

FEDERAL RESERVE BANK OF NEW YORK



MONTHLY REVIEW

NOVEMBER 1960

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The Business Situation

Through most of the year, the economy has been dominated by a process of business and consumer adjustment to the abatement of inflationary pressures and the dissipation of inflationary psychology. These developments have been associated with all-round ample capacity, ready availabilities of all kinds of finished goods and materials, and generally stable prices. Understandably, the repercussions of the many varied changes occurring in business practices and in the aggressiveness of consumer buying had their most conspicuous influence upon inventory accumulation. Because these changes affected in some degree all layers of production and distribution, and spread through all kinds of business and consumer planning and spending, the over-all effect has been to produce a gentle sag throughout much of the economy. By the second quarter, business profits in almost all fields had begun to feel some squeeze.

This rather unspectacular period of adaptation has continued through September and into October and may yet have some distance to go. In the area of industrial output, automobile assemblies rose more than seasonally in September, but this increase was more than offset in other industries by declines or by smaller gains than normally occur during the fall season. Similarly, spending by the various sectors exhibited divergent movements. In the consumer sector, automobile sales advanced briskly in late September and into October, but most types of retail outlets reported sales declines in September. Business spending for fixed capital, as indicated by industrial construction activity and orders for industrial machinery, has apparently changed little, but total business inventories continued to decline. Government spending, on the other hand, is increasing at the Federal as well as at the State and local levels. Largely reflecting these cross-currents, personal income in September was almost the same as in August, and total employment also showed little change.

Indeed, the entire July-September quarter was dominated by this pattern of crosscurrents. The estimate of third-quarter gross national product recently released by the Council of Economic Advisers shows that the slight decline to \$503 billion (seasonally adjusted annual rate) from \$505 billion in the preceding quarter was more than accounted for by a decrease of \$5.3 billion in spending for inventories. Final demand (GNP less the net change

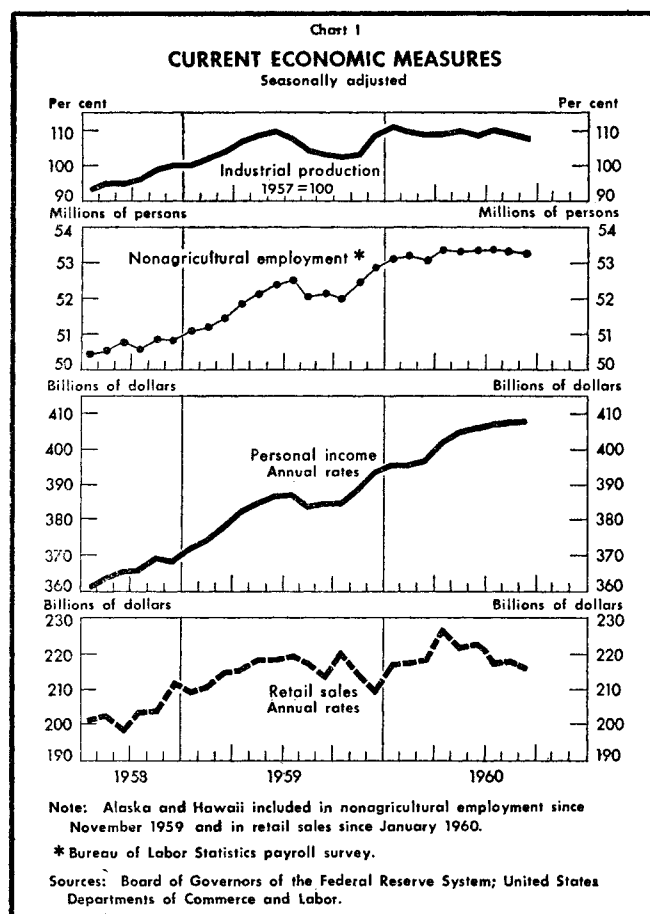
in business inventories) moved up by \$3.3 billion, although this gain was smaller than the \$9.8 billion rate of increase in the preceding quarter. There were sharp rises of \$1.9 billion in government spending, and \$1.5 billion in net exports of goods and services, but the increase of \$0.6 billion in business outlays for plant and equipment was relatively slight. Personal consumption expenditures and outlays on residential construction declined by the comparatively small amounts of \$0.5 billion and \$0.3 billion, respectively.

RECENT DEVELOPMENTS

Industrial output rose less than seasonally in September for the second consecutive month, with the result that the seasonally adjusted Federal Reserve index dropped one point (see Chart I) to 107 (1957=100). The major part of this decline was attributable to the materials industries, where the low level of steel production continued to be a drag. Slight reductions also occurred in the other market groupings. All components of the business equipment group declined except for freight and passenger equipment, and a strong advance in automobile production provided only a partial offset to reductions in other consumer goods industries. In October, steel production moved up to about 55 per cent of capacity from the September rate of about 53 per cent but was somewhat lower again in the last week of the month. Strength continued in the automotive industry, however, as output reached a new October record despite some cutbacks from original schedules.

Activity in September in the construction sector, which is not included in the Federal Reserve production index, remained mixed. The number of houses on which construction was started in September dropped sharply, seasonally adjusted, following a rise in August. Not too much significance should be read into month-to-month changes in this normally volatile series, however. Nonresidential construction, in contrast, has continued to expand. Nonresidential building contract awards in September surpassed their year-ago volume by a substantial margin, and both private nonresidential and public construction expenditures are estimated to have risen in October.

Despite some contraction in hiring by the industrial and construction sectors between August and September, total payroll employment dropped by only about 1 per cent,



seasonally adjusted (see Chart I), as employment by the finance and service industries and governments rose. Non-agricultural employment seasonally adjusted, as measured by the household survey (which includes domestics and self-employed), was maintained at the August level, while total employment rose because of an unusually large September increase in agricultural employment that was associated with an early harvest. The seasonally adjusted unemployment rate declined in September from 5.9 to 5.7 per cent, primarily because large numbers of young people left the labor force to return to school and because automobile workers, who had been laid off in August during the model change-over period, were recalled to their jobs.

Total personal income rose in September to a seasonally adjusted annual rate of \$408.4 billion. This was a record figure, but the increase from August was the smallest monthly increase this year (see Chart I). Paralleling the developments in employment, reductions in factory and construction industry payrolls were partially offset by gains in wage and salary payments by service industries and governments. Continuing increases in personal inter-

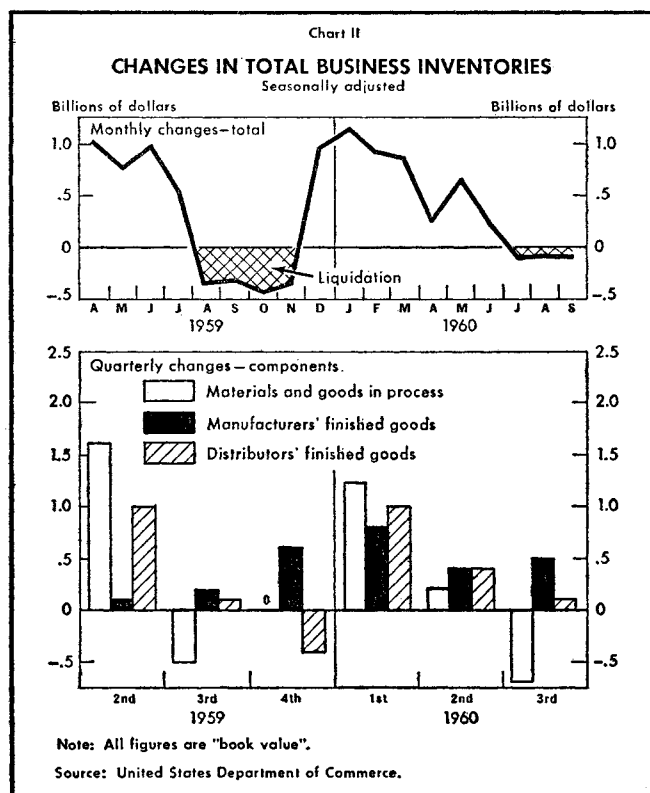
est income and government transfer payments also contributed to the advance.

Retail sales in September edged down 1 per cent from the August level (seasonally adjusted), according to the advance report, slipping slightly below the July figure (see Chart I). Declines occurred in both the durable and the nondurable goods sectors, the latter accounting for the larger part of the total decrease. Although automobile sales may have slipped in September in dollar terms, on a unit basis they showed strength, particularly at the end of the month. In October, unit sales of automobiles continued upward, the daily average during the first twenty days amounting to 6 per cent more than in the corresponding 1959 period. While some of these sales consisted of 1960 models, which are being pushed out at reduced prices, the reception of the 1961 models appears to be good. Preliminary information on department store sales also suggests increases during October in consumer purchases of other goods.

INVENTORY SPENDING IN 1960

GNP estimates for the third quarter, as noted above, clearly show the effects of substantial inventory adjustments. Indeed, wide inventory swings have been the dominant factor in changes in the level of business activity over the past two years. In the second quarter of 1959, business engaged in heavy inventory accumulation, mostly in anticipation of strikes in steel and other metals industries later that year. During the summer and fall of 1959, inventories melted away (see top of Chart II), in large part as a direct result of the prolonged steel strike. Subsequently, on conclusion of that strike in November last year, the rate of accumulation (measured by "book value") jumped to a near record but, since the beginning of this year, it has fallen by an almost equal amount. Some of the factors underlying the inventory adjustments of 1960 have already been briefly mentioned. Several are explored further here.

The decline in inventory accumulation since the opening months of this year cannot be adequately explained simply as the end of "post-strike restocking". When steel production was resumed in November, it was generally expected that several months would be required for pipelines to be refilled with steel and for production of steel-consuming goods to catch up with the backlog of demand. However, steel production reached the peak post-strike rate of 96.5 per cent of capacity within five weeks, and the output of all finished products (as measured by the industrial production index) rose in December to a level only fractionally below the preceding June peak. Inven-



tory restocking was therefore able to commence in December, considerably earlier than had been foreseen.

As 1960 began, shortages were much less severe than had been feared. The build-up of supplies prior to the strike, and the rapid rebound in production, had enabled manufacturers to maintain and even increase their inventories of finished goods throughout the strike and immediate post-strike period (see lower part of Chart II). Declines occurred in stocks at the distributive level but were limited to a few durable goods, largely transportation equipment. It is likely, therefore, that even during the restocking phase—which had probably run its course by March—some of the extraordinarily large additions to inventories may have been prompted mainly by the rather exuberant sales forecasts current in early 1960. In any event, once stocks had been rebuilt, more and more questions began to be raised within various kinds of businesses as to why stocks of such size were really necessary in the emerging conditions of 1960. If replacement orders could be filled promptly, if there were no serious reasons to expect prices of purchased supplies to rise appreciably in the near future—why expand inventories further? If practicable, why not gradually prune stocks down to a lower proportion of sales?

Paralleling the emergence of this kind of reappraisal, over-all industrial production began a slight decline in February. Price shading in certain lines and various comments from a variety of trade sources suggested widespread disappointment with markets soon after the beginning of the year. Thus, although the period of rapid inventory accumulation was not particularly long by historical standards, some of the early 1960 additions to stocks may have already been found superfluous by the end of the January-March quarter.

If this was in fact the case, the sharp decline in the rate of inventory accumulation during the second quarter of 1960 and the over-all liquidation which occurred in the third quarter appear less surprising. Despite these declines, the composition of inventory changes suggests that some unintended additions to stocks may have taken place after March. Indeed, it seemed that, in some degree, the consumer was beginning to make some of the same kinds of calculations with respect to his own purchases that the businessman was making with respect to his inventories. Perhaps that is one of the reasons why the rise in stocks of finished goods was so striking. Finished goods at the distributive and manufacturing levels combined accounted for a very large proportion of the inventory increase during the second quarter, and continued to rise in the third quarter, while stocks of unfinished goods declined. To some extent the heavy build-up in stocks of finished goods at the retail level was concentrated in a few products, such as automobiles. At the manufacturing level, however, large additions to stocks of finished goods were fairly widespread among durable goods industries, including an unusual accumulation of finished steel in the hands of steel producers. This pattern could have been an intentional response to a "buyers' market"—that is, weak demand relative to productive capacity—in which purchasing is done on a short-run basis and speed of delivery is an important tool of competition. Occurring in the face of declines in sales and some cuts in production, this pattern could also indicate further unintended inventory accumulation.

Some of the factors underlying the weak demand for inventories thus far this year may prove to be long run in nature. Various structural forces, previously concealed by cyclical movements and strike effects, may be causing a secular downtrend in the inventory level required to support a given volume of sales. Although the evidence for such a trend is not conclusive, inventory-sales ratios during cyclical expansions have been progressively lower in each of the successive postwar business cycles. At the distributive level, where the differences among recent cycles are quite clear, inventory needs have probably been

reduced relative to sales, not only by some recent shifts in the urgency of consumer buying, but also by the increasing importance of large-scale self-service stores and of chain stores with centralized order procedures and the opportunity to shift stocks quickly among branches. At both the distributive and manufacturing levels, the more flexible transportation opportunities offered by combinations of truck, rail, and air facilities have cut down the relative volume of goods "in transit". Some shifts in the composition of output may also have reduced stock needs; for instance, the rapidly growing chemical industry reportedly requires a small volume of goods in process relative to final output. Greater reliance on "production to order", increased use of high-speed computers for inventory control, and development of techniques for determining the most efficient location of plants and warehouses may all also play some part in a tendency to conserve inventories.

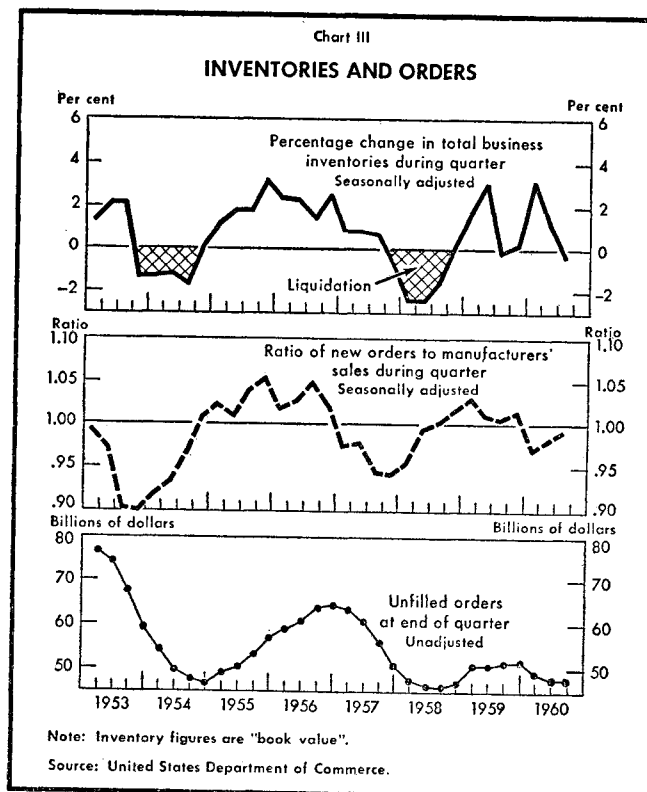
The recent behavior of inventories has also been influenced by aspects of the current economic situation that are not structural in character. To some extent, the changes in inventories themselves lead to further effects upon employment and income that in turn affect the level of sales, wholly apart from any changes that may have occurred in the purchasing done by consumers for stocking their own households. Total business sales, which bounded up sharply during the first year of recovery from the April 1958 cyclical trough, expanded subsequently at a very moderate pace, rising only slightly more than 3 per cent during the next year through April 1960. In the more recent months—May through August—sales edged down. A look at specific manufacturing industries reveals that increases in inventories during 1960 have been larger than average in industries either where sales were comparatively high (automobiles and, in the early part of the year, textiles) or where, to judge from trade reports, involuntary accumulation occurred (for example, primary metals and household appliances). Thus, whatever may be the complex of underlying reasons, it does appear reasonably clear that part of the recent weakness in inventories is a reflection of the limited expansion in sales.

There is also rather convincing support for the view that the dampening, or even reversal, of inflationary psychology has had a marked influence. The industrial commodities component of the wholesale price index has declined almost steadily, though gently to be sure, throughout the year. There is widespread evidence, too, of markedly stepped-up price competition at the retail level—though some of it may be undetected by the reporting methods used in compiling the consumer price index.

Certainly earlier fears of price markups in steel and copper, resulting from contractually scheduled wage increases, have waned.

Changes in manufacturers' future sales indicated by fluctuations in their new orders may not only reflect some scaling-back in the inventory plans of the potential purchasers, but are also of great relevance for the size of inventories that the producers themselves wish to carry. Fluctuations in total inventories (roughly one half of which are normally in manufacturers' hands) therefore tend to parallel, with a lag, movements in the ratio of new orders to manufacturers' sales. This relationship is illustrated in the top and middle sections of Chart III. The chart also shows the lower level of the new orders-sales ratio since the beginning of this year. New orders have fluctuated in a generally downward direction since December—compared to a somewhat more steady decline in sales since the first quarter—but they moved up slightly in August and September, primarily on the strength of rising defense orders. There can be little question that the flow of new orders in 1960 has reflected inventory caution at one level of business activity and has also been a dampening force on the inventories carried at another level, that of producers.

Another repercussion from declining new orders is, of



course, some chilling of manufacturers' expectations of future output. At the same time, such declines relative to sales also reduce the backlog of manufacturers' unfilled orders. Such backlogs have declined to a September level almost 8 per cent below their most recent peak in November 1959 (see bottom section of Chart III). Falling backlogs suggest a rising margin of idle capacity. This in turn raises the expectation that customers can get quicker deliveries, and thus encourages customers to reduce their own inventory levels relative to their sales. In recent months this expectation has been reinforced by the low operating rates in some primary materials industries, most notably steel.

It appears, therefore, that the recent decline in inven-

tory spending has much of the quality of "chicken and egg" that characterizes so many of the interacting influences at work in a complex modern economy. The principal visible phenomenon, however, is a closer adjustment of business inventories to the pace of business sales and orders. In turn, there is some basis for thinking that the consumer, too, has been readjusting some of his buying habits. Whatever their slackening influence upon over-all economic activity in the transitional period of gradual readjustment, these developments do reduce the possibility of an eventual, later sharp reaction to overextended inventory positions. Moreover, an upturn in sales, should it develop, is now more likely to be followed by a parallel movement in inventory levels.

Money Market in October

On balance, member bank reserve positions eased somewhat further in October. However, shifts in reserve availability during the month were somewhat wider than usual, while a relatively large part of the supply of excess reserves continued to be concentrated among banks outside the money market centers. During the greater part of the month the money market remained moderately firm, and the New York City and Chicago banks were net purchasers of Federal funds on most days. The effective rate on Federal funds generally ranged from $2\frac{3}{4}$ per cent to the 3 per cent ceiling, and rates posted by New York City banks on loans to dealers in Government securities varied between $3\frac{1}{2}$ and $4\frac{1}{2}$ per cent. In the third statement week, however, there was an exceptionally large inflow of funds to New York associated with the reserve settlement date for country banks, which caused a marked easing in the market for several days as evidenced by net sales of Federal funds by the New York City banks and by temporary reductions in rates on Federal funds, loans to dealers, and some other short-term instruments.

The market for intermediate- and long-term Government securities during October was subjected to a number of diverse influences and crosscurrents that resulted in an attitude of hesitancy and caution on the part of investors. Such influences included the Treasury's financing operations, congestion in the capital markets until late in the month, and uncertainties concerning the general outlook which were underscored by diverse interpretations of economic conditions in the press and by public officials, by the speculative flurry in the London gold market, and as usual by the approach of the Presidential election. Yields on intermediate- and long-term issues rose unevenly

to midmonth on light trading and then gradually declined, showing little change on balance over the period. Treasury bill rates, after rising early in the month, declined over most of the balance of the period to reach the lowest levels of the year, but they rose slightly toward the end.

On October 26 the Board of Governors of the Federal Reserve System announced several changes in its Regulation D affecting member bank reserve requirements. Effective November 24, member banks will be able to count all of their vault cash toward satisfying reserve requirements, whereas previously only amounts in excess of certain prescribed percentages of net demand deposits were so eligible. Also effective November 24 the reserve requirement against net demand deposits for country banks, which obtain the greatest advantage from the change in vault cash procedures, will be increased from 11 per cent to 12 per cent, and on December 1 the reserve requirement of central reserve city banks will be reduced from $17\frac{1}{2}$ per cent to $16\frac{1}{2}$ per cent. These changes, on balance, will release about \$1.3 billion of member bank reserves at a time when seasonal reserve pressures are high.

MEMBER BANK RESERVES

Reserve losses in October from operating factors and a rise in required reserves were about offset by System open market operations. On a weekly average basis, the release of reserves by open market operations occurred mainly in the first two weeks, offsetting the reserve losses resulting from increases in currency in circulation (occasioned partly by the Columbus Day holiday), declines

in float, reductions in eligible vault cash, and the continuing gold outflow. In the third week, reserve gains from operating factors (mainly the usual midmonth expansion in float) and from a rise in eligible vault cash were only partly offset by open market operations, with the result that free reserves rose markedly. In the final statement week, however, free reserves fell as a result of a sharp rise in required reserves, arising mainly from payments for the new tax bills, and a lower average level of System Account securities holdings, stemming from sales made the previous week (in the final week, the System actually supplied reserves on a Wednesday-to-Wednesday basis through repurchase agreements with Government securities dealers). For the period September 28 to October 26 as a whole, the System increased its holdings of Government securities by \$172 million.

Total reserves averaged \$180 million higher in the four statement weeks of October than in September, while required reserves were up by \$143 million. Daily average free reserves rose to \$500 million from \$413 million in September, while excess reserves rose by \$37 million to \$666 million and borrowings from the Reserve Banks declined by \$50 million to \$166 million.

Changes in Factors Tending to Increase or Decrease Member Bank Reserves, October 1960
In millions of dollars; (+) denotes increase,
(-) decrease in excess reserves

Factor	Daily averages—week ended				Net changes
	Oct. 5	Oct. 12	Oct. 19	Oct. 26	
Operating transactions					
Treasury operations*	+ 107	- 6	- 18	- 46	+ 37
Federal Reserve float	- 146	- 6	+ 363	- 96	+ 115
Currency in circulation	- 42	- 230	- 28	+ 184	- 116
Gold and foreign account	- 73	- 45	- 42	- 76	- 236
Other deposits, etc.	- 67	+ 17	+ 105	+ 20	+ 75
Total	- 221	- 271	+ 379	- 12	- 125
Direct Federal Reserve credit transactions					
Government securities:					
Direct market purchases or sales	+ 380	+ 300	- 100	- 355	+ 225
Held under repurchase agreements	+ 109	- 60	- 132	+ 79	- 4
Loans, discounts, and advances:					
Member bank borrowings	- 25	- 52	- 74	+ 166	+ 15
Other	-	+ 1	+ 1	+ 1	+ 3
Bankers' acceptances:					
Bought outright	+ 1	+ 2	+ 1	-	+ 4
Under repurchase agreements	+ 7	- 1	- 6	-	-
Total	+ 472	+ 189	- 310	- 108	+ 243
Member bank reserves					
With Federal Reserve Banks	+ 251	- 82	+ 69	- 120	+ 118
Cash allowed as reserves†	- 101	- 36	+ 102	+ 20	- 15
Total reserves†	+ 150	- 118	+ 171	- 100	+ 103
Effect of change in required reserves†	- 58	+ 199	- 12	- 2 39	- 110
Excess reserves†	+ 92	+ 81	+ 189	- 339	- 7
Daily average level of member bank:					
Borrowings from Reserve Banks	200	148	74	240	166‡
Excess reserves†	610	691	850	511	666‡
Free reserves†	410	543	776	271	500‡

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 October 26, 1960.

GOVERNMENT SECURITIES MARKET

Following a downward drift in late September, Treasury bill rates rose in early October as dealers attempted to reduce heavy inventories in the expectation of a sizable increase in the Treasury's outstanding short-term obligations. Cautious bidding was evident in the first weekly auctions (October 3), and average issuing rates of 2.473 per cent on 91-day and 2.925 per cent on 182-day bills were 19 basis points and 20 basis points above the levels of the preceding week.

After the close of business on October 6, the Treasury announced that, in what it expected to be its last cash borrowing of the calendar year, it would offer (a) \$1.5 billion of a new one-year bill on October 11 to replace in part a \$2.0 billion issue maturing October 17 and (b) \$3.5 billion of a June 1961 tax anticipation bill on October 18 for delivery on October 21. Commercial banks were permitted to pay for the tax bill by crediting Treasury Tax and Loan Accounts. By these operations the Treasury thus raised \$3.0 billion in new money.

Although the financing plans outlined in the Treasury's announcement on October 6 were in line with what the market had expected, market rates turned up sharply in the period between this announcement and the auction of the one-year bill on October 11. In the weekly auctions on October 10, average issuing rates on 91-day and 182-day bills were 23 and 15 basis points, respectively, higher than the rates a week earlier.

By the following day, however, the tone of the market had changed, the earlier caution dissipated, and bidding that day for the new one-year bill was brisk. Total bids amounted to more than \$3.3 billion, and the average issuing rate of 3.131 per cent was well below earlier expectations. During most of the remainder of the month rates declined in response to expanded investor demand and easier credit conditions. In the final weekly auctions of the month (October 31), the average issuing rate on the 91-day bill reached a new low for the year at 2.127 per cent, which was 16 basis points below the rate in the last weekly auction of September, while the rate of 2.453 per cent on the 182-day bill was 28 basis points below the final September auction. The firmness of the market in this period was also evident in the October 18 auction of the June 22 tax anticipation bill, which was completed without any important impact on the market for outstanding issues. Bidding was relatively spirited, as commercial banks sought the accompanying Tax and Loan deposits and total tenders exceeded \$5.4 billion. Reflecting the Tax and Loan Account advantage to banks, the yield on this bill rose from an average issuing rate of 2.788

per cent to a range of 2.88 to 2.95 per cent in early trading following the auction, but closed the month at 2.74 per cent bid.

Yields on Treasury notes and bonds moved generally upward during the first half and downward during most of the second half, showing little change on balance over the month. Price declines during the first half brought long-term bond yields to their highest levels since the end of June. Among the more important factors underlying the rise in yields were (a) a relatively large backlog of recent corporate bond offerings combined with a heavy schedule of prospective new corporate and municipal offerings, (b) the lingering effects of the increased supply of long-term Government bonds involved in the September advance refunding operations and uncertainties concerning the Treasury's refunding plans for November, (c) the reluctance of investors to make long-term commitments in the light of continuing uncertainties in the business situation, and (d) caution concerning the implications of the persistent gold outflow, as well as the forthcoming election. Trading activity was generally light during this period.

In the latter half of the month, yields on notes and bonds moved generally downward under the influence of "bearish" press comments on the prospective levels of construction and industrial activity, as well as declining stock prices. Demand was also reinforced in the final days by some easing of congestion in the capital markets and by the prospect of further easing in credit conditions. For the month as a whole, average yields in the long-term sector rose by 6 basis points to 3.87 per cent, while average yields of 3.56 per cent on intermediate issues were up 5 basis points.

On October 27 the Treasury announced its November program to refund a total of \$10.8 billion in obligations maturing November 15. The maturing obligations are \$7.0 billion of 4¾ per cent certificates of indebtedness and \$3.8 billion of 2½ per cent Treasury bonds. Holders of maturing securities were given the right to exchange them at par for either (a) a 3¼ per cent 15-month note dated November 15 or (b) a 3¾ per cent 5½-year Treasury bond dated the same day. Subscription books are open from October 31 through November 2, with subscriptions accepted only from holders of the maturing issues.

OTHER SECURITIES MARKETS

Prices of seasoned corporate and tax-exempt bonds drifted lower in light trading through the middle of the

month under pressure of relatively large inventories of new issues and a heavy calendar of future offerings. An atmosphere of caution was evident as the market awaited a \$250 million utility issue, considered to be a barometer of investor sentiment. Later in the period, corporate bond prices leveled off while tax-exempt bond prices recovered their previous losses. The average yield on seasoned Aaa corporate bonds, as measured by Moody's series, rose by 3 basis points over the month to close at 4.30 per cent, while the yield on similarly rated tax-exempt bonds declined 1 basis point to 3.17 per cent.

The volume of new corporate bond flotations expanded to an estimated \$669 million in October, substantially more than the volume of September this year or October 1959. The largest offering was a utility issue of \$250 million 4¾ per cent Aaa-rated bonds due 1992 and re-offered on October 25 to yield 4.65 per cent. These bonds, which are nonrefundable for five years, initially met with only a fair reception, but they subsequently sold out quickly. Other sizable corporate issues offered during the month had mixed receptions. In some cases prior to the final week investor resistance to prevailing interest rates was fairly pronounced, and several syndicate agreements were terminated with a substantial amount of undistributed securities. In contrast to the large volume of corporate issues, new tax-exempt bond flotations declined to an estimated \$287 million in October from \$632 million in September. A substantially larger volume of tax-exempt bond flotations had been expected, but a number of bids were rejected and issues postponed because interest costs were considered too high. Receptions accorded new tax-exempt issues were also mixed.

Rates on directly placed sales finance company paper were reduced by varying amounts during the month. These companies on October 19 changed the maturity classification of such paper from the customary ranges of 30-59, 60-89, and 90-119 days to two shifting periods. One period ranges from 30 days after issue date to December 31, while the second runs from January 3 to 119 days after issue date. At the end of September sales finance companies were quoting the rate on 60- to 89-day paper at 3 per cent. With the establishment of the two new maturity categories on October 19, rates were posted at 2½ and 3 per cent, respectively. Subsequently, these rates were cut to 2 per cent and 2¾ per cent where they stood at the end of the month. On October 19 and 26 commercial paper dealers reduced the offered rate on prime four- to six-month paper by ¼ per cent, bringing the rate down from 3¾ to 3½ per cent.

The Market for Dollar Deposits in Europe

By ALAN R. HOLMES AND FRED H. KLOPSTOCK*

In recent years a broad and active market for dollar deposits has emerged in Europe. In this market, generally referred to as the Continental or Euro-dollar market, European and other foreign banks place and accept for varying time periods deposits held at banks in the United States. The banks accepting such deposits employ them for various types of loans and investments either in the form of dollars or other currencies. The attractiveness of this market for dollar deposits partly derives from the fact that interest rates paid by foreign banks have generally been higher than those paid by United States banks on time deposits, or obtainable on money market instruments of similar maturity in New York. In addition, European banks offer interest on call and very short-dated deposits, a practice that is forbidden by law in the United States. Any estimate of the volume of dollar deposits placed in the market rests on tenuous grounds, but the total is believed to exceed \$1 billion. Since many European banks that obtain dollar deposits in this market redeposit these funds with other banks (i.e., act as intermediaries), the over-all volume of dollar interbank deposit claims outstanding abroad may well be a multiple of the amount cited above. Variations in the volume of trading are, however, sizable, since the market is highly fluid, being directly influenced by shifts in national monetary policies, by changes in bank liquidity, and by changes in international interest and exchange rate differentials. A market of this size and scope clearly warrants examination, particularly because of its implications for the position of New York City as an international financial center, for the dollar as a world currency, and for the European banking and money market structure.

HISTORY OF THE MARKET

The original impetus for the postwar development of the Continental dollar market is believed to have arisen from the desire of several banks in Eastern Europe to leave their dollar balances with their correspondents in France and England rather than carrying them in their own name in the United States. In making use of these and other

dollar balances, the correspondent banks found a number of outlets, often involving the offer of these funds to foreign banks in need of dollar finance, at rates somewhat lower than would be paid for credits from United States banks. Before long other holders of dollar balances took advantage of the growing demand for this relatively inexpensive dollar accommodation, and soon an active market for dollar deposits began to develop, notably in Paris and London.

Further stimulus was given to the market in the fall of 1957 when sterling came under pressure. At that time, the British authorities put restrictions on the use of sterling for the refinancing of foreign trade credits to nonresidents; they also banned sterling acceptance credits covering trade between countries outside the sterling area. British banks then offered their customers and correspondents dollar facilities to take the place of the prohibited sterling credits, obtaining the requisite balances in the Continental dollar market. Toward the end of 1957 and particularly in the spring of 1958 the new demand met with a rapidly increasing supply, as sizable European acquisitions of dollars, and easier credit conditions internally, brought many European banks into the market in search of attractive outlets for their surplus funds.

By mid-1958, the market was well established, but it did not assume really impressive proportions until the end of that year when rates paid abroad for dollar deposits rose well above the maximum interest rates that banks in the United States were permitted to pay for time deposits under Regulation Q of the Board of Governors of the Federal Reserve System. Many European banks that had been reluctant to enter the market on a large scale then became active participants on the supply side.

The introduction of nonresident convertibility throughout Western Europe at the end of 1958, as well as the further relaxation of exchange controls in some countries, also contributed to the broadening of the Continental dollar market. The emergence at that time of a fully integrated and active foreign exchange market enabled banks to take in deposits denominated in foreign currencies, "swap" them into dollars, and use the dollars for investment in the Continental dollar market. (In such a swap transaction the foreign currency deposit is used to pur-

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chase dollars "spot"—i.e., for immediate delivery; and simultaneously, so as to hedge against adverse exchange fluctuations, dollars are sold "forward" for delivery and payment at about the time the foreign currency deposit must be repaid.) In several countries, moreover, banks were permitted freely to swap their own currencies into dollars.

By 1959, the Dutch, Swiss, Scandinavian, and for a limited period the German banks had become the source of substantial funds offered in the market. During the course of the year several central banks in Europe and Southern Asia, as well as some banks and other holders in the oil-producing areas of the Near East and even private corporations including foreign subsidiaries of United States companies, joined the ranks of the suppliers. On the demand side, in particular Italian, French, British, and Canadian banks, as well as branches of United States banks abroad, and more recently German and Japanese banks became important participants. The market had thus become less and less a strictly European affair and had assumed world-wide proportions and ramifications.

THE MECHANICS OF THE MARKET

For a full understanding of how the market operates, it is important to note that it is only a part of the international market for short-term funds that has emerged in Europe since convertibility. Many European banks stand ready to accept deposits in a number of foreign currencies—pounds sterling, Swiss francs, German marks, Dutch guilders, as well as dollars. The dollar deposit market is by far the most important, however, for a number of reasons. First of all, the dollar is the leading international currency. Second, it has been readily available in large amounts in the foreign exchange markets, a reflection of our balance-of-payments deficit during the past decade. Third, the dollar is virtually the only currency used by European central banks as a reserve currency. Their operations in the exchange market to stabilize the value of their own currencies are conducted, under the European Monetary Agreement, exclusively in dollars. Consequently, central banks are always residual buyers or sellers of dollars in the exchange market.

As already pointed out, suppliers of dollar deposits sometimes acquire them by converting other foreign currency deposits into dollars. Similarly, an acceptor of a dollar deposit may not necessarily use it for lending or investing in the form of dollars. If the constellation of interest and forward exchange rates among various centers makes it profitable to switch the dollars into another currency for lending or investment, many European banks

will be quick to do so. The Continental dollar market is thus closely integrated through an intricate maze of operations with the full complex of European money and exchange markets.

The Continental dollar market is a true market in the sense that there are a large number of banks who stand ready either to accept or to supply dollar deposits at any given time with only a small spread in the rates involved. In many cases, banks will accept dollar deposits from a correspondent bank, not because they have a need for dollars, but to further customer relationships or for some other reason. In some cases, they are willing to redeposit the dollars with another bank with no spread over the interest rate which they themselves are paying. Intermediaries, too, may at times make redeposits at no spread in rates in order to keep their names in the market.

There is a regularly quoted rate for dollar deposits within Europe. At the end of October, for example, deposits on 24-hour notice were quoted in London at $3\frac{1}{8}$ per cent, one-month deposits at $3\frac{3}{4}$ per cent, and three-month deposits at $3\frac{7}{8}$ per cent. As would be expected, the dollar deposit market is an interbank market with transactions handled by a bank's exchange traders, although activity is closely linked with the bank's money position. In many European banks the manager of the bank's money position is also the chief foreign exchange trader, a practice which is virtually unheard of in the United States and which indicates the close link in Europe between money and foreign exchange markets. Transactions are carried out largely by telephone, but also by teletype or cable. Some banks regularly solicit deposits by mail. While, as in all markets, the amount that can be readily transacted at quoted rates may vary from time to time, it is normally possible for a prime name to place or receive deposits in blocks of \$1 million or substantially more in a few minutes' time. Rates may, however, vary quite considerably according to the names and countries involved (as discussed in the next section of this article).

A sizable part of the activity appears to take place in short-dated deposits—on 24-hour or 7-day notice. Often, however, deposits may be made at short term with an understanding that they will not be withdrawn for longer periods save for exceptional developments. In other cases one- or three-month deposits may be subject to prior withdrawal in unusual circumstances.

It should be made clear that these transfers of dollar deposits among European and other banks and their subsequent use do not usually result in the extinguishing of dollar deposits in American banks. Such transfers are usually effected by means of a cable from a foreign bank holding a dollar account in a United States bank in-

structing the latter to transfer funds to the account of the foreign bank accepting the deposit, either in the same or another United States bank. What happens subsequently depends on the uses to which the bank accepting the deposit puts the money. Ownership may pass from foreigner to foreigner, or from a foreign account to a United States account if the dollars are eventually loaned to an importer abroad who makes payment to a United States exporter. Ownership may change, but the deposits ordinarily do not "disappear". Exceptions to this general rule occur if the acceptor of the deposit swaps it into a local currency, and the dollars are acquired by a European central bank that employs them for the purchase of gold, or if the dollars are used ultimately to pay off a loan at a United States bank.

THE SUPPLY STRUCTURE

Suppliers of dollar deposits to the market include commercial banks, a few central banks, Eastern European banks, and, through their banks, some nonbanking institutions and individuals. Banks of certain countries or areas—Switzerland and the Netherlands, for example—are normally suppliers in the market, reflecting high domestic liquidity and relatively low interest rates (after allowing for the spot-forward exchange rate differential) at home compared with abroad. For these banks, the New York money market and, to a somewhat lesser extent, the London money market have been "safety valves" for any surplus funds that could not be employed at home. The Continental dollar market now serves exactly the same function. Even banks in countries where money market rates exceed those obtainable in the Continental dollar market may enter the market on a large scale if the unfavorable interest rate differential is more than offset by a premium on forward dollars.

Individual suppliers of dollars, as well as entire national banking groups, may at times withdraw suddenly and almost completely from the market and even appear on the demand side—for instance, because domestic money market conditions tighten or because of shifts in forward exchange rates. Such withdrawals from the supply side can affect the deposit market considerably, much more than similar withdrawals from regular money markets. For instance, liquidation of United States or United Kingdom Treasury bills by commercial banks of a particular country may scarcely make a ripple in these broad and highly liquid markets. The effect is potentially of an entirely different order in a market such as the dollar deposit market where certain national banking groups occupy a key role. While most banks accepting dollar or other foreign exchange deposits take care to offset their liabilities

with similar foreign exchange assets, it is not always possible (or profitable) to have exactly corresponding maturities. They may consequently be vulnerable to sudden and unexpected withdrawals of deposits.

Another noteworthy characteristic of the market is the premium put by some suppliers, notably the more conservative banks, on first-class names among depositories of their funds and their consequent willingness to make rate concessions, if they can place their balances with such names. Branches of American banks abroad, for example, can normally obtain deposits at rates somewhat under the going "market" rate. Lesser known names, on the other hand, may have to pay rates above the quoted market.

Actually, the market is somewhat compartmentalized in that bank managements, aiming at risk diversification, ordinarily establish lines for each country in which they place funds and for individual banks in these countries. The market is thus permeated with quotas which in turn may be reflected in the average rate level at which various national groups of banks and individual institutions can actually obtain funds.

These various deposit policies and procedures also reflect the fact that many major operators in the market instinctively dislike placing large amounts of funds with a bank in a currency other than that of the bank's country and would prefer to place their deposits in the United States, or at least with foreign branches of United States banks, if the rate differential is not too great. Since they often have insufficient information on what their placements are employed for, and do not know the quality of the ultimate borrowers, some banks feel uneasy over the possibility that bankers in different countries, without each knowing what the other is doing, may place excessive funds with one and the same bank in a third country. While some central banks are well posted on how much and with whom the banks in their country place dollar balances, they are of necessity ill-informed on commitments of bankers in other countries to the same acceptors.

INTERMEDIARIES

As already noted, several European banks have made it their business to operate on a large scale on both sides of the market, and to be ready at any time to quote interest rates at which they will accept and offer funds, mainly in dollars but also in several other major currencies. There is room for a relatively large number of intermediaries in the market because of the services they perform in bringing suppliers and seekers of dollar deposits together. Most banks serve as principals in this capacity—i.e., they accept deposits in their own name and then

redeposit with other banks, earning a small spread (up to $\frac{1}{8}$ of 1 per cent) on such operations, although as mentioned earlier they may sometimes operate on a "flat" basis. They may also deposit with banks with lesser known names—or with banks with urgent needs—at a somewhat greater spread, reflecting the somewhat greater risk involved. Intermediary banks thus serve as a channel between the more conservative banks and a very large number of banks that are users of dollar deposits.

Because of their closeness to the foreign exchange market and the volume of transactions that they handle, the intermediary banks are quick to take advantage of any opportunities to engage profitably in swap transactions. They may, for example, accept Swiss franc deposits, swap the Swiss francs for dollars, and then deposit the dollars somewhere else; in turn, these dollars may be swapped into sterling or some other currency. An extremely large volume of foreign exchange transactions, both spot and forward, has resulted from these operations.

In addition to intermediary banks, who act as principals in the market, other banks may act on a brokerage basis as a service to correspondent banks. Foreign exchange brokers in both London and Paris also handle dollar deposit transactions in some volume on a brokerage basis.

The leading center for the Continental dollar market is London, where a considerable number of banks—merchant banks, foreign banks, and British overseas banks—serve as intermediaries in accepting and putting out foreign exchange deposits, quite apart from using the deposits acquired for their own trade financing needs and for other ordinary banking transactions. Banks in other centers—Paris and Milan, for example—have been doing a fairly substantial business in "jobbing" dollar and other deposits.

DEMAND PATTERNS

A feature of the market is the very diverse use to which the ultimate receivers put the deposits. Many acceptors of deposits employ them as loans to customers for the financing of imports from the dollar area or elsewhere. Substantial balances are also employed for loans to securities dealers and brokers in New York, and branches abroad of New York banks are in the market to obtain time deposits for use by their head office. Some banks convert dollar deposits into their own currencies and employ them for loans and investments in their own credit and money markets, and still others acquire dollar and other deposits in order to place them in other money markets at a profit.

International trade financing appears to absorb a substantial part of the total of dollars offered in the Continental dollar market. Banks in Italy until last summer

entered the market heavily for this purpose but in recent months have become primarily intermediaries. French, Japanese, British, German, and some governmental banks in Eastern Europe have also taken advantage of the market in order to put their foreign traders into funds at rates substantially below the cost of acceptance financing or direct loans in New York. Even trade in the Middle East and Southeast Asia has been financed with Continental dollars, often through Beirut.

Italian banks resorted to dollar (and other foreign currency) financing of foreign trade on a large scale because they could thereby compete more effectively for new customers. Interbank competition in Italy has long been stifled by rate agreements with respect to lira credits. Until 1959, rates for foreign currency loans, not a factor of any consequence during the period when dollars and other hard currencies were in short supply, were not so regulated. Thus, lending in dollars permitted a wide breach in the highly regulated Italian loan rate and commission structure. (More recently, however, there has apparently been some moderation of this intense interbank competition, but rates on dollar loans remain substantially below those for lira loans.)

In order to offer present or potential customers the lowest possible rates, Italian banks have taken full advantage of interest rate-forward exchange rate constellations. For instance, an Italian bank might have a customer who wished to borrow sterling to finance an import from the United Kingdom. The bank might then take advantage of the facilities of the Continental dollar market to arrange to receive a deposit, say, from a British bank, of a corresponding amount of dollars. It would then seek out an opportunity to reduce its borrowing costs by making a profitable swap—i.e., if the forward dollar were at a discount against the guilder, it would sell spot dollars, say, to a Swiss bank, and buy them back (at a lesser cost in guilders) forward. It would then lend guilders to the customer and in turn, for the customer's account and risk, convert the guilders into sterling. The bank's customer benefits by receiving a loan at substantially lower interest cost than would have been the case if he had borrowed lire, and then used the lire to purchase sterling. He has assumed a foreign exchange risk, however, but so great is the confidence in the stability of European exchange rates that this is often of little concern to international traders. In fact, the willingness of firms in Italy, and to a growing extent in France, to take uncovered exchange risks in dollars is of great significance in current foreign exchange market developments.

Banks in several other countries have been important on the demand side of the Continental dollar market. In

recent months, Japanese banks have taken in very sizable amounts. In Germany, the acceptance of Continental dollars or other foreign currencies and their use for foreign trade financing was furthered until recently by regulations under which the resulting bank liabilities, if offset by a foreign currency asset, were free of reserve requirements. However, since July 1, 1960, this special exemption from reserve requirements no longer applies.

Canadian banks have been large borrowers in the Continental dollar market, primarily for the purpose of relending to securities dealers and brokers in the New York money market. Among foreign banks, the Canadian banks have been in a particularly favorable position to extend such loans since through their agencies in New York they can supervise such operations.

Overseas branches of United States banks have become depositories of very sizable amounts of Continental dollars, running into several hundreds of millions of dollars. They have used the market as a means to recapture some of the time deposits that had escaped, or were about to escape their head offices, because of the interest rate ceiling on such deposits under Regulation Q and the attractiveness of money market investments either in the United States or elsewhere. These branches have little trouble in attracting dollar deposits, suppliers of dollars being ready to place their deposits with them even at rates substantially below the prevailing market level.

Considerable amounts of Continental dollars have at times been swapped by British banks into sterling and then employed at considerably higher rates for loans to hire-purchase finance companies or to local authorities. The spread between rates paid on dollar deposits and the far higher rates received on domestic loans does not, however, represent a net return to the British banks, since covering the exchange risk by the purchase of forward dollars has usually involved paying a substantial premium for such dollars and this represents an additional cost. Japanese banks also have been reported to have converted substantial amounts of dollar deposits into their own currency.

Many other banks also make use of the Continental dollar market to engage in covered interest arbitrage in various forms. The existence of an active market for dollar and other currency deposits greatly facilitates interest arbitrage operations. Arbitragers may take in dollars, swap them into another currency, and then employ them for short-term investments, say, in Treasury bills, if and when the interest rate differential after adjustment for the swap costs makes such a transaction worthwhile. Quite a number of European banks, notably among the so-called intermediaries, employ dollar and other foreign currency

deposits for such operations, occasionally combining two or more swaps to maximize their profits. The total amount of dollars employed in interest arbitrage is not known, but is believed to be smaller than the aforementioned uses of dollar deposits.

IMPLICATIONS OF THE MARKET

With the development of the Continental dollar market, European banks now have easy access to a large pool of funds that can be used to cover their dollar financing needs. Since European banks have been willing, moreover, to accept a relatively small spread between the rates they pay on foreign currency deposits and their lending rates, they have been able to offer their customers rates well below either the commercial bank prime loan rate or the cost of acceptance financing in the United States. One consequence has been some relative decline in the position of New York as an international lending center—a development which is confirmed by statistical evidence showing that in recent years acceptance and other credits extended by United States banks to British, German, and Italian banks have declined significantly.

The Continental dollar market also has had the effect of sharply increasing the volatility of some foreign dollar balances. As noted above, substantial amounts of dollar deposits offered in the market represent balances that previously had been held in the form of time deposits with United States banks. True enough, the balances underlying the Continental dollar market ordinarily remain in United States banks as demand deposits. But there is a great difference for a New York bank between a firmly lodged foreign time deposit, with its relatively low reserve requirement, which may be invested in relatively high-yielding loans or investments, and demand deposits that foreign banks manage and employ actively. As such balances are drawn upon by their foreign owners and transferred to other banks abroad who in turn redeposit them or otherwise make use of them, the volatility of these deposits tends to be high—a definite disadvantage to the United States depositories in the management of their own money position.

Although the Continental dollar market has somewhat reduced the importance of New York as an international lending center, it has added to the importance of the dollar as an international currency. Perhaps the greatest attraction of the Continental dollar market to lenders derives from the fact that it offers opportunities for very short-term investments at rates substantially in excess of those available elsewhere. In fact, it permits dollar depositors to earn interest on demand deposits—which is, of course, not possible in the United States. The co-

variation of interest rates in the Continental dollar market and the New York money market appears to be quite close, except in periods of very easy conditions in the New York money market. Rates for Continental dollar deposits for three months, as quoted by London merchant banks, are usually considerably above those for United States Treasury bills and bankers' acceptances, while one-month deposit rates are always substantially above United States Treasury bills with one month to maturity. The prevailing rate differentials in part reflect, of course, investment quality differences, but the fact remains that the Continental dollar market has given birth to a new relatively high-yielding and now firmly entrenched and widely used outlet for the short-term investment of dollar funds. In this sense the dollar has become more useful, and banks operating in this market will probably tend to hold on to dollar assets for more extended periods than they would in the absence of the market.

In conclusion, a few words about the repercussions of the market in the European banking and money market structure. Lending of dollars and other deposits to importers has importantly contributed to interbank competition in Italy and France. Another significant effect

of the market is the relatively easy access to foreign exchange resources that it has afforded to smaller European banks. At a price, they can within broad limits secure additional dollar and other currency deposits and thereby free themselves of the limitations of their domestic resources. This has further contributed to interbank competition in the countries concerned.

On a broader plane, the easy access of banks to deposit balances abroad has given an additional spur to the intermeshing of money markets throughout Europe. Even without the development of the Continental dollar market, the increased freedom with which funds have been permitted to move from one market to another in recent years has been a major force contributing to the interlinkage of national money markets. But the ability of banks to enter an established market for dollar deposits, and thus to obtain on their own initiative funds that they may swap into other currencies, has made for even closer integration. By the same token, the succession of interdependent short-term claims imposes risks of vulnerability, since the liquidity of each participant in the market becomes in part dependent upon the ability of the ultimate borrowers to meet their obligations.

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