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APPENDIXES

## Cbapters 3 and 4

All Manufacturing Corporations:
United States Treasury Department, Statistics of Income, 1922-43.
Large Manufacturing Corporations:
National Bureau of Economic Research samples of 31 companies (1915-21) and 45 companies (1922-43) with assets $\$ 5$ million and over. Data for $1915-21$ were inflated on the basis of ratio of net income of 31 companies to net income of 45 companies in 1922.

Small- and Medium-Sized Corporations:
(a) National Bureau of Economic Research sample of 73 Wisconsin companies with assets of less than $\$ 5$ million. The data on an adjusted basis are available for only 66 companies in 1917 and 1918, only 72 companies in 1921 and 1922, and only 70 companies in 1939. For comparability's sake these data have been inflated to a 73 company basis.
(b) Sample of 381 companies with assets up to $\$ 250,000$, compiled under the Income Tax Study, a Work Projects Administration project, sponsored by the United States Treasury Department in connection with studies of the Temporary National Economic Committee.

## Cbapter 5

Sample of 70 large manufacturing companies includes the following:

Automobiles and Trucks
General Motors Corp.
Hudson Motor Car Co.
Mack Trucks, Inc.
Packard Motor Car Co.
White Motor Co.
Yellow Truck \& Coach Mfg. Co. ${ }^{1}$
Building Materials and Equipment
Certain-Teed Products Corp.
Crane Co.
Johns-Manville Co.
Lone Star Cement Corp.
Pittsburgh Plate Glass Co.
United States Gypsum Co.
Yale \& Towne Mfg. Co.

## Chemicals

Air Reduction Co., Inc.
Allied Chemical \& Dye Corp.
Columbian Carbon Co.
DuPont (E.I.) de Nemours \& Co.
Mathieson Alkali Works, Inc.
Monsanto Chemical Co.
Union Carbide \& Carbon Corp.
Food (other than meat packing)
Corn Products Refining Co.
General Baking Co.
Hershey Chocolate Corp. ${ }^{2}$
Quaker Oats Co.
Ward Baking Co.
Wrigley (Wm.), Jr., Co.
${ }^{1}$ Omitted in computation of regression equations for the period 1925-26.
2 Omitted in computation of regression equations for the period 1940-41.

Iron and Steel
American Rolling Mill Co.
Bethlehem Steel Corp.
Crucible Steel Co. of America
Inland Steel Co.
United States Steel Corp. Youngstown Sheet \& Tube Co.

## Machinery

Allis-Chalmers Mfg. Co.
American Laundry Machinery Co.
American Locomotive Co.
American Steel Foundries
Case (J. I.) Co.
Chicago Pneumatic Tool Co.
Fairbanks, Morse \& Co.
General Electric Co.
Ingersoll-Rand Co.
International Harvester Co.
National Cash Register Co.
Meat Packing
Armour \& Co.
Cudahy Packing Co.
Swift \& Co.
Wilson Co., Inc.

## Petroleum

Atlantic Refining Co.

Gulf Oil Corp.
Socony-Vacuum Oil Co., Inc.
Standard Oil (Indiana)
Standard Oil Co. (New Jersey)
Sun Oil Co.
Texas Corp.
Union Oil Co. of California

## Rubber

Firestone Tire \& Rubber Co.
Goodrich (B. F.) Co.
Goodyear Tire \& Rubber Co.
United States Rubber Co.
Textiles
American Mfg. Co.
American Woolen Co.
Arlington Mills
Cluett, Peabody \& Co., Inc.
Mt. Vernon-Woodberry Mills, Inc.
Nashua Mfg. Co.
Pacific Mills
Tobacco
American Tobacco Co.
Liggett \& Myers Tobacco Co.
Lorillard (P.) Co.
Reynolds (R. J.) Tobacco Co.

## Cbapters 6 and 7

## All Manufacturing and Mining Corporations:

Unpublished data compiled by George Terborgh at the Machinery and Allied Products Institute.

Terborgh's method of estimating net external financing consists of estimating physical capital formation for each year and subtracting corporate savings. Net external longterm financing is obtained by subtracting the net balance of external short-term financing from total net external financing. For a more detailed description of Terborgh's method, see his The Bogey of Economic Maturity (Machinery and Allied Products Institute, 1945) Chapter 9.

## Large Manufacturing Corporations:

(a) Analysis of time variations: National Bureau of Economic Research sample of 31 and 45 companies, as used in Chapter 4, except for data used in Chart 17, which were inflated on the basis of total assets.
(b) Analysis of intercompany differences: National Bureau of Economic Research sample of 70 companies, as used in Chapter 5.
Small- and Medium-Sized Corporations:
National Bureau of Economic Research sample of 73 Wisconsin companies, as used in Chapter 4.

## B

## ASSET VALUATION ADJUSTMENTS

F
For the samples of corporations used in this study, the amounts of retained income, physical asset expansion, and total asset expansion have been derived from the statements of sources and uses of funds which contain financial data adjusted to eliminate changes not involving the expenditure or receipt of funds (defined as cash and cash equivalent). ${ }^{1}$ Thus, our sample data are adjusted for changes such as reported asset revaluations, losses on the sale of capital assets, bond discounts, and stock dividends. On the other hand, for reasons explained below, no adjustments have been made in order to segregate changes in the value of physical assets, which occurred as a result of replacements at different prices, from changes reflecting increase or decrease in physical quantities.

The data on net income and retained income of all manufacturing corporations, used in Chapter 3, have been taken from the United States Treasury Department Statistics of Income without adjustments for "nonfund" items, since the information contained in this source is insufficient for preparing statements of sources and uses of funds.

The figures for all manufacturing and mining corporations used in Chapters 6 and 7 are derived from unpublished tabulations of George Terborgh prepared on the basis of the United States Treasury Department Statistics of Income and some estimates (mainly his own) of expenditures on new plant and equipment. ${ }^{2}$ While it was impossible to prepare the sources and uses of funds statements for all manufacturing and mining corporations, Terborgh has made an adjustment of inventory values so as to be able to derive the value of the physical change in inventory and not the change in the value of inventory. In this connection it should be noted that, while an adjustment of this kind is entirely appropriate in studying physical capital formation, it is not called for when the investi-

[^0]gation deals with the flow of financial resources through the corporate sector of the economy. Thus, the physical quantity held in stock may remain unchanged, but if inventory is replenished at higher cost this surely represents an additional absorption of funds, as compared with the initial amount invested in inventory. Furthermore, Terborgh's adjustment results in a change in the amount of retained income while it leaves the amount of external financing unchanged. Consequently, the relative importance of the two sources of new financing is bound to be, in some cases, seriously under- or over-estimated.

Consider the following situation. A company begins operations with an inventory of $\$ 2,000(2,000$ physical units at $\$ 1$ each ). Of this amount $\$ 1,000$ represents equity and the other $\$ 1,000$ borrowed funds. At the end of the accounting period, the value of the inventory, calculated on the first-in-first-out method, increases to $\$ 3,450$ ( 2,300 physical units at $\$ 1.50$ ). The company's books show that this increase has been financed by income retention and by additional borrowing in equal shares (\$725 each). Now, if the new inventory value is adjusted to make it differ from the old, to the extent of the value of the physical increment only, the financial picture will change substantially. In physical terms, inventory has increased by 300 units, which amounts to $\$ 450$ if valued at $\$ 1.50$ (the new cost price). This means that after the adjustment the new value of the inventory is $\$ 2,450$, or $\$ 1,000$ less than the unadjusted value. Consequently, in accordance with Terborgh's procedure, $\$ 1,000$ must also be deducted from retained income. When this is done, however, the company's financial record will show a net dissaving of $\$ 275$ instead of a retention of $\$ 725$, and it will appear that the inventory expansion has been financed entirely from external sources. If this were true, it would follow that the creditor's share in the inventory has increased while the equity share has decreased (because of the dissaving). Actually, under the conditions assumed, no such change has taken place. There has been an actual absorption of funds to the extent of $\$ 1,450$, of which $\$ 725$. has come from the revenue stream and $\$ 725$ from additional borrowing. Furthermore, the unadjusted amount of the inventory ( $\$ 3,450$ ) does not represent an over-valuation in relation to the actual market prices, at the end of the accounting period in question. ${ }^{3}$ The total amount of the company's debt at the end of the period is $\$ 1,725$ ( $\$ 1,000$ old plus $\$ 725$ new)

[^1]which represents a claim to 1,150 physical units or one-half of the entire inventory at the current cost price of $\$ 1.50$ per unit. Consequently, the ratio of debt to equity at the end of the period is $1: 1$, exactly the same as it was at the beginning.

There are, actually, three elements in the situation described above: (a) absorption of funds from the internal source, (b) additional borrowing, and (c) decrease in the amount of real wealth over which the funds originally invested (both equity and borrowed funds) have command, as a result of higher prices. And there appears to be no justification for offsetting the full amount of (c) against the internal component of new financing, leaving the external component without any change.

In the foregoing example, prices were assumed to be rising, and the adjustment of the inventory value resulted in a substantial decrease in the amount of retained income and, consequently, in the importance of the internal source of financing relative to the external sources. Such results were actually obtained by Terborgh when adjusting the data for the years 1939-41; and if his series covered the subsequent war and postwar years, the effect of the adjustment would, of course, become much more pronounced because of the much greater rise in prices.

On the other hand, in periods of falling prices the adjustment in question must result in an increase in the amount of retained income or, if there is dissaving, in a decrease in the amount dissaved. The latter was actually the result obtained by Terborgh for the years 1930-32. Also in this case, the relative importance of the internal and external sources of financing was changed considerably.

The above considerations indicate that for this investigation it is prefer able to include in asset expansion the entire change in inventory value rather than the change representing the value of physical increment only. Accordingly, the data on all manufacturing and mining corporations used in Chapters 6 and 7 are unadjusted data obtained by reversing Terborgh's adjustment for inventory valuation. ${ }^{4}$

[^2]
## SUPPLEMENTARY TABLES

Table C1-Net Income, Dividends, Retained Income, and Average Net Worth for All Manufacturing Corpora-
TIONS, 1922-43 ${ }^{\text {n }}$
(in millions)

| Year | Net Income b | Divi. dends ${ }^{\text {e }}$ | Retained Income | Average Net Worth d |
| :---: | :---: | :---: | :---: | :---: |
| 1922 | \$2,528 | \$1,505 | \$1,023 | c |
| 1923 | 3,419 | 2,006 | 1,413 | e |
| 1924 | 2,649 | 1,883 | 766 | \$37,920 |
| 1925 | 3,562 | 2,224 | 1,338 | 42,883 |
| 1926 | 3,640 | 2,544 | 1,096 | 50,677 |
| 1927 | 3,050 | 2,603 | 447 | 50,660 |
| 1928 | 3,936 | 2,983 | 953 | 53,442 |
| 1929 | 4,537 | 3,159 | 1,378 | 55,746 |
| 1930 | 1,425 | 3,161 | -1,737 | 56,640 |
| 1931 | - 521 | 2,285 | -2,807 | 53,998 |
| 1932 | -1,616 | 1,327 | -2,943 | 46,810 |
| 1933 | 237 | 1,170 | -933 | 45,324 |
| 1934 | 1,167 | 1,610 | -443 | 38,754 |
| 1935 | 2,122 | 2,194 | -72 | 37,647 |
| 1936 | 3,116 | 2,950 | 166 | 39,230 |
| 1937 | 3,069 | 2,953 | 116 | 41,511 |
| 1938 | 1,228 | 1,663 | -435 | 41,042 |
| 1939 | 2,946 | 2,210 | 736 | 42,112 |
| 1940 | 3,764 | 2,400 | 1,364 | 43,481 |
| 1941 | 5,493 | 2,836 | 2,657 | 47,650 |
| 1942 | 5,395 | 2,486 | 2,909 | 54,076 |
| 1943 | 5,998 | 2,595 | 3,403 | 58,985 |

[^3]Table. C2-Net Income, Dividends, Retained Income, and Average Net Worth for a Sample of $31-45$ Large Manufacturing Corporations, 1915-43a
(in millions)

| Year | Net Income |  | Divi. dends | Retained Income e | Average Net Worth ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Reported | Adjusted ${ }^{\text {b }}$ |  |  |  |

Tbirty-One Corporations

| 1915 | $\$ 209.3$ | $\$ 323.1$ | $\$ 100.7$ | $\$ 222.4$ | $\$ 2,351.3$ |
| ---: | ---: | ---: | ---: | ---: | ---: |
| 1916 | 565.3 | 586.8 | 206.2 | 380.6 | $2,654.3$ |
| 1917 | 513.3 | 573.5 | 228.1 | 345.4 | $3,028.8$ |
| 1918 | 350.2 | 426.7 | 191.4 | 235.3 | $3,415.6$ |
| 1919 | 315.4 | 379.6 | 155.0 | 224.6 | $3,808.0$ |
| 1920 | 279.2 | 354.0 | 165.3 | 188.7 | $4,119.0$ |
| 1921 | 23.6 | 80.0 | 164.6 | -84.6 | $4,174.0$ |

Forty-Five Corporations

| 1922 | 356.7 | 334.1 | 248.2 | 85.9 | 6,361.6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1923 | 539.7 | 558.5 | 300.1 | 258.4 | 6,724.3 |
| 1924 | 511.1 | 538.5 | 315.7 | 222.8 | 7,025.2 |
| 1925 | 669.5 | 727.9 | 368.9 | 359.0 | 7,341.4 |
| 1926 | 812.9 | 884.8 | 472.1 | 412.7 | 7,836.6 |
| 1927 | 700.0 | 769.3 | 537.9 | 231.4 | 8,131.6 |
| 1928 | 964.7 | 1,036.1 | 593.7 | 442.4 | 8,380.3 |
| 1929 | 1,156.6 | 1,265.6 | 654.4 | 611.2 | 9,056.6 |
| 1930 | 696.6 | 774.4 | 631.0 | 143.4 | 9,685.0 |
| 1931 | 251.4 | 299.7 | 554.9 | -255.2 | 9,705.3 |
| 1932 | e | -76.6 | 333.3 | -409.9 | 9,211.0 |
| 1933 | 188.3 | 218.6 | 268.3 | -49.7 | 8,806.1 |
| 1934 | 306.2 | 334.8 | 306.7 | 28.1 | 8,662.6 |
| 1935 | 524.0 | 530.0 | 378.6 | 151.4 | 8,499.4 |
| 1936 | 831.3 | 876.6 | 650.0 | 226.6 | 8,584.0 |
| 1937 | 945.7 | 1,013.6 | 706.7 | 306.9 | 8,971.8 |
| 1938 | 407.6 | 382.3 | 380.9 | 1.4 | 9,057.0 |
| 1939 | 699.1 | 728.0 | 531.3 | 196.7 | 9,006.9 |
| 1940 | 892.4 | 943.1 | 630.8 | 312.3 | 9,211.0 |
| 1941 | 1,012.0 | 1,151.6 | 673.6 | 478.0 | 9,538.6 |
| 1942 | 766.4 | 916.1 | 518.5 | 397.6 | 9,933.8 |
| 1943 | 795.3 | 973.7 | 561.4 | 412.3 | 10,2\%6.3 |

[^4]Table C3-Net Income, Dividends, Retanned Income, and Average Net Worth for a Sample of 73 Small- and Medium-Sized Manufacturing Corporations, 1917-43a (in thousands)

| Year | Adjusted Net Income ${ }^{\text {b }}$ | Dividends | Retained Income | Average Net Worth ${ }^{\mathrm{c}}$ |
| :---: | :---: | :---: | :---: | :---: |
| $1917{ }^{\text {d }}$ | \$3,390 | \$1,608 | \$1,782 | \$17,687 |
| 1918 e | 3,106 | 1,421 | 1,685 | 20,271 |
| 1919 | 3,621 | 1,358 | 2,263 | 22,897 |
| 1920 | 6,460 | 1,494 | 4,966 | 27,643 |
| $1921{ }^{\text {f }}$ | -1,227 | 866 | -2,093 | 27,344 |
| $1922{ }^{\text {f }}$ | 384 | 1,466 | -1,082 | 26,877 |
| 1923 | 3,659 | 1,664 | 1,995 | 30,854 |
| 1924 | 2,491 | 1,547 | 944 | 32,443 |
| 1925 | 3,492 | 1,797 | 1,695 | 34,003 |
| 1926 | 3,699 | 2,336 | 1,363 | 35,914 |
| 1927 | 3,828 | 2,624 | 1,204 | 37,387 |
| 1928 | 2,936 | 2,615 | 321 | 38,427 |
| 1929 | 3,309 | 2,531 | 778 | 39,332 |
| 1930 | 367 | 2,016 | -1,649 | 39,278 |
| 1931 | -837 | 1,290 | -2,127 | 37,586 |
| 1932 | -2,310 | 585 | -2,895 | 34,855 |
| 1933 | -483 | 551 | -1,034 | 32,909 |
| 1934 | -20 | 926 | -946 | 31,987 |
| 1935 | -240 | 753 | -993 | 30,868 |
| 1936 | 929 | 918 | 11 | 30,301 |
| 1937 | 941 | 1,105 | -164 | 30,332 |
| 1938 | 110 | 813 | -703 | 29,854 |
| 1939 e | 223 | 832 | -609 | 28,081 |
| 1940 | 1,768 | 887 | 881 | 28,325 |
| 1941 | 3,090 | 1,110 | 1,980 | 29,767 |
| 1942 | 2,580 | 1,101 | 1,479 | 31,059 |
| 1943 | 2,980 | 1,123 | 1,857 | 31,547 |

a Based on NBER sample of 73 corporations with total assets of less than $\$ 5$ million which were selected from the files of the Wisconsin State Tax Commission.
b Net income adjusted to (1) eliminate amounts representing revaluations of assets and certain other noncash items and (2) include amounts allocated to capital reserves out of current earnings.
c The average of net worth at the beginning and the end of the year.
d Data for 66 corporations only.
e Data for 70 corporations.
f Data for 72 corporations.

Table C4-Net Income, Dividends, Retanned Income, and Average Net Worth for a Sample of 381 Small Manufacturing Corporations, 1926-36a
(in thousands)

| Year | Adjusted <br> Net <br> Income b | Divi. <br> dends | Retained <br> Income | Average <br> Net <br> Worth e |
| :--- | :---: | :---: | :---: | ---: |
| 1926 | $\$ 1,791$ | $\$ 1,160$ | $\$ 631$ | $\$ 22,282$ |
| 1927 | 1,567 | 1,106 | 461 | 22,648 |
| 1928 | 1,732 | 1,088 | 644 | 23,667 |
| 1929 | 2,178 | 1,020 | 1,158 | 25,566 |
| 1930 | -516 | 994 | $-1,510$ | 26,223 |
| 1931 | $-1,423$ | 673 | $-2,096$ | 24,509 |
| 1932 | $-2,905$ | -745 | $-3,250$ | 21,734 |
| 1933 | -739 | 151 | -890 | 19,516 |
| 1934 | -425 | 223 | -648 | 18,587 |
| 1935 | 270 | 296 | -26 | 18,180 |
| 1936 | 1,181 | 1,129 | 52 | 18,564 |

[^5]Table CS-Gross Physical Investment, Depreciation, Net Physical Asset Expansion, and Physical Assets for All
Manufacturing and Mining Corporations, 1923-41 a
(in millions)

| Yeas | Gross Physical Investment ${ }^{\text {b }}$ | Depreciation <br> OV Depletion | Net Physical Asset Expansion c | Physical As. sets, Beginning of Year ${ }^{d}$ |
| :---: | :---: | :---: | :---: | :---: |
| 1923 | \$3,488 | \$1,959 | \$1,529 | \$42,497 |
| 1924 | 1,643 | 1,931 | -288 | 43,936 |
| 1925 | 2,834 | 1,938 | 896 | 43,665 |
| 1926 | 2,330 | 2,123 | 207 | 44,508 |
| 1927 | 1,964 | 2,138 | -174 | 44,703 |
| 1928 | 2,455 | 2,192 | 263 | 43,349 |
| 1929 | 3,719 | 2,333 | 1,386 | 43,473 |
| 1930 | 413 | 2,281 | -1,868 | 45,926 |
| 1931 | -910 | 2,014 | -2,924 | 45,024 |
| 1932 | -1,043 | 1,830 | -2,873 | 41,775 |
| 1933 | 1,558 | 1,780 | -222 | 37,394 |
| 1934 | 1,559 | 1,783 | -224 | 36,635 |
| 1935 | 1,631 | 1,779 | -148 | 35,259 |
| 1936 | 3,016 | 1,878 | 1,138 | 35,165 |
| 1937 | 3,896 | 2,039 | 1,857 | 36,848 |
| 1938 | 329 | 1,957 | -1,628 | 39,079 |
| 1939 | 2,559 | 2,002 | 557 | 36,766 |
| 1940 | 3,875 | 2,130 | 1,745 | 38,823 |
| 1941 | 6,956 | 2,305 | 4,651 | 40,678 |

[^6]Table C6-Gross Physical Investment, Depreciation, Net - Physical Asset Expansion, and Physical Assets for a Sample of 31-45 Large Manufacturing Corporations, 1915-43a (in millions)

| Year | Gross Physical Investment b | Depreciation e | Net Physical Asset Ex. pansion ${ }^{\text {d }}$ | Physical As. sets, Beginning of Year $^{*}$ |
| :---: | :---: | :---: | :---: | :---: |
| Thirty-One Corporations |  |  |  |  |
| 1915 | \$172.9 | \$54.8 | \$118.1 | \$2,547.9 |
| 1916 | 280.9 | 87.0 | 193.9 | 2,664.9 |
| 1917 | 555.0 | 93.1 | 461.9 | 2,817.3 |
| 1918 | 487.2 | 121.4 | 365.8 | 3,267.0 |
| 1919 | 289.3 | 101.2 | 188.1 | 3,671.7 |
| 1920 | 422.2 | 107.8 | 314.4 | 3,857.6 |
| 1921 | -90.3 | 108.2 | -198.5 | 4,124.2 |
| Forty-Five Corporations |  |  |  |  |
| 1922 | 247.2 | 187.4 | 59.8 | 5,736.3 |
| 1923 | 515.0 | 225.5 | 289.5 | 5,972.0 |
| 1924 | 273.4 | 238.8 | 34.6 | 6,477.8 |
| 1925 | 483.4 | 290.0 | 193.4 | 6,555.0 |
| 1926 | 644.4 | 338.2 | 306.2 | 6,711.2 |
| 1927 | 591.1 | 373.6 | 217.5 | 7,112.4 |
| 1928 | 465.3 | 387.7 | 77.6 | 7,312.7 |
| 1929 | 818.9 | 442.8 | 376.1 | 7,433.4 |
| 1930 | 439.1 | 395.5 | 43.6 | 7,909.1 |
| 1931 | -104.3 | 415.6 | -519.9 | 8,031.2 |
| 1932 | 50.6 | 382.1 | -331.5 | 7,961.5 |
| 1933 | 342.0 | 376.3 | -34.3 | 7,439.2 |
| 1934 | 553.6 | 388.4 | 165.2 | 7,363.8 |
| 1935 | 504.4 | 412.6 | 91.8 | 7,457.7 |
| 1936 | 746.0 | 437.7 | 308.3 | 7;286.9 |
| 1937 | 1,358.4 | 479.9 | 878.5 | 7,605.0 |
| 1938 | 187.3 | 457.3 | -270.0 | 8,458.5 |
| 1939 | 534.8 | 479.7 | 55.1 | 7,922.7 |
| 1940 | 800.0 | 464.0 | 234.2 | 7,786.0 |
| 1941 | 1,252.1 | 518.0 | 595.4 | 7,936.4 |
| 1942 | 1,115.4 | 567.9 | 367.8 | 8,465.7 |
| 1943 | 679.8 | 626.2 | -55.4 | 8,790.8 |

[^7]Table C7-Gross Physical Investment, Depreciation, Net Physical Asset Expansion, and Physical Assets for a Sam. ple of 73 Small- and Medium-Sized Manufacturing Cor-
porations, 1920-43a
(in thousands)

| Year | Gross Physical Investment b | Deprecia- tion | Net Physical Asset Ex. pansion ${ }^{\text {c }}$ | Physical As. sets, Beginning of Year |
| :---: | :---: | :---: | :---: | :---: |
| 1920 | \$6,050 | \$1,041 | \$5,009 | \$19,887 |
| 1921 e | 2,291 | 1,041 | 1,250 | 24,360 |
| 1922 e | 349 | 1,115 | -766 | 25,089 |
| 1923 | 2,706 | 1,169 | 1,537 | 26,724 |
| 1924 | 2,828 | 1,188 | 1,640 | 28,145 |
| 1925 | 1,590 | 1,239 | 351 | 29,391 |
| 1926 | 1,916 | 1,249 | 667 | 30,114 |
| 1927 | 2,439 | 1,263 | 1,176 | 30,851 |
| 1928 | 1,092 | 1,290 | -198 | 31,326 |
| 1929 | 1,227 | 1,323 | -96 | 31,559 |
| 1930 | 897 | 1,361 | -464 | 31,711 |
| 1931 | -922 | 1,266 | -2,188 | 31,760 |
| 1932 | -1,304 | 1,214 | -2,518 | 29,559 |
| 1933 | 1,084 | 1,161 | -77 | 26,954 |
| 1934 | 89 | 1,071 | -982 | 26,311 |
| 1935 | 198 | 1,026 | -828 | 25,446 |
| 1936 | 1,614 | 1,007 | 607 | 24,419 |
| 1937 | 2,044 | 1,062 | 982 | 24,929 |
| 1938 | -399 | 1,047 | -1,446 | 26,191 |
| $1939{ }^{\text {f }}$ | 20 | 868 | -848 | 23,301 |
| 1940 | 1,007 | 982 | 25 | 23,348 |
| 1941 | 3,376 | 974 | 2,402 | 23,402 |
| 1942 | 1,437 | 1,043 | 394 | 25,836 |
| 1943 | 263 | 1,056 | -793 | 25,940 |

a Based on NBER sample of 73 corporations with total assets of less than $\$ 5$ million which were selected from the files of the Wisconsin State Tax Commission.
b Gross plant and equipment expenditures plus inventory change.
c Gross physical investment less depreciation.
d Land, plant, and equipment (net of depreciation reserve) plus inventory.
e Data for 72 corporations.
${ }^{1}$ Data for 70 corporations.

Table C8-Financial Asset Expansion, Total Asset Expansion, and Total Assets for a Sample of 31-45 Large Manufacturing Corporations, 1915-43a (in millions)

| Year | Financial Asset Expansion ${ }^{\text {b }}$ | Total Asset Expansion ${ }^{\circ}$ | Total Assets, Beginning of Yeat |
| :---: | :---: | :---: | :---: |
| Thirty-One Corporations |  |  |  |
| 1915 | \$243.4 | \$361.5 | \$3,303.2 |
| 1916 | 260.2 | 454.1 | 3,660.1 |
| 1917 | 385.1 | 847.0 | 4,059.9 |
| 1918 | 296.6 | 662.4 | 4,892.2 |
| 1919 | -8.2 | 179.9 | 5,600.5 |
| 1920 | 44.6 | 359.0 | 5,769.9 |
| 1921 | -175.8 | -374.3 | 6,069.0 |
| Forty-Five Corporations |  |  |  |
| 1922 | -4.3 | 55.5 | 8,409.4 |
| 1923 | 288.2 | 577.7 | 8,707.4 |
| 1924 | 146.6 | 181.2 | 9,283.3 |
| 1925 | 245.4 | 438.8 | 9,411.5 |
| 1926 | 288.7 | 594.9 | 9,891.9 |
| 1927 | -100.1 | 117.4 | 10,551.9 |
| 1928 | 470.3 | 547.9 | 10,677.3 |
| 1929 | 221.0 | 597.1 | 11,225.1 |
| 1930 | 68.6 | 112.2 | 11,823.4 |
| 1931 | -40.2 | -560.1 | 11,945.3 |
| 1932 | -147.6 | -479.1 | 11,615.2 |
| 1933 | 27.4 | -6.9 | 10,840.6 |
| 1934 | -44.4 | 120.8 | 10,742.4 |
| 1935 | 120.9 | 212.7 | 10,686.1 |
| 1936 | 51.3 | 359.6 | 10,616.6 |
| 1937 | -107.2 | 771.3 | 10,971.9 |
| 1938 | 286.0 | 16.0 | 11,777.6 |
| 1939 | 307.6 | 362.7 | 11,495.7 |
| 1940 | 435.8 | 670.0 | 11,787.4 |
| 1941 | 950.8 | 1,546.2 | 12,427.8 |
| 1942 | 992.9 | 1,360.7 | 13,897.2 |
| 1943 | 1,010.9 | 955.5 | 15,217.5 |

a Based on NBER samples of 31 corporations (1915-21) and of 45 corporations (1922-43) with total assets of $\$ 5$ million and over.
b The sum of net changes in cash, marketable securities, receivables, and investments in and advances to subsidiaries.
c The sum of net physical asset expansion and financial asset expansion.

Table C9-Financial Asset Expansion, Total Asset Expansion, and Total Assets for a Sample of 73 Small- and Medium-Sized Manufacturing Corporations, 1920-43a (in thousands)

| Year | Financial Asset Expansion $\mathbf{b}$ | Total Asset Expansion ${ }^{-}$ | Tatal Assets, Beginning of Year |
| :---: | :---: | :---: | :---: |
| 1920 | \$3,033 | \$8,042 | \$30,105 |
| 1921 d | -2,527 | -1,277 | 36,645 |
| 1922 d | 1,652 | 886 | 34,616 |
| 1923 | 540 | 2,077 | 38,208 |
| 1924 | 659 | 2,299 | 40,592 |
| 1925 | 1,497 | 1,848 | 42,475 |
| 1926 | 1,023 | 1,690 | 44,675 |
| 1927 | -174 | 1,002 | 46,527 |
| 1928 | 1,456 | 1,258 | 46,698 |
| 1929 | 831 | 735 | 48,664 |
| 1930 | -1,088 | -1,552 | 49,553 |
| 1931 | -450 | -2,638 | 48,258 |
| 1932 | -1,453 | -3,971 | 45,518 |
| 1933 | 218 | 141 | 41,462 |
| 1934 | -764 | -1,746 | 41,507 |
| 1935 | -110 | -938 | 39,722 |
| 1936 | 674 | 1,281 | 38,795 |
| 1937 | -362 | 620 | 39,839 |
| 1938 | 104 | -1,342 | 40,712 |
| 1939 e | 316 | -532 | 37,474 |
| 1940 | 910 | 935 | 37,833 |
| 1941 | 2,080 | 4,482 | 38,796 |
| 1942 | 2,906 | 3,300 | 43,498 |
| 1943 | 2,352 | 1,559 | 46,554 |

a Based on NBER sample of 73 corporations with total assets of less than $\$ 5$ million which were selected from the files of the Wisconsin State Tax Commission.
${ }^{b}$ The sum of net changes in cash, marketable securities, receivables, and investments in and advances to subsidiaries.
c The sum of net physical asset expansion and financial asset expansion.
d Data for 72 corporations.
e Data for 70 corporations.
Table C10-Net Income, Dividends, Retained Income, and Average Net Worth for 11 Industries, 1925, 1926, 1940, AND 1941 a (in millions)

a Based on NBER sample of 70 large manufacturing corporations with total assets of $\$ 5$ million and over. For a listing of corporations included
 ${ }^{\mathrm{b}}$ For definition of net income see Table C2, footnote $b$.


[^0]:    1 See Albert R. Koch, The Financing of Large Corporations, 1920-39 (National Bureau of Economic Research, Financial Research Program, 1943) pp. 118-21, for a description of the technique of preparing the sources and uses of funds statements.

    2 Terborgh's sources and methods of computation are explained in his The Bogey of Economic Maturity (Machinery and Allied Products Institute, 1945) pp. 240-45.

[^1]:    ${ }^{\mathbf{3}}$ This is not an argument against the necessity or advisability of setting up a reserve for possible decline in the inventory value during a later period. This reserve may be entirely appropriate, but, if made, it would doubtless represent an absorption of funds from the internal source in the current accounting period.

[^2]:    ${ }^{4}$ Generally speaking, the best procedure in studying the financing of corporate investment would probably be to analyze both the adjusted and unadjusted inventory values. For this study, however, it would be virtually impossible to adjust the inventories of the individual companies studied owing to lack of information about composition of inventory in individual cases and the extent to which it was affected by various price movements. Furthermore, even when dealing with our aggregate sample data, the adjustment would doubtless involve a substantial margin of error owing to the relatively small number of companies included in the samples.

[^3]:    a Based on Statistics of Income, Part 2, U. S. Treasury Department, Bureaiu of Internal Revenue.
    b Compiled net profit less total tax.
    c Paid in cash and assets other than own stock.
    d The average of net worth at the beginning and the end of the year. The amount at the beginning of the year was estimated by subtracting retained income from the year-end amount.
    e Data not available.

[^4]:    a Based on NBER samples of 31 corporations (1915-21) and of 45 corporations (1922-43) with total assets of $\$ 5$ million and over.
    b Net income adjusted to (1) eliminate amounts representing revaluations of assets and certain other noncash items and (2) include amounts allocated to capital reserves out of current earnings.
    c Based on adjusted net income.
    d The average of net worth at the beginning and the end of the year.
    e Less than \$50,000.

[^5]:    a Based on a sample of 381 corporations with total assets of less than $\$ 250$ thousand, compiled under the Income Tax Study, a Work Projects Administration project, sponsored by the U. S. Treasury Department in connection with studies of the Temporary National Economic Committee.
    b Net income adjusted to (1) eliminate amounts representing revaluations of assets and certain other noncash items and (2) include amounts allocated to capital reserves out of current earnings.
    ${ }^{c}$ The average of net worth at the beginning and the end of the year.

[^6]:    a Based on unpublished data compiled by George Terborgh at the Machinery and Allied Products Institute. The data prior to 1934 adjusted for reclassification in 1934 (resulting from the discontinuance of consolidated tax returns).
    b Gross plant and equipment expenditures plus inventory change.
    c Gross physical investment less depreciation.
    d Land, plant and equipment (net of depreciation reserve) plus inventory.

[^7]:    a Based on NBER samples of 31 corporations (1915-21) and of 45 corporations (192243) with total assets of $\$ 5$ million and over.
    ${ }^{\mathrm{b}}$ Gross plant and equipment expenditure plus inventory change.
    c Depreciation for 31 companies estimated on the basis of the data for a larger sample of 81 companies used in the study by Charles H. Schmidt and Ralph A. Young, The Effect of War on Business Financing (National Bureau of Economic Research, Financial Research Program, Occasional Paper 10, November 1943) Table 11, p. 92.
    d Represents gross physical investment less depreciation; in 1940-43 gross physical investment less depreciation and funds from the sale of fixed assets.
    e Land, plant, and equipment (net of depreciation reserve) plus inventory.

