MARCH, 1947

BUSINESS CONDITIONS

A REVIEW BY THE FEDERAL RESERVE BANK OF CHICAGO

Shortages of Fats and Oils Continue

Industries and Households Feel Pinch

One of the major disruptions of the war to the American (and world) economy was the upset and derangement of that part of the economy involving fats and oils. In spite of a major transformation in American agriculture to meet the crisis in fats and oils, supplies continue, and will continue for some time, to be short of demand.

Fats and oils are an integral part of both the American household and of industry. In diet they include such items as butter, shortening, and salad oils, while industrially they enter into soaps, are used in leather goods preparation, are important as paint solvents and as drying agents, are utilized in linoleum and other floor coverings, and are indispensable as lubricants and as technical aids in such industrial processes as the making of steel plate and tinplate. Fats and oils are of major importance to farmers, particularly middle western farmers, since about one-fourth of the cash income of Corn Belt farmers arises directly or indirectly from the sale of such products as butterfat, lard, soybeans, and flaxseed.

Fats and oils are of both animal and vegetable origin. From animal sources, usually as fats, come not only the butterfat for the table, but lard, tallow, and certain greases. Fish and marine mammals are a source of animal oils. Vegetable oil sources make a long list, but the principal ones are soybeans, flax, cottonseed, corn, and coconuts. Of considerable importance also are oils of peanuts, palms, babassu, tung, olive, oiticica, castor beans, rapeseed, and sesame.

WAR DISRUPTED AMERICAN SOURCES

For about 25 years before American entry into World War II, this country was a net importer of fats and oils, importing about one-fourth of the ten billion pounds annually consumed. About two-thirds of these imports came from southeastern Asia, principally the Philippine Islands and the Netherlands East Indies, but including also Japan, China, and Manchuria. The balance of the imports came principally from Argentina, Brazil, and Uruguay, with smaller amounts from the Mediterranean countries.

The Japanese advance in the Pacific reduced the flow of palm and coconut oils and of copra from the Asiatic area to a small fraction of the prewar level, or from about one billion pounds annually to less than ten per cent of this volume.

Shipping difficulties during the years 1942-44 reduced inflows from South America, although before the war ended, imports from that area were approaching prewar rates. Atlantic sea warfare, of course, virtually cut off imports from European sources. Not only did the Japanese occupation shut off Asiatic countries as a source of supply, but when the enemy was driven out of the islands, wholesale demolition of assembling and transportation facilities, as well as disrupted economic organization, left in their wake a vast problem of physical and economic reconstruction before oils could again be shipped from these areas.

AMERICAN AGRICULTURE MET THE CHALLENGE

Confronted both by a loss of supply sources and by augmented demands for fats and oils, the problem presented a real challenge to American agriculture. The nutritive value of fats in the diet, their "staying power" in the human stomach, the requirements for the military forces, the needs for lend-lease, the enlarged demand of civilians for food arising from higher money incomes, and the expanded industrial activities all combined to make the meeting of that challenge highly urgent. Since total production could not be made to match these enlarged demands, drastic rationing and allocations were inevitable. However, the nation's agriculture met the challenge by producing, at the peak of the war effort, a domestic supply of fats and oils more than 50 per cent above the prewar output and about 15 per cent above the total domestic consumption in prewar years. No one crop or livestock enterprise was relied upon to achieve this remarkable result. But the principal sources of the increase, in the order of their importance, were: lard and rendered pork fat, which accounted for about 40 per cent; soybeans, about one-fifth; inedible tallows and greases, also about one-fifth; and flaxseed, about 15 per cent. In obtaining this added production, a combination of agricultural production goals, subsidies, and price guarantees was used. In spite of greatly expanded peanut acreages, less than two per cent of the increased production of oils came from this source, the bulk of the peanut crop having gone into direct edible uses. Alongside of these increases were substantial declines in the production of butter and cottonseed, with the result that the sources of increases noted above had to make up some of these losses.

PEAK NOT MAINTAINED

Since the 1943-44 wartime peak was reached, there has been gradual deterioration. Estimates of fat and oil production from domestically produced materials for the current operating year (1946-47) are more than 20 per cent below the output achieved for 1943-44. Major declines are shown for such important sources as cottonseed, flaxseed, butter, tallows, and greases, but the biggest drop from the wartime peak is, of course, that in lard and rendered pork fat, output of which is currently nearly 40 per cent below the high level of 1943-44. The only major oil source which has held up and continued to expand is soybeans, oil from which is currently about 10 per cent above the 1943-44 level and more

(*Continued on Inside Back Cover*)

The Rising Tide of Commercial Loans

Survey Shows Seventh District Distribution

Contrary to widespread expectations at V-J Day, the volume of commercial and industrial loans of Federal Reserve member banks has increased sharply since the end of the war. The rate of increase has risen as well, particularly since the middle of June 1946. Commercial and industrial loans outstanding on the books of weekly reporting member banks in 101 cities totaled 10.7 billion dollars late in February 1947, as compared with 5.9 billion dollars in July 1945. Except for the Thanksgiving and year-end holiday periods, each passing week has set an apparent all-time record for the commercial and industrial loan series.

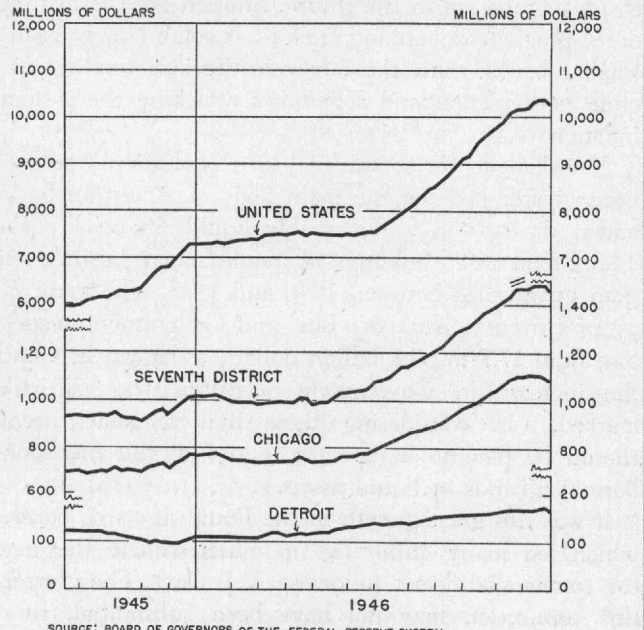
The Seventh District and the city of Chicago have followed the national trend of commercial loan expansion, as shown in Chart 1, although the Seventh District percentage of the national total has fallen somewhat. The trend in Detroit was downward in the second half of 1945 but has kept pace in subsequent advances.

Many observers predict a continued increase in commercial and industrial loans at least through the first half of 1947. Higher costs and wages, increased concentration on advertising and selling, rebuilding of inventories, large tax payments, and embarkation on postponed programs of postwar expansion all point in this direction. The decline in the securities markets last autumn effectively barred financing through stock or bond flotation by some concerns which had delayed taking such action earlier. A substantial volume of unused credit lines already outstanding, principally at large banks, on which commitment fees are being paid by borrowers, also indicates a probability of continued advance in the total of loans.

CHART 1

COMMERCIAL AND INDUSTRIAL LOANS SINCE V-J DAY

WEEKLY REPORTING MEMBER BANKS



SOURCE: BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, FEDERAL RESERVE BANK OF CHICAGO.

Realization of possible dangers inherent in continued rapid commercial loan expansion has been noticed in recent months. There has been a tendency toward greater severity in the scrutiny of both loan and renewal applications. Even for the more prominent borrowers, decreases in the average maturity of credits granted were common during the autumn and winter.

Such a turn to greater caution and selectivity is highly desirable under current very high but somewhat mixed business conditions, although it may operate to discriminate against small business and new firms. Arbitrary rigor and brusque contraction could in themselves bring on a severe liquidation crisis, such as seems to have occurred in the spring and summer of 1920. Business now appears, however, to depend on bank loans for a smaller proportion of its financial requirements than in 1919-20 or in 1928-29.

DISTRIBUTION OF LOANS

Detailed information regarding the distribution of member bank commercial loans by number and dollar amount is now available for the first time as a result of a special survey conducted on a sample basis by the Federal Reserve System. Results for the Seventh Federal Reserve District, estimated from data provided by 202 banking offices are summarized in the accompanying table; all figures refer to loans outstanding on November 20, 1946.

A total of 76,600 individual commercial and industrial loans are estimated to have been outstanding in this District on that date. Their money volume aggregated 1,840 million dollars; the approximate size of the average loan was therefore $24,000. In addition, Seventh District member banks, led by the larger institutions, had issued unused credit lines totaling 187.2 million dollars on which borrowers were paying commitment fees but which were not being utilized.

The several breakdowns of the total number of loans which are assembled in the table indicate a wide dispersion of bank funds over the business community. In number, the great bulk, 86.8 per cent, of the individual loans were made by relatively small banks, with total deposits of 100 million dollars and less. Banks with deposits of less than 10 million dollars made 39.8 per cent of all loans surveyed. Of the recipients, 65.5 per cent were small business establishments with total assets of less than $50,000; 40 per cent were retail tradesmen. Three-fourths of the loans have short-term maturities, one year and less; 28.6 per cent of the loans have gone to new businesses organized later than 1942; 24.4 per cent have been made to owners of unincor-

porated business. Nearly 60 per cent of all loans have been made on specific security, the most usual forms being chattel mortgages and real estate, 18.4 and 14.9 per cent, respectively.

The total loan volume in dollars, as would be expected, is concentrated in relatively few large loans made by the largest banks to large business firms engaged chiefly in manufacturing and mining operations. Five Seventh District member banks, each with total deposits of half a billion dollars and over, lent 56.5 per cent of all funds advanced. Almost half of the funds went to the 1.8 per cent of borrowers whose total assets were valued individually at over five million dollars. Manufacturing and mining companies borrowed 49.7 per cent. The share of new businesses was 7.1 per cent; unincorporated businesses received 19.5 per cent. Almost three-fifths of the total credit volume was lent without explicit security; for loans to manufacturing and mining companies, the fraction was slightly over two-thirds. The larger loans also tended to be made for longer terms; 40.2 per cent of the total loan volume was lent for periods of over one year.

The distribution of loans and loan volume by states and by industries corresponded generally to expectations. A tendency can be noted for the larger banks to finance industry outside their industrial area and outside the Seventh District. For example, a substantial volume of loans secured by oil production runs was reported, chiefly by large city banks. These reflect the financing of the petroleum industry almost exclusively outside the District.

Considerable sums have been advanced by member banks with inventory as principal security. Of the total number of loans, 4.1 per cent are based on inventory; these loans account for 5.5 per cent of the total loan volume. Member banks have also lent large sums to other financial institutions; sales finance companies have borrowed 6.9 per cent of the member banks' total loan volume, presumably for relending to consumers and others. Investment bankers, security dealers, and stock brokers have borrowed another 5.5 per cent, in addition to other credits classified by the banks as security, rather than as commercial, loans.

On the survey date, Seventh District member banks as a group appear to have placed relatively slight reliance on RFC and other Governmental guarantees and participations. Only one per cent of the total loan volume, representing 0.4 per cent of total loans outstanding, was based primarily on security of this kind.

CAUSES OF EXPANSION

The rise in commercial and industrial loans must of course be considered in relation to the broad upward movement in most phases of business activity which has occurred since the end of hostilities, and not as an independent business development.

Specific causes for the postwar expansion of commercial and industrial lending are easy to find, although their comparative importance is difficult to assess and their total effect is merged with seasonal movements. The dominant factors have been on the demand side, many of them continuing in effect and mentioned already as reasons for anticipating further increases. They include wage-price increases particularly as they affect costs, increases in the physical volume of sales and therefore of inventories, increased credit buying by final consumers and other customers, availability of Government war surpluses, excess of tax payments on prior years' earnings over current tax accruals, and elimination of war-related sources of Government funds. Reconversion problems, strikes, transportation delays, and material shortages, moreover, have delayed numerous concerns from reaching full production and anticipated earnings and rendered them abnormally dependent on borrowed funds for their day-to-day operations.

Many concerns, large and small, have diverted capital from working capital uses to expansion programs and replenished their working funds by bank loans at highly advantageous rates of interest, and for terms extending up to ten years. Some of the larger individual loans to nationally known corporations have been made as participations with large metropolitan banks acting jointly; Chicago has been a center of this type of development. Leading life insurance companies have also made large joint loans of the same kind.

The RFC has guaranteed approved banks against loss on 75 per cent of secured industrial loans in amounts less than $100,000 for periods up to ten years at an annual charge of ¾ of 1 per cent. This has encouraged banks to make some loans which otherwise would have not been made, or which if made would have involved shorter terms, higher rates, or other conditions less favorable to borrowers. This blanket guarantee program, which dates from the early part of 1945, was terminated on January 22 of this year. Up to November 27, 1946, a total of 340 million dollars had been loaned under the guarantee program, including 53 million dollars in the Seventh District. A bill introduced by Senator Tobey would empower the Board of Governors of the Federal Reserve System to administer a similar program in the future. Support for the loan guarantee program in banking circles has come largely from the smaller banks, with the larger institutions tending to decline participation and sometimes attacking the system as inflationary.

The demand for commercial loan expansion would have been greater had not the main body of American business ended the war in a remarkably liquid financial position. The liquid asset holdings of nonfinancial business more than quadrupled between 1940 and 1945. The total, made up of currency, bank deposits, and Government securities, rose from 17.7 to 69.1 billion dollars, as shown in Chart 2; the increase in Government securities was particularly marked. (In considering these figures, some attention should be paid to higher prices and to the inclusion of borrowed funds in liquid assets.)

It was this great growth in the liquid assets of borrowers which led many authorities to underestimate the market for commercial loans following V-J Day. Their error in this connection may not have been substantial, for the major increase in commercial lending followed a partial dissipation of industrial liquid assets early in 1946. A pre-

ESTIMATED NUMBER AND VOLUME OF COMMERCIAL AND INDUSTRIAL LOANS OUTSTANDING SEVENTH FEDERAL RESERVE DISTRICT MEMBER BANKS

NOVEMBER 20, 1946

CLASSIFICATION	Number of Loans		Volume of Loans	
	Thousands	Per Cent of Total	Millions of Dollars	Per Cent of Total
A. By Deposit Size of Lending Bank				
Under $2,000,000	4.9	6.4	9.8	0.5
$2,000,000-$10,000,000	25.6	33.4	89.2	4.8
$10,000,000-$100,000,000	36.0	47.0	361.7	19.7
$100,000,000-$500,000,000	5.7	7.4	340.6	18.5
Over $500,000,000	4.5	5.9	1,038.7	56.5
Total	76.6	100.0	1,840.0	100.0
B. By Asset Size of Borrower				
Under $50,000	50.2	65.5	131.9	7.2
$50,000-$250,000	17.6	23.0	244.4	13.3
$250,000-$750,000	4.5	5.9	197.2	10.7
$750,000-$5,000,000	2.4	3.1	390.3	21.2
Over $5,000,000	1.4	1.8	872.1	47.4
Unclassified	0.5	0.7	4.1	0.2
Total	76.6	100.0	1,840.0	100.0
C. By Business of Borrower				
Manufacturing and Mining				
Food, liquor, and tobacco	2.0	2.6	209.0	11.4
Textiles, apparel, and leather	0.7	0.9	32.1	1.7
Metals and metal products, including transportation equipment and parts	5.7	7.4	358.3	19.5
Petroleum, coal, chemicals, and rubber	0.7	0.9	196.2	10.7
All other	4.5	5.9	119.5	6.4
Total manufacturing and mining	13.6	17.8	915.0	49.7
Wholesale Trade				
Food, liquor, tobacco, and drugs	3.2	4.2	137.4	7.5
Apparel, dry goods, shoes, etc.	0.5	0.7	17.7	1.0
Home furnishings, appliances, hardware, lumber, and metal products	2.1	2.7	35.8	1.9
Automobiles and parts, and petroleum	0.7	0.9	17.8	1.0
All other	1.9	2.5	41.4	2.2
Total wholesale trade	8.4	11.0	250.1	13.6
Retail Trade				
Food, liquor, tobacco, restaurants, and drug stores	9.6	12.5	35.5	1.9
Apparel, dry goods, shoes, mail order houses, general and department stores	3.6	4.7	53.5	2.9
Home furnishings, appliances, hardware, farm implements, lumber, and metal products	7.1	9.3	37.0	2.0
Automobile dealers, auto accessory stores, and filling stations	5.1	6.7	22.2	1.2
All other	5.1	6.7	25.0	1.4
Total retail trade	30.6	40.0	173.2	9.4
Other Classified				
Transportation, communication, and other public utilities	4.2	5.5	147.2	8.0
Hotels, amusements, professional, repair, and other services	8.7	11.4	64.2	3.5
Building and road construction contractors and sub-contractors	5.1	6.7	46.8	2.5
Sales finance companies	1.1	1.4	126.5	6.9
All other	4.8	6.3	116.2	6.3
Total other classified	23.9	31.2	500.8	27.2
Unclassified	0.1	0.1	0.9	0.1
Total	76.6	100.0	1,840.0	100.0

CLASSIFICATION	Number of Loans		Volume of Loans	
	Thousands	Per Cent of Total	Millions of Dollars	Per Cent of Total
D. By Age of Borrower's Business				
New (Founded after 1942)	21.9	28.6	130.6	7.1
Old (Founded in 1942 or earlier)	54.7	71.4	1,709.5	92.9
Total	76.6	100.0	1,840.0	100.0
E. By Borrower's Form of Business Organization				
Corporate	18.7	24.4	1,481.9	80.5
Non-Corporate	57.9	75.6	358.1	19.5
Total	76.6	100.0	1,840.0	100.0
F. By Type of Principal Security				
Unsecured	31.3	40.9	1,088.5	59.2
Secured				
Endorsed	2.9	3.8	40.9	2.2
Co-Maker	1.4	1.8	3.4	0.2
Trust receipts	0.4	0.5	5.9	0.3
Chattel mortgages	14.1	18.4	72.2	3.9
Warehouse receipts and other inventory	2.1	2.7	97.2	5.2
Plant or other real estate	11.4	14.9	128.4	7.0
U. S. Government securities	1.5	2.0	47.7	2.6
Other securities	2.8	3.7	78.4	4.3
Assignments of deeds, mortgages, and claims	1.8	2.3	124.2	6.8
Accounts receivable	1.6	2.1	26.1	1.4
Oil runs	0.1	0.1	57.3	3.1
Life insurance	2.9	3.8	18.7	1.0
Time deposits	0.4	0.5	0.9	0.1
V, V-T, or T loans	*	0.1	5.4	0.3
R.F.C. participation or guarantee	0.2	0.3	12.0	0.6
Federal Reserve Bank participation or guarantee	*	*	0.9	0.1
Other secured (Including G.I. loans)	1.5	2.0	31.5	1.7
No security indicated	0.1	0.1	0.7	*
Total	76.6	100.0	1,840.0	100.0
G. By Length of Loan				
One year or less	57.9	75.6	1,099.7	59.8
Over one year	18.7	25.4	740.3	40.2
Total	76.6	100.0	1,840.0	100.0
H. By Location of Lending Bank				
Illinois	27.3	35.6	1,253.3	68.1
Indiana	14.7	19.2	129.7	7.0
Iowa	5.5	7.2	38.9	2.1
Michigan	18.9	24.7	278.8	15.2
Wisconsin	10.2	13.3	139.3	7.6
Total	76.6	100.0	1,840.0	100.0

*Less than .05.

Note: These estimates of loans in 992 Seventh District member banks are based on data reported by a sample of 202 banking offices. Figures have been rounded and need not add to totals.

liminary June 30, 1946 total of liquid asset holdings of nonfinancial business is 65.6 billion dollars; the slow decline from the 69 billion dollar December 1945 maximum is believed to be continuing.

The repeal of the wartime excess profits tax and the redemption of excess profits tax bonds for prior years improved the immediate postwar financial position of borrowers, and also delayed the postwar rise in commercial and industrial loans. The effects of this nonrecurrent factor were exhausted almost completely in the first half of 1946. Delays in refunds under tax carryback provisions may give rise to some temporary need of bank credit by certain firms.

FINANCING THE INCREASE

The commercial banks have financed the increased and increasing total of commercial loans thus far without apparent over-all strain on their resources. The increase has coincided in fact with a gradual decline in the combined total of commercial bank loans and investments, traceable largely to the drawing down of bank-held short-term Government securities by the Treasury's debt retirement program. There has been no decline in excess reserves, and member bank borrowings from the Federal Reserve Banks have not shown any decisive movements. Total currency and demand deposits other than Treasury deposits have shown a tendency to creep upward month by month, but the over-all increase has been small as compared with the rise in commercial and industrial loans.

In addition to short-term Government securities, loans for purchasing and carrying securities should be mentioned as having declined while commercial loans increased. Their fall was particularly marked during the period when a 100 per cent margin on purchases of new securities was required by Federal Reserve regulations.

INFLATIONARY POTENTIALITIES

The accelerated rate of increase in commercial loans, coincident as it was with the scrapping of OPA controls, sharp upward movements in wholesale and retail prices, and a sudden upsurge in inventory holdings, has concentrated attention upon the inflationary potentialities of the cumulative upward movement.

To those who see further substantial price increases as a definite possibility, perhaps culminating in a collapse comparable with 1920-21, any inflationary element in loan expansion is an unmixed evil. There are, however, increasing numbers of persons who consider the wartime and postwar inflation as largely past history. They view the economic problem of 1947 as one of resisting deflationary pressure, minimizing any downturn, and achieving stability at the present price level or possibly a somewhat higher one. To them an inflation potential offers in itself no serious cause for alarm.

These economic problems may appear remote to an individual banker considering an individual loan. The new borrower, or the old customer desiring additional accommodation, is in a "sound" and "liquid" position as judged by normal credit standards. In particular, he has sufficient working capital, apart from what he proposes to borrow, to enable him to repay the loan without extreme distress, even in mildly depressed conditions. The advance is desired for legitimate purposes, such as the financing of new production or the tiding of the borrower over shortages of materials or labor.

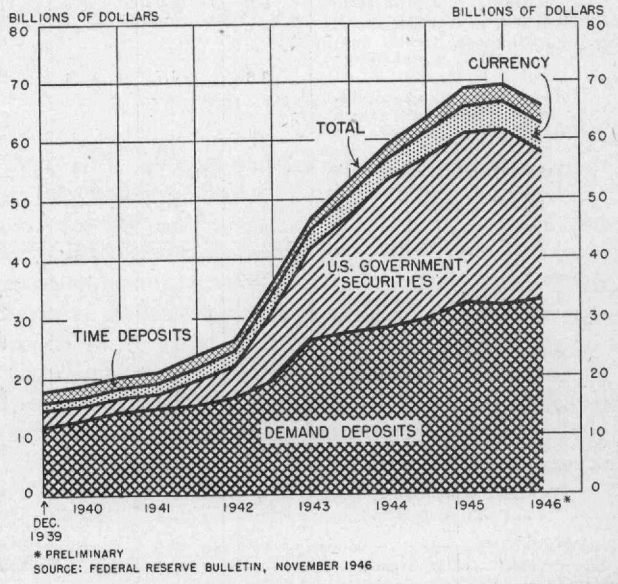
Bank loans to individual firms make possible needed expansion in output of goods insofar as manpower, materials, and equipment are available. Under conditions where these resources are fully utilized, however, the extent to which production as a whole can be accelerated or expanded by financial accommodation is reduced. In the latter instance, recipients of additional credit may be able to expand facilities or production, but probably only at the expense of others, with a small addition, if any, to total output.

While the general business situation at present is characterized by record peacetime use of manpower and material resources, divergent trends among industries and firms are becoming increasingly important. In many lines, demand, production, and prices continue strong, and seem likely to remain so for many months; at the other extreme, numerous firms have already experienced sharp sales reductions and have uncertain prospects. Continuing close study of trends in particular business lines obviously will be prerequisite to effective commercial bank lending policies in coming months.

The volume of commercial and industrial loans was low during the 1930's, and remained low during the war. The present expansion, therefore, can be looked upon as a return to a more normal level, since the proportion of bank loans to total business capital remains relatively small. These facts have made additional loans seem safer to the individual banker. They may, however, have induced some underestimation of their aggregative significance.

CHART 2

ESTIMATED LIQUID ASSET HOLDINGS OF NONFINANCIAL BUSINESS, 1939–46



* PRELIMINARY

SOURCE: FEDERAL RESERVE BULLETIN, NOVEMBER 1946

Meaning and Significance of Productivity

Increase in 1947 Essential to Continued Prosperity

The trend in productivity—of workers, machines, and managements—will be a dominant factor influencing the course of general business activity during the next year. Only through productivity gains can present extensive wage-cost-price maladjustments be corrected without serious financial losses for workers and business firms. Where prices are now too high to promote sustained heavy sales and production and where such prices rest upon high and inflexible costs, expanded output per man hour offers the best—if not the only—means of achieving price-cost reductions with a minimum disruption of business and employment.

Reports of increasing productivity are being received from manufacturing firms in many sections of the Seventh Federal Reserve District, comprising most of Illinois, Indiana, Michigan, and Wisconsin, and all of Iowa. While there is considerable difference of opinion as to the most appropriate means of measuring productivity,[1] the most significant fact is the general agreement that productivity not only is rising but seems virtually certain to increase at an accelerating rate at least through 1947.

An upward trend in productivity is a favorable factor for pending wage negotiations in that it provides a basis for wage increases without a corresponding increase in prices in contrast to the wage-price spiral pattern of recent years. Continuity of production resultant upon successful wage settlements, in fact, will make a large contribution to productivity gains this year. While considering the short-run benefits of increased output per worker for business and employment, it cannot be overlooked that the observed secular increase in productivity poses many problems, which may now appear remote, concerning the steadily declining number of workers required to produce any given national output, while the number of workers available for employment continues to grow.

MEANING OF PRODUCTIVITY

Productivity represents the relation between total production and the amount of input required to obtain that production. Ideally, input should include all the elements necessary to the production process. The difficulty of adding such diverse items as labor, power, raw materials, machinery, and management and engineering skills has resulted in the use of a single variable, usually labor, in terms of which overall productivity is measured. In this sense productivity equals total output per man hour and is the result of dividing total production in physical terms by the number of man hours used to obtain that output.

It is important not to confuse the level or trend of productivity with any one of the several factors responsible for determining that level or trend. This is particularly desirable when productivity is measured in terms of output per man hour.

Contrary to the somewhat prevalent popular conception, worker morale, i.e., the direct efforts of workers, is only one of several interrelated casual factors underlying the level of output per man hour. Other factors ordinarily of far greater direct influence include the investment per worker, technological changes, effectiveness of management in organizing existing productive and human facilities, and the regularity of material flows. Therefore, the expression *"labor* productivity" is misleading, even though productivity may be measured in terms of output per man hour.

Two general types of productivity changes have been observed, although no satisfactory means has been developed to distinguish quantitatively between them. *Real* productivity refers to changes in output per man hour (or other measure) attributable to improved techniques and better organization of the productive processes. *Volume* productivity pertains to changes in output per man hour attributable to other causes, particularly to changes in the rate of production from existing capacity. In other words, real productivity reflects scientific improvements in machines and administrative techniques which could be expected to continue to increase during depressed as well as prosperous periods. In contrast, volume productivity gains ordinarily are large during a period of expanding rate of operations in which productive capacity already available is merely used more fully, and may then decline temporarily after full employment is reached if bottlenecks develop. Real productivity generally does not decline, except in instances of capital destruction, but volume productivity may fall when business contracts.

For the postwar period, the significance of this distinction is largely that gains in output per man hour since V-J Day, and especially in recent months, appear to have been more the result of volume than real productivity gains. In the months immediately ahead, real productivity increases are expected to mount while advances in volume productivity diminish.

OUTLOOK FOR 1947

Gross national product at any time is dependent upon available manpower and other resources, the extent to which such resources are used, and their productivity. Under present conditions of virtually full employment of resources, further increases in production are dependent largely on greater output per man hour and/or a longer work week. The downward trend in the length of work week, which set in after V-J Day, in recent months has reversed itself and a slight rise is now evident. However, institutional pat-

[1]The problems of measuring productivity and the various means employed for measurement will be considered in a forthcoming article in *Business Conditions.*

terns and leisure considerations act as definite limitations on the extension of the work week under peacetime conditions. Main reliance for increased production in 1947, therefore, hinges on productivity trends, measured in terms of output per man hour.

Although satisfactory over-all quantitative data are not available, scattered evidence indicates a downward post V-J Day trend in productivity in many industries, particularly in key manufactures. This trend parallels the immediate post World War I experience and reflects the difficulty of industry in surmounting reconversion problems. In each year from 1919 through 1922, however, productivity, as measured by the U. S. Bureau of Labor Statistics, showed marked increases. If history repeats itself, the next few years also will be characterized by marked productivity increases. It appears that conditions are favorable to such a trend for at least the balance of 1947.

Over the next several months the major factors influencing productivity trends will be materials flows, management efficiency in organizing existing productive facilities, and worker efficiency and morale. In each case the outlook is more encouraging than it has been in the period from V-J Day to date. Materials are again beginning to flow more evenly and in larger quantity. Pipelines are also more adequately filled than they have been heretofore, and inventory unbalance is being corrected. Industries are thus enabled to schedule work in such a way that workers and machines have fewer idle moments and less time is lost in moving materials from one operation to the next. The smooth flow of materials in adequate quantity is of particular significance in mass production industries as a means of restoring assembly lines to more normal speeds and efficiency.

Management's principal immediate post V-J Day problem of changing over plants from wartime to peacetime production has been surmounted and should offer decreasing resistance to future all-out production.

Worker efficiency and morale represent intangible factors difficult to evaluate. Unrest resulting from wholesale shifts in employment attendant upon war contract terminations and demobilization is in the past. Also largely removed from the foreground are first round wage increases with their deep employer-employee ill will and extended work stoppages. Much better relations have characterized second round wage negotiations to date. Leveling of cost of living in recent weeks should aid in raising worker morale. Extended controversy over the portal-to-portal wage issue, however, may be damaging to morale.

Of the factors mentioned, improvement in materials flows will probably be of the greatest immediate importance in raising output per man hour. As materials bottlenecks are reduced, worker efficiency and morale, along with improved productive equipment and methods, can be expected to exert a strong upward influence upon productivity.

In summary, nineteen months after V-J Day, plants are increasingly well organized internally for high level peacetime operations, workers have been trained and have acquired considerable experience with civilian products, and worker morale seems to be improving. A major missing link is the coordination of materials flows throughout industry, particularly in metals, chemicals, and construction, so that all or the vast majority of plants can get their required amounts of materials regularly, thereby permitting the whole industrial machine to operate in high gear.

LONGER-RUN TRENDS

Widespread disruptions in the economy resulting from the conversion to war and the reconversion to peace have focused attention upon essentially short-run factors affecting productivity. Under more normal conditions such matters as materials flows and plant organization raise detailed rather than general problems and therefore do not overshadow the more fundamental factors underlying longer-run trends in productivity, namely, quantity and quality of plant and equipment.

A close correspondence over periods of time is known to exist between production per man hour and the amount of invested capital per worker. During World War II about 26 billion dollars was spent in adding to the plant and equipment of the country's war industries; vast improvements were also made in technology, i.e., in the quality of the existing and added capacity. Since V-J Day a similar trend has occurred. In 1946, expenditures of industry on plant and equipment totaled 12 billion dollars, a new peacetime record, and planned expenditures for the first quarter of 1947 indicate a plateau at the levels of the fourth and highest quarter of 1946.

Of the post V-J Day expenditures, the largest part has been concentrated in non-war industries. This complements the wartime expenditures in munitions and allied industries, and provides the country with physical facilities much improved in quantity and quality relative to those existing prior to the war. The current year should witness the fruition of these vast capital *expenditures* in expanded productivity and increased production.

Increased output per man hour, regardless of the underlying factors responsible, obviously means that fewer workers are required for any given amount of production. For example, projecting prewar secular increases in over-all productivity, by 1950 it should be possible to achieve a 40 per cent greater output than in 1939 with no more workers than were employed in the latter year.

How increases in productivity, particularly during coming months, are to be apportioned among wages, profits, and price reductions raises many important and controversial questions. Price reductions seem an unusually appropriate outlet under present conditions of abnormally high prices. Over the longer run, however, one's economic theories will in part determine the method of distributing productivity gains deemed most likely to maintain a sustained high level of consumer purchasing power. One group is inclined to favor an increase in labor's share in increased productivity on the grounds that laborers will tend to spend more of their increased incomes than would investors. A second group is more sympathetic toward an increase in capital's share on grounds of providing incentives toward further investment and productivity gains. A third tends to prefer a generally falling level of consumers' prices.

Balanced Budget Predicted in Fiscal 1948

Estimates Indicate Little Chance for Debt Retirement

With net receipts of 37.7 billion dollars and expenditures of 37.5 billion, as estimated in the President's message to Congress, the Federal budget for the fiscal year 1948 is expected to show a small surplus, the first since 1930. There is, however, no promise of debt reduction in the budget estimates. In view of the narrow margin of receipts over expenditures and the fact that the Treasury's cash balance has already been reduced to a level consistent with peacetime needs, little net redemption of the public debt can be anticipated. At the close of fiscal 1948 the public debt will still amount to 260 billion dollars, compared with 260.2 billion at the end of the current year, but 18 billion under the peak of a year ago.

The budget message also indicates an upward revision in estimated expenditures for the current fiscal year to 42.5 billion dollars. An increase of one billion over the August estimates is largely attributable to more extensive use of veterans' benefits than was anticipated earlier, particularly in education and job training. The deficit for fiscal 1947, now expected to be 2.3 billion, is covered by the reduction in the cash balance which will also make possible a net decline of 9 billion in the public debt for the current year.

SUMMARY OF THE FEDERAL BUDGET
FISCAL YEARS 1946-48

(In millions of dollars)

Item	Estimated		Actual
	1948	1947	1946
Net receipts	37,730	40,230	43,038
Expenditures[1]			
National defense	11,256	14,726	45,012
Veterans' services and benefits	7,343	7,601	4,414
International affairs and finance	3,510	6,394	1,464
Social welfare, health, and security	1,654	1,570	1,113
Housing and community facilities	539	544	—180
Education and general research	88	71	88
Agriculture and agricultural resources	1,381	1,117	752
Natural resources not primarily agricultural	1,101	728	257
Transportation and communication	1,530	905	824
Finance, commerce, and industry	426	83	30
Labor	118	124	104
General government	1,492	1,545	972
Interest on the public debt	5,000	4,950	4,748
Refunds of receipts	2,065	2,155	3,119
Reserve for contingencies	25	10	.....
Adjustment to daily Treasury statement basis	.....	.....	997
Total expenditures	37,528	42,523	63,714
Excess of budget receipts over expenditures	202	.....	.....
Excess of budget expenditures over receipts	.....	2,293	20,676
Net expenditures of trust accounts[2]	414	407	524
Change in Treasury cash balance	—411	—11,722	—10,460
Change in public debt during the year	—200	—9,022	+10,740
Public debt at end of year	260,200	260,400	269,422

[1]Includes general and special accounts, and net expenditures of Government corporations and credit agencies, except debt retirement.
[2]Includes trust account investments in U. S. Government securities.

Both revenue and expenditure estimates for 1948 are, of course, highly tentative. They are based on the assumption of a level of business activity slightly higher than that of the calendar year 1946. Estimates of receipts are based on the maintenance of existing taxes and tax rates, except that they do not allow for the extension of war excise taxes. Expenditure estimates include provision for existing and proposed legislation but they do not allow for the President's recommendation to increase postal rates to the degree necessary to eliminate the postal deficiency. With the inclusion of excise taxes and elimination of the postal deficiency, the budget surplus would amount to 1.8 billion dollars.

EXPENDITURE CLASSIFICATION REVISED

The new budget introduces a major revision in the classification of expenditures, grouping together under several new categories items which are functionally related. Net expenditures of Government corporations are included in the estimates and for the first time are distributed on a functional basis.

Most important among the changes effected by the reclassification is the narrowing of "national defense" and "general government" categories. The cessation of hostilities required a shift of many activities from "national defense" to other areas. "General government" is now confined to expenditures connected with the Government as a whole which cannot be allocated to specific programs. The former category "public works" is eliminated from the new breakdown. Public works expenditures are now distributed among the programs to which they apply.

Estimates of total expenditures for fiscal 1948 are approximately 5 billion dollars below those for the current year. With the exception of programs connected with national defense or the aftermath of war, most Government activities will call for larger expenditures in fiscal 1948. The major categories which show decreased expenditures are national defense, international affairs and finance, veterans' benefits, refunds, and general government. These declines, however, were partially offset by increased costs for other purposes, notably agriculture, natural resources, and transportation and communication. These changes indicate the gradual shift away from war and transition activities and the greater relative importance of peacetime affairs.

By far the greatest portion of expenditures, however, will still be in connection with national defense or with activities which resulted from the war. The costs of national defense, services to veterans, interest on the public debt, and refunds of taxes amount to 25.7 billion dollars, or 68 per cent of the total budget. International affairs, which also includes commitments necessitated by the war, accounts for an additional

3.5 billion, or 10 per cent of the total. Expenditures for all other items in the budget, exclusive of these five major categories, are estimated at 8.4 billion dollars for 1948 compared with 6.7 billion for 1947 and 5.0 billion for 1946. They will represent 22 per cent of the total budget compared with 8 per cent in 1946.

National defense is still the most costly single activity of government, although expenditures of 11.3 billion for fiscal 1948 will amount to less than 14 per cent of the wartime peak. Excluded from the new category of "national defense" are expenditures of 645 million for supplies and administration of occupied areas other than for the Army. These payments are now allocated to "international affairs and finance." Similarly, the costs of non-military atomic energy activities amounting to 444 million have been transferred to the new category "natural resources."

The second highest item on the expenditure side of the budget is "veterans' services and benefits." Outlays for veterans for the current fiscal year are expected to be more than two billion dollars higher than for the previous year, reflecting the impact of readjustment claims—including education, training, and unemployment benefits—and, to a smaller extent, the increase in pension rates and benefits. The reduction in outlays for 1948 is entirely due to a sharp drop in expenditures for insurance, largely in the form of transfers to the national service life insurance trust fund. Expected reductions in unemployment allowances in fiscal 1948 will be offset by expansion in costs of education and loan guarantees.

Expenditures for international affairs and finance are expected to reach a peak of 6.4 billion dollars in 1947, but will decline to 3.5 billion in fiscal 1948. More than half of the latter amount will consist of loans for reconstruction or trade expansion. Payment of our cash subscription to the International Monetary Fund and our basic contribution to the International Bank will be completed before July 1, 1947. Likewise, remaining commitments for foreign relief under UNRRA will be met in the current year, requiring a relatively small expenditure for completing the program in 1948. Export-Import Bank loans, which exceeded one billion dollars in the current year, will be reduced as the operations of the new world bank get underway. It is anticipated that the Treasury's credit to the United Kingdom will be drawn down by 1.5 billion in fiscal 1947 and 1.2 billion in fiscal 1948.

Some of the increases in outlays for other Governmental functions deserve explanation. Under the new classification system, expenditures of agricultural corporations, loans to the Rural Electrification Administration by the Reconstruction Finance Corporation, and administrative programs of the Department of Agriculture are included in "agriculture and agricultural resources." Although expenditures for this purpose are substantially higher for 1947 and 1948 than for 1946, as shown in the table, the difference is attributable to the fact that in 1946 there were large net receipts from Government corporation transactions in the Department of Agriculture, particularly from the Commodity Credit Corporation. Although present farm prices are sufficient to make price support unnecessary in all except a few items, it is estimated that 330 million dollars will be required to support agricultural prices in the coming year. With the discontinuance of most of the war food subsidies, expenditures for this item will be reduced from 1.6 billion in 1946 to an estimated 6 million in fiscal 1948.

Estimated expenditures for transportation and communication are 600 million dollars higher for 1948 than for the current year. The largest single outlay is scheduled for highway maintenance and improvement, which partially reflects activities which were deferred during the war. Expenditures for river and harbor work and for civil aviation also show upward trends. Expenditures to make up the postal deficit are included in this category, and unless postal rates are revised, 352 million will be required for this purpose.

Outlays for several other Government services show relatively substantial growth from 1946 levels. No major extensions are contemplated in social security, housing, and educational services in the next fiscal year, but resource development programs will be expanded, including atomic energy research. The apparent sharp increase in outlays for business and industry is largely due to the retirement of Smaller War Plants Corporation capital and return of War Damage Corporation profits. These expenditures will be paid into receipts and will not affect the total budget.

NO TAX CUTS PROVIDED

The President again urged that the tax structure be left undisturbed. Even with tax rates maintained, total revenues will be about 2.5 billion dollars lower for fiscal 1948 than in the current year and 5.3 billion less than in fiscal 1946. Most of the decline is attributable to smaller receipts from corporation taxes, reflecting largely the repeal of the excess profits tax. Direct taxes on corporations are expected to yield 8.3 billion for 1948, compared with 12.9 billion and 9.2 billion for 1946 and 1947, respectively. Excise tax estimates show a drop of one billion compared with 1947, but receipts from the continuation of war excises, which are estimated at 1.1 billion, are not included.

Direct taxes on individuals will provide 19 billion out of the 37.7 billion dollars of total net receipts. The variation in yield from this source has been relatively negligible since 1943, but for the fiscal years 1947 and 1948 it represents an increasing portion of total tax revenue. Estimated receipts from taxes on individuals will show an increase of about 500 million in 1948 over 1947, based on the assumption of higher incomes.

Employment tax receipts also show an increase of about 700 million for fiscal 1948. This difference is attributable in part to anticipated larger payrolls but chiefly to increases in contribution rates as provided by law.

Miscellaneous receipts will decline somewhat in 1948, reflecting smaller recoveries from renegotiation of war contracts and sales of surplus war property. Also included in miscellaneous receipts are proposed repayments to the Treasury of capital furnished to the Federal Deposit Insurance Corporation by the Federal Reserve Banks and the Treasury, and of funds held by the Reserve Banks or in the gold increment fund which are now reserved for the purpose of making direct loans to industry. Receipts from these transfers would total 379 million dollars.

SHORTAGES OF FATS AND OILS CONTINUE

(*Continued from Inside Front Cover*)

than three times the prewar production.

Production goals for 1947 are set up in terms calculated to produce, if met, an increase this year of about 1.5 billion pounds, or about 17 per cent, in fats and oils production for the year 1947-48. This is about the amount that supplies are short of estimated demand at present prices for 1947. If the goals are met, the increased supplies would come about 15-20 per cent each from soybeans, cottonseed, lard, and butter, and about one-fourth from flaxseed. Support prices for flaxseed have been raised to six dollars per bushel and farmers are asked in the goals to double last year's acreage.

RESTORING IMPORTS DIFFICULT

It was once hoped that the end of the war would bring a restoration of imports from foreign sources. Serious difficulties have one after the other prevented the resumption of imports of fats and oils at anything approaching normal levels. A remarkable job was done in getting Philippine production and trade in coconut and copra products restored. The U. S. State Department, the U. S. Army, and other agencies cooperated to restore the Philippine economy. Not only were transportation and processing facilities reconstructed in record time, but confidence in currencies had to be restored and trade goods provided to exchange for services and raw materials. After production had begun to revive, the Philippine and American Governments entered into an agreement whereby the United States was to receive the bulk of the oils which the Islands could ship.

Experience soon revealed that Philippine interests were dissatisfied with the arrangement, particularly because a better price could be realized from other outlets, especially with price ceilings prevailing in this country. The agreement was mutually abrogated, and only a very small amount of Philippine oils made contribution to meeting the American deficit.

In addition to these considerations, American importers have to some extent found serious competition from UNRRA in purchasing available supplies. Imports of South American drying oils have faced two difficulties consecutively in the past several months. Argentina and Brazil found other markets more profitable than the American market before price ceilings were raised and later eliminated in this country, and as a result of this situation it was said that American importers could not compete. In more recent months importers have been unable to fill needs from Argentina because of a reported purchase agreement on the part of Great Britain. However, major fats and oils are under international allocation by the International Emergency Food Council, and the Department of Agriculture reports that the United States is expected to receive its allotted share of oils from foreign sources regardless of any such buying agreements between individual countries.

European production is only slowly recovering, and while that area was not a major source for American consumption before the war and is not expected to become important in the foreseeable future, nevertheless accelerated recovery in European countries would diminish the drain on supplies from other world areas and indirectly ease the American supply picture. Present indications are that 1947 domestic per capita consumption will be at a rate of about 24 pounds of inedible fats and about 40 pounds of edible fats and oils. This compares with a prewar (1937-41) consumption of 24 pounds inedible and 46 pounds of edible products. Thus, total 1947 consumption per capita of 64 pounds would be about ten per cent below the prewar level. European per capita consumption in 1947 is estimated, on the basis of international allocations, at 25 per cent below prewar consumption.

Profitable price levels for fats and oils depend not only upon demand for food uses but also on industrial outlets, since normally more than one-third of domestic consumption is for inedible uses.

PRICES UNCERTAIN

Recent weakening in lard and butter prices has given some producers apprehension that fats and oils prices were headed downward. In spite of these developments the gap between supply and demand continues to be so wide that a major price break for the fats and oils commodities seems unlikely, at least not until the 1947-48 world crop prospects are fairly clearly in view. Supplies are so far short of demand in the drying oil industries that many crushing plants have shut down. Planning by companies in this field is further complicated by uncertainties over the fate of import and export controls this spring and summer. American cooperation with the IEFC on international allocations is based upon Presidential war powers. These powers to control imports expire March 31, while the controls over exports expire June 30. Should these powers not be extended, some are of the opinion that this country would be able to achieve larger imports of oils, particularly from the Philippine copra sources, which are at present under IEFC allocation.

There is danger that the present emergencies in fats and oils may conceal the prospects over the years ahead. Lags in restoring production in many war-devastated areas tend to obscure the fact that the long-range prospect is for substantial surpluses in the not-too-distant future. Before the war two major areas supplied more than 75 per cent of the fats and oils moving in international trade. These were west Africa and southeastern Asia (Philippines, Netherlands East Indies, and Malaya). These tropical regions enjoy natural climatic advantages favorable to the production of vegetable oils. Before the war the trend in production in these countries was upward, and given a reasonable amount of trade and economic interchange, it is probable that once normal economic conditions are restored this trend will continue. If this revival comes at a time when employment is high and prosperity is general in the industrial countries, it is likely that American farmers will find it profitable to concentrate efforts on the production of beef, pork, dairy, and poultry products, and leave production of some of the world's vegetable oil needs to those areas where climate and costs are advantages.