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FINANCE • INDUSTRY • AGRICULTURE • TRADE

FOURTH FEDERAL RESERVE DISTRICT

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Cleveland 1, Ohio

The Trend of Capital Growth

BOTH in business and governmental circles it has been frequently suggested during recent months that the nation's economy may not be expanding sufficiently to give assurance of employment to all who seek work, including recent additions to the labor force accruing from population increases and other factors. This concern is partly in the nature of a "long-term" worry. The fact that it has been expressed with increasing frequency during recent months is itself a partial reflection of the recovery in general businesss from the cyclical recession of early 1949. Thus, as boom conditions have returned, at least temporarily, attention has readily turned to longer-range questions of economic stability, and at the same time current data on employment and unemployment trends have been scanned to see whether recovery in employment is currently keeping pace with the industrial pickup.

The concern about long-time expansion of the economy is not new. It has taken various forms in the past. In the prosperous Nineteen-Twenties, for example, there was much discussion of "technological unemployment" or "structural unemployment", and in the late 'Thirties, the shadow cast by the great depression led to extended controversies over the question whether the economic system was gradually wearing out, or, in more technical parlance, was yielding to "stagnation" or "maturity". (1) In contrast to some of the previous rounds, present-day discussion

of the problem of expansion appears, thus far at least, to be conducted on an objective plane with a minimum of partisan acrimony. On the other hand, it appears doubtful that current statistical instruments have been mobilized to the full in tackling this particular problem, even though they are potentially much more useful than those available in previous decades.

The purpose of this article is to assist an understanding of the present phase of the problem of economic expansion simply by giving a brief answer to the following question: what do the statistical facts show about the current rate of capital growth in the United States, and how does this compare with previous trends in capital growth? While an answer to this question obviously fails to encompass the entire area of the expansion problem, it should nevertheless help to clear the way for consideration of broader questions, including those of national or business policy; for the rate of capital growth, or, as treated here, "private capital formation", stands close to the center of the entire expansion question.

Private capital formation, the trends in which are depicted in the accompanying charts, measures broadly the part of current national product which is diverted from immediate consumption into additions to the real capital of business. (2) It is a segment of

⁽²⁾ This definition is incomplete insofar as it fails to reflect residential construction, which, as an important part of total private construction, is included in the usual concept of capital formation. Insofar as residential construction is for the account of "consumer investment" rather than business investment, it represents an anomaly in the concept. See later discussion on this point.

Note also that wherever the term capital formation is used in the charts or the text, it refers to private capital formation. That is, public investment activities are omitted, except insofar as the constituent item, "net change in foreign investment" does include some government loan activities. (To the extent that the latter occurs, an additional anomaly appears in the concept of private capital formation.)

⁽¹⁾ For the debate on this question see the writings of Professor Alvin W. Hansen (in favor of the theory) and of Dr. George Terborgh (against the theory). Population increases in the United States during the past decade, both on an absolute and relative basis, have perhaps served to allay some of the fears associated with earlier versions of the ''maturity'' thesis.

A recent revival of interest in the question may be seen in postwar writings by Domar, Kalecki, and Higgins among others.

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the national income and product accounting series, and as a concept differs somewhat from similar items in private business or financial accounting.

Gross Capital

The first chart deals Formation Since the War with capital growth in the recent postwar peri-

od. It shows in dollar terms by quarterly periods the course of gross private capital formation and its constituent parts. (Gross capital formation represents the creation of new capital without deduction for capital consumed in the process of current production.) Thus, the dollar rate of gross capital formation (seasonally adjusted) rose to an all-time peak in the fourth quarter of 1948. After a rather rapid decline during the first three quarters of 1949, a recovery occurred during the final quarter of the year and the first quarter of 1950, with the rate of gross capital formation regaining about two-fifths of the ground lost. Second-quarter figures, when they are available, will undoubtedly show a substantial further recovery.

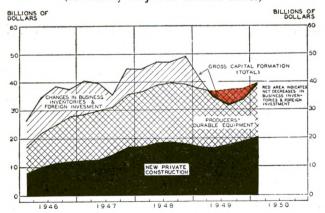
Parts of Gross Capital Formation

Looking at the constituent parts of gross capital formation, it is seen that new private construc-

tion (including residential) and output of producers' durable equipment are the two most important components. They are shown on the chart as the solid black area and the cross-hatched area, respectively. Both of these major segments showed a moderate decline during 1949; in the case of new private construction, however, the recovery during the second half of the year regained all the ground previously

GROSS CAPITAL FORMATION AND ITS PARTS U. S., 1946-1950, Quarterly

(Seasonally Adjusted Annual Rates)



. gross capital formation in dollars reached an all-time high in the fourth quarter of 1948, declined in early 1949, and since then has made a partial recovery; new private construction and producers' durable equipment are the major parts of gross capital formation, but changes in inventories and in foreign investment played a large role in last year's fluctuations.

lost, and by the first quarter of this year a new high was reached.

The area of the topmost segment of the first chart shows the combined effect of net changes in business inventories and in foreign investment. (The red area shows the amount of net decline.) It is obvious that the shifts in these items, especially the change from inventory accumulation to inventory liquidation, played a large part in the 1949 decline in gross capital formation, and indeed in the business recession as a whole. A separate treatment of inventory changes and changes in foreign investment would show that during 1947 and 1948 these two items underwent complementary fluctuations so that their movements tended to offset each other in their combined effect on capital formation, whereas during most of 1949 the movement of both items was downward, thus producing a drag on capital formation (as well as on gross national product). (3)

The large dollar totals of gross capital Historical **Yardsticks** formation during the postwar years do

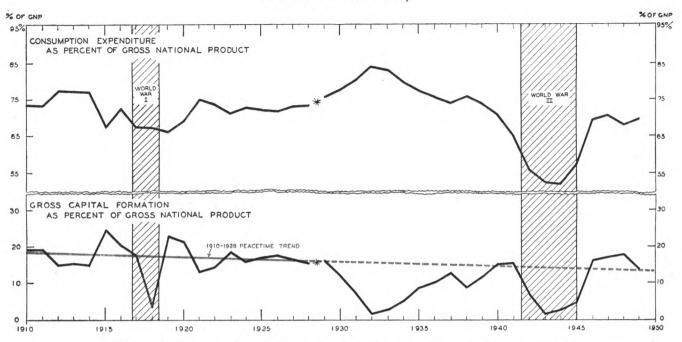
not necessarily mean that the rate of capital growth in recent years has been historically high in relation to other pertinent measures. To put the contents of the first chart on a basis which makes possible a comparison of recent with previous performance, without undue distortions from fluctuations in the value of the dollar, requires use of an additional yardstick such as gross national product as a whole. In the second chart, therefore, gross capital formation is taken as a percentage of gross national product, of which it forms a part. The resulting percentages are shown on an annual basis from 1910 through 1949. (See the black line in the lower half of the second chart.) The postwar period appears at the extreme right-hand side of the line, and the recent rate of capital formation as a percentage of gross national product may be seen in a historical setting of four decades.

It is apparent from the second chart that the postwar rate of gross capital formation, expressed as percentage of gross national product, has been at a very high level in comparison with the entire decades of the 'Thirties and 'Forties. Bearing in mind however, the exceptional circumstances of the war in the early 'Forties, and what is hoped to have been the exceptional circumstances of the great depression of the early 'Thirties which affected that entire decade, it becomes pertinent to look at the experience of previous decades as shown on the left-hand portion of the chart. According to this comparison the 1946-

⁽³⁾ With respect to changes in foreign investment, it should be noted that changes in the form of government financing sometimes affect the capital formation account as defined here. For example, the postwar program of aid to Europe has at times involved a shift from government lending abroad to outright government grants; such a switch reduces "net foreign investment" and hence reduces "capital formation".

RATES OF CONSUMPTION EXPENDITURE AND GROSS CAPITAL FORMATION

U. S. 1910-1919, Annually



* Break in series. Data for years prior to 1929 are from "old series", while data from 1929 are from "revised series". All data are from U. S. Department of Commerce, National Income and Product Series.

... gross capital formation as a percentage of gross national product (lower line) has been very high in the postwar period as compared with the depressed level of the 'Thirties, or with wartime experience; however, the postwar ratio has been only slightly above a projected position of the 1910-28 peacetime trend, which was slightly downward in direction. In years when gross capital formation as a share of national product has been low, as in 1932, the share of national product represented by consumption expenditure (upper line) has usually been high.

49 level of capital formation appears at first sight to be roughly comparable with the 1910 to 1928 experience, excluding the exceptional years of the first World War.

As an aid to closer comparison, a trend line has been fitted to the 1910-'28 years (excluding the war years from the computation of the equation) and appears as the solid red line at the lower left-hand portion of the chart. (4) The trend in gross capital formation from 1910 to 1928, viewed in this way as a proportion of gross national product, is slightly downward. If such a trend is projected into the present period, as shown by the broken red line, it becomes apparent that the postwar level of gross capital formation has been on the whole slightly above the trend position as so defined. Thus, in three of the four years from 1946 through 1949 the rate of capital

formation, as a percentage of gross national product, has exceeded the 1910-'28 peacetime trend. For the first and second quarters of this year, likewise, the current rate is above the position of the projected 1910-'28 trend. It should be noted, however, that if current rates are compared with the average annual rate of the years 1910-'28, rather than with a projection of a mildly downward trend, then 1948 is the only postwar year (thus far) when the rate of capital formation, as a percentage of gross national product, was as high as the average for the early period. (17.9% for 1948, compared with 17.7% for the average of 1910-'28.)

Capital Formation In the years when gross capital and Consumption formation has declined as a share of the gross national product, it has usually, although not always, been consumption expenditure which has made the chief corresponding gain in share of the total product. This may be seen by comparing the top line of the second chart, representing consumption expenditure as a percentage of gross national product, with the bottom line repre-

⁽⁴⁾ The war years are excluded from the trend computation because of the exceptional hindrances to private capital formation which were a by-product of the war economy. However, it should be noted that many government outlays on plant and equipment during wartime added to the permanent capital equipment of the country, even though they were by definition excluded from the items which go into private capital formation.

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senting capital formation. The inverse relationship of the consumption and capital lines is generally apparent, except for war years when both sectors decline as shares of national product in favor of war expenditures. (The latter appear in national product accounting as "government purchases of goods and services".) Thus, during years of peacetime prosperity, such as the mid-'Twenties and the late Forties, capital formation as a share of national product was high, while the consumption share was relatively low. During years of recession such as 1921, the early 'Thirties, 1938, etc., the consumption share rose, while the capital-formation share fell. In the latter case, of course, the national product as a whole was smaller; the larger share taken by the consumption sector simply means that the decline in consumption was less severe than the drop in capital forma-

The fact that capital formation is relatively high during years of prosperity represents more than an accidental connection of events. It is bound up with the active role of capital formation in the round-ofevents known as the business cycle, as distinguished from the dynamic aspect of capital formation as a factor of long-term growth. This does not imply, however, that an increase in capital formation is the only route by which national product can be increased. In fact, early this year the thought was advanced in some well-informed quarters that the forecasted level of capital expenditures for 1950 could be associated with a substantially higher national product than would otherwise be the case, provided the rate of individual and corporate saving should decline sufficiently. (5) For the subject at hand, however, a very high level of capital formation is assumed to be desirable insofar as it bears on the question of the long-term expansion of the economy.

Capital Formation and In addition to private the Government's Share capital formation and consumption expenditure,

the remaining major segment of national product is, of course, the total of government expenditures, including outlays for public construction. This share has an investment component as well as the consumption outlays and military expenditures which are traditionally characteristic of the government share.

Insofar as there appears to have been, since 1910 at least, a downward drift in private capital formation as a share of national product, the government sector has undoubtedly increased in its share of total product. One school of thought attributes this important trend as simply a reflection of a changing economy; the government is called upon to provide more services such as schools, hospitals, roads; also

(5) See, for example Sumner H. Slichter, "What is America's Short-Term Business Outlook?" in Dun's Review, January 1950.

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private activity. The other view, also widely held, is that private capital formation has sometimes faltered because of handicaps to incentives or initiative which have been interposed by previous or anticipated governmental action. Without attempting to solve this chicken-and-egg dilemma, it may be noted here that the fact of long-time increase in the government's role has been associated with a fact of long-time downward drift in private capital formation as a share of total product.

the government shows an increased willingness to step

in to take up the slack resulting from a faltering of

Were the 'Thirties As a final note on the historical Typical? trends shown in the second chart, it should be pointed out that if the previous trend of capital formation had been taken as that of the entire span from 1910 through the decade of the 'Thirties, then the recent postwar course of capital formation would appear as much higher in relation to previous experience. In that case, of course, the trend line would slant downward much more sharply, and the experience of the late 'Forties would look relatively more favorable. To view the matter in this light, however, would be to accept the decade of the 'Thirties as indicative of the long-time trend, and would prejudge the question of "stagnation", which was so sharply debated some years ago, in favor of the advocates of the stagnation or maturity thesis. A better solution appears to be to defer the question of evaluating the 'Thirties until longer peacetime experience has been accumulated, and meantime to appraise the current picture in the

light of an earlier standard of comparison.

Question of Consumer Investment

The above sketch of the course of gross capital formation over the decades

may now be supplemented by considering whether or not any different picture would emerge if the basic concept of gross capital formation were to be modified to take account of certain logical criticisms which have often been leveled at the concept. For example, it is frequently pointed out that the inclusion of residential construction in the usual version of gross capital formation is somewhat anomalous, insofar as housing outlays are made for personal consumption. The argument is made that if residential construction is to be considered a type of "consumer investment", then consumer purchases of such durable goods as autos and furniture should also be included in gross capital formation.

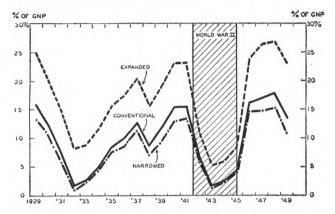
In order to determine whether a modification of "capital formation" along these lines would result in substantial changes in the trend of capital formation, as described earlier, a test has been made, the results of which are given in the third chart. The latter shows

ALTERNATIVE MEASURES OF GROSS CAPITAL FORMATION

U. S., 1929-1949, Annually

Expressed as percent of Gross National Product

(Note: "Conventional" includes residential construction, excludes consumer durable goods. "Expanded" includes both residential construction and consumer durable goods. "Narrowed" excludes both residential construction and consumer durable goods.)



. . . when the concept of gross capital formation is modified either to include consumer durable goods (top line) or to exclude residential construction (bottom line), the resulting trends are not seriously changed; however, the more inclusive measure tends to improve the relative showing of gross capital formation in the postwar period to date.

gross capital formation, as a percentage of gross national product, annually from 1929 through 1949, on three different conceptual bases. (Comparable data for years prior to 1929 are not readily available.) The middle (solid black) line shows capital formation in the usual sense, that is, including residential construction but excluding purchase of consumer durable goods; this is the same line as shown in the second chart, except that it does not cover so long a period of time. The top line (broken line) shows an expanded concept of capital formation, including the purchase of consumer durable goods. The bottom (dash-dot) line shows a narrowed concept of capital formation, excluding both residential construction and purchase of durable consumer goods.

It is apparent from the third chart that no fundamental change in the year-to-year swing of capital formation is effected by such modifications of concept. During the recent postwar period, however, some interesting divergences appear. Thus, if consumer durable goods are added to the usual concept, as shown by the top line, the results indicate a greater postwar gain in capital formation than would otherwise be the case. Likewise if both residential construction and consumer durable goods are excluded, as shown by the bottom line, then capital formation in the postwar period appears relatively, as well as Digitized for FRASER

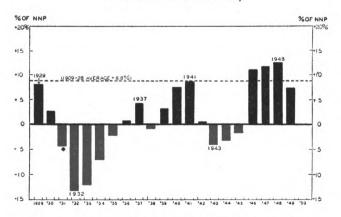
absolutely, less favorable. Such results are in line with the special postwar emphasis on consumer "restocking", both as to houses and durable goods, at the same time that business restocking has also occurred in large measure.

Formation All of the above discussion runs in terms of gross capital formation, that is, no deduction is made for the consumption of capital (wear and tear of buildings and equipment used in the productive processs). Gross figures are commonly used, in preference to net, both for capital formation and for national product because the estimates of capital consumption (which accounts for the difference between gross and net) are difficult to make with precision, and because it is commonly assumed that year-to-year changes in the net concept would follow the pattern of year-to-year changes in the gross.

But what about *net* capital formation? In order to see whether the net follows a pattern similar to the gross, estimates of net capital formation are shown in the fourth of the accompanying charts. (The period covered by this chart begins with 1929, since comparable estimates for earlier years are not readily available). In this chart, net capital formation is expressed as a percentage of *net* national product (gross national product minus capital consumption). The resulting percentages are shown as bars, with red bars applying to years when net capital formation was negative, i.e. when capital consumption exceeded new capital formation.

NET CAPITAL FORMATION AS PERCENT OF NET NATIONAL PRODUCT

U. S., 1929-1949, Annually



*Red bars are for years when net capital formation is negative.

... net capital formation as a percentage of net national product has been much greater in the postwar years than in the 'Thirties, and slightly larger than an estimated average for the period 1909-28.

An examination of the fourth chart indicates that the general course of net capital formation, as a percentage of national product, is quite similar for the years 1929 through 1949 to the course of gross capital formation shown on the second of the chart series, and previously discussed. The principal difference is that in the case of net capital formation, the declines during depression and war years show up as negative capital formation, instead of a reduction in positive formation as in the case of the gross series.

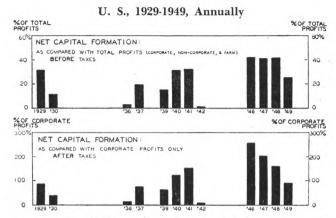
As a benchmark for the net capital formation series since 1929 a twenty-year average of the years 1909 through 1928 has been estimated, and the level of this average is shown on the chart in the form of a broken line running through the more recent period. (6) By comparison with the 1909-1928 average, it appears that net capital formation in the recent postwar period (expressed as a percentage of net national product) shows a definite gain. As in the gross capital formation series, it is also clear that net capital formation in the postwar period has been far in excess of that of the decade of the 'Thirties, — where in fact it was a minus quantity for six of the ten years.

Capital Formation It may be useful also to compare net capital formation with business profits. Such a procedure can supply some background for a consideration of the question of the relative rate of "plow-back" as well as the broader question of incentives.

The fifth chart in the accompanying series shows the results of a partial test in this direction. The top half of the chart portrays net capital formation since 1929 expressed as a percentage of total profits, before taxes, including profits of unincorporated enterprises and farms as well as corporate profits. The bottom half shows net capital formation expressed as a percentage of corporate profits after taxes. (In both cases, years where net capital formation was negative, or where profits gave way to losses, are omitted from the chart for practical reasons.)

The pattern shown by this chart is not greatly different from that shown by the preceding one, where net capital formation is taken as a percentage of net national product. The difference lies principally in the fact that capital formation in relation to profits fails to show the same upward movement within the period from 1946 through 1949 as is shown by capital formation expressed as a percentage of national product. In fact, the comparison of capital formation with corporate profits after taxes, as

NET CAPITAL FORMATION AS COMPARED WITH PROFITS(a)



(a) Both series are after inventory valuation adjustment; years when net capital formation was negative are omitted.

. . . net capital formation expressed in relation to profits (before and after taxes) has been relatively high in the postwar period; however, capital formation failed to keep pace with the gains in corporate profits, after taxes, from 1946 through 1949.

shown in the lower half, reveals a distinct downward movement in the ratio between 1946 and 1949, although the general level of the ratio continued to be high as compared with previous periods.

In interpreting the final chart, it should be understood that a ratio between two different items is being portrayed, rather than a mere showing of a part in relation to the whole as is the case in the preceding chart. Thus capital formation takes place by use of funds derived from various sources, of which current profits are only one. Furthermore capital formation as used here includes residential construction which is not directly financed from business profits, and in other respects, too, the numerator of the ratio is composed of elements not strictly comparable with those included in the denominator. Nevertheless, the chart may be taken as suggestive of differences in tempo of change as between capital formation and business profits, where the former is drawn at least in part from the latter.

Conclusions The conclusions derived from the previous analysis may be summarized briefly as follows:

- (1) Gross private capital formation in the postwar period, expressed in dollars, rose until late 1948; a marked decline in 1949 was followed by a partial recovery. Changes in inventory played an important part in the latter fluctuations.
- (2) Expressed as a percentage of gross national product, gross capital formation in the postwar period to date has been very high in

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⁽⁶⁾ This estimate is based on earlier decade estimates made by Simon Kuznets, with adaptations for differences between the Kuznets' concept of capital formation and the one used here, which is based on the current Department of Commerce series. Materials were drawn from Kuznets: National Product Since 1869, New York 1946, and also from Kuznets: "Capital Formation 1879-1938", a paper presented at the Bicentennial of the University of Pennsylvania, September 1940.

Recent Banking Trends

Expansion of Demand Deposits and Turnover

Since early April, adjusted demand deposits at the weekly reporting banks in this District* have expanded by approximate-

ly \$200 million (7 percent) from the seasonal low usually associated with first-quarter Federal income tax payments, and are almost at the record level reached in December 1949. This relatively rapid increase in checking account balances followed a less-than-seasonal decline in the first quarter of the year.

While these deposits, which represent chiefly the cash balances of both incorporated and unincorporated businesses, are not considered to be among the most sensitive barometers of business activity, it is implicit in their creation and function that they follow the general swings of minor and major cyclical movements. Their expansion during the second quarter of the year is an additional pointer to the recurrence of boom conditions throughout the economy. The faster rate of growth of adjusted demand deposits in this District than throughout the nation, (7 percent as against 4 percent) can probably be linked to the hard-goods character of the boom. With basic steel and metal fabricating production playing such a prominent role in the total product of the Fourth District, the strength of durable-goods sales—particularly automobiles — and the unprecedented volume of construction activity, have a natural corollary in a greater-than-average expansion in cash balances in this area. A further contributory factor may well have been the need, particularly in the case of large firms, to maintain larger cash reserves to meet increased wage-rates, pension provisions and past or anticipated prices rises.

While the increase in demand deposits in recent weeks has been most pronounced at the large city banks in this District, country member bank deposits have also gained somewhat since the beginning of the year, in direct contrast to a steady decline of more than \$130 million (almost 6 percent) in the first half of last year.

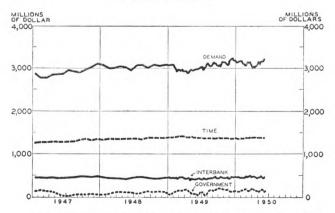
A substantiating indication of the revival of business activity is the fact that the rate of turnover of demand deposits, which evidenced some pick-up from the 1949 trough in the early months of this year, has continued to increase during the second quarter, establishing a definite upward trend which it appears was extended into June. It is evident, therefore, that the augmented volume of bank

balances is being applied with increased rapidity to the conduct of current business transactions.

In contrast to demand deposits, Time Deposits time deposits have declined slightly from the April peak at both city and country banks, although in Pittsburgh and several other localities the growth of what are presumably individuals' savings accounts has been continued. The decline followed a moderate first-quarter expansion, thus appearing to develop a pattern similar to that established in 1949. Whether or not the movement reflects the re-establishment of a peacetime seasonal pattern is as yet indeterminable, and in any case the magnitude of the fluctuations during 1949 and so far this year is so small as to be of relatively little significance. At weekly reporting member banks in leading cities throughout the United States, a moderate expansion in time deposits has been sustained, but the year-toyear margin has tended to shrink during recent weeks.

Investments Both in the Fourth District and throughout the country, investments in United States Government securities and in those of corporations, states and municipalities were augmented in the second quarter of 1950. At the weekly reporting banks in Ohio and Western Pennsylvania the total investment portfolio has been restored to virtually the same level as at the beginning of the year, and approximately 10 percent in excess of the comparable 1949 figure. Pursuit of a very full

DEPOSITS OF REPORTING MEMBER BANKS (Fourth District)

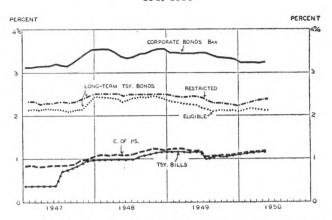


... adjusted demand deposits increased rapidly from the seasonal low of early April and in June were virtually equal to the all-time high of December 1949. Time deposits and U. S. Government balances registered small declines during the second quarter, but have shown little net change from the beginning of the year.

^{*} Mainly large city banks, whose demand deposits comprise about 60 percent of the total demand deposits of member banks in the Fourth District.

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YIELDS ON SELECTED SECURITIES 1947-1950



steadily during 1950, with the exception of bank-eligible bonds whose prices firmed somewhat during the second quarter. Yields on corporate bonds have risen slightly during recent weeks from the two-year low of early 1950.

investment policy, with excess reserves being held down to 1.4 percent of requirements at reserve city banks during the second quarter, together with a substantial inflow of funds subsequent to the March tax withdrawals, have been major contributing factors to the expansion. At country banks excess reserves declined from about 18 percent of requirements in the first quarter to around 16 percent in April and May, but are still somewhat in excess of the comparable ratio of 12 percent in the same months of 1949.

The major part of the increase in investments since early April has been in U. S. Government obligations. Holdings of these issues are little changed from the January volume, and are about 3 percent below the December, 1949 peak. Changes in the composition of the member bank portfolio of Governments have reflected in the main the substantial volume of refunding operations undertaken by the Treasury thus far in 1950. In April and June, respectively, a total of almost \$6 billion of 1-year 11/4 percent certificates of indebtedness were replaced by nearly \$1 billion of Treasury notes with a 15-month term and a rate of 11/4 percent, and about \$5 billion 13-month 1¹/₄ percent notes. In addition, a further \$3.5 billion of 1½ percent notes due March 15, 1955, the longest bank eligible security offered by the Treasury since the Victory Loan Drive of 1945 was taken in exchange for maturing 13% percent 181/2 month notes in April.

Holdings of certificates of indebtedness at weekly reporting banks in this District accordingly were reduced by mid-June to the lowest figure since early 1948, while holdings of Treasury notes increased to record levels. The combined total of certificates and notes has evidenced a moderate contraction during Digitized for FRASER

the second quarter, as has also been the case at the countrywide sample of weekly reporting banks. In comparison with year-ago figures, however, the expansion of certificates and note holdings has been somewhat greater in this District than throughout the country.

Investments in U. S. Government bonds have shown little change in recent weeks, following a moderate contraction in March primarily attributable to the refundings in that month, and remain slightly below the level of the early months of this year, and the comparable year-ago figure.

Recent refinancing operations by the Treasury have continued the slow movement towards somewhat higher rates which began with the January announcement of the offering of 20-month 1½ percent notes following a series of 1½ percent certificate issues in the latter part of 1949. By April, the term on exchange offerings of 1½ percent certificates was reduced to 15 months, but the immediate possibility of a return to a 1-year 1½ percent certificate rate was precluded in May when a 13-month 1½ percent note was announced for the refunding of the June and July certificate maturities.

Within the limits imposed by the need for conformity with Treasury debt-management policy, openmarket operations of the Federal Reserve during 1950 have been designed to induce a somewhat higher price for credit. The yield on certificates of indebtedness, which averaged 1.12 percent in January, rose to 1.19 percent at the end of April and in mid-June stood at 1.18 percent, only slightly below the yield in June of last year prior to the announcement of a somewhat more flexible policy by the Federal Open Market Committee. New issues of Treasury bills were quoted at 1.17 percent yield in May, as against 1.14 percent in March this year, and 1.16 percent in the first half of 1949.

A tendency for prices of bank eligible bonds to firm somewhat has been apparent in recent weeks. For example, the yield on the 2½'s due September 1967-72 declined from 2.15 percent at the end of March to 2.13 percent in mid-June. Under pressure of continued sales by the Federal Reserve, however, prices of restricted bonds drifted further downward. In late June, the $2\frac{1}{2}$'s due December 1967-72 were quoted at 2.42 percent as against 2.36 percent at the end of March, and compared with 2.41 percent in late June of last year. During the year to date, June 28, a reduction of almost \$1,600 million has been effected in the System bond portfolio, of which almost \$1,400 million is due to sales of restricted issues. Flotations of a considerable volume of corporate security issues together with the pressure of System open-market sales has resulted in a slight decline in corporate bond prices, with yields on Aaa bonds (Moody's index) going from 2.59 percent at the end of March to 2.61 percent in late June, and on Baa bonds going from 3.23 percent to 3.28 percent in the same period.

Reserve Relatively little net change in the vol-**Bank Credit** ume of reserve bank credit occurred in the second quarter. The restrictive effect of bond sales was more than offset by the acquisition in the open-market of approximately \$800 million of Treasury notes and nearly \$700 million of certificates since the end of March. Financing of the current budget deficit has been accomplished during the second quarter primarily by weekly cash offerings of \$100 million of Treasury bills since early April. Holdings of Treasury bills at weekly reporting banks throughout the country increased by almost \$900 million between early April and late June. At the weekly reporting banks in this District, bill holdings have more than doubled from the low figure of early April, and are at the highest level since last September when more permanent outlets were still being sought for funds released by the August reductions in reserve requirements.

Although the greater part of the Treasury's borrowing in recent weeks has been effected through banking channels, a greater-than-usual proportion of the new bills appears to have been acquired by non-bank investors, thus modifying somewhat the potential expansionary effect of the deficit on the money supply. The apparent ready availability of institutional funds in the market may reflect in part the result of recent security flotations, and the growth of pension funds. It is not certain, however, to what extent the nonbank purchases of Governments represent permanent investments, or to what extent they reflect rather temporary use of funds while awaiting more favorable opportunity for investment in higher yield, less liquid, non-Government securities.

Holdings of state, municipal and corporate securities have continued to increase at Fourth District member banks and reached new peak levels at the end of May. The expansion has been at about the same rate at both reserve city and country banks, but their aggregate volume is still less than one-sixth of the total holdings of Government securities. Both in this District and countrywide, weekly reporting banks indicate that the rate of acquisition of these securities has slackened off somewhat from the relatively rapid pace maintained during the first four months of the year.

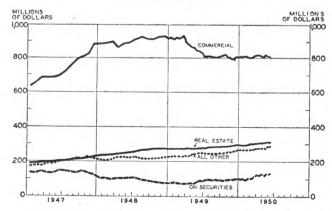
Movements For the most part, the second quarter in Loans of 1950 has seen a prolongation of the first-quarter trends in the various categories of bank lending. Exclusive of interbank loans, incurred in the process of the banks' adjusting their reserve positions, total loans at the weekly reporting

banks in this District advanced by \$34 million (2 percent) from the end of March to late June to establish a new peak of \$1,518 million. The total of loans and discounts at all member banks in the District, which has set a new record in each successive month this year, reached a peak of almost \$2,800 million at the end of May, more than \$100 million above the March 1949 high established before last year's sharp liquidation of commercial loans began.

At country banks, in this District, where so-called commercial loans are featured less prominently, the aggregate loan volume has maintained an almost uninterrupted upward trend for the past twelve months. The latest available data indicate that new loan volume during April and May exceeded repayments by a greater margin than was the case at the reserve city banks. This probably reflects the greater importance of mortgage and consumer debt at the country banks.

Real estate and The volume of debt incurred to Consumer loans finance the high level of construction and durable goods consumption, has continued to increase with no perceptible loss of pace during recent months. Further impetus to the extension of credit for housing may have been derived from the passage of the Housing Act of 1950 in April and the reduction in rates by the F.H.A. from 4½ percent to 4¼ percent. These factors, in addition to the continued operations of the F.N.M.A., the V.A., and other governmental agencies have ensured the ready availability of an amplitude of funds, easy terms, and low rates with which to prevent any immediate accumulation of unsold housing. They can certainly be considered as supports to the recent increases in housing costs, and as such they contribute

LOANS OF REPORTING MEMBER BANKS (Fourth District)



... real estate and consumer loans continued to expand to new peak levels during recent months, while commercial loans declined slightly from the 1950 seasonal high of March, and are virtually unchanged from a year ago. The volume of collateral loans is the highest in more than two years.

directly to the inflationary tendencies inherent in the boom. The rate of expansion of real estate loans at reporting banks in this District has been roughly parallel to the nationwide trend at reporting banks in leading cities, where mortgage credit increased \$200 million (4 percent) from the end of March to late June.

At reporting savings and loan associations in Ohio and Kentucky a volume of new mortgage loans considerably in excess of the year-ago amount has been registered in every month of 1950, with the May total establishing a new high figure for any month.

While the magnitude of the volume of outstanding real estate debt in relation to the total of bank assets or in relation to personal income may not appear excessive, and the extent of insurance coverage gives this type of credit a higher degree of liquidity than would otherwise be the case, there is perhaps cause for some apprehension that the easy credit conditions in this type of activity may be stimulating overcapacity in the building trade. In addition, aside from the question of preferential credit terms tending to cause an inefficient distribution of resources, the extent to which future income is committed to repayment of debt may tend to make the volume of consumption expenditures increasingly sensitive to changes in income receipts.

Consumer and other types of loans

Similar dangers are inherent in the continued rapid expansion of consumer credit, particularly instalment credit. The "all other loans" cate-

gory at the national sample of weekly reporting banks has increased by \$337 million (7 percent) from the end of March to late June, and stands more than \$940 million (24 percent) above the year-ago figure. In this District, this class of loans, which includes some business loans which cannot readily be classified elsewhere, increased \$26 million (10 percent) in the same period, following a relatively stable first quarter.

Instalment debt, which reached a record amount of \$11,667 million at the end of May, appears to be expanding still further, with no sign of leveling off. According to reports from a sample of banks in this District, instalment debt outstanding at these institutions registered the largest monthly increase of the postwar period in May, while advancing to a new peak. The expansion during the first five months of 1950 is virtually the same as that recorded during the same period of 1948. While outstanding debt for all purpose increased both during May and for the first five months of the year, the most substantial increases occurred in credit extended for the purchase of automobiles and other durable consumer goods. The only type of credit which has failed to show a substantial increase during 1950 is personal instalment debt, which at the end of May was below the record March figure. The fact that the banks held a 57 percent greater volume of nonautomotive paper at the end of May than a year ago bears witness primarily to the high level of sales of television receivers and major household appliances during the latter part of 1949 and the early months of this year.

The rapid expansion of instalment debt this year is attributable to an unprecedented volume of new loans coupled with a somewhat lower rate of repayments than in the same period last year. The latter factor is probably due in the main to the progressively easier terms offered following the easing and eventual lapse of consumer credit controls during the first half of 1949. Evidence of growing concern over the extent and pace of instalment credit expansion has come in recent weeks from the more frequent notes of warning sounded by trade executives concerning long-term low downpayment arrangements, and inadequate screening of credit applicants.

Collateral loans on non-Government securities continued the expansion which began in the spring of last year, subsequent to the relaxation of margin requirements by the System from 75 percent to 50 percent. A fairly consistent rate of increase has been maintained throughout this year, with a gain of \$30 million (50 percent) to late June being recorded at reporting Fourth District banks. The credit expansion for the past twelve months, associated with the stock market revival since last summer, has totaled \$50 million (125 percent), lifting the aggregate volume of collateral credit to the highest level since late 1947.

Commercial loans Commercial loans in this District have maintained a relatively stable volume during the second quarter, and since the end of June last year have moved only within the narrow range of \$789 million to \$825 million at reporting banks. While no precise seasonal pattern is as yet discernible in this type of business debt in the District, it appears reasonably certain that the failure of such loans to show a net decline since the beginning of the year does not represent a downtrend on a rough seasonally adjusted basis. For the country as a whole, the decline in business borrowing during the first five months of the year has been somewhat less than seasonal, and this can probably be related primarily to rebuilding of inventories at various stages in the productive process. If commercial debt is going to be expanded, signs of an upturn should become apparent within the next few weeks. The March survey of interest rates charged on short-term business indicated a slightly lower average rate than in 1949.

In the prevailing atmosphere of optimism concerning the short-term business outlook, an increasing demand for bank credit may well occur, and there is ample reason to suppose that an adequate volume of resources is readily available to satisfy the demand at relatively low rates.

The Trend of Capital Growth

(CONTINUED FROM PAGE 6)

comparison with the depressed levels of the 'Thirties, or with wartime experience. However, the postwar ratio has been only slightly above a projected position of the 1910-'28 peacetime trend, which, in turn, was slightly downward in direction.

- (3) The above conclusions are only slightly altered when the concept of gross national income is modified so as to include purchases of consumer durable goods, or alternatively to exclude residential construction.
- (4) Net capital formation expressed as a percentage of net national product exhibits much the same pattern as the course of gross capital formations at least since 1929. In the postwar years this ratio has been much higher than in the 'Thirties, and slightly higher than an estimated average of the measure for the period 1909-28.
- (5) Net capital formation expressed in relation to business profits (before and after taxes) shows an outline since 1929 somewhat similar to the above findings. However, capital formation failed to keep pace with the gains in corporate profits, after taxes, from 1946 through 1949.

Insofar as these findings serve as materials for use in appraising the outlook for long-term growth, a few additional comments are in order. First, the data cited have run primarily in terms of *private* capital formation. To the extent, therefore, that governmental activity of an investment nature can serve as an offset to whatever deficiencies in private capital formation may appear, the future picture of growth

of the total economy may be more favorable than would otherwise be surmised merely from a projection into the future of the trend of private capital formation. (7) Second, a slowing down in the *rate* of capital formation does not mean at all the same thing as aggregate decline or deterioration. Thus, for example, the declining tendency of gross capital formation as a fraction of national product from 1910 to 1928, as shown in the second chart, was essentially a slight slowing down in the rate of growth rather than an absolute cessation of growth. From this angle, too, the basic outlook may be more favorable than might be surmised from first glance at the charts.

On the other side of the scales, however, a serious discount may be applied to the favorable connotations suggested by the very high postwar rate of capital formation depicted above. Such a discount appears as soon as it is asked whether the high postwar rate can be expected to continue into the years or decades ahead. For it must be remembered that the postwar backlogs of demand for re-equipment by producers and by consumers have been in considerable measure a special heritage of war-created shortages. The requirements of long-time growth may, perhaps, call for something in the nature of a more permanent source of stimulation in peacetime.

Thus, the nub of the matter seems to be that the elementary facts of postwar capital expansion give scant reason for concern about the long-term prospect, provided that present rates are substantially maintained. But this is a very large proviso indeed.

⁽⁷⁾ Furthermore, the postwar figures on "private capital formation", as shown by the chart, may be somewhat understated to the extent that the value of plant and equipment financed by the government during the war and subsequently sold to private enterprise fails to be included in the regular computation of private capital formation.

FINANCIAL AND OTHER BUSINESS STATISTICS

Time Deposits at 57 Banks in 12 Fourth District Cities

(Compiled June 12, and released for publication June 13)

		Average Weekly Change During:						
	Time Deposits		April		May			
of Banks	May 31, 1950	1950	1950		1949			
Cleveland (4)	\$ 879,993,000	-\$941,000	-\$260,000	-\$	688,000			
Pittsburgh (10)	479,490,000H	+509,000	+440,000	_	107,000			
Cincinnati (8)	181,462,000	-110,000	+225,000	-	163,000			
Akron (3)	103,233,000	- 87,000	+ 96,000	-	40,000			
Toledo (4)	106,052,000	- 66,000	+ 32,000	+	96,000			
Columbus (3)	85,118,000	-122,000	+ 76,000	+	34,000			
Youngstown (3)	62,789,000	- 22,000	+63,000	_	91,000			
Dayton (3)	46,563,000	— 81,000	+ 34,000	_	63,000			
Canton (5)	42.029.000	+ 23,000	+ 41.000	_	57,000			
Erie (4)		+43,000	+ 130,000	_	7,000			
Wheeling (5)	26,929,000	- 32,000	+ 37,000	-	2,000			
Lexington (5)		- 5,000	+ 1,000	+	8,000			
TOTAL—12 Cities	\$2,065,026,000	-\$891,000	+\$914,000	-\$	1,080,000			

H-denotes new all-time high.

Time deposits in 12 Fourth District cities declined at an average weekly rate of \$891,000 during May, following five successive months of expansion. Although this rate of decline was slower than in May 1949, a majority of cities reported decreases in time deposits greater than a year ago.

At the four Cleveland banks the shrinkage was larger than is usual in May, and marked the fourth successive month of contraction.

The relatively rapid growth of time deposits in Pittsburgh and Erie continued for the sixth consecutive month with an average weekly gain of \$509,000 and \$43,000 respectively, to establish new all-time highs. In Canton where the only other gain was reported, time deposits have increased continuously from the January low by a total of \$440,000, marking the longest period of uninterrupted expansion since early 1947.

Adjusted Weekly Index of Department Store Sales*

Fourth District

(Weeks ending on dates shown. 1935-39 average=100)

	1949		1950		1949		1950
Jan.	8326 15317 22324 29298	Jan.	7273 14307 21305 28302	July	2285 9283 16283 23276 30272	July	1 8 15 22 29
Feb.	5301 12303 19290 26274	Feb.	4301 11290 18273 25250	Aug.		Aug.	5 12 19 26
Mar.	5270 12282 19268 26275	Mar.	4255 11276 18262 25261	Sept.	$ \begin{array}{cccc} 3 & \dots & 276 \\ 10 & \dots & 282 \\ 17 & \dots & 279 \\ 24 & \dots & 268 \end{array} $	Sept.	2 9 16 23 30
Apr.	2304 9306 16270 23278 30299	Apr.	$ \begin{array}{cccc} 1 & \dots & 281 \\ 8 & \dots & 275 \\ 15 & \dots & 260 \\ 22 & \dots & 279 \\ 29 & \dots & 327 \end{array} $	Oct.	1288 8249 15251 22244 29263	Oct.	7 14 21 28
May	$7 \dots 320$ $14 \dots 277$ $21 \dots 301$ $28 \dots 280$	May	6296 13290 20293 27290	Nov.	- 5 259 12 241 19 256 26 276	Nov.	4 11 18 25
June	4277 11283 18293 25299	June	3290 10306 17303 24300	Dec.	3286 10293 17304 24257 31289	Dec.	2 9 16 23 30

^{*} Adjusted for seasonal variation and number of trading days. Based on sample Digitized for weekly reporting stores which differs slightly from sample reporting monthly.

Bank Debits*—May 1950 in 31 Fourth District Cities

(In thousands of dollars) (Compiled June 8, and released for publication June 9)

No. of Reporting Banks	May 1950	% Change from Year Ago	3 Months Ended May 1950	% Chang from Year Ag	
189 ALL 31 CENTERS 10 LARGEST CENTERS:	\$7,501,977	+13.6%	\$21,759,362	+ 4.4%	
5 AkronOhio	230,798	+ 9.0	704,405	+ 2.9	
5 CantonOhio	122,539	+19.8	346,902	+ 2.9	
16 CincinnatiOhio	948,437	+18.1	2,725,985	+7.6	
10 ClevelandOhio	1,900,719	+11.5	5,431,277	+ 2.3	
7 ColumbusOhio	596,984	+14.0	1,732,283	+ 2.8	
4 DaytonOhio	242,165	+17.2	703,050	+6.8	
6 ToledoOhio	346,864	+14.5	1,059,161	+ 8.5	
4 YoungstownOhio	164,936		479,981	+ 8.4	
6 EriePenna.	94.245	+15.3	271,805	+ 6.7	
49 PittsburghPenna.	2,188,236	$^{+13.5}_{+13.5}$	6.340,595	+ 4.0	
111 TOTAL		+13.8%	\$19,795,444	+ 4.3%	
21 OTHER CENTERS:	40,000,020	1 10.070	41011001111		
9 Covington-NewportKy.	\$ 41,959	+12.7%	\$ 124,528	+ 8.5%	
6 LexingtonKy.	59,561	+10.8	184,388	+10.5	
3 ElyriaOhio	21,061	+30.0	61,606	+10.3	
3 HamiltonOhio	43.065	+21.6H	118,398	+7.9	
2 LimaOhio	45,546	+19.8	133,228	+ 8.1	
5 LorainOhio	18,225	$^{+19.8}_{+7.6}$	51,103	- 4.9	
4 Manafald			134,972	+ 7.8	
4 MansfieldOhio	45,329	+19.8		+15.3	
2 MiddletownOhio	36,985	+18.1	115,992	+1.9	
3 PortsmouthOhio	20,664	+ 3.8	62,839	+2.0	
3 SpringfieldOhio	45,991	+ 3.0	137,030	+5.5	
4 SteubenvilleOhio	22,952	+8.6	68,672		
2 WarrenOhio	41,124	+13.8	118,761	+5.6	
3 ZanesvilleOhio		+13.6	83,962	+3.6	
3 Butler Penna.	32,243	+7.6	89,798	-1.2	
1 FranklinPenna.	7,000	+7.6	20,210	- 1.5	
2 Greensburg Penna.	21,172	+4.1	61,948	-3.6	
4 KittanningPenna.	9,892	+6.5	27,349	-5.0	
3 MeadvillePenna.		+28.6	39,422	+12.9	
4 Oil CityPenna.	18,400	+4.5	55,591	+ 1.3	
5 SharonPenna.	27,863	+7.3	82,222	- 1.8	
6 Wheeling	65,262	+ 6.2	191,899	+ 4.9	
78 TOTAL	\$ 666,054	+11.9%	\$ 1,963,918	+ 5.3%	

Debits to all deposit accounts except interbank balances. H—denotes all-time night Debits to deposit accounts (except interbank) in 31 Fourth District cities established a record total for May of \$7,502,000,000, 13.6 percent greater than the yearago volume. For the first time since September 1948, year-to-year increases were registered in every center.

The substantial margin over the debit volume for May 1949 was sufficient to lift the cumulative total of debits for the past three months 4.4 percent above the total for the same period of last year. This was the first time since June of 1949 that the three-month total showed a gain over the comparable figure for the previous year. Although deposits at the end of May stood at an all-time high, almost 6 percent greater than in May 1949, turnover of deposits during the month was at a faster rate than a year-ago for the first time in twelve months.

TEN LARGEST CITIES

Year-to-year increments in debits at the large cities during May were relatively uniform in extent, with Akron being the only city to show an increase of less than 10 percent. After eleven months of almost continuously reporting the greatest year-to-year declines, Canton headed the large cities with a gain of almost 20 percent.

TWENTY-ONE SMALLER CENTERS

TWENTY-ONE SMALLER CENTERS

The 11.9 percent increase in the volume of debits over May of last year at the twenty-one smaller centers was almost as large as the 13.8 percent margin registered at the large cities, although the deposit expansion was much more considerable at the latter group during the twelve month period. Gains ranged from 3 percent at Springfield to 30 percent at Elyria, with a majority between 5 percent and 15 percent. A new all-time high was established at Hamilton, up 21.6 percent from the year-ago figure.

Indexes of Department Store Sales and Stocks

Dail	y Avera	ge for 19	35-1939=	100	7.5		
	A	djusted f	or		Without	t	
		onal Vari		Seasonal Adjustment			
	May 1950	April 1950	May 1949	May 1950	April 1950	May 1949	
SALES:							
Akron (6)	310	301	307	301	287	298	
Canton (5)	385	378	366	382	359	363	
Cincinnati (8)	313	322	314	313	309	314	
Cleveland (11)	280	266	281	271	261	272	
Columbus (5)	339	330	353	322	313	336	
Erie (4)	353	345	334	335	332	317	
Pittsburgh (8)	274	278	275	274	273	275	
Springfield (3)	284	286	283	284	278	283	
Toledo (6)	287	281	270	279	276	251	
Wheeling (6)	255	264	253	250	253	248	
Youngstown (3)	326	325	336	316	319	326	
District (98)		299	295	296	290	292	
STOCKS:		_00	200	200			
District	280	283	267	283	287	269	

Back figures for year 1949 are shown in the February issue. For years 1946-48 see August 1949 issue, page 7.