FEDERAL RESERVE BANK OF NEW YORK

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The Business Situation

Economic activity appears to have moved sideward in March, following a February in which some business indicators registered an improvement while others remained unchanged or declined slightly. Hesitations of this type are not, of course, at all unusual during the course of a sustained business expansion. But they always create uncertainty as to whether there has been a pause for breath which will be followed by renewed progress or whether, on the other hand, an advance warning of business recession has been posted. The impact of this kind of uncertainty on the climate of opinion in the last few months has probably been unusually strong because the pace of economic activity has clearly fallen short of the exuberant expectations held by many observers at the start of the year. Sales and output have indeed lagged somewhat, but this may turn out to be largely the result of a relatively severe winter, culminating in the heavy snow storms in many parts of the country during March. Moreover, a recent survey suggests that consumers' optimism is strong and that their buying plans are considerably larger than a year ago. In addition, plant and equipment expenditures rose substantially in the first quarter, and business plans indicate that outlays during the year may rise at a rate which, if realized, would push fixed-investment expenditures (in current dollars) above the previous record reached in 1957.

PRODUCTION LEVELS OFF

The hesitation of production in February and March appears, from the evidence available, to have reflected efforts to bring output into closer alignment with current sales and new orders. With the passing of the period of steel shortages, the long-term trend toward closer management of inventories has once again become important, and in many lines business policy is said to be aimed at holding inventories at lower levels relative to sales than in earlier periods of expansion. Additions to business inventories were, of course, unusually large in January, as stocks were rebuilt following depletion resulting from the scarcity of steel. But with inventories approaching desired levels toward the end of the first quarter, manufacturers in many lines have shown an increasing tendency to curtail both production and orders for materials.

In the automobile industry, dealer stocks expanded again in February but the rate of increase was somewhat reduced, both because of improved sales and also because of a cutback in production to prevent inventories from piling up. For March, the industry scheduled production at about the same rate as in February, thus permitting continued, but slower, additions to stocks. While inventories of domestic cars reached a record high of slightly over 1 million units by the end of the month, this level is reported to be consistent with dealer needs in view of the greater variety of models, which require dealers to carry larger stocks than in the past.

In the steel industry, the tendency of customers to gear output and inventory accumulation closely to sales has slowed the pace of incoming orders, and the rate of production of ingot steel has responded by moving lower again in March. As a major user of steel, the automobile industry has had an important impact. Curtailed auto production reduced the industry's steel consumption below the level originally anticipated. In addition, compact cars have captured more than 20 per cent of the domestic market and require about 25 per cent less steel than standard models. While new orders for steel from other industries have also fallen off after the unexpectedly rapid replenishment of stocks, some further additions seemed to be necessary to restore the balance among various types of processed steel. The total effect of these developments has been to reduce ingot production from almost 96 per cent of capacity in January to slightly above 94 per cent in February and about 91 per cent in March. Shipments of processed steel are still high, but industry sources expect some decline in the second quarter.

Reduced output in the steel and automobile industries accounted for much of the small decline in the industrial production index from 111 per cent of the 1957 base in January (revised from the original estimate of 112) to 110 in February (see Chart I). About one third of the decline was in materials output, largely attributable to ferrous metals. The rest was in production of consumer goods, where the automobile cutback was an important, though not the sole, element. Output of textiles and apparel and appliances also slipped, in response to a less rapid expansion of sales than had been anticipated. A further slight decline may appear in the over-all index for March, but no sharp movement seems likely.

Despite the small slippage of industrial production, both employment and nonagricultural income in February maintained the high levels reached in January. Manufacturing employment was down slightly, paralleling the movement of output. This slight dip was more than offset, however, by gains in mining, services, trade, and government, which brought total nonagricultural employment (seasonally adjusted) to 52.9 million workers, very slightly above the record peak of the preceding month. Total employment (which also includes farm workers, self-employed persons, and domestic workers), on the other hand, rose by almost 1 per cent, as unemployment declined contraseasonally to 3.9 million, according to the Census Bureau. The seasonally adjusted unemployment rate fell to 4.8 per cent of the civilian labor force, 0.4 point below January and the lowest level since October 1957.

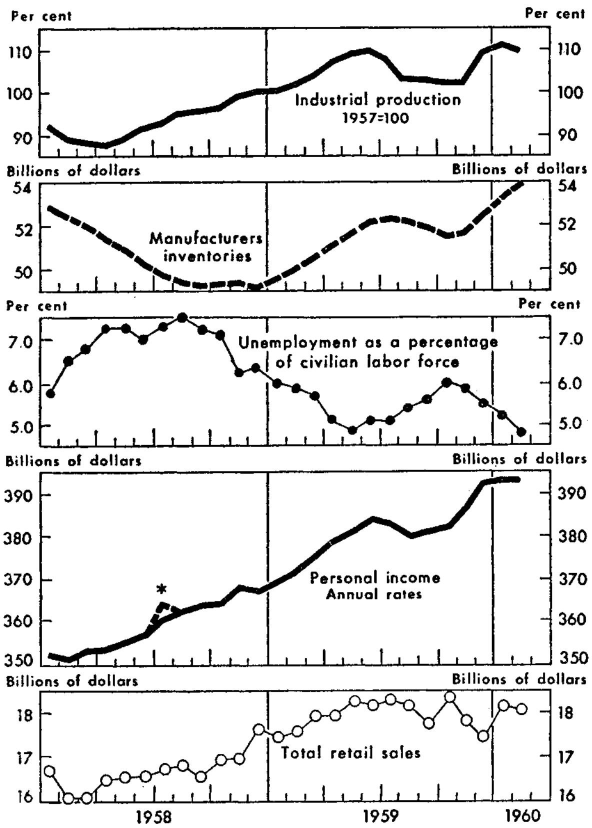
Personal income edged up to $393.0 billion from $392.8 billion (revised downward from the original estimate) in January. The rise in wages and salaries was less pronounced than in January, due to a reduction in the average number of hours worked and in overtime earnings as steel and automobile production eased. Agricultural income fell by $0.6 billion, and there were minor declines in business and professional income and in transfer payments.

The over-all stability of the cost of living since November has meant that the recent gains in income have been gains in purchasing power as well. The consumer price index edged off slightly in December and January but in February returned to the previous peak of 125.6 per cent of the 1947-49 average. Higher prices for most of the commodities and services associated with housing and for medical services were the major factors in the February rise, and were only partly offset by declines in prices of food and new cars.

Chart I

MEASURES OF ECONOMIC ACTIVITY

Seasonally adjusted



* Reflects payment of retroactive salary increases to Federal Government employees.

Sources: Board of Governors of the Federal Reserve System and United States Department of Commerce.

Although personal income in February was 2.4 per cent above the June peak, retail sales, according to preliminary reports, were still 1.3 per cent below the high level reached before the steel strike. Sales in February were largely unchanged at $18.1 billion (seasonally adjusted), after having risen 3.8 per cent in the preceding month. Automobile purchases had provided much of the upward force in January and continued to expand in February, as the daily average rate rose 6.2 per cent above the preceding month and was 14.5 per cent above a year ago. During the first twenty days of March, sales were at a daily rate slightly above the comparable February period. Peering into the future, the Survey of Consumer Finances made by the University of Michigan in January and February found that the number of consumers intending to buy new cars during 1960 was about 20 per cent above a year earlier.

In contrast to the rise in auto sales, purchase of nonautomotive goods eased off in February. Expenditures for nondurable goods declined from the new peak reached in January, partly reflecting a slump in apparel sales, where production has also been weak. The largest reduction, however, occurred in sales of durable goods other than cars. Appliance sales, for example, seem to have been sufficiently slack to induce cutbacks in output. On the other hand, preliminary data suggest that department store sales in March, after allowing for the late date of Easter and other seasonal factors, were about unchanged from February in spite of unusually severe weather in many parts of the country. The Michigan survey referred to above found that consumer plans for buying household equipment were considerably larger than a year earlier.

In contrast to the slack in some other lines, exports have recently shown a marked gain. Nonmilitary exports moved up sharply in January and registered a further small gain in February. Exports for the two months were over 20 per cent higher than for the corresponding period of 1959, while imports were up by only about 7 per cent. The trade surplus in the first quarter is now expected to be significantly larger than in the fourth quarter.

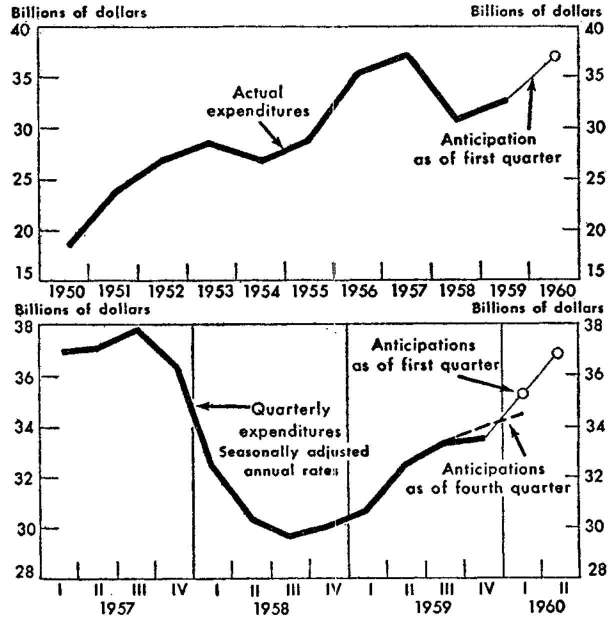
FIXED INVESTMENT PROSPECTS

In view of the limited expansion of consumer spending and the hesitation of production in recent months, the results of the latest survey by the United States Commerce Department and the Securities and Exchange Commission of businessmen's capital spending plans are of special interest. On the whole, the results of the survey taken in late January and February are favorable, although it is of course too early to tell whether actual outlays in 1960 will be up to, or exceed, plans. Businessmen are planning to spend about $37 billion for new plant and equipment in 1960 (see Chart II), 14 per cent more than in 1959 and about the same as the previous current dollar record reached in 1957 (but not quite as large if price changes are allowed for). The planned year-to-year increase compares with a 22 per cent increase in current dollar terms, and a 15 per cent increase in real terms during the capital goods boom of 1955-56, and is double the rate of advance between 1958 and 1959 when the steel strike slowed outlays in the fourth quarter.

Actual expenditures in the first quarter of this year are estimated to have risen to a seasonally adjusted annual rate of $35.3 billion, 5 per cent above the preceding quarter and almost $1 billion higher than the level anticipated one quarter earlier. A further increase of 4½ per cent is expected in the second quarter, and a somewhat slower expansion is implicitly predicted for the second half.

While the survey revealed, in general, a greater emphasis on improvement of production facilities than on expansion of capacity, a significant part of the first-quarter rise in spending was in construction, as demonstrated by the gains in nonresidential construction outlays in the first two months of the quarter. Private nonresidential building declined somewhat in March (on a seasonally adjusted basis), but spending in the entire first quarter was still 4.4 per cent above the preceding quarter.

Chart II
PLANT AND EQUIPMENT EXPENDITURES



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

Total construction expenditures also declined in March, by almost 3 per cent. This was primarily because of reduced investment in private residential construction, however, which has not maintained the strength that seemed to be present earlier in the year. Private housing starts fell in both January and February, on a seasonally adjusted basis, and the flow of spending for construction actually put in place rose at a reduced rate in February and declined in March. On the other hand, applications for mortgages insured by the Federal Housing Administration and Veterans Administration guarantees do not seem to indicate further weakening in housing starts. In addition, the Michigan Survey of Consumer Finances suggests that home-buying plans are stronger than they were a few months ago.

Money Market in the First Quarter

The first quarter of 1960 witnessed a significant turnaround in the money and financial markets. Treasury bill rates and other short-term money rates dropped sharply, as did yields on Government notes and bonds; and stock prices, despite a rally in the latter part of March, were about 8 per cent lower at the close of the quarter than at its start. Member bank borrowings from the Federal Reserve gradually declined, while Federal funds were traded at rates below the 4 per cent ceiling more frequently than in the closing months of 1959.

Some lessening of money market pressures often occurs immediately after the turn of the year, as seasonal repayments of bank loans, return flows of currency to banks, and large flows of nonbank funds into the market tend to relieve the stresses on short-term rates that normally build up in the closing weeks of the year. The reduction of pressures this year, however, was somewhat more pronounced and more prolonged than in most previous years and may have reflected, in part at least, a more-than-seasonal easing in the demand for funds. The decrease in the Federal Government's marketable debt during the period was exceptionally large, while calls on the capital market by State and local governments as well as by corporations were relatively light.

Of great importance also as a factor underlying the lessening of pressure was the abatement of earlier apprehensions of an inflationary boom and the accompanying bulge in credit demands. Forecasts of a small Federal budget surplus for fiscal 1960 and a sizable one for fiscal 1961 played a role in reducing fears of inflation, as did the widespread conclusion that the steel settlement would exert little upward pressure on the price level. At the same time, several economic indicators pointed to a less exuberant economic expansion over the coming months than had been widely expected immediately after the steel settlement. However, evidence continued that 1960 will be a generally good year for business, and the decline in yields on fixed-income securities was not accompanied by any upsurge in speculative activity.

THE DEMAND FOR CREDIT

The most important single factor in the relatively low net demand for credit of all types during the quarter was probably the reduction in the Treasury's marketable debt. The Government debt is usually reduced during this season, but the $3 billion reduction in the marketable debt this year was the largest for any January-March period since 1956. The Treasury, after having raised over $4 billion in the fourth quarter of 1959 and $2 billion cash in the market early in January, was a net supplier of funds to the money market for the rest of the first quarter. The $2 billion of bills maturing on January 15 was replaced by only $1.5 billion of new bills; attrition in the February refunding and certain other repayments totaled some $0.6 billion; and $4 billion of March 22 bills matured, of which $1.7 billion was redeemed for cash and the balance redeemed in payment of corporate profits taxes. Government agencies, moreover, made smaller demands on the capital market than in recent comparable periods; the $180 million in net new capital obtained in the market by these agencies during the quarter was $219 million less than during the fourth quarter of 1959 and $155 million lower than during January-March 1959.

Corporate and municipal securities offerings also were relatively light during the period. New offerings of tax-exempt securities, which had reached record proportions in 1959, are estimated to have declined to about $1.8 billion during the quarter. This was the smallest for the first quarter since 1956 and nearly $350 million less than in 1959. Preliminary data on corporate capital flotations for new capital purposes during January-March 1960 put the total at about $1.9 billion, or about $300 million less than in January-March 1959 and less than in any first quarter since 1954. This cutback in corporate offerings apparently reflects continued strength in corporate liquidity positions rather than cutbacks in plant and equipment outlays. Indeed, as noted elsewhere in this *Review,* recent surveys point to sizable increases in corporate capital expenditures over the coming months.

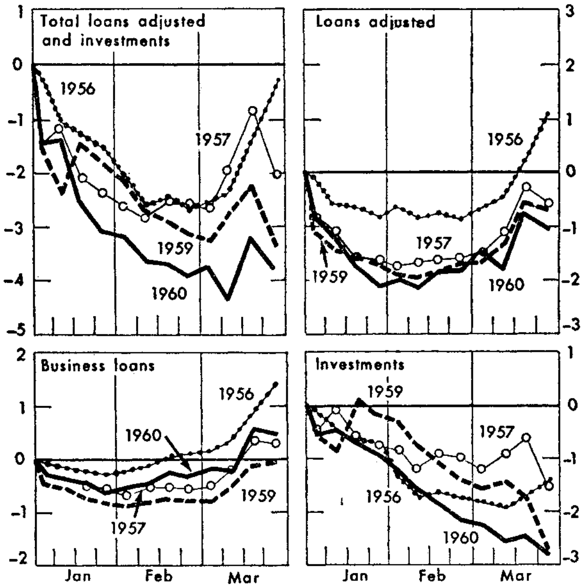
Total loans adjusted of all commercial banks fell by $1.4 billion during the first two months of 1960. This was a somewhat smaller decline than in the same period of the preceding three years, but it was substantially larger than during the expansion years of 1955 or 1956. The net decline for the January-February period was due principally to sharp reductions in the more volatile types of loans—securities loans, and loans to sales finance companies and other nonbank financial institutions. Business loans, in contrast, which are more closely related to underlying economic developments, showed impressive strength in February after a seasonal dip in January, while data covering the weekly reporting banks through March 23 suggest that business loans were at least as strong in March as in recent years (see Chart I). Particularly noteworthy was the large increase in loans to the metal and metal-products industries, much of which was undoubtedly associated with the rebuilding of inventories depleted during the steel strike. At the same time, most other types of business loans either increased more rapidly than in previous years or declined less than seasonally. However, loans to commodity dealers declined substantially more than in recent years, partly reflecting a reduction in cotton inventories as exports rose sharply.

The liquidation of commercial bank securities holdings that has been under way since early 1959 continued during January-February 1960. Government securities holdings of all commercial banks fell by $3 billion and holdings of other securities by $300 million. As a result, total loans and investments declined by $4.7 billion during the first two months of the year.

Chart I

CHANGES IN LOANS AND INVESTMENTS WEEKLY REPORTING MEMBER BANKS, SELECTED YEARS

Cumulated from end of year



Note: For 1960, data cover 12 statement weeks ended March 23, and for other years 12 comparable statement weeks. Business loans are shown net of loans to sales finance companies.

The decline in total bank credit found its counterpart in a $1.3 billion contraction in the seasonally adjusted money supply (demand deposits adjusted plus currency outside the banks), which was the largest decline of any January-February period since World War II. The money supply of $138.7 billion at the end of February was 0.6 per cent lower than in February 1959 and roughly at the level of November-December 1958. However, the twelve months ended February 1959 had witnessed a sharp monetary expansion of 4.5 per cent, with the result that for the two years through February 1960 the money supply has increased at an annual rate of about 2 per cent. When time and savings deposits at both commercial banks and savings banks are included, the two-year increase comes to 3.4 per cent per annum.

While the money supply has declined over the past year, its rate of use has increased. The turnover of demand deposits in centers outside New York City and the other large financial centers rose 8.7 per cent from February to February. The rate of turnover has increased fairly steadily since World War II, dipping only during recessions.

BANK RESERVE POSITIONS

Bank reserve positions, reflecting in part the decline in bank credit, were under somewhat less pressure during the first quarter than in the final months of 1959, this being particularly true in March. During most of the first two months of the quarter, member banks gained a substantial volume of reserves through movements in operating factors, particularly from the seasonal flow of currency into the banks and from the interest payment to the Treasury on Federal Reserve notes at the turn of the year, which was considerably larger than usual this year as a result of special payments from surplus accounts. A decline in required reserves also released reserves during the period. System open market operations during the January-February period largely offset these gains in reserves. System holdings of Government securities were reduced by some $1,560 million from December 30 through March 2, as a result of $1,564 million of net sales and redemptions and a $4 million increase in securities held under repurchase agreements; the reduction in System holdings in January was excep-

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

Factor	Daily averages—week ended					Net changes
	Mar. 2	Mar. 9	Mar. 16	Mar. 23	Mar. 30	
Operating transactions						
Treasury operations*	− 9	+ 14	+ 85	− 5	− 14	+ 71
Federal Reserve float	− 263	+ 113	− 180	+ 251	− 347	− 426
Currency in circulation	+ 46	− 97	− 113	+ 55	+ 137	+ 28
Gold and foreign account	− 15	+ 10	− 3	+ 20	− 24	− 12
Other deposits, etc.	+ 116	+ 31	+ 27	+ 24	− 23	+ 175
Total	− 123	+ 71	− 184	+ 344	− 270	− 162
Direct Federal Reserve credit transactions						
Government securities:						
Direct market purchases or sales	− 99	+ 81	+ 78	− 23	− 56	− 19
Held under repurchase agreements	+ 58	− 23	+ 96	− 98	− 28	+ 5
Loans, discounts, and advances:						
Member bank borrowings	+ 173	− 198	+ 131	− 139	+ 15	− 18
Other	+ 1	− 1	—	—	+ 6	+ 6
Bankers' acceptances:						
Bought outright	− 3	+ 1	− 2	− 1	—	− 5
Under repurchase agreements	—	—	—	—	—	—
Total	+ 130	− 140	+ 302	− 259	− 64	− 31
Member bank reserves						
With Federal Reserve Banks	+ 7	− 69	+ 118	+ 85	− 334	− 193
Cash allowed as reserves†	+ 37	− 95	+ 50	− 6	− 4	− 18
Total reserves†	+ 44	− 164	+ 168	+ 79	− 338	− 211
Effect of change in required reserves†	− 28	+ 88	− 25	− 134	+ 176	+ 77
Excess reserves†	+ 16	− 76	+ 143	− 55	− 162	− 134
Daily average level of member bank:						
Borrowings from Reserve Banks	793	595	726	587	602	661‡
Excess reserves†	441	365	508	453	291	412‡
Net borrowed reserves†	352	230	218	134	311	249‡

Note: Because of rounding, figures do not necessarily add to totals.
* Includes changes in Treasury currency and cash.
† These figures are estimated.
‡ Average for five weeks ended March 30, 1960.

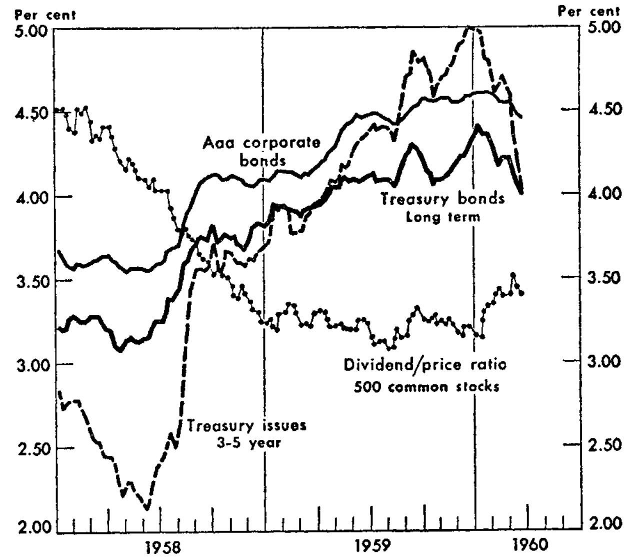
tionally large, falling only slightly short of the postwar record decline in January 1957.

During the four statement weeks ended March 30, member banks lost reserves on balance through movements in operating factors, but these losses were more than offset by a decline in required reserves and by the reserves provided by System open market operations. From March 2 through March 30, System outright holdings of Government securities increased by $80 million, and holdings under repurchase agreements declined by $32 million.

Average net borrowed reserves declined from $440 million in the fourth quarter of 1959 to about $360 million in the first two months of 1960 and then averaged about $250 million during March (see Table I). In contrast, other measures of bank liquidity indicated a further decrease in bank liquidity during the quarter. The loan-deposit ratio for the New York City weekly reporting banks, after declining slightly in December and January, rose to a new postwar high of 70 per cent in March, while the ratio for reporting banks outside New York was 60 per cent, also at a record level. Similarly, the ratio of short-term liquid assets (including Treasury bills and certificates and loans to Government securities dealers) to deposits stood at 10 per cent for the New York banks and 7 per cent for banks outside New York, compared with 17 per cent and 11 per cent, respectively, in March 1959.

Chart II

STOCK AND BOND YIELDS



Note: Latest data plotted week ended March 25.

Sources: Aaa corporate bonds: Moody's Investors Service; Treasury issues: Board of Governors of the Federal Reserve System; dividend/price ratio: Standard and Poor's.

THE STOCK AND BOND MARKETS

The abatement of earlier fears of continuing inflation and the tempering of expectations regarding the pace of the economic expansion were reflected in a downward movement of stock prices during most of the period from early January until mid-March. While the market staged a modest rally thereafter, stock prices on March 31 (as measured by Standard and Poor's index of 500 stocks) were 8.4 per cent below the peak level reached on January 5. Some readjustment in stock prices had long been awaited, following the steady rise that began early in 1958 —a rise that had not been interrupted to any significant extent except in September-November during the steel strike. The decline in prices was not accompanied by large liquidation, and the volume of trading generally remained small. In conjunction with a reduction in bond yields, the decline in stock prices narrowed the yield advantage of Government and high-grade corporate bonds over equities (see Chart II). The differential in favor of corporate bonds had reached a maximum of about 1½ per cent in early January.

Price changes in the markets for Government notes and bonds and for other fixed-income securities bore a close, but inverse, relationship to movements in stock prices throughout much of the quarter. This was particularly true for those periods when some shifting of funds from equities to fixed-income securities reportedly accompanied the decline in stock prices. Furthermore, the changes in expectations as to the strength of the business expansion, which in part underlay the weakness in stock prices, tended independently to strengthen the bond market.

Prices of Government notes and bonds began to move sharply higher after the first week of January, and by mid-February the upward surge had erased much of the price decline in late 1959 and early January that had brought yields of many issues to new highs. Behind this rally was a growing conviction on the part of market participants that prospective economic and financial developments were unlikely to result in further upward pressures on interest rates over the immediate future. These expectations contributed to the success of the Treasury's February refunding operations, in which all but $438 million of $11.6 billion maturing obligations ($6.1 billion of which was held by the public) were exchanged into new issues offered by the Treasury—a 4⅞ per cent certificate at par to mature February 15, 1961 and a 4⅞ per cent note at 99¾ to mature November 1964 (thus yielding 4.93 per cent).

The price rise was temporarily interrupted in the latter part of February, as some bank selling of notes and intermediate bonds tended to depress that area of the market, while the stock market staged a short but sharp rally. In addition, the approval of a bill during this period by the Ways and Means Committee of the House of Representatives that would permit the Treasury to engage in long-term financing at yields in excess of the current 4¼ legal ceiling on marketable Government bonds resulted in some price decline in longer term bonds. By early March, however, consideration of the likely consequences of this legislation had been relegated to the background. The upward movement of prices resumed, gathering momentum until the latter part of the month when prices temporarily weakened, partly in reaction to the earlier sharp rise and partly in anticipation of new long-term financing by the Treasury. The volume of trading remained limited throughout much of this period. Over the entire quarter, price increases ranged from $1\frac{8}{32}$ to $4\frac{28}{32}$ for notes and intermediate bonds and from $4\frac{4}{32}$ to $5\frac{16}{32}$ for longer term bonds. As a result, the average yield on long-term bonds, which stood at 4.39 per cent at the end of December, had declined to 4.04 per cent by the end of the quarter, while the average yield on issues due in three to five years dropped from 4.95 to 4.06 per cent. In each case, the average yields at the close of March were back at levels prevailing toward the end of April 1959.

Price changes on corporate and tax-exempt bonds generally paralleled those on Treasury obligations, although the price movements were at times moderated, and at other times reinforced, by particular influences operating in these markets. Prices rose through mid-February, tended to level off or decline for the rest of the month, and rose sharply during most of March. By the close of the quarter the average yield on Moody's Aaa corporate bonds had fallen 16 basis points to 4.45, while similarly rated tax-exempts declined 17 basis points to 3.32. Toward the end of the period, new corporate utility issues were being reoffered at yields that were about ⅜ to ½ percentage point below similar offerings early in December.

After the close of business on March 31, the Treasury announced that it will borrow $2½ billion, or thereabouts, to meet its estimated cash requirements for the balance of fiscal 1960. It will issue up to $1½ billion of 4¼ per cent Treasury bonds to mature May 15, 1985 and callable after May 15, 1975. This is the first time since 1953 that a bond with a callable feature has been offered. The Treasury will also offer a $2 billion issue of 4 per cent 25-month Treasury notes to mature May 15, 1962. To the extent that the amount of public subscriptions to the bonds, when added to the amount of the notes issued, exceeds $2½ billion, the excess funds are to be used to reduce the amounts of the weekly issues of 91-day Treasury bills in the weeks ahead. In addition, the Treasury will issue on April 15, 1960 $2 billion of one-year Treasury bills to replace a like amount of bills maturing on that date. The subscription books will be open for the Treasury bonds and notes on Monday, April 4, and Tuesday, April 5, 1960, with delivery on April 14 (although the bonds will be dated April 5); the auction for the Treasury bills will be held on Tuesday, April 12, 1960, with delivery April 15.

TREASURY BILLS AND OTHER SHORT-TERM INSTRUMENTS

A strong nonbank demand for Treasury bills prevailed through most of the quarter, readily absorbing sizable System and bank selling during January and February and forcing yields sharply downward. From around 4.60 per cent in early January, the rate for three-month Treasury bills had plummeted to about 2¾-3 per cent toward the end of March. The Treasury's January cash financing occurred at the outset of this period, and its results offered an early indication of the gathering strength in the Treasury bill market. The January 5 offering of $2 billion of June 22 bills brought out strong bidding, and the average issuing rate in the auction on January 12 of $1.5 billion 366-day Treasury bills (to replace the major part of $2.0 billion maturing January 15 bills) was lower than had been expected.

As in other sectors of the Government securities market, rates moved temporarily upward in the latter part of February and early March, partly reflecting market expectations that the March corporate tax and dividend payments would result, as usual, in large-scale liquidation of corporate bill holdings. The interruption was of short duration, however, and after early March rates resumed their decline with increased vigor. The liquidation of bills by corporations in connection with March cash needs turned out to be considerably lighter than had been expected—indeed, it was reported that corporations continued to be net buyers of Treasury bills—and what selling did occur was readily absorbed. Demand was strengthened by sizable purchases in the Chicago area in preparation for the April 1 Cook County tax date, and by purchases by public funds. This demand was reinforced in the latter part of March by the reinvestment demand related to the cash redemption of about $1.7 billion of the March 22 tax anticipation bills that had not been used for tax payment. The strength of the market throughout most of March was reflected in the rates established in the weekly bill auctions. Average issuing rates declined sharply in each of these auctions, with the rate in the March 28 auction at 2.792 per cent for 91-day bills, the lowest average issuing rate since May 1959 and 188 basis points

Table II
Short-Term Interest Rates

Week beginning	Average issuing rate on new Treasury bills		Bankers' acceptances 90-day unendorsed bid rate*	Commercial paper 4- to 6-month offered rate*	Sales finance company paper 60- to 89-day offered rate*
	3-month	6-month			
1959					
Dec. 28	4.516	4.942	4⅝	4⅞	4⅝
1960					
Jan. 4	4.602	5.099	5	4⅞	4¾
Jan. 11	4.590	4.989	5	5	4¾
Jan. 18	4.436	4.665	5†	4⅞	4¾
Jan. 25	4.116	4.608	4¾	4¾	4¼
Feb. 1	4.039	4.501	4¾	4¾	4¼
Feb. 8	3.563	4.094	4½	4⅜	3¾
Feb. 15	4.045	4.294	4½	4⅝	4¼
Feb. 22	4.168	4.396	4½	4¾	4¼
Feb. 29	4.278	4.458	4½	4⅞	4⅜
Mar. 7	3.641	4.024	4¼	4⅝	3⅞
Mar. 14	3.451	3.619	4	4½	3¾
Mar. 21	3.033	3.176	3¾	4⅛	3⅜
Mar. 28	2.792	3.187	**3¾**	**4⅛**	**3⅜**

* Rates shown are those effective at the end of the week.

† One dealer quoted 4⅞ per cent.

lower than the record set in the December 21 auction. At 3.187 per cent the average issuing rate for 182-day bills was 1 basis point higher than in the previous auction but 191 basis points below the record rate in the January 4 auction. At the end of the quarter, the longest three-month bills were trading in the market at 3.02 per cent and the longest six-month bills at 3.38 per cent. A few days earlier, however, these rates had been as low as 2.68 and 3.15 per cent.

In response to the decline in Treasury bill rates, a number of other short-term money rates, after reaching postwar highs in early January, were reduced during the balance of the quarter (see Table II). Rates on bankers' acceptances, which had been raised by ⅜ per cent in early January, were thereafter reduced in a number of stages, bringing the bid rate on 90-day unendorsed acceptances to 3¾ per cent at the close of the quarter from its peak of 5 per cent. Commercial paper dealers' rates, following a ⅛ per cent increase on January 11, were similarly reduced, and by the close of the quarter the offered rate for prime 4- to 6-month maturities was down to 4⅛ per cent from 5 per cent. Rates on directly placed 60- to 89-day paper of large sales finance companies also were reduced to 3⅜ per cent at the close of the quarter as against 4¾ per cent in early January.

OPERATING RATIOS AND BANK EARNINGS AND EXPENSES

This Bank has just published an analysis of the operating ratios and earnings and expenses of Second District member banks for the year 1959. The pamphlet, prepared by the Bank Examinations Department, is designed for the use of bank management, bank analysts, and students of money and banking. Copies are available upon request from the Publications Division, Federal Reserve Bank of New York, New York 45, N. Y.

International Developments

INTERNATIONAL COMMODITY MARKETS

During the past two years, when economic activity has been expanding in the major raw-material-consuming countries of the Free World, international commodity prices have generally moved within a fairly narrow range. Following their long, but irregular, decline from the post-Korea peak in early 1951, commodity prices flattened out in the spring of 1958, but firmed slightly during the past year.

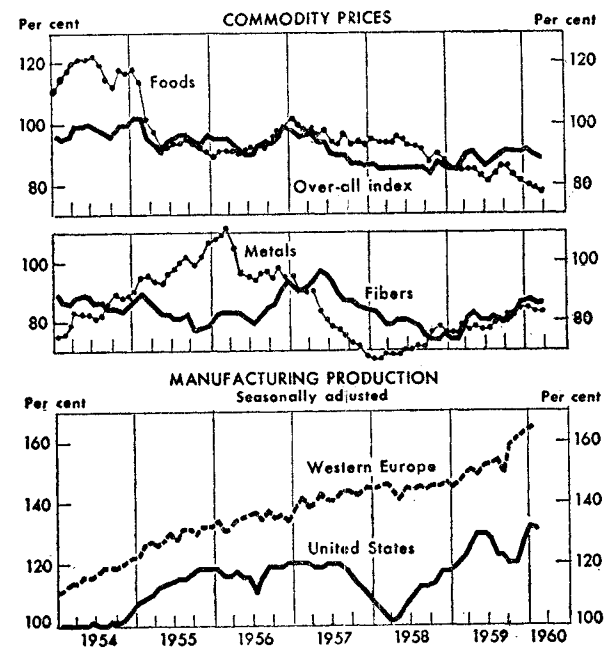
The behavior of raw material prices in international markets must be seen against the background of developments over the past decade. The great upsurge in world prices that began in the second half of 1950, after the outbreak of hostilities in Korea, reflected primarily a sudden and large change in demand impinging on a productive capacity that had not yet fully recovered from wartime attrition and neglect. The rise in prices did much to stimulate the expansion of such capacity—although in many instances expansion had in fact begun earlier in the postwar period under the influence of firm markets, long-term trading agreements for bulk purchases, and the cutting-off of supplies from traditional sources in Eastern Europe and Asia. After Korea, an additional stimulus to increased world production was provided by the stockpiling of strategic materials and by fiscal incentives designed to enlarge capacity for defense production. In the agricultural sector, United States support programs also tended to strengthen international prices, thereby encouraging production outside the United States.

The rise in demand after Korea brought about an increase of about one third in the average commodity price level during the twelve months ended in March 1951. Once the scare-buying occasioned by the Korean crisis subsided, prices reacted sharply and by 1953 most of the gain had disappeared. There were temporary reversals of the downward trend in 1954, due to abnormal supply conditions among the beverage crops, and again in 1956-57, because of the disturbance of petroleum supply and shipping routes and of inventory buying resulting from the Suez crisis. However, the price decline was resumed at an accelerated pace in 1957, when the full effect of the expansion of commodity production undertaken in the early 1950's finally made itself felt. By 1957, the output of no less than twelve major industrial raw materials had increased from two to five times over 1937, whereas total world manufacturing production had little more than doubled over the same period. Production of some sixteen additional commodities—mainly agricultural commodities and foodstuffs — also had expanded considerably, compared with prewar. These increased supplies, which appeared in the face of some leveling-off in economic activity in Europe and, in this country, an actual decline in activity and net sales from stockpiles, inevitably exerted a depressing influence on world prices. During the twelve months through December 1957, the over-all world commodity price index of the London *Economist* fell by 13 per cent (see chart)[1]—a trend that was accentuated by inventory liquidation on the part of raw material consumers, side by side with reduced current consumption. Although most markets firmed somewhat in the course of 1958 when the first decline in total raw material production since the war occurred, the ample supply position has outlived the 1957-58 recession and is still making itself felt in the current phase of expanding economic activity.

The over-all price picture of the past year conceals some important differences, both among major commodity subgroups and among individual commodities. Prices of metals and fibers have risen somewhat, while those of foodstuffs have remained under downward pressure. However, the increases in the prices of industrial raw materials in recent months have reflected temporary or special factors, rather than basic, longer run influences.

Among the metals showing a firmer tone, tin and zinc, the main uses of which are dependent on current steel production, benefited from strong demand following settle-

COMMODITY PRICES AND INDUSTRIAL PRODUCTION
1952=100



Note: March 1960 data partly estimated.
Sources: Commodity prices: The Economist (London). Manufacturing production: Western Europe--Organization for European Economic Cooperation; United States--Board of Governors of the Federal Reserve System.

ment of the steel strike in this country. Tin consumption also has been strong in Western Europe, and the International Tin Council accordingly raised export quotas for the first quarter by 20 per cent. With a small deficit in zinc foreseen for this year, a United Nations conference in January lifted the restrictions on zinc production it had imposed early last year. While the copper market was disturbed during the closing months of 1959 and early 1960 by strikes at the major United States and Chilean mines, which reduced output by some 10 per cent of Free-World capacity, prices rose relatively little and present shortages are expected to be overcome by midyear. Lead prices, on the other hand, have hardly risen above their depressed 1958 levels (except in the United States, after import quotas were imposed late that year); while this largely reflects the continuing world surplus of the metal, the persistent price weakness may also be influenced by the substitution, in a number of applications, of cheaper plastics.

The price of natural rubber advanced rapidly during the second half of 1959, as a severe squeeze on supplies developed. Since the beginning of 1960, price movements have been small and the underlying trend easier. However, world consumption still is outrunning world production—a prospect not likely to be affected by the comparatively

[1] The index is an unweighted arithmetic average of the prices of seventeen representative commodities entering into world trade. These include six foodstuffs (wheat, corn, tea, cocoa, coffee, and sugar); four fibers (cotton, wool, jute, and sisal); four metals (tin, copper, lead, and zinc); and three miscellaneous commodities (rubber, petroleum, and copra), which are not shown separately on the chart.

small release to Soviet-bloc consumers from the Russian stockpile, announced in mid-January. In petroleum, on the other hand, world production is ahead of consumption, and the general easing of prices in 1958 was followed by the imposition of import quotas by the United States in March of last year. The supply situation is complicated further by the efforts of other Western Hemisphere countries that hitherto were large oil importers to develop their own resources, and by important oil discoveries in several new areas.

Among the fibers, cotton prices have remained firm as world consumption has risen, and demand is expected to stay strong. By contrast, wool prices leveled off after the turn of the year. Since the recovery in wool consumption appears to be slowing down and estimates for the current world clip have been raised, surpluses are likely to develop. However, during March a firmer tone prevailed as buying by the United Kingdom picked up.

As already mentioned, prices of foodstuffs have generally remained under downward pressure. Prices in the free sugar market (which, because of the administered United States and British Commonwealth markets, is the narrowest of all international commodity markets) began to slump late in 1958 under the impact of large supplies and continued to decline until the summer of last year. While some small purchases by the Soviet bloc and a poor European sugar beet harvest propped prices somewhat thereafter, by the year end the market had become depressed once more, a condition that lasted into early 1960. Then, the announcement in late February that the Soviet Union would buy 1 million tons annually from Cuba over the next five years immediately imparted a firmer tone to the market. Although world sugar production aggregates about 50 million tons yearly, only about 6 million tons are actually traded freely, so that the Russian purchases represent a sizable addition to demand.

The sharp decline in coffee prices since the end of 1956 came to a halt during the course of 1959 and, despite a current record crop, prices have been quite stable—partly as a result of the new international coffee agreement.[2] However, the gap between supply and demand is very large, and it is uncertain what the effect on prices will be if the export quotas allotted under the agreement should be increased because crops are larger than originally expected. Cocoa prices have been declining almost steadily from the peak levels of November 1958. The 1959-60 world crop is proving larger than anticipated and is likely to establish a new record, at some 12 per cent above estimated world consumption. A short-lived period of price stability in January reflected attempts by Brazil to obtain support for a stabilization program from leading African producers.

As already indicated, for a number of internationally traded commodities the price rises of recent months thus were not due to normal, longer run influences but generally represented more or less temporary factors. Looking beyond such influences, it appears likely that currently produced supplies will generally be sufficient this year to meet demand—despite the fact that world consumption of most industrial raw materials and most basic foodstuffs is expected to reach new records and that stockpile releases are likely to be relatively small.

The recent and current position of commodity markets suggests two conclusions. One is that the adverse shift in the terms of trade of the raw-material-exporting countries in recent years so far shows no sign of reversal. The narrow range within which raw material prices have moved recently also suggests that they have had only limited influence on the over-all price level in industrial countries. Where prices of finished goods (and services) have risen, the advance largely reflects factors other than changes in the prices of basic materials. The comparative stability of raw material prices has, of course, helped at least to some degree to mitigate upward pressures from other quarters, although this very stability has worked to the disadvantage of countries heavily dependent on the production and export of these materials.

EXCHANGE RATES

Spot sterling quotations in the New York foreign exchange market firmed during March from \$2.8038 to \$2.8078 in a small market. Activity was somewhat higher than in February, as demand for commercial purposes picked up slightly and Continental demand for investment in London appeared in the market.

In the forward market the discount on three and six months' sterling deliveries widened steadily from the beginning of the month. By March 22 the spreads reached 58 and 80 points, the widest since November 1958 and May 1959, respectively. The wider discounts, however, only partially compensated for the increased short-term interest rate differential between London and New York. At the month end the discounts were 51 and 71 points.

The Canadian dollar generally held at about \$1.05¼ during most of March in a rather featureless market. Toward the end of the month, however, the rate moved appreciably lower, reaching \$1.04⅜ on March 31, the lowest since August 6, 1959. This decline reflected substantial commercial demand for United States dollars in Canada and offerings of Canadian dollars in New York in connection with quarterly dividend payments.

[2] For a discussion of the agreement, see "International Developments", *Monthly Review,* October 1959.

Private Investment and the Industrialization of Puerto Rico

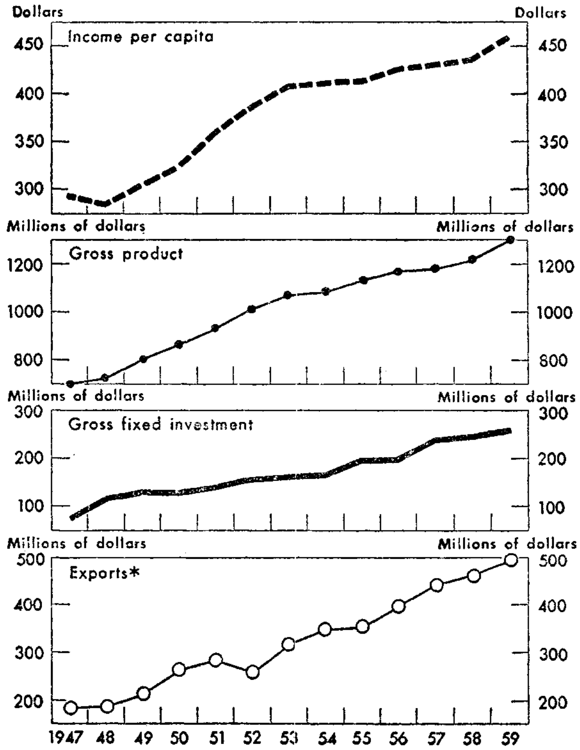
During the postwar years Puerto Rico has carried on one of the most successful economic development programs in the world. Despite the absence of major natural resources, this small overcrowded island has made outstanding progress toward industrialization and in so doing has greatly improved the living standards of its people. Various efforts, ranging from the expansion of power and communications facilities to programs to improve education and expand housing, have played an important role in Puerto Rico's progress. However, the major contribution to industrial development has come from "Operation Bootstrap", the program for attracting mainland manufacturers to Puerto Rico that was inaugurated in 1947. By basing its industrialization primarily on the promotion of United States private investment, Puerto Rico has been able to obtain both the development capital it so badly lacked and also, for a certain range of industries, the modern technology and production and managerial know-how that are essential to industrialization.

Puerto Rico's association with the United States has been of pivotal importance in its economic development, providing many benefits not available to the other underdeveloped areas of the world. While the island's unique status has given it powerful advantages in attracting United States investors, this by no means wholly explains the success of Operation Bootstrap. From 1917 to 1947 the island enjoyed essentially the same political and economic relations with the United States as it does today, but there was only a negligible amount of mainland investment in manufacturing (except in sugar refining). The dynamic factors behind the large-scale postwar movement of United States capital to Puerto Rico have clearly been the special inducements offered to private investors and the vigorous promotional program to acquaint businessmen with the advantages of location on the island. It is primarily as a demonstration of the need for such positive measures, and of how they may be organized and implemented, that the Puerto Rican experience is relevant to other underdeveloped countries that wish to attract foreign private investment.

THE INDUSTRIALIZATION PROCESS

Puerto Rico's economic progress in the postwar period has been reflected in the impressive gains shown by the major indicators of real economic activity (see Chart I).

Chart I
PUERTO RICO'S ECONOMIC GROWTH
In constant 1954 dollars; fiscal years 1947-59



*Including exports to the United States.
Source: Puerto Rico Planning Board.

During fiscal years 1947-59[1] the increase in real per capita income, perhaps the best single measure of economic development, averaged some 4 per cent per year, a rate of growth more rapid than that achieved elsewhere in the Western Hemisphere. Today the average annual income in current dollars of Puerto Rico's more than 2.3 million people is above $500, nearly double the 1947 level and higher than in any Latin American country except oil- and iron-rich Venezuela. The level of output, as measured by the island's real gross product, rose by 84 per cent during 1947-59 under the impetus of the expansion of manufacturing. However, Puerto Rico's economic expansion would not have improved living standards to the extent that it

[1] Puerto Rico's economic statistics are generally reported on the basis of the fiscal year ending June 30. Except where otherwise noted, data in this article are for fiscal years.

has, had there not been an outlet for the island's rapidly expanding population on the mainland. Because of net migration averaging more than 42,000 persons annually, the island's population has actually expanded by less than 1 per cent per year, while in the absence of migration the average annual increase would have been about 2½ per cent.

The heavy migration has been a major factor in the nearly 40 per cent decline in agricultural employment, as the result of which total employment declined by 26,000 to 546,000 between 1947 and 1959. However, in Puerto Rico, as in many underdeveloped countries, the number of persons engaged in agriculture because of the lack of alternative employment opportunities has been far in excess of that needed to maintain output, and migration has actually helped to reduce such "disguised" unemployment. In addition, many underemployed agricultural workers have found work in the island's rapidly expanding nonagricultural industries, where a net of some 53,000 jobs has been added since 1947. Migration and the growth of nonfarm employment have not, however, had any clearly defined effect on "visible" unemployment. In the final quarter of calender 1959 unemployment still amounted to 12½ per cent of the labor force, which compares with postwar lows of about 11 per cent in 1947-49 and peaks of about 15 per cent in 1951-55. While much higher than on the mainland, the unemployment level probably compares favorably with most underdeveloped countries—where, moreover, the measurement of unemployment is not so precise as in Puerto Rico, which uses the same highly inclusive standards as the United States.

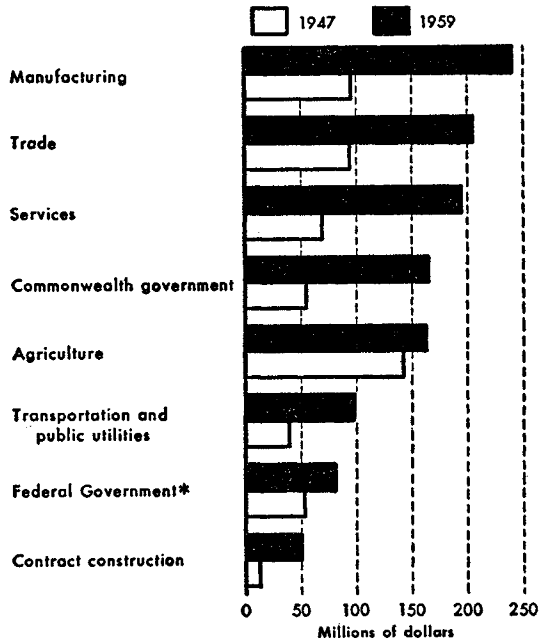
Price trends in Puerto Rico are heavily influenced by supply and demand conditions on the mainland since a very high proportion (60-65 per cent in recent years) of the goods consumed on the island is imported from the United States. Over the postwar period as a whole, consumer prices have risen at an average annual rate of about 2 per cent, about the same rate as in the United States. Prices of most nonfood goods and services have risen less rapidly in Puerto Rico than on the mainland, but food prices have advanced more quickly—chiefly as the result of a steep rise in the price of locally produced foodstuffs, as farm output failed to keep pace with the rapid expansion of demand. Steadily mounting imports from the United States have moderated the rise in food prices, as have the efforts made to bring down distribution costs on the island, mainly through the establishment of supermarkets.

Underlying the growth of the Puerto Rican economy has been a steady expansion of investment. Gross fixed investment (in real terms) in 1959 was more than three times higher than in 1947 and equivalent to some 20 per cent of gross product for the third consecutive year. The high level of investment has been made possible by the inflow of mainland capital which rose from only $30 million in 1947 to $165 million in 1959, when it was equivalent to 57 per cent of total fixed investment. Private direct investment in new manufacturing plants under Operation Bootstrap has accounted for the bulk of the capital inflow. In addition, because of its special links with the United States, Puerto Rico has also been able to draw on the mainland capital market for the financing of much of the social overhead investment needed for economic development. Thus, with FHA-mortgage insurance facilities available on the island, private mainland investors have financed much of the great postwar increase in housing. Moreover, Puerto Rico's public authorities have been able to raise substantial amounts of capital in the United States market through the issuance of tax-free bonds in the same manner as State and local governments on the mainland.

About half of the total postwar investment has been financed from domestic sources, chiefly business and government savings. The major domestic sources of investable funds have been business depreciation allowances and the reinvestment of profits, which have steadily increased in importance as the economy has expanded. During most of the postwar period the Commonwealth Government has also been able to contribute importantly to capital formation from its surpluses in revenue over operating expenses. Substantial government savings have in large measure been possible because, while Puerto Ricans are exempt from Federal taxation, the Federal Government provides many essential services and also, through direct grants in aid, assists in financing a wide variety of activities, including road construction, agricultural extension services, and social welfare programs. On the other hand, personal consumption in most postwar years has in the aggregate exceeded total disposable personal income so that net personal savings have been negative. However, the excess of personal consumption has been narrowing steadily with the rise in incomes and encouragement of savings habits through the growth of banking facilities.

The key feature in Puerto Rico's economic development has been the expansion of manufacturing and the associated structural change in the island's economy (see Chart II). During 1947-59 net income produced in manufacturing increased more than 160 per cent, and by 1956 manufacturing had already surpassed agriculture in importance as a source of income. Under the stimulus of the rise in manufacturing activity, every sector of the Puerto Rican economy, except agriculture, has expanded rapidly. All types of construction activity have boomed;

Chart II
EXPANSION IN MAJOR SECTORS OF PUERTO RICAN ECONOMY
Net income by industrial origin; fiscal years 1947 and 1959



*Wage and salary payments to civil and military personnel in Puerto Rico.

Source: Puerto Rico Planning Board.

transportation facilities and public utilities have been greatly augmented; financial, business, and personal services have grown apace; and the economic roles of the Commonwealth and municipal governments have grown in relative importance. Agriculture has expanded much more slowly than the other sectors of the economy, as the growth in output of meat and dairy products has been partly offset by a considerable decline in the value of sugar cane production.

About three quarters of the postwar growth in manufacturing has been accounted for by the steadily increasing number of new factories established in Puerto Rico as a result of Operation Bootstrap. In 1959, manufacturers who had been induced to locate in Puerto Rico under Operation Bootstrap opened a record 105 new factories, bringing the total number of such publicly "promoted" plants in operation to 553. The new plants have in the main been subsidiaries of smaller mainland firms engaged in relatively labor-intensive light manufacturing operations, and they have mostly been of moderate size, employing an average of some 85 workers. However, in recent years heavier industry has begun to move into the island, and several large United States companies have set up subsidiary plants there. The fastest growing group of new industries has been machinery and fabricated metal products—including especially small electrical appliances and electrical measuring devices—which has become the largest group of manufacturing industries on the island, replacing sugar refining and providing more than 17 per cent of manufacturing net income in 1959. Apparel manufacturing has greatly expanded from the foothold it already had in Puerto Rico prior to Operation Bootstrap and now ranks a very close second in size.

Puerto Rico's new manufacturing industries mainly process imported raw materials and export the finished products, since the island produces few industrial raw materials and the internal market is limited. Industrialization has therefore brought about a sharp expansion in Puerto Rico's overseas trade and a marked change in its commodity composition. Since 1950 imports have tended to rise more steeply than exports, resulting in a trade deficit (financed by the inflow of funds from the mainland) which reached a record $292 million in 1959. The heavy imports of machinery and equipment needed to establish Puerto Rico's new factories and the continually increasing inflow of fuel and raw materials required by them have accounted for the bulk of the 134 per cent import increase. Consumer goods imports have been stimulated by the rise in incomes, but consumer goods accounted for only 36 per cent of total imports in 1959 in contrast to 55 per cent in 1950. On the other hand, the new factories have been responsible for almost all of the 114 per cent increase in exports since 1950; new manufactured products accounted for more than half of total exports in 1959 while sugar, long the island's dominant export, accounted for only one fifth of the total.[2] The great bulk of Puerto Rico's trade has naturally been with the United States, which in 1959 bought 96 per cent of the island's exports and supplied 83 per cent of its imports. However, the mainland exporters' share of the Puerto Rican market has declined markedly in the past two years, owing to a sharp increase in Puerto Rican imports from Western Europe, particularly from West Germany.

Since manufacturing for the mainland market has been the basis for Puerto Rico's industrialization, it has tied the island's economy more closely to the mainland; the ratio of exports of goods and services to gross product rose from 48 per cent in 1947 to 55 per cent in 1959. The postwar recessions in mainland business have not led to downturns in the Puerto Rican economy, although

2 Tourist expenditures have been an increasingly important source of income in recent years as the result of the heavy promotion of the island's attractions as a resort, and the construction of new hotels and other facilities which has been another facet of Operation Bootstrap.

the island's growth during the recession years has perhaps been slower than would have otherwise been the case. Puerto Rico's ability to ride out the recessions without serious effect is perhaps best explained by the fact that the downturns have centered in the markets for durable goods, which still make up only a small part of the island's exports.

BASIC ATTRACTIONS FOR PRIVATE INVESTORS

In attracting United States manufacturing investment Puerto Rico has had, in comparison with other underdeveloped areas of the world, several unique advantages stemming from the fact that it is a self-governing Commonwealth within the United States political and economic system. Its most important advantage has been the absence of the special political and economic risks which have often deterred United States investment abroad. When considering investing in Puerto Rico, mainland businessmen do not face the risks of political instability or the danger of expropriation without compensation. They know that they will receive the equal protection of law guaranteed by the United States Constitution and Federal courts and that they will, in general, be operating in a known legal environment rather than the unfamiliar, and perhaps discriminatory, environment that often exists in foreign countries. Moreover, very high standards of honesty and efficiency are maintained throughout the Commonwealth Government.

Since money and goods move with complete freedom between Puerto Rico and the United States, the special economic risks of foreign investment are likewise avoided by the mainland businessmen who invest there. Puerto Rico's financial and banking system is completely integrated with that of the mainland, and the island can no more have a balance-of-payments problem than can an individual State of the union. Because the United States businessman's investment in Puerto Rico is in dollars, not in a foreign currency, he assumes no foreign exchange risk and is in no danger of being unable to repatriate his profits or capital as and when he sees fit. Another major deterrent to manufacturing investment abroad, the lack of adequate markets, also does not exist for manufacturers locating on the island since Puerto Rican products enjoy duty-free access to the mainland market.

But it has been the opportunity of earning substantially higher profits by manufacturing for the mainland market that has been the positive element in Operation Bootstrap's success. This opportunity exists in the first instance because Puerto Rico does have one major "natural resource" for industry—a large supply of labor. When Operation Bootstrap was just beginning in 1948, average hourly earnings of factory workers in Puerto Rico were only about one third of the mainland average; apparel workers were paid less than 30 cents per hour, compared with $1.18 on the mainland, while hourly earnings in the metal-products industry were about a full dollar lower than on the mainland. The large wage differentials have more than made up for the higher transportation costs incurred in locating on the island and also for the lower productivity of labor in some lines of industry in Puerto Rico—where the worker has generally had less education and experience on the job than his mainland counterpart. Thus, the profits of United States manufacturing firms in Puerto Rico have generally been substantially higher than the before-tax profits of mainland firms. In 1957 the firms established under Operation Bootstrap averaged profits of 34 per cent on their investment and 16 per cent on sales; although broad comparisons of this type are never completely satisfactory, estimated average profit rates in manufacturing on the mainland were 20 and 8 per cent, respectively.

Higher before-tax profits have by no means been the whole story, however, since under Operation Bootstrap Puerto Rico has offered a unique and powerful additional incentive to mainland business—complete tax exemption. Puerto Rico is the only place in the world where United States businesses need not share their profits with the government. Residents of Puerto Rico pay no Federal taxes, and a key part of Operation Bootstrap from its inception has been the exemption of most new manufacturing enterprises from local taxes for various periods of time. Tax exemption is available to manufacturers of products not produced on a commercial scale in Puerto Rico prior to January 1947 and to manufacturers in certain other lines the government wishes especially to encourage. Since 1954 qualifying firms have been exempt from corporate income taxes for ten years and from property and all other taxes for five to ten years, while resident stockholders of such firms have been exempt from personal income taxes on profits earned in the first seven years of operation. Thus, a business whose net profit in Puerto Rico would be $100,000 would clear only $53,500 on the mainland after allowing for the Federal corporate income tax; and a single individual residing in Puerto Rico and receiving dividends from tax-exempt Puerto Rican corporations would receive $50,000 in dividend income as against $26,302 after Federal income taxes on the mainland.

PROMOTING NEW INDUSTRY

Even with the powerful lure of tax exemption added to its other attractions, Puerto Rico did not just sit back and wait for the money to flow in. To attract private capital in sufficient volume and of the right sort to make rapid economic development possible, Puerto Rico had to go out and sell its advantages to the mainland investor by means of a carefully prepared, comprehensive, and vigorously prosecuted promotional campaign. Since 1950, when Operation Bootstrap was reorganized, the Economic Development Administration (EDA), known on the island as "Fomento", has had the task of inducing mainland manufacturers to locate in Puerto Rico. The basic features that account for the success of EDA's industrial promotion program are (1) economic research and analysis aimed at identifying possible advantages to specific industries; (2) well-directed and intensive efforts on the mainland to arouse interest in Puerto Rico's attractions for industry; (3) supplying the prospective investor with all necessary information and maintaining close contact with him until a decision is reached; and (4) providing a wide variety of additional inducements and services which greatly facilitate and reduce the cost of starting up operations in a new location.

EDA's Continental Operations Branch, which has headquarters in New York City and branches in Chicago, Los Angeles, and Miami, carries on intensive efforts to interest businessmen in Puerto Rico through advertising, direct mail campaigns, and personal contacts. These efforts are aimed at inducing more investment in manufacturing lines already located in Puerto Rico and at promoting the establishment of factories which can supply existing plants or use their products. In addition, new targets for promotion are uncovered by continuing studies made by EDA's Office of Economic Research to determine which industries not yet located in Puerto Rico are well suited to the island and to provide the data needed to convince mainland businessmen of their feasibility. (Even today only 60 of the 100 most labor-intensive industries are represented in Puerto Rico.) Research is directed particularly toward pinpointing those new industries which will serve as nuclei for attracting additional new industries, and special promotional efforts are made to induce such core plants to come to Puerto Rico.

Businessmen responding to EDA's mainland publicity are supplied with additional information on business conditions in Puerto Rico and given initial data relevant to the particular project in which they are interested. The financial and business standing of the prospective investor is verified, and the feasibility of his project is scrutinized, since EDA is naturally interested in encouraging only those investments which are soundly based and likely to be well run. Where sufficient interest on both sides develops, the prospective investor is encouraged to visit Puerto Rico for a first-hand look at the situation. On the island he is received by EDA's Industrial Promotion Department, taken to inspect possible plant sites and existing operations in the same or similar lines of manufacturing, and provided with detailed information on all matters pertinent to his investment decision, including the availability and cost of buildings, labor, and materials.

One of the major attractions the prospective investor finds in Puerto Rico is the wide selection of factory sites and buildings available at low cost. This is primarily the result of the work of the Puerto Rico Industrial Development Company (PRIDCO), a specialized real estate and finance company which obtains its funds chiefly from Commonwealth Government appropriations and the sale of bonds in the United States. Through 1959 PRIDCO had spent nearly $58 million in constructing some 344 buildings (including both "standard" factories and ones built to specification for particular enterprises) which have been mainly leased to private business. Businessmen can also count on assistance in obtaining financing from private sources and, to the extent this is not available, they may obtain credit from public agencies. The Government Development Bank is the major source of long-term credit for new manufacturing enterprises, and through 1959 had made business loans totaling nearly $73 million. Where the element of risk is greater than the bank can accept, businessmen may obtain loans or even equity capital from PRIDCO.

An additional inducement for businessmen to locate in Puerto Rico is the extensive assistance they receive in actually starting up operations. A bilingual administrative assistant is assigned to each newcomer to help orient him to conditions on the island and to assist in handling the numerous problems—from arranging for raw material supplies to finding living quarters for management personnel—that are inevitably involved in setting up a new venture in a new location. Especially important is the help given new enterprises in recruiting and training personnel; several prescreened applicants are usually provided for each opening and, while the plant is getting under way, production workers and supervisory personnel may be enrolled in accelerated training courses conducted in cooperation with vocational schools in the United States and Puerto Rico.

One of the most impressive aspects of the industrial promotion program is that it has achieved so much at so little cost to Puerto Rico. Public investment in new factories and in long-term loans to private business has amounted to less than one tenth of the total investment in EDA-sponsored plants. And EDA estimates that the total benefits, direct and indirect, flowing from the industrialization program have been about thirty times its total cost. Including EDA's administrative expenses, imputed interest on public capital invested in EDA-promoted plants, and other expenditures related to the program, the total cost of industrial promotion from 1950 through 1959 was only some $36 million, as against $544 million in additional income derived from the new manufacturing plants and an estimated equivalent amount of income they have generated indirectly.

PROSPECTS AND PROBLEMS

Through Operation Bootstrap, Puerto Rico has already cleared the first and perhaps the most difficult hurdle in the process of economic development—the initial breakout from a subsistence economy which sets in motion the forces making for long-term economic growth. A firm foundation for further industrialization has been created by the expansion and diversification of manufacturing activities on the island, the gradual development of a more skilled labor force, and the expansion of power, communication, and other public facilities. But the pace of Puerto Rico's economic development has so far depended to a large extent on the inducement to mainland manufacturers to locate on the island offered by tax exemption and lower wages.

Tax exemption is vital in getting new enterprises under way, but there is a problem as to whether the firms promoted under Operation Bootstrap will remain in Puerto Rico once their tax holidays expire. Eight of the smaller firms in a group of fifty-nine which began to lose their tax exemption last year have reported that, as a result, they will probably close their doors. However, the profit record of this group of initial beneficiaries of the exemption program has generally been less favorable than that of the firms which were established later on. Because most of the more recently established firms are earning substantially higher before-tax profits than they could elsewhere, and because Puerto Rico's corporate income tax rates are lower than those of the United States Government, the EDA expects that the loss of tax exemption will probably cause less attrition in the main body of EDA-promoted plants.

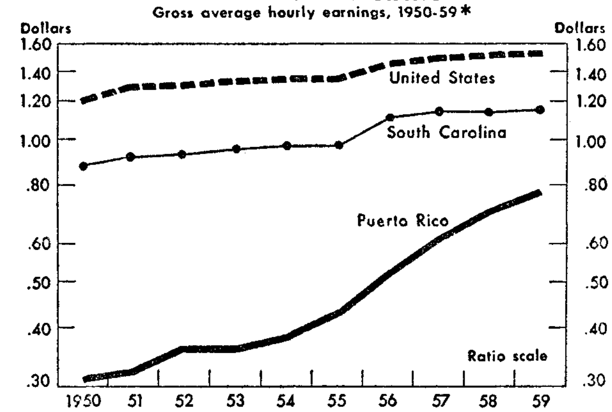
A rise in the level of industrial wages has been one of the principal goals of Operation Bootstrap and a major channel through which the benefits of industrialization have been passed on to the Puerto Rican people. Whereas until 1955 wages increased less rapidly in Puerto Rico than on the mainland, since that time the rate of increase in wages in Puerto Rico has accelerated markedly and has far exceeded the rate of advance on the mainland. During 1956-59 hourly earnings soared 44 per cent in Puerto Rico, compared with an increase of only 13 per cent on the mainland. In certain industries where the rise in wages has been particularly rapid, there has been a swift and substantial narrowing of the island's labor-cost advantage, especially in comparison with the low-wage areas on the mainland with which it competes in attracting labor-intensive industry. For example, in the apparel industry Puerto Rican wages rose from 47 per cent to 68 per cent of the South Carolina level during 1956-59, and the absolute difference in wage rates fell from 59 cents per hour to only 38 cents (see Chart III). Wages have, however, risen less rapidly in other industries, and the differentials between Puerto Rico and the mainland have been better maintained.

A recent EDA report indicates that the steep upward trend of wages has been the factor mainly responsible for the recent slowing of the island's over-all growth rate and the reduced rate of expansion in industrial employment. The rate of increase in the number of new factories being established on the island and the pace at which total output expanded were actually substantially lower during 1955-59 than in the preceding several years. The rapid pushing-up of wages has, however, had its most severe impact on the expansion of employment, the EDA believes, because it has slowed the influx of the more labor-intensive industries and because it has led established industries to shift to less labor-intensive operations. Some 20 per cent fewer new factory jobs were created in the past five years than during 1950-54, despite the much larger absolute increases in manufacturing net income and new investment in manufacturing in the recent period. The lag in employment is a matter of particular concern since, as noted above,

Chart III

APPAREL INDUSTRY WAGE TRENDS IN PUERTO RICO AND THE UNITED STATES

Gross average hourly earnings, 1950-59*



*Data for United States and South Carolina are calendar-year averages; Puerto Rican data are fiscal-year averages.

Sources: United States Department of Labor; Puerto Rico Department of Labor.

there is still a substantial amount of unemployment.

The recent very rapid advance of wages has been the result primarily of administrative action taken under the special provisions of Federal minimum-wage legislation applicable to Puerto Rico and under the island's own minimum wage act. Under these laws, special committees hold periodic hearings in each industry for the purpose of boosting wage rates to the $1.00 per hour Federal minimum as rapidly as conditions warrant. Since wages in a number of industries have by now risen to or very near the minimum, the rate of increase should taper off in the near future. But, if and when the Federal minimum is lifted, wage rates may well begin to rise more rapidly again.

An intensification of the promotion program, especially through added efforts to attract less labor-intensive industries, could apparently contribute importantly to meeting the problem of maintaining a high rate of economic growth in Puerto Rico over the long run. But it is also important for Puerto Rico to seek to develop new attractions for industry and to stimulate the growth of other sectors of its economy. One new development for which there are high hopes in Puerto Rico is the free trade zone to be established this summer at the west coast port of Mayaguez, which will offer foreign businessmen a duty-free location for the manufacture, assembly, or repacking of goods destined for Latin American markets. The Puerto Rican authorities also feel there is great promise in the recent interest United States corporations have shown in taking advantage of the island's attractions as a tax-free base for their overseas operations. In addition, it is believed that Puerto Rico has only begun to explore its potentialities as a tourist center in recent years and that, with added promotional efforts and the expansion of hotel and other facilities, tourism will become an increasingly important source of income and employment.

LESSONS

The Puerto Rican experience has vividly demonstrated how an inflow of private capital can, in combination with other factors, spur industrial development. This and the associated rapid rate of growth have naturally attracted much attention, especially in those underdeveloped areas where industrialization is a prerequisite for rapidly rising living standards. Puerto Rico is, of course, a special case in many respects because of its unique relationship with the United States, which leaves the island without defense burdens and Federal taxes yet provides a variety of Federal benefits as well as free access to mainland markets. Operation Bootstrap, nonetheless, contains lessons for those countries that wish to encourage foreign private investment. Political and economic stability and the basic opportunity to earn higher profits than at home are, of course, essential to the attraction of private capital. These conditions are met in many countries. At the same time, an increasing number of underdeveloped countries have adopted measures to improve the climate for foreign investment by providing guarantees against expropriation without adequate compensation and by assuring equitable legal treatment and the opportunity to repatriate profits. Beyond this, there is scope for further use of fiscal incentives such as freedom for a period from local taxation and exemption from customs duties on capital-goods and raw material imports. But the most important lesson of Operation Bootstrap is that a promotional program based on a careful assessment of a country's advantages as a location for industry and its development needs, and combining vigorous salesmanship with active public assistance in the establishment of new enterprises, can play a decisive role in attracting foreign capital and in stepping up the pace of industrialization.