans appears to be about six months. The remainder of short-term loans, comprising about one seventh of the total, shows a duration of about fifteen to thirty days. Assuming that the comparable figure for term loans is in fact two to three years, the average duration for all business loans, short term and long term, probably lies in the range of 1¼ to 1¾ years.[9]

OTHER LOANS. The turnover of consumer instalment loans at the City banks in 1961 was estimated at slightly more than once a year.[10] The average turnover rate for loans to nonbank financial institutions—a category that includes loans to sales and commercial finance companies, mortgage firms, and other business finance companies—was estimated at about three times a year during 1952-58. No estimates were feasible for later years.

Since no repayment figures are available, turnover rates for securities loans were estimated on the basis of weekly and daily changes in outstandings at individual New York City banks. The 1961 turnover rate of bank loans for purchasing or carrying United States Government securities was estimated as at least forty times a year, while the rate for all other securities loans appeared to be five times or more a year, implying loan durations of, respectively, at most nine and seventy-five days.

ALL LOANS. The results of the loan turnover estimates for New York City banks are summarized in Table II. As

Table II

RATE OF TURNOVER OF LOANS AT WEEKLY REPORTING MEMBER BANKS IN NEW YORK CITY, 1961

Type of loan	Average amount outstanding		Annual rate of turnover
	In millions of dollars	As per cent of total	
Loans for purchasing or carrying United States Government securities	370	2	more than 40
Loans for purchasing or carrying other securities	1,510	8	more than 5
Short-term business loans:			
Tobacco manufacturing	110	1	29
Commodity dealers	280	2	15
Bankers' acceptances	300	2	15
Subtotal	2,570	14	about 15
Other short-term business loans	4,010	22	about 2
Term business loans	5,830	32	less than ½
Loans to nonbank financial institutions	1,420	8	about 3
Consumer instalment loans	1,080	6	about 1
Subtotal	12,340	67	about 1¼
Agricultural loans	10	*	†
Real estate loans	780	4	†
Loans to foreign banks	330	2	†
Loans to domestic commercial banks	480	3	†
All other loans	1,880	10	†
Subtotal	3,480	19	†
Total	18,390	100	†

Note: Because of rounding, figures do not necessarily add to totals. The averages of loans outstanding were calculated on the basis of weekly figures for January through November 1961. The turnover figure for term loans is based on data for only a few banks. The figure for outstandings of consumer instalment loans is partially estimated. Figures for business loans presented in this table are slightly larger than those presented in Table I because of inclusion here of a few additional banks of relatively small size.

* Less than 0.5 per cent.

† Not estimated.

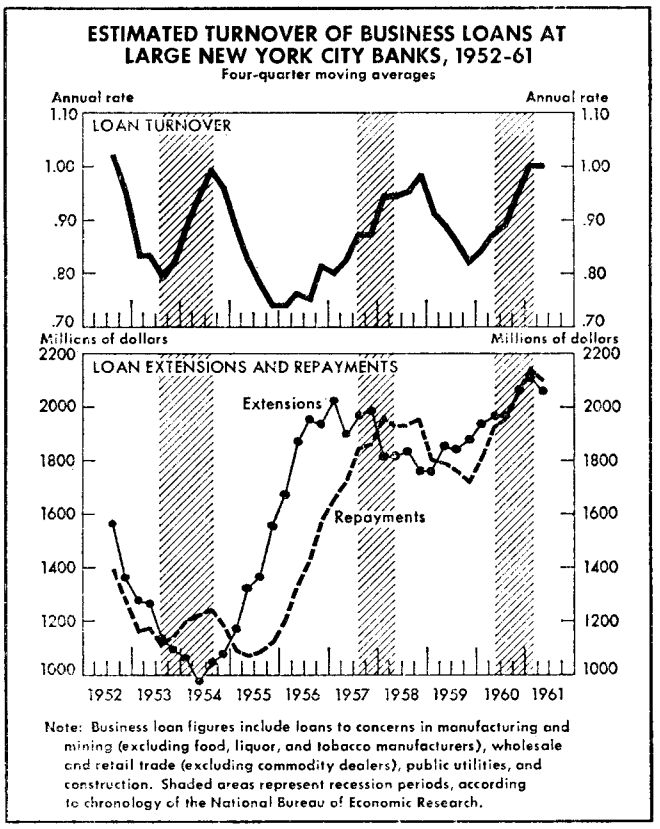
Source: Weekly reports by New York City banks to the Federal Reserve Bank of New York.

[7] These estimates refer to the dollar volume of loans outstanding only. The number of borrowers who borrow continuously in the form of short-term loans evidently is much smaller than the number of genuine short-term borrowers. Thus, if the active portion of loans turns over four times a year, and we assume that each extension is to a different borrower, then four times as many borrowers are involved per dollar of active loans outstanding than for a dollar of continuous loans.

[8] Largely similar findings were developed by the Federal Reserve Bank of Chicago in a recent study of large commercial banks in the Seventh District. These were reported in an article entitled "Liquidity of Business Loans" in the Chicago Bank's *Business Conditions* for March 1961.

[9] The average duration for all business loans was calculated by multiplying (i.e., weighting) the average duration of short-term and term loans by the corresponding dollar volumes of outstandings, summing the results, and dividing the total by the volume of all business loans outstanding.

[10] The reported turnover estimate was calculated on the basis of data for all commercial banks in the Second District. These, however, are heavily weighted by the large New York City banks.



can be seen in this table, about two thirds of the loan total (comprising the bulk of business loans, loans to nonbank financial institutions, and consumer instalment loans) was estimated as having been turned over about 1¼ times during 1961. About one seventh of the total revealed a very high turnover rate—about fifteen times per year. For about one fifth of the loan total, turnover estimates were not feasible, due to gaps in statistical reporting.

BUSINESS LOAN TURNOVER, 1952-61

TREND. Available historical information for loan turnover at the City banks suggests that there has been no major change in the average duration of business loans between 1952 and 1961, apart from cyclical swings (see chart).[11] This contrasts with the impression given by the available statistics on outstanding business loans classified according to original term. These show a rise in the proportion of term loans in the business loan total from 52 per cent in October 1955 to 55 per cent in October 1957, and 64 per cent in October 1959, followed by a drop to 61 per cent in October 1961.[12]

The failure of the average duration of business loans to rise in spite of the reported increase in the proportion of term loans can be explained by a combination of factors. First, the average duration of term loans may well have declined over these years, thus counteracting at least partially the effects of the rising proportion of term loans. Fragmentary information available for a few banks, as well as interviews and contacts with commercial bankers, tends to confirm that some shortening of the average duration of term loans has taken place on balance over the period as a whole, although probably not in every year. A further factor is the apparent conversion in recent years of some continuous short-term loans into formalized term loans or revolving credits (which are counted as term loans in existing statistics). Such conversion would not affect turnover, but would raise the proportion of loans which are classified as term loans on the basis of original term.[13]

CYCLICAL BEHAVIOR. As can be seen from the chart, the turnover rate of the total of all business loans has risen during each of the last three business recessions, as well as during some periods immediately preceding or following the recession. In 1953-54 the rise was confined to the recession period, with the turning points in both the turnover rate and in general business activity occurring at about the same time. As regards the 1957-58 and the 1960-61 recessions, however, the rise in the turnover rate started prior to the downward turning points in business activity (by about six and two quarters, respectively). Moreover, the rise in the turnover rate of 1957-58 continued after the recession had ended. The chart also reveals that the turnover rate began to decline in the early stages of the 1955-57 business expansion. The turnover rates for business loans to individual industry groups (not shown in the chart) also revealed a definite cyclical pattern. This was most pronounced for loans to manufacturers of metals and metal products and to concerns in the petroleum, chemical, coal, and rubber industries. For

[11] Turnover rates for 1952 through 1961 were calculated for loans to the following industry groups: manufacturing and mining (excluding food, liquor, and tobacco); retail and wholesale trade; public utilities; and construction. Loans to food, liquor, and tobacco producers; commodity dealers; and "all other" borrowers as well as holdings of bankers' acceptances all had to be excluded from the calculations, because their turnover figures displayed highly irregular behavior. The excluded categories accounted for about one fifth of all business loans outstanding at the City banks during 1961.

[12] These figures refer to the same industry groups for which the turnover estimates were calculated.

[13] A shortening of the over-all average duration of continuous short-term loans is another possible factor, but it is not known whether such a shortening has in fact occurred.

other industry groups, cyclical movements were much narrower.

The cyclical changes in the turnover of business loans primarily reflect the behavior of loan repayments. The rate of turnover, it may be recalled, is the ratio of loan repayments to loans outstanding. Changes in the volume of outstanding loans are determined by the relative size of loan extensions and repayments. In the case of business loans, cyclical fluctuations have on the whole been sharper for repayments than for extensions. Fluctuations in turnover, therefore, primarily tend to reflect the swings in repayments.

In general, the major factor underlying cyclical changes in business loan repayments and turnover appears to have been the strength of the business situation and, consequently, of business loan demands. The earlier stages of business expansions have been accompanied by rapid declines in repayments and thus in loan turnover. In the later stages of expansion, however, the rise in loan extensions and loans outstanding tends to slow down. At the same time, loan repayments bottom out and begin to rise, reflecting the higher volume of loans outstanding as a result of the preceding credit expansion. As repayments increase relative to loan extensions and outstandings, the turnover rate starts to rise.

With the onset of recession, the demand for business loans slackens or declines. With reduced investment in new equipment and inventories, business funds are released for the repayment of bank loans. As a result, loan extensions level off or turn down while repayments continue to rise, so that the volume of loans outstanding eventually starts to recede. With repayments continuing to rise and outstandings falling, the rise in the rate of turnover thus becomes more rapid. Finally, more or less coinciding with the end of the business contraction, repayments level off and credit once more begins to expand. The cyclical pattern starts all over again.

CONCLUDING REMARKS

On the whole, these results suggest that the actual duration of short-term loans made by New York City banks has perhaps been longer, and that of term loans shorter, than is commonly believed. The actual duration of the bulk of short-term business loans appears to be about six months, reflecting the fact that nearly half the dollar volume of these loans seems to be continuous. The duration for term loans, estimated on the basis of very limited data, appears to be on the order of two to three years.

While subject to sizable cyclical variations, the average duration of loans seems to have remained about the same over the past ten years, despite a substantial rise in the proportion of term loans. To some extent, the rise in the proportion of long-term loans shown by the statistics may simply reflect the conversion into revolving credits and formal term loans of what were previously continuous short-term loans. Moreover, maturities on formal term loans may have shortened on balance over the period as a whole.