

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

Mr. Ivan De Tarnowsky

Phone - Franklin 8751

Wants copy of or to see Dr. Currie's report on
recession - 1937-8

(Mr. Tarnowsky says he had a discussion recently with Currie and Currie told him he had worked up quite a full report on the subject for the Chairman -- that it might be possible for Mr. T. to get a copy of it or to come in and look it over. Mr. T. says a similar situation is expected (by some) to develop and they are working up information and therefore would like to read Currie's report on the last recession.)

Chairman says memo is Board property and confidential, and therefore Mr. T. should be checked into and information obtained as to who is having him get information for report, to what extent information from Currie report will be used, etc. Mr. T. should have Currie write a letter to the Chairman verifying his suggestion to Mr. T., etc.

Confidential
April 1, 1938
Lauchlin Currie

CAUSES OF THE RECESSION

Introduction

A serious setback to the attainment of the national objective of as full employment of our human and physical resources as can be sustained under stable conditions was experienced in the last quarter of 1937. Up to that time great progress had been made. In the first nine months of 1937 the index of production averaged 116 as contrasted with an average of 64 for the year 1932 and 121 in the first nine months of 1929. The national income was probably running at the annual rate of \$71 billion or \$72 billion in the first nine months of 1937, as contrasted with \$40 billion in 1932, on a lower price level, and \$81 billion in 1929, on a higher price level. Assuming that three million represents the more or less irreducible minimum of unemployment compatible with conditions of general stability or "normal unemployment", we had, by the summer of 1937, some four million people still to be employed. This amounted to 9 per cent of the total working force.

The major part of this achievement was lost in a few months at the close of 1937. After coming within striking distance of our goal we have fallen back to the 1934 levels of production and the prospects of a quick recovery are not heartening.

In these circumstances it is urgent that a careful examination be made of our recent experience in an attempt to ascertain the basic

causes of the downturn. Only by proper diagnosis can we hope to avoid a repetition of the mistakes of the past. This is particularly important in the present juncture, because of the extent to which the Federal Government and its agencies participated in and assumed responsibility for the recovery movement.

Background of the Recovery Movement

Transition Period, 1933-34

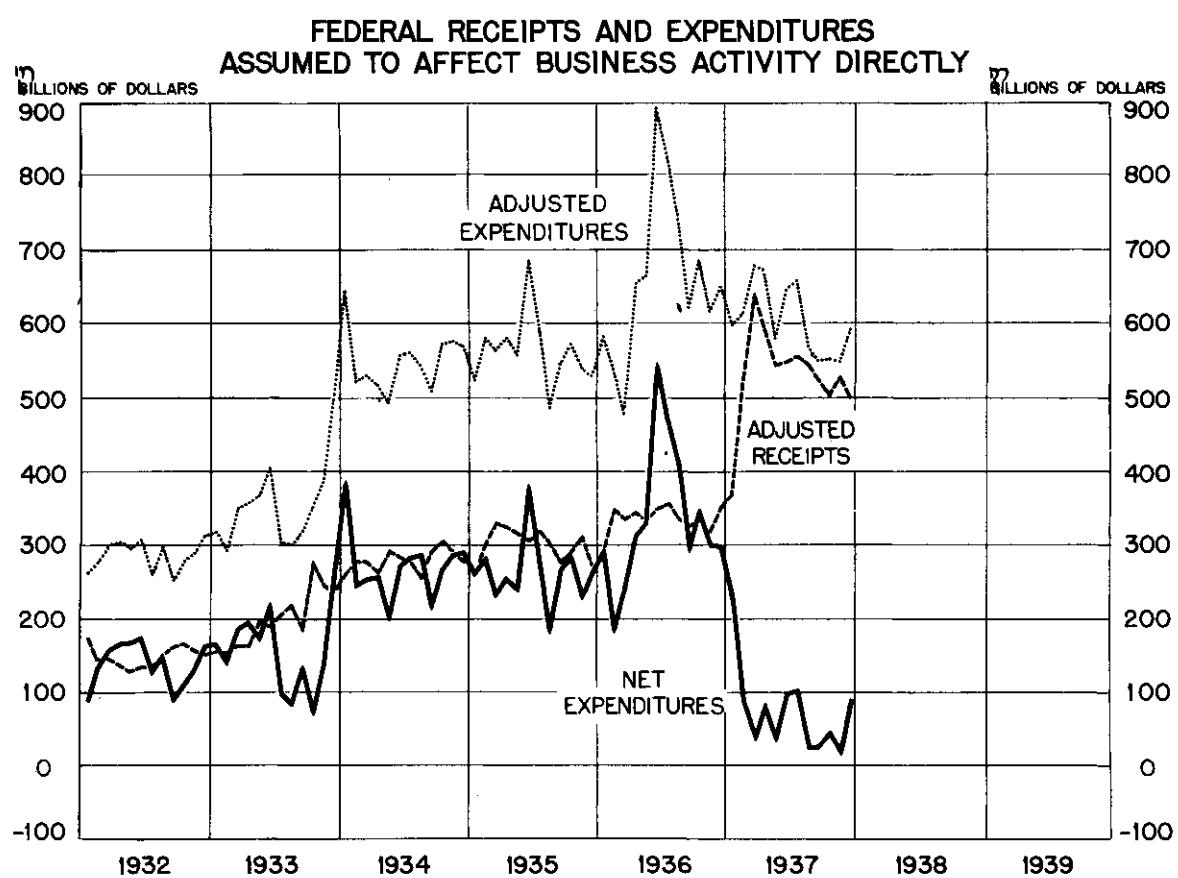
Some of the measures taken by the Administration when it assumed office were, as the President recognized,^{1/} deflationary in their effect. They comprised the freezing of billions of dollars of deposits in closed banks, and a reduction in the pay and, hence, buying power of Government employees. The Administration apparently believed that some action was required both in the monetary sphere and in a direct stimulation of consumer buying power to offset this deflationary effect. For this and, doubtless, other reasons, an embargo was placed on gold, and the National Recovery Act, including the public works section, was passed. A sharp inventory boom, based on anticipated price and cost advances, ensued. This quickly collapsed. The Civil Works Administration was hastily established as an emergency device to provide employment and purchasing power. This was followed by Federal Emergency Relief Administration in 1934. After the short interlude of the gold buying policy, the price of gold was stabilized in January 1934 at a price which, for the next three years, yielded an approximate balance

^{1/} See New York Times, March 14, 1938, p. 7.

in our international payments on other than capital account.

Period of Sustained Progress under Stable Prices, 1934-1936

From 1934 to 1936 the largest single factor in the steady recovery movement was the excess of Federal activity-creating expenditures over activity-decreasing receipts. An attempt has been made to measure this excess by adding together all federal expenditures that appear to affect business activity directly and subtracting all taxes except estate and gift taxes. The chief weakness of the resulting figures lies in the assumption that all taxes represent a deduction from current spending, either on consumption or capital account. To the extent that part of current savings would not have been spent the estimates understate the magnitude of the Government's contribution to community expenditures. Estimates of total activity-creating expenditures, activity-decreasing receipts and net activity-creating expenditures are charted on the following page.



It will be observed that the estimated excess of activity-creating expenditures amounted to nearly \$270 million a month throughout 1934 and 1935. The annual figures amounted to \$3.2 billion in 1934 and \$3.1 billion in 1935, or 41 per cent and 57 per cent of the respective increases in the national income over the previous year.

That this factor was the motivating force in the recovery movement is indicated in various ways. Studies in the changes of the cash holdings of various economic groups from the end of 1933 to the end of 1935, in conjunction with other data, show that business collected from final consumers in the sale of products more than it disbursed in the making of goods. The large increase in financial deposits indicated that a portion of the current interest and dividend payments was not being returned to the monetary circulation. This evidence is confirmed by the lag in expenditures on durable goods such as houses, electric power and railroad and other industrial plant and equipment.

The broad case for using fiscal policy as a recovery measure rested on two main grounds. In the first place, it rested on the belief that a substantial volume of new capital expenditures would not be undertaken until the growth in consumer demand had resulted in taking up much of the great excess of productive capacity, and that, in lieu of a reduction in costs, it would not be profitable to build new houses until the growth in consumer incomes had forced up rents. In the second place, in default of an increase in private

borrowing, deficit financing appeared the only way in which a restoration of the deposits subject to check wiped out in the depression could be accomplished.

By 1936 events appeared in a fair way to demonstrating the soundness of the case for a compensatory fiscal policy in a severe depression. By the middle of 1936 the volume of all adjusted deposits subject to check (except domestic interbank deposits) had increased by over \$10 billion over 1933 and was nearly \$3 billion in excess of the figure for 1929. Including currency outside banks, the total was over \$4 billion in excess of the combined figure for 1929. There had also been a substantial follow-up of private expenditures on durable goods. Mr. Terbrough estimates the total of such expenditures at about \$13 billion in 1936, as contrasted with \$6 billion in 1933 and \$23 billion in 1929. Expenditures on new housing finally got under way and amounted to \$1.2 billion in 1936.

This substantial growth in production, employment, and incomes, and the follow-up in the durable goods industries, took place under the relatively stable cost and price conditions that existed from the beginning of 1934 to the fourth quarter of 1936.

Speculative or Boom Period, October 1936- March 1937.

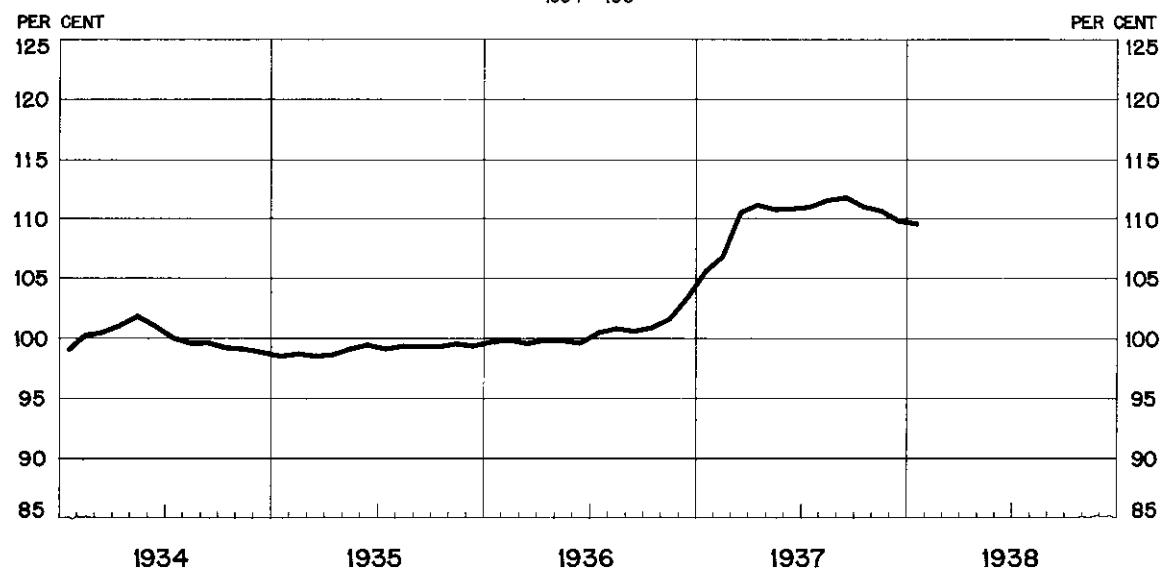
The relatively stable cost and price conditions, under which such great progress had been made up to the fourth quarter of 1936, were lost in the five or six months' period beginning in November 1936. The monthly index of national income paid out increased at

the rate of 16 per cent per annum from September to March, as contrasted with a rate of increase of 10 per cent per annum in the preceding six months. The Bureau of Labor Statistics index of wholesale prices rose by $7\frac{1}{2}$ per cent from October to March, or at an annual rate of 18 per cent and, perhaps of even greater significance, wholesale prices of durable goods, which had remained virtually unchanged since the end of 1933, rose by 10 per cent from October, 1936 to March 1937, or at an annual rate of 24 per cent. The course of wholesale prices of durable goods is shown in the accompanying chart. Average hourly earnings in manufacturing rose 13.3 per cent from October 1936 to May 1937. The index of machine tool orders rose from 118 in September 1936 to 282 in April, 1937.

The rise in these various indexes was symptomatic of a profound change in the character of the recovery movement. From a condition of orderly increase in production and productive facilities in response to increases in consumer demands, under stable cost and price conditions, there developed a condition in which both production and productive facilities were increasing in anticipation of price and cost advances. In other words, a speculative element of considerable dimensions entered the picture. Forward buying and inventory stocking far in excess of current needs were widely engaged upon. The speculative movement came to a close around April 1937.

WHOLESALE PRICES OF DURABLE GOODS

1934 = 100



Period of Unstable Equilibrium, April - August 1937

Various indexes of production, retail sales and incomes flattened out after March. The monthly index of adjusted income payments increased by only 1.1 per cent from March to August. The adjusted index of compensation of employees reached its peak in May. Industrial activity as a whole ceased to expand, the increase in durable goods production being offset by a steady decline in non-durable goods production. Industry, in part, was operating on the bank of unfilled orders accumulated in the previous period and inventories continued to increase both absolutely and in relation to current sales.

A recent survey by Dun and Bradstreet of 17,000 firms indicates a far larger increase in inventories than had previously been suspected. Assuming that this is a reliable sample, it appears that the increase in inventories in manufacturing, wholesaling and retailing amounted to over \$2 billion in 1936 and to almost \$3 billion in 1937. Making the conservative assumptions that one-third of the increase in 1936 took place in the last quarter of the year and that the decline in the last quarter of 1937 was about equal to the average advance in the first three quarters, so that the total advance for the first three quarters was about 50 per cent greater than the total increase for the year, we arrive at an estimated increase in inventories in manufacturing, wholesaling and retailing in the year ending September 30, 1937 of approximately \$5 billion.

This is exclusive of any increase that may have occurred in agriculture, mining, service and other industries. This estimated increase in inventories exceeded that of any post-war calendar year.

The combination of increasing inventories in the face of a flattening out of production and sales created a highly unstable and vulnerable condition. When new orders sufficient to maintain production failed to materialize in late August and early September, there was a concerted rush to reduce inventories with the result that productive activity experienced one of the sharpest declines on record.

Factors in the Downturn

Two closely related developments require explanation: the speculative character of the movement in the winter of 1936-37, and the general cessation of growth that occurred in the spring and summer of 1937.

Before recounting the specific and immediate developments that contributed to the cost and price advances of the last quarter of 1936 it is first necessary to sketch in the background. Two essential factors stand out. In the first place, recovery had proceeded uninterrupted for nearly three years and much excess productive capacity had been absorbed and rents had risen sufficiently to make the building of houses profitable. By October steel operations were at 78 per cent of capacity, or close to the economic capacity of around 90 per cent. The index of industrial production in the summer of 1936 was back practically to the level of the corresponding period of

1928. Our productive capacity had increased more largely in man power than in capital equipment. We were, in other words, approaching a point where in many lines the employment of more people required the construction of more plant facilities, and this takes time.

The second essential factor forming the background of the period under discussion was the speeding up of the rate of recovery in 1936. The industrial production average for the year increased 17 per cent over 1935, as contrasted with a 14 per cent increase of 1935 over 1934. Department store sales increased 11 per cent over 1935, as contrasted with an increase of 5 per cent of 1935 over 1934. National income in 1936 increased 16 per cent over 1935, as contrasted with an increase in 1935 over 1934 of 11 per cent. Hence, at a time when we were approaching capacity in certain important lines, the rate of recovery, instead of slowing down, was accelerated.

This was attributable to various factors. Consumers' incomes were increased through increased expenditures on consumers' durable goods purchased largely on credit, through increased expenditures on durable capital goods, which have the effect of increasing incomes without increasing finished consumer goods, and through increased Government expenditures relative to receipts. It is estimated that expenditures on such durable goods as housing, automobiles, household furnishings and miscellaneous, increased about \$2 billion over 1935, as contrasted with an increase in 1935 over 1934 of \$1.5 billion. Expenditures on durable producers' goods in 1936 increased over \$1 billion over 1935, as contrasted with an increase in 1935 over 1934 of less than \$700 million. Including only 50 per

cent of the bonus bonds cashed in 1936, the estimated excess of activity-increasing federal expenditures over activity-decreasing receipts amounted to \$4 billion. Thus, in these three categories we have nearly \$7 billion of a type of expenditures that tend to increase activity as contrasted with a corresponding figure in 1935 of \$5 billion.

In addition, expenditures on inventories probably increased more in 1936 than in 1935. For the time being such expenditures have the same effect as expenditures on plant, since they increase consumers' incomes without increasing the amount of finished goods offered for sale. Finally, expenditures for maintenance in manufacturing and railways increased more sharply in 1936 than in 1935.

As against these various increases of expenditures that stimulate activity must be offset the additional saving out of additional income, including in such additions any increase in the current payments of consumers for goods bought previously on credit. If we had sufficiently accurate figures for all these and some additional items, we could account fully for the increased national income and sales.

For present purposes the point that it is desired to bring out is that if the rate of recovery was too rapid in 1936, and there appears to be good reason to believe that it was, part of the responsibility rests on the size of the net federal contribution.

It is interesting to note in passing that if the bonus had not been passed over the President's veto our total figure for the year would have been \$3.3 billion, or very little larger than in 1935.

We now come to the fourth quarter of 1936. Against the background of an accelerating rate of recovery as excess plant was being absorbed, a series of incidents and developments contributed to the rapid cost and price advances and speculative conditions discussed earlier. The announcement of England's rearmament program, with its accompanying speculation in certain international raw materials, undoubtedly fanned inflationary sentiment here. Various political and economic developments made it a favorable time for an attempt to be made to unionize large industries on an industrial basis. Substantial wage and hour concessions were made both in response to pressure from the newly-formed unions and to checkmate the growth of the unions. The strength of the organization of the employers, the high rate of operations and the sellers' market resulting from anticipation of advancing prices and fear of delayed deliveries from strikes and deficient capacity, all made it generally possible for industry to pass along its higher costs in higher prices. The practice of the steel industry, in particular, in announcing price increases to take effect on a future date, encouraged excessive forward buying.

The movement apparently culminated in March and April, 1937. The vital steel and machine tool industries were then operating at practicable capacity. The rise in the level of non-agricultural prices came to an end and various other important indexes flattened out,

Although the wave of forward buying and inventory speculation had to end sooner or later, various specific developments may have played a part in the timing. Thus the rise in reserve requirements may have taken some of the force out of the "inflation" talk. The President's statement of April 2nd, indicating that the rapid rise in some prices was viewed with disfavor, may have contributed to the same end. Abroad there began to appear a realization that the imminence of a rearmament boom had been over-discounted. With the wage and other agreements of U. S. Steel and General Motors with the C. I. O., the labor situation became more stabilized and less uncertain. In any case, the extent of forward buying has its limitations, and since the movement had already proceeded for some time it may very well have been due for a slackening up even in the absence of these specific developments.

The next question that requires answer is why incomes and consumer buying flattened out after May. Why did we not resume steady progress on the basis of stabilized higher cost and price and inventory levels? The answer to this question requires information on the various factors tending to increase and decrease national income and buying power, and

this information on a monthly basis is not as full as we would wish. As before, expenditures incurred in the making of durable consumers' goods, durable producers' goods and the net federal contribution will be considered separately.

Residential building contracts awarded reached their peak in April and declined thereafter. The total for the year is estimated at \$1.3 billion as contrasted with \$1.2 billion in 1936. Automobile production throughout the late spring and summer ran higher than in 1936. The total for the year is estimated at \$2.6 billion as contrasted with \$2.5 billion in 1936. Expenditures on miscellaneous consumers' durable goods probably continued to increase up until the last quarter since the increase for the year as a whole over 1936 was \$500 million. From all indications, expenditures on durable producers' goods continued to increase until August. The index of production of durable goods in the third quarter of 1937 averaged 7 per cent over the first quarter. The estimate for the entire year is \$6.3 billion. If commercial buildings are omitted, the total was about \$6 billion, which was not far short of the \$6.6 billion in this category in 1928. The increase over 1936 was \$1.7 billion as contrasted with an increase in 1936 of \$1.1 billion over 1935. Inventories are estimated to have increased nearly $\$4\frac{1}{2}$ billion in the first three quarters of the year, though at a diminishing rate.

It is in the net federal contribution to community expenditures that the greatest decrease took place in the factors tending to increase business activity. For the crucial seven-month period, March

to September, inclusive, this amounted to \$400 million, or an average of \$60 million a month as contrasted with an average of \$35 million a month throughout 1936.

The broad picture that emerges is as follows: In the spring of 1937 the forces tending to bring about a further rise in income became balanced by those tending to lower income. This, however, was an unstable equilibrium since among the former forces was a large more or less "involuntary" increase in expenditures for inventories on the basis of prior commitments and a dangerous extension of installment credit in the automobile field. Expenditures for new residential housing were declining and the net Government contribution was running at a low figure and they probably together, in the second and third quartors of the year, did not amount to more than \$1 billion. Durable goods production continued to expand but this was in large part offset by a decline in the production of non-durable goods. The flattening out in retail sales and decline in new orders made unnecessary any further increase in commitments for new plant and equipment than those that had already been made. The volume of current saving out of the income of corporations and individuals was apparently in excess of the expenditures on new plant and equipment, construction and the net Government contribution by an amount roughly measured by the increase in inventories and consumer credit.

The answer to the question, then, as to why recovery did not continue on the basis of the new and higher level reached in the spring appears to be that the drastic decline of some of the main

elements that had previously contributed toward increasing activity, together with the increased saving that probably occurred along with a higher level of money income, placed more of a load on durable producers' goods expenditures than they could carry.

It is of interest to note that in 1925, when the national money income closely approximated the rate at which it was running in the summer of 1937, the total of consumers' and producers' durable goods expenditures approximated \$21.5 billion, whereas in 1937 they approximated \$17 billion. The main explanation of the difference lies in expenditures for residential housing and commercial building, which were \$4 billion larger in the former year. Expenditures for new plant and equipment in mining and manufacturing were actually \$400 million larger in 1937 than in 1925.

If housing expenditures and/or the Government contribution combined had been some \$4 billion greater annually ~~it is~~ likely that the trend of consumers' incomes and retail sales would have continued upward during the summer. If this had occurred it is possible that inventories would have become stabilized at the higher level and that new capital commitments would have become necessary to meet growing consumer demands. The combination of these developments, in turn, might have been sufficient to more than offset the aftermath of an oversold auto market.

The proximate causes of the recession, then, center around the factors giving rise to the inventory and forward-buying boom, to the failure of a real building revival to get under way, and to unfortunate

timing in the withdrawal of the Government's contribution.

The petering out of the promising building revival that had gotten under way in 1936 appears to be associated with the advance in the price of new houses relative to the rise in rents. This advance in price, in turn, was partly associated with the general advance in prices and partly associated with developments in the building industry itself.

The drastic nature of the decline in the Government's contribution was in large part associated with the payment of the bonus in 1936 and the excess of tax collections over disbursements under the Social Security Act in 1937. Without the former our estimated net figure would have been \$3.3 billion in 1936. Without the latter our estimated figure would have been \$1.9 billion in 1937. A moderate decline in other expenditures and a substantial increase in other receipts made up the difference.

Some Other Explanations Offered for the Recessions

1. Monetary Policy. It has been said that the action of the Board in raising reserve requirements and absorbing \$1.5 billion of excess reserves in the spring of 1937, together with the action of the Treasury in sterilizing inflows of gold, were either responsible for or contributing factors in the recession. This contention will be examined in some detail.

In order to view these actions in their proper perspective it is necessary to review briefly monetary developments from the middle of

1933 to the end of 1936. The whole period was one of rapid expansion. This was in accord with the policy of promoting monetary ease and of meeting the liquidity requirements of the community through restoring the volume of media of payment wiped out in the depression. The total volume of adjusted deposits subject to check (exclusive of inter-bank deposits) of all banks plus currency outside of banks decreased from \$27 billion in 1929 to \$20 billion in the middle of 1933. By June 1936, a $\$11\frac{1}{2}$ billion expansion had occurred, bringing the aggregate up to $\$31\frac{1}{2}$ billion. Despite the increase in deposits and, hence, reserve requirements, the volume of excess reserves had, by the summer of 1936, increased to over \$3 billion.

In the Banking Act of 1935 Congress placed upon the Board of Governors the responsibility of raising reserve requirements "in order to prevent injurious credit expansion". In view of the expansion that had already occurred, and the magnitude of the excess reserves of banks, it appeared to be a wise precautionary measure to reduce excess reserves by increasing legal reserve requirements. Accordingly, the Board took action to raise requirements by an amount sufficient to absorb $\$1\frac{1}{2}$ billion of the excess, leaving nearly \$2 billion. This action, taken in the summer of 1936, was generally commended and had absolutely no effect on interest rates or the money market generally. Indeed, the various inflationary developments mentioned earlier occurred subsequent to this action.

In January of 1937, the reserve position was carefully reviewed. Since the previous action had been taken the volume of deposits subject to check had continued to expand rapidly. Despite the growth in reserve requirements accompanying the increase in deposits, the steady inflow of gold had swelled the volume of excess reserves to over \$2 billion.

A body charged with the responsibility of preventing an injurious expansion of credit was in duty bound to weigh the dangerous potentialities in the situation. The volume of deposit currency and cash was clearly not excessive for current requirements. However, should the rates of turnover prevailing throughout the Twenties be regained, the volume of money would have supported a national income approaching \$100 billion, which could have been achieved in the near future only by an excessive advance in prices. There was, as previously remarked, inflationary sentiment in the air. In these circumstances it appeared the course of prudence to reduce again the basis of potential expansion. Consequently, on January 30, it was announced that reserve requirements would be increased by approximately \$750 million on March 1st and \$750 million on May 1st, which would leave banks with between one-half billion and one billion dollars of excess reserves on the latter date.

It was felt that if the step proved too drastic, proper adjustment could be made by using the flexible instruments of open market purchases of securities to increase excess reserves. If it proved inadequate in

itself to check excessive expansion of credit it could be supplemented with open market sales of securities. Purchases were in fact made in April and again in November which, along with the desterilization of \$300 million of inactive gold, had the effect of increasing bank reserves by a corresponding amount.

The rise in reserve requirements was regarded as a precautionary rather than a restrictive measure. In conjunction with the adoption of a policy on the part of the Treasury of sterilizing new gold inflows, it marked a fundamental readjustment of our banking system to the new gold situation, and placed us in a position to rely henceforth on the customary instrument of open market operations as a means of operating on bank reserves and, hence, on the volume of credit.

There are two possible ways in which the above monetary actions might have had a depressing effect on business activity. The first is psychological and the second, for lack of a better term, might be called mechanical.

The action may have contributed to the removal of the fear or expectation of monetary inflation and an indefinite rise in prices and hence checked a further expansion of forward buying and inventory stocking. If so, its effect was salutary, as our present difficulties are traceable in large part to the inflationary developments in the winter of 1936-37. From this point of view, the criticism should be not that the action was taken, but rather that it was unduly delayed. Too much weight cannot be assigned the psychological argument, however, in view of the fact that price advances continued to

occur for some months after the announcement of the policy on January 30th. Orders for machine tools reached their peak in April, 1937.

The other, and more mechanical, way in which raised reserve requirements and sterilizing new gold inflows might have contributed to the recession deserves more consideration. It has been argued that the raised reserve requirements were responsible for bank sales of bonds; bank sales of bonds resulted in weak bond prices; weak bond prices discouraged new bond issues; the difficulty of issuing new bonds led to a decline in capital investment; the decline in capital investment resulted in the recession. It is necessary to establish all those links in the chain connecting monetary policy with the recession, if the case for a causal relationship is to be established, and this appears difficult to do.

It is, in the first place, a moot question as to what extent the raised reserve requirements were responsible for bank sales of bonds and the decline in bond prices. Bond prices had risen steadily since 1934 and purchasers had accumulated substantial profits on their holdings. It was to be expected, as in the analogous case of stock prices, that any development which foreshadowed an end of the rise would precipitate profit-taking. The various factors that occurred in the winter constituted such a development. Indeed, bond prices reached their peak in England in October of 1936, and declined steadily thereafter. The average price of 87 English bonds fell by $6\frac{1}{2}$ per cent from October to March, as contrasted

with a decline in the monthly average of U. S. bond prices of $4\frac{1}{2}$ per cent from January to April. The decline in this country was initiated by municipal and Federal bonds in January before action with reference to excess reserves was announced. It seems reasonable to assume that the desire to take profits was as powerful a motivating factor in bank sales of Government bonds as were raised reserve requirements, particularly since sales were engaged in by so many banks that possessed more than adequate reserves to meet the new requirements. In a survey, made in January 1937, it was ascertained that the excess reserves plus one-half of cash due from banks were deficient to meet the new reserve requirements in only 197 banks. The deficiency amounted only to \$123 million. Hence, raised reserve requirements probably acted more as a signal of an end of a bull market in bonds than in forcing sales because of inadequate reserves. The total sales of all securities by all banks amounted to less than \$1 billion between December 1936 and June 1937. In the same period bank loans expanded by more than \$1 billion.

When we turn to the next link that could connect monetary policy with the recession in business - the relation between declining bond prices and capital expenditures - it is again difficult to make out a valid case. The volume of new corporate issues in the first six months of 1937 was nearly double the volume in the corresponding period of 1936, the figures being \$795 million and \$455 million. Expenditures by railroads and utilities on new plant and

equipment for 1937 as a whole increased 66 per cent over 1936, whereas the rate of increase for 1936 over 1935 was only 51 per cent. Expenditures by mining and manufacturing for new plant and equipment, despite the bad last quarter, increased 36 per cent over 1936, which was the rate of increase of 1936 over 1935. Doubtless most of the commitments for these expenditures were made in the first half of the year. The flattening out in the rate of consumption, however, made additional capital commitments in any large volume unnecessary in the summer. There may have been individual cases where new capital expenditures were postponed because of the difficulty of raising new money. National figures, however, indicate that the total volume of expenditures on new capital goods were as large as could reasonably be expected. The increase of expenditures on additions to inventory from September 1936 to September 1937 was, as pointed out above, one of the largest on record.

In conclusion it may be said that since the recession cannot be attributed to a decline in producers' durable goods expenditures, and since monetary policy can share none of the responsibility for the price and cost advances in the winter of 1936-1937, for the enormous increase in inventories, for the failure of residential building to expand in 1937, and the drastic decline in the Government's contribution to community expenditures, it cannot be held responsible either as an initiating or contributory factor in the recession.

As events have turned out it would have been perfectly safe to have postponed the rise in reserve requirements that occurred in March

and May of 1937. This, however, was not evident in January of 1937 and is an entirely different matter.

2. The Undistributed Profits Tax, the Capital Gains Tax and Stock Market Regulation. Many writers appear to believe that the basic cause for the recession was the difficulty industry experienced in securing capital for expansion. This difficulty in turn was attributable to the action of the undistributed profits tax in forcing out earnings, and the difficulty in securing new money from the security markets.

The answer to this contention has already been given. There is no evidence that the recession was attributable to a deficiency of industrial plant and equipment expenditures and in the last quarter of 1936 and the first two quarters of 1937 industrial expenditures for inventories were unquestionably too great from the point of view of economic stability. If the money that went into excessive inventories had gone instead into plant and equipment, the total of the latter type of expenditures would have been in excess of 1929.

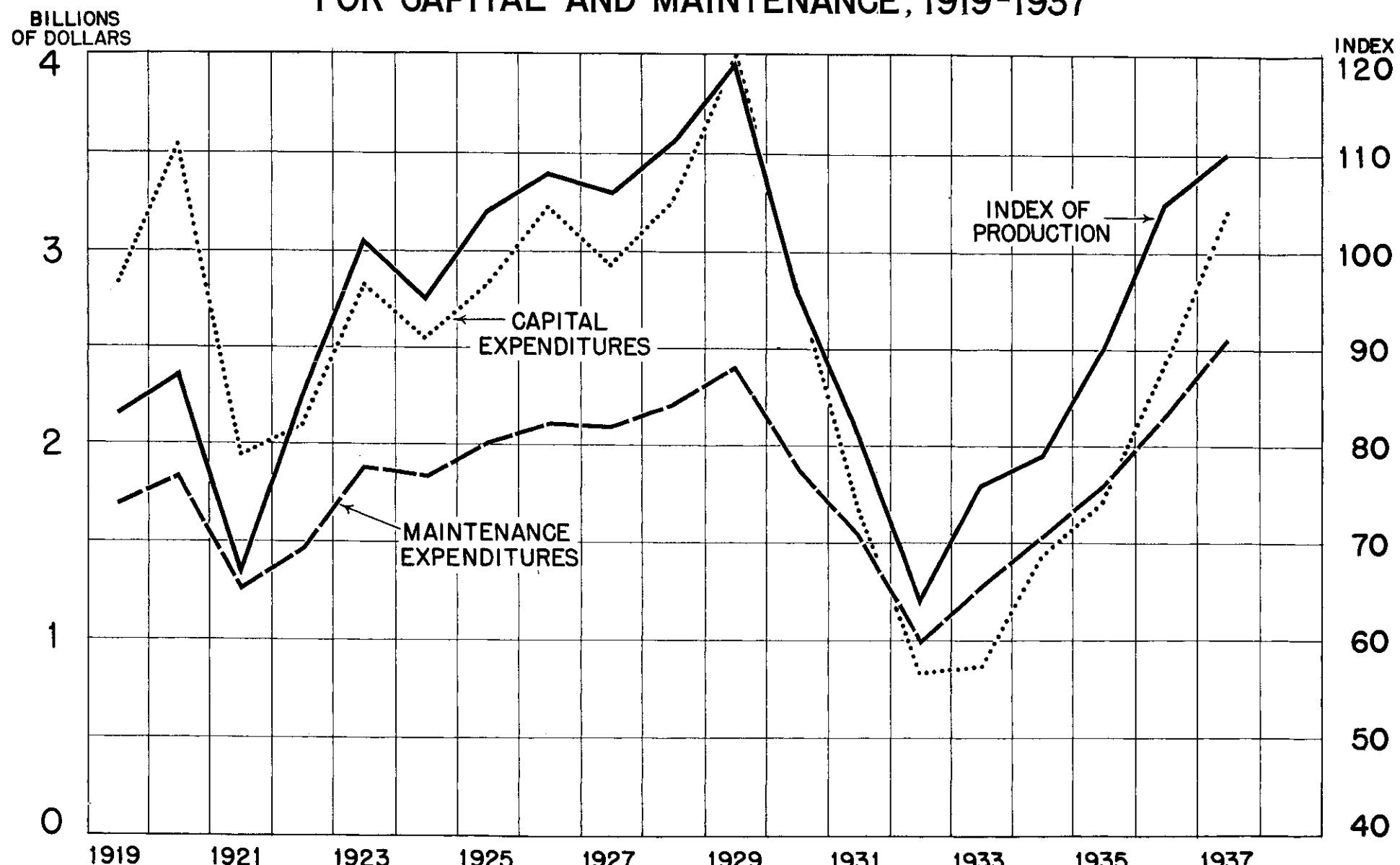
3. Lack of Confidence and a Recovery Based on Consumption.

The argument here runs that the profound political uncertainty and general lack of confidence meant that the recovery was supported entirely by the excess of Government expenditures over receipts. There was no follow-up of private investment so that the recovery movement promptly collapsed when Government support was withdrawn.

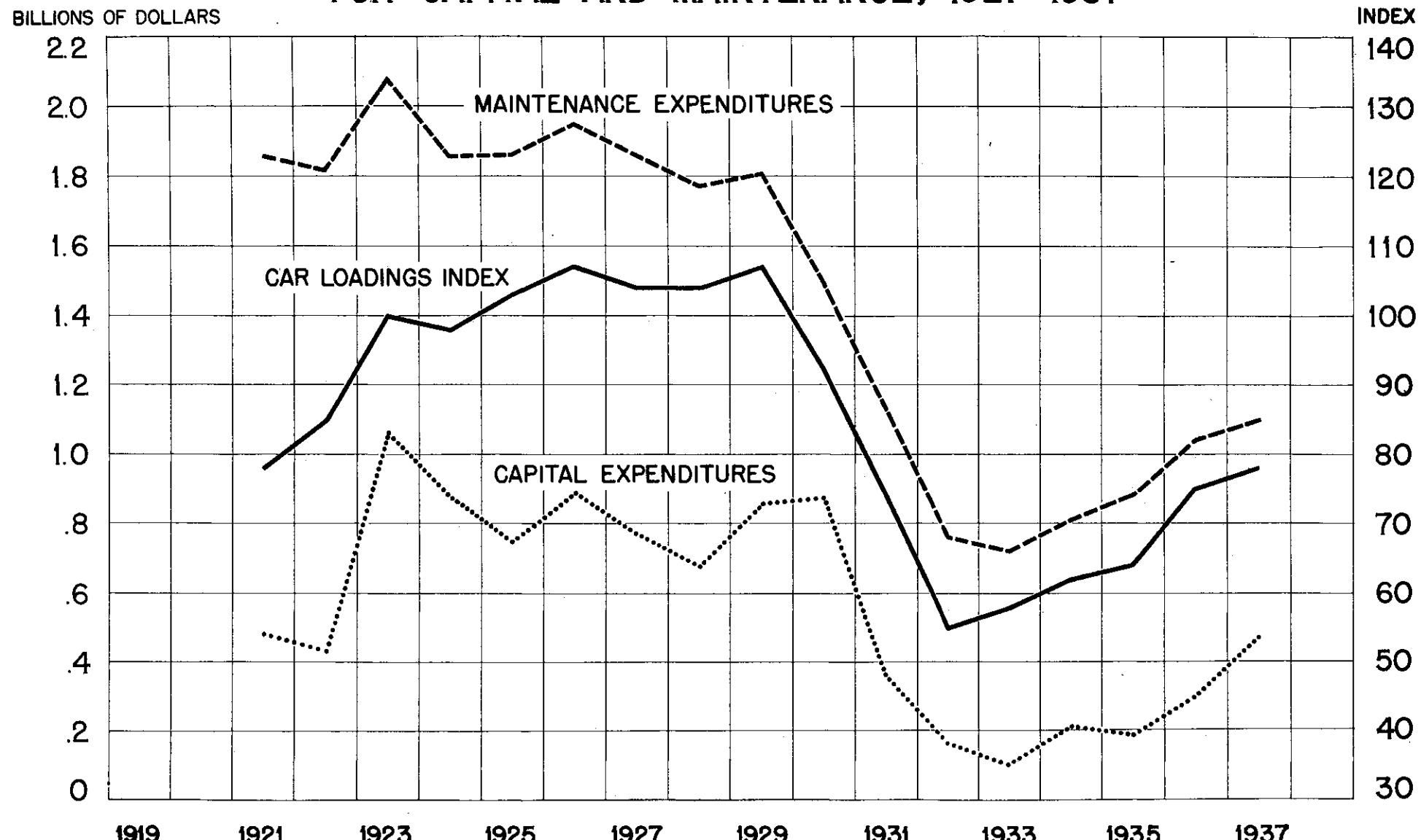
It is difficult to find any factual evidence in support of this contention. The accompanying charts depicting the course of expenditures for new plant and equipment of mining and manufacturing, railroads and utilities are pertinent in this connection. By 1937 expenditures for new plant and equipment in mining and manufacturing were back to the 1928 level. In railroads they were \$138 million short of the 1928 level, and in electric utilities \$276 million.

The utilities are a particularly interesting case. The accompanying chart expresses rated kilowatt capacity, output and capital expenditures as indexes with a common base year, 1929. This should be borne in mind in order that the mistake should not be made in interpreting the chart of believing that output was at capacity in 1929 or exceeded capacity in some other years. Actually, there was a comfortable reserve capacity in 1929. The additions to plant capacity 1930-32 and the decline in power output resulted in a large excess capacity, relative to 1929, that was not taken up until the end of 1936 and beginning of 1937. Consequently, for the power industry as a whole, there was not much incentive to expand plant until late in the recovery. The expansion in 1937 was in fact vigorous, being 62 per cent above 1936. Total expenditures in 1937 were, however, about \$300 million less than the total in 1923, when output was as close to capacity as in 1937. It might be claimed with some justice, therefore, that the peculiar difficulties of the utilities were resulting in a one year's lag of expenditures behind what might otherwise have been expected. The figure involved is negligible, however, in relation to the total picture.

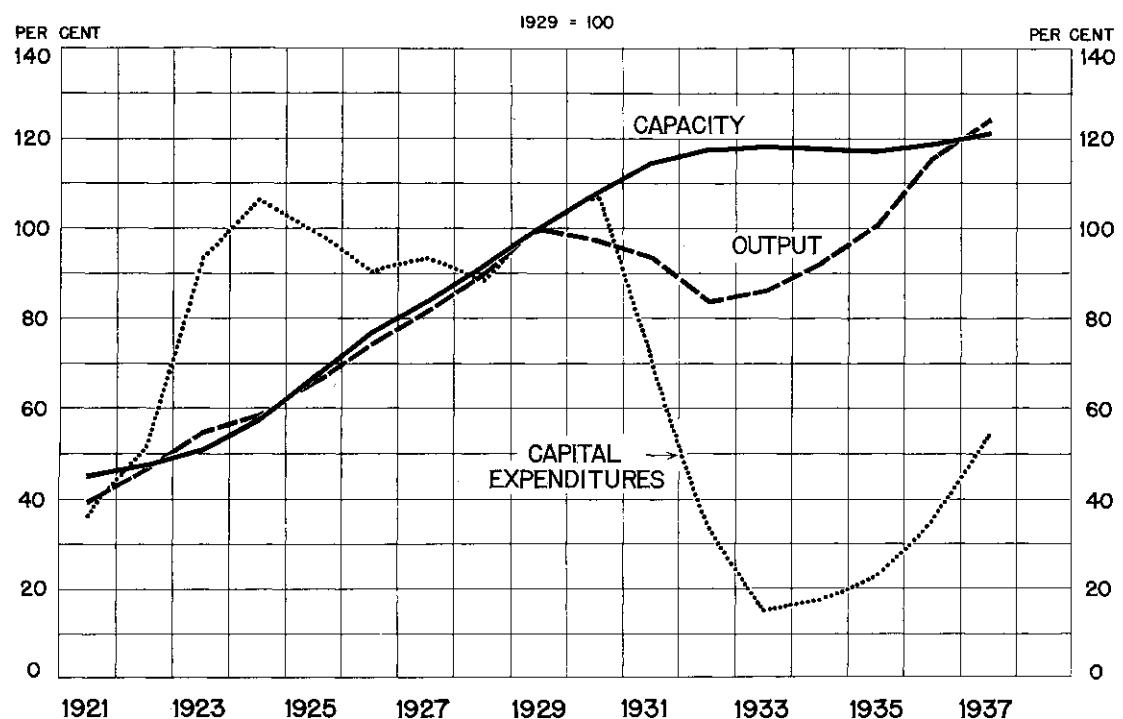
INDUSTRIAL PRODUCTION AND EXPENDITURES FOR CAPITAL AND MAINTENANCE, 1919-1937



FREIGHT-CAR LOADINGS AND RAILROAD EXPENDITURES FOR CAPITAL AND MAINTENANCE, 1921-1937



INDEXES OF ELECTRIC POWER CAPACITY, OUTPUT AND CAPITAL EXPENDITURES



4. Decline in Profit Margins Brought About Through Higher Costs.

Apart from the automotive group and, in the late summer, the railroads, profit margins do not appear to have declined in the first three quarters of 1937. On the basis of a sample study by Standard Statistics of 176 large industrial corporations for the first six months in 1937 it was found that the average ratio of net income to sales was 8.5 per cent as compared with 8.4 per cent for the corresponding 1936 period. Excluding the automobile companies, indicated margins for the two periods were 7.7 per cent and 5.6 per cent respectively. In a special study made of the U. S. Steel Corporation it was determined that as a result of the advance in prices relative to the advance in costs, the break-even point after preferred dividend requirements, was lowered from 50 per cent to 43 per cent of operations in relation to capacity. For the first six months of 1937, profits of mining and manufacturing companies ran some 30 per cent over profits in the first six months of 1936. Apparently industry in general, in the conditions prevailing in the first eight months of 1937, was able to pass along higher costs in higher prices.

Reflections Prompted by a Consideration of the Factors

Causing the Recession

A survey of the underlying causes of the current recession leads on to the questions, what measures at what times and in what degrees would have been necessary for the recovery to have proceeded uninterruptedly? What economic and political conditions would have made it possible for such measures to have been taken?

There were, as we have seen, a series of developments that culminated in the recession.

The Timing of the Rate of Recovery

1. To go back no further than the summer of 1936 one lesson that should be taken to heart is the importance of slowing down the rate of increase of consumption as physical capacity is approached in important lines. This is because of what economists call "the principle of acceleration" which is, that after capacity is attained, a given increase in consumption necessitates a multifold increase in expenditures on physical plant facilities. To produce \$1 million annually more of steel, for example, a plant costing many times that amount must be erected. Hence a rate of recovery that may be perfectly appropriate in a condition of widespread and large excess capacity, may stimulate excessive price advances and forward buying when capacity is approached in important lines.

We are prone to overlook this fact when there are millions of people still unemployed and become impatient to secure their early employment. Yet the conditions of a large army of unemployed together with deficiency of plant capacity and requisite manual skill may easily arise in a recovery from a severe and long-continued depression. In such periods the increase in the working force may far outstrip the growth in physical plant capacity or in skilled workers. The failure to add to productive capacity in a depression not only results in increased unemployment at the time, but also results in a later and longer continuance of unemployment, if it does not result in a boom and another recession.

Putting this in more specific terms, we may now say, with the benefit of hindsight, that it would have been desirable had the rate of increase in consumption slackened in the summer and early fall of 1936. This, theoretically, might have been achieved through a reduction in the net federal contribution to community expenditures.

If, however, we cast our minds back to the conditions in the middle of 1936 we can readily see the enormous difficulties in such a course. In the first place, the Administration would have had to have been absolutely convinced in the validity of a forecast of price advances, etc., in the early winter. Secondly, it would have had either to cut its expenditures suddenly and drastically or increase its revenues. The only way in which revenues could have currently been increased would have been through the immediate and hurried imposition of consumption taxes. Similarly, the only large non-recurring item of expenditures that might have been cut, apart from the bonus, which was passed over the President's veto, was relief expenditures, and the relief load at that time was still very heavy.

2. Organization and Price and Cost Advances

A substantial part of the inventory and forward buying and price and cost advances arose from the anticipation of further price and cost advances. Part arose from the fear of delayed deliveries, either because of anticipated labor difficulties or physical plant limitations. If, therefore, price advances could

have been avoided, the major part of the incentive for inventory buying would have been removed. In the absence of excessive inventory buying and advance ordering, deliveries could have kept more in pace with orders and the fear of delayed deliveries because of plant and skilled labor shortages would have been in large part removed. If building materials, contractors' margins, and hourly skilled wage rates in the building field had not advanced, it is probable that the building revival would have acquired momentum.

In other words, although we were approaching temporary capacity in various important lines, we probably still had sufficient capacity to have handled orders promptly if they had not been swelled by excessive inventory buying. Consequently, if price and cost advances could have been avoided it is possible that the recovery movement could have proceeded on the firm foundation of increasing producers' goods expenditures and residential construction.

This is where organization comes into the picture. Organized labor asked for a greater increase in hourly earnings than could be compensated for in a short time by increased efficiency. Consequently, its request meant an increase in the labor cost per unit of production. Industry, by and large, was sufficiently well-organized to be able to meet this demand and still maintain its profit margin, and in some cases actually increase it, on the basis of a given volume of business, by advancing prices.

The steel industry was an outstanding example of this. Price leadership is so well-established that there was little incentive to attempt to hold down per unit costs. In fact, the occasion was seized to advance prices more than costs, as is indicated by the lowering of the break-even point (after preferred dividend requirements) of the U. S. Steel Corporation from 50 per cent to 43 per cent of capacity operations.

In other cases, where the profit margin was more than adequate to attract the necessary new capital into the industry, so that the additional labor cost per unit could readily have been absorbed without an advance in price, prices were nevertheless advanced. This appears to have been the case in the automobile industry.

In the building industry, individual strategically-located unions, whose membership had greatly decreased since the period of active building in the Twenties, capitalized on the increasing demand for their work, by asking and obtaining advances in the hourly rate of earnings and by enforcing various trade practices that increased cost. Contractors sought to recoup themselves for many lean years by upping their margins. The prices of building materials advanced for various reasons, many of them connected with the fact of organization of employers and employees.

The broad lesson or moral that emerges is that, in the solution of the problem of securing greater business stability, far more attention must be paid to the problem raised by "administered" prices on the one hand, and trade union policy on the other, than

has hitherto been considered necessary. There is absolutely no assurance that another recovery will not be choked off by excessive price and cost advances, nor that revivals from future recessions will not be seriously hampered by the maintenance of the peak levels of prices and wage rates. There is no assurance that the building industry will permit the present great physical shortage of housing accommodations, in relation to the standards of 1929, to be made up. In these circumstances, it appears imperative that a national policy be developed in connection with organized industry and organized labor to ensure that their policies will not wreck the possibility of securing a greater measure of economic stability.

3. Problems of a Compensatory Fiscal Policy

A final opportunity to prevent the recession was presented in the spring and summer of 1937. As was argued earlier, if consumption had increased steadily in this period, it is possible that the recovery movement might have proceeded on the basis of a new, higher and stabilized level of costs, prices and inventories. A steady increase in consumption and rise in rents would have necessitated more capital expenditures and would again have made residential building profitable.

A steady rise ⁱⁿ consumption under the conditions prevailing at that time, however, would only have been achieved by a very substantial increase in the Government's contribution to national buying power. It is not necessary to stress the difficulties in such a course. As in the previous but reverse case in the middle of 1936, there are the difficulties of determining upon policy and of implementing policy.

Placing the enormous difficulties of determining right policy aside, it appears evident that if fiscal policy is to be truly compensatory, a far greater degree of flexibility in expenditures and receipts must be possible than is now the case. It may very well be that much flexibility cannot be achieved within the budget. A large proportion of the taxes are levied on the previous year's income and in accordance with prior enactments. The bulk of expenditures is determined by appropriations made far in advance of the period to which they apply. It may be that the solution lies in securing flexibility in large part outside the regular budget. For one thing, the possibilities of providing for executive discretion in varying subsidies, and in maintaining, speeding up or retarding various types of expenditures, might be explored. Another avenue of approach would be the exploration of the possibilities of securing appropriate compensatory variations in receipts and/or expenditures through the use of automatic and non-discretionary devices linking receipts and/or expenditures to changes in the rate of consumption and production.