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**CORPORATE PROFITS AS SHOWN
BY AUDIT REPORTS**

1935

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7. A copy of this resolution shall, unless otherwise determined by the Board, be printed in each copy of every Bureau publication.

(Resolution of October 25, 1926, revised February 6, 1933)

CORPORATE PROFITS

AS SHOWN BY AUDIT REPORTS

W. A. PATON

PROFESSOR OF ACCOUNTING,
UNIVERSITY OF MICHIGAN

NATIONAL BUREAU OF ECONOMIC RESEARCH

NEW YORK • 1935

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FOREWORD

THE study which Professor Paton has undertaken under the auspices of the National Bureau of Economic Research and the American Institute of Accountants, and carried to completion with so much patience and skill, is interesting not only for the results which he has produced but because it is a first step in the utilization for the purposes of statistical research of the tested information which reposes in the files of public accountants.

The potential value of such information has long been realized. In 1921 Sir Josiah Stamp, in an address to one of the principal accounting bodies in England, stressed the obligation of the profession to contribute to the general knowledge in this way—

“This,” he said, “is only one of the immense additions that might be made in applied economics, if accountants, as the trustees of valuable economic data, would free themselves from their present doubtless inadvertently ‘dog-in-the-manger’ position. They have the figures; other people *cannot* use them, and if accountants will not, then we get nothing: economics continues its abstract deductions, and business blunders on by individual instinct.”

If the English accountants did not at once respond to Sir Josiah's appeal, the explanation is not to be found in the burden involved, though the task of compiling information in the form that would be useful to economists and disguising it so as to avoid any breach of confidence is not inconsiderable. The explanation is, rather, that conservatism and reticence are cardinal virtues in an accountant, and he is not easily

convinced that he can properly make available statistics based on information secured by him professionally, however carefully their use is to be safeguarded against any unintended disclosure of confidential information.

The fact that a substantial step in this direction has been taken is, therefore, of real significance, and it is not surprising, nor perhaps even regrettable, that the amount of information made available is not more extensive than it is. While one can sympathize with the disappointment which Professor Paton doubtless felt that he did not have a larger sample to deal with, it is proper that the first steps in such a field should be of a tentative and limited character. And the very fact that even with such a limited sample it is possible to present useful information without any possible violation of confidence should encourage a freer response to similar calls on accountants in the future. Such a response is the more desirable because the years covered by the present study happen to be the closing years of a period of prosperity, and the figures are, therefore, (as subsequent years have demonstrated) by no means representative of business profits over a long term of years.

I am glad to have the privilege of writing this foreword, because the study has been made possible by cooperation between two bodies in which I have been keenly interested since their incorporation, and because it affords an opportunity to express my appreciation of the services of Professor Paton in the contiguous fields of economics and accountancy which have been of special value to those whose work has been confined to one or the other field. I hope that similar cooperation may in the future provide Professor Paton with material for a more extensive study, such as he is so well fitted to undertake.

GEORGE O. MAY

New York, N. Y.
October 25, 1934

CONTENTS

SUMMARY	3
I Average Rate of Earnings	3
II Variation in Earning Rates	3
III Sources of Capital (other than Surplus)	5
IV Dividend Policies and Corporate Savings	6
V Differences in Other Operating and Financial Characteristics	6
I INTRODUCTION	8
Character of Sample	9
Classification of Companies	12
Technical Limitations and Qualifications	16
II EARNING POWER FROM STANDPOINT OF TOTAL CAPITAL	18
Description of Table I	18
Computation of Average Rates	19
Computation of Aggregate Rates	34
Special Technical Problems	35
Differences in Earning Rates—Main Groups	36
Differences in Earning Rates—Subgroups	37
Distribution of Earning Rates	39
III EARNING POWER FROM STANDPOINT OF STOCKHOLDERS	41
Description of Table II	41
Relation of Profit Rates to Earning Rates on All Capital	56

Differences in Profit Rates—Main Groups	57
Differences in Profit Rates—Subgroups	57
Distribution of Profit Rates	58
IV PROFITS AND THE USE OF PREFERENCE STOCKS	61
Description of Table III	61
Use of Preferred Stocks—All Companies	65
Preferred Stocks in the Manufacturing Field	67
Preferred Stocks in the Trading Field	68
Preferred Stocks in Other Groups	69
Analysis of Preferred Stock Issues	69
V EARNING POWER IN RELATION TO SIZE OF ENTERPRISE	72
Preparation of Table IV	72
Variations by Size Groups and Industries	74
Further Analysis of Group I	76
Conclusion	76
VI COMMON DIVIDEND POLICIES AND SURPLUS ACCUMULATION	78
Regularity of Dividends	78
Aggregate Dividend Rates	79
Analysis of Cases of Dividend Disbursements	80
Surplus	82
VII OTHER FINANCIAL AND OPERATING CHARACTERISTICS	86
Ownership Ratios	86
Liability Ratios	87
Operating Ratios	89
Working Capital Position	93
Inventories Relative to Assets	96
Sales Relative to Inventories	98
Salaries to Stockholders	101

Intangible Assets and Earning Power	102
VIII FURTHER ANALYSIS OF ACCOUNTING RECORDS	106

APPENDICES

A Form of Questionnaire	115
B Earning Rates in Open-End Classes of Table I	120
Earning Rates in Open-End Classes of Table II	122
C Aggregates of Selected Income-Account and Balance-Sheet Items by Industries	125

TABLES

I Earning Rate on Total Capital	20
II Earning Rate on Proprietary Capital	42
III Rate of Earnings as Related to Form of Capitalization	62
IV Average Earning Rates by Size Groups	73
V Analysis of Common Dividend Disbursements	81
VI Ratio of Earned Surplus to Total Stock Equity, 1929	82
VII Operating Ratios	89
VIII Current Ratios	94

FIGURES

1 Comparison of Distribution of Earning Rates of Manufacturing and Trading Groups	40
2 Distribution of Earning and Profit Rates for all Companies	59
3 Distribution of Average Profit Rates by Years for All Companies	60
4 Comparative Distribution of Three-Year Average Earning Rates of Large and Small Manufacturing Companies	75
5 Distribution of Average Operating Ratios	92

**CORPORATE PROFITS AS SHOWN
BY AUDIT REPORTS**

S U M M A R Y*

THE following figures are derived from the reports of a sample of some 700 small and medium-size corporations for the three years 1927-29.

I AVERAGE RATE OF EARNINGS

The average rate of earnings on total net assets as reported for all the corporations in the sample, for the entire period 1927-29, was 8.4 per cent; the average profit rate on stockholders' equity was 9.2 per cent. The average rate of earnings for all corporations was fairly stable from year to year: the rate earned on total net assets rose from 8.2 per cent in 1927 to 8.8 in 1928, and then declined to 8.0 in 1929.

II VARIATION IN EARNING RATES

As measured by both standards, average rate of earnings on total net assets and average rate on stockholders' equity, manufacturing corporations were more profitable than trading corporations; the three-year average rate of earnings on total net assets was 9.2 per cent for manufacturing companies as against 6.3 per cent for trading concerns. For manufacturing 1928 was the best year of the period covered, although there was no great variation between years as meas-

* Mr. Solomon Fabricant of the National Bureau staff was primarily responsible for the preparation of this summary.

ured by either standard. For trading, as measured by earnings on stockholders' equity, 1927 was by far the best year, and by both standards there was a decided falling-off in 1929. Among the main fields less adequately represented in the sample, corporations engaged in construction showed the highest average earning power, 11.4 per cent on net assets for the entire period; concerns engaged in real estate and finance showed the lowest earning power, 4.5 per cent. Service corporations averaged 11.1 per cent on assets; companies in the extractive industries averaged 10.0 per cent. Earning power on stock equity was higher than on total net assets in all fields except extraction and construction.

Within major industrial groups the variations in average earning rates were wide, ranging from 2.8 per cent on net assets for the three years in lumber manufacturing to 14.9 per cent in the processing of miscellaneous food products, and from 3.9 per cent in the distribution of fruits, vegetables, dairy products, etc., to 8.6 per cent earned by cotton and wool merchants. The changes in average earnings from year to year in the subgroups were often erratic, owing in part to the smallness of the samples. The fluctuations were in general more marked in trading than in manufacturing corporations.

The dispersion of earning rates was found to differ from group to group, but in all cases there was a marked clustering about the average. The range was less in the trading field than in manufacturing. The dispersion was greater for earnings on equity than on total net assets. Taking the three-year average for 'all companies' into consideration, the range from 2 to 10 per cent includes over half the companies. There was some change in the degree of variation from year to year, in major divisions as well as in subgroups.

It was found that on the average those concerns with assets between \$50,000 and \$200,000 earned a higher rate of

return on total assets during 1927-29 than did smaller or larger corporations. For this medium-size group the return averaged 9.6 per cent for the three years. Within subgroups there were no consistent differences in earning rates between large and small corporations. In the manufacturing field, smaller companies showed higher rates of return than did larger companies in 16 out of 28 subgroups. In the trading field, the situation was the reverse in 10 out of 15 sub-groups.

The earnings on both total stock equity (including preferred stock as well as common stock and surplus) and common stock equity of the companies with preferred stocks were somewhat less than those of companies with common stock only. Further, there is only slight indication that the use of preferred stock increased the rate earned by common, 134 companies with preferred stock outstanding earning more on total stock than the preferred dividend rate, and 122 earning less. However, examination of a longer period and of a larger sample is necessary to measure the effect on the common stock equity of the issue of preferred stock.

III SOURCES OF CAPITAL (OTHER THAN SURPLUS)

Only 13 per cent of all the companies examined had liabilities greater than the stock equity; the average amount of net assets covered by liabilities was under 30 per cent. The ownership ratio for trading corporations was less than that for manufacturing; real estate and financial corporations had the lowest ownership ratio among the major divisions represented. The existence of preferred stock seemed to have no bearing on the amount of liabilities relative to net assets.

As would be expected, the preferred stock issues which represented a relatively small fraction of total assets were

found to be more secure as to dividends than those representing a relatively large interest. Of companies financing over 20 per cent of net assets with preferred stocks the larger companies appeared to have the sounder preferred issues. This is indicated by the fact that for these companies 72 per cent of the preferred dividends had been paid, as against 55 per cent in the case of the smaller concerns.

IV DIVIDEND POLICIES AND CORPORATE SAVINGS

Dividend payments on common stock were generally irregular. Of 699 corporations, 256 paid no dividends during 1927-29, 65 paid in one year only, 100 in two years only, and only 278 paid dividends in all three years. This situation prevailed in spite of the fact that most of the corporations had earnings available for distribution. In the three years covered, in fact, only 57 per cent of earnings available for common stock was distributed in the form of dividends. In general, companies with preferred stock paid less on common than did other corporations.

Earned surplus (exclusive of surplus capitalized through stock dividends) accounted, on the average, for over 30 per cent of total stock equity.

V DIFFERENCES IN OTHER OPERATING AND FINANCIAL CHARACTERISTICS

The typical (median) ratio of current assets to current liabilities among manufacturing corporations included in the sample was close to 4:1, while among trading corporations it was about 3:1. In both groups there was considerable variation in this ratio, but rather less among trading than among manufacturing corporations.

SUMMARY

7

Inventories constituted 26 per cent of net book assets of manufacturing corporations, and 29 per cent of assets of trading corporations. The average stock-turnover ratio (as measured by the median figure for sales relative to inventory) varied from 2:1 in lumber manufacturing to 50:1 in ice cream and other dairy products, and from 3:1 in jewelry trading to 28:1 in the marketing of fruits and vegetables.

Operating ratios (ratio of all expenses except interest and taxes to sales) were more concentrated about the average in the trading field than in manufacturing. They were higher in the former, the median figure among trading corporations being about 97 per cent, while among manufacturing corporations the corresponding ratio was around 94 per cent.

I INTRODUCTION

THIS study is based upon the income-sheet and balance-sheet statistics of some 700 corporations for the three years 1927, 1928 and 1929. The original data were compiled for the National Bureau of Economic Research by members of the American Institute of Accountants, from their files, upon the official request of the Institute.¹ The reports were drawn from all parts of the country and represent clients of many accounting firms. The instructions given to the cooperating firms called particular attention to the importance of furnishing a representative sample from their files, including unsuccessful as well as successful enterprises, and it is believed that these instructions have been substantially adhered to.

Although the period covered is short, and relatively prosperous, and the number of reports received small, the material was deemed of sufficient importance to deserve tabulation and analysis, particularly for two reasons. In the first place the reports represented for the most part that group of relatively small yet substantial corporations which plays an

¹ See Appendix A for copy of communication submitted by the Institute to its members and for form of data sheet used.

The procedure followed in the preparation and submission of the material was such as to ensure that there be no violation of professional confidence. Neither names of companies nor of accountants reporting the information were given on the data sheets, and arrangements were made by which the initial work of tabulation was done in the offices of the Institute at 135 Cedar Street, New York City. This made it possible to retain the original sheets in the files of the Institute at all times.

important rôle in American business but is ordinarily neglected or inadequately represented in studies of corporate income and finance. In the second place the reports furnished were in a more satisfactory and complete form than those usually available, and hence might be expected to yield, within the limits imposed by the size of the sample, unusually reliable results. Moreover, it was hoped that an analysis of these reports might serve as a forerunner of a later more extensive study, or perhaps ultimately of a regular periodic report, through the same channels.

CHARACTER OF SAMPLE³

In number the 714 corporations covered represent but a small percentage of the 280,000 industrial and trading corporations reporting to the Treasury Department in 1928, and their assets constitute only 1.5 per cent of the assets of the corporations reporting in that year. Moreover, certain industries are represented more fully than others, as is apparent from the following figures. Since banks, insurance companies, and other large financial organizations were deliberately excluded from the sample, only a small portion of the field of real estate and finance was covered. In the second part of the tabulation, therefore, the comparison is made without this group.

The size of the corporations in the sample is indicated by their average net assets of \$2,244,000. Average net assets of all corporations reporting in the United States in 1928 (excluding the public utilities, which are not represented in the present sample) were \$643,000. But while the average size of the companies in the sample is larger than the average of all corporations (this is true also of all the major groups

³ The material under this heading was prepared by Mr. Fabricant.

CORPORATE PROFITS

except real estate and finance) no very large corporations are included.

A complete examination of the representativeness of the corporations in the sample would require further comparisons

**DISTRIBUTION OF ALL CORPORATIONS AND SAMPLE
CORPORATIONS AMONG INDUSTRIAL GROUPS
BY NUMBER AND TOTAL NET ASSETS**

CODE NO.	INDUSTRIAL GROUP	PERCENTAGE DISTRIBUTION OF NUMBER OF CORPORATIONS AMONG INDUSTRIES		PERCENTAGE DISTRIBUTION OF TOTAL NET ASSETS ² OF CORPORATIONS AMONG INDUSTRIES	
		ALL COR- PORATIONS ¹	SAMPLE	ALL COR- PORATIONS ¹	SAMPLE
<i>Including real estate and finance</i>					
A	Extraction	4.8	5.2	5.5	8.0
B	Construction	4.2	3.2	1.1	0.4
C	Manufacturing	23.2	49.0	28.5	53.2
D	Trading	31.1	31.2	9.1	28.5
E	Service	7.2	8.0	2.5	8.8
F	Real estate and finance	29.5	3.4	53.3	1.1
	Total (6 groups)	100.0	100.0	100.0	100.0
<i>Excluding real estate and finance</i>					
A	Extraction	6.8	5.4	11.8	8.1
B	Construction	6.0	3.3	2.4	0.4
C	Manufacturing	32.9	50.7	61.0	53.8
D	Trading	44.1	32.3	19.5	28.8
E	Service	10.2	8.3	5.3	8.9
	Total (5 groups)	100.0	100.0	100.0	100.0

¹ Statistics of Income for 1928.

² Total book assets less recorded depreciation and other offsetting figures.

of geographic areas covered, a closer determination of whether unprofitable as well as profitable corporations are adequately represented, and an examination of the ages of the corporations included in comparison with those derived from other sources of information. The sample is of course biased to the degree—if any—that concerns which rely upon the serv-

ices of public accountants are not fairly representative of American business corporations as a whole. For the present purpose it is sufficient to have noted that the sample consists mainly of the small (yet not the very smallest) and the medium-size corporations doing business in the United States, and is restricted to certain industries and to the three-year period 1927-29.

One reason for restricting ourselves to samples when financial data for all American corporations are collected and published by the Treasury Department is that in the income tax statistics totals only are given; *typical* figures, therefore, cannot be obtained from them. Nor is it possible to determine the differences in, and the relationships among, various financial and operating characteristics and ratios from the compilations of the Bureau of Internal Revenue. In addition, sample data, as in this study, can be had in more detail, and by finer industrial divisions, than the Treasury Department figures.

The materials of the present sample differ, also, from statistics collected by Professor Epstein and already analyzed by the National Bureau of Economic Research.³ The corporations included are drawn from a different group of corporations, and the average size is smaller. More important, the data available here were in much more detailed form, making possible the computation of various ratios and some analysis of the financial and operating figures of the corporations included.

A further identification of the sample used here is afforded by the following comparison. (All the groups shown include corporations reporting losses as well as those making profits.)

³ R. C. Epstein, *Industrial Profits in the United States* (National Bureau of Economic Research, 1934).

CORPORATE PROFITS

AVERAGE RATE OF EARNINGS ON STOCKHOLDERS' EQUITY¹

	MANUFACTURING	TRADING
Small and medium-size corporations, 1927-29 (the present sample) ²	9.6	7.9
Medium-size and large corporations, 1927-28 (R. C. Epstein ³)	10.2	12.7
All corporations, 1927-29 (Treasury Department ⁴)	7.4	5.6

¹ The ratios are the weighted arithmetic average earning rates on total stockholders' capital and surplus invested in the several industries. As such they may not be typical of the earnings of individual companies in these industrial groups. (It is for this reason that detailed figures by companies are essential. Ratios derived from aggregates may hide more than they reveal.)

² 341 manufacturing corporations, 220 trading corporations (see Table II).

³ 2,046 manufacturing corporations, 664 trading corporations (*Industrial Profits in the United States*). Data for 1929 are not available.

⁴ Computed from data for about 90,000 manufacturing corporations and 125,000 trading corporations published in *Statistics of Income, 1927-29*.

The differences shown are no doubt due in part to variation in the size of corporations included in the several samples. But probably these differences arise chiefly from unequal representation of the various industrial groups included. (Size of company is, of course, related to kind of industry.) It is interesting to note the depressing effect on the average rate of return when the host of very small companies is included.

CLASSIFICATION OF COMPANIES

The reports received from the cooperating members of the Institute are largely from the industrial and trading fields, as was requested, although a considerable number of companies in other lines are represented. For purposes of tabulation and analysis a classification of reports has been adopted that recognizes four minor groups (extraction, construction, real estate

INTRODUCTION

13

and finance, service) in addition to the two major fields of manufacturing and trading. The classification used, together with a measure of the average size of company in each main group, is given below.

CODE NO.	GROUP	NUMBER OF COMPANIES		AVERAGE SIZE
		TOTAL	BY SUB- GROUPS	
<i>A</i>	<i>Extraction</i>	37		\$3,450,385
A- 1	Logging		8	
A- 2	Oil and gas extraction		10	
A- 3	Mining and quarrying		15	
A- 4	Miscellaneous extraction ¹		4	
<i>B</i>	<i>Construction</i>	23		306,692
B- 1	General building contracting		9	
B- 2	Special contracting		14	
<i>C</i>	<i>Manufacturing</i>	350		2,436,498
C- 1	Milling		6	
C- 2	Ice cream and other dairy products		13	
C- 3	Meat products		6	
C- 4	Fruit and vegetable canning		6	
C- 5	Miscellaneous food products		23	
C- 6	Cotton goods		17	
C- 7	Silks and woolens		14	
C- 8	Carpets, rugs, and other textiles		8	
C- 9	Clothing and dry goods		19	
C-10	Tanning		8	
C-11	Shoes		14	
C-12	Lumber		13	
C-13	Boxes and barrels		8	
C-14	Miscellaneous wood products		14	
C-15	Furniture, pianos, radios		11	
C-16	Paper boxes		7	
C-17	Paper		11	
C-18	Drugs and chemicals		20	
C-19	Cement and ceramic products		17	
C-20	Heavy forgings, bars, billets, sheets, castings, etc.		23	
C-21	Electrical machinery		8	
C-22	Agricultural, construction and mining machinery		10	

CORPORATE PROFITS

CODE NO.	GROUP	NUMBER OF COMPANIES		AVERAGE SIZE
		TOTAL	BY SUB- GROUPS	
<i>C Manufacturing (cont.)</i>				
C-23	Stoves and other heating apparatus		9	
C-24	Miscellaneous machinery and equipment		17	
C-25	Hardware		12	
C-26	Miscellaneous iron and steel specialties		19	
C-27	Unclassified		17	
<i>D Trading</i>		226		\$2,051,417
D- 1	Automobile sales and service; gas and oil—wholesale and retail		12	
D- 2	Men's and women's clothing— retail		12	
D- 3	Cotton and wool merchants		7	
D- 4	Department stores		20	
D- 5	Dry goods—wholesale		10	
D- 6	Fuel, lumber, and building materials—retail		15	
D- 7	Fuel, lumber, and building materials—wholesale		17	
D- 8	Fruit, vegetables, dairy products, grain, etc.		12	
D- 9	Furniture—retail		21	
D-10	Groceries—wholesale		11	
D-11	Hardware—wholesale and retail		15	
D-12	Jewelry—wholesale and retail		7	
D-13	Paper and leather products— wholesale		8	
D-14	Auto supplies, electrical equip- ment, radios, sporting goods —wholesale and retail		17	
D-15	Unclassified ²		42	
<i>E Real estate and finance</i>		24		745,196
E- 1	Real estate operators		20	
E- 2	Finance companies		4	

INTRODUCTION

15

CODE NO.	GROUP	NUMBER OF COMPANIES TOTAL	BY SUB- GROUPS	AVERAGE SIZE
<i>F Service</i>		57		\$2,475,230
F- 1	Advertising		6	
F- 2	Laundry and dry cleaning		11	
F- 3	Printing, publishing, litho- graphing, engraving, etc.		23	
F- 4	Miscellaneous, including hotels, restaurants, warehouses, etc.		17	
	All fields	714		\$2,243,863

¹ Two rose growers, a cattle ranch, and a specialized farming and dredging enterprise.

² Includes four retail furriers, four wholesale drug dealers, three retail music stores, two retail shoe dealers, and one example each of twenty-nine other highly specialized lines.

The average size is in terms of net book assets (total book assets less accrued depreciation and other valuation reserves), and was determined by dividing the grand total of the net book assets for every company in the group for each date reported by the total number of instances in the group. In such a calculation, it is evident, a company whose report was available for only two years would contribute but two figures to the group total.

It will be noted that an effort has been made to preserve the integrity of specialized subsidiary groups as far as feasible, and that no stress is placed on intermediate groupings. However, to facilitate comparison in the manufacturing division some care has been taken to place related subgroups in juxtaposition. Printing, publishing, etc., listed here under service, might, and perhaps more properly, have been placed under manufacturing.

TECHNICAL LIMITATIONS AND QUALIFICATIONS

The great majority of reports received were completely and accurately filled out, as was to be expected. In a few, balance-sheet data only were given; these have been used in calculations requiring balance-sheet figures alone. In a few, the income figures reported could not be made to check; these were eliminated as far as income calculations were concerned. A few balance-sheet reports have not been used for the same reason. The omission of these incomplete reports accounts for discrepancies between the number of companies used in calculating balance-sheet ratios and the number used in determining certain income-sheet ratios. In several reports the figures given for 'net balance available for dividends' were accepted since they were in harmony with the respective surplus accounts, although the inconsistency of the other figures composing the income sheet made it unwise to use them in other income calculations. This explains the difference in number of companies represented in Tables I and II.

Several reports did not give data for all three years. In particular a considerable number gave no 1927 figures. If otherwise complete, the data on these reports have been used for the years available, allowance being made for the missing years in taking averages and in other similar calculations.

Since book values are used throughout, the calculations made are subject to the limitations inherent in such material. Book values of fixed assets are notoriously inconsistent, owing to diverse depreciation policies and methods of handling maintenance, additions, retirements, and other features of plant accounting. Further, original cost figures for concerns launched at different dates naturally vary with the price levels prevailing at the time of organization or reorganization. Also the treatment of organization costs and of intangi-

INTRODUCTION

17

bles differs. On the whole, it is fair to assume that the balance-sheet values used are fairly conservative, in line with accepted accounting standards, and that aside from this general bias the effects of special accounting practices tend to offset one another to some degree, in the larger groups of companies in any event.

II EARNING POWER FROM STANDPOINT OF TOTAL CAPITAL

OF THE various possible measures of earning power, that which expresses income from the standpoint of the entire capital of the business, regardless of the form of capitalization, is doubtless the most significant, particularly when comparisons among individual enterprises and between special groups or fields are desired. It is the rate of return realized on all the capital committed to the undertaking, as opposed to the earning power of the stockholders' equity, that indicates the degree of success attending the activity of the concern as an operating unit.

DESCRIPTION OF TABLE I

In Table I are shown rates of net earnings, after deduction of expenses and taxes except interest charges, to respective net book values of assets, by main groups of companies and also by subgroups. The income figures are derived by adding 'interest charges', as reported, to 'net balance available for dividends' (see Appendix A, headings 3a and 5 under Income-Sheet Statistics). Net book value of assets is determined in each instance by deducting accrued depreciation and other valuation reserves (see Appendix A, heading 3 under Balance-Sheet

Statistics) from the total gross value of assets as reported. The amount of net assets is thus equivalent to the total of capital stock, surplus and surplus reserves, and all liabilities. The resulting rates, in so far as they fall within the range of negative 4 per cent to positive 24 per cent, are distributed or classified in the table by steps of 2 per cent. The undistributed groups shown at each extreme represent those scattering cases, some of which exhibit very extraordinary rates of loss and exceptional rates of income, which were deemed to have little significance as indexes of the range of earning power within the respective fields involved, and which in any event it was not feasible to present in tabular form by steps of 2 per cent.⁴ To some extent, no doubt, the unusual rates are due to peculiarities in methods of valuing assets and other special practices.

The classification of companies followed in Table I is that presented above. In each main division and in each subgroup figures are given for each year and also for the three-year average. The number of companies varies somewhat from year to year. For example, in group C, manufacturing, 341 different companies are represented. In 1927, however, income data were available for only 329 companies, while in both 1928 and 1929 data were available for 340 companies.

COMPUTATION OF AVERAGE RATES

For each company for each year covered in the original data sheet a ratio of net earnings to net assets was computed as outlined above. An average ratio for each company was then obtained by dividing the sum of the annual rates for the company by the number of years given, usually three. It is these annual rates and three-year average rates that are distributed, by number of companies, in the fourteen groups

⁴ For their analysis see Appendix B.

TABLE I
EARNING RATE ON TOTAL CAPITAL
EARNINGS AFTER EXPENSES AND TAXES, BUT BEFORE INTEREST,
TO NET BOOK VALUE OF ASSETS
(the percentage columns in each case include the first rate and exclude the second)

INDUSTRY AND PERIOD	NO. OF COS.	MAIN GROUPS																AVERAGE ¹
		-4% ¹	-2	0	2	4	6	8	10	12	14	16	18	20	22	24	24% AND ABOVE ¹	
<i>A Extraction</i>																	5.39	
1927-29	37	1	2	2	5	3	7	6	2	1	1		2		1		4	9.21
1927	37	3	3	2	6	4	4	4	2	2	1		1	1			4	8.88
1928	37	2	1	2	5	3	4	7	4	1		2		2	1		3	9.20
1929	36	4	2	1	5	3	1	4	4	3	4			1			4	9.54
<i>B Construction</i>																	12.05	
1927-29	23	2	1		2	2	1	3	4	1	1	1	1		2		2	11.36
1927	23	1		1	3	3	3		2	1	1	3	1	2			2	10.58
1928	23	2	2	1		1	2	3	1	3		1	1	1	1	1	3	14.68
1929	22	2	1	1	3	1	2	2	2	3	1			2	1		1	8.61
<i>C Manufacturing</i>																	8.66	
1927-29	341	11	6	11	26	33	48	44	34	24	28	16	12	8	9	8	23	9.21
1927	329	12	5	14	25	35	40	43	35	28	19	15	14	8	11	4	21	8.99
1928	340	13	10	17	23	38	38	38	28	26	25	18	18	3	12	5	28	9.50
1929	340	22	7	12	23	32	43	33	36	26	28	15	13	11	9	5	25	9.14
<i>D Trading</i>																	6.71	
1927-29	222	10	4	8	21	34	39	33	37	10	6	4	7	2	2	0	5	6.34
1927	211	11	1	7	13	32	37	36	27	13	11	5	5	4	1	2	6	6.68
1928	222	12	4	9	22	30	28	40	23	20	8	6	5	2	4	2	7	6.75
1929	221	19	5	13	22	31	34	28	20	17	10	7	3	0	2	1	9	5.59

EARNING POWER OF CAPITAL

<i>E Real estate and finance</i>																	6.15	
1927-29	24	1			7	4	3	2	2	2	1							4.54
1927	20	1	1	3	2	5	3	1	2	1	1							2.64
1928	22	1			3	7	2	1	2	3	1		1	1				5.45
1929	23	1		2	5	5	2		4		1	1				1	1	4.89
<i>F Service</i>																	15.66	
1927-29	52	3	2	1	1	1	10	5	6	2	5	3	2		4	1	6	11.10
1927	50	3	1	2	2	7	1	8	2	1	8	4	1	2		3	5	10.74
1928	52	3	3	2	2	6	3	5	2	4	5	3	3	1	1	2	7	12.33
1929	52	5	3		1	4	3	4	7	6	1	2		1	6	2	7	11.11
<i>All companies</i>																	8.38	
1927-29	699	28	15	22	62	77	108	93	85	40	42	24	26	10	18	9	40	8.36
1927	670	31	11	29	51	86	88	92	68	47	41	25	24	16	14	9	38	8.21
1928	696	33	20	31	55	85	77	94	60	57	39	30	28	8	20	11	48	8.85
1929	694	53	18	29	59	76	85	71	73	55	45	25	16	15	18	9	47	8.01

SUBGROUPS

<i>A-1 Logging</i>																	6.54	
1927-29	8				3		1	1		1							1	8.74
1927	8		1		2	2				1				1	1			6.76
1928	8			1	2		1	1	1							2		8.14
1929	8				2		1	1	1		2						1	11.32

TABLE I (cont.)
EARNING RATE ON TOTAL CAPITAL
EARNINGS AFTER EXPENSES AND TAXES, BUT BEFORE INTEREST,
TO NET BOOK VALUE OF ASSETS
 (the percentage columns in each case include the first rate and exclude the second)

INDUSTRY AND PERIOD	NO. OF COS.	SUBGROUPS													AVERAGE ¹		
		-4 % ²	-2	0	2	4	6	8	10	12	14	16	18	20		22	24% AND ABOVE ¹
<i>A-2 Oil and gas extraction</i>																	8.55
1927-29	10				2	2	2					1		1		2	15.94
1927	10		1		1	1	1	1	1							4	23.27
1928	10				1	1	2	1	1		1					1	13.89
1929	10	2	1		1	1		1		1				1		2	10.66
<i>A-3 Mining and quarrying</i>																	2.72
1927-29	15		1	2	2	1	3	3	1		1					1	6.70
1927	15	3		2	4		2	2	1		1						1.86
1928	15	1		1	2	2	1	4	2			1				1	8.38
1929	14	1		1	2	1		2	2	2	2					1	10.10
<i>A-4 Miscellaneous extraction</i>																	(d) 7.53 ³
1927-29	4	1	1				1		1								1.65
1927	4		1			1	1	1									2.73
1928	4	1	1					1	1								1.91
1929	4	1	1			1			1								.81
<i>B-1 General building construction</i>																	8.97
1927-29	9		1			2		1	1	1	1					1	9.09
1927	9				2	2				1	1	1	1			1	11.15
1928	9	1	1				1	1		2		1				2	9.19
1929	8				2		2		2	2							6.67

<i>B-2 Special contracting</i>														15.30			
1927-29	14	2			2		1	2	3			1	2	1	12.76		
1927	14	1		1	1	1	3			1		2	1	2	10.21		
1928	14	1	1	1		1	1	2	1	1		1	1	1	18.21		
1929	14	2	1	1	1	1		2		1		2	1	1	9.85		
<i>C-1 Milling</i>														8.87			
1927-29	6	1				2			1					1	8.47		
1927	5						1		3					1	14.02		
1928	6	1	1					2				1		1	5.98		
1929	6	1			1			1	1			1	1		6.34		
<i>C-2 Ice cream and other dairy products</i>														9.77			
1927-29	13			1			3	1	1	2	2	1		1	11.63		
1927	12			1	1			3	1	1	2		1	1	11.17		
1928	13			1		1	3	1		1	1	2	1	1	11.59		
1929	13	1				1	2	1	2	2	1			1	12.09		
<i>C-3 Meat products</i>														5.92			
1927-29	6						2	3						1	9.24		
1927	6					2	1	1		1				1	10.18		
1928	6			1	1		2		2						4.90		
1929	6					1	1		1		2			1	12.64		
<i>C-4 Fruit and vegetable canning</i>														7.03			
1927-29	6			1		1		2		1		1			9.00		
1927	6					2		1	3						6.50		
1928	6			1				1	1	1	1			1	12.35		
1929	6		1					3		1		1			8.16		
<i>C-5 Miscellaneous food products</i>														10.70			
1927-29	23		1	2		3	2	1	2	1	2	1	1	2	1	4	14.90
1927	23	1		2	1	1	2	1	2	3	1		1	2		5	14.43
1928	23	2		1	1	2	2	2	2	2	2	1	1	2	1	4	15.47
1929	22	1		2			2	2	3	1	3	1	1	1		4	14.80

TABLE I (cont.)
EARNING RATE ON TOTAL CAPITAL
EARNINGS AFTER EXPENSES AND TAXES, BUT BEFORE INTEREST,
TO NET BOOK VALUE OF ASSETS
 (the percentage columns in each case include the first rate and exclude the second)

INDUSTRY AND PERIOD	NO. OF COS.	SUBGROUPS																AVERAGE ²
		-4% ¹	-2	0	2	4	6	8	10	12	14	16	18	20	22	24% AND ABOVE ¹		
<i>C-6 Cotton goods</i>																		5.86
1927-29	17	1		1	2	4		3	1	1	2	1			1			6.55
1927	17			1	1	3		3	2	1	1	1	1		1		1	8.85
1928	17	2		1	3	1	1	3	1	1	1	1	1		1			5.46
1929	17	2	1	3	1	1		1	2	1	3			2				5.32
<i>C-7 Silks and woollens</i>																		5.65
1927-29	14			3	1	3	1	2	2	1		1						4.84
1927	14			1	4	3	1	1	2			2						5.20
1928	14	1	1			2	4	2	3			1						4.88
1929	14	1	1	1	2	3		2	1	2		1						4.43
<i>C-8 Carpets, rugs, and other textiles</i>																		7.12
1927-29	8			1			1	3	1				1				1	9.45
1927	7			1				1	1	2	1			1				9.87
1928	8			1		1		3	1			1	1					7.99
1929	8					3	1	2					1				1	10.55
<i>C-9 Clothing and dry goods</i>																		10.04
1927-29	18					1	3	3	2	1	3	2	1		1	1		10.97
1927	17				1	1	2	1	4	2	1	2		1	1		1	12.06
1928	17		1			3		2	3	1	2	1	1		1	1	1	11.35
1929	18					1	4	1	4	3	3		1	1				9.58

CORPORATE PROFITS

<i>C-10 Tanning</i>											6.79			
1927-29	8			2	1	1	1	1	1			6.11		
1927	8			1	1	1	2	1	1		1	7.11		
1928	8		1	1	2	1			1		1	7.28		
1929	8	1		3		1		2	1			3.95		
<i>C-11 Shoes</i>											12.48			
1927-29	14			3	1	3	2		2		1	2	9.05	
1927	13			1	2	2	2		2	1		1	10.24	
1928	14		2	1	2	1	1	2	1		1	1	9.01	
1929	14		1	1	5	1	1		2	1		2	7.92	
<i>C-12 Lumber</i>											1.10			
1927-29	12		1	1	6	2	1					1	2.77	
1927	12	1	1	2	4		1	2		1			1.51	
1928	12		1		6	3	1						1	3.47
1929	12	1		1	5	1	2	1				1	3.32	
<i>C-13 Boxes and barrels</i>											7.69			
1927-29	8	1		1	1	2	2					1	4.73	
1927	8			1	1	4			1			1	4.74	
1928	8	1			3		2			1			1	6.36
1929	8	1		1	1	3	1						1	3.10
<i>C-14 Miscellaneous wood products</i>											2.67			
1927-29	14	4		1		2	4			1	1		1	3.52
1927	13	3			2	1	2	2	1		1		1	.42
1928	14	1	1	1		3	3		1	1	1	2		4.91
1929	14	3			2		3	2		1	1		2	4.97

TABLE I (cont.)
EARNING RATE ON TOTAL CAPITAL
EARNINGS AFTER EXPENSES AND TAXES, BUT BEFORE INTEREST,
TO NET BOOK VALUE OF ASSETS
 (the percentage columns in each case include the first rate and exclude the second)

		<i>SUBGROUPS</i>																
INDUSTRY AND PERIOD	NO. OF COS.	-4	-2	0	2	4	6	8	10	12	14	16	18	20	22	24	24%	AVERAGE ²
		BELOW -4% ¹	TO -2	TO 0	TO 2	TO 4	TO 6	TO 8	TO 10	TO 12	TO 14	TO 16	TO 18	TO 20	TO 22	TO 24	ABOVE ¹	
<i>C-15 Furniture, pianos, radios</i>																		6.25
1927-29	10	1	1		2		1	1	1			2						5.54
1927	9	2			1		2	1	1					2				4.09
1928	10	1	2	1	1			3						2				4.52
1929	10	1	1	1				3			1	1	1				1	7.87
<i>C-16 Paper boxes</i>																		8.96
1927-29	7					1	1	1	2	1	1							8.38
1927	7							3	1	1				2				10.58
1928	7	1			1			1		2	2							7.22
1929	7		1			1			4					1				7.34
<i>C-17 Paper</i>																		6.83
1927-29	11		2			2	1	3	1		2							5.81
1927	11		1		1	1		3	3		1			1				7.23
1928	11			1	1	1	2	3		2	1							6.34
1929	11	1	1		1	1	3	1	1		2							3.85
<i>C-18 Drugs and chemicals</i>																		11.38
1927-29	20			1	1	4	2	1	2			3		2	1		3	12.39
1927	19			2	1	1	4	1	1		1	1	2	2	1		2	12.34
1928	20				3	3	2		2	2		2	1				3	12.70
1929	20	1		1	2	2	3	1	1	1		1		2	2		3	12.13

CORPORATE PROFITS

<i>C-19 Cement and ceramic products</i>													<i>11.24</i>		
1927-29	17				2		3	3	3	1	1	2	2	9.91	
1927	17	1					3	3	1	4	3	1	1	9.42	
1928	17		1		1		3	4	2	1	1	1	1	10.32	
1929	17	1			2		4		4	1		1	1	1	9.98
<i>C-20 Heavy forgings, bars, billets, sheets, castings, etc.</i>													<i>7.92</i>		
1927-29	22	1			1	5	5	2	1	3	3		1	6.89	
1927	21	1	1	1	1	8	2	3			1	2	1	1	5.33
1928	22	1		1	1	5	2	1	2	2	3	2	1	8.12	
1929	22	1				5	2	4	2	4	2	1	1	7.15	
<i>C-21 Electrical machinery</i>													<i>10.71</i>		
1927-29	8	1					1		2	2	2			7.88	
1927	8	1					3	1	2		1			5.99	
1928	8			1			3	1	1		1		1	7.69	
1929	8	1			1				1	2	1		2	9.95	
<i>C-22 Agricultural, construction, and mining machinery</i>													<i>8.18</i>		
1927-29	10		1		1	2		1	2	1		1	1	9.36	
1927	10			1		1	2	2	2		1		1	10.04	
1928	10			1		1	2	2		1		1	1	9.85	
1929	10	1	1		1	1	1	1			3		1	8.19	
<i>C-23 Stoves and other heating apparatus</i>													<i>9.98</i>		
1927-29	9					1	3	1	1	2		1		10.07	
1927	9			1		1	1	3	1				1	8.40	
1928	9					3			3	1	1	1		10.23	
1929	9			1		1		1		3		2	1	11.59	
<i>C-24 Miscellaneous machinery and equipment</i>													<i>13.52</i>		
1927-29	16				1		3	1	2	1	2	1	1	1	14.59
1927	15				2	1	3	3	1		1	1	1	1	10.17

TABLE I (cont.)
EARNING RATE ON TOTAL CAPITAL
EARNINGS AFTER EXPENSES AND TAXES, BUT BEFORE INTEREST,
TO NET BOOK VALUE OF ASSETS
 (the percentage columns in each case include the first rate and exclude the second)

INDUSTRY AND PERIOD	NO. OF COS.	SUBGROUPS														AVERAGE ²			
		-4 TO -2%	-2 TO 0	0 TO 2	2 TO 4	4 TO 6	6 TO 8	8 TO 10	10 TO 12	12 TO 14	14 TO 16	16 TO 18	18 TO 20	20 TO 22	22 TO 24%				
<i>C-24 Miscellaneous machinery and equipment (cont.)</i>																			
1928	16	1		1	2		3	2	2					1		4	14.90		
1929	16					1	3	3	1	1	1			2	1	1	2	18.40	
<i>C-25 Hardware</i>																			
1927-29	12			1	1		1	1			1	2	1	2	1	1	1	14.19	
1927	11	1	1		1	1				1	2			1	2		1	12.17	
1928	12			1		1	2			1				2		2	2	16.16	
1929	12					2*	1	1		3				2		1	1	1	14.09
<i>C-26 Miscellaneous iron and steel specialties</i>																			
1927-29	17	1		1		3	2	3	2	1	1						3	8.93	
1927	16	2				2	2	1	3	3				1				2	8.45
1928	17	1	2	1		1	2	2	2	2	2							2	7.84
1929	17	2		1		5	1	1	2	1	1							3	10.46
<i>C-27 Unclassified</i>																			
1927-29	15			1	1	3	1	1	1	1	2	1	1				2	12.77	
1927	15			2	2	2	1	2						1		1	1	3	15.20
1928	15			1	2	2				2	2			1		2		3	15.10
1929	15	1		1	4	1	1			1	1	2	1					2	8.02

<i>D-1 Automobile sales and service; gas and oil—wholesale and retail</i>													9.80	
1927-29	12	1	1		1	3	4				1	1		7.08
1927	12	1			3	3	1	1	1		1		1	5.65
1928	12	1	1		1		1	1	3	1			2	8.68
1929	12	1		1			2	2	2	2	1		1	6.77
<i>D-2 Men's and women's clothing—retail</i>													5.92	
1927-29	9		1	1	1	2	1		1	1	1			4.21
1927	8			1	2		1	2	1		1			3.30
1928	9	1			1	1	2		1		1	1		5.07
1929	9	1			1	3	2		1		1			4.17
<i>D-3 Cotton and wool merchants</i>													3.73	
1927-29	7				2	1		2	1					8.59
1927	6						2	1		1		1		16.32
1928	7			1	3				1	1			1	5.74
1929	7	2			3						1			4.80
<i>D-4 Department stores</i>													8.86	
1927-29	20	1				3	5	2	3	1	2	1	1	7.98
1927	20	1				1	4	3	5	1	2	2		8.71
1928	20	1			1	5	2	4	1	2	1		2	7.36
1929	20	1		2	2	2	3	3		1	2	2		7.86
<i>D-5 Dry goods—wholesale</i>													7.58	
1927-29	10				2		1	4	2			1		6.69
1927	10				1	1	1	2	2		2	1		8.29
1928	10			2	1			4	1	1		1		6.73
1929	10	1			1	3		3	1			1		5.05
<i>D-6 Fuel, lumber, and building materials—retail</i>													9.21	
1927-29	15				1	3	3	2	3			3		7.83
1927	15			2	1	1	2	2	2	1	1	1	1	8.66

TABLE I (cont.)
EARNING RATE ON TOTAL CAPITAL
EARNINGS AFTER EXPENSES AND TAXES, BUT BEFORE INTEREST,
TO NET BOOK VALUE OF ASSETS
 (the percentage columns in each case include the first rate and exclude the second)

INDUSTRY AND PERIOD	NO. OF COS.	SUBGROUPS																AVERAGE ²
		-4 % ¹	-2 %	0	2	4	6	8	10	12	14	16	18	20	22	24 %	24% AND ABOVE ¹	
<i>D-6 Fuel, lumber, and building materials—retail (cont.)</i>																		
1928	15				2	3	3	2	2			1	1				1	9.55
1929	15	1			2	5	2		1	2	2							5.30
<i>D-7 Fuel, lumber, and building materials—wholesale</i>																		
1927-29	17	1		2	3	3	2	2	2	1		1						4.22
1927	16	1		2	3	4		1	1	3				1				4.40
1928	17	1	1	2	3	2	3	1	1	2					1			4.27
1929	17		1	2	3	2	2	3	3	1								4.03
<i>D-8 Fruit, vegetables, dairy products, grain, etc.</i>																		
1927-29	12	3	1		1	1	2	1	1	1							1	3.88
1927	12	2				2	4	1	1		1						1	4.71
1928	12	1	1		1	3		2	1		2			1				5.75
1929	12	4		1	2	1	1				2					1		1.18
<i>D-9 Furniture—retail</i>																		
1927-29	21				3	5	4	4	3			1					1	6.40
1927	18				1	4	2	6	3	1							1	7.17
1928	21	1		1	2	3	2	6	2	1	2						1	6.73
1929	21	1	1	2	2	3	6	1	1	1	1		1				1	5.42

<i>D-10 Groceries—wholesale</i>											6.81			
1927-29	11				5	2	2	1			1	8.30		
1927	11					3	5	1		1	1	10.01		
1928	11		1	1	4	2	1		1		1	8.58		
1929	11			2	4	2	1			1	1	6.52		
<i>D-11 Hardware—wholesale and retail</i>											6.20			
1927-29	15				2	7	4	1	1			5.98		
1927	15				1	6	2	5		1		6.78		
1928	15	1		1	1	4	6	1	1			5.34		
1929	15		1		1	6	3	3	1			5.82		
<i>D-12 Jewelry—wholesale and retail</i>											5.66			
1927-29	7	1			2	1	2	1				4.28		
1927	7			1	1	3	1				1	6.15		
1928	7	1			1	2	2	1				4.00		
1929	7	1		1	1	2		2				2.68		
<i>D-13 Paper and leather products—wholesale</i>											5.76			
1927-29	8		1		1	1	2	2	1			5.97		
1927	8				1	1	3	2		1		7.32		
1928	8			1		3	2		1	1		6.59		
1929	8	1	1			2	3		1			4.00		
<i>D-14 Auto supplies, electrical equipment, radios, sporting goods—wholesale and retail</i>											12.08			
1927-29	16	1		2	1	1	2	2	2	1	2	1	6.93	
1927	14	2		2	2	2	1	1			2	2	2.68	
1928	16	2		1	1	1	2	3	3		1		7.92	
1929	16	1	1		2		2	2	3			3	9.67	
<i>D-15 Unclassified</i>											8.18			
1927-29	42	2	1		7	6	3	5	11	3	1	2	1	6.23
1927	39	4		1	1	10	4	6	3	5	2	2	1	5.84

TABLE I (cont.)
EARNING RATE ON TOTAL CAPITAL
EARNINGS AFTER EXPENSES AND TAXES, BUT BEFORE INTEREST,
TO NET BOOK VALUE OF ASSETS

(the percentage columns in each case include the first rate and exclude the second)

INDUSTRY AND PERIOD	NO. OF COS.	SUBGROUPS																AVERAGE ¹	
		-4 % ¹ BELOW -2	-2 % ¹ TO	0 % ¹ TO	2 % ¹ TO	4 % ¹ TO	6 % ¹ TO	8 % ¹ TO	10 % ¹ TO	12 % ¹ TO	14 % ¹ TO	16 % ¹ TO	18 % ¹ TO	20 % ¹ TO	22 % ¹ TO	24 % ¹ TO AND ABOVE ¹			
<i>D-15 Unclassified (cont.)</i>																			
1928	42	2	1	1	5	6	5	4	6	5	3	2					2	6.87	
1929	41	4	1	1	4	6	2	7	4	5	2	2	1				2	5.74	
<i>E-1 Real estate operators</i>																			
1927-29	20	1			6	3	3	2	1	1	1		2					4.34	
1927	17	1	1	3	2	3	3	1	1	1	1							2.19	
1928	18	1			2	6	2	1	1	2	1		1	1				5.37	
1929	19	1		1	5	4	2		2		1	1				1	1	4.76	
<i>E-2 Finance companies</i>																			
1927-29	4				1	1			1	1								5.50	
1927	3					2			1									4.90	
1928	4				1	1			1	1								5.88	
1929	4			1		1			2									5.56	
<i>F-1 Advertising</i>																			
1927-29	6		1						1				1			1		2	19.78
1927	5					1						1					1	2	21.97
1928	6		1			1						1	1					2	19.99
1929	6		1													3	1	1	17.75

<i>F-2 Laundry and dry cleaning</i>													5.02
1927-29	10	1				1	1		1	1	1	2	15.68
1927	10		1		1		2		1		2	2	15.20
1928	10	1			1		1		1	1		2	15.43
1929	10	1				1	1	1	1		1	1	16.40
<i>F-3 Printing, publishing, lithographing, engraving, etc.</i>													20.14
1927-29	21	2	1		1	1	4	2	3		2	2	7.44
1927	21	3			2	3		6	1	1	2	2	5.22
1928	21	2	2	1	1	1	1	3	1	2	1	1	8.85
1929	21	2	1			2	2	2	3	3	1	1	8.26
<i>F-4 Miscellaneous, including hotels, restaurants, warehouses, etc.</i>													10.45
1927-29	15			1			5	2	2	1	2	1	9.86
1927	14			2		2	1		1		5	1	10.99
1928	15			1	1	3	2	1	1	1	2	1	10.68
1929	15	2	1		1	2		1	3	2		1	7.52

¹ Earning rates in the open-end classes are given in Appendix B.

² The figures in italics are based on aggregates for the three years.

³ Negative values are indicated by (d).

ranging from negative 4 per cent to positive 24 per cent, and in the two extreme groups. Next a simple average of ratios determined for each company for each year was calculated by main divisions and subgroups of companies, and a simple average of three-year averages of individual companies was similarly determined; the results of these computations are presented in the 'average' column.

It is believed that in general for this study simple averages are more significant than weighted averages. The companies covered vary considerably in size, but whether size as such modifies, to any substantial degree, the significance of the record of any concern in a description of the earning power of the group is doubtful.

COMPUTATION OF AGGREGATE RATES

Notwithstanding the preference given simple averages, in which each individual company or report has the same weight, it has been deemed desirable for purposes of comparison to compute aggregate or weighted averages of earning rates by main groups of companies and by subgroups for the three-year period. These ratios, presented as the last item in each group of Table I, are determined by dividing the total net income (as here defined) by the total net assets of each group as a whole, combining all years available. In this calculation, it is evident, more weight is given to a company appearing in each of the three years than to a company of like size appearing in only one or in two years.

High aggregate rates, as compared with average rates, mean, of course, that in general the larger companies have higher earning rates than the smaller. Similarly, low aggregate rates as compared with average rates, indicate a relatively unfavorable showing for the larger companies.

SPECIAL TECHNICAL PROBLEMS

A few special complications were involved in the preparation of Table I. First, income taxes, which are excluded from net income in computing these ratios, are not an operating expense from a strictly managerial standpoint. They do, however, represent a deduction from the point of view of the private capital invested. Further, exclusion of income taxes does not greatly affect the relative showing of earnings in view of the fact that the tax on corporate incomes during the years covered has been a flat rate on the income otherwise available for stockholders, disregarding the question of exemptions and certain other technicalities not important in this connection.⁵ Second, the inclusion of current liabilities in the capital base might be questioned. To the extent that they bear interest explicitly, and this interest is treated as a part of net income, their inclusion in capital is clearly justified. On the other hand, such liabilities as open book accounts seldom draw interest as such (although implicit interest charges thereon are undoubtedly buried in expense as part of the cost of materials and services), and ideally their amount should be deducted from net assets in calculating earning rates. This adjustment was impossible here, since bank loans and other current interest-bearing obligations were not segregated in the data available. In general the result is a slight lowering of the level of earning rates all along the line, and in addition some minor irregularities are doubtless brought about by the procedure adopted, owing to the variation in the percentage of total net assets represented by the non-interest-

⁵In particular instances, it is true, a change in the treatment of income taxes would have an appreciable effect on relative earning power. For example, a company with large interest charges (which are deductible for income-tax purposes) pays a smaller percentage of its net operating income in taxes than a similar company with relatively small interest charges.

bearing liabilities. Third, 'non-operating and special income' (Appendix A, heading 4 under Income-Sheet Statistics) is included in income in the computation of the earning rates, although these items originate outside the regular activities of the business. This treatment is required since the assets giving rise to such special earnings are not clearly segregated in the data available and hence must be represented in the capital base employed.

No adjustment has been attempted for any bias resulting from the comparison of net assets at the end of the year with earnings for the year. Since annual earnings are derived from the use of the assets throughout the year the denominator of the fraction representing earning power should logically be some average of assets available during the year. To a considerable extent, dividend disbursements through the course of the year offset the effect of earnings on assets during the year. Careful study has made it clear that any arbitrary adjustment would be inexpedient. The point is serious only in the case of a relatively small number of companies, and the procedure followed does not disturb results appreciably in main or subgroups.

DIFFERENCES IN EARNING RATES—MAIN GROUPS

Table I indicates that for all companies the three-year average earning rate is about 8.4 per cent; the rate ranges from 8.01 per cent in 1929, the poorest year, to 8.85 per cent in 1928, the best of the three years covered. The variation between years, evidently, is not very marked. For the three-year period the simple average and aggregate (weighted-average) rates are almost identical. With respect to the main divisions it is noticeable that manufacturing shows a decidedly higher rate than trading. The aggregate rate for manufacturing is slightly lower than the simple average for the three-year period, indi-

cating a somewhat more favorable showing for the smaller companies in this division; in the trading group the reverse condition obtains. In neither of these groups, however, is the difference between average and aggregate rates very marked. Real estate and finance is a low earning group, particularly when measured by the simple average, while construction and service show high rates. The extraction group shows a relatively high simple average earning power but a low weighted average, indicating a low earning power for the larger companies in the group. It should be remembered that the samples in fields other than manufacturing and trading are very small.

DIFFERENCES IN EARNING RATES—SUBGROUPS

In the subgroups there is naturally a wide variation from group to group and, in some cases, from year to year. Subgroups in the manufacturing division showing a simple average return of 9 per cent or more for the three-year period include ice cream and other dairy products, meat products, miscellaneous food products, clothing and dry goods, shoes, drugs and chemicals, cement and ceramic products, stoves and other heating apparatus, miscellaneous machinery and equipment, and hardware. It is noticeable that most of these fields produce consumers' goods. Subgroups under manufacturing showing an average return of less than 8 per cent for the three-year period include cotton goods, silks and woolens, tanning, lumber, boxes and barrels, miscellaneous wood products, furniture, pianos, radios, paper, and heavy forgings, bars, billets, sheets, castings, etc.—in large part lines engaged in fabricating producers' goods. Subgroups under trading making a relatively favorable showing include automobile sales and service; gas and oil—wholesale and retail, department stores, cotton and wool merchants, groceries—

wholesale, and fuel, lumber, and building materials—retail. Subgroups under trading showing an average return for the three years of substantially less than 6 per cent are men's and women's clothing—retail, fuel, lumber, and building materials—wholesale, fruit, vegetables, dairy products, grain, etc., and jewelry—wholesale and retail.

The tabulation reveals a considerable degree of consistency between the three-year average and aggregate ratios among the subgroups in the manufacturing and trading classifications. In the manufacturing division only twelve subgroups out of twenty-eight show a higher aggregate than average earning rate, and in several of these groups the difference is slight. In fact, only in shoes, boxes and barrels, and electrical machinery do the data indicate a decidedly better showing for the larger companies represented. Of the manufacturing subgroups in which the simple average rate exceeds the aggregate rate—indicating an advantage for the smaller companies—the most noticeable are ice cream and other dairy products, meat products, fruit and vegetable canning, miscellaneous food products, and carpets, rugs, and other textiles. In the trading classification the aggregate rates for the three-year period are higher than the corresponding simple averages for all but five groups—cotton and wool merchants, fuel, lumber, and building materials—wholesale, fruit, vegetables, dairy products, grain, etc., groceries—wholesale, and paper and leather products—wholesale—showing the advantage to lie with the larger companies, although the difference is striking in only three or four groups.

In the classes outside the manufacturing and trading fields there are several striking differences between average and aggregate rates. For example, the subgroup laundry and dry cleaning under service shows a simple average rate for the three years of 15.68 per cent and an aggregate rate of only 5.02 per cent. On the other hand, the printing, publishing,

lithographing, engraving, etc. subgroup shows an aggregate rate of 20.14 per cent and an average rate of only 7.44 per cent.

Very likely variations in rates between subgroups, and between average and aggregate rates within subgroups, as they appear in Table I, are in many instances due to the nature of the samples and are not characteristic of the field as a whole.

Among many subgroups the average rates as tabulated show considerable fluctuation between years. Examples of this condition under manufacturing are found in milling, and in fruit and vegetable canning. On the other hand, the subgroups ice cream and other dairy products, miscellaneous food products, drugs and chemicals, for example, show marked consistency between years. Examples of groups under trading showing marked fluctuation include cotton and wool merchants, and fruit, vegetables, dairy products, grain, etc. The reader should be cautioned not to take too seriously variations between years in the subgroups. In some cases the data disclosed are no doubt indicative of conditions in the field; in others the peculiar showing of two or three companies may seriously distort the picture. In view of the short period it is not surprising that in general clear-cut trends are not apparent.

DISTRIBUTION OF EARNING RATES

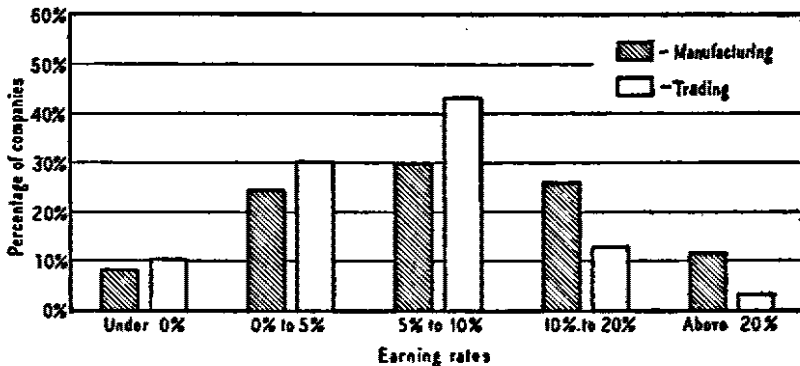
The lack of decided concentration in any particular rate group is noticeable; a considerable percentage of concerns is found in each. However, taking all companies into consideration a central tendency is found in the 2 to 10 per cent range. Thus in the three-year average for all companies, 363 concerns, over half of the total, fall in the four groups ranging from 2 to 10 per cent. Figure 1 shows graphically

CORPORATE PROFITS

the distribution of the three-year average earning rates, as listed in Table I, for all companies.

The trading companies, among the main divisions, show a greater degree of concentration than the manufacturing group. In the case of the three-year average 143 companies, nearly 65 per cent out of a total of 222, fall in the range 2 to 10 per cent, against only 159 out of 341 companies, less than 47 per cent, in the manufacturing division (see Figure 2, by broad groups of earning rates).

Figure 1
COMPARISON OF DISTRIBUTION OF EARNING RATES¹
OF MANUFACTURING AND TRADING GROUPS



¹Computed in connection with Table I

The distribution of main groups varies somewhat between years. In the trading division, for example, only 113 companies of the total 221, less than 52 per cent, fall in the 2 to 10 per cent range for 1929, as compared with 132 companies of the total 211, or about 63 per cent in 1927. The variation in the distribution of manufacturing earning rates between years is less marked. As in the case of trading companies as a whole compared with the manufacturing division, the trading subgroups in general show less dispersion than the manufacturing subgroups.

III EARNING POWER FROM STANDPOINT OF STOCKHOLDERS

A SECOND important measure of earning power is the rate of profit realized to the total investment or equity of the stockholder. The profit rate is of course dependent upon the form of capitalization as well as upon the degree of operating success, and hence is in general less satisfactory than earning power in terms of all capital as a means of making comparisons between companies and periods. At the same time the rates realized on stock equities are the most common measure employed in financial circles to express corporate attainment, and in the case of compilations based on income-tax returns or conventional types of financial report such rates are the convenient and usual mode of representing earnings.

DESCRIPTION OF TABLE II

Table II is a compilation showing earning rates for the companies studied from the standpoint of the stockholders. By 'net income available for dividends' is meant the amount of current earnings as shown by the books, including ancillary income, less the sum of expenses, taxes, and interest, regardless of the status of the surplus (or deficit) account, and regardless of the feasibility of actually paying the amount in

TABLE II
EARNING RATE ON PROPRIETARY CAPITAL
NET INCOME AVAILABLE FOR DIVIDENDS TO
TOTAL STOCKHOLDERS' EQUITY

(the percentage columns in each case include the first rate and exclude the second)

		MAIN GROUPS															AVERAGE ¹	
INDUSTRY AND PERIOD	NO. OF COS.	-4 BELOW -4%	-2 TO -2	0 TO 0	2 TO 2	4 TO 4	6 TO 6	8 TO 8	10 TO 10	12 TO 12	14 TO 14	16 TO 16	18 TO 18	20 TO 20	22 TO 22	24 TO 24		24% AND ABOVE ¹
<i>A Extraction</i>																		5.54
1927-29	37	3	2	4	3	3	5	5	3	1			2	1			5	9.29
1927	37	7	1	2	6	3	2	4	4	1			1	1	1		4	8.44
1928	37	5	1	2	3	3	4	4	5		1	1		1	1	3	3	9.23
1929	36	6	1	3	3	2	1	3	3	4	3	1	1				5	10.16
<i>B Construction</i>																		16.93
1927-29	21	2	1		1	1	2	1	1	4		2		1		1	4	8.51
1927	21	1	1		4		2		2	1	2		1	1			6	11.85
1928	21	4			1	1	1	2	1		1	3	1	1			5	7.81
1929	20	3	1		2	2	2	1	1		1	2				2	3	5.74
<i>C Manufacturing</i>																		9.57
1927-29	341	20	6	16	19	27	43	36	28	18	24	19	17	11	12	8	37	10.01
1927	329	23	7	16	21	26	29	34	30	23	24	17	17	13	7	6	36	9.96
1928	340	29	11	10	24	28	31	30	25	21	19	27	11	17	7	10	40	10.42
1929	340	28	6	13	24	27	32	22	35	30	21	15	16	7	14	11	39	9.65

<i>D Trading</i>																	7.95	
1927-29	220	22	4	8	20	18	31	25	27	20	11	4	6	3	6	1	14	6.72
1927	209	16	3	7	16	16	21	25	32	18	13	10	7	2	4	1	18	8.35
1928	220	26	7	5	17	21	25	17	25	21	14	10	8	4	2	1	17	6.96
1929	219	34	6	8	23	21	22	20	21	13	16	7	7	2	1	3	15	4.94
<i>E Real estate and finance</i>																	9.99	
1927-29	21	3	2	1	3	2	4			2	1			1			2	6.32
1927	17	3		2	3	1	1	2	1	1		1					2	3.61
1928	19	2		1	3	4	1	1		3					1		3	10.63
1929	20	5		2		3	1	1	1	1		2		2	1		1	4.53
<i>F Service</i>																	19.05	
1927-29	52	5	1		1	2	6	3	4	6	4	1	2	1	2	1	13	14.94
1927	50	4	1	2	3	4		2	5	3	2	5	2	1	1	4	11	14.54
1928	52	7	1	1	2	3	4	3	2	1	6	2	2	2	4		12	15.00
1929	51	7			1	2	3	3	5	5	4	1	1		1	3	15	15.28
<i>All companies</i>																	9.64	
1927-29	692	55	16	29	47	53	91	70	63	51	40	26	27	18	20	11	75	9.15
1927	663	54	13	29	53	50	55	67	74	47	41	33	28	18	13	11	77	9.61
1928	689	73	20	19	49	60	66	56	59	47	40	41	24	25	16	14	80	9.52
1929	686	83	14	26	53	57	61	50	66	53	45	28	25	11	17	19	78	8.33
<i>SUBGROUPS</i>																		
<i>A-1 Logging</i>																	6.57	
1927-29	8	1		1	1		1	1		1				1			1	6.75
1927	8	1		1	2	1				1			1		1			2.88
1928	8	1	1		1		1		2							2		4.76
1929	8			1	1		1		2		1	1					1	12.62

TABLE II (cont.)
EARNING RATE ON PROPRIETARY CAPITAL
NET INCOME AVAILABLE FOR DIVIDENDS TO
TOTAL STOCKHOLDERS' EQUITY

(the percentage columns in each case include the first rate and exclude the second)

INDUSTRY AND PERIOD	NO. OF COS.	SUBGROUPS														AVERAGE ¹			
		BELOW -4% ¹	-4 TO -2	-2 TO 0	0 TO 2	2 TO 4	4 TO 6	6 TO 8	8 TO 10	10 TO 12	12 TO 14	14 TO 16	16 TO 18	18 TO 20	20 TO 22		22 TO 24	24% AND ABOVE ¹	
<i>A-2 Oil and gas extraction</i>																	9.05		
1927-29	10		1		2	1	2					1					3	18.84	
1927	10	1			1	1	1	2										4	28.12
1928	10		1		2	2					1			1	1		2	16.46	
1929	10	3		1	1		1		1								3	11.94	
<i>A-3 Mining and quarrying</i>																	.81		
1927-29	15		2	2	2	1	2	2	2			1					1	6.65	
1927	15	4	1	1	3	1		2	2					1				.05	
1928	15	2		1	2	1	1	3	2		1			1			1	9.25	
1929	14	1	1	2	1			2	1	3	1		1				1	10.94	
<i>A-4 Miscellaneous extraction</i>																	(d)4.85 ⁸		
1927-29	4	2					1		1									.02	
1927	4	1		1			1	1										1.71	
1928	4	2						1	1									.05	
1929	4	2				1				1								(d)1.69	
<i>B-1 General building construction</i>																	14.74		
1927-29	9	1			1				3		1					1	2	10.11	
1927	9		1		2				1	1		1	1				2	14.57	

1928	9	2				1					3	1		2	2.50
1929	8			1	1	2			1	1				2	13.64
<i>B-2 Special contracting</i>															
1927-29	12	1	1		1		2	1	1	1		1		2	7.36
1927	12	1			2		2		2		1			4	9.80
1928	12	2			1		1	2	1		1		1	3	11.80
1929	12	3	1		1	1		1	1		1		2	1	-47
<i>C-1 Milling</i>															
1927-29	6	1			1	1				1	1			1	6.35
1927	5				1				2		1			1	15.45
1928	6	2						1	1		1			1	2.83
1929	6	1		1		1				1	1		1		2.29
<i>C-2 Ice cream and other dairy products</i>															
1927-29	13	1				1	2		1	3	1	2		2	15.13
1927	12			1	1			2	1		2	2	1	2	19.34
1928	13	1			1	2	1			1	3		1	1	13.34
1929	13	1		1		1	1	1	2	1	1	1	1	2	12.72
<i>C-3 Meat products</i>															
1927-29	6					1	2	2						1	9.53
1927	6			1	1	1		1						1	10.19
1928	6			1	1		1	1		1					5.68
1929	6					1	1		1	2				1	12.71
<i>C-4 Fruit and vegetable canning</i>															
1927-29	6				1		1		2		1			1	9.06
1927	6					2		1	3						6.34
1928	6			1				1	1	1	1			1	12.66
1929	6			1				2	1	1				1	8.17

TABLE II (cont.)
EARNING RATE ON PROPRIETARY CAPITAL
NET INCOME AVAILABLE FOR DIVIDENDS TO
TOTAL STOCKHOLDERS' EQUITY

(the percentage columns in each case include the first rate and exclude the second)

INDUSTRY AND PERIOD	NO. OF COS.	SUBGROUPS														24% AND ABOVE ¹	AVERAGE ¹	
		-4 TO -4%	-2 TO -2	0 TO 0	2 TO 2	4 TO 4	6 TO 6	8 TO 8	10 TO 10	12 TO 12	14 TO 14	16 TO 16	18 TO 18	20 TO 20	22 TO 22			
<i>C-5 Miscellaneous food products</i>																		
1927-29	23	1	2			5	1	1	1	2					2	1	7	12.11
1927	23	2	1	1	1			2	2	2	1	2			2		7	17.31
1928	23	3			1	2	2	1	1	2	1		2				8	16.97
1929	22	1	2			1	2	3	2	1		1				2	7	20.00
<i>C-6 Cotton goods</i>																		
1927-29	17	1	1	1	3	2		1	1	2	2	1	1				1	7.06
1927	17			2	2	2	1	1	4		1	1					2	9.51
1928	17	2	1	1	3			3	1		1	2	1	1			1	6.20
1929	17	3	2	3			1		1	2	1		2				2	5.48
<i>C-7 Silks and woolsens</i>																		
1927-29	14		2	1	2	1	1	4	1		1	1						4.97
1927	14			2	4	1	1	2	2					1	1			5.58
1928	14	2				2	3	2	2	1	1	1						4.93
1929	14	1	1	1	1	3	1	1	3	1		1						4.40
<i>C-8 Carpets, rugs, and other textiles</i>																		
1927-29	8				1		1	3							2		1	11.26
1927	7	1							2	1	1					1	1	12.47
1928	8	1				1		2	1			2				1		9.18

TABLE II (cont.)
EARNING RATE ON PROPRIETARY CAPITAL
NET INCOME AVAILABLE FOR DIVIDENDS TO
TOTAL STOCKHOLDERS' EQUITY

(the percentage columns in each case include the first rate and exclude the second)

INDUSTRY AND PERIOD	NO. OF COS.	SUBGROUPS															AVERAGE ¹	
		BELOW -4% ¹	-4 TO -2	0	2	4	6	8	10	12	14	16	18	20	22	24% AND ABOVE ¹		
<i>C-14 Miscellaneous wood products</i>																	.82	
1927-29	14	5			1	1	2	2				1		2			(d) .34	
1927	13	4		1	1	2	1	2					1				(d) 6.04	
1928	14	3		1	1	4			2	1	1	1					4.10	
1929	14	3		1	2	2	2								2	2	.52	
<i>C-15 Furniture, pianos, radios</i>																	7.26	
1927-29	10	2		1	1			1	2	1			2				4.93	
1927	9	2		1			2	1		1			2				3.28	
1928	10	2	1	2				2	1				1		1		3.95	
1929	10	2	1						2	1		1	2				7.40	
<i>C-16 Paper boxes</i>																	9.63	
1927-29	7				1	2		1	1	1							1	10.17
1927	7					1	1	2						2				13.53
1928	7	1			1			1		1	1	1						6.59
1929	7		1			1			3		1							10.40
<i>C-17 Paper</i>																	7.57	
1927-29	11	2			1	1	2	2		2			1					5.39
1927	11	1			1			3	1	1	2	1				1		8.49

1928	11	1		2		1	3	1	1	1		1					5.78	
1929	11	2			1	3		3		1		1					1.89	
<i>C-18 Drugs and chemicals</i>																		
1927-29	20		1	1	1	2	3	1	1	1		1	1	1	1	1	13.57	
1927	19		1	2		2	2	2	1		1	1		1	1	2	13.33	
1928	20		1	1	1	3	2		2	2			1	2	1	4	13.87	
1929	20	1			2	3	2	1	1	2			2	1	1	4	13.51	
<i>C-19 Cement and ceramic products</i>																		
1927-29	17				2	1	1	3	3	2		1	1			1	2	11.66
1927	17	1					3	3	1	1	3	1	2	1			1	11.09
1928	17	1			1		2	3	3	2	1			1		1	2	11.94
1929	17	1		1	2		3		3	2		1	1				3	11.97
<i>C-20 Heavy forgings, bars, billets, sheets, castings, etc.</i>																		
1927-29	22	1			2	4	4	2	2		1	4	1				1	7.46
1927	21	2	1	1	1	6	2	3	1			2	1				1	5.44
1928	22	1		1	2	4	2	1	2	1		4	1	1		1	1	9.43
1929	22	1		1	1	3	2	3	2	3	2	2		1	1			7.45
<i>C-21 Electrical machinery</i>																		
1927-29	8	1					1		1	1	3		1					7.85
1927	8	1					2	2		1		1	1					6.27
1928	8	1					3		1		1	1		1				8.35
1929	8	1					1		1		1	1			3			8.93
<i>C-22 Agricultural, construction, and mining machinery</i>																		
1927-29	10	1				1	2			2		2		1			1	10.32
1927	10		1				1		2	1	3		1				1	11.33
1928	10		1			2	1		2	1			1		1	1	1	10.70
1929	10	2			1			2		1		1	1	1		1	1	8.92

TABLE II (cont.)
EARNING RATE ON PROPRIETARY CAPITAL
NET INCOME AVAILABLE FOR DIVIDENDS TO
TOTAL STOCKHOLDERS' EQUITY

(the percentage columns in each case include the first rate and exclude the second)

INDUSTRY AND PERIOD	NO. OF COS.	SUBGROUPS													AVERAGE ³		
		BELOW -4% ¹	-4 TO -2	0	2	4	6	8	10	12	14	16	18	20		22	24% AND ABOVE ¹
<i>C-23 Stoves and other heating apparatus</i>																	
1927-29	9					1	3	1	1		2					1	11.16
1927	9	1			1	1	1	3		1						1	11.18
1928	9				1	1	1		2	1	1		2				9.24
1929	9		1	1				1		3				1		1	11.45
<i>C-24 Miscellaneous machinery and equipment</i>																	
1927-29	16		1		1	1	2	2	1		2		1	1	1	3	15.72
1927	15				4	1		3		2	1	1	1		1		15.64
1928	16	1			2	1			2	2	1	2		1		4	12.24
1929	16					1	1	2	3	1	1	1		1	2	3	16.79
<i>C-25 Hardware</i>																	
1927-29	12	1			1		1	1				1	2	2	2	1	20.26
1927	11	2			1	1						2	2		2	1	15.35
1928	12	1				1	1	1				3			4	1	12.39
1929	12					1		2		1	2	1	1	1	1	2	16.96
<i>C-26 Miscellaneous iron and steel specialties</i>																	
1927-29	17	1			1	4	1	2	2	1	1					1	8.94
1927	16	2				2	1		5	2		1				3	9.96

1928	17	3	1		1		2	2	1	1	2	1	1		2	8.63	
1929	17	2		1	1	3	2		2	1		1		1	3	11.68	
<i>C-27 Unclassified</i>																	
1927-29	15			1	1	1	1	2		1	1		2	2	3	16.02	
1927	15		1		2	1	2	1		1	1			1	4	17.96	
1928	15			1	2		2			2			1		5	20.32	
1929	15	1			3	2		1		1	1	1	1	2	1	9.76	
<i>D-1 Automobile sales and service; gas and oil—wholesale and retail</i>																	
1927-29	11	1			1	1	1	4	1						2	10.09	
1927	11	1	1	1	2	1	1			1		1			2	7.64	
1928	11	1		1				4	1	1					3	11.77	
1929	11	1					1	1	2	3	1			1	1	10.86	
<i>D-2 Men's and women's clothing—retail</i>																	
1927-29	9	1	1		1	1	2			1		2				4.75	
1927	8	2		1				2	2		1					4.10	
1928	9	2		1	1	1	1					3				5.39	
1929	9	1		1	2	1	1	1			1	1				4.70	
<i>D-3 Cotton and wool merchants</i>																	
1927-29	7	2		1	1		2							1		2.23	
1927	6						1		1	1					3	24.74	
1928	7	4	1				1					1				(d)3.87	
1929	7	5						1							1	(d)10.98	
<i>D-4 Department stores</i>																	
1927-29	20	1			3	1	5	2	1	2		2		1	1	1	9.63
1927	20	1			1	2	2	5	2	2		2	1	1	1	1	10.63
1928	20	2			4	3	1	3	1	1	2	1		1	1	1	8.12
1929	20	1		3	3	2	2	1		2	1	3			2	2	10.12

TABLE II (cont.)
EARNING RATE ON PROPRIETARY CAPITAL
NET INCOME AVAILABLE FOR DIVIDENDS TO
TOTAL STOCKHOLDERS' EQUITY

(the percentage columns in each case include the first rate and exclude the second)

INDUSTRY AND PERIOD	NO. OF COS.	SUBGROUPS												24% AND AVERAGE ¹			
		-4 % ¹	-2 %	0	2	4	6	8	10	12	14	16	18		20	22	24 ABOVE ¹
<i>D-5 Dry goods—wholesale</i>																	
1927-29	10	1		1	1		5	1								1	8.68
1927	10		1		1	1	2	2		1	1					1	8.42
1928	10		1	1	1			3	1	1	1					1	10.52
1929	10	1			2	1	1	2	1	1						1	8.70
																	6.06
<i>D-6 Fuel, lumber, and building materials—retail</i>																	
1927-29	15			3	1	3	1	2	2					1	1	1	10.22
1927	15	1		1	2			2	3	1	1	1				3	9.25
1928	15		1		1		1	4	2	2	1			1		2	11.20
1929	15	2			2	4	2			1	4						11.59
																	4.96
<i>D-7 Fuel, lumber, and building materials—wholesale</i>																	
1927-29	17	3		1	2	2	3	1		2	2			1			2.76
1927	16	2	1	2	1	4			1		2	2			1		1.86
1928	17	3	2		2	1	5			1	1	1				1	1.98
1929	17	3			4	1	1	3	1	1	1	1	1				1.17
																	2.43
<i>D-8 Fruit, vegetables, dairy products, grain, etc.</i>																	
1927-29	12	3	2		1	1	1	1			1					2	(d)26.00
1927	12	2			2	1	1	1	2	1	1					1	.51
																	.34

CORPORATE PROFITS

1928	12	2		2	1	1		3		1	1	1	6.87
1929	12	4	1	2	2						1	1	(d)5.67
<i>D-9 Furniture—retail</i>													23.31
1927-29	21			1	5	3	2	5	2	1	1	1	7.51
1927	18			1	3	2		1	5	3		2	7.83
1928	21	1		1	3	2	2	2	2	3	2	2	8.70
1929	21	3	2	1	2	3	4	1	1	1	1	1	4.93
<i>D-10 Groceries—wholesale</i>													7.26
1927-29	11			1	3	4	1		1			1	8.80
1927	11				1	3	3	1	1			1	10.85
1928	11		2	1	3	3			1			1	8.69
1929	11		1	1	2	2	3				1	1	6.86
<i>D-11 Hardware—wholesale and retail</i>													6.63
1927-29	15				1	8	3	1	2				6.33
1927	15				1	6	3	3	1		1		7.23
1928	15	1		1	1	4	5	1	1	1			5.70
1929	15		1	1		5	3	4		1			6.07
<i>D-12 Jewelry—wholesale and retail</i>													8.16
1927-29	7	2				2		2		1			1.58
1927	7			2		1	2	2					5.44
1928	7	2			1		1	2	1				.94
1929	7	2		1			1	2			1		(d)1.63
<i>D-13 Paper and leather products—wholesale</i>													6.80
1927-29	8		1		1		2	1	2	1			7.37
1927	8				1		2	1	1		2	1	10.26
1928	8			1		1	2	2		1	1		7.96
1929	8	2				1	1	2	2				3.89

TABLE II (cont.)
EARNING RATE ON PROPRIETARY CAPITAL
NET INCOME AVAILABLE FOR DIVIDENDS TO
TOTAL STOCKHOLDERS' EQUITY

(the percentage columns in each case include the first rate and exclude the second)

INDUSTRY AND PERIOD	NO. OF COS.	SUBGROUPS														AVERAGE ²		
		-4 TO -4% ¹	-2 TO -2	0 TO 0	2 TO 2	4 TO 4	6 TO 6	8 TO 8	10 TO 10	12 TO 12	14 TO 14	16 TO 16	18 TO 18	20 TO 20	22 TO 22		24 TO 24	24% AND ABOVE ¹
<i>D-14 Auto supplies, electrical equipment, radios, sporting goods—wholesale and retail</i>																	15.01	
1927-29	15	3			1	1		2	2				3		1		2	7.55
1927	13	1	1		1	2	1	1		1	1				1		3	9.35
1928	15	3			1	1	2			2	1	1	1	1			2	5.37
1929	15	3			1			3	2	1	1		1			1	2	8.17
<i>D-15 Unclassified</i>																	10.51	
1927-29	42	5		5	3	1	1	3	6	7	3	1	1	1	2		3	7.68
1927	39	6			3	2	4	5	4	5	3	1	1	1	1	1	2	8.29
1928	42	5		1	3	6	1	2	3	7	4	2	2	1		1	4	8.10
1929	41	6	1	2	4	4	1	2	4	3	6	2		1			5	6.68
<i>E-1 Real estate operators</i>																	10.09	
1927-29	17	3	2	1	2	1	4			1					1		2	6.30
1927	14	3		2	2		1	2	1			1					2	3.37
1928	15	2		1	2	3	1	1		1					1		3	11.86
1929	16	5		1		2	1	1	1			2		1	1		1	3.66
<i>E-2 Finance companies</i>																	8.88	
1927-29	4				1	1				1	1							6.39
1927	3				1	1				1								4.71

CORPORATE PROFITS

1928	4			1	1			2									6.01	
1929	4		1		1			1			1						8.02	
<i>F-1 Advertising</i>																		
1927-29	6	1								1						4	31.94	
1927	5				1								1			5	36.34	
1928	6	1			1						1					8	33.95	
1929	6	1														5	26.26	
<i>F-2 Laundry and dry cleaning</i>																		
1927-29	10	1				1	1		1	1					1	4	18.70	
1927	10		1			1		1	1						1	5	19.39	
1928	10	1				1		1		1	1		1	1		3	18.01	
1929	10	1				1		1	1	1	1				1	4	18.70	
<i>F-3 Printing, publishing, lithographing, engraving, etc.</i>																		
1927-29	21	3			1	2	1	1	2	3	2	1	2			3	10.03	
1927	21	3			1	2			1	4	2	1	2	2	1	1	1	8.41
1928	21	5			1	1			1	1	2		3	2		3	9.00	
1929	20	2				1	1	2	2	3	3	1	1			1	3	12.82
<i>F-4 Miscellaneous, including hotels, restaurants, warehouses, etc.</i>																		
1927-29	15		1				4	1	2	2	1			1	1	1	1	12.72
1927	14	1		1	1	2				1	1	3		1		1	2	12.47
1928	15		1		1	1	3	1		1	2	1		1			3	13.79
1929	15	3			1	1	1	1	2	1				1	1	3	11.87	

¹ Earning rates in the open-end classes are given in Appendix B.

² The figures in italics are based on aggregates for the three years.

³ Negative values are indicated by (d).

cash to the stockholders. In other words, the income figure is net proprietary income as shown by the books after the deduction of income taxes, the amount *legally* available for dividends, ignoring the possibility of the existence of an unabsorbed deficit. Stockholders' equity is the book value of capital stock plus surplus or capital stock less deficit. All special surpluses arising from revaluation or otherwise (of which there are several examples) are included, but valuation reserves such as accrued depreciation are excluded. These ratios differ from the earning ratios in Table I in that the numerator for each company is the same, less interest charges, and the denominator is the same, less liabilities.

The form of Table II is identical with that of Table I and the same procedure was followed in computing average and aggregate rates for main divisions and subgroups as was outlined above in the discussion of Table I.

RELATION OF PROFIT RATES TO EARNING RATES ON ALL CAPITAL

As would be expected, the earning rates in Table II in general range somewhat higher than the corresponding rates shown in Table I (the three-year simple average and aggregate rates in extraction and the simple average in construction being the only exceptions in the main divisions). In other words, the earning power of these companies for the period studied ranged above the interest rates on the borrowed capital involved, thus increasing the yield to stock equities. This is the more noteworthy in view of the fact that interest-bearing obligations are not prominent as a rule in the capital structure of this group of corporations (see the schedule of liability ratios below).

DIFFERENCES IN PROFIT RATES—MAIN GROUPS

For all companies the three-year simple average shows a profit rate of 9.15 per cent. The corresponding weighted or aggregate figure is 9.64 per cent, implying a slightly better showing, in general, for the larger companies. The simple averages for all companies for 1927 and 1928 differ by less than one-tenth of one per cent, but for 1929 the rate is distinctly lower, being only 8.33 per cent. In the manufacturing division the three-year simple average is 10.01 per cent, as compared with the aggregate figure of 9.57. The average rates for the respective years in this group show little variation, 1928 being indicated as the best year. In the trading division the aggregate rate of nearly 8 per cent, as compared with a simple average of 6.72 per cent, indicates again a superiority for the larger concerns in this field. The simple averages by years show 1927 as the best for the trading companies with a decided falling off in 1929. In the construction and the real estate and finance fields the marked variations in simple averages between years are not very significant, as these figures are strongly influenced by certain unusual reports included in these groups.

DIFFERENCES IN PROFIT RATES—SUBGROUPS

In the subgroups marked differences appear in profit rates as shown by the three-year average and aggregate figures; the fluctuations in simple averages between years are also noticeable. Most of the manufacturing subgroups showing relatively stable rates between years also display high earning rates, implying a positive correlation between high rates and stability for the short period under consideration. The subgroups under manufacturing exhibiting marked fluctua-

tion between years are almost all low-earning groups. No doubt the differences in some instances are due to peculiar conditions in the samples, and do not represent prevailing conditions in the field, but the general condition indicated appears to be significant.

In the trading subgroups the fluctuations between years are much more marked, in general, than in the manufacturing subgroups. In fact the only trading groups showing relatively stable earning rates for the three years covered are men's and women's clothing—retail, department stores, and hardware—wholesale and retail. Those showing the most striking variation are cotton and wool merchants, fruit, vegetables, dairy products, grain, etc., jewelry—wholesale and retail, and it is these same groups which show conspicuously low profit rates.

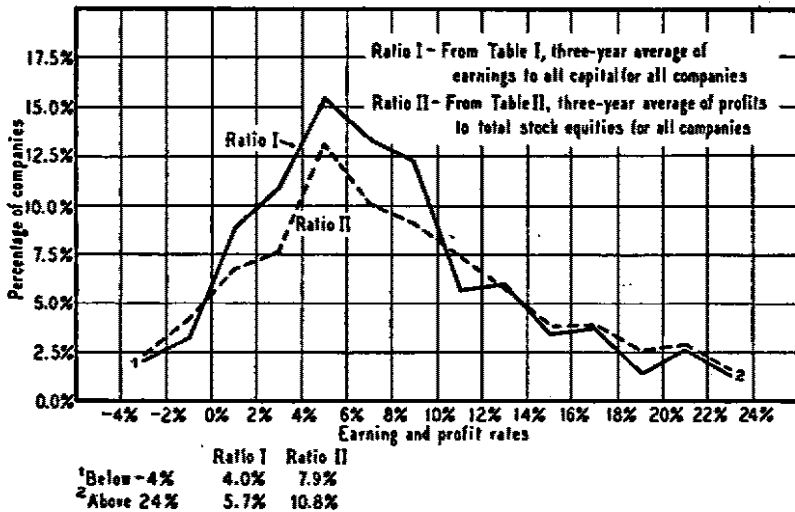
The differences between simple averages and weighted-average rates are very striking in several subgroups, and it is particularly in these instances that caution must be exercised in forming conclusions. Unusual cases included within relatively small samples undoubtedly account for some of these differences. For example, the fact that the aggregate rate of loss for dealers in fruit, vegetables, etc. is 26 per cent, while the simple average for the same companies shows a gain of half of one per cent is due primarily to the influence on the figures of a single very large company. Incidentally this case supports the view that weighted averages are less typical than simple averages in dealing with small samples.

DISTRIBUTION OF PROFIT RATES

Figure 2 shows graphically the distribution of profit rates according to Table II for all companies in comparison with the distribution of the corresponding earning rates drawn from Table I. It is noticeable that the dispersion of profit rates is distinctly greater than that of the earning rates cal-

culated on the basis of all capital. Naturally the removal of interest charges from the numerator of the ratio and liabilities from the denominator, two elements which in the typical instance have a more or less constant relationship, tends to increase the rate of profit or loss, as the case may be, for all

Figure 2
DISTRIBUTION OF EARNING AND PROFIT RATES
FOR ALL COMPANIES



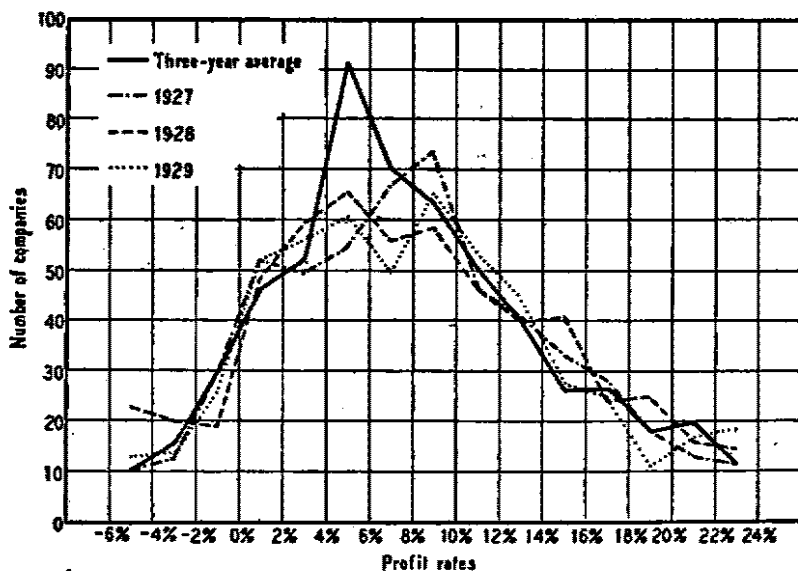
companies showing rather high or low ratios before the elimination of these factors. For all companies there is some concentration from 0 to 14 per cent—415 companies of a total of 692, or three-fifths, lying in this range—but only 277 companies—two-fifths—are found in the range 2 to 10 per cent. As in the rates displayed by Table I there is a much greater degree of concentration—or less dispersion—among the trading companies than among the manufacturing concerns, chiefly because companies with high earning rates are relatively more numerous in the manufacturing group than in the trading division. Almost two-thirds of the trading com-

CORPORATE PROFITS

panies—for the three-year average—are found in the range 0 to 12 per cent, while only half of the manufacturing enterprises lie in this range.

Among subgroups it is noticeable that concentration of profit rates is marked in only a few instances.

Figure 3
DISTRIBUTION OF AVERAGE PROFIT RATES¹
BY YEARS FOR ALL COMPANIES



¹See Table II.

Figure 3 shows the distribution of all companies by profit rates for the three-year average in comparison with the distributions for each of the years 1927, 1928 and 1929. Note that the vertical scale is in terms of number of companies rather than percentage of companies, as in Figure 2. This chart shows that for 1927 more companies were in the range 6 to 10 per cent than in the other years, and also that for 1928 there were more companies in the range 14 to 24 per cent than in 1927.

IV PROFITS AND THE USE OF PREFERENCE STOCKS

IN DISCUSSIONS of corporate finance the effect, upon the earning power of the common stock interest, of the use of preference stocks in the scheme of capitalization, and the conditons under which preferred stocks are or should be employed, is often questioned, and deserves some attention here.

DESCRIPTION OF TABLE III

Table III presents profit ratios by groups of companies and compares for each group the rates earned by companies having only common stock with those having both common and preferred issues outstanding. The rates are aggregate ratios for the three-year period covered, the figures for all companies in each group being combined in determining the rate for the group. The rates for 'all companies' correspond with the aggregate ratios of Table II. They are determined in each case by combining the figures for 'net balance available for dividends' as shown by the reports, for every date reported and for all companies in the group, to form the numerator of the fraction, and adding the figures for total stock equity as shown by the reports (see explanation in description of Table II), for each date reported and for all companies in the group, to form the denominator. The rates for 'companies with common stock only' are similarly determined. In computing the rates for 'companies

TABLE III
 RATE OF EARNINGS AS RELATED TO FORM OF CAPITALIZATION
(ratios of three-year aggregates)

CODE NO. ¹	All Companies		Without Preferred Stock		With Both Preferred and Common Stock			
	NO. OF COS.	RATIO OF NET PROFIT TO TOTAL STOCK EQUITY	NO. OF COS.	RATIO OF NET PROFIT TO TOTAL STOCK EQUITY	NO. OF COS.	PERCENTAGE OF TOTAL COMPANIES	RATIO OF NET PROFIT TO TOTAL STOCK EQUITY	RATIO OF EARNINGS AFTER ALLOWANCE FOR DIVIDENDS ON PREFERRED STOCK TO COMMON STOCK EQUITY
C	341	9.57	186	10.16	155	45	9.33	10.25
C-1	6	9.77	4	12.68	2	33	6.62	19.09
C-2	13	11.33	7	18.74	6	46	8.90	12.14
C-3	6	5.70	3	13.02	3	50	4.82	4.27
C-4	6	6.98	4	8.95	2	33	3.72	3.54
C-5	23	12.11	18	15.43	5	22	11.11	13.26
C-6	17	5.70	4	10.22	13	76	4.68	3.93
C-7	14	6.04	8	6.35	6	43	5.84	6.07
C-8	8	7.55	4	8.51	4	50	7.45	7.16
C-9	18	12.37	7	11.07	11	61	12.52	15.26
C-10	8	7.78	7	9.03	1	12	4.83	4.28
C-11	14	14.07	3	4.55	11	79	15.17	19.04
C-12	12	.19	7	.28	5	42	(d) .04 ²	(d)3.19
C-13	8	8.09	6	8.95	2	25	7.17	7.14
C-14	14	.82	9	9.00	5	36	(d)1.78	(d)8.89
C-15	10	7.26	7	5.25	3	30	7.96	8.12
C-16	7	9.63	5	13.06	2	29	3.92	2.63
C-17	11	7.51	2	14.12	9	82	6.29	6.71

CORPORATE PROFITS

C-18	20	11.41	12	10.54	8	40	11.77	14.39
C-19	17	12.50	9	8.81	8	47	13.18	16.08
C-20	22	8.79	13	9.25	9	41	8.69	8.95
C-21	8	12.23	2	9.85	6	75	12.35	13.43
C-22	10	9.13	4	15.30	6	60	4.08	.04
C-23	9	11.16	5	7.54	4	44	12.25	15.73
C-24	16	15.72	8	11.64	8	50	16.48	20.71
C-25	12	20.26	5	20.65	7	58	19.81	22.36
C-26	17	8.94	13	8.88	4	24	8.98	8.57
C-27	15	14.06	10	16.84	5	33	7.10	9.36
D	220	7.95 ³	141	2.00 ⁴	79	36	9.80	11.11
D- 1	11	12.61	11	12.61				
D- 2	9	7.11	6	3.09	3	33	10.43	12.44
D- 3	7	(d).11	4	3.68	3	43	(d) .97	(d)54.21
D- 4	20	10.53	7	5.59	13	65	10.88	14.52
D- 5	10	8.68	4	12.48	6	60	8.61	9.15
D- 6	15	10.22	10	5.43	5	33	10.76	11.97
D- 7	17	2.76	17	2.76				
D- 8	12	(d)26.00	8	(d)30.67	4	33	5.54	4.34
D- 9	21	23.31	16	21.00	5	24	26.29	45.32
D-10	11	7.26	8	8.11	3	27	6.76	6.34
D-11	15	6.63	8	5.44	7	47	7.13	7.21
D-12	7	8.16	4	8.40	3	43	8.08	8.33
D-13	8	6.80	7	7.06	1	12	(d)1.82	(d)33.06
D-14	15	15.01	10	15.17	5	33	14.97	15.23
D-15	42	10.51	21	13.82	21	50	9.86	11.04
A- 1	8	6.57	6	8.94	2	25	(d)2.07	(d)4.28
A- 2	10	9.05	9	2.17	1	10	2.07	3.44

TABLE III (cont.)
 RATE OF EARNINGS AS RELATED TO FORM OF CAPITALIZATION
 (ratios of three-year aggregates)

CODE NO. ¹	All Companies		Without Preferred Stock		With Both Preferred and Common Stock			
	NO. OF COS.	RATIO OF NET PROFIT TO TOTAL STOCK EQUITY	NO. OF COS.	RATIO OF NET PROFIT TO TOTAL STOCK EQUITY	NO. OF COS.	PERCENTAGE OF TOTAL COMPANIES	RATIO OF NET PROFIT TO TOTAL STOCK EQUITY	RATIO OF EARNINGS AFTER ALLOWANCE FOR DIVIDENDS ON PREFERRED STOCK TO COMMON STOCK EQUITY
A- 3	15	.81	10	3.60	5	33	(d) .47	(d)2.40
A- 4	4	(d)4.85	3	(d)4.81	1	25	(d)5.87	(d)8.73
B- 1	9	14.74	8	15.75	1	11	11.00	11.04
B- 2	12	18.50	12	18.50				
E- 1-2	21	9.99	18	9.80	3	14	13.12	15.39
F- 1	6	41.05	6	41.05				
F- 2	10	5.56	9	5.56	1	10	23.71	25.59
F- 3	21	23.61	16	24.01	5	24	6.87	6.97
F- 4	15	15.38	12	18.71	3	20	4.67	3.91
All other, total	131	12.14	109	14.79	22	17	.49	(d)1.46
All cos.	692	9.64 ²	436	10.71 ³	256	37	9.00	9.84

¹ For code numbers and their references, see 'Classification of companies' in Ch. I.

² Negative values are indicated by (d).

³ If dealers in fruit, vegetables, etc. are eliminated, this ratio becomes 9.36.

⁴ If dealers in fruit, vegetables, etc. are eliminated, this ratio becomes 7.59.

⁵ If dealers in fruit, vegetables, etc., and the group of printers, publishers, etc., are eliminated, this becomes 9.17.

⁶ If dealers in fruit, vegetables, etc., and the group of printers, publishers, etc., are eliminated, this becomes 9.49.

having both preferred and common stock' it was necessary to adjust the 'net balance available for dividends' by the amount of preferred dividends to determine the profit balance available for common stock. The amount of preferred dividends accruing at the stated dividend rate (a rate of 7 per cent being used whenever the data sheets did not specify the rate) was deducted in each case, whether paid or not. The 'common stock equity' is assumed to include all surplus accounts, earned or special. That is, the equity of the preferred stock is restricted to the preferred stock account as shown in the report.

USE OF PREFERRED STOCKS—ALL COMPANIES

An examination of Table III shows an aggregate net profit rate on total stock equity for all companies included of 9.64 per cent, a rate for all companies having only common stock of 10.71 per cent, and a rate for all companies with both preferred and common issues of 9.00 per cent. The aggregate profit rate earned on common stock by all companies having preferred issues is 9.84 per cent. This is somewhat higher than the rate earned on the total stock equity for the same companies, but lower than the rate earned by those companies having common stock only, suggesting that it is not safe to assume that there is a tendency for preferred stocks to be used especially in enterprises showing a high earning power.

Attention is called to the fact that two groups of companies exert a marked influence on the final results for all companies. Dealers in fruit, vegetables, etc. as a group show exceptional losses for the period covered, while printers, publishers, etc. show unusual earning power; and in each of these groups there are several relatively large concerns. The advertising group (six companies) also shows exceptional

CORPORATE PROFITS

earning power but the concerns involved are relatively small and hence this group does not exert much influence on the aggregate figures for all companies.

That the average size of companies making use of preferred stock is large as compared with concerns with common only, and that the percentage of the capital structure represented by preferred stock is in general small as compared with that represented by common stock and surplus, is shown by the tabulation. These figures also indicate that

NUMBER OF COMPANIES	FORM OF CAPITALIZATION	AVERAGE SIZE IN NET ASSETS IN 1929	REPRESENTED	REPRESENTED
			BY PREFERRED STOCK (percentage)	BY COMMON AND SURPLUS (percentage)
256	With preferred	\$4,002,376	19.65	52.04
436	Without preferred	1,211,342		70.33

the presence or absence of preferred stock has no bearing upon the amount of fixed and current liabilities, as the proprietary ratio (total stock equity to net assets) stands at approximately 70 per cent for both classes of companies. For each, in other words, current and fixed liabilities represent about 30 per cent of net assets.

Of the 256 companies with preferred stock 134 companies show an earning rate higher than the preferred dividend rate while 122 companies earned less than the required preferred rate. Thus, as far as number of companies goes, there is very slight indication of an ability to increase rate of profit to common stock through the issue of preferred. The preferred dividend record, showing payments and earning rates in relation to dividend rates, is summarized herewith.

ing and dry goods. All of the eleven companies in this group which made use of preferred stock paid regular dividends on preferred through the period under consideration. In eight of the eleven companies the rate of profit on the total stock equity was more than double the dividend rate on the preferred stock, and the rate of return on the common stock in these companies averaged more than 20 per cent. The soundness of the preferred stocks in this group is evidenced by the fact that the preferred dividend rate in one case is 5 per cent, in five cases 6 per cent, in four, 7 per cent, and in one case 8 per cent.

PREFERRED STOCKS IN THE TRADING FIELD

In the trading field the aggregate profit rate for all 220 companies included is 7.95 per cent, or 9.36 per cent if the unusual group of dealers in fruit, vegetables, etc. is eliminated. For the companies having only common stock the aggregate rate is 7.59 per cent if the unusual subgroup mentioned is excluded, only 2.00 per cent if this group is retained. The losing companies among dealers in fruit, vegetables, etc. are, evidently, concerns with common stock only. The companies in the trading field making use of preferred stocks, on the other hand, show a rate on total stock equity of 9.80 per cent and an aggregate rate on common stock of 11.11 per cent. This condition is evidently somewhat in contrast to that obtaining in the manufacturing group and is a further indication of the relatively low earning power of the smaller companies in the trading field. The 133 concerns in the trading field having no preferred stock (and exclusive of dealers in fruit, vegetables, etc.) represent three-fifths of the number of trading companies, but their total stock equity is only one-fifth of the total for all trading companies, which indicates the small size of these companies on the average.

It is of interest to note that 45 per cent of the number of companies in the manufacturing field use preferred stock, while in the trading field the percentage is only 36.

PREFERRED STOCKS IN OTHER GROUPS

Among the 'all other' companies it appears that those concerns having preferred stock (only 22 out of 131) have in general a much lower earning power than those with common stock only. In considerable measure this is due to the fact that included in printing, publishing, etc. are several concerns with common stock only and with very high earning power, and that several logging and coal mining companies having preferred stocks show very severe losses. It must be remembered that the data in the 'all other' group are too meager and too heterogeneous to warrant the making of generalizations from the percentages shown.

ANALYSIS OF PREFERRED STOCK ISSUES

In an effort to throw some further light on the conditions giving rise to the use of preferred stocks and the financial standing of the various issues involved, a segregation was made of all companies in which preferred stock constituted 20 per cent or more of the net assets, using a three-year average for both factors in the segregation, and comparisons were made between this group and all other companies having preferred issues. The findings are summarized below. The comparisons indicate, as would be expected, a more secure position for those preferred issues which represent a relatively small portion of the total resources.

CORPORATE PROFITS

COMPANIES FINANCING 20 PER CENT OR MORE OF
NET ASSETS WITH PREFERRED STOCK

GROUP	NUMBER OF COMPANIES	DIVIDENDS FULLY PAID	
		NUMBER	PER CENT
Manufacturing	81	56	69.1
Trading	37	23	62.2
All other	9	3	33.3
Total	127	82	64.6

COMPANIES FINANCING LESS THAN 20 PER CENT OF
NET ASSETS WITH PREFERRED STOCK

GROUP	NUMBER OF COMPANIES	DIVIDENDS FULLY PAID	
		NUMBER	PER CENT
Manufacturing	74	61	83.6
Trading	42	32	76.2
All other	13	11	84.6
Total	129	104	80.6

In the group having relatively large preferred issues (that is, those which finance 20 per cent or more of net assets with preferred stock) a further division was made by size in terms of average net assets for the three-year period. The dividing line selected was \$1,000,000 of net assets. Preferred dividend return rates were also computed for the companies in this group. These rates were calculated by dividing the aggregate preferred dividend payments for the three years concerned by the total book values of the preferred issues for the same period. For instance, in the manufacturing group of companies with over \$1,000,000 assets, a total of \$5,531,562 was paid to preferred stockholders in the three years; the total preferred stock, adding each year separately, amounted to \$94,787,542 at book value; the dividend total divided by the preferred capital total gives a dividend yield rate of 5.84 per cent. In these calculations appropriate adjustments were made for any changes in preferred capitalization occurring from year to year. The schedule below summarizes the results. It shows clearly that of the companies raising a con-

PROFITS AND PREFERENCE STOCKS 71

siderable portion of their total capital through the issue of preferred stock in general the larger concerns have the sounder preferred issues. This condition is especially marked among the trading companies.

COMPANIES FINANCING 20 PER CENT OR MORE
OF NET ASSETS WITH PREFERRED STOCKS

SIZE IN NET ASSETS	NUMBER OF COMPANIES	DIVIDENDS FULLY PAID		RATE OF RETURN (per cent)
		NUMBER	PER CENT	
<i>Under \$1,000,000</i>				
Manufacturing	30	19	63.3	5.02
Trading	18	8	44.4	3.98
All other	5	2	40.4	3.98
Total	53	29	54.7	4.63
<i>\$1,000,000 and over</i>				
Manufacturing	51	37	72.5	5.84
Trading	19	15	78.9	6.01
All other	4	1	25.0	1.11
Total	74	53	71.6	5.63

In a recent study by R. G. Rodkey ⁶ it is shown that for the large listed corporations preferred stocks preceded by bond indebtedness have proved to be much less sound over a long period than preferred issues of companies having no bonds. This test has not been applied to the companies under consideration here, especially since for many of them the amount of fixed liabilities is small or nil, and also because the amount of the 'long-term liabilities' is shown as a single figure in the data sheets.

⁶ *Preferred Stocks as Long-Term Investments* (Michigan Business Studies, Vol. IV, No. 3).

V EARNING POWER IN RELATION TO SIZE OF ENTERPRISE

Does any relationship exist between earning power and size of enterprise? For the purpose of answering this question, if possible, a tabulation by size groups was made of the earning rates of all the companies embraced in this study.

PREPARATION OF TABLE IV

The earning rates as prepared for Table I were used, as such rates are believed to be more comparable in respect of size than the other measures of earning power available. The average rates for the three-year period were employed on the assumption that they are more significant in this connection than yearly figures for such a short period as that covered. Had data been available for a longer period it might have been feasible to attempt to discover the relation, if any, between stability of earnings and size. In this tabulation the earning rates were classified into the three main groups, manufacturing, trading, and all other, and each group was then subdivided into five size groups in terms of net book assets (total assets as shown by the books less reserves for depreciation and other valuation accounts). In each range the first figure is excluded.

EARNING POWER AND SIZE

73

Group 1	\$	0—\$ 200,000
Group 2		200,000— 500,000
Group 3		500,000— 1,500,000
Group 4		1,500,000— 5,000,000
Group 5		Above 5,000,000

Rates for each size grouping were then distributed into five classes: below 0; 0 to 10 per cent; 10 to 20 per cent; 20 to 30 per cent; above 30 per cent. Next, percentages were computed and were substituted for the absolute numbers so as to make the various size groups directly comparable in terms of the different classes of earning rates. As a final step an average rate for each size group was computed. A simple

TABLE IV
AVERAGE EARNING RATES BY SIZE GROUPS
(ratio of three-year aggregates)

PERCENTAGE DISTRIBUTION OF COMPANIES BY EARNING RATES

SIZE GROUP	NO. OF COS.	BELOW 0	0 TO 10%	10 TO 20%	20 TO 30%	ABOVE 30%	AVERAGE RATE
Manufacturing							
1	78	14.1	37.2	29.5	11.5	7.7	11.34
2	53	3.8	49.0	30.2	15.1	1.9	10.69
3	85	9.4	63.5	17.3	8.2	1.2	7.30
4	79	6.3	59.5	27.3	5.1	1.3	8.27
5	46	4.4	63.0	26.1	6.5	0	8.60
Trading							
1	66	15.2	69.7	9.1	1.5	4.5	6.37
2	61	13.1	73.8	9.8	3.3	0	5.43
3	44	0	79.5	20.5	0	0	7.24
4	35	8.6	77.1	11.4	2.9	0	6.51
5	16	12.5	62.5	25.0	0	0	7.23
All Companies¹							
1	198	14.1	52.5	19.2	7.6	6.6	9.40
2	140	10.7	60.0	18.6	8.6	2.1	7.81
3	160	5.6	67.5	18.8	5.6	2.5	8.07
4	129	7.8	64.3	22.5	4.6	.8	7.58
5	72	6.9	62.5	25.0	5.6	0	8.02
Total	699	9.6	60.6	20.2	6.6	3.0	8.32

¹ Including also companies other than manufacturing and trading.

average was deemed to be most significant in this connection, in view of the fact that the individual rates had already been distributed into relatively homogeneous size groups. Table IV summarizes the results. 'All companies' include manufacturing, trading, and all other companies not placed under these two headings.

VARIATIONS BY SIZE GROUPS AND INDUSTRIES

While for all companies the final averages for the various size groups do not show any very striking dispersion, it is evident that the smallest size group, 198 companies, has an average rate of about 1.3 per cent in excess of the average rate of any other group. For the other four size groups the range is from approximately 7.6 to 8.1 per cent, or slightly less than .5 per cent.

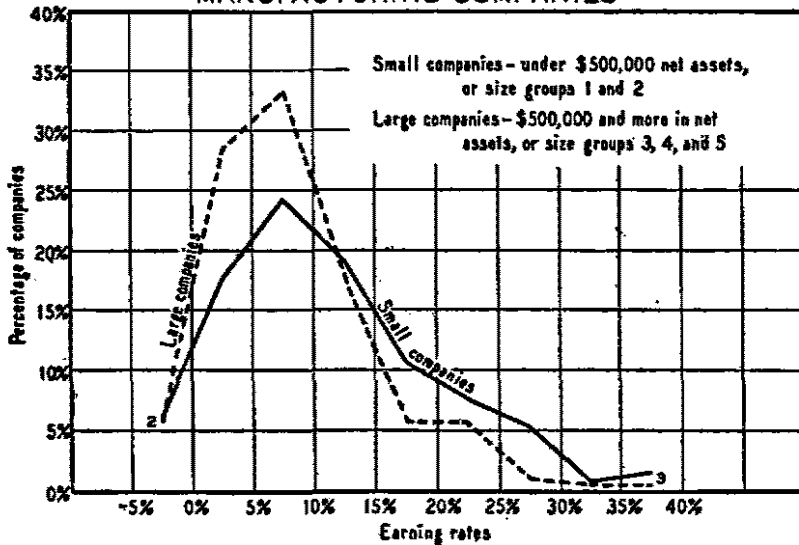
For the 341 manufacturing companies the smallest size group, 78 companies, shows an average rate of 11.34 per cent, and the rate for Group 2 is 10.69 per cent. The other three groups under manufacturing exhibit decided inferiority in earning power, the rates ranging from 7.3 to 8.6 per cent. That the middle group shows the lowest rate of the five is a matter of interest. In the trading companies, on the other hand, the smallest size group shows a relatively low earning rate, and the rate in Group 2 is the lowest of the five divisions. The range of average rates in the five size groups in the trading field is less than 2 per cent, while in the manufacturing field the range is slightly over 4 per cent. For the 136 companies other than manufacturing and trading included in 'all companies' the distribution of average earning rates by size groups is as follows. For these companies, evidently, there are two conspicuously high-earning size groups, numbers 1 and 3.

EARNING POWER AND SIZE

75

GROUP	NUMBER OF COMPANIES	AVERAGE RATE
1	54	10.31
2	26	7.40
3	31	11.46
4	16	6.45
5	10	6.61

Figure 4
COMPARATIVE DISTRIBUTION OF THREE-YEAR AVERAGE
EARNING RATES¹ OF LARGE AND SMALL
MANUFACTURING COMPANIES



¹Computed in connection with Table I.

²Below -5% rate: 3.8% of total small companies, 1.4% of total large companies.

³Above 40% rate: 3.1% of total small companies, 0.5% of total large companies.

Figure 4 shows the distribution, in percentage of companies, of the 'small' and 'large' manufacturing corporations over classes of earning rates ranging from negative 5 per cent to positive 40 per cent. The earning rates used in making this chart, as throughout the consideration of the relation of earnings to size of enterprise, are those computed in

the preparation of Table I. By 'small' companies is here meant the first two size groups, by 'large' companies the last three size groups.

FURTHER ANALYSIS OF GROUP I

To check further the apparent conclusion that by and large in the period covered the high-earning companies are those with assets of \$200,000 or less rather than the large companies, a separate tabulation was made of the 29 companies embraced in the study whose net book assets were under \$50,000 each. It was found that the average of the three-year average earning rates for these companies was only 8.18 per cent, or about 1.2 per cent less than the average for Group 1 as a whole. Further, one of these 29 companies, a small contractor, showed an average rate of over 109 per cent. The elimination of this unusual figure reduces the average rate for the remaining 28 companies to only 4.57 per cent. The 169 companies with assets in the range \$50,000 to \$200,000 have an average rate of 9.6 per cent, showing clearly that they possess the highest earning power for the three years covered.

In the manufacturing group the concerns with assets of less than \$50,000 earned 8.32 per cent; those with assets in the range \$50,000 to \$200,000 earned 11.68 per cent. In the trading group those with assets of less than \$50,000 show a rate of 3.52 per cent; the average earning rate for those with average assets of from \$50,000 to \$200,000 is 6.92.

CONCLUSION

It is of course possible that there is something peculiar about the accounting methods of these small concerns which would tend to modify this conclusion. The fact that all the

companies in the study are regular clients of public accountants, having fairly definite standards with respect to valuation and accounting practice in general, would seem to make it unlikely that there is any definite tendency towards an unusual degree of understatement in the property values, or overstatement in their earnings. It is true that the smaller concerns have not in general gone through consolidations and reconsolidations to the degree experienced by the larger companies—a process in which a more or less unreasonable expansion of book values of assets is common. On the other hand, in small concerns, with stock closely held among a few individuals, there is a tendency to treat a relatively large part of the gross earnings as managerial salaries. To the extent that this is done here the net earnings of the small companies as reported tend to be understated rather than overstated in comparison with the earnings of large corporations.⁷

⁷ Colonel Rorty makes the statistical comment on the question of earnings in relation to size of corporations that “successful corporations may tend to grow in size and may thus even tend to expand beyond the optimum of magnitude. Also a large company, which is often in effect a composite of small companies, tends to have more stable earnings. Furthermore, the smaller concerns perhaps more often fail—and concerns in positive distress have perhaps automatically been excluded from the reports. This may tend to bias the figures to show higher earnings for the smaller concerns reported, whereas a true average of all small concerns might show different figures.”

VI COMMON DIVIDEND POLICIES AND SURPLUS ACCUMULATION

REGULARITY OF DIVIDENDS

As might be expected of companies of relatively small size, such as predominate in this study, dividend payments to the common stockholders were in general noticeably irregular. Only 278 companies paid some cash dividend on common stock in each of the three years covered by the reports, although this was a prosperous period. The tabulation indicates the situation in this respect. It shows, further, that 256

GROUP	NUMBER OF COMPANIES	NUMBER PAYING DIVIDENDS FOR			NUMBER NOT PAYING
		3 YEARS	2 YEARS ¹	1 YEAR	
Manufacturing	341	145	48	35	113
Trading	222	82	34	13	93
All other	136	51	18	17	50
All companies	699	278	100	65	256

¹ A company is listed as paying for two years if there was some disbursement in any two of the three years covered.

of the approximately 700 concerns involved paid no cash dividends on common stock in any of the three years covered, although many of them were earning substantial profits during this period.

AGGREGATE DIVIDEND RATES

Rates of common dividends to common stock equities, in terms of aggregate figures for all three years and by broad groups, are presented below.

AMOUNTS OF COMMON DIVIDENDS AND RATES OF YIELD TO BOOK VALUES OF COMMON STOCK EQUITIES

	ALL COMPANIES		COMPANIES WITH COMMON STOCK ONLY		COMPANIES WITH PREFERRED STOCK	
	AMOUNT		AMOUNT		AMOUNT	
	PAID	RATE	PAID	RATE	PAID	RATE
Manufacturing	\$93,562,483	5.78	\$42,969,939	7.35	\$50,592,544	4.90
Trading	33,778,573	4.96	7,692,022	3.74	26,086,551	5.48
All other	65,655,456	15.84	64,710,129 ¹	19.99 ¹	945,327	1.04
All companies	\$192,996,512	7.11	\$115,372,090	10.35	\$77,624,422	4.85

¹If data for one very large company paying 25 per cent dividends are eliminated these figures become \$17,210,129 and 12.01 per cent.

It is recognized that the figures are only a crude indication of dividend policies and practices, but it is believed that they are more or less representative or typical of the companies involved. Apparently manufacturing companies with preferred issues outstanding tend to have conservative dividend rates on common stock, while trading companies tend to be more liberal. The elimination of the eight largest trading companies in the group having preferred stock reduces the rate on the common stock from 5.48 per cent to 4.86 per cent; the elimination of the three largest trading companies from those with common stock only raises the rate on the common for all the others in that group from 3.74 per cent to 4.34 per cent. This adjustment still leaves the trading group with a relatively high rate on the common in companies having preferred stock. This is partly explained by the fact that in the trading field it is the small size groups, in which preferred

stock is seldom represented in the capitalization, which show low earning rates and hence small dividends.

In terms of aggregate figures for all companies for the three years common dividends are 57 per cent of net income available for common stock, as shown by the following.

	PER CENT
Manufacturing	48.60
Trading	49.12
All other	84.97
All companies	57.00

ANALYSIS OF CASES OF DIVIDEND DISBURSEMENTS

An effort was made to ascertain dividend policies more concretely in terms of the practices of individual companies, but without much success in so far as the making of dependable generalizations goes. As stated above, the outstanding characteristic of dividend practices among these companies is the marked irregularity of payments. However, an additional tabulation with respect to common dividends in the manufacturing and trading groups was made, and this throws some light on the question.

In Table V the practice of one company for one year is deemed to constitute one 'case'. These figures show, as would perhaps be expected among relatively small corporations, a marked tendency to pass common dividends if there is no income available for common shareholders. They also show that the passing of common dividends even in the presence of current profits is not unusual. Of 'cases' where common dividends were paid, it appears that the largest number (in the four ranges selected) represent annual appropriations of less than 50 per cent of the current income available for common stockholders. In manufacturing slightly over half

of the 'cases' representing payments fall in this first range. Again in these figures there appears some indication of a more conservative policy among companies with preferred issues than among those having common stock only. As between the two groups, manufacturing and trading, no noticeable differences appear, except possibly that among trading companies there are an especially large number of companies with common stock only which passed common dividends.

TABLE V
ANALYSIS OF COMMON DIVIDEND DISBURSEMENTS

	Number of cases ¹		
	WITHOUT PREFERRED STOCK	WITH PREFERRED STOCK	ALL COMPANIES
<i>Manufacturing</i> , total cases	555	454	1,009
141 Cases of loss to common stock			
Passed common dividends	59	61	120
Paid common dividends	13	8	21
868 Cases of income available for common stock			
Passed common dividends	140	183	323
Paid of balance available: ²			
Less than 50%	140	137	277
50% to 75%	79	33	112
75% to 100%	36	13	49
100% and above	88	19	107
<i>Trading</i> , total cases	419	235	654
115 Cases of loss to common stock			
Passed common dividends	67	30	97
Paid common dividends	12	6	18
539 Cases of income available for common stock			
Passed common dividends	159	71	230
Paid of balance available:			
Less than 50%	61	62	123
50% to 75%	45	39	84
75% to 100%	28	10	38
100% and above	47	17	64

¹ A case is the record of one company for one year.

² The distribution within these groups in respect of percentage paid was made on the basis of a random sample, taking every fourth case.

SURPLUS

Table VI shows the relation of earned surplus to total proprietary capital for the last year reported, 1929, for the manufacturing and trading groups and subgroups and for all companies. In four cases it was impossible to compute this

TABLE VI
RATIO OF EARNED SURPLUS TO TOTAL STOCK EQUITY, 1929
Distribution of Ratios by Percentage Ranges

GROUP	TOTAL	Number of Companies										
		0	10	20	30	40	50	60	70	80	90	
		UNDER TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	
<i>Manufacturing, total</i>	347	28	27	46	59	44	41	42	20	19	13	8
Milling	6	1	1		2	1	1					
Ice cream and other dairy products	13	2		2	2	2	3	1	1			
Meat products	6			1			2	1	1			1
Fruit and vegetable canning	6			2	2		1	1				
Miscellaneous food products	23	2	2	1	2	1	3	4	4	1	3	
Cotton goods	17	1	4	1		3	2	3	1		1	1
Silks and woolens	14	2		2	3	1		1	1	2	1	1
Carpets, rugs and other textiles	8		1	2				2	2			1
Clothing and dry goods	18		2	2	4	5	1	1		3		
Tanning	8	1			2		2	1				1
Shoes	14	1	2	2	1	2	2	1		2	1	
Lumber	13	2	2	2	3			1	2			1
Boxes and barrels	8	1		1	1	1	2			1		1
Miscellaneous wood products	14	4		2	1	2	1	3				1
Furniture, pianos, radios	10	2	1		2	1	1		2	1		
Paper boxes	7		1	2	1		1		1	1		
Paper	11	1	2	1	2	2		2			1	
Drugs and chemicals	20	2	1	2	4	3	3	4				1

DIVIDEND POLICIES AND SURPLUS

83

TABLE VI (cont.)
 RATIO OF EARNED SURPLUS TO TOTAL STOCK EQUITY, 1929
 Distribution of Ratios by Percentage Ranges

GROUP	TOTAL	Number of Companies										
		0	10	20	30	40	50	60	70	80	90	
		UNDER TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	
Cement and ceramic products	17		2	3	3	3	1	3	1	1		
Heavy forgings, bars, billets, sheets, castings, etc.	23	1	2	3	6	5	1	1		3	1	
Electrical machinery	7			1	4			1				1
Agricultural, construction, and mining machinery	10	1	1	2		1	2	2	1			
Stoves and other heating apparatus	9			2	3	1	2		1			
Miscellaneous machinery and equipment	17	1	2	2	3	2	4	2				1
Hardware	12	1		2	3	3		1		1	1	
Miscellaneous iron and steel products	19	1		2	2	3	4	3	2	1	1	
Unclassified	17	1	1	4	3	2	2	3		1		
Trading, total	221	27	18	37	24	38	21	20	19	8	4	5
Automobile sales and service; gas and oil—wholesale and retail	12	2	1	2	1	2	1		1	1		1
Men's and women's clothing—retail	9	2	1	1		3		1	1			
Cotton and wool merchants	7	4	1	1	1							
Department stores	20	1	1	7	4	1	4	1	1			
Dry goods—wholesale	10		3	1	1	3	1		1			
Fuel, lumber, and building materials—retail	15		1	1	4	1	1	2	3	1		1
Fuel, lumber, and building materials—wholesale	17	5		4		2	2	2	1			1
Fruit, vegetables, dairy products, grain, etc.	11	3	1			2	1	2		1		1
Furniture—retail	20	2	2	3	1	2	1	3	3	1	2	

CORPORATE PROFITS

TABLE VI (cont.)
 RATIO OF EARNED SURPLUS TO TOTAL STOCK EQUITY, 1929
Distribution of Ratios by Percentage Ranges

GROUP	TOTAL	Number of Companies										
		0*	10	20	30	40	50	60	70	80	90	
		UNDER 0*	TO 10	TO 20	TO 30	TO 40	TO 50	TO 60	TO 70	TO 80	TO 90	TO 100
Groceries—wholesale	11	1	3	1		1	1	1	1	2		
Hardware—wholesale and retail	15			2	4	2		3	3		1	
Jewelry—wholesale and retail	7	1			1	1	1	1	2			
Paper and leather products—wholesale	8	1		1		5		1				
Auto supplies, electrical equipment, radios, sporting goods— wholesale and retail	17	3		6		5	1		1	1		
Unclassified	42	2	4	7	7	8	7	3	1	1		2
All other, total	140	23	23	14	8	16	10	10	11	9	10	6
All companies	708	78	68	97	91	98	72	72	50	36	27	19

* Negative surplus, or deficit.

ratio because surplus was incorporated in the capital stock accounts in the reports. 'Proprietary capital' is equivalent to all capital (total net assets) less liabilities.

Earned surplus evidently accounts for an important element of total capital in many of the companies studied. The table shows that in the manufacturing field surplus accumulation on a large scale is somewhat more common than in trading. In manufacturing 102 companies, nearly a third of all companies in this field, show an earned surplus accumulation of 50 per cent or more of total proprietary capital; in the trading group one-quarter of the total companies in the field had an accumulated earned surplus equal to 50 per cent or more of total proprietary capital. Two-fifths of 'all companies' show an earned surplus accumulation ranging from 10 to 40 per cent of total proprietary capital. In only a few

DIVIDEND POLICIES AND SURPLUS 85

more than a tenth of the companies does earned surplus amount to 70 per cent or more of the total ownership.

In considering the data as to surplus here presented it should be remembered that surplus accumulation as reported is affected by the age of companies, stock dividends and other practices involving the capitalization of surplus, and by cash dividend policies. Hence specific conclusions concerning financial conditions and tendencies in the various subgroups are hardly warranted on the basis of the figures available. It is apparent, however, that the general conditions found in the manufacturing and trading groups as a whole are characteristic of most of the subdivisions of these fields.

VII OTHER FINANCIAL AND OPERATING CHARACTERISTICS

OWNERSHIP RATIOS

As has been indicated above, the amount of borrowed capital, including current liabilities, is typically under 30 per cent of net assets in the companies embraced in this study taken as a whole. In other words, the most representative stock equity or ownership percentage (including preferred stock) is about 70. The tabulation below indicates roughly the range of ownership ratios by main groups of companies for 1929.

DISTRIBUTION OF OWNERSHIP RATIOS

GROUP	UNDER 50% OF NET ASSETS			50-75% OF NET ASSETS		75-100% OF NET ASSETS	
	NO. OF COS.	NO. OF COS.	% OF COS.	NO. OF COS.	% OF COS.	NO. OF COS.	% OF COS.
Extraction	87	2	6	9	24	26	70
Construction	23	7	30	6	27	10	43
Manufacturing	349	22	6	100	29	227	65
Trading	222	40	18	95	43	87	39
Real estate and finance	24	14	59	4	16	6	25
Service	57	6	10	22	39	29	51
Total	712	91	13	236	33	385	54

Examination of these figures shows a high ownership ratio among manufacturing companies as compared with trading

companies. That is, among manufacturers the ratio of borrowed capital is decidedly less as a rule than the corresponding ratio among traders. The data for the minor groups 'construction' and 'real estate and finance' indicate a tendency in these fields to operate on borrowed funds.

LIABILITY RATIOS

The schedule of liability ratios for the manufacturing and trading groups, showing the total of fixed and current liabilities to net assets by simple averages for 1929, is given as a supplement to the foregoing data covering proprietary capital.

PERCENTAGE RATIO OF LIABILITIES TO NET ASSETS

Manufacturing, total	21.90
Milling	28.44
Ice cream and other dairy products	25.29
Meat products	23.14
Fruit and vegetable canning	11.90
Miscellaneous food products	23.26
Cotton goods	19.70
Silks and woolens	22.20
Carpets, rugs, and other textiles	21.89
Clothing and dry goods	29.40
Tanning	26.13
Shoes	17.19
Lumber	31.05
Boxes and barrels	10.67
Miscellaneous wood products	29.29
Furniture, pianos, radios	23.12
Paper boxes	26.78
Paper	25.15
Drugs and chemicals	15.25
Cement and ceramic products	16.42
Heavy forgings, bars, billets, sheets, castings, etc.	17.65
Electrical machinery	29.09
Agricultural, construction, and mining machinery	20.05
Stoves and other heating apparatus	19.46

CORPORATE PROFITS

PERCENTAGE RATIO OF LIABILITIES TO NET ASSETS

Manufacturing (<i>cont.</i>)	
Miscellaneous machinery and equipment	23.48
Hardware	19.29
Miscellaneous iron and steel products	16.93
Unclassified	25.68
Trading, total	32.12
Automobile sales and service; gas and oil—wholesale and retail	31.54
Men's and women's clothing—retail	28.76
Cotton and wool merchants	45.46
Department stores	31.08
Dry goods—wholesale	29.85
Fuel, lumber, and building materials—retail	30.53
Fuel, lumber, and building materials—wholesale	33.21
Fruit, vegetables, dairy products, grain, etc.	30.54
Furniture—retail	33.70
Groceries—wholesale	22.42
Hardware—wholesale and retail	19.47
Jewelry—wholesale and retail	41.70
Paper and leather products—wholesale	26.31
Auto supplies, electrical equipment, radios, sporting goods—wholesale and retail	38.24
Unclassified	36.10

The principal facts to be drawn from the data of this schedule are the relatively low ratios displayed and the remarkable degree of consistency in indebtedness percentage between the various subgroups, particularly in manufacturing. In this field the ratio ranges from 25 to 30 per cent in eight of the subgroups; in seven, between 20 and 25 per cent; in another eight, between 15 and 20 per cent; in only two groups is the ratio less than 15 per cent or more than 30. The entire range for manufacturing is from 10.67 to 31.05; the simple average is 21.90. In the trading field nine of the fourteen special groups show liability ratios of between 28 and 34 per cent, with three groups above and two below this range. The entire range in trading is 19.47 to 45.46 per cent; and the simple average for all trading companies is 32.12.

OPERATING RATIOS

An average operating ratio for the years available was computed for each company. The percentage was calculated in each case by dividing operating expenses by net sales. Operating expense, as used in this connection, includes all expenses as reported except interest and taxes. Where the data submitted showed an item of purchase discounts in 'non-operat-

TABLE VII
OPERATING RATIOS
*Ratios of Operating Expenses, excluding Interest and Taxes,
to Net Sales*
(in percentage form)

PERCENTAGE RANGE	EXTRAC-TION	CON-STRUC-TION			REAL ESTATE AND SERVICE			TOTAL
		MANU-FACTURING	TRADING	FINANCE	ESTATE AND	SERVICE		
Total	37	23	341	222	24	52	699	
Below 70	6		5	1	13	2	27	
70 to 72	1		2	1	2	1	7	
72 to 74	2		4			2	8	
74 to 76	1		3	1			5	
76 to 78			3	1	1		5	
78 to 80	1		5				6	
80 to 82	2		7		1	4	14	
82 to 84	1	1	12				14	
84 to 86	1	2	15	4		1	23	
86 to 88	1		19	2	1	5	28	
88 to 90	3	1	30	3		5	42	
90 to 92	3		29	7		1	40	
92 to 94	1	4	37	19		7	68	
94 to 96	1	2	50	37	1	5	96	
96 to 98	4	3	40	65		4	116	
98 to 100	3	7	37	45		6	98	
100 to 102	1	1	22	23		3	50	
102 to 104	2		8	7	2	3	22	
104 to 106	1		6	2			9	
106 and above	2	2	7	4	3	3	21	

TABLE VII (cont.)

SUBGROUPS

CODE NO. ¹	NUMBER OF CASES	70	72	74	76	78	80	82	84	86	88	90	92	94	96	98	100	102	104	106	
		BELOW 70	TO 72	TO 74	TO 76	TO 78	TO 80	TO 82	TO 84	TO 86	TO 88	TO 90	TO 92	TO 94	TO 96	TO 98	TO 100	TO 102	TO 104	TO 106	AND ABOVE
C Total	341	5	2	4	3	3	5	7	12	15	19	30	29	37	50	40	37	22	8	6	7
C-1	6						1								2		1	2			
C-2	13								1	1		1			1	1	8				
C-3	6										1				1	1	3				
C-4	6	1								1					1	1	3				
C-5	23			1	1				1	2	3	1	3	4	2	3	3	3			
C-6	17					1		1		1	3	2		2	3	2	1			1	
C-7	14											1	1	2	3		2	2	3		
C-8	8							1			1			2	3	1					
C-9	18										1		4	2	5	6					
C-10	8																				
C-11	14										1	2			2		3				
C-12	12											1	1	2	5	2	1				
C-13	8				1							1	1	2		1	5	2			
C-14	14										1			3	3	1				3	1
C-15	10								1	1				1		1	2				1
C-16	7										1			2	1	3					
C-17	11			1					1		5		2					1		1	
C-18	20	1	1	2					1	2	1	1	1	2	2	2	3				1
C-19	17	2				1		1	2	2		1	2	1	2	1		1	1		
C-20	22								1	1		3	3	5	3	3	1	1			1
C-21	8										1	1	2	1	2						1
C-22	10						1			1		2		1	2	1	1		1		

C-23	9						2	1	1	1		1	2		1					
C-24	16			1	1	1	2		1	1	2	3	1	1		1	1			
C-25	12		1					2	1	1	2	1			1	1	1			
C-26	17					1	2	1		1	2	1	3	2	1	2			1	
C-27	15	1								1	2	2	3	2	3				1	
D Total	222	1	1		1	1			4	2	3	7	19	37	65	45	23	7	2	4
D- 1	12					1									1	5	2	3		
D- 2	9													1	1	2	3	2		
D- 3	7													1			2	4		
D- 4	20							1	1			1	3	4	6	9	9		1	
D- 5	10													1	5	5	3	1		
D- 6	15										1	1	5	5	3	3				
D- 7	17		1										1	1	5	2	4	2	2	1
D- 8	12				1										2	5	3	1		
D- 9	21							2			1	2		8	5	2	1			
D-10	11										1	1			5	4				
D-11	15												1	3	9	2				
D-12	7											1	3	1	1					1
D-13	8													1	4	2	1			
D-14	16										1		2	5	3	2		1	1	1
D-15	42	1							1	1		1	6	6	8	10	4	2		2

OTHER CHARACTERISTICS

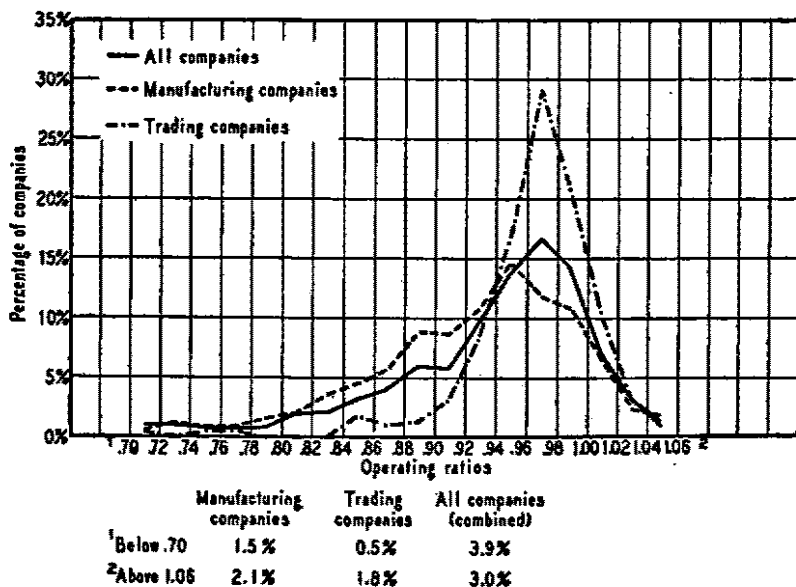
¹ For code numbers and their references, see 'Classification of Companies' in Ch. I.

CORPORATE PROFITS

ing income', an adjustment was made by deducting this amount from total operating expenses. The fact that the denominator in each case excludes all revenues and incomes other than sales should be borne in mind in examining these ratios.

The resulting ratios are exhibited in Table VII, classified by kinds of business and grouped by ranges of 2 per cent from 70 to 106 per cent. In each range the first figure is included and the second excluded. Only for manufacturing and trading, the two important groups of companies, are the ratios presented by subfields. The figures show, as would be expected, relatively high operating ratios in the trading field.

Figure 5
DISTRIBUTION OF AVERAGE OPERATING RATIOS



For example, 209 of the 222 trading companies represented have average operating ratios above 90 per cent, while only

236 of the 341 manufacturing companies lie in this range. The figures also show a much greater degree of concentration for trading companies than for manufacturing, as is brought out graphically in Figure 5.

WORKING CAPITAL POSITION

Table VIII gives working capital position, in the form of current ratios, for all companies by main classifications, and for manufacturing and trading companies by subgroups. In each case for which data were available a three-year average ratio of current assets to current liabilities was computed, and the results of these calculations are presented in the table by seven groups. The ratio column headings represent ranges of current assets times current liabilities, the first figure being included in each case and the second excluded.

Evidently the manufacturing companies in general maintain a stronger working capital position than do the trading enterprises. The typical (median) ratio of current assets to current liabilities included in the sample is close to 4:1; among trading companies the ratio is about 3:1. In both groups considerable variation appears, somewhat less among trading than among manufacturing companies.

TABLE VIII
CURRENT RATIOS
Ratio¹ of three-year aggregates, current assets to current liabilities
MAIN GROUPS

CODE	NO.	Ratio 0-1		Ratio 1-2		Ratio 2-3		Ratio 3-4		Ratio 4-5		Ratio 5-10		Ratio 10 and above	
		NO.	% OF COS.	NO.	% OF COS.	NO.	% OF COS.	NO.	% OF COS.	NO.	% OF COS.	NO.	% OF COS.	NO.	% OF COS.
A Extraction	37	6	16	7	19	6	16	5	14	1	2	5	14	7	19
B Construction	23	1	4	7	30	3	13	2	9	2	9	3	13	5	22
C Manufacturing	350	13	4	44	13	54	15	42	12	46	13	89	25	62	18
D Trading	223	4	2	43	19	39	27	34	15	18	8	43	19	22	10
E Real estate and finance	24	8	33	6	25	3	12			2	8	1	4	4	16
F Service	57	12	21	16	28	10	18	6	10	2	4	6	10	5	9
Total	714	44	6	123	17	135	19	89	12	71	10	147	21	105	15

¹The first figure in the range is included in each case; the second figure is excluded.

OTHER CHARACTERISTICS

95

TABLE VIII (cont.)

SUBGROUPS

CODE		0	1	2	3	4	5	10	
NO.	GROUP	NO. OF COS.	TO 1	TO 2	TO 3	TO 4	TO 5	TO 10 AND OVER	
C	Manufacturing, total	350	13	44	54	42	46	89	62
C-1	Milling	6		2		1		1	2
C-2	Ice cream and other dairy products	13	2	3	2	1	2	2	1
C-3	Meat products	6		1	2			2	1
C-4	Fruit and vegetable canning	6		1				3	2
C-5	Miscellaneous food products	23	4		5	3	4	3	4
C-6	Cotton goods	17		2	3	2	3	5	2
C-7	Silks and woolens	14		3	3	1	1	3	3
C-8	Carpets, rugs, and other textiles	8		1	1		2	2	2
C-9	Clothing and dry goods	19	1	3	5	2	2	5	1
C-10	Tanning	8		2		2			4
C-11	Shoes	14			2	4	1	5	2
C-12	Lumber	13		3	5	2		1	2
C-13	Boxes and barrels	8			1		1	4	2
C-14	Miscellaneous wood products	14		3	6			4	1
C-15	Furniture, pianos, radios	11		2	1	3	2	1	2
C-16	Paper boxes	7	1	1				2	3
C-17	Paper	11	1	2	1	2	1	4	
C-18	Drugs and chemicals	20	1	2	2	1	5	4	5
C-19	Cement and ceramic products	17		1	2	2	4	7	1
C-20	Heavy forgings, bars, billets, sheets, castings, etc.	23	1	2	4	2	5	5	4
C-21	Electrical machinery	8		2		2		4	
C-22	Agricultural, construction, and mining machinery	10		1		2	2	4	1
C-23	Stoves and other heating apparatus	9				3	4		2
C-24	Miscellaneous machinery and equipment	17		1	3	1	4	5	3
C-25	Hardware	12	1	2	1			7	1
C-26	Miscellaneous iron and steel specialties	19		1	2	3	1	5	7
C-27	Unclassified	17	1	3	3	3	2	1	4
D	Trading, total	223	4	43	59	34	18	43	22
D-1	Automobile sales and service; gas and oil—wholesale and retail	12	2	3	2		1	4	
D-2	Men's and women's clothing—retail	9		3	2	2		2	
D-3	Cotton and wool merchants	7		3	2		1	1	
D-4	Department stores	20		3	4	4	2	6	1

CORPORATE PROFITS

TABLE VIII (cont.)

SUBGROUPS

CODE NO.	GROUP	NO. OF COS.	0 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 10	10 AND OVER
D-5	Dry goods—wholesale	10		1	4	2	1	1	1
D-6	Fuel, lumber, and building materials—retail	15			7	1	1	3	3
D-7	Fuel, lumber, and building materials—wholesale	17	1	4	4	1	1	4	2
D-8	Fruit, vegetables, dairy products, grain, etc.	12		4	2	3		1	2
D-9	Furniture—retail	21		2	9	5	1	3	1
D-10	Groceries—wholesale	11		1		3	2	3	2
D-11	Hardware—wholesale and retail	15			2	1	4	4	4
D-12	Jewelry—wholesale and retail	7		3	3			1	
D-13	Paper and leather products—wholesale	8			2	3	1	1	1
D-14	Auto supplies, electrical equipment, radios, sporting goods—wholesale and retail	17	1	3	5	1	3	2	2
D-15	Unclassified	42		13	11	8		7	3

INVENTORIES RELATIVE TO ASSETS

As of supplementary interest in connection with the status of working capital the following schedule is presented. This shows ratio of aggregate inventories to aggregate net book assets for 1929 by subgroups for the manufacturing and trading fields.

PERCENTAGE RATIO OF AGGREGATE INVENTORIES TO AGGREGATE NET BOOK ASSETS

Manufacturing, total	25.90
Milling	29.40
Ice cream and other dairy products	10.77
Meat products	31.88
Fruit and vegetable canning	23.27
Miscellaneous food products	44.38 ¹
Cotton goods	27.60
Silks and woolens	27.12

OTHER CHARACTERISTICS

97

PERCENTAGE RATIO OF AGGREGATE INVENTORIES TO AGGREGATE NET BOOK ASSETS

Manufacturing (cont.)	
Carpets, rugs, and other textiles	43.12
Clothing and dry goods	32.74
Tanning	44.86
Shoes	27.16
Lumber	33.69
Boxes and barrels	25.03
Miscellaneous wood products	28.05
Furniture, pianos, radios	25.05
Paper boxes	27.07
Paper	14.87
Drugs and chemicals	28.43
Cement and ceramic products	15.23
Heavy forgings, bars, billets, sheets, castings, etc.	17.24
Electrical machinery	35.87
Agricultural, construction, and mining machinery	32.07
Stoves and other heating apparatus	21.52
Miscellaneous machinery and equipment	24.70
Hardware	14.37
Miscellaneous iron and steel products	18.52
Unclassified	20.64
Trading, total	29.34
Automobile sales and service; gas and oil—wholesale and retail	26.35
Men's and women's clothing—retail	37.63
Cotton and wool merchants	49.44
Department stores	25.71
Dry goods—wholesale	38.85
Fuel, lumber, and building materials—retail	20.78 ¹
Fuel, lumber, and building materials—wholesale	17.52
Fruit, vegetables, dairy products, grain, etc.	27.76
Furniture—retail	21.46
Groceries—wholesale	30.68
Hardware—wholesale and retail	34.30
Jewelry—wholesale and retail	47.03

¹ Adjusted by the elimination of one very large company from the group this becomes 27.36.

² Adjusted by the elimination of one large company from the group this becomes 16.90.

CORPORATE PROFITS

PERCENTAGE RATIO OF AGGREGATE INVENTORIES TO
AGGREGATE NET BOOK ASSETSTrading (*cont.*)

Paper and leather products—wholesale	32.71
Auto supplies, electrical equipment, radios, sporting goods— wholesale and retail	40.23
Unclassified	30.71

SALES RELATIVE TO INVENTORIES

To throw some light on the question of stock turnover, ratios of sales to inventories were calculated for all companies in the manufacturing and trading groups and the results are presented by subgroups in the following tabulation.

RATIO OF SALES TO INVENTORIES

GROUP	NUMBER OF COMPANIES	SIMPLE AVERAGES	MEDIANS
Manufacturing			
Milling	6	16.56	13.37
Ice cream and other dairy products	13	83.18	50.01
Meat products	6	19.85	22.39
Fruit and vegetable canning	6	5.67	5.56
Miscellaneous food products	23	21.15	11.35
Cotton goods	17	3.84	3.20
Silks and woolens	14	8.49	4.27
Carpets, rugs, and other textiles	8	5.84	4.32
Clothing and dry goods	18	6.53	6.33
Tanning	8	5.06	2.76
Shoes	14	7.02	5.47
Lumber	13	3.13	2.05
Boxes and barrels	8	6.64	5.96
Miscellaneous wood products	13	6.66	5.54
Furniture, pianos, radios	11	4.34	3.99
Paper boxes	7	8.13	6.74
Paper	11	4.70	4.51
Drugs and chemicals	20	7.22	6.32
Cement and ceramic products	17	7.95	4.85
Heavy forgings, bars, billets, sheets, castings, etc.	22	7.55	5.94

OTHER CHARACTERISTICS

99

RATIO OF SALES TO INVENTORIES (*cont.*)

GROUP	NUMBER OF COMPANIES	SIMPLE AVERAGES	MEDIANS
Manufacturing (<i>cont.</i>)			
Electrical machinery	8	4.82	4.12
Agricultural, construction and mining machinery	10	4.13	3.75
Stoves and other heating apparatus	9	5.13	4.66
Miscellaneous machinery and equipment	16	7.15	5.96
Hardware	12	8.17	7.30
Miscellaneous iron and steel specialties	18	15.21	11.82
Unclassified	14	12.34	6.62
Trading			
Automobile sales and service; gas and oil—wholesale and retail	12	23.53	13.29
Men's and women's clothing	9	11.11	5.43
Cotton and wool merchants	6	52.65	7.17
Department stores	20	5.86	5.42
Dry goods—wholesale	10	13.41	5.17
Fuel, lumber, and building materials—retail	15	12.82	8.32
Fuel, lumber, and building materials—wholesale	16	8.80	5.38
Fruit, vegetables, dairy products, grain, etc.	12	32.91	27.78
Furniture—retail	21	5.50	4.83
Groceries—wholesale	11	8.39	6.66
Hardware—wholesale and retail	15	4.80	3.82
Jewelry—wholesale and retail	7	2.29	2.83
Paper and leather products	8	7.99	5.82
Auto supplies, electrical equipment, radios, sporting goods—wholesale and retail	17	13.11	7.53
Unclassified	42	8.64	4.52

In computing these ratios the first step was the calculation of the ratio of aggregate sales to aggregate inventories for each company. This was determined by adding the sales for all years available and dividing this figure by the sum of the inventories reported at the *ends* of the corresponding years. A simple average of such ratios in percentage form was then computed for the companies in each subgroup, and it is these

averages and the corresponding medians which are displayed in the table, in terms of the number of times sales are divisible by inventories. The calculations were made in this manner with the thought that the period covered was too short to furnish any evidence as to trends, and that under the circumstances the most significant figure for each company was an aggregate ratio for the three years.

It is recognized that the usual formula for the computation of turnover is cost of sales to average inventory. This mode of computation was not followed here, however, for two reasons: (1) it was felt that sales figures were more comparable than the data for cost of sales that were available; (2) there was no basis for determining an average inventory for 1927, the first year of the series. 'Cost of sales' varies sharply in content with the accounting methods in effect, particularly in the manufacturing field. In manufacturing, further, labor and overhead charges are involved in both cost of sales and inventory data, which means that the ratio of cost of sales to average inventories does not express stock turnover in the narrow sense. In comparing the results obtained here with similar data drawn from other sources, accordingly, the particular method of calculation used must be borne in mind.

In the manufacturing field high turnovers are found, as would be expected, in the food industries, particularly the ice cream and dairy products group. The other manufacturing groups (except 'miscellaneous iron and steel specialties' and 'unclassified') show a range of average turnover from 3.13 times in the lumber group to 8.49 times in the silks and woolens group. A simple average of rates for all manufacturing concerns other than the ice cream and dairy group (329 companies) is 8.5. In trading the rates are relatively low in such fields as jewelry, hardware and furniture, and high, for example, among dealers in fruit and other perishables. The

simple average of rates for all trading companies, excluding the two groups showing the highest rates, is 9.4.

In some cases the average for the group is undoubtedly not very significant (cotton and wool merchants, for example), because the figures for one or more large concerns were very unusual. The medians, while not exempt from objection, are perhaps somewhat more typical than the averages in a majority of groups. It is noticeable that in every group but one the medians are less than the averages, although in most cases the differences are not striking.

SALARIES TO STOCKHOLDERS

In this study information on total salaries paid to stockholders was sought especially because of the possible relation of officers' 'salaries', particularly in small companies, to profits. However, for many concerns this information was not furnished and in many for which salary data were given there was evidence of a decided lack of comparability. The following tabulation, presented with due recognition of the

AVERAGES OF AGGREGATE SALARIES PAID BY INDIVIDUAL COMPANIES TO STOCKHOLDERS

NET ASSETS	MANU- FACTURING	TRADING	ALL OTHER	ALL COMPANIES
\$0 to \$200,000				
Percentage reporting salaries	71	68	70	70
Average salary payments	\$12,624	\$13,020	\$14,423	\$13,255
\$200,000 to \$500,000				
Percentage reporting salaries	68	70	69	69
Average salary payments	\$20,924	\$14,884	\$21,684	\$18,399
\$500,000 to \$1,500,000				
Percentage reporting salaries	68	66	47	63
Average salary payments	\$30,028	\$29,844	\$42,141	\$31,613
\$1,500,000 to \$5,000,000				
Percentage reporting salaries	59	63	60	60
Average salary payments	\$54,132	\$56,602	\$34,750	\$52,586

limitations of the figures, shows the averages of aggregate salaries paid by individual companies to stockholders by four size groups. The figures indicate higher salaries in relation to net assets for the smaller companies. In other words, salaries to stockholders do not appear to increase proportionately to the growth in assets. This may in part reflect the tendency in small companies, in which the stock is held by a few persons who are also active in the administration, to pay relatively high salaries rather than dividends because of the advantage thereby derived in the matter of Federal income taxes.

INTANGIBLE ASSETS AND EARNING POWER

It might be assumed, in view of the skeptical attitude usually taken with respect to recorded intangibles, that those companies whose assets include a considerable percentage of intangibles would show relatively low earning rates. A special tabulation of three-year average earning rates (as computed for Table I) of all companies showing intangibles in excess of 10 per cent of net book assets indicates that in the manufacturing group at least this assumption would be unwarranted, as these companies show an average earning power of 10.72 per cent. In other words, there is an indication that in general intangibles in the manufacturing group are recognized only as justified on the basis of sound values. In the trading group the concerns showing over 10 per cent of net assets on their books as intangibles seem to be inferior in earning power to other companies in this field, as they average only 5.54 per cent. Similarly in the case of 'all other' companies the average earning rate for concerns showing over 10 per cent of net assets as intangibles is considerably less than the rate earned by other companies in this group.

OTHER CHARACTERISTICS

103

INDIVIDUAL COMPANIES WITH INTANGIBLES IN EXCESS OF TEN
PER CENT OF NET BOOK ASSETS

MANUFACTURING

AVERAGE NET ASSETS (INCLUDING INTANGIBLES)	AVERAGE INTANGIBLES	PERCENTAGE OF INTANGIBLES TO ASSETS	EARNING POWER
\$201,000	\$24,500	12.2	16.66
231,000	60,000	26.0	11.63
544,000	105,000	19.3	4.45
1,559,000	1,450,000	93.0	1.13
102,000	50,000	49.0	23.09
35,300	12,000	34.0	5.26
3,103,000	520,085	16.8	11.79
3,853,000	735,000	19.1	12.87
2,374,000	569,000	24.0	17.36
3,064,000	2,114,000	69.0	5.17
7,458,000	2,141,000	28.7	12.81
5,321,000	853,000	16.0	4.75
3,477,000	3,187,000	91.7	10.87
1,056,000	881,000	83.4	.71*
2,266,000	1,000,000	44.1	9.95
133,000	39,000	29.3	2.63
121,000	88,000	72.7	39.98
304,000	32,000	10.5	18.38
57,000	13,000	22.8	2.58
43,000	25,000	58.1	4.11*
160,000	29,000	18.1	16.87
1,868,000	263,000	14.1	14.68
5,740,000	2,000,000	34.8	1.18
333,000	77,000	23.1	7.55
137,000	32,000	23.4	15.82
3,009,000	311,000	10.3	13.45
84,000	10,000	11.9	17.26
1,938,000	340,000	17.5	39.68
5,757,000	767,000	13.3	4.91
654,000	185,000	28.3	2.72
527,000	80,000	15.2	11.65*
848,000	100,000	11.8	5.17
411,000	162,000	39.4	16.16
490,000	237,000	48.4	6.71
198,000	39,000	19.7	2.19
526,000	166,000	31.6	10.28
56,000	20,000	35.7	27.09
Average for manufacturing			10.72

CORPORATE PROFITS

INDIVIDUAL COMPANIES WITH INTANGIBLES IN EXCESS OF TEN
PER CENT OF NET BOOK ASSETS

TRADING

AVERAGE NET ASSETS (INCLUDING INTANGIBLES)	AVERAGE INTANGIBLES	PERCENTAGE OF INTANGIBLES TO ASSETS	EARNING POWER
\$2,096,000	\$1,311,000	62.5	7.04
14,998,000	2,615,000	17.4	3.25
1,097,000	250,000	22.8	.99
6,000	4,000	66.7	4.94 ^a
3,718,000	400,000	10.8	5.35
201,000	60,000	29.9	.05 ^a
2,071,000	310,000	15.0	.42
130,000	25,000	19.2	5.83
278,000	50,000	18.0	1.48 ^a
783,000	150,000	19.2	1.87
222,000	50,000	22.5	1.98 ^a
6,118,000	711,000	11.6	14.95
110,000	30,000	27.3	8.48
170,000	37,000	21.8	.70
1,186,000	175,000	14.8	.75
168,000	100,000	59.5	37.90
2,732,000	650,000	23.8	7.17
3,939,000	1,550,000	39.4	9.87
36,638,000	4,000,000	10.9	9.05
Average for trading			5.54

ALL OTHER

AVERAGE NET ASSETS (INCLUDING INTANGIBLES)	AVERAGE INTANGIBLES	PERCENTAGE OF INTANGIBLES TO ASSETS	EARNING POWER
\$605,000	\$548,000	90.6	9.79
3,273,000	617,000	18.9	12.45
40,000	7,500	18.8	17.82
37,000	11,000	29.7	26.07 ^a
61,000	10,000	16.4	.18
106,000	13,000	12.3	8.78
69,901,000	43,817,000	62.7	21.41
61,000	17,000	27.9	5.38
138,000	19,000	13.8	3.74 ^a
68,000	25,000	36.8	25.15

OTHER CHARACTERISTICS

105

INDIVIDUAL COMPANIES WITH INTANGIBLES IN EXCESS OF TEN PER CENT OF NET BOOK ASSETS

ALL OTHER (cont.)

AVERAGE NET ASSETS (INCLUDING INTANGIBLES)	AVERAGE INTANGIBLES	PERCENTAGE OF INTANGIBLES TO ASSETS	EARNING POWER
\$655,000	\$116,000	17.7	15.84
131,000	24,000	18.3	8.56
21,000	6,300	30.0	3.35*
162,000	27,000	16.7	17.22
95,000	39,000	41.1	6.19
34,000	14,000	41.2	1.87*
1,651,000	854,000	51.7	7.70
Average for all other			7.14

* Deficit.

VIII FURTHER ANALYSIS OF ACCOUNTING RECORDS*

THE RESULTS derived from the present sample are sufficiently interesting to suggest the value of further analysis of accounting records. A sample more adequate than the one on which these results are based would make possible a more extensive study of financial and operating data than was felt justified here. For example, the differences in the several balance sheet and income account figures and ratios, when related to the rate of earnings (itself a financial ratio), might enable us to measure the influence of some of the factors affecting profits and their variability. Further, if a broader sample were available the rate of earnings in industries other than manufacturing and trading could be adequately covered. Variation in the rates of return, and changes in this variation, might be described in detail, use being made of a more refined statistical technique.⁹

Proper observation of fluctuations in earning rates from year to year obviously requires data for a period longer than three years. This is true also of the relationship between the

* Prepared by Mr. Fabricant.

⁹ An interesting application of measures of extent of dispersion, of skewness (which indicate the lack of symmetry of the variation about the mean), and of kurtosis (which suggests the degree of concentration around the average) has been made by R. T. Bowman in *A Statistical Study of Profits* (Pennsylvania University Press, 1934). That light can be thrown upon the nature of the various factors affecting the operating and financial characteristics of business concerns by the employment of these tools is indicated in this work.

variability and level of earnings, which can be established only on the basis of data covering a longer period.

Geographical differences in earning rates, one of the points intended to be covered in the present study, could be looked into if a larger sample were available. The relation of age of concerns to rate of earnings is another question that invites study.

Variation in earning rates by size of company demands more detailed analysis. The influence, upon measures of profit-making, of outside investments in the case of large concerns, and of compensation paid to officers in the case of small corporations, should be traced. The possibility that methods of valuing assets vary with the size of the enterprise also deserves attention.

Differences in the character of the capital structure, and the consequences of these differences, require more adequate description than is possible on the basis of the present sample. Such sources of funds as banks, the open market, private loans, and finance companies should be distinguished. The discussion of the varying soundness of preferred stock issues merits amplification to include the soundness of bond or mortgage issues, especially during the recent depression period.

A detailed study of operating and financial ratios, as they vary from industry to industry and among corporations of different size, is much needed. On the basis of a comprehensive sample of audit reports, a set of managerial ratios might be furnished to the business man and the accountant that might prove especially useful because their relation to the level and variability of profits would be indicated. Interest lies not only in the characteristics of the *average* firm, in the typical ratios, but also in the characteristics of the *successful* firm.

Sources of income other than ordinary operations cannot be investigated effectively without a much larger body of

data than is now available. The various types of costs also invite analysis.

Of special value might be a study of current accounting practices. No clear notion of the data made available by accounts, or of the rules which guide business men, can be obtained without a detailed examination of the practices as they really exist. The written rules do not necessarily describe the behavior of business men. A study of how business men *actually* value their assets, compute their costs, determine their policies, is essential. Professor John B. Canning, in *Economics of Accountancy*, has discussed this matter admirably; a quantitative study that would indicate the relative frequency of various methods of valuation would supplement that work.

In a recent inquiry, for example, the National Association of Cost Accountants discovered that of 117 companies 46 had written down the value of their assets in the years following 1929, half to 'present market value' and half to 'net sound value'. That there was 'considerable' writing-up of assets in 1928 and 1929 is generally believed. A brief investigation by the National Bureau of Economic Research, summarized in R. C. Epstein's *Industrial Profits in the United States*, pp. 545-7, gives some indication of the extent of changes in valuation policy. Of 67 fairly large corporations reporting, 17 had, during the period 1919-31, changed their method of valuing assets. No indication is given of the extent to which methods of valuation at a given date varied from company to company. These figures represent simply the number of changes, which might have worked towards more or less uniformity in method of valuation. Another bit of evidence is provided by the present sample. Reserves for appreciation were reported as follows: 1927, of 691 corporations by 78; 1928, of 711 by 88; 1929, of 709 by 96. The percentage of corporations with

appreciation reserves thus increased slightly during this three-year period.

Further, a study¹⁰ of the published reports of 182 identical corporations for the years 1927-32 reveals that write-downs constituted about one-tenth of the net fixed assets of this group of companies. Write-ups constituted 0.9 per cent of the net fixed assets, and write-downs 9.7 per cent, with a net figure of 8.8 per cent. Write-ups were scattered irregularly throughout the five-year period; most of the write-downs were made in 1931 and 1932.

Whether the effects of differences in accounting practice are cancelled, even in a large sample, is of particular interest in the interpretation of 'book values'. It is doubtful that they are cancelled during short intervals. Apart from differences in principle, a mass bias may be involved, even in the application of identical principles. Are concerns that write off too much depreciation, for example, offset by concerns in the same industry, or of the same size, that write off too little? If these two groups do not balance, the mass error resulting may be of significance in an analysis of the consequences of the behavior of business men. It is often held that, in the long run, the amount of depreciation written off cannot exceed the cost of the assets less salvage value. But there may be swings of excess and deficiency (in terms of cost figures) in depreciation charges, or over- or under-charges for depreciation may appear sporadically through reorganizations, sales of property and equipment, and write-downs. These swings are correlated no doubt with general business conditions; they are probably related also to any major changes in price levels and conditions within a specific industry or industry in general. Even a ten-year period may be insufficient for them

¹⁰ Arthur H. Winakor, Maintenance of Working Capital of Industrial Corporations by Conversion of Fixed Assets, *University of Illinois Bulletin* No. 49 (1934), p. 24.

to offset one another. In addition there may be a chronic state of overvaluation or undervaluation of assets persisting over periods longer than the life of the assets. While perhaps not affecting estimates of annual earnings materially, this may materially distort comparisons of capital and therefore of rates of return. Differences from industry to industry, from one period to another, between large and small concerns, from one region to another are thus set up which, to some extent, vitiate the conclusions drawn directly from accounting data.

A thoroughly detailed accounting report is necessary to cast light on the practices and policies of a company. But even the usual brief reports available can be made to yield information at least indicative of the differences in practice, especially if a considerable series is available for each company. Depreciation rates, reserves for depreciation, the presence or absence of entries for intangible assets, the amount of intangibles being written off, the method of valuing inventory, the existence of appreciation reserves and reserves for contingencies, the recording of contingent liabilities, the analysis of the surplus account, all these reveal accounting practices and managerial policies. Persistence in rank of rates of return from one period to another may simply be due to and indicative of individual and industrial differences in valuation of assets.

Other information bearing on many economic problems could be obtained from a sufficient sample. The problem of corporate savings is an example. It is shown above that only 57 per cent of the earnings available for distribution to common stockholders of the 700 corporations in the present sample was paid out in the form of dividends. The relation of the resulting savings to the rate of return would help to show whether the aggregate volume of national savings was changed because of this particular form of saving, and

whether investments in certain industries mean a scanty supply of capital in others. The assets in which savings by business enterprises are invested would suggest the use to which they are put and the possible repercussions upon the economic system. The relation of corporate savings to other sources of capital would be of interest. In the present sample earned surplus (even if we neglect stock dividends) accounted for over 30 per cent of the total stock equity.

Changes in assets and costs reveal the characteristics statisticians have come to expect in economic series at large. Trends, cycles, seasonal movements, and other more irregular fluctuations are discernible. These changes, especially the long-time movements, portray at once the development of the economic system and the changing structure of its relationships. No attempt to trace the historical growth of our economic institutions and processes may neglect the side revealed in books of account. A study of these changing relations would indicate the development and extent of hand-to-mouth buying and producing, for example.¹¹ Light would be cast on the relation between size of concern and amount of stock required to carry on a given volume of business. Variations in the degree of mechanization of industry and the effects of the increasing use of labor-saving devices, the relation between concentration in industry and the rate of technical progress, and trends in overhead costs would be indicated. If data are made available, many facts of use in a consideration of these problems may become known, and hypotheses related to them may be tested.

Current operations may be considered as falling into two classes: production or fabrication, and distribution. Individual and industrial variation in the proportions of expendi-

¹¹ Since these practices lead to heavy investments in equipment and to heavier fixed charges, which tend to increase the instability of the economic system, the shift is of the greatest significance.

tures devoted to these two types of activity, and their changes in time, are obviously related to many discussions of the place of distributive expenses in the modern economy. While some scattered studies have been made analyzing the components of costs, no thorough analysis covering the entire field of enterprise has as yet been possible because of lack of data. Nor has the relation of these proportions to profits and production, to industry and size of concern, been adequately considered.

Even our measures of economic welfare depend in some part on the accounts of business concerns, and can be understood clearly only by a close study of these records. The inclusion of profits in estimates of the national income, and of book valuations of assets in computations of the national wealth, means that use is made of measures not directly based upon market valuations. What, then, is their basis? Only by an investigation of the manner in which accounts are constructed is it possible to answer this question. The controversy underlying the inclusion of corporate savings in estimates of the national income finds its root in the same difficulty with which accounting in a dynamic economy is confronted—that of valuation. The market may be the final arbiter but which market? Balance sheets as of December 31 do not usually refer to market values precisely as of December 31. The difficulties involved have been recognized in recent rulings with respect to the basis of valuation of assets of insurance companies.

The differences in returns earned by capital invested in diverse parts of the economy (in one industry rather than another, in large or small companies, in various regional areas) measure the relative importance of the forces affecting the movements of enterprise, capital and labor. If only the quest for profits and other incomes were involved in these movements and if the factors of production were perfectly

mobile, it is inconceivable that wide differences in rates of return could persist. An examination of the facts is not calculated so much to test the theory that there is a tendency towards equality of return in different industries as to measure the efficacy of the profit motive in directing the flow of investment in the various fields of industry, and to indicate the degree to which action based on this motive is impeded by economic, legal or other obstacles.

These, it is suggested, are some of the questions inviting the attention of both accountants and economists. But the further analysis of accounting records, of value in finding answers to these questions, waits on the availability of the data.

APPENDIX A

FORM OF QUESTIONNAIRE

AMERICAN INSTITUTE OF ACCOUNTANTS
135 CEDAR STREET, NEW YORK

COÖPERATION WITH NATIONAL BUREAU OF ECONOMIC RESEARCH

June 20, 1930

GENTLEMEN:

The coöperation of the American Institute of Accountants has been requested by the National Bureau of Economic Research in a study of corporate profits.

The National Bureau of Economic Research is purely a fact-finding organization devoted to the investigation of economic data for the purpose of obtaining a more thorough knowledge of fundamental business conditions in this country and of assisting in the development of a scientific approach to our economic problems. The Bureau is an organization of unquestioned integrity and impartiality and has issued many noteworthy studies in the past ten years, particularly in the field of the national income and its distribution.

The object of the present study is to obtain figures relating to the earning power in recent years of American corporations in the various lines of industry. It is hoped from the study to obtain some information on problems such as the following:

- (1) Comparative earning power in various fields.
- (2) Relation of earning power to size of enterprise.
- (3) Tendency of low and high levels of profit in particular fields or enterprises toward a normal level.

APPENDIX

- (4) Comparative earning power in various geographical regions.
- (5) Extent and trend of reinvestment of earnings (study of division between dividends and surplus accumulation).
- (6) Relation of earning power to working-capital provision.
- (7) Relation of 'cost of sales' and other cost elements to sales and net profit.
- (8) Development of important managerial standards in the form of financial ratios and relationships.

The National Bureau, at an early stage of its plans, approached the Institute with a request for help, in the belief that information in the files of our members relating to their clients' affairs constitutes one of the most accurate and valuable sources of data. In response to the Bureau's request the president of the Institute appointed a special committee on coöperation with the National Bureau of Economic Research. This committee has had several conferences with representatives of the Bureau, led by Professor W. A. Paton of the University of Michigan. The committee reported to the Executive Committee, which in turn referred to the Council the plan for the Institute's participation in the study, and at its meeting on April 14th the Council approved the plan and recommended that members of the Institute be requested to render all possible assistance.

The nature of the information desired is indicated on the attached data sheet. The committee is anxious to obtain information for the three years 1927, 1928 and 1929. The committee would be glad to have you supply the desired information for each of your corporate clients for the years named. A separate data sheet should be used for each individual business, and we shall be glad to send you as many additional sheets as you require. If it is impracticable for you to tender the desired information with respect to all your corporate clients, it is hoped that you will select from among them corporations engaged in industries representative of your clientele as a whole. The data from small as well as large concerns are desired and from the relatively unsuccessful as well as the very profitable undertakings.

The study will cover only industrial and mercantile corporations. Information about banking, insurance and transportation companies, therefore, is not desired.

It should be pointed out that due precautions will be taken to prevent identification of the businesses in question. On our records your firm has been given a number. This number has been noted on the data sheet sent to you, but when the material is turned over to the National Bureau of Economic Research the identity of the accounting firms will not be disclosed. In no case will the name of a client be reported on the data sheet. Accordingly the Council feels that there need be no hesitancy on professional grounds in furnishing the information requested.

This letter is sent only to main offices of accounting firms. If it is desired that additional data sheets be sent direct to branch offices please advise us to that effect on the enclosed card.

The Council of the Institute is convinced that a very valuable economic service can be rendered by assembling this information, and it earnestly requests that members render as much assistance as they can. Each cooperating member will, of course, receive a copy of the report upon its completion, giving the summarized results of the entire study to which he has contributed. Please sign and return the enclosed card as soon as possible, so that the necessary supply of additional data sheets can be forwarded to you. It is earnestly hoped that you will complete the tabulations and submit the results during the current summer.

Yours sincerely,

JOHN L. CAREY, *Secretary*

AMERICAN INSTITUTE OF ACCOUNTANTS

SPECIAL COMMITTEE

ON

COÖPERATION WITH NATIONAL BUREAU OF ECONOMIC RESEARCH

APPENDIX

INTRODUCTORY

1. Description of business (indicate principal line and important sublines and whether wholesale or retail or both)
-
- 1a. Give description of business used on 1927 income-tax return, if one was filed
2. Location (state only)

INCOME-SHEET STATISTICS

	Years		
	1927	1928	1929
1. Sales or equivalent (preferably net, after deducting discounts, returns, etc.)			
2. Operating expenses (including "cost of sales" and excluding interest charges)			
a. Cost of sales (assigned labor, materials and overhead)			
b. Depreciation (to extent not included in cost of sales)			
c. Depletion			
d. Amortization of intangibles and organization charges			
e. Salaries or other compensation paid to stockholders			
f. Special losses included			
3. Net operating revenue			
a. Interest charges			
b. Federal income taxes			
c. State taxes			
d. Local taxes			
4. Non-operating and special income.			
a. Interest earned			
b. Dividends			
c. Rentals			
d. Other (label)			
5. Net balance available for dividends			
6. Dividends paid on preference stocks (exclusive of stock dividends)....			
7. Balance for common or non-preference stock			
8. Common dividends (exclusive of stock dividends)			
9. Stock dividends			

FORM OF QUESTIONNAIRE

119

BALANCE-SHEET STATISTICS

<i>Assets</i>	1927	Years 1928	1929
1. Total assets			
a. Cash			
b. Receivables			
c. Inventories			
d. Other current assets (including prepayments)			
e. Land			
f. Natural resources (both under lease and owned)			
g. Buildings, equipment, etc.			
h. Intangibles—purchased			
i. Intangibles—acquired otherwise than by purchase			
j. Organization costs and deferred charges			
k. Other fixed assets			
l. Total of items, if any, included in total assets but not listed in a to k above (label)			
<i>Liabilities and Capital</i>			
1. Total long-term liabilities			
2. Total current liabilities			
3. Valuation reserves and allowances..			
a. Depreciation reserves			
b. Allowance for bad or doubtful accounts			
c. Other valuation reserves or allow- ances (label)			
4. Capital stock (all classes)			
a. Total of preference stocks.....			
b. Stock premium or capital surplus on books			
(1) Amount, if any, applicable to preference stocks			
5. Unappropriated surplus			
a. Earned			
b. Appreciation or other special case			
6. Appropriated surplus (true reserves)			
a. Amount, if any, not derived from earnings			

APPENDIX B

EARNING RATES IN OPEN-END CLASSES OF TABLE I

The industry groups represented in Appendices B and C by code numbers are listed in Ch. I in the section 'Classification of Companies'.

A-1	Av. ¹ : 27.68; 1929: 42.93
A-2	Av.: 41.99, 49.58; 1927: 36.98, 40.44, 55.72, 68.67; 1928: 26.65, 43.08; 1929: (d)11.03, ² (d)5.14, 37.00, 44.01
A-3	Av.: 38.24; 1927: (d)9.72, (d)7.65, (d)4.19; 1928: (d)4.61, 60.37; 1929: (d)4.29, 64.08
A-4	Av.: (d)4.03; 1928: (d)5.30; 1929: (d)8.93
B-1	Av.: 31.38; 1927: 37.23; 1928: (d)19.72, 25.54, 30.62
B-2	Av.: (d)19.91, (d)13.89, 109.23; 1927: (d)34.17, 54.81; 1928: (d)60.40, 193.07; 1929: (d)31.38, (d)7.06, 79.81
C-1	Av.: (d)5.34, 26.03; 1927: 32.86; 1928: (d)16.81, 27.54; 1929: (d)10.44
C-2	Av.: 34.59; 1927: 31.21; 1928: 33.46; 1929: (d)7.98, 30.78, 39.09
C-3	Av.: 24.97; 1927: 33.99; 1929: 30.96
C-4	1928: 32.92
C-5	Av.: 26.41, 43.04, 44.45, 48.74; 1927: (d)22.82, 25.34, 34.51, 40.42, 40.52, 52.66; 1928: (d)8.41, (d)4.35, 46.84, 48.82, 52.40, 52.41; 1929: (d)8.30, 35.02, 39.79, 41.15, 46.08
C-6	Av.: (d)4.87; 1927: 24.34; 1928: (d)19.87, (d)4.93; 1929: (d)12.20, (d)4.96
C-7	1928: (d)8.60; 1929: (d)6.32
C-8	1929: 36.42
C-9	1927: 41.68; 1928: 31.18
C-10	1929: (d)5.68
C-11	Av.: 24.47, 24.97; 1927: 26.25; 1928: 25.15, 27.03
C-12	1927: (d)8.41; 1928: 26.07; 1929: (d)5.16
C-13	Av.: (d)12.71; 1928: (d)7.49; 1929: (d)32.80, 29.31

EARNING RATES IN OPEN-END CLASSES 121

- C-14 Av.: (d)18.38, (d)16.65, (d)7.61, (d)4.11; 1927: (d)54.37, (d)8.58, (d)4.72;
1928: (d)11.79; 1929: (d)40.37, (d)7.60, (d)6.32, 30.91, 36.40
- C-15 Av.: (d)4.67; 1927: (d)12.60, (d)8.13; 1928: (d)4.12; 1929: (d)10.02, 26.00
- C-16 1928: (d)7.03
- C-17 1929: (d)14.01
- C-18 Av.: 25.65, 37.20, 39.98; 1927: 34.09, 40.32; 1928: 25.71, 40.41, 41.82;
1929: (d)4.32, 25.60, 35.70, 39.21
- C-19 Av.: 24.47; 24.67; 1927: (d)4.07, 25.50; 1928: 24.79, 32.36; 1929: (d)5.74,
35.16
- C-20 Av.: (d)11.65; 1927: (d)9.57, (d)2.34; 1928: (d)11.77, 37.27; 1929: (d)13.62
- C-21 Av.: (d)5.32; 1927: (d)8.17; 1929: (d)7.26
- C-22 1929: (d)7.57, 24.13
- C-24 Av.: 24.55, 27.24, 31.25; 1927: 37.97; 1928: (d)6.15, 26.27, 28.31, 30.15,
44.88; 1929: 41.26, 42.62
- C-25 Av.: 26.96; 1927: (d)4.84, 32.97; 1928: 29.12, 37.85; 1929: 26.33
- C-26 Av.: (d)32.89, 26.72, 27.09, 28.39; 1927: (d)42.25, (d)4.88, 29.14, 31.55;
1928: (d)31.71, 30.38, 32.08; 1929: (d)24.70, (d)5.24, 36.19, 39.92, 42.67
- C-27 Av.: 25.63, 39.68; 1927: 29.22, 38.87, 54.48; 1928: 28.54, 32.33, 41.55;
1929: (d)31.02, 24.40, 32.22
- D-1 Av.: (d)4.94; 1927: (d)10.90, 28.54; 1928: (d)5.68, 24.47; 1929: (d)14.25
- D-2 1928: (d)6.38; 1929: (d)4.30
- D-3 Av.: 43.40; 1927: 50.89; 1929: (d)24.70, (d)10.15, 57.86
- D-4 Av.: (d)7.06; 1927: (d)6.31; 1928: (d)7.58; 1929: (d)7.30, 30.95
- D-5 1929: (d)6.85
- D-6 1928: 27.41; 1929: (d)4.24
- D-7 Av.: (d)7.04; 1927: (d)10.50; 1928: (d)7.43, (d)2.58
- D-8 Av.: (d)7.57, (d)5.78, (d)4.60, 24.54; 1927: (d)22.60, (d)5.88, 30.80;
1928: (d)10.18; 1929: (d)22.34, (d)15.11, (d)6.43, (d)6.10
- D-9 Av.: 28.45; 1927: 25.98; 1928: (d)4.99, 30.81; 1929: (d)8.05, 28.56
- D-10 Av.: 40.13; 1927: 36.60; 1928: 54.10; 1929: 29.69
- D-11 1928: (d)4.20
- D-12 Av.: (d)7.17; 1928: (d)8.85; 1929: (d)14.24
- D-13 1929: (d)8.65, (d)2.22
- D-14 Av.: (d)5.90; 1927: (d)64.05, (d)8.89; 1928: (d)23.17, (d)9.06, 37.60;
1929: (d)6.18, 25.94, 25.94, 29.65
- D-15 Av.: (d)27.72, (d)5.44, 37.90; 1927: (d)11.20, (d)9.49, (d)8.25, (d)5.83,
31.44; 1928: (d)18.16, (d)6.26, 26.51, 37.31; 1929: (d)55.52, (d)15.67,
(d)5.33, (d)4.57, 34.23, 44.96
- E-1 Av.: (d)26.07; 1927: (d)13.87; 1928: (d)21.61; 1929: (d)42.72, 33.54
- F-1 Av.: 32.21, 35.57; 1927: 32.43, 37.25; 1928: 43.61, 44.68; 1929: 24.79
- F-2 Av.: (d)4.06, 27.81, 37.27; 1927: 27.49, 30.07; 1928: (d)4.29, 24.25, 46.25;
1929: (d)5.25, 35.49, 40.27

- F-3 Av.: (d)19.90, (d)6.65, 25.15; 1927: (d)20.14, (d)9.74, (d)6.88; 1928: (d)10.32, (d)10.09, 40.83; 1929: (d)39.87, (d)15.98, 28.84, 31.21, 34.48
- F-4 Av.: 45.69; 1927: 38.56; 1928: 24.60, 50.41; 1929: (d)18.63, (d)5.68, 48.10
- ¹ Average of the three years 1927-29.
- ² Negative values are indicated by (d).

EARNING RATES IN OPEN-END CLASSES OF TABLE II

- A-1 Av.:¹ (d)17.00, 30.62; 1927: (d)31.26; 1928: (d)28.43; 1929: 49.40
- A-2 Av.: 30.25, 55.46, 59.88; 1927: (d)9.27, 40.60, 60.53, 63.39, 93.61; 1928: 41.14, 47.18; 1929: (d)12.07, (d)11.90, (d)6.86, 24.53, 38.85, 61.84
- A-3 Av.: 41.68; 1927: (d)25.18, (d)16.78, (d)4.39, (d)4.38; 1928: (d)4.63, (d)4.05, 67.94; 1929: (d)4.86, 73.89
- A-4 Av.: (d)7.11, (d)6.57; 1927: (d)7.04; 1928: (d)7.90, (d)7.66; 1929: (d)13.29, (d)6.62
- B-1 Av.: (d)36.61, 28.39, 35.72; 1927: 30.49, 43.07; 1928: (d)116.16, (d)6.85, 28.36, 42.96; 1929: 28.93, 36.11
- B-2 Av.: (d)32.75, 24.22, 25.22; 1927: (d)35.07, 24.49, 24.75, 25.57, 32.24; 1928: (d)5.86, (d)4.06, 24.22, 24.24, 28.01; 1929: (d)72.01, (d)19.47, (d)4.34, 26.91
- C-1 Av.: (d)23.45, 30.02; 1927: 37.08; 1928: (d)41.43, (d)7.29, 32.91; 1929: (d)39.16
- C-2 Av.: (d)6.62, 24.41, 35.83; 1927: 24.98, 32.08; 1928: (d)4.52, 25.14, 34.44; 1929: (d)22.34, 34.69, 40.97
- C-3 Av.: 27.52; 1927: 38.02; 1929: 32.17
- C-4 1928: 35.90
- C-5 Av.: (d)6.35, 25.11, 27.59, 29.74, 33.53, 47.34, 53.28, 65.65; 1927: (d)29.27, (d)5.26, 29.07, 33.96, 34.84, 37.65, 43.79, 57.81, 59.45; 1928: (d)28.81, (d)21.98, (d)6.76, 24.34, 24.95, 27.46, 30.56, 54.77, 56.35, 58.19, 67.26; 1929: (d)10.52, 24.11, 28.76, 43.47, 43.83, 47.27, 51.77, 70.24
- C-6 Av.: (d)9.00, 29.27; 1927: 26.61, 32.68; 1928: (d)27.19, (d)6.07, 30.26; 1929: (d)19.77, (d)7.32, (d)6.11, 24.88, 26.47
- C-7 1928: (d)12.77, (d)7.28; 1929: (d)7.15
- C-8 Av.: 25.94; 1927: (d)4.92, 28.17; 1928: (d)4.75; 1929: 40.05
- C-9 Av.: 25.95; 1927: (d)7.24, 31.11, 46.63; 1928: 26.94, 32.97; 1929: 24.83
- C-10 1929: (d)21.16
- C-11 Av.: 28.34, 34.23; 1927: 25.99, 35.79; 1928: 31.98, 35.92; 1929: (d)5.66, 27.04, 30.99
- C-12 Av.: (d)7.59; 1927: (d)15.55, (d)11.65, (d)4.35; 1928: (d)4.42, (d)4.18, 28.63; 1929: (d)11.49, (d)4.51
- C-13 Av.: (d)22.48, 25.57; 1928: (d)12.57, 24.89; 1929: (d)56.14, 32.96

EARNING RATES IN OPEN-END CLASSES 123

- C-14 Av.: (d)42.47, (d)39.11, (d)24.99, (d)4.94, (d)4.25; 1927: (d)122.02, (d)14.89, (d)10.72, (d)10.40, 25.03; 1928: (d)34.94, (d)4.57, (d)4.25; 1929: (d)89.30, (d)25.13, (d)13.28, 24.39, 34.20
- C-15 Av.: (d)11.87, (d)5.00; 1927: (d)21.68, (d)9.22; 1928: (d)10.16, (d)4.39; 1929: (d)23.78, (d)6.21, 29.22
- C-16 Av.: 24.50; 1927: 25.86; 1928: (d)37.62, 34.02; 1929: 31.26
- C-17 Av.: (d)14.13, (d)10.70; 1927: (d)13.73; 1928: (d)10.89; 1929: (d)32.13, (d)17.78
- C-18 Av.: 24.66, 29.02, 38.19, 43.90; 1927: 25.57, 38.93, 40.64; 1928: 24.21, 29.68, 37.28, 47.70; 1929: (d)5.63, 24.97, 28.37, 36.65, 45.07
- C-19 Av.: 27.29, 36.68; 1927: (d)4.60, 29.23; 1928: (d)4.09, 28.26, 44.03; 1929: (d)6.16, 24.38, 29.47, 58.85
- C-20 Av.: (d)16.72, 27.00; 1927: (d)11.78, (d)5.18, 25.61; 1928: (d)15.69, 42.95; 1929: (d)22.69
- C-21 Av.: (d)17.74; 1927: (d)17.59; 1928: (d)4.66; 1929: (d)30.98
- C-22 Av.: (d)5.61, 27.56; 1927: 27.18; 1928: 25.59; 1929: (d)12.03, (d)6.50, 29.90
- C-23 Av.: 25.21; 1927: (d)5.32, 31.68; 1929: 24.77
- C-24 Av.: 24.55, 29.76, 54.02; 1927: 64.12; 1928: (d)16.57, 27.94, 30.15, 31.05, 86.06; 1929: 24.18, 42.62, 45.67
- C-25 Av.: (d)4.89, 32.76; 1927: (d)16.17, (d)8.35, 35.57; 1928: (d)12.85, 47.40; 1929: 25.48, 28.63
- C-26 Av.: (d)35.89, 27.76, 29.04, 33.90; 1927: (d)48.12, (d)6.37, 29.88, 30.90, 34.52; 1928: (d)33.99, (d)6.39, (d)4.04, 32.91, 36.80; 1929: (d)25.55, (d)7.38, 37.25, 43.38, 48.72
- C-27 Av.: 25.24, 41.57, 46.46; 1927: 35.39, 40.68, 42.20, 65.96; 1928: 26.78, 32.96, 37.75, 52.80, 69.42; 1929: (d)32.05, 35.67
- D-1 Av.: (d)10.72, 25.52, 31.96; 1927: (d)18.20, 31.65, 33.78; 1928: (d)20.59, 24.85, 31.27, 35.40; 1929: (d)8.84, 28.83
- D-2 Av.: (d)5.23; 1927: (d)6.00, (d)4.55; 1928: (d)8.42, (d)4.57; 1929: (d)6.28
- D-3 Av.: (d)9.46, (d)7.27; 1927: 24.33, 43.90, 52.77; 1928: (d)16.24, (d)15.82, (d)10.50, (d)7.11; 1929: (d)58.34, (d)25.64, (d)15.65, (d)12.51, (d)7.82, 34.32
- D-4 Av.: (d)11.53, 25.21; 1927: (d)7.79, 26.47; 1928: (d)11.31, (d)4.89, 25.07; 1929: (d)15.50, 24.08, 62.73
- D-5 Av.: (d)5.07, 28.33; 1927: 24.09; 1928: 27.99; 1929: (d)15.65, 32.91
- D-6 Av.: 32.78; 1927: (d)4.10, 24.48, 25.00, 42.27; 1928: 24.33, 50.18; 1929: (d)10.71, (d)4.41
- D-7 Av.: (d)45.07, (d)12.33, (d)6.35; 1927: (d)48.05, (d)11.74; 1928: (d)55.47, (d)8.11, (d)7.61, 26.04; 1929: (d)31.70, (d)17.15, (d)7.66
- D-8 Av.: (d)44.44, (d)15.14, (d)6.12, 24.93, 25.20; 1927: (d)74.50, (d)9.14, 31.43; 1928: (d)10.84, (d)10.16, 33.24; 1929: (d)67.70, (d)46.44, (d)20.01, (d)15.62, 33.44

APPENDIX

- D-9 Av.: 51.62; 1927: 44.31; 1928: (d)10.23, 57.03; 1929: (d)18.21, (d)11.85, (d)7.43, 53.51
- D-10 Av.: 49.91; 1927: 43.28; 1928: 65.20; 1929: 41.26
- D-11 1928: (d)5.94
- D-12 Av.: (d)15.45, (d)13.60; 1928: (d)18.33, (d)14.50; 1929: (d)28.64, (d)27.74
- D-13 1929: (d)11.01, (d)9.03
- D-14 Av.: (d)23.11, (d)16.21, (d)7.95, 26.29, 27.64; 1927: (d)29.03, 27.76, 29.73, 30.52; 1928: (d)46.88, (d)30.53, (d)6.38, 30.61, 32.27; 1929: (d)40.23, (d)9.77, (d)5.07, 30.98, 42.68
- D-15 Av.: (d)39.70, (d)23.29, (d)16.84, (d)5.31, (d)4.99, 31.27, 40.34, 51.41; 1927: (d)14.01, (d)12.96, (d)10.91, (d)10.75, (d)10.45, (d)7.58, 33.28, 67.58; 1928: (d)35.95, (d)21.59, (d)20.76, (d)6.00, (d)5.61, 28.15, 29.73, 33.77, 39.52; 1929: (d)86.76, (d)55.30, (d)8.95, (d)6.78, (d)5.40, (d)4.55, 28.74, 38.88, 39.33, 48.22, 71.67
- E-1 Av.: (d)11.13, (d)7.85, (d)6.02, 25.20, 53.19; 1927: (d)28.74, (d)20.82, (d)8.51, 24.20, 39.57; 1928: (d)14.89, (d)5.08, 29.87, 48.64, 62.79; 1929: (d)63.66, (d)11.13, (d)9.52, (d)5.49, (d)5.37, 57.22
- F-1 Av.: (d)6.31, 26.12, 30.05, 49.75, 65.83; 1927: 30.04, 47.47, 77.59; 1928: (d)5.29, 31.32, 62.71, 91.17; 1929: (d)7.34, 28.74, 28.79, 33.97, 34.33, 39.08
- F-2 Av.: (d)5.42, 24.04, 24.20, 26.22, 29.12, 44.36; 1927: 24.13, 26.21, 33.29, 35.47, 37.43; 1928: (d)6.13, 27.04, 27.31, 54.68; 1929: (d)6.81, 24.66, 25.42, 40.98, 42.52
- F-3 Av.: (d)56.42, (d)8.77, (d)7.42, 24.26, 25.34, 47.71; 1927: (d)26.15, (d)18.80, (d)11.86, 44.68; 1928: (d)27.60, (d)22.22, (d)5.38, (d)4.79, (d)4.46, 25.91, 28.05, 52.63; 1929: (d)23.02, (d)5.03, 35.54, 38.96, 45.82
- F-4 Av.: 56.12; 1927: (d)8.90, 24.14, 45.88; 1928: 24.09, 24.60, 65.12; 1929: (d)18.63, (d)6.14, (d)5.47, 29.61, 35.86, 57.37

¹ Average of the three years 1927-1929.

² Negative values are indicated by (d).

APPENDIX C
AGGREGATES OF SELECTED INCOME-ACCOUNT
AND BALANCE-SHEET ITEMS BY INDUSTRIES
(IN THOUSANDS OF DOLLARS)

	1927		1928		1929	
	A-1	A-2	A-1	A-2	A-1	A-2
Sales	13,743 (8) ¹	14,751 (10)	15,214 (8)	14,963 (10)	15,662 (8)	30,271 (10)
Operating expenses	13,244 (8)	12,470 (10)	13,050 (8)	12,408 (10)	12,647 (8)	23,102 (10)
Interest charges	331 (8)	369 (9)	286 (7)	315 (9)	286 (6)	190 (9)
Balance available for dividends	1,516 (8)	1,696 (10)	1,698 (8)	2,120 (10)	2,581 (8)	6,406 (10)
Dividends						
common	610 (5)	319 (6)	1,359 (7)	2,645 (7)		1,650 (5)
preferred	18 (1)		18 (1)		18 (1)	
stock				43 (2)		1,165 (1)
Current assets	7,967 (8)	3,705 (10)	8,331 (8)	4,971 (10)	8,357 (8)	9,248 (10)
Buildings and equipment	11,963 (8)	12,340 (10)	13,014 (8)	14,654 (10)	14,264 (8)	21,165 (10)
Gross assets	38,016 (8)	26,234 (10)	3,970 (8)	61,230 (10)	43,965 (8)	71,343 (10)
Current liabilities	3,328 (8)	3,004 (10)	2,321 (8)	3,986 (10)	2,693 (8)	5,878 (10)
Fixed liabilities	1,045 (2)	2,868 (2)	2,356 (3)	204 (1)	2,441 (3)	965 (1)
Valuation reserves	5,292 (8)	8,404 (10)	6,461 (8)	9,846 (10)	7,659 (8)	13,017 (10)
Capital stock						
common	15,516 (7)	809 (10)	15,415 (7)	10,423 (10)	15,774 (7)	11,636 (10)
preferred	1,235 (2)	2,038 (1)	1,235 (2)	2,064 (1)	3,203 (3)	2,065 (1)
Capital surplus		192 (1)		192 (1)		192 (1)
Earned surplus	9,246 (8)	(d)1,033 (10)	9,685 (8)	334 (10)	10,211 (8)	3,488 (10)
Appreciation surplus	2,354 (2)	2,699 (2)	2,233 (2)	3,299 (2)	2,053 (2)	32,699 (2)

¹ Numbers in parentheses refer to the number of companies included.

**AGGREGATES OF SELECTED INCOME-ACCOUNT
AND BALANCE-SHEET ITEMS BY INDUSTRIES**
(in thousands of dollars)

126

	1927		1928		1929	
	A-3	A-4	A-3	A-4	A-3	A-4
Sales	55,271 (15)	779 (4)	60,180 (15)	742 (4)	54,246 (15)	635 (4)
Operating expenses	54,763 (15)	872 (4)	59,155 (15)	791 (4)	52,769 (15)	653 (4)
Interest charges	500 (12)	56 (3)	704 (13)	56 (3)	686 (10)	54 (3)
Balance available for dividends	(d)224 (15)	(d)156 (4)	299 (15)	(d)110 (4)	731 (15)	(d)90 (4)
Dividends						
common	348 (5)	12 (2)	440 (6)	28 (3)	538 (6)	32 (3)
preferred	83 (2)	2 (1)	79 (2)	2 (1)	74 (2)	2 (1)
stock				125 (1)		
Current assets	7,752 (15)	383 (4)	9,009 (15)	382 (4)	7,873 (14)	261 (4)
Buildings and equipment	15,325 (15)	1,017 (4)	15,973 (15)	832 (4)	16,007 (14)	845 (4)
Gross assets	49,524 (15)	4,700 (4)	51,191 (15)	3,761 (4)	50,155 (14)	3,506 (4)
Current liabilities	3,004 (15)	277 (4)	3,435 (15)	325 (4)	2,624 (14)	311 (4)
Fixed liabilities	8,760 (8)	968 (3)	8,650 (7)	951 (3)	8,390 (5)	777 (3)
Valuation reserves	4,733 (15)	345 (4)	5,542 (15)	331 (4)	5,979 (14)	376 (4)
Capital stock						
common	15,824 (15)	3,405 (4)	17,071 (15)	3,530 (4)	16,913 (14)	3,630 (1)
preferred	5,070 (5)		4,417 (4)	28 (1)	4,495 (4)	28 (1)
Capital surplus	10,517 (2)		10,195 (2)		9,840 (2)	
Earned surplus	825 (15)	(d)323 (4)	954 (15)	(d)588 (4)	1,016 (14)	(d)711 (4)
Appreciation surplus	1,087 (3)		1,255 (4)	(d)806 (1)	1,157 (4)	(d)806 (1)
Special surplus					¹ (1)	

¹Less than five hundred dollars. Appropriated surplus, the amount not derived from earnings.

APPENDIX

	1927		1928		1929	
	B-1	B-2	B-1	B-2	B-1	B-2
Sales	8,113 (9)	6,065 (14)	9,371 (9)	6,774 (14)	7,603 (8)	6,370 (14)
Operating expenses	7,821 (9)	5,521 (14)	8,999 (9)	6,094 (14)	7,424 (8)	5,885 (14)
Interest charges	27 (7)	9 (9)	25 (8)	9 (8)	28 (7)	8 (8)
Balance available for dividends	291 (9)	492 (14)	369 (9)	570 (14)	221 (8)	464 (14)
Dividends						
common	177 (5)	220 (7)	106 (4)	323 (8)	185 (4)	292 (6)
preferred	2 (1)	14 (1)	1 (1)			
stock	73 (1)		3 (1)			
Current assets	3,261 (9)	3,347 (14)	2,502 (9)	2,757 (14)	2,846 (8)	3,680 (14)
Buildings and equipment	996 (9)	774 (14)	996 (9)	820 (14)	850 (8)	848 (14)
Gross assets	4,813 (9)	4,622 (14)	4,499 (9)	4,286 (14)	4,572 (8)	5,198 (14)
Current liabilities	1,745 (9)	585 (8)	1,170 (9)	588 (13)	1,796 (8)	688 (13)
Fixed liabilities		83 (4)		41 (3)		49 (3)
Valuation reserves	1,206 (7)	1,508 (13)	1,159 (7)	818 (13)	874 (7)	1,416 (13)
Capital stock						
common	889 (9)	764 (14)	863 (9)	807 (14)	613 (7)	811 (14)
preferred	25 (1)					
Capital surplus						
Earned surplus	962 (9)	1,775 (14)	1,322 (9)	1,964 (14)	1,277 (8)	2,127 (14)
Appreciation surplus					16 (1)	

¹ Less than five hundred dollars.

AGGREGATES OF ORIGINAL DATA

**AGGREGATES OF SELECTED INCOME-ACCOUNT
AND BALANCE-SHEET ITEMS BY INDUSTRIES**
(in thousands of dollars)

128

	1927		1928		1929	
	C-1	C-2	C-1	C-2	C-1	C-2
Sales	35,531 (5)	16,570 (12)	30,754 (6)	18,591 (13)	30,378 (6)	19,021 (13)
Operating expenses	34,544 (5)	15,660 (12)	30,152 (6)	18,155 (13)	29,438 (6)	18,504 (13)
Interest charges	140 (5)	23 (8)	168 (6)	42 (10)	153 (6)	22 (7)
Balance available for dividends	770 (5)	377 (12)	390 (6)	393 (13)	702 (6)	464 (13)
Dividends						
common	305 (4)	47 (3)	200 (4)	77 (6)	462 (4)	157 (6)
preferred	30 (1)	51 (3)	87 (1)	60 (5)	75 (1)	65 (5)
stock	360 (1)					
Current assets	4,765 (5)	1,581 (12)	5,086 (6)	2,013 (13)	5,169 (6)	2,113 (13)
Buildings and equipment	3,681 (5)	2,697 (12)	4,475 (6)	3,201 (13)	4,988 (6)	3,242 (13)
Gross assets	9,249 (5)	4,593 (12)	10,434 (6)	6,236 (13)	11,342 (6)	6,620 (13)
Current liabilities	1,659 (5)	630 (12)	1,396 (6)	884 (13)	1,301 (6)	1,039 (13)
Fixed liabilities	770 (3)	62 (3)	1,253 (3)	120 (5)	1,495 (2)	101 (5)
Valuation reserves	1,474 (5)	1,366 (9)	1,618 (6)	1,484 (17)	1,739 (6)	1,547 (11)
Capital stock						
common	3,410 (5)	1,278 (12)	3,456 (6)	1,340 (13)	3,932 (6)	1,109 (13)
preferred	1,617 (2)	1,033 (5)	1,535 (2)	1,097 (6)	1,535 (2)	1,088 (6)
Capital surplus	12 (1)	10 (1)	21 (1)	10 (1)	15 (1)	58 (3)
Earned surplus	967 (5)	793 (12)	1,087 (6)	1,027 (13)	1,256 (6)	1,287 (13)
Appreciation surplus	68 (1)		68 (1)	125 (1)	68 (1)	267 (2)

APPENDIX

	1927		1928		1929	
	C-3	C-4	C-3	C-4	C-3	C-4
Sales	30,888 (6)	6,683 (6)	38,012 (6)	7,849 (6)	40,712 (6)	8,108 (6)
Operating expenses	30,457 (6)	6,511 (6)	37,241 (6)	7,345 (6)	39,972 (6)	7,753 (6)
Interest charges	163 (5)	65 (5)	233 (5)	71 (5)	285 (5)	74 (4)
Balance available for dividends	255 (6)	294 (6)	515 (6)	536 (6)	481 (6)	341 (6)
Dividends						
common	70 (2)	215 (5)	25 (1)	295 (5)	62 (2)	234 (3)
preferred	81 (3)		86 (3)	9 (1)	84 (3)	10 (1)
stock		73 (1)		160 (1)		
Current assets	5,849 (6)	3,686 (6)	6,332 (6)	3,405 (6)	6,431 (6)	3,917 (6)
Buildings and equipment	5,014 (6)	2,455 (6)	5,282 (6)	2,548 (6)	5,630 (6)	2,636 (6)
Gross assets	11,803 (6)	8,413 (6)	13,443 (6)	8,285 (6)	13,053 (6)	8,348 (6)
Current liabilities	2,213 (6)	1,146 (6)	3,177 (6)	640 (6)	2,367 (6)	925 (6)
Fixed liabilities	1,020 (2)	69 (1)	990 (2)	71 (2)	946 (2)	62 (2)
Valuation reserves	1,668 (6)	1,839 (5)	1,895 (6)	1,958 (5)	2,157 (6)	2,144 (5)
Capital stock						
common	2,796 (6)	3,194 (6)	2,796 (6)	3,511 (6)	2,795 (6)	3,511 (6)
preferred	1,097 (3)	225 (2)	1,155 (3)	224 (3)	1,144 (3)	224 (3)
Capital surplus						
Earned surplus	2,393 (6)	1,842 (6)	2,796 (6)	1,879 (6)	3,128 (6)	1,968 (6)
Appreciation surplus		58 (1)		58 (1)		58 (1)
Special surplus						39 ¹ (1)

¹ Appropriated surplus, the amount not derived from earnings.

AGGREGATES OF ORIGINAL DATA

**AGGREGATES OF SELECTED INCOME-ACCOUNT
AND BALANCE-SHEET ITEMS BY INDUSTRIES**
(in thousands of dollars)

130

	1927		1928		1929	
	c-5	c-6	c-5	c-6	c-5	c-6
Sales	42,367 (23)	38,644 (17)	44,104 (23)	38,674 (17)	41,191 (22)	43,129 (17)
Operating expenses	39,143 (23)	34,761 (17)	39,760 (23)	35,288 (17)	38,279 (22)	40,034 (17)
Interest charges	263 (16)	547 (17)	232 (21)	617 (17)	342 (16)	649 (17)
Balance available for dividends	2,474 (23)	2,397 (17)	2,476 (23)	2,675 (17)	2,378 (22)	2,231 (17)
Dividends						
common	479 (11)	652 (7)	956 (13)	1,688 (8)	914 (16)	420 (9)
preferred	511 (4)	512 (11)	632 (5)	498 (11)	556 (4)	489 (10)
stock						
Current assets	18,010 (23)	24,509 (17)	18,467 (23)	26,629 (17)	18,303 (22)	27,242 (17)
Buildings and equipment	7,601 (23)	36,885 (17)	8,312 (23)	38,706 (17)	9,117 (22)	41,335 (17)
Gross assets	27,190 (23)	65,539 (17)	29,491 (23)	69,716 (17)	29,940 (22)	72,857 (17)
Current liabilities	4,315 (23)	5,308 (17)	5,587 (23)	7,090 (17)	5,586 (21)	7,443 (17)
Fixed liabilities	149 (5)	1,975 (2)	126 (5)	2,807 (3)	87 (3)	3,006 (3)
Valuation reserves	3,034 (22)	16,133 (17)	3,497 (22)	17,471 (17)	3,751 (22)	6,888 (17)
Capital stock						
common	4,851 (23)	15,655 (17)	6,145 (23)	15,648 (17)	6,146 (22)	15,648 (17)
preferred	7,874 (4)	7,971 (13)	6,442 (4)	7,910 (12)	5,847 (4)	7,870 (12)
Capital surplus	3 (1)		3 (1)		3 (1)	90 (1)
Earned surplus	6,692 (23)	16,602 (17)	7,341 (23)	18,120 (17)	8,261 (22)	18,552 (17)
Appreciation surplus	340 (4)	895 (2)	341 (5)	881 (2)	305 (4)	881 (2)

APPENDIX

	1927		1928		1929	
	c-7	c-8	c-7	c-8	c-7	c-8
Sales	56,606 (14)	68,433 (7)	58,623 (14)	66,950 (8)	68,335 (14)	63,456 (8)
Operating expenses	54,243 (14)	63,685 (7)	54,891 (14)	60,357 (8)	65,657 (14)	61,677 (8)
Interest charges	263 (12)	186 (6)	239 (11)	242 (7)	299 (13)	200 (7)
Balance available for dividends	2,163 (14)	4,654 (7)	3,238 (14)	2,775 (8)	2,197 (14)	1,305 (8)
Dividends						
common	937 (9)	3,234 (5)	1,265 (7)	2,273 (5)	1,523 (9)	1,166 (6)
preferred	345 (4)	216 (3)	573 (4)	219 (4)	586 (5)	258 (4)
stock						
Current assets	23,167 (14)	31,818 (7)	24,112 (14)	31,103 (8)	25,661 (14)	27,745 (8)
Buildings and equipment	23,466 (14)	21,056 (7)	26,912 (14)	21,513 (8)	28,131 (14)	24,595 (8)
Gross assets	54,642 (14)	55,108 (7)	56,556 (14)	54,965 (8)	58,841 (14)	54,718 (8)
Current liabilities	5,539 (14)	6,380 (7)	5,402 (14)	4,744 (8)	6,358 (14)	4,430 (8)
Fixed liabilities	407 (3)	200 (2)	330 (3)	180 (2)	232 (3)	160 (2)
Valuation reserves	7,206 (13)	7,980 (7)	8,369 (14)	8,623 (8)	18,906 (14)	10,455 (8)
Capital stock						
common	19,521 (14)	15,793 (7)	19,575 (14)	15,933 (8)	16,523 (14)	15,997 (8)
preferred	9,626 (5)	3,714 (3)	8,800 (5)	4,165 (4)	8,638 (5)	4,133 (4)
Capital surplus					2,134 (1)	
Earned surplus	12,368 (14)	19,770 (7)	13,855 (14)	19,856 (8)	14,276 (14)	19,811 (8)
Appreciation surplus	6 (1)		2 (1)			

AGGREGATES OF ORIGINAL DATA

**AGGREGATES OF SELECTED INCOME-ACCOUNT
AND BALANCE-SHEET ITEMS BY INDUSTRIES**
(in thousands of dollars)

132

	1927		1928		1929	
	C-9	C-10	C-9	C-10	C-9	C-10
Sales	46,886 (18)	21,966 (8)	47,010 (18)	24,303 (8)	48,053 (18)	25,052 (8)
Operating expenses	43,066 (18)	20,777 (8)	44,149 (18)	23,124 (8)	45,316 (18)	23,868 (8)
Interest charges	199 (17)	98 (6)	253 (15)	59 (6)	293 (14)	79 (7)
Balance available for dividends	3,202 (18)	1,158 (8)	2,405 (18)	1,431 (8)	2,500 (18)	1,031 (8)
Dividends						
common	632 (10)	2,917 (7)	977 (9)	870 (6)	684 (8)	671 (6)
preferred	408 (10)	52 (1)	403 (11)	35 (1)	372 (10)	52 (1)
stock	632 (2)				400 (1)	
Current assets	9,903 (18)	14,544 (8)	10,388 (18)	15,300 (8)	11,586 (18)	15,900 (8)
Buildings and equipment	10,613 (18)	6,024 (8)	11,613 (18)	5,998 (8)	11,906 (18)	6,162 (8)
Gross assets	33,954 (18)	22,867 (8)	35,797 (18)	22,547 (8)	37,942 (18)	23,099 (8)
Current liabilities	5,423 (17)	3,598 (8)	5,425 (17)	3,160 (8)	5,766 (17)	3,552 (8)
Fixed liabilities	436 (4)	7 (1)	630 (8)	7 (1)	556 (7)	7 (1)
Valuation reserves	5,838 (16)	3,681 (8)	6,423 (17)	2,897 (8)	8,884 (18)	4,123 (8)
Capital stock						
common	3,035 (18)	8,062 (8)	3,096 (18)	7,462 (8)	4,111 (18)	7,063 (8)
preferred	6,335 (10)	500 (1)	6,229 (10)	500 (1)	5,915 (11)	500 (1)
Capital surplus	1,586 (1)		1,586 (1)		1,586 (1)	
Earned surplus	9,398 (18)	7,019 (8)	10,471 (18)	7,520 (8)	11,071 (18)	7,854 (8)
Appreciation surplus	311 (2)		295 (3)		274 (3)	

APPENDIX

	1927		1928		1929	
	C-11	C-12	C-11	C-12	C-11	C-12
Sales	32,532 (13)	18,247 (12)	45,055 (14)	16,668 (12)	49,454 (14)	16,398 (12)
Operating expenses	29,289 (13)	18,459 (12)	41,653 (14)	16,433 (12)	45,902 (14)	15,895 (12)
Interest charges	81 (13)	342 (11)	120 (14)	372 (12)	139 (14)	289 (10)
Balance available for dividends	3,023 (13)	(d)273 (12)	3,640 (14)	114 (12)	3,356 (14)	318 (12)
Dividends						
common	801 (9)	157 (4)	1,268 (7)	242 (6)	829 (7)	229 (3)
preferred	392 (9)	50 (3)	506 (9)	108 (4)	297 (9)	138 (4)
stock						
Current assets	18,422 (14)	22,060 (13)	21,327 (14)	22,147 (13)	22,792 (14)	1,338 (13)
Buildings and equipment	5,057 (14)	30,337 (13)	6,032 (14)	32,273 (13)	7,043 (14)	32,962 (13)
Gross assets	28,951 (14)	95,338 (13)	32,684 (14)	95,917 (13)	35,152 (14)	96,262 (13)
Current liabilities	3,141 (13)	7,334 (13)	4,509 (14)	8,326 (13)	4,032 (14)	7,748 (13)
Fixed liabilities	83 (2)	11,785 (9)	23 (1)	9,137 (10)	29 (2)	8,391 (9)
Valuation reserves	2,430 (13)	17,073 (13)	2,942 (14)	19,974 (13)	3,820 (14)	21,307 (13)
Capital stock						
common	4,312 (13)	12,549 (13)	11,154 (14)	12,491 (13)	10,757 (14)	12,402 (13)
preferred	5,803 (10)	5,803 (10)	7,327 (9)	2,424 (5)	6,764 (10)	2,532 (5)
Capital surplus	40 (1)	690 (1)	40 (1)	690 (1)	85 (2)	690 (1)
Earned surplus	8,331 (14)	37,755 (13)	9,948 (14)	37,179 (13)	11,435 (14)	36,792 (13)
Appreciation surplus	275 (3)	7,029 (6)	268 (3)	6,673 (6)	250 (2)	6,346 (6)
Special surplus		25 ¹ (1)				

¹ Appropriated surplus, the amount not derived from earnings.

AGGREGATES OF ORIGINAL DATA

**AGGREGATES OF SELECTED INCOME-ACCOUNT
AND BALANCE-SHEET ITEMS BY INDUSTRIES**
(in thousands of dollars)

134

	1927		1928		1929	
	C-13	C-14	C-13	C-14	C-13	C-14
Sales	9,184 (8)	19,380 (14)	10,084 (8)	18,139 (15)	10,309 (8)	17,986 (15)
Operating expenses	7,926 (8)	18,874 (14)	9,212 (8)	17,508 (15)	9,309 (8)	17,169 (15)
Interest charges	30 (8)	214 (11)	24 (7)	292 (11)	12 (7)	304 (13)
Balance available for dividends	644 (8)	113 (14)	755 (8)	17 (15)	885 (8)	214 (15)
Dividends						
common	514 (6)	302 (6)	398 (6)	323 (6)	804 (6)	341 (7)
preferred	17 (2)	179 (3)	14 (2)	177 (3)	14 (2)	175 (3)
stock			250 (1)		250 (1)	78 (1)
Current assets	3,319 (8)	8,295 (13)	4,520 (8)	8,704 (14)	4,656 (8)	8,463 (15)
Buildings and equipment	5,000 (8)	8,992 (13)	5,164 (8)	9,265 (14)	5,502 (8)	9,562 (15)
Gross assets	12,323 (8)	21,054 (14)	12,810 (8)	21,746 (15)	13,204 (8)	20,959 (15)
Current liabilities	701 (8)	2,563 (13)	649 (8)	2,288 (14)	745 (8)	2,047 (15)
Fixed liabilities	200 (3)	3,066 (5)	91 (3)	3,252 (6)	35 (8)	2,968 (6)
Valuation reserves	2,293 (7)	4,813 (12)	2,597 (7)	5,157 (12)	2,862 (7)	5,408 (13)
Capital stock						
common	5,439 (8)	6,619 (13)	5,699 (8)	7,016 (14)	5,959 (8)	7,158 (15)
preferred	194 (2)	1,314 (4)	195 (2)	1,723 (4)	194 (2)	2,154 (5)
Capital surplus	20 (1)		22 (1)		24 (1)	
Earned surplus	3,421 (8)	1,724 (13)	3,517 (8)	1,192 (14)	3,339 (8)	940 (14)
Appreciation surplus	75 (2)	69 (1)	75 (2)	44 (1)	75 (2)	22 (1)

APPENDIX

	1927		1928		1929	
	c-15	c-16	c-15	c-16	c-15	c-16
Sales	21,891 (11)	106,792 (7)	19,948 (11)	108,585 (7)	20,389 (11)	110,523 (7)
Operating expenses	20,146 (11)	100,535 (7)	18,979 (11)	106,907 (7)	19,262 (11)	110,172 (7)
Interest charges	177 (8)	362 (6)	174 (9)	127 (6)	221 (10)	18 (5)
Balance available for dividends	1,310 (11)	6,578 (7)	909 (11)	4,722 (6)	966 (11)	1,886 (7)
Dividends						
common	172 (5)	2,601 (5)	399 (5)	5,498 (4)	451 (6)	5,115 (3)
preferred stock	316 (2)	246 (2)	294 (2)	112 (2)	202 (2)	537 (2)
Current assets	16,450 (13)	32,084 (7)	16,110 (14)	34,523 (7)	15,884 (11)	30,592 (7)
Buildings and equipment	4,591 (13)	36,231 (7)	4,633 (14)	35,498 (7)	5,005 (14)	36,701 (7)
Gross assets	23,057 (13)	69,652 (7)	22,862 (14)	71,305 (7)	23,013 (14)	69,242 (7)
Current liabilities	5,640 (13)	3,476 (7)	5,235 (14)	3,169 (7)	5,102 (14)	2,928 (7)
Fixed liabilities	203 (4)	5,114 (4)	194 (4)	204 (4)	442 (6)	172 (4)
Valuation reserves	1,983 (12)	16,843 (7)	2,166 (13)	18,888 (7)	2,400 (13)	21,599 (7)
Capital stock						
common	6,078 (13)	19,577 (7)	7,091 (14)	29,502 (7)	7,011 (14)	28,849 (7)
preferred	4,430 (3)	3,524 (2)	3,299 (3)	21 (1)	3,080 (2)	21 (1)
Capital surplus		12,190 (2)		12,069 (2)	209 (1)	11,979 (2)
Earned surplus	4,405 (13)	2,899 (7)	3,783 (14)	7,424 (7)	4,527 (11)	3,662 (7)
Appreciation surplus	313 (4)	28 (1)	340 (4)	28 (1)	328 (5)	28 (1)

AGGREGATES OF ORIGINAL DATA

**AGGREGATES OF SELECTED INCOME-ACCOUNT
AND BALANCE-SHEET ITEMS BY INDUSTRIES**
(in thousands of dollars)

136

	1927		1928		1929	
	C-17	C-18	C-17	C-18	C-17	C-18
Sales	33,227 (11)	27,914 (19)	33,372 (11)	43,937 (20)	36,077 (11)	46,090 (20)
Operating expenses	28,498 (11)	26,264 (19)	29,182 (11)	37,318 (20)	31,913 (11)	39,914 (20)
Interest charges	450 (10)	130 (18)	517 (10)	183 (12)	503 (9)	213 (11)
Balance available for dividends	3,551 (11)	1,301 (19)	2,922 (11)	5,932 (20)	2,950 (11)	5,429 (20)
Dividends						
common	1,097 (6)	609 (12)	1,080 (6)	2,679 (14)	1,256 (7)	2,370 (15)
preferred	394 (7)	417 (7)	483 (7)	718 (6)	512 (6)	996 (6)
stock		47 (1)				
Current assets	17,086 (11)	19,130 (20)	15,001 (11)	21,432 (20)	4,918 (11)	22,749 (20)
Buildings and equipment	35,011 (11)	19,110 (20)	39,278 (11)	20,781 (20)	40,916 (11)	22,635 (20)
Gross assets	64,521 (11)	45,276 (20)	66,565 (11)	49,764 (20)	69,291 (11)	54,160 (20)
Current liabilities	4,362 (11)	3,963 (20)	4,830 (11)	3,768 (20)	4,859 (11)	4,862 (20)
Fixed liabilities	5,874 (6)	86 (2)	5,833 (7)	1,419 (6)	5,620 (8)	1,639 (8)
Valuation reserves	14,577 (11)	6,669 (18)	13,223 (7)	7,331 (18)	4,852 (11)	8,465 (18)
Capital stock						
common	14,727 (11)	11,108 (20)	15,289 (11)	11,100 (20)	15,307 (11)	15,156 (20)
preferred	7,277 (9)	10,837 (6)	10,430 (9)	10,975 (7)	10,451 (8)	7,152 (7)
Capital surplus	1,729 (2)	300 (3)	1,687 (2)	304 (3)	1,687 (2)	482 (2)
Earned surplus	12,237 (11)	10,960 (20)	13,281 (11)	13,472 (20)	14,354 (11)	15,151 (20)
Appreciation surplus	2,298 (2)	1,353 (2)	1,442 (1)	1,406 (3)	1,891 (2)	1,573 (4)

APPENDIX

	1927		1928		1929	
	C-19	C-20	C-19	C-20	C-19	C-20
Sales	23,469 (17)	102,711 (21)	24,276 (17)	124,904 ¹ (21)	22,422 (17)	138,257 (22)
Operating expenses	17,697 (17)	96,043 (21)	19,136 (17)	113,021 (22)	18,112 (17)	125,749 (22)
Interest charges	301 (10)	1,132 (16)	375 (11)	1,039 (17)	317 (11)	1,049 (16)
Balance available for dividends	4,096 (17)	5,076 (21)	4,299 (17)	10,070 (22)	3,302 (17)	10,678 (22)
Dividends						
common	1,343 (12)	2,610 (11)	1,696 (11)	2,811 (11)	1,829 (11)	4,172 (16)
preferred	501 (4)	607 (6)	430 (4)	1,084 (8)	406 (3)	1,130 (8)
stock		194 (1)		238 (1)		148 (1)
Current assets	10,992 (17)	37,119 (22)	12,463 (17)	48,336 (22)	11,564 (17)	48,483 (23)
Buildings and equipment	16,837 (15)	81,903 (22)	18,430 (15)	98,634 (22)	19,458 (15)	113,669 (23)
Gross assets	43,726 (17)	128,032 (22)	47,786 (17)	159,830 (22)	45,910 (17)	174,365 (23)
Current liabilities	3,171 (17)	8,311 (22)	3,863 (17)	11,126 (22)	2,464 (17)	10,541 (23)
Fixed liabilities	3,992 (4)	13,261 (11)	3,060 (5)	18,777 (11)	2,901 (4)	18,663 (11)
Valuation reserves	6,970 (16)	26,082 (22)	7,811 (16)	31,264 (22)	8,812 (17)	34,150 (23)
Capital stock						
common	13,467 (17)	46,276 (22)	14,496 (17)	54,581 (22)	19,979 (17)	63,427 (23)
preferred	8,177 (6)	11,536 (7)	7,654 (6)	18,369 (9)	8,632 (7)	19,017 (10)
Capital surplus		1,702 (2)		1,689 (3)	656 (1)	1,560 (2)
Earned surplus	7,578 (17)	18,006 (22)	9,588 (17)	24,821 (22)	10,934 (17)	27,489 (23)
Appreciation surplus	475 (4)	2,593 (3)	466 (4)	2,188 (3)	463 (5)	706 (3)
Special surplus		698 ² (1)		415 ² (1)		348 ² (1)

¹ One company in this group had no sales in 1928.

² Represents minority interest in earned surplus.

AGGREGATES OF ORIGINAL DATA

**AGGREGATES OF SELECTED INCOME-ACCOUNT
AND BALANCE-SHEET ITEMS BY INDUSTRIES**
(in thousands of dollars)

138

	1927		1928		1929	
	C-21	C-22	C-21	C-22	C-21	C-22
Sales	20,207 (8)	8,724 (10)	24,991 (8)	9,218 (10)	30,979 (8)	11,820 (10)
Operating expenses	19,028 (8)	7,994 (10)	22,564 (8)	8,269 (10)	27,474 (8)	10,827 (10)
Interest charges	241 (8)	51 (9)	200 (7)	78 (9)	77 (7)	99 (10)
Balance available for dividends	875 (8)	633 (10)	1,869 (8)	753 (10)	2,080 (8)	744 (10)
Dividends						
common	341 (2)	310 (6)	377 (3)	446 (6)	1,391 (4)	425 (3)
preferred	130 (3)	31 (4)	138 (3)	31 (4)	189 (4)	39 (3)
stock						
Current assets	12,240 (8)	5,081 (10)	12,317 (8)	5,648 (10)	13,907 (8)	6,274 (10)
Buildings and equipment	4,492 (7)	3,159 (10)	4,927 (7)	3,408 (10)	5,608 (7)	4,643 (10)
Gross assets	22,062 (8)	9,701 (10)	22,952 (8)	10,840 (10)	26,141 (8)	13,021 (10)
Current liabilities	3,337 (8)	1,186 (10)	2,170 (8)	1,478 (10)	3,288 (8)	1,590 (10)
Fixed liabilities	2,378 (3)	307 (4)	236 (3)	500 (5)	214 (3)	386 (5)
Valuation reserves	3,206 (7)	1,286 (10)	3,740 (6)	1,450 (10)	4,438 (7)	2,057 (10)
Capital stock						
common	7,787 (8)	2,576 (9)	9,889 (8)	2,748 (9)	9,389 (7)	2,528 (9)
preferred	1,735 (4)	2,540 (6)	1,728 (4)	2,465 (5)	1,534 (4)	4,185 (6)
Capital surplus						
Earned surplus	3,597 (8)	1,789 (10)	4,667 (8)	2,122 (10)	6,257 (8)	2,000 (10)
Appreciation surplus		31 (1)		132 (1)		126 (1)

APPENDIX

	1927		1928		1929	
	C-23	C-24	C-23	C-24	C-23	C-24
Sales	25,080 (9)	51,824 (16)	24,300 (9)	61,028 (16)	24,194 (9)	70,980 (16)
Operating expenses	22,122 (9)	43,944 (16)	22,168 (9)	50,082 (16)	21,521 (9)	63,319 (16)
Interest charges	138 (9)	579 (12)	203 (8)	670 (12)	207 (8)	689 (12)
Balance available for dividends	2,473 (9)	4,696 (16)	2,739 (9)	7,355 (17)	2,296 (9)	8,949 (16)
Dividends						
common	1,904 (6)	1,837 (7)	1,054 (6)	2,973 (8)	1,024 (4)	4,041 (10)
preferred	491 (4)	568 (7)	483 (4)	735 (6)	346 (4)	647 (5)
stock	6 (1)					1,200 (1)
Current assets	3,175 (9)	19,495 (16)	3,950 (9)	23,909 (17)	3,251 (9)	27,858 (17)
Buildings and equipment	10,681 (9)	27,719 (16)	11,067 (9)	30,549 (17)	11,310 (9)	33,320 (17)
Gross assets	32,714 (9)	62,235 (16)	34,537 (9)	70,519 (17)	30,941 (9)	77,851 (17)
Current liabilities	3,016 (9)	5,627 (16)	4,272 (9)	6,066 (16)	3,117 (9)	8,262 (16)
Fixed liabilities	1,134 (5)	6,698 (6)	1,018 (4)	6,895 (6)	945 (4)	5,785 (5)
Valuation reserves	5,551 (9)	9,667 (16)	5,713 (9)	11,105 (17)	6,232 (9)	12,301 (17)
Capital stock						
common	10,326 (9)	13,462 (16)	10,876 (9)	15,620 (17)	7,614 (9)	18,560 (17)
preferred	7,019 (4)	11,101 (7)	6,713 (4)	11,659 (7)	6,187 (4)	11,565 (8)
Capital surplus		3,353 (3)		3,353 (3)		3,353 (3)
Earned surplus	5,593 (9)	11,917 (16)	5,905 (9)	10,721 (17)	6,768 (9)	17,101 (17)
Appreciation surplus		411 (3)		1,713 (3)		2,012 (3)

AGGREGATES OF ORIGINAL DATA

**AGGREGATES OF SELECTED INCOME-ACCOUNT
AND BALANCE-SHEET ITEMS BY INDUSTRIES**
(in thousands of dollars)

	1927		1928		1929	
	C-25	C-26	C-25	C-26	C-25	C-26
Sales	25,224 (11)	5,724 (17)	29,607 (12)	6,255 (17)	40,425 (12)	7,223 (17)
Operating expenses	21,596 (11)	5,218 (17)	25,034 (12)	5,655 (17)	33,504 (12)	6,653 (17)
Interest charges	220 (6)	17 (12)	297 (8)	32 (8)	268 (6)	37 (11)
Balance available for dividends	3,021 (11)	424 (17)	4,189 (12)	545 (17)	6,357 (12)	597 (17)
Dividends						
common	1,320 (7)	101 (7)	2,080 (9)	213 (9)	2,018 (7)	147 (8)
preferred	29 (3)	105 (1)	1,253 (7)	105 (1)	263 (2)	120 (3)
stock			201 (2)		1,072 (1)	51 (1)
Current assets	10,495 (11)	3,141 (19)	14,044 (12)	3,247 (19)	18,268 (12)	3,532 (19)
Buildings and equipment	12,947 (11)	3,142 (19)	13,685 (12)	3,059 (19)	17,011 (12)	3,305 (19)
Gross assets	26,429 (11)	7,245 (19)	30,689 (12)	7,605 (19)	39,195 (12)	9,161 (19)
Current liabilities	1,523 (11)	505 (19)	2,418 (12)	505 (19)	2,469 (12)	705 (19)
Fixed liabilities	5,120 (3)	268 (4)	4,883 (3)	254 (4)	4,616 (3)	241 (4)
Valuation reserves	2,289 (11)	919 (14)	2,799 (12)	1,027 (14)	3,788 (12)	1,126 (15)
Capital stock						
common	5,474 (11)	1,703 (19)	9,322 (12)	1,673 (19)	9,926 (12)	2,241 (19)
preferred	3,130 (6)	2,029 (4)	466 (4)	2,115 (4)	442 (4)	575 (2)
Capital surplus	4,759 (3)		5,003 (3)		10,163 (3)	
Earned surplus	4,087 (11)	1,813 (19)	5,973 (12)	2,016 (19)	8,721 (12)	2,212 (19)
Appreciation surplus	199 (1)	¹ (1)	106 (2)	16 (2)	53 (1)	2,062 (3)

¹ Less than five hundred dollars.

	1927		1928		1929	
	C-27	D-1	C-27	D-1	C-27	D-1
Sales	11,695 (14)	7,293 (12)	13,100 (14)	12,157 (12)	14,010 (14)	11,248 (12)
Operating expenses	9,738 (14)	7,915 (12)	11,420 (14)	11,629 (12)	13,186 (14)	10,874 (12)
Interest charges	93 (11)	14 (10)	121 (12)	21 (10)	99 (13)	30 (11)
Balance available for dividends	1,754 (14)	108 (12)	1,519 (14)	370 (12)	1,758 (14)	191 (12)
Dividends						
common	967 (8)	355 (6)	413 (9)	49 (3)	473 (7)	185 (3)
preferred	36 (4)		36 (4)		34 (3)	
stock	400 (1)			75 (1)	40 (1)	
Current assets	6,446 (14)	1,383 (12)	6,892 (14)	1,811 (12)	6,687 (14)	1,540 (12)
Buildings and equipment	3,813 (14)	587 (11)	4,701 (14)	678 (11)	4,848 (14)	758 (11)
Gross assets	12,067 (14)	2,507 (12)	14,168 (14)	2,926 (12)	14,428 (14)	2,762 (12)
Current liabilities	2,002 (13)	522 (12)	2,155 (14)	679 (12)	1,673 (14)	585 (12)
Fixed liabilities	373 (6)	203 (6)	407 (7)	66 (5)	391 (7)	128 (6)
Valuation reserves	1,530 (13)	246 (11)	1,814 (14)	307 (11)	2,491 (14)	359 (11)
Capital stock						
common	3,321 (14)	617 (12)	4,849 (14)	693 (12)	4,898 (14)	693 (12)
preferred	1,412 (5)	1 (1)	1,312 (5)		1,303 (5)	
Capital surplus	530 (1)		530 (1)		530 (1)	
Earned surplus	2,771 (14)	836 (12)	2,979 (14)	1,146 (12)	3,013 (14)	1,016 (12)
Appreciation surplus	123 (3)		123 (3)		265 (5)	
Special surplus		83 ¹ (1)		83 ¹ (1)		83 ¹ (1)

¹ Appropriated surplus, the amount not derived from earnings.

AGGREGATES OF ORIGINAL DATA

**AGGREGATES OF SELECTED INCOME-ACCOUNT
AND BALANCE-SHEET ITEMS BY INDUSTRIES**
(in thousands of dollars)

142

	1927		1928		1929	
	D-2	D-3	D-2	D-3	D-2	D-3
Sales	17,635 (8)	41,882 (6)	18,196 (9)	43,172 (7)	18,700 (9)	40,970 (7)
Operating expenses	17,209 (8)	40,578 (6)	17,779 (9)	43,377 (7)	18,257 (9)	42,194 (7)
Interest charges	40 (6)	465 (5)	62 (2)	532 (6)	64 (7)	567 (7)
Balance available for dividends	422 (8)	1,113 (6)	4 (9)	(d)176 (7)	446 (9)	(d)945 (7)
Dividends						
common	456 (3)	186 ¹ (4)	221 (3)	95 ² (4)	212 (2)	5 (1)
preferred	16 (2)	160 (2)	70 (2)	158 (2)	70 (2)	47 (1)
stock						
Current assets	6,773 (9)	16,533 (6)	6,758 (9)	14,410 (7)	6,746 (9)	10,059 (7)
Buildings and equipment	1,648 (9)	47 (5)	1,735 (9)	49 (6)	1,589 (9)	57 (6)
Gross assets	9,011 (9)	16,734 (6)	9,048 (9)	14,668 (7)	9,273 (9)	10,285 (7)
Current liabilities	2,480 (9)	10,715 (6)	2,335 (9)	8,866 (7)	2,375 (9)	5,317 (7)
Fixed liabilities						
Valuation reserves	707 (8)	105 (5)	803 (9)	48 (6)	856 (9)	69 (6)
Capital stock						
common	4,156 (9)	835 (5)	3,273 (9)	1,035 (7)	3,350 (9)	1,035 (7)
preferred	612 (3)	3,915 (3)	1,612 (4)	3,915 (3)	1,612 (4)	3,915 (3)
Capital surplus		253 (1)		253 (1)		
Earned surplus	1,016 (9)	911 (6)	990 (9)	571 (7)	1,079 (9)	(d)166 (7)
Appreciation surplus	40 (1)		34 (1)			115 (1)

APPENDIX

¹ Includes one company, 153 thousand dollars, not classified.

² Includes one company, 15 thousand dollars, not classified.

	1927		1928		1929	
	D-4	D-5	D-4	D-5	D-4	D-5
Sales	95,921 (20)	112,868 (10)	98,239 (20)	110,196 (10)	100,196 (20)	7,478 (10)
Operating expenses	90,029 (20)	108,864 (10)	92,754 (20)	106,283 (10)	95,857 (20)	4,128 (10)
Interest charges	383 (17)	958 (10)	334 (18)	894 (10)	399 (19)	910 (10)
Balance available for dividends	4,948 (20)	3,642 (10)	4,659 (20)	3,727 (10)	4,063 (20)	3,143 (10)
Dividends						
common	2,450 (14)	1,547 (5)	1,251 (12)	1,778 (6)	944 (12)	1,430 (5)
preferred	746 (11)	611 (3)	922 (12)	611 (3)	1,199 (12)	756 (5)
stock					4,900 (1)	
Current assets	32,219 (20)	54,993 (10)	33,936 (20)	51,431 (10)	35,517 (20)	48,415 (10)
Buildings and equipment	12,700 (20)	3,637 (9)	14,477 (20)	3,735 (9)	18,332 (20)	3,906 (9)
Gross assets	57,062 (20)	62,183 (10)	60,394 (20)	60,600 (10)	64,255 (20)	58,760 (10)
Current liabilities	8,970 (20)	19,256 (10)	8,200 (20)	15,577 (10)	9,845 (20)	14,584 (10)
Fixed liabilities	3,451 (7)	1,774 (3)	3,422 (9)	1,502 (2)	3,142 (8)	1,454 (2)
Valuation reserves	4,386 (19)	1,718 (8)	5,127 (19)	1,789 (8)	5,571 (19)	1,881 (8)
Capital stock						
common	11,396 (20)	19,115 (10)	11,762 (20)	18,824 (10)	15,372 (20)	20,822 (10)
preferred	15,201 (13)	8,823 (4)	13,152 (13)	11,062 (5)	18,774 (13)	8,837 (5)
Capital surplus	7 (1)		6 (1)		4 (1)	
Earned surplus	13,643 (20)	11,499 (10)	15,920 (20)	13,129 (15)	11,540 (20)	11,530 (10)
Appreciation surplus	16 (2)		17 (2)		21 (2)	

AGGREGATES OF ORIGINAL DATA

**AGGREGATES OF SELECTED INCOME-ACCOUNT
AND BALANCE-SHEET ITEMS BY INDUSTRIES**
(in thousands of dollars)

144

	1927		1928		1929	
	D-6	D-7	D-6	D-7	D-6	D-7
Sales	129,765 (15)	17,410 (16)	133,402 (15)	19,244 (17)	109,362 (15)	19,499 (17)
Operating expenses	124,080 (15)	16,926 (16)	127,643 (15)	18,562 (17)	109,937 (15)	18,929 (17)
Interest charges	3,024 (11)	351 (15)	3,480 (13)	367 (16)	2,222 (13)	334 (16)
Balance available for dividends	5,022 (15)	292 (16)	6,003 (15)	450 (17)	6,826 (15)	398 (17)
Dividends						
common	2,512 (6)	376 (9)	2,535 (9)	611 (9)	2,481 (7)	547 (8)
preferred	347 (3)		710 (4)		718 (4)	
stock						
Current assets	46,225 (15)	9,704 (16)	48,749 (15)	10,793 (17)	50,454 (15)	10,512 (17)
Buildings and equipment	39,436 (15)	7,059 (16)	40,263 (15)	8,219 (17)	34,634 (15)	8,286 (17)
Gross assets	102,890 (15)	22,586 (16)	106,731 (15)	25,011 (17)	101,726 (15)	25,326 (17)
Current liabilities	18,008 (15)	2,416 (16)	17,818 (15)	3,217 (17)	17,010 (15)	3,094 (17)
Fixed liabilities	21,865 (9)	4,677 (5)	21,679 (10)	4,605 (4)	17,056 (10)	5,571 (6)
Valuation reserves	7,852 (14)	2,215 (15)	9,015 (14)	2,422 (16)	5,901 (14)	2,544 (16)
Capital stock						
common	32,348 (15)	9,898 (16)	32,343 (15)	10,077 (17)	32,321 (15)	9,976 (17)
preferred	9,925 (5)		10,238 (4)		10,240 (4)	
Capital surplus	1,187 (2)	433 (3)	1,157 (2)	402 (3)	1,132 (2)	403 (3)
Earned surplus	11,500 (15)	2,879 (16)	14,265 (15)	4,287 (17)	17,848 (15)	3,505 (17)
Appreciation surplus	8 (1)	67 (2)	8 (1)	81 (2)	107 (2)	134 (3)

APPENDIX

	1927		1928		1929	
	D-8	D-9	D-8	D-9	D-8	D-9
Sales	269,827 (12)	13,468 (18)	204,963 (12)	14,372 (21)	312,591 (12)	14,477 (21)
Operating expenses	273,915 (12)	12,363 (18)	203,650 (12)	12,343 (21)	315,687 (12)	13,276 (21)
Interest charges	1,326 (11)	161 (18)	793 (11)	177 (21)	1,472 (11)	212 (21)
Balance available for dividends	(d)5,186 (12)	790 (18)	592 (12)	1,063 (21)	(d)4,365 (12)	3,616 (21)
Dividends						
common	12 (2)	355 (7)	21 (4)	472 (8)	31 (4)	438 (7)
preferred	12 (1)	48 (1)	12 (1)	47 (1)	13 (1)	45 (2)
stock						
Current assets	12,101 (12)	10,162 (18)	15,612 (12)	11,476 (21)	22,680 (12)	11,863 (21)
Buildings and equipment	11,791 (12)	1,920 (17)	11,831 (12)	1,431 (20)	11,884 (12)	1,631 (20)
Gross assets	27,520 (12)	12,660 (18)	31,115 (12)	13,812 (21)	41,688 (12)	14,745 (21)
Current liabilities	6,281 (12)	3,445 (18)	9,013 (12)	3,523 (21)	23,031 (12)	3,788 (21)
Fixed liabilities	7,200 (2)	765 (4)	6,921 (2)	495 (5)	6,576 (2)	740 (7)
Valuation reserves	1,707 (10)	568 (18)	2,247 (10)	1,680 (21)	2,047 (10)	889 (21)
Capital stock						
common	13,395 (12)	3,889 (18)	13,395 (12)	4,213 (20)	13,295 (12)	4,274 (21)
preferred	682 (4)	858 (4)	682 (4)	832 (4)	667 (4)	869 (6)
Capital surplus	48 (1)		57 (1)		21 (1)	
Earned surplus	(d)1,736 (12)	3,586 (18)	(d)1,215 (12)	4,267 (21)	(d)5,555 (12)	4,609 (21)
Appreciation surplus				51 (1)		51 (1)

AGGREGATES OF ORIGINAL DATA

**AGGREGATES OF SELECTED INCOME-ACCOUNT
AND BALANCE-SHEET ITEMS BY INDUSTRIES**
(in thousands of dollars)

146

	1927		1928		1929	
	D-10	D-11	D-10	D-11	D-10	D-11
Sales	14,669 (11)	40,713 (15)	15,067 (11)	40,832 (15)	15,626 (11)	41,563 (15)
Operating expenses	13,962 (11)	39,397 (15)	14,620 (11)	39,330 (15)	14,764 (11)	40,113 (15)
Interest charges	59 (10)	98 (15)	53 (10)	109 (15)	52 (10)	118 (15)
Balance available for dividends	454 (11)	1,313 (15)	205 (11)	1,358 (15)	486 (11)	1,417 (15)
Dividends						
common	144 (7)	810 (12)	112 (7)	954 (12)	134 (5)	1,028 (12)
preferred	40 (2)	208 (6)	41 (2)	155 (6)	41 (2)	131 (6)
stock	8 (1)				8 (1)	
Current assets	3,804 (11)	20,407 (15)	3,532 (11)	20,011 (15)	3,589 (11)	19,059 (15)
Buildings and equipment	1,415 (11)	1,964 (14)	1,190 (11)	2,003 (14)	1,218 (11)	2,063 (14)
Gross assets	6,996 (11)	24,929 (15)	6,551 (11)	24,432 (15)	6,947 (11)	23,599 (15)
Current liabilities	969 (11)	2,781 (15)	812 (11)	3,146 (15)	853 (11)	2,482 (15)
Fixed liabilities	301 (3)	490 (3)	278 (3)	320 (3)	246 (2)	295 (3)
Valuation reserves	577 (10)	1,260 (14)	313 (10)	1,360 (14)	366 (10)	1,408 (14)
Capital stock						
common	2,488 (11)	7,200 (15)	2,638 (11)	7,648 (15)	2,679 (11)	7,225 (15)
preferred	1,081 (3)	3,212 (7)	1,076 (2)	2,143 (7)	1,076 (2)	2,159 (7)
Capital surplus	554 (3)		554 (3)		554 (3)	
Earned surplus	929 (11)	9,956 (15)	790 (11)	9,692 (15)	1,088 (11)	9,925 (15)
Appreciation surplus	97 (2)	99 (2)	86 (3)	96 (2)	84 (3)	47 (1)

APPENDIX

	1927		1928		1929	
	D-12	D-13	D-12	D-13	D-12	D-13
Sales	9,202 (7)	17,723 (8)	9,156 (7)	18,080 (8)	9,134 (7)	17,134 (8)
Operating expenses	8,754 (7)	17,087 (8)	8,676 (7)	17,521 (8)	8,600 (7)	16,723 (8)
Interest charges	74 (7)	48 (7)	98 (7)	68 (7)	87 (7)	50 (7)
Balance available for dividends	355 (7)	566 (8)	388 (7)	531 (8)	429 (7)	406 (7)
Dividends						
common	158 (4)	325 (8)	186 (4)	332 (7)	168 (4)	351 (6)
preferred	64 (3)		620 (3)		53 (3)	
stock		67 (1)				
Current assets	7,448 (7)	6,890 (8)	7,573 (7)	7,161 (8)	7,580 (7)	6,303 (8)
Buildings and equipment	349 (6)	1,131 (8)	361 (6)	1,219 (8)	385 (6)	1,244 (8)
Gross assets	7,626 (7)	10,054 (8)	8,804 (7)	10,564 (8)	8,940 (7)	9,818 (8)
Current liabilities	3,480 (7)	2,284 (8)	3,493 (7)	2,515 (8)	3,508 (7)	1,786 (8)
Fixed liabilities	160 (1)		160 (1)		115 (2)	
Valuation reserves	344 (7)	468 (6)	374 (7)	468 (6)	374 (7)	505 (6)
Capital stock						
common	1,662 (7)	4,772 (8)	1,662 (7)	4,762 (8)	1,644 (7)	4,752 (8)
preferred	855 (3)	175 (1)	806 (3)	165 (1)	804 (3)	165 (1)
Capital surplus						
Earned surplus	1,888 (7)	2,255 (8)	2,071 (7)	2,454 (8)	2,264 (7)	2,501 (8)
Appreciation surplus	238 (3)		237 (3)		231 (3)	

AGGREGATES OF ORIGINAL DATA

**AGGREGATES OF SELECTED INCOME-ACCOUNT
AND BALANCE-SHEET ITEMS BY INDUSTRIES**
(in thousands of dollars)

	1927		1928		1929	
	D-14	D-15	D-14	D-15	D-14	D-15
Sales	21,104 (14)	147,969 (41)	23,674 (17)	158,740 (43)	28,553 (17)	160,265 (42)
Operating expenses	19,775 (14)	140,942 (41)	21,843 (17)	153,994 (43)	27,302 (17)	152,323 (42)
Interest charges	43 (13)	1,062 (34)	74 (16)	1,109 (35)	101 (14)	1,172 (33)
Balance available for dividends	1,160 (14)	5,346 (40)	1,303 (16)	7,257 (43)	1,100 (16)	6,059 (42)
Dividends						
common	92 (6)	1,476 (14)	614 (5)	1,975 (22)	670 ¹ (7)	2,525 (23)
preferred	203 (3)	758 (16)	120 (2)	854 (18)	61 (3)	842 (16)
stock		32 (1)	2 (1)	175 (1)	99 (2)	37 (1)
Current assets	7,238 (15)	47,290 (39)	9,788 (17)	56,099 (42)	9,213 (17)	52,210 (41)
Buildings and equipment	480 (15)	32,214 (38)	757 (16)	33,125 (41)	1,066 (16)	36,168 (40)
Gross assets	8,597 (15)	88,961 (39)	12,285 (17)	99,739 (42)	11,603 (17)	99,375 (41)
Current liabilities	1,977 (14)	26,779 (39)	1,581 (16)	21,811 (40)	2,597 (16)	19,593 (41)
Fixed liabilities	10 (1)	9,177 (9)	385 (5)	10,026 (11)	471 (6)	9,260 (11)
Valuation reserves	199 (12)	6,382 (35)	220 (14)	7,390 (38)	275 (13)	8,171 (38)
Capital stock						
common	2,322 (15)	24,308 (39)	4,685 (17)	26,053 (42)	5,053 (17)	25,732 (41)
preferred	1,270 (4)	12,574 (19)	1,502 (4)	12,489 (19)	146 (2)	11,597 (6)
Capital surplus				361 (3)		3,348 (3)
Earned surplus	2,793 (15)	16,314 (39)	2,315 (17)	20,752 (42)	3,006 (17)	20,571 (39)
Appreciation surplus		703 (4)		790 (5)		741 (6)

¹ Not including liquidating dividend, one company, 71 thousand dollars.

	1927		1928		1929	
	E-1	E-2	E-1	E-2	E-1	E-2
Sales	3,182 (17)	109 (3)	3,144 (18)	97 (4)	3,004 (19)	166 (4)
Operating expenses	2,171 (17)	50 (3)	1,960 (18)	52 (4)	1,936 (19)	58 (4)
Interest charges	389 (17)	9 (2)	415 (17)	4 (2)	351 (18)	27 (2)
Balance available for dividends	328 (17)	29 (3)	658 (18)	38 (3)	630 (19)	73 (4)
Dividends						
common	149 (4)	20 (1)	130 (5)	28 (2)	114 (4)	38 (3)
preferred	4 (1)	2 (1)	4 (1)	2 (1)	4 (1)	5 (2)
Current assets	2,922 (17)	552 (3)	2,820 (18)	575 (4)	3,267 (19)	1,228 (4)
Buildings and equipment	7,960 (15)	8 (3)	8,037 (16)	8 (4)	8,185 (17)	8 (4)
Gross assets	15,507 (17)	561 (3)	16,344 (18)	583 (4)	17,738 (19)	1,251 (4)
Current liabilities	1,856 (17)	124 (3)	2,154 (18)	69 (4)	2,607 (19)	606 (4)
Fixed liabilities	5,707 (10)		5,334 (10)		6,114 (10)	
Valuation reserves	918 (11)	5 (2)	1,199 (13)	9 (3)	1,271 (15)	10 (3)
Capital stock						
common	4,131 (17)	178 (3)	4,733 (18)	287 (4)	4,818 (19)	350 (4)
preferred	50 (1)	23 (1)	50 (1)	35 (1)	50 (1)	72 (2)
Capital surplus	17 (2)		17 (2)		17 (2)	
Earned surplus	586 (17)	164 (3)	529 (18)	183 (4)	740 (19)	213 (4)
Appreciation surplus	75 (1)		93 (2)		93 (2)	¹ (1)
			66 ² (1)		2 ¹ (1)	

¹ Represents deferred income.

² Less than five hundred dollars.

³ Represents unearned income.

AGGREGATES OF ORIGINAL DATA

**AGGREGATES OF SELECTED INCOME-ACCOUNT
AND BALANCE-SHEET ITEMS BY INDUSTRIES**

(in thousands of dollars)

	1927		1928		1929	
	F-1	F-2	F-1	F-2	F-1	F-2
Sales	9,951 (5)	31,997 (11)	12,617 (6)	31,914 (11)	15,390 (6)	38,533 (11)
Operating expenses	9,664 (5)	30,646 (11)	12,134 (6)	29,758 (11)	14,972 (6)	36,614 (10)
Interest charges	12 (2)	3 (7)	8 (3)	49 (8)	9 (4)	7 (9)
Balance available for dividends	257 (5)	715 (11)	434 (6)	1,536 (11)	379 (6)	1,272 (10)
Dividends						
common	212 (2)	55 (4)	232 (3)	78 (6)	414 (6)	884 (5)
preferred		¹ (1)		¹ (1)		¹ (1)
Current assets	492 (6)	2,187 (11)	836 (6)	2,289 (11)	789 (6)	1,898 (11)
Buildings and equipment	326 (5)	25,508 (11)	380 (5)	24,813 (11)	446 (5)	29,363 (11)
Gross assets	1,150 (6)	29,091 (11)	1,507 (6)	29,262 (11)	1,820 (6)	33,854 (11)
Current liabilities	368 (6)	2,376 (11)	459 (6)	1,368 (11)	544 (6)	4,174 (11)
Fixed liabilities		104 (2)	32 (1)	135 (3)	70 (2)	126 (3)
Valuation reserves	180 (5)	7,727 (10)	211 (5)	6,591 (10)	161 (4)	8,095 (10)
Capital stock						
common	333 (6)	600 (11)	330 (6)	600 (11)	542 (6)	600 (11)
preferred		1 (1)		1 (1)		1 (1)
Capital surplus		6,225 (2)	"	6,225 (2)		6,225 (2)
Earned surplus	351 (6)	11,850 (11)	568 (6)	13,310 (11)	495 (6)	13,608 (11)
Appreciation surplus	7 (1)		7 (1)		7 (1)	

¹ Less than five hundred dollars.

	1927		1928		1929	
	F-3	F-4	F-3	F-4	F-3	F-4
Sales	103,177 (22)	19,728 (16)	135,316 (22)	19,640 (17)	163,233 (22)	21,293 (17)
Operating expenses	96,036 (22)	17,394 (16)	115,376 (22)	17,316 (17)	139,476 (22)	18,916 (17)
Interest charges	85 (16)	529 (10)	82 (19)	520 (10)	50 (15)	537 (8)
Balance available for dividends	8,390 (22)	1,808 (15)	17,721 (22)	1,762 (15)	20,566 (22)	1,904 (17)
Dividends						
common	2,848 (12)	1,841 (7)	20,512 (14)	1,013 (9)	25,466 (14)	1,085 (7)
preferred	16 (2)	46 (2)	16 (3)	40 (2)	12 (3)	40 (2)
stock		49 (1)	67 (1)			
Current assets	14,419 (23)	4,449 (16)	25,964 (23)	4,990 (17)	24,472 (22)	5,053 (17)
Buildings and equipment	39,048 (20)	14,873 (16)	39,854 (20)	15,319 (17)	40,768 (19)	16,924 (17)
Gross assets	109,666 (23)	27,242 (16)	113,091 (23)	28,534 (17)	112,569 (23)	30,826 (17)
Current liabilities	7,790 (23)	2,972 (15)	12,191 (23)	3,235 (16)	14,955 (23)	3,571 (17)
Fixed liabilities	443 (8)	7,366 (4)	354 (7)	7,420 (5)	210 (7)	7,727 (5)
Valuation reserves	31,873 (21)	5,527 (15)	34,004 (21)	5,527 (15)	35,410 (20)	6,705 (14)
Capital stock						
common	52,405 (23)	5,600 (16)	52,938 (23)	5,587 (17)	53,361 (23)	5,587 (17)
preferred	101 (2)	1,269 (3)	172 (4)	1,337 (4)	92 (3)	1,348 (4)
Capital surplus	4,081 (2)	1,014 (2)	4,081 (2)	797 (2)	4,081 (2)	797 (2)
Earned surplus	12,584 (23)	3,046 (16)	9,616 (23)	3,789 (17)	4,572 (23)	4,566 (17)
Appreciation surplus	12 (1)	383 (3)	105 (1)	298 (2)	105 (1)	352 (2)

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