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CHAPTER 6

CYCLES IN TYPES OF PROPERTY INCOME

Turns in property income cycles, according to the findings in Chapter 4, lead business cycle peaks by one or two months but lag behind the business cycle troughs. On an over-all average, in both expansions and contractions, the amplitudes of property income cycles are smaller than those for any other type of income. But this is not the case in every cyclical phase. In the expansion of 1921-1929 and in the contractions of 1929-1933 and 1937-1938 the amplitude in property income was larger than that in other major types of income.

Has each component of property income followed the same cyclical course, or is the pattern of the aggregate an average of diverse patterns of the individual components? Although property income is defined as the sum of receipts by individuals of net rent, interest, and dividends, detailed analysis must be restricted to interest and dividends, since the estimates of net rent are rather arbitrarily derived even on an annual basis, except in the years in which there was a census of housing, as in 1930 and 1940.[1]

Interest receipts by individuals are largely based on ownership of long-term debt issued by corporations or governments, or by firms or individuals on real estate and other fixed assets. Since such debts are long-term contracts, there is little advantage in using monthly instead of annual estimates. The latter, moreover, are well grounded in data for a long period, at least for corporation and government interest. Monthly estimates of dividend receipts, on the other hand, are reasonably accurate and are adequate for measures of timing and amplitude beginning with 1919 and for timing alone beginning with 1884.[2]

[1] The National Income Division, Department of Commerce, assesses its estimates of net rent in the following terms: ". . . the final estimates [of net rent] are often calculated as the difference between much larger items which, in turn, are also obtained as residuals. Even small errors made at the various stages of the estimating procedure may significantly affect the final results. Both as to general level and relative movement the rental estimates must be regarded as among the least satisfactory of national income statistics." *National Income Supplement, 1951, Survey of Current Business*, Dept. of Commerce, p. 79.

[2] The monthly estimates of dividends received by individuals in 1919-1939 are prepared by adjusting monthly data on dividend disbursements reported in the *Journal of Commerce* to the level of annual totals derived from *Statistics of Income* (Bureau of Internal Revenue) (dividends paid minus dividends received by corporations); for years since 1939 we use the estimates of the

Cycles in Dividend Receipts

It is a commonplace that in an individual corporation, dividend disbursements lag behind profits. Profits are determined only after the close of the accounting period in which they were actually earned. The board of directors, which must approve a decision to pay dividends, meets still later to consider the accounting report. There is an additional time lapse of at least several weeks between the directors' decision to pay dividends and the actual disbursement of dividends to stockholders. Some lag, therefore, is inherent in the process of distributing dividends.

Policy decisions, however, may prolong the inherent procedural lag. There are many reasons why corporate management often prefers to withhold part of corporate profits from stockholders in periods of prosperity; one of them is a desire to maintain dividend payments in the earlier stages of contraction, when profits decline, without violating the legal injunction not to impair the capital structure by distributing dividends.[3] This practice obviously could affect the cyclical turning points at the peaks. In business revivals corporate management may find it advantageous to finance some part of its growing requirements for inventories, accounts receivable, and plant expansion by retaining a larger fraction of net profits, which have now begun to reappear or to increase. Such a policy might reinforce the procedural lag at the troughs in general business.

The relation between timing of dividends and profits for an individual corporation will apply to all corporations if the cyclical movement of total corporate profits is well defined, which proves to be the case.[4] It is no surprise, therefore, to find that the lag of dividend disbursements behind profits is confirmed by the statistical record (Chart 15 and Table 19).


Department of Commerce, but only after applying our own seasonal correction. For years before 1919, annual control totals are nonexistent; only the monthly compilations of the *Journal of Commerce* and its predecessors are available. This series relates to all dividends paid out and is not restricted to dividends paid to individuals. Tests presented in Appendix D suggest that for the determination of cyclical turning points in dividend disbursements we may have confidence in the monthly series unadjusted to annual totals.

[3] Some of the factors affecting the distribution of profits to stockholders are discussed by Sergei P. Dobrovolsky in his *Corporate Income Retention, 1915-43* (National Bureau of Economic Research, 1951).

[4] See, for example, Thor Hultgren, *Cyclical Diversities in the Fortunes of Industrial Corporations*, National Bureau of Economic Research, Occasional Paper 32, 1950, p. 12.

CHART 15

Net Profits after Taxes and Dividend Payments to Individuals, All Corporations, 1919-1951
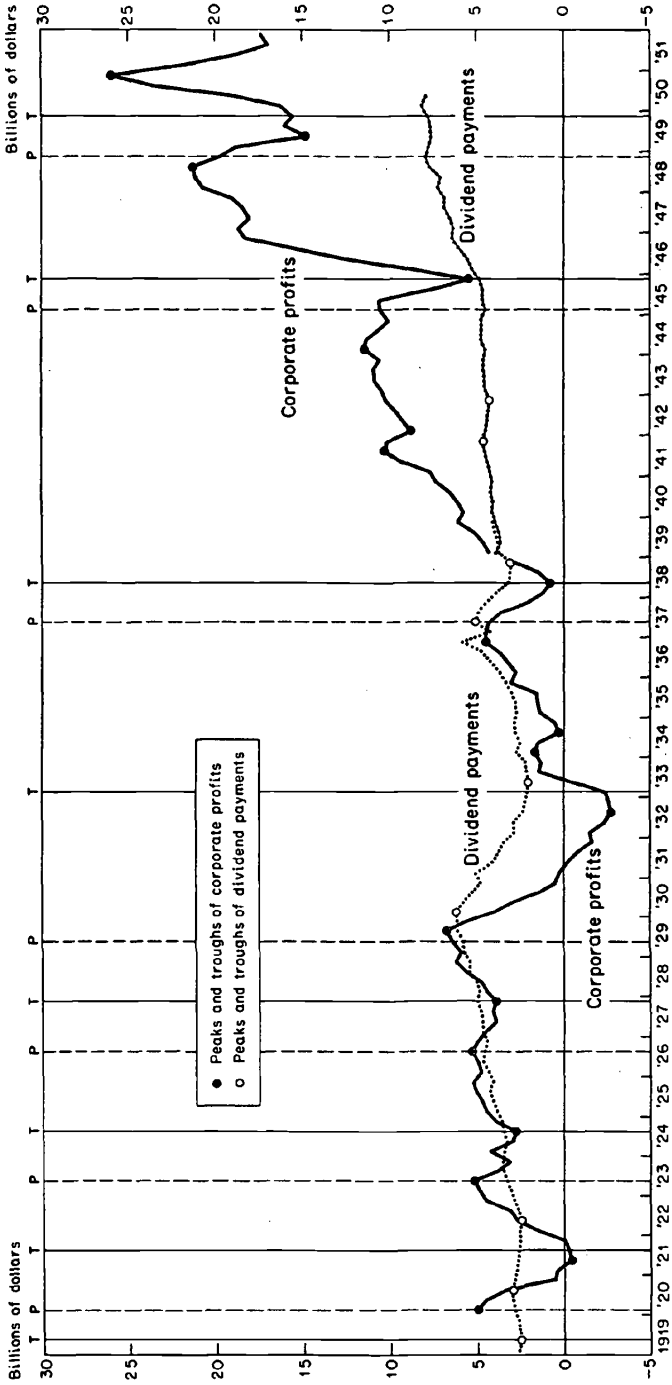
Broken and solid vertical lines represent business cycle peaks and troughs, respectively.
Source: See note to Table 19; seasonally adjusted quarterly data at annual rates.

TABLE 19

Turning Points in Net Profits after Taxes and in Dividend Payments
to Individuals, All Corporations, 1920-1950

	CORRESPONDING BUSINESS CYCLE TURN		NET PROFITS		DIVIDENDS		LAG OF DIVIDENDS BEHIND NET PROFITS
	Quarter of Year	Year	Quarter of Year	Year	Quarter of Year	Year	(quarters)
P	1st	1920	1st	1920ᵃ	3rd	1920	2
T	3rd	1921	2nd	1921·	2nd	1922	4
P	2nd	1923	2nd	1923			
T	3rd	1924	3rd	1924			
P	3rd	1926	3rd	1926			
T	4th	1927	4th	1927			
P	2nd	1929	3rd	1929	1st	1930	2
T	1st	1933	3rd	1932	2nd	1933	3
P			1st	1934			
T			3rd	1934			
P	2nd	1937	4th	1936	2nd	1937	2
T	2nd	1938	2nd	1938	4th	1938	2
P			3rd	1941	4th	1941	1
T			1st	1942	4th	1942	3
P	1st	1945	1st	1944			
T	4th	1945	4th	1945			
P	4th	1948	3rd	1948			
T	4th	1949	2nd	1949			
P			4th	1950			

ᵃ Tentative.

P = peak; T = trough.

Source: Business cycle turns are those in the National Bureau of Economic
Research business cycle chronology. Quarterly net profits for 1920-1938 are
from Harold Barger, *Outlay and Income in the United States, 1921-1938*
(Studies in Income and Wealth, Volume Four, NBER, 1942); thereafter the
estimates are those of the National Income Division, Department of Commerce,
as reported in *Survey of Current Business* (Dept. of Commerce). For dividends
see Appendix D.

Not every turn in profit cycles is matched by a corresponding turn
in dividend payments; they failed to coincide at some of the turns
marking cycles of only moderate amplitude and duration. At the
eight corresponding turning points during 1920-1950, dividends
turned one to four quarters, but typically two quarters, after cor-
porate profits.

The data in Table 19 indicate also that since 1920 the turning
points in corporate profits typically have either coincided with or
led the corresponding turns in general business. This must mean
that dividend payments turned later than general business. This

timing relationship, however, can be tested over a longer period on the basis of monthly dividend disbursements (Chart 16 and Table 20). From 1884, the initial date of our dividend series, to 1949, general business traced seventeen cycles while dividend payments traced only ten. Every turning point in dividends can be matched with one in general business, except two during World War II; in the fifty-five years before World War II there never was a turn in dividends that did not accompany a corresponding turn in general business.

Dividends did not decline during eight business contractions, viz. those of 1890-1891, 1895-1897, 1899-1900, 1910-1912, 1923-1924, 1926-1927, 1945, and 1948-1949. In all such cases the decline in general business was modest and in most cases the business contraction was relatively brief (Table 20).[5]

That dividend payments turned after general business throughout this long period is clear. At fifteen of the seventeen corresponding turning points[6] dividends lagged behind general business; at one turn dividends led; and at one they coincided. The lead occurred at the peak of general business in August 1918. The decline in dividends, however, appears to have been relatively slight. This was undoubtedly because of the uncertainties attending the entrance of the United States into World War I and because of the proposals for higher corporate taxes. Although corporate profits after taxes were at the same level in 1917 as in 1916, they were about 45 per cent lower in 1918.[7] Corporate income taxes increased from $.2 billion in 1916 to $2.1 billion in 1917 and to $3.2 billion in 1918.

Thus the one instance of an earlier turn in dividend payments occurred under exceptional circumstances. And special circumstances also explain some of the shorter lags. When contractions, for example, were ushered in by severe financial panics, as in 1893 and 1907, the lags were brief, three and four months respectively. At the 1933

[5] The relative decline in business activity is measured by deflated clearings or debits (after 1918) outside of New York City for the years 1885 to 1939, when the series ends. For the relative severity of the 1948-1949 contraction see Geoffrey H. Moore's *Statistical Indicators of Cyclical Revivals and Recessions* (National Bureau of Economic Research, Occasional Paper 31, 1950, p. 69).

[6] The gap in the dividend series for 1904 and 1905 makes it impossible to determine the dates of two turning points. The data are sufficient, however, to indicate that a contraction took place sometime during those two years. There are, therefore, ten cycles with only seventeen corresponding turning points and, during World War II, two noncorresponding turning points.

[7] According to *Statistics of Income*, corporate net profits after taxes were $7.9 and $8.0 billion in 1916 and 1917 and $4.5 billion in 1918.

trough and the 1937 peak the lags were even shorter: only one month. At both of these turning points corporate net profits turned two quarters earlier than general business. In such circumstances the normal lag of dividends behind net profits would result in a rough coincidence with turns in general business.

When we shift attention from the exceptional cases to the average timing pattern, we find that the average lag of dividend payments at the seventeen corresponding turning points in general business between 1884 and 1949 is 6.0 months. While lags are predominant in all periods, the average lag tends to decrease as we approach the most recent period. For 1884 to the outbreak of World War I the average lag is 10.2 months, and for 1919-1949 it is 4.4 months. This trend toward a diminishing lag may be partly explained by the growing practice of making quarterly and semiannual dividend declarations instead of annual declarations.[8] More frequent review of profits and dividends means that dividend declarations can be more quickly adjusted to fit changes in profits or profit outlook.

With the growth of business and the ever-increasing use of the corporate form of organization, there has been a strong secular rise in the aggregate amount of dividends disbursed. This growth factor would be expected to accentuate the lags at peaks and to reduce the lags at troughs if the procedural and policy factors acted with the same force at both the upper and the lower turning point of the dividend cycle. However, the opposite appears to have been true, with an average lag at peaks of 4.4 months, and at troughs of 7.4 months.[9] Whether this means that procedural and especially policy factors vary from one turning point to another, or points to some discontinuities in our monthly samples of corporations paying dividends, we do not know.

[8] This change in frequency of dividend payments is inferred from the change in the seasonal movements. Until the turn of the century there were pronounced concentrations of dividend payments in January and July of each year. From shortly thereafter until 1936, the heavy concentration of dividend payments occurred in four months of each year, January, April, July, and October. These four seasonal peaks are roughly of the same magnitude. Conceivably, of course, this shift in seasonal pattern could be due to a redistribution in the terminal dates of fiscal years. The first interpretation is supported by the fact that as we approach the present the number of quarterly income statements published by corporations increases. Beginning with 1936 still another seasonal pattern emerges: dividend disbursements are highest in December with secondary "highs" occurring in the terminal and initial months of the other three calendar quarters.

[9] If the lead at the peak is excluded, the average at peaks is 7.0 months.

CHART 16

Dividend Disbursements, 1884-1919, and Total Dividend Payments to Individuals, 1919-1950
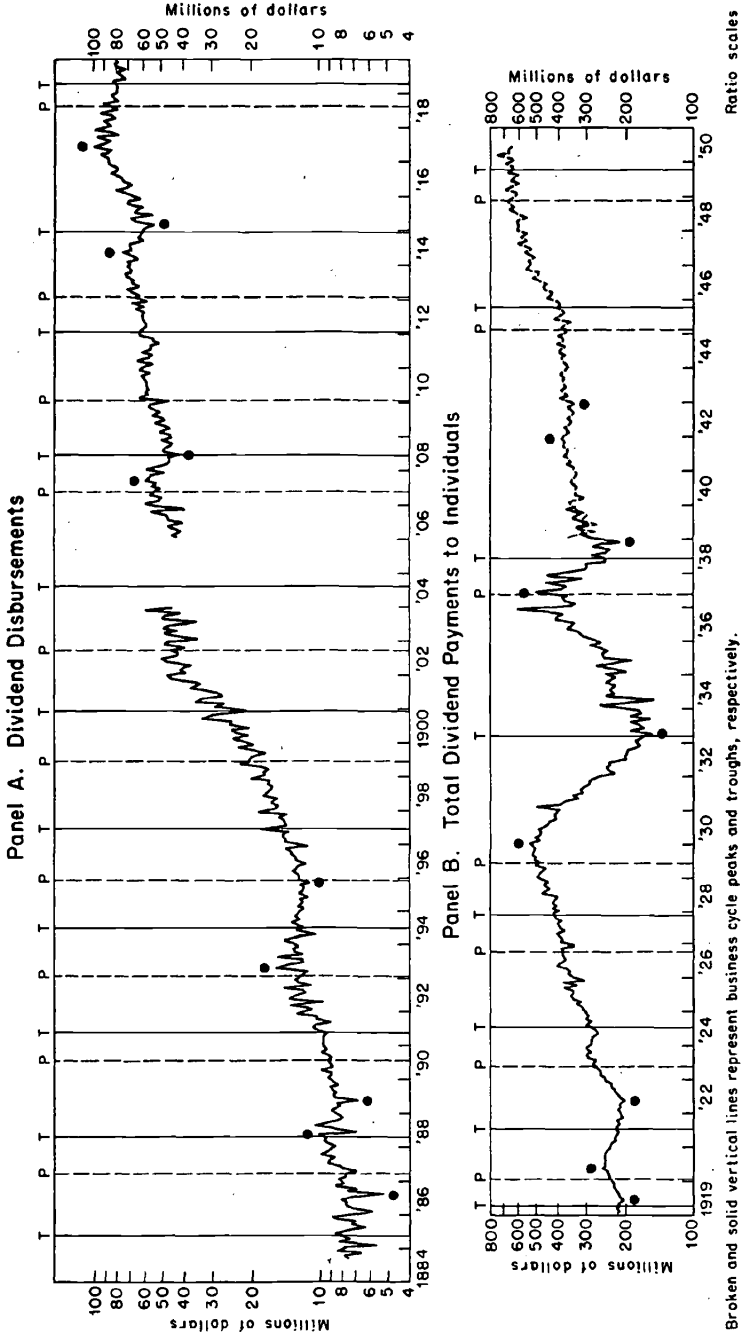
Panel A. Dividend Disbursements

Panel B. Total Dividend Payments to Individuals

Broken and solid vertical lines represent business cycle peaks and troughs, respectively.

Source: See Appendix D.

TABLE 20

Lead (−) or Lag (+) of Total Dividend Payments at Business Cycle Turning
Points, 1885-1949; and Amplitude of Specific Cycle Contractions in
Deflated Bank Clearings, 1885-1919, and in Deflated Debits, 1919-1939,
outside New York City

	Business Activity Turn		Dividends[a] (months)	Bank Clearings and Debits[b] (based on cycle relatives)
T	May	1885	+15	
P	Mar.	1887	+14	
T	Apr.	1888	+13	−6.5
P	July	1890		
T	May	1891		−8.0
P	Jan.	1893	+3	
T	June	1894	+17	−26.0
P	Dec.	1895		
T	June	1897		−9.7·
P	June	1899		
T	Dec.	1900		−6.2
P	Sept.	1902	+8[c]	
T	Aug.	1904	d	−5.9
P	May	1907	+4	
T	June	1908	0	−25.0
P	Jan.	1910		
T	Jan.	1912		−3.3
P	Jan.	1913	+16	
T	Dec.	1914	+3	−11.9
P	Aug.	1918	−14	
T	Apr.	1919	+2	−4.9
P	Jan.	1920	+4	
T	July	1921	+10	−10.9
P	May	1923		
T	July	1924		−5.7
P	Oct.	1926		
T	Nov.	1927		0
P	June	1929	+7	
T	Mar.	1933	+1	−54.7
P	May	1937	+1	
T	June	1938	+6	−13.5
P	Feb.	1945		
T	Oct.	1945		
P	Nov.	1948		
T	Oct.	1949		

[a] After 1938 there were a noncorresponding peak in December 1941 and a noncorresponding trough in December 1942.

[b] Series ends in November 1939.

[c] Data sufficient to establish a minimum lag of eight months but insufficient for a precise measurement. This entry is excluded from averages.

[d] Data insufficient or unavailable for determining turning point.

P = peak; T = trough.

Source: Business cycle turns are those in the National Bureau of Economic Research business cycle chronology; for total dividend payments see Appendix D; deflated bank clearings and debits are based on data in NBER files.

Dividends are sensitive to general business cycles of more than mild amplitude. Our measures show that they fluctuate more sharply than most other types of income. For the 1920's we are obliged to measure the amplitude of nonfarm labor income in terms of annual data, over the cycle measured from peak to peak and bounded by its turning points in 1920, 1921, and 1929. For comparability we measure dividends in the same unit and manner. Although in their 1920-1921 contraction the fall (in terms of specific cycle relatives) in nonfarm labor income was 18.0 and in dividends 5.9, in their 1921-1929 expansion the rise in dividends (78.8) was twice that in nonfarm labor income (38.5). This relationship persisted throughout the 1930's: the amplitudes of the two contractions (1929-1933 and 1937-1938) and of the one expansion (1933-1937) were larger in dividend payments than in total nonfarm labor income (Table 21, Part A).[10] Indeed, only the net income of proprietors, both farm

TABLE 21

Amplitude of Corresponding Cyclical Phases in Property Income, Dividend Payments to Individuals, Total Nonfarm Labor Income, and in Farm and Nonfarm Proprietors' Net Income, 1929-1949

	BUSINESS CYCLE	DIVIDENDS	PROPERTY INCOME	TOTAL NON-FARM LABOR INCOME	PROPRIETORS' NET INCOME Nonfarm	Farm
	A. Total Rise (+) or Fall (−) in Specific Cycle Relatives					
Contraction	June 1929–Mar. 1933[a]	−115.9	−70.2	−57.7	−122.5	−134.3
Expansion	Mar. 1933–May 1937	+86.6	+32.4	+49.2	+91.0	+117.6[b]
Contraction	May 1937–June 1938	−56.0	−18.1	−11.3	−16.1	−45.3
	B. Total Rise (+) or Fall (−) in Business Cycle Relatives					
Expansion	June 1938–Feb. 1945	+32.8	+36.9	+98.8	+102.0	+94.3
Contraction	Feb. 1945–Oct. 1945	+15.9	+8.3	−8.7	+14.0	+9.6
Expansion	Oct. 1945–Nov. 1948	+38.5	+25.9	+22.4	+9.8	+27.9
Contraction	Nov. 1948–Oct. 1949	−1.8	−.3	−2.3	−8.1	−33.5

[a] The amplitudes for this reference cycle contraction are computed on the base of the peak-to-peak cycle 1929-1937. The amplitudes for the other two phases are computed on the base of the trough-to-trough cycle 1933-1938.

[b] For the purpose of this comparison the extra cycle in this series that occurs between 1933 and 1936 was ignored.

Source: Business cycle phases are those in the National Bureau of Economic Research business cycle chronology; amplitudes are estimated from published and unpublished data of the National Income Division, Department of Commerce.

[10] The relative cyclical instability of dividends compared with labor income may be somewhat unexpected because we more often contrast the stability of dividends with the instability of corporate savings or profits. For the latter comparison see Chart 15 and the analysis by Dobrovolsky (*op. cit.*).

and nonfarm, showed larger fluctuations (and this component includes the highly volatile element of business savings). This was limited to the first two of the three phases. However, the rise in dividends during their 1933-1937 expansion and the fall during their subsequent contraction were accentuated by the undistributed profits tax, which undoubtedly precipitated more dividend payments at the peak than would otherwise have been disbursed.[11]

Between 1938 and 1949, dividend payments did not have turning points corresponding to those in other types of income. Hence for this period our comparison of amplitudes is based on cycles in general business (Table 21, Part B). During the business expansion of World War II the amplitude of the rise in dividends, and in property income in general, was only about a third of that in labor income and in the net income of proprietors. Although dividend receipts continued to increase during the contraction of the transition period and labor income declined, the net gain in labor income over the 1938-1945 cycle exceeded the net rise in dividends by 85 per cent.

In the first cycle after World War II there is some indication of a reversion to the prewar relation of amplitudes in dividends and labor income. In any case, the amplitude of the rise in dividends during the expansion phase was about 70 per cent larger than that in labor income, although the amplitude of the fall during the 1948-1949 contraction was about equal for both types.

Cycles in Interest Receipts

Usable estimates of interest received by individuals are available on an annual basis from 1909 (Chart 17). The striking feature of the fluctuations in this type of income is their low conformity to cycles in business activity. Between 1909 and 1950, general business had twenty turns and interest receipts only two—a peak in 1929 and a trough in 1943. Of all the types of income studied, interest receipts have shown the least sensitivity to business cycles. Monthly estimates of interest receipts probably would not provide more evidence of specific cycles. However, it is possible for one or more components of the total to trace cycles not found in the total, and this, in fact, is the case with interest received by individuals holding government debt, the only component that can be estimated with reasonable accuracy (Chart 17 and Appendix E).[12]

[11] For evidence see George E. Lent, *The Impact of the Undistributed Profits Tax, 1936-1937*, Columbia University Press, 1948, pp. 31-33 and Table 3, p. 34.
[12] The National Income Division of the Department of Commerce has monthly estimates of government interest receipts by individuals beginning with

CHART 17
Total Interest and Interest on All Government Securities
Received by Individuals, 1909-1951
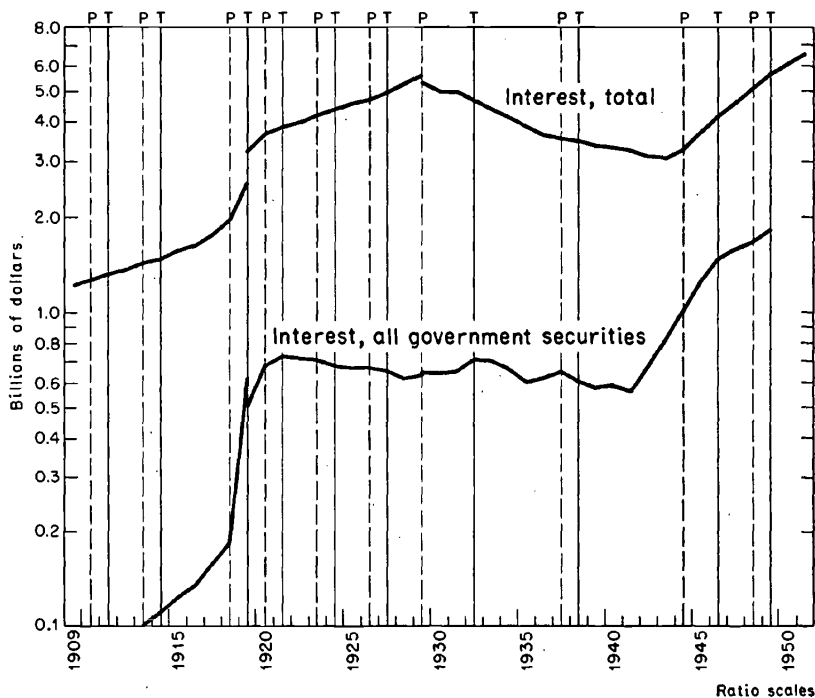
Ratio scales

Broken and solid vertical lines represent business cycle peaks and troughs, respectively.
Source: Total interest from Appendix Table A-1; interest on all government securities from
Appendix Table E-1.

The amount of interest paid to individual owners of government debt is, of course, the product of the volume of government debt held by individuals (Chart 18) and the average interest rate on this debt. Both interest rates (at least on federal bonds) and individual holdings of government debt (federal, state, and local) reached a peak in 1921.[13] Thereafter, interest rates declined until 1944, and government debt in the hands of individuals contracted until 1928 despite the fact that individuals held ever-increasing amounts of state and local debt. The decrease in the amount of federal debt

1929. We believe, however, that the concept used is inappropriate and prefer our own annual estimates. For an explanation see Appendix E.

[13] For interest rates on the federal debt see *Statistical Abstract of the United States, 1950*, Bureau of the Census, Table 384, p. 340. For holdings of government debt see source and notes to Appendix Table E-1.

CHART 18

Individual Holdings of Federal and of State and Local Securities
and Interest on Such Securities, 1913-1949
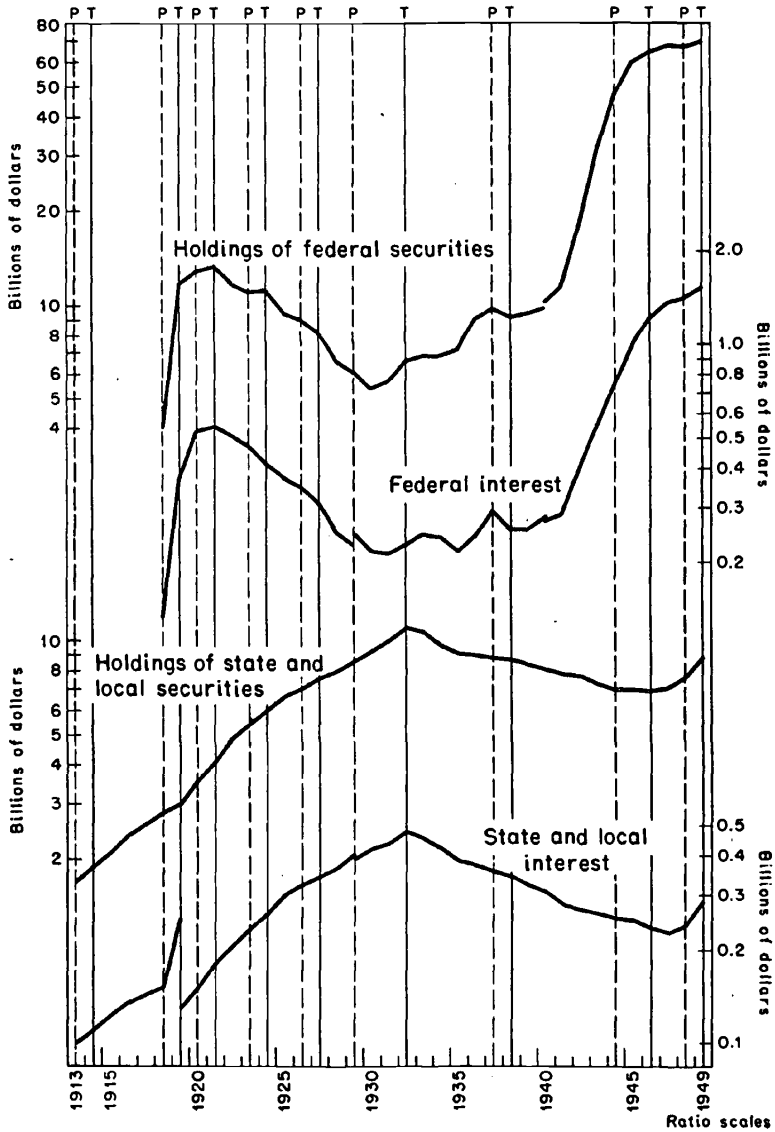
Broken and solid vertical lines represent business cycle peaks and troughs, respectively.
Source: See Appendix E; holdings are as of June 30

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held by individuals more than offset the gains in holdings of state and local debt. After 1932 these trends were reversed: individuals held ever-diminishing amounts of state and local debt from 1932 to 1946 and, with the exception of 1938, ever-increasing amounts of federal debt from 1930 to 1949, the end of our series. The cycles in total government interest during the 1930's and until 1941 are caused by the cycles in interest on the federal debt. Although the trend in government debt owned by individuals was upward during this period, interest received by individuals on government debt continued downward because of the sustained decline in interest rates.

Interest on private debt followed a cyclical course very similar to that of interest on state and local government debt. During the 1920's, individuals owned ever-larger amounts of private debt, especially corporate bonds and real estate mortgages, and interest from this source more than offset the decline in government interest. The rise in interest from private debt was halted in 1929, and during the ensuing decade its downward course reinforced the downward movement in government interest. It is this decline in total interest receipts during the 1930's, and presumably in net rent also, that explains why the timing of the turns of property income, noted in Chapter 4, was that of a secularly declining series.

By 1941 the deficit financing of the rearmament program and of World War II had sharply reversed the downward course of government interest received by individuals. The rise continued through 1950 and in itself was sufficient to account for the rise in total interest receipts during World War II. In the years following, an expanding private debt and a reversal in the falling interest rate have contributed to the postwar rise in interest received by individuals.[14]

Cycles in Capital Gains and Losses

So far we have been concerned with the income yielded by the use of capital assets. Now we turn to the cycles in the gains realized by individuals on sales of capital assets. Gains made through the disposal of capital assets may be regarded as enhancing one's command over goods and services; the realization of capital losses, on

[14] The tremendous expansion in the volume of federal bonds held by individuals during and after World War II may give a misleading impression of the importance of federal interest received by individuals in total personal income. Individual receipts of federal interest amounted to .3 per cent of personal income in 1939 and .8 per cent ten years later.

the other hand, reduces one's command over goods and services. Such gains and losses could affect spending and investing habits and hence have some impact on business activity.[15] It is highly relevant, therefore, to indicate their magnitude and ascertain the degree to which they conform with movements in general business.

The measurement of their relative importance, however, poses some problems. Capital gains might be measured as a percentage either of total personal income or of the value of personally owned capital assets. But statistics on personally owned capital assets are not available, so we are obliged to rely on the former measure exclusively. We shall use the comprehensive estimates of net capital gains and losses realized by individuals prepared for the National Bureau of Economic Research under the supervision of Lawrence H. Seltzer.[16] These estimates are based on individual tax returns reporting the net difference between gains and losses from sales of capital assets. The results measure the extent to which personal income is supplemented by net gains or offset by net losses (Table 22).

During the thirty-four years 1917-1950 the largest amount of realized capital gains relative to personal income occurred in 1928— nearly 6 per cent. In six of the nineteen years in which net gains were realized they represented less than 1 per cent of personal income. Capital losses show the same kind of pattern: in 1932 they amounted to 6 per cent of income, but in eight of the fifteen years in which net losses occurred they amounted to less than 1 per cent of personal income.[17]

The fact that the year of largest gains coincides with high stock-market prices and the year of largest losses coincides with low stock-market prices suggests a high correlation between changes in

[15] This much can be said without taking sides in the difficult theoretical argument on whether realized capital gains and losses are a part of income.

[16] See Lawrence H. Seltzer, *The Nature and Tax Treatment of Capital Gains and Losses*, National Bureau of Economic Research, 1951, Appendixes One and Two.

[17] For certain income groups, however, these transactions in capital assets are very important. Seltzer's analysis discloses, for example, that "for 1917-46 as a whole . . . [net capital gains] accounted for nearly a third of the aggregate net income of individuals with statutory net incomes of $100,000 or more, and half of the total for those with $1 million or more" (*ibid.*, pp. 122-123). Of course, many individuals have these high incomes in a given year by virtue of having realized capital gains. This situation has obtained although the greater part of net capital gains has been realized by taxpayers in other than the highest income groups (*ibid.*, p. 124). With respect to net capital losses Seltzer finds "some evidence that the largest net losses in relation to total income are sustained neither by the top nor the bottom group filing income tax returns" (*ibid.*, p. 128).

TABLE 22

Personal Income and Excess of Net Capital Gains
over Losses Realized by Individuals, 1917-1950
(*dollars in millions*)

|	Excess of Net Capital Gains over Losses (1)	Personal Income (2)	Percentage Change in Personal Income from Net Change in Realized Capital Values (Col. 1 ÷ Col. 2 × 100) (3)
1917	$ 248	$ 52,199	+.5%
1918	−68	58,017	−.1
1919	263	66,165	+.4
1919	263	65,574	+.4
1920	−16	69,153	a
1921	−639	55,787	−1.1
1922	232	60,000	+.4
1923	192	69,264	+.3
1924	1,037	70,118	+1.5
1925	2,572	73,962	+3.5
1926	2,166	76,704	+2.8
1927	2,618	77,135	+3.4
1928	4,504	78,949	+5.7
1929	2,893	83,401	+3.5
1929	2,893	82,310	+3.5
1930	−1,360	73,507	−1.9
1931	−2,718	62,106	−4.4
1932	−2,682	46,607	−5.8
1933	−1,403	44,179	−3.2
1934	−630	50,729	−1.2
1935	−89	57,414	−.2
1936	589	65,803	+.9
1937	−105	71,380	−.1
1938	−342	65,892	−.5
1939	−269	70,102	−.4
1940	−437	75,836	−.6
1941	−896	92,645	−1.0
1942	−380	119,912	−.3
1943	1,057	147,374	+.7
1944	1,602	162,686	+1.0
1945	4,267	168,430	+2.5
1946	6,644	173,967	+3.8
1947	4,384	186,988	+2.3
1948	4,382	205,061	+2.1
1949	3,100	201,055	+1.5
1950	5,768	221,015	+2.6

ᵃ Less than .05 per cent decrease.

Source: Net capital gains or losses: *1917-1946*—Lawrence H. Seltzer, *The Nature and Tax Treatment of Capital Gains and Losses*, National Bureau of Economic Research, 1951, p. 367; *1947-1950*—preliminary estimates by NBER. Personal income: *1917-1919*—based on estimates by Willford Isbell King and Simon Kuznets; *1919-1929*—by Kuznets; *1929-1950*—by Department of Commerce (see Appendix A).

stock prices and the amount of realized capital gains and losses, although the exact period over which price changes should be reckoned is in doubt. This relationship is supported by the general agreement of the courses of year-to-year changes in stock-market prices and of realized gains and losses depicted in Chart 19, as well as by Seltzer's analysis for 1936.[18] It follows that cycles in realized net gains and losses conform with cycles in general business, since this is true also of changes in stock prices. Because cyclical turns in

CHART 19

Excess of Net Capital Gains over Losses Realized by Individuals, and Absolute Annual Change in Price Index of All Common Stocks, 1917-1951
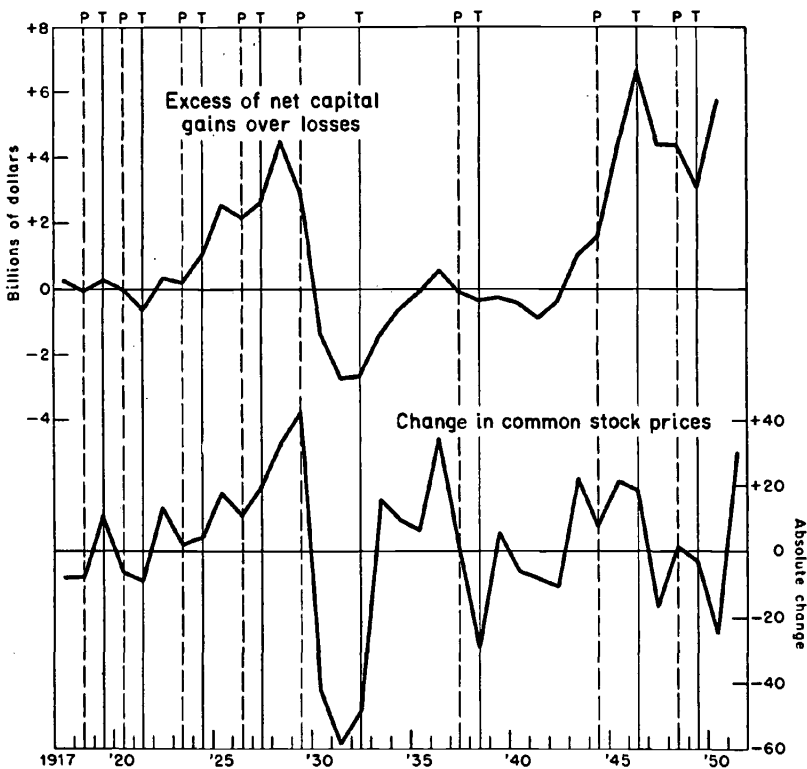
Broken and solid vertical lines represent business cycle peaks and troughs, respectively.
Source: Net capital gains or losses from Table 22; data for common stock prices are available in National Bureau of Economic Research files.

[18] "In 1936, the only year for which comprehensive data are available, 79 per cent of the total net gain and 68 per cent of the total net loss were reported as derived from stocks and bonds" (*ibid.*, p. 145).

stock-price changes typically lead turns in business activity,[19] it is possible that net realized capital gains and losses typically lead turns in general business. Our annual data on net capital gains and losses strongly suggest this. During 1918-1938 each of the five peaks in the excess of capital gains over losses preceded the corresponding business cycle peak by one year; four of the six troughs preceded the corresponding business trough by one year and the other two were coincident. We must remember, however, that annual data provide only a crude measure of timing.

In the light of this relationship the typical lead of stock-price changes at peaks in general business could have a double-barrelled effect on the course of the business cycle. The decline of stock prices limits the funds available to finance new investment and simultaneously, by reducing realized capital gains or by transforming them into losses, could have a depressing influence on the level of consumption expenditures, especially among the higher income groups. At the trough the lead in stock-price changes makes it easier to finance new investment and the appearance of larger capital gains probably immediately affects consumer spending.[20]

[19] A National Bureau analysis discloses that stock prices trace nine turning points between 1919 and 1938 that correspond with business cycle turns; at seven turns stock prices lead the turns in general business, and the average lead at all nine turns, based on monthly data, is 4.8 months. Presumably stock-price changes, computed over an appropriate interval, would also show leads.

[20] Unfortunately, empirical work in this particular area is very meager. In a cross-sectional analysis of a small sample of spending units Lawrence Klein reports, "We have established within our sample the existence of an inverse asset effect on savings" ("Assets, Debts, and Economic Behavior," *Studies in Income and Wealth, Volume Fourteen,* National Bureau of Economic Research, 1951, p. 226). That is, the larger the holding of personal assets the higher the percentage of income spent on consumption. Net capital gains (losses), of course, are a component of personal assets.