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SHORT-TERM FINANCING

WHEN A CONCERN DECIDES to expand its plant, increase its inventory, or extend additional credit to customers, it may borrow from a bank or finance company, secure credit from suppliers, retain more of its cash sales dollars within the enterprise, or sell stocks and bonds. Thus short-term borrowings, funds retained from operations, and security sales are the major sources of funds utilized by business enterprises to finance their fixed and working capital requirements during periods of increasing business activity.

The specific source of funds utilized may or may not be a matter of choice. In some growing profitable industries (for example, the automobile industry), the major part of capital expenditures has been financed out of funds retained from operations. Our sample of eight large automobile and truck companies expended \$1,790 million on fixed capital and net additions to working capital and had available funds from operations of \$1,876 million, over the period 1921-39. Long-term securities and short-term notes payable were retired net, while the "value of product" of the industry increased from \$1,671 million in 1921 to \$3,096 million in 1937. In other industries (for example, the telephone industry), it has been easy for concerns to sell securities publicly.¹ Still other industries (for example, meat packing) have relied on commercial banks for substantial amounts of funds.

TOTAL SHORT-TERM FINANCING ²

The relative importance of short-term indebtedness in the financial structure of a business enterprise depends a great deal on its industrial character. In 1937 the ratio of current liabilities to total assets ³ varied as follows among broad industrial groupings: ⁴

Trade	34%
Manufacturing	17
Railroads	7
Electric light and power	4
Telephones	4

This variation with industry is also to be found among major subgroups and among individual corporations. The variation among companies within industries is often as great or greater than among industrial groups. This was not true of the current assets/total assets ratio. The method of financing utilized by a given business concern is much more within its discretion than is the character of its assets structure, which is more largely determined by technological factors.

The variation with size of concern is an inverse one for both manufacturing and trade. In 1937, the ratio of current liabilities to total assets for all corporate manufacturing was 17 percent, while in the large manufacturing sample it was only 9 percent. Explanations of these variations will become apparent as we discuss the components of total current liabilities.

Structurally, large current liabilities/total assets ratios are usually associated with large current assets/total assets ratios but are characteristically smaller, as is shown below:

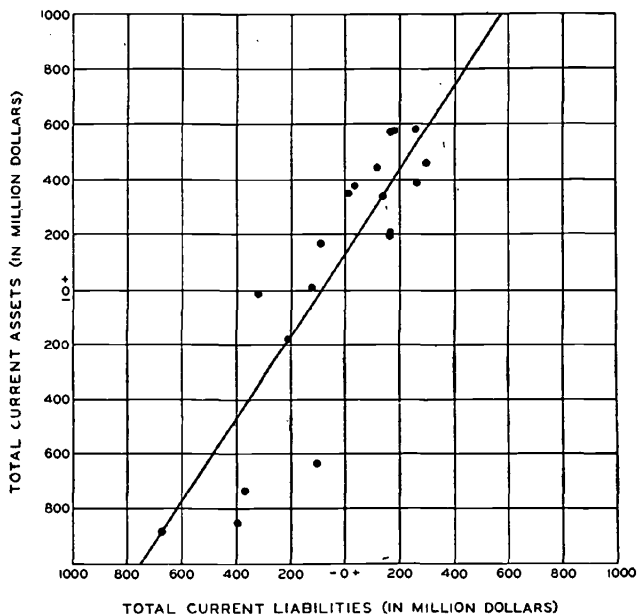
	<i>Current Assets</i>	<i>Current Liabilities</i>
Trade	63%	34%
Manufacturing	39	17
Electric light and power	6	4
Telephones	6	4
Railroads	4	7

Changes in current debt are also related to changes in current assets, as is shown in Chart 6. In this scatter diagram the annual changes in current assets of our combined sample of large manufacturing and trade concerns are plotted along with the annual changes in their current liabilities. Several interesting points concerning this relationship between changes in current assets and current liabilities can be noted. First, current liabilities increase and decrease with current assets. Second, the dollar volume of the annual changes in current debt is less than in current assets. Third, current debt tends to show larger changes in connection with decreases than in connection with increases in current assets. When we analyze this relationship between current assets and current debt by narrower industrial groups, however, it is not so clear. Apparently when we deal with smaller aggregates of companies, individual differences in financing are highlighted, although such differences cancel out when the sample is enlarged.

Over the two decades as a whole, the large manufacturing cor-

CHART 6

RELATIONSHIP BETWEEN ANNUAL CHANGES IN TOTAL CURRENT ASSETS
AND TOTAL CURRENT LIABILITIES OF LARGE MANUFACTURING
AND TRADE CORPORATIONS, 1921-39^a

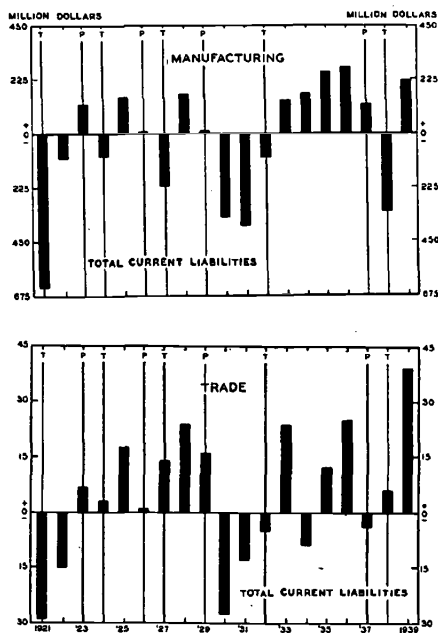


^aBased on Tables A-26 and A-50 in Data Book.

porations in our sample reduced short-term borrowings both absolutely and relative to alternative sources of funds. During this period these corporations reduced their current liabilities \$615 million while expending \$719 million on net additions to working capital; they spent more than \$15 billion on fixed capital, retained more than \$14 billion from operations and obtained over \$2 billion new funds from security sales. In other words, these concerns obtained sufficient funds from operations and security sales to retire current indebtedness as well as to finance necessary fixed and working capital requirements.

All of this reduction in current debt occurred during depression years. Since 1933, with the exception of 1938, the current debt of these companies has increased consistently. Among the major manufacturing groups all industries except automobiles, chemicals, and tobacco reduced their current debt. Although annual increases in current liabilities were more numerous than annual decreases, such increases were smaller, resulting in the cumulative reduction of

current debt in most industries. Textiles had the greatest proportionate decrease in current liabilities, 39 percent, but this was less than the reduction in total liabilities, 44 percent.



On the other hand, the trade concerns in our sample had an aggregate increase in current indebtedness of \$88 million during this period. This was small, however, compared to their expenditures of \$598 million on net additions to working capital. The annual changes in short-term debt of trading concerns fluctuated in a manner broadly similar to those of manufacturing companies, increasing in years of recovery and prosperity and decreasing in years of recession and

depression. Among the major trade groups there was a much more consistent tendency for short-term debt to increase over the period as a whole than in manufacturing. All groups except department stores, which exhibited no significant change in current liabilities, increased their short-term indebtedness.

Although manufacturing corporations decreased the volume of funds secured from short-term sources relative to alternative sources from 1921 to 1932, they increased this volume from 1932 to 1939. The text chart shows the relationship between the current liabilities and total assets of large manufacturing and trade corporations annually. In trade, the level of the ratio was fairly constant up to 1929, after which it dropped precipitously until 1932, since which year it has increased irregularly.

The current liabilities/total assets ratio among most of the major manufacturing groups also tended to decrease in the early thirties and then to increase gradually again. In only one manufacturing industry, petroleum, has the average ratio during recent years been below that of the twenties. For all of the major trade

groups there was a decrease in the current liabilities/total assets ratio during the depression of the thirties, but by 1939 the ratio had increased again to the level of the first half of the twenties.

COMPOSITION OF SHORT-TERM DEBT

The type of business financing we have been discussing comes from three main sources: (1)

commercial banks, (2) mercantile creditors, and (3) miscellaneous sources, represented chiefly by accrued expenses. The relative volume of financing secured from these three groups is roughly indicated in business financial statements by the volume of notes payable, accounts payable, and various accruals recorded on year-end balance sheets. The dollar volume and percentage distribution of the three components of total current liabilities for our samples of large manufacturing and trade corporations are presented annually in Chart 7.

Three striking facts can be noted. In the first place, the notes payable of the manufacturing sample have declined both in dollar amount and relative to accounts payable and other current liabilities. Although they increased in importance after the depression of the thirties, they fell off again in 1938, and in 1939 they were only slightly larger than their depression lows. In trade, the behavior of notes payable was significantly different, the level remaining quite low during the expansion periods of the middle twenties and the late thirties. Second, there has been little change in the importance of accounts payable relative to the other two components of current liabilities in both major industrial categories. The dollar volume of accounts payable just about tripled in trade from 1920 to 1939, while in manufacturing it showed little change. Finally, other current liabilities have been a consistently increasing element of current debt in both groups since 1920.

Notes Payable

Notes payable ⁶ are fairly insignificant in the financial structure of big business; even in 1937 they were less than 2 percent of the total

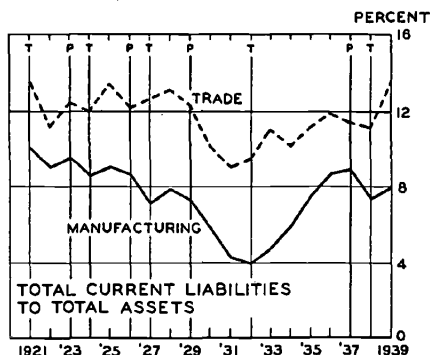
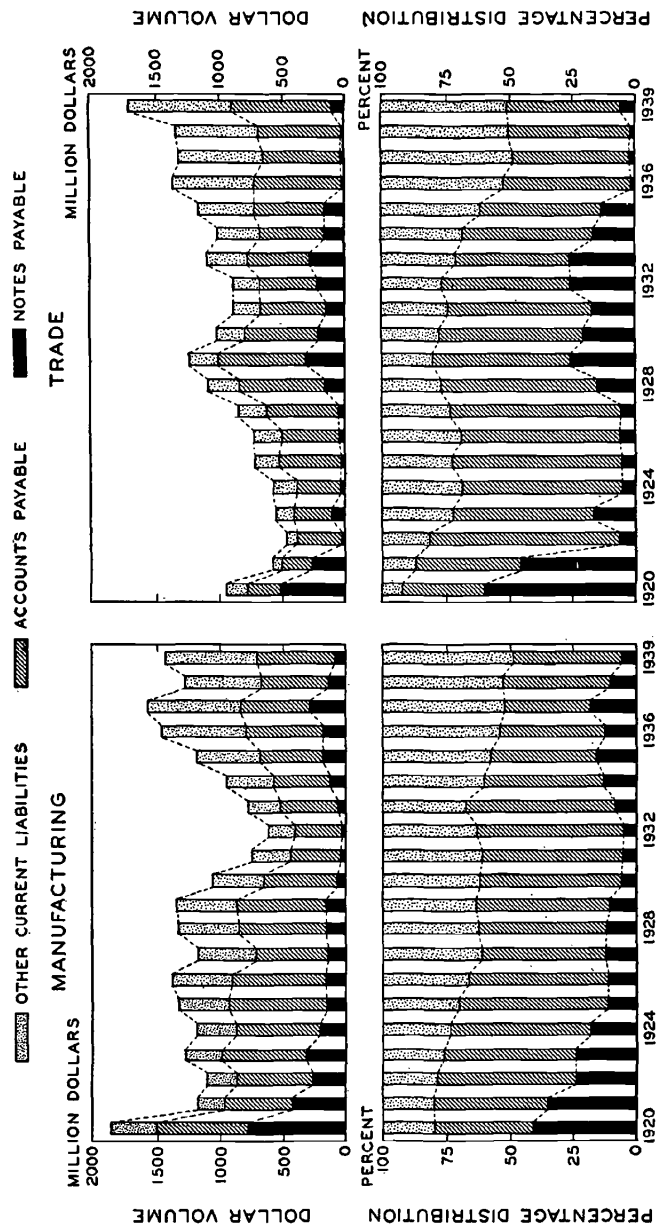


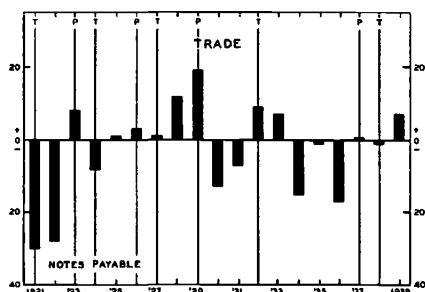
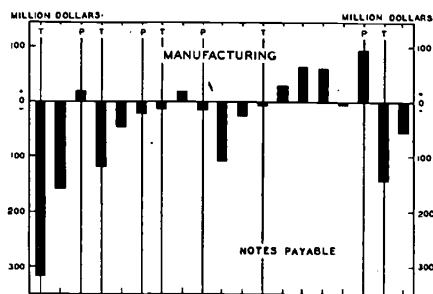
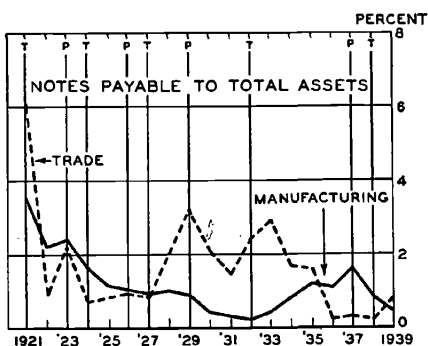
CHART 7

DOLLAR VOLUME AND PERCENTAGE DISTRIBUTION OF TOTAL CURRENT LIABILITIES OF LARGE MANUFACTURING AND TRADE CORPORATIONS, 1920-39^a



^a Based on Tables A-2, A-14, A-38 and A-44 in Data Book.

assets of large manufacturing companies. Indeed, when we consider notes payable in comparison with cash holdings of big business we find cash holdings have been consistently greater than bank loans: in 1932 they were over 35 times as great. Only two groups of large corporations (meat packing and textiles) owed banks on the average more than they had on deposit during the past two decades. Large chemical companies and chain variety stores had bank deposits almost 90 times as great as their debt to banks. Over the period studied the manufacturing corporations in our sample reduced notes payable by \$751 million and the large trade corporations by \$52 million. Most of this decrease occurred in five years. There was an expansion of bank borrowing by big business in the middle thirties, the notes payable of our manufacturing sample soaring from \$35 million in 1932 to \$285 million in 1937.



Bank loans appear to serve a function of convenience rather than of necessity for large, profitable, long-lived corporations. Generally speaking, when these concerns borrow from banks, they do so either because they consider it cheaper to obtain funds from banks than from other external sources, or because they desire to maintain close banking connections to facilitate possible future borrowings. This conclusion should be understood to apply to banks

as sources of longer than seasonal credit to business enterprises.

Unfortunately published data on bank loans are seldom available for intervals of less than a year. By restricting our analysis to year-end data, the importance of bank financing is underestimated for some industries (for example, rubber) whose balance sheets are published at a time of seasonal inactivity.⁶ These data are also restricted to the current indebtedness of big business to banks. Banks have been financing large corporations with intermediate-term credit through term or capital loans since 1934. At the end of 1939, the bank term loans of the manufacturing concerns in our sample totaled \$85 million while their current notes payable amounted to \$88 million. Outstanding bank term loans as a percent of outstanding current notes payable of these concerns varied as follows for 1935-39:

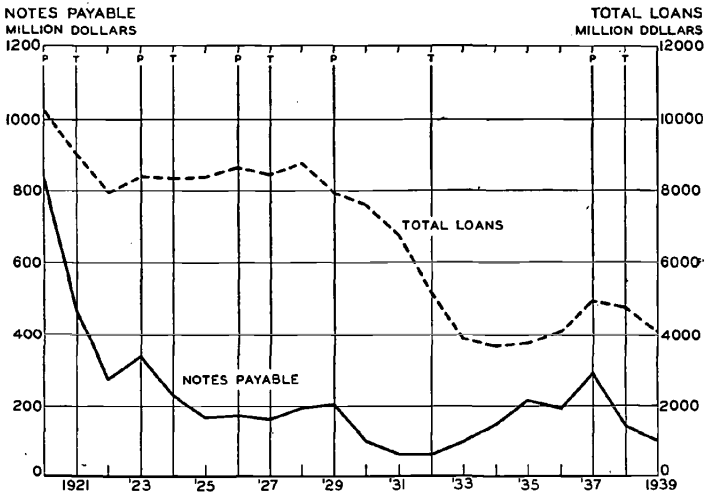
	<i>Bank Term Loans (millions)</i>	<i>Notes Payable (millions)</i>	<i>Term Loans as a Percent of Notes Payable</i>
1935	\$100	\$194	52%
1936	74	190	39
1937	38	285	13
1938	36	143	25
1939	85	88	97

Looking more closely at the behavior of notes payable during the past two decades, we see that in large manufacturing concerns they decreased from 42 percent of current liabilities in 1920 to 6 percent in 1939. Trade showed an even greater decline, from 61 to 5 percent. In Chart 8 this decline in the notes payable of manufacturing and trade corporations is compared with that in "total loans commercial in form" of all national banks.⁷ This chart shows that changes in the bank loans of big corporations do not determine the course of all commercial loans of national banks. The borrowings of small and medium-sized corporations, partnerships, and individuals (including farmers and brokers) are very large.

Both curves fell sharply in 1921 and 1922 when large meat packers, rubber companies, automobile companies, and mail-order houses were liquidating loans. At this time the two largest mail-order houses in the country managed as a result of substantial inventory liquidations to reduce their bank debt by over \$50 million. During the rest of the twenties, although total commercial loans increased slightly, large manufacturing and trade corporations were using profits and the proceeds from security sales to retire notes payable. By 1929, these large concerns had few bank loans to liquidate; other business concerns, on the other hand, had been

CHART 8

TOTAL COMMERCIAL LOANS OF ALL NATIONAL BANKS
AND NOTES PAYABLE OF LARGE MANUFACTURING
AND TRADE CORPORATIONS, 1920-39^a



^a Total commercial loans are as of June 30. See Pearson Hunt, "Portfolio Policies of Commercial Banks in the United States," 1920-39 (Bureau of Business Research, Harvard University, 1940) pp. 50-52. Notes payable are from Tables A-2 and A-38 in Data Book.

borrowing during the late twenties, and their liquidation of current debt in the early thirties sent the curve of total commercial loans into a downward plunge.

If we consider the major groups within the manufacturing and trade sample, we find general agreement in the large picture but variation in details. Every one of the groups except miscellaneous chain stores decreased notes payable over the period 1921-39. Considerable difference appears, however, when we compare bank loans to total assets. The average notes payable/total assets ratio varied among the manufacturing groups as follows:

Textiles	8.4%
Meat packing	6.1
Rubber	3.6
Tobacco	1.9
Petroleum	.7
Food other than meat packing	.6
Machinery	.6
Automobiles and trucks	.4
Building materials and equipment	.3
Iron and steel	.2
Chemicals	.1

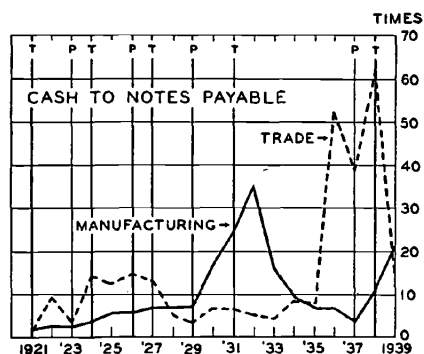
The four industries on the top of the list, textiles, meat pack-

ing, rubber, and tobacco, are all industries in which inventory is an important part of total assets. The inventory loans of such industries are of two types. One is a good example of the classical, short-term, self-liquidating commercial loan. A meat packer, for example, borrows at the bank to pay for livestock, supplies, labor, and other costs. When his meat and by-products have been sold, he has the money to pay off his bank loan. The second type is, however, more than seasonal in character. When business expands or raw material prices rise, companies in these industries borrow to carry a larger dollar volume of inventory. These borrowings may last until business declines or prices fall.

A similar variation is to be found among the trade groups. The notes payable/total assets ratio for the 19-year period as a whole varied as follows:

Miscellaneous chain stores	5.6%
Mail-order houses	3.2
Department stores	3.1
Chain grocery stores	.6
Chain variety stores	.1

The variation in the ratio during the past two decades among major groups in manufacturing and trade is less marked. In only two of the manufacturing industries (building materials and equipment, and petroleum) was the level of the ratio during the second decade higher than during the first decade. In the case of two industries (automobiles and trucks, and chemicals) the ratio during the thirties has been only a fraction of that during the twenties. In trade, the notes payable of mail-order houses averaged slightly higher during the thirties than during the twenties. On the other hand, the average notes payable/total assets ratio of chain grocery stores during the thirties was less than one-seventh that during the twenties.



Since most cash is held in the form of bank deposits and since most notes payable are owed to banks, the ratio of cash holdings to notes payable gives a rough indication of the creditor-debtor relationship

between banks and big business. In the text chart this ratio for our sample of 84 large manufacturing corporations is presented annually.

Cash holdings of the manufacturing sample increased consistently from a low of 1.4 times notes payable in 1921 to a high of 35.1 in 1932. The annual average of the ratio for 1937-39, 11.7, was over five times the 1921-23 average of 2.0.⁸ The variation of the cash/notes payable ratio among major industrial classifications was very great. In manufacturing, the ratio for the two-decade span varied as follows:

Chemicals	86.8
Iron and steel	31.6
Automobiles and trucks	31.0
Building materials and equipment	20.7
Machinery	16.7
Food other than meat packing	15.5
Petroleum	7.4
Tobacco	4.6
Rubber	2.1
Meat packing	.9
Textiles	.7

In trade, no one of the major groups had notes payable which averaged greater than cash holdings. The cash/notes payable ratio for the five groups during this period was:

Chain variety stores	87.9
Chain grocery stores	37.0
Miscellaneous chain stores	2.8
Mail-order houses	2.3
Department stores	1.6

Accounts Payable

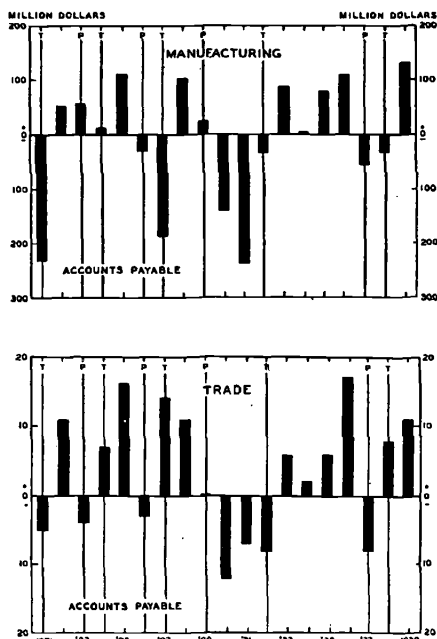
Suppliers are of relatively slight importance in the financing of most large manufacturing corporations, but of some importance in financing certain large trade concerns. Their importance in both groups has, however, declined relative to alternative sources of financing.

The dollar volume of the accounts payable of our manufacturing sample decreased by \$175 million, and that of the trade sample increased by \$62 million, from 1921 through 1939. As in the case of notes payable, most of this decrease occurred during the depression years. The annual changes in payables of both samples

varied roughly with fluctuations in general business activity although there were some contra-cyclical movements (for example, the decrease in payables in 1937). Six major manufacturing groups

reduced, and five increased, their accounts payable. Among the trade groups accounts payable were increased more consistently than in manufacturing. In chain variety stores, payables were decreased in only three years (1930, 1931, and 1937).

Compared to total assets, the accounts payable of our sample of large manufacturing enterprises exhibited a downward trend. In addition, the accounts payable/total assets ratio varied positively with the



business cycle. Among the major manufacturing groups the ratio for the two-decade span varied as follows:

Automobiles and trucks	6.1%
Petroleum	4.9
Rubber	4.0
Meat packing	3.7
Building materials and equipment	3.1
Iron and steel	2.3
Food other than meat packing	2.2
Machinery	2.2
Textiles	2.2
Chemicals	1.9
Tobacco	1.2

The high ratio in the automobile industry is due primarily to the practice of purchasing parts made to order. Parts makers customarily allow automobile manufacturers 30-90 days' credit, a period somewhat longer than the process of assembling.

The trend of this ratio in every one of these major industrial groups was downward in the thirties. During the thirties the level

of the ratio decreased almost 50 percent from that of the twenties for both building materials and equipment, and petroleum.

Accounts payable are a more important source of funds in trade than in manufacturing. The average ratio (6.2 percent) of accounts payable to total assets of our trade sample was over 70 percent greater than for our manufacturing sample (3.6 percent). Among the major trade groups, the variation was great, the ratio for the 19-year period varying as follows:

Chain grocery stores	13.2%
Miscellaneous chain stores	12.2
Department stores	5.5
Mail-order houses	5.4
Chain variety stores	2.8

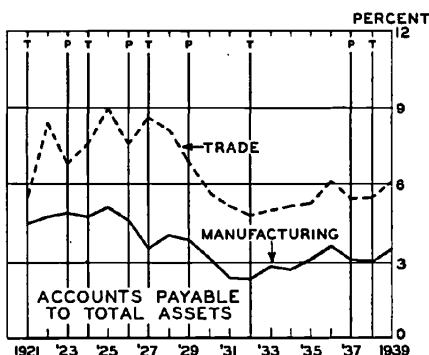
Over this period all these groups have decreased their trade payables relative to alternative sources of funds.

Other studies in the National Bureau's Business Financing Project indicate that trade creditors are a more important source of funds for small manufacturing companies.⁹ The accounts payable/total assets ratio of small manufacturing corporations is almost twice that of medium-sized and large corporations. In trade, however, the medium-sized corporations have the smallest ratio of accounts payable to total assets. The accounts payable/total assets ratios of all manufacturing and trade corporations in 1937 by asset size classes were as follows:¹⁰

	Manufacturing	Trade
Small (less than \$500,000)	14.6%	20.3%
Medium-sized (\$500,000-10 million)	7.6	17.8
Large (\$10 million and over)	7.7	20.9

Other Current Liabilities

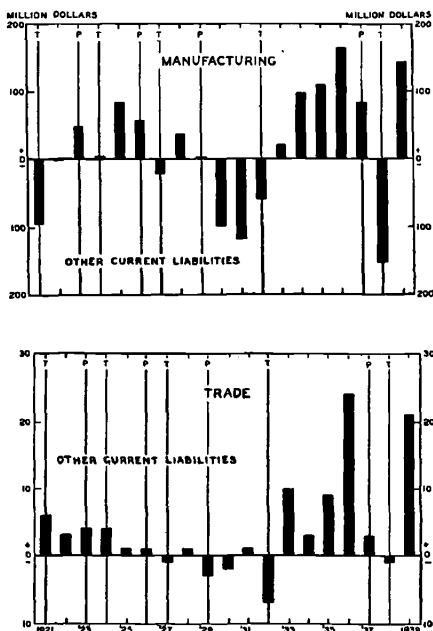
Earlier in this chapter we noted the increase in other current liabilities relative to notes and accounts payable during the past



two decades. These other current liabilities are largely made up of obligations to employees, bondholders, stockholders and government. Most of the increase in other current liabilities occurred during the last half of the thirties and was due to increases in tax

accruals and reserves.

These increases undoubtedly have been at least in part the result of uncertainty as to changes in corporate taxation. Some of them may in reality turn out to be surplus rather than liability reserves, in which case they will represent additional funds retained out of operations. In addition, some of the increase during the twenties may have been the result of a shift from a cash to an accrual method of recording expense, or of the reporting in the early



years of accrued liabilities combined with accounts payable on financial statements.

It is difficult to analyze these early changes. For example, at a given point of time at which a balance sheet is drawn up, some labor services may have been utilized or "consumed" for which corresponding wage payments have not been made. Under a cash system of accounting, no charge to cost of sales would be recorded for these services until payment has been made for them, whereas under an accrual system such charges would be recorded even if payment has not been made. That part of the increase in accrued items which is the result of a shift in accounting method indicates a greater volume of funds retained from operations rather than an increase in the importance of the employee, bondholder, stockholder, or government as a source of funds. That is to say, under an accrual method of accounting, non-cash charges for unpaid but consumed services are debited to cost of goods sold and hence lead to an understatement of the portion of the cash sales dollar which

is undistributed and available, at least temporarily, for general corporate purposes.

Another type of current indebtedness important in at least one manufacturing industry, aircraft and aircraft equipment, has been advance payments on government contracts. Since all the industries treated at length in this study have had a life of at least 20 years, the aircraft and aircraft equipment industry has been excluded. This industry, however, was a relatively insignificant part of the business economy of the United States in 1934-39. Total property expenditures of the United States Steel Corporation during these years, for example, were over five times greater than those of the 12 aircraft and aircraft equipment companies included in the Securities and Exchange Commission sample which were responsible for about four-fifths of the sales and total assets of the entire industry. The study by the SEC indicates that prepayments on contracts were the most important source of funds of 10 aircraft and 2 aircraft equipment companies for the period 1934-39.¹¹ Foreign military orders were the basis of most of these prepayments, the proceeds of which were kept on deposit with banks until utilized. During these years this source of funds provided slightly over \$100 million, more than double total funds from operations or security sales.