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CHAPTER 10

FOODS AND FOOD PRODUCTS

THE major group, Food Products, is made up of 11 minor groups, each in turn consisting of smaller, but in the main rather closely related, sets of food manufacturing activities: Bakery Products; Flour, Feed and Grist Mills; Confectionery; Package Foods; Dairying; Canned Goods; Meat Packing; Beverages; Tobacco; Miscellaneous Food Products. The last-mentioned is shown mainly in order to round out the sample so that the major group is representative of food manufacturing activities as a whole. The number of corporations in each group and their average size are shown in Table 43. The groups are described briefly:

Bakery Products: Bread, ice cream cones, pie, cakes, etc.

Flour, Feed and Grist Mills: All sorts of milling activity concerned with the processing of grains and cereals. Bran, alfalfa, grits, hominy, buckwheat, corn, oats, rye and their products, are all included, as well as wheat and wheat flour.

Confectionery: Candy, chewing gum, cocoa, glacé fruits, icings, etc.

Package Foods: A long list of items makes up this group of branded and trade-marked products. Breakfast foods, bouillon cubes, spaghetti, starch, egg noodles, shredded cocoanut, tea and coffee are among them.

Dairying and Dairy Products: Butter and cheese, evaporated, condensed, malted and pasteurized milk.

Canned Goods: Canned sea food, canned fruit and vegetables; pickles, relishes, catsup, sauerkraut, flavoring extracts and fruit juices. Canned meats are excluded.

Meat Packing: All sorts of meats whether fresh or canned, beef and pork products, and slaughtering.

Beverages: These beverages are non-alcoholic; liquors are classified under Miscellaneous Food Products. Here are mineral waters, grape juice, cereal beverages and near-beer, and other soft drinks.

Tobacco: Cigarettes, cigars, snuff, smoking and chewing tobacco.

Miscellaneous Food Products: Butter substitutes, poultry, distilled and vinous liquors, ice, ice cream, beet sugar, and cane sugar.

TABLE 43

FOODS GROUPS: LARGE IDENTICAL MANUFACTURING
CORPORATIONS SERIES

(A) SIZE AND CHARACTER OF SAMPLE

	NUMBER OF CORPORATIONS	AVERAGE CAPITAL PER CORPORATION ¹ (<i>millions of dollars</i>)	
		ARITHMETIC MEAN	MEDIAN
<i>Major group</i>			
1 Foods	215	14.76	2.17
<i>Minor group</i>			
1 Bakery products	17	14.27	
2 Flour	32	2.07	
3 Confectionery	21	5.34	
4 Package foods	19	5.05	
5 Dairying	26	8.06	
6 Canned goods	16	7.17	
7 Meat packing	23	41.65	
9 Beverages	11	4.22	
10 Tobacco	23	33.68	
11-8 Miscellaneous food products	27	20.45	

¹Total capital (i.e., includes funded debt) as of December 31, 1928.

TABLE 43 (continued)

(B) PERCENTAGE INCOME TO SALES

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1919-1928 ¹
<i>Major group</i>											
1 Foods	3.7	2.3	1.7	5.1	5.3	4.4	3.8	4.8	4.1	4.4	4.0
<i>Minor group</i>											
1 Bakery products	8.5	6.1	10.2	12.2	11.2	12.5	11.9	12.9	13.5	12.9	11.3
2 Flour	4.8	.7	2.6	2.5	3.3	5.1	2.8	2.9	3.4	3.4	3.1
3 Confectionery	18.7	8.0	5.7	13.7	13.7	15.8	15.1	14.8	15.4	14.5	13.7
4 Package foods	4.8	-1.2	7.5	10.2	7.5	8.4	6.2	8.7	8.0	7.5	6.5
5 Dairying	4.1	1.5	2.5	5.0	4.8	3.7	4.7	4.8	4.6	4.5	4.1
6 Canned goods	12.6	5.6	6.7	12.7	10.5	11.6	9.2	8.5	7.7	8.6	9.4
7 Meat packing	-5	.1	-1.9	.5	1.1	.9	.6	1.2	.4	.8	.4
9 Beverages	-4.6	.2	1.9	9.7	14.6	6.8	13.0	13.1	9.6	15.8	8.2
10 Tobacco	10.0	7.9	9.7	11.0	10.9	10.0	10.9	11.2	11.3	11.2	10.5
11-8 Miscellaneous food products	10.3	4.1	5.4	7.4	8.5	8.4	6.0	8.1	6.1	8.4	6.4

(C) PERCENTAGE INCOME TO CAPITALIZATION

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1919-1928 ¹
<i>Major group</i>											
1 Foods	11.9	6.5	3.4	10.3	10.4	10.9	10.1	11.7	10.5	11.1	9.8
<i>Minor group</i>											
1 Bakery products	15.2	12.1	15.0	18.0	15.0	18.6	16.2	18.8	19.0	17.5	16.8
2 Flour	25.3	3.2	8.9	9.0	9.4	16.2	9.9	9.9	11.9	12.0	11.4
3 Confectionery	41.9	13.2	6.6	17.1	17.9	19.2	18.4	17.4	17.0	15.1	17.8
4 Package foods	19.8	-3.5	14.9	20.7	16.7	20.7	16.0	20.2	17.9	17.6	16.2
5 Dairying	20.7	6.7	8.3	15.6	20.6	12.1	13.0	13.2	12.8	9.7	12.7
6 Canned goods	29.2	8.7	9.1	20.5	13.3	14.7	12.4	12.2	10.1	12.7	13.8
7 Meat packing	-3.6	.3	-7.0	1.9	3.8	4.4	3.2	6.3	2.3	4.6	1.9
9 Beverages	-1.9	.1	.9	3.2	6.1	3.0	6.7	6.5	4.5	8.6	3.8
10 Tobacco	14.0	11.7	13.1	14.2	13.4	13.5	15.0	14.7	16.0	15.6	14.2
11-8 Miscellaneous food products	17.4	6.9	-5.4	7.7	9.3	9.7	6.8	9.1	7.1	9.4	7.9

¹Ten-year aggregate.

TABLE 43 (continued)
FOODS GROUPS: LARGE IDENTICAL MANUFACTURING
CORPORATION SERIES

(D) PERCENTAGE PROFIT TO TOTAL CAPITAL

	1924	1925	1926	1927	1928
<i>Major group</i>					
1 Foods	10.1	9.3	10.9	9.7	10.3
<i>Minor group</i>					
1 Bakery products	17.9	15.6	18.3	18.6	17.1
2 Flour	16.2	9.9	9.8	11.7	11.8
3 Confectionery	18.7	17.9	17.0	16.6	14.9
4 Package foods	20.1	15.6	19.7	17.1	16.8
5 Dairying	11.8	12.3	13.0	12.5	9.5
6 Canned goods	14.7	12.4	12.1	10.1	12.7
7 Meat packing	4.5	3.8	6.0	3.0	4.7
9 Beverages	3.0	6.6	6.5	4.5	8.6
10 Tobacco	12.7	14.1	14.2	15.0	14.6
11-8 Miscellaneous food products	9.3	6.6	8.7	6.9	8.9

(E) PERCENTAGE OF INCOME PAID OUT IN CASH DIVIDENDS

<i>Major group</i>					
1 Foods	58.3	64.7	59.4	76.7	61.2
<i>Minor group</i>					
1 Bakery products	54.9	52.5	62.4	63.6	75.3
2 Flour	50.2	70.8	72.2	71.3	106.0
3 Confectionery	44.2	53.3	62.7	65.1	65.4
4 Package foods	52.5	55.6	43.5	57.3	71.2
5 Dairying	52.7	41.4	53.0	60.5	51.0
6 Canned goods	39.7	49.0	53.0	59.8	40.4
7 Meat packing	130.5	150.9	56.2	175.2	75.0
9 Beverages	89.9	53.3	74.8	133.8	67.6
10 Tobacco	43.2	59.3	55.2	70.8	57.8
11-8 Miscellaneous food products	57.0	64.0	77.2	95.5	44.9

TABLE 43 (continued)

(F) FREQUENCY DISTRIBUTIONS OF PERCENTAGES OF TOTAL NET INCOME TO CAPITALIZATION, INDIVIDUAL CORPORATIONS, 1919-23. MAJOR GROUP 1: FOODS

PERCENTAGE INCOME TO CAPITALIZATION	1919			1920			1921			1922			1923		
	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	
Under zero	3.7	3.7	11.6	11.6	11.6	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	
Zero to 4	1.9	5.6	12.1	23.7	23.7	8.8	8.8	20.9	20.9	6.5	6.5	10.2	10.2	8.8	
5 to 9	5.1	10.7	17.7	41.4	41.4	13.5	34.4	34.4	14.0	14.0	24.2	24.2	24.2	16.3	
10 to 14	15.3	26.0	16.3	57.7	57.7	17.2	51.6	51.6	16.3	16.3	40.5	40.5	40.5	24.2	
15 to 19	12.1	38.1	12.1	69.8	69.8	9.3	64.6	64.6	11.6	11.6	52.1	52.1	52.1	15.8	
20 to 24	10.2	48.3	7.4	77.2	77.2	9.3	73.9	73.9	14.4	14.4	66.5	66.5	66.5	12.1	
25 to 29	13.0	61.3	6.5	83.7	83.7	5.6	79.5	79.5	11.2	11.2	77.7	77.7	77.7	8.8	
30 and over	38.7	100.0	16.3	100.0	100.0	20.5	100.0	100.0	22.3	22.3	100.0	100.0	100.0	12.6	

(G) FREQUENCY DISTRIBUTIONS OF PERCENTAGES OF TOTAL PROFIT TO TOTAL CAPITAL, INDIVIDUAL CORPORATIONS, 1924-28 MAJOR GROUP 1: FOODS

PERCENTAGE INCOME TO CAPITALIZATION	1924			1925			1926			1927			1928		
	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	
Under zero	2.8	2.8	3.7	3.7	3.7	3.3	3.3	3.3	3.3	4.2	4.2	4.2	4.2	1.9	
Zero to 4	5.1	7.9	9.8	13.5	13.5	8.3	11.6	11.6	9.3	9.3	13.5	13.5	13.5	10.7	
5 to 9	15.4	23.3	20.9	34.4	34.4	20.0	31.6	31.6	24.7	24.7	38.2	38.2	38.2	25.1	

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10 to 14	24.2	47.5	23.3	57.7	26.5	58.1	20.9	59.1	26.1	63.8
15 to 19	20.0	67.5	16.7	74.4	12.5	70.6	17.7	76.8	16.7	80.5
20 to 24	15.8	83.3	12.1	86.5	19.1	89.7	13.5	90.3	10.2	90.7
25 to 29	6.5	89.8	5.6	92.1	3.3	93.0	3.7	94.0	3.7	94.4
30 and over	10.2	100.0	7.9	100.0	7.0	100.0	6.0	100.0	5.6	100.0

CHAPTER 11

TEXTILES AND TEXTILE PRODUCTS

THE Textile Products group is made up of ten minor groups: Cotton Spinning; Cotton Converting; Cotton Weaving; Weaving Woolens; Silk Weaving; Carpets; Men's Clothing; Knit Goods, including Sweaters, Bathing Suits, Gloves, etc; Miscellaneous Clothing, Men's and Women's; Miscellaneous Textiles and Textile Products. The number of corporations included in each group and their average size are shown in Table 44. The groups are described briefly:

Cotton Spinning: Both coarse and medium yarns.

Cotton Converting: Cloths, threads and tape.

Cotton Weaving: Cloths.

Weaving Woolens: Cloths.

Silk Weaving: Includes rayon and other artificial silks.

Carpets: Carpet yarns, ropes and cordage are included.

Men's Clothing: Includes suits, shirts, bathrobes, vests and all boys' clothing.

Knit Goods: Sweaters, bathing suits, gloves, etc.

Miscellaneous Clothing: Custom made clothing, ladies' clothing, men's and women's hats, and underwear other than knit goods.

Miscellaneous Textile Products: Includes some 24 different types of Textile manufacture, such as cotton bags, cotton upholstery, dyeing woolens, silk ribbons and labels, felt, fur goods and moss gins.

TABLE 44

TEXTILE GROUPS, LARGE IDENTICAL MANUFACTURING CORPORATIONS SERIES

(A) SIZE AND CHARACTER OF SAMPLE

Major group	NUMBER OF CORPORATIONS	AVERAGE CAPITAL PER CORPORATION ¹ (millions of dollars)	
		ARITHMETIC MEAN	MEDIAN
2 Textiles	289	4.30	1.73
Minor group			
12 Cotton spinning	12	.83	

TABLE 44 (continued)

TEXTILE GROUPS, LARGE IDENTICAL MANUFACTURING
CORPORATIONS SERIES

(A) SIZE AND CHARACTER OF SAMPLE

	NUMBER OF CORPORATIONS	AVERAGE CAPITAL PER CORPORATION ¹ (millions of dollars)	
		ARITHMETIC MEAN	MEDIAN
<i>Minor group</i>			
13 Cotton converting	13	3.01	
14 Cotton weaving	49	5.46	
15 Weaving woolens	31	6.47	
16 Silk weaving	17	6.95	
17 Carpets	18	4.63	
18 Men's clothing	25	5.09	
19 Knit goods	42	2.88	
20 Miscellaneous clothing	23	2.36	
21 Miscellaneous textiles	54	3.84	

¹Total capital (i.e., includes funded debt) as of December 31, 1928.

TABLE 44 (continued)

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1919- 1928 ^r
(B) PERCENTAGE INCOME TO SALES											
<i>Major group</i>											
2 Textiles	16.9	4.9	9.0	12.6	11.0	5.4	7.2	5.5	7.7	5.8	8.5
<i>Minor group</i>											
12 Cotton spinning	18.1	15.4	11.9	10.2	8.9	4.7	7.7	7.2	8.0	6.3	9.8
13 Cotton converting	13.9	1.7	8.2	11.7	9.9	5.1	7.4	4.5	8.2	6.9	7.6
14 Cotton weaving	19.4	7.6	9.4	10.9	10.5	1.3	3.8	3.0	9.9	4.6	8.1
15 Weaving woolens	16.0	.3	11.8	14.5	10.5	2.1	4.1	1.4	4.2	1.8	6.9
16 Silk weaving	18.9	1.0	6.9	10.7	9.5	5.6	9.7	5.8	3.6	3.8	7.6
17 Carpets	20.9	9.2	17.4	26.0	21.1	11.8	10.2	8.1	9.7	7.3	14.1
18 Men's clothing	13.1	5.3	4.8	8.1	9.3	6.5	8.3	7.8	9.0	7.8	8.0
19 Knit goods	15.9	5.2	9.3	12.7	8.3	6.7	10.6	9.9	7.7	8.0	9.2
20 Miscellaneous clothing	12.6	2.9	2.4	8.9	8.5	5.9	7.6	8.1	8.4	7.1	7.2
21 Miscellaneous textiles	17.5	6.0	10.1	13.5	12.8	9.1	8.4	5.2	7.8	6.6	9.5
(C) PERCENTAGE INCOME TO CAPITALIZATION											
<i>Major group</i>											
2 Textiles	30.2	8.1	10.6	16.5	14.5	6.7	9.2	7.1	9.0	6.7	11.2
<i>Minor group</i>											
12 Cotton spinning	47.0	37.4	10.4	16.0	13.8	7.6	12.3	10.1	10.4	9.5	15.5
13 Cotton converting	27.7	3.6	11.9	14.8	16.8	6.7	9.8	5.9	10.1	8.3	11.1
14 Cotton weaving	32.5	12.1	9.4	11.4	11.0	1.3	4.3	3.2	10.2	4.7	9.3
15 Weaving woolens	22.5	.4	11.4	15.2	11.6	2.1	4.1	1.5	3.8	1.5	7.2
16 Silk weaving	38.4	1.2	8.3	14.3	13.2	8.1	14.3	8.3	4.8	4.7	10.5
17 Carpets	26.5	12.2	15.9	36.3	24.6	12.2	11.4	8.9	10.0	6.7	15.6
18 Men's clothing	25.3	9.4	6.7	11.3	14.2	9.1	12.0	11.7	13.3	11.4	12.1
19 Knit goods	38.1	12.6	16.5	25.7	15.9	11.0	16.8	16.4	11.7	11.2	16.2

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	(D) PERCENTAGE PROFIT TO				(E) PERCENTAGE OF INCOME					
	TOTAL CAPITAL				PAID OUT IN CASH DIVIDENDS					
	1924	1925	1926	1927	1928	1924	1925	1926	1927	1928
<i>Major group</i>										
2 Textiles	6.6	9.1	7.0	8.9	6.6	82.3	58.6	72.6	52.6	71.0
<i>Minor group</i>										
12 Cotton spinning	7.6	12.3	10.1	10.4	9.5	65.6	35.0	58.4	64.4	57.9
13 Cotton converting	6.6	9.6	5.9	9.9	8.1	79.6	56.1	94.7	53.7	61.3
14 Cotton weaving	1.3	4.3	3.4	9.7	4.7	344.7	91.8	100.8	32.0	91.8
15 Weaving woolsens	2.1	4.1	1.6	3.8	1.6	236.7	106.0	308.5	73.4	155.9
16 Silk weaving	7.8	14.2	8.1	4.8	4.7	69.7	36.1	67.5	91.4	90.2
17 Carpets	12.2	11.4	8.9	10.0	6.7	73.0	70.3	78.2	59.8	93.7
18 Men's clothing	9.0	11.8	11.6	13.2	11.4	61.2	51.6	64.6	57.0	50.1
19 Knit goods	10.8	15.8	15.6	11.3	10.8	45.9	28.9	28.4	44.9	51.3
20 Miscellaneous clothing	10.7	13.5	14.9	14.4	12.2	45.1	35.2	39.2	38.8	48.1
21 Miscellaneous textiles	11.9	11.1	6.8	8.6	7.6	52.1	66.1	82.1	68.2	72.6

20 Miscellaneous clothing
 21 Miscellaneous textiles
¹ Ten-year aggregate.

TABLE 44 (continued)

(F) FREQUENCY DISTRIBUTIONS OF PERCENTAGES OF TOTAL NET INCOME TO CAPITALIZATION, INDIVIDUAL CORPORATIONS, 1919-23. MAJOR GROUP 2: TEXTILES

PERCENTAGE INCOME TO CAPI- TALIZATION	1919		1920		1921		1922		1923	
	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES
Under zero	.0		14.9	14.9	9.3	9.3	1.4	1.4	2.1	2.1
Zero to 4	.7	.7	10.7	25.6	10.7	20.0	4.5	5.9	2.1	4.2
5 to 9		1.4	18.0	43.6	20.1	40.1	14.5	20.4	14.2	18.4
10 to 14	3.8	5.2	8.6	52.2	18.4	58.5	16.3	36.7	22.5	40.9
15 to 19	8.7	13.9	11.4	63.3	11.4	69.9	16.6	53.3	27.0	67.9
20 to 24	12.1	26.0	7.6	70.9	10.7	80.6	11.8	65.1	13.5	81.4
25 to 29	10.0	36.0	8.0	78.9	6.2	86.8	11.1	76.2	7.9	89.3
30 and over	64.0	100.0	21.1	100.0	13.2	100.0	23.8	100.0	10.7	100.0

(G) FREQUENCY DISTRIBUTIONS OF PERCENTAGES OF TOTAL PROFIT TO TOTAL CAPITAL, INDIVIDUAL CORPORATIONS, 1924-28. MAJOR GROUP 2: TEXTILES

PERCENTAGE INCOME TO CAPI- TALIZATION	1924		1925		1926		1927		1928	
	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES
Under zero	8.0	8.0	1.7	1.7	5.5	5.5	1.4	1.4	5.5	5.5
Zero to 4	12.5	20.5	9.3	11.0	18.4	23.9	11.4	12.8	24.6	30.1
5 to 9	28.0	48.5	28.0	39.0	27.7	51.6	26.0	38.8	28.4	58.5

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10 to 14	20.4	68.9	26.0	65.0	20.1	71.7	27.0	65.8	21.4	79.9
15 to 19	17.3	86.2	13.2	78.2	11.4	83.1	20.4	86.2	11.1	91.0
20 to 24	4.8	91.0	9.7	87.9	6.9	90.0	7.6	93.8	3.5	94.5
25 to 29	3.5	94.5	5.9	93.8	4.5	94.5	3.1	96.9	3.8	98.3
30 and over	5.5	100.0	6.2	100.0	5.5	100.0	3.1	100.0	1.7	100.0

CHAPTER 12

LEATHER AND LEATHER PRODUCTS

THE major group, Leather and Leather Products, is made up of but two smaller groups: Boots and Shoes, and Leather and Miscellaneous Leather Products. The number of corporations in each and their average size are shown in Table 45. The groups are described briefly:

Boots and Shoes: All footwear made of leather.

Miscellaneous Leather Products: Saddlery, trunks, gaiters, gloves, leather substitutes, etc.

TABLE 45

LEATHER AND LEATHER PRODUCTS, LARGE IDENTICAL MANUFACTURING CORPORATIONS SERIES

(A) SIZE AND CHARACTER OF SAMPLE

	NUMBER OF CORPORATIONS	AVERAGE CAPITAL PER CORPORATION ¹ (<i>millions of dollars</i>)	
		ARITHMETIC MEAN	MEDIAN
<i>Major group</i>			
3 Leather	54	4.85	2.40
<i>Minor group</i>			
22 Boots and shoes	25	6.68	
23 Miscellaneous leather products	29	3.27	

¹Total capital (i.e., includes funded debt) as of December 31, 1928.

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TABLE 45 (continued)

1919-
1928¹

(B) PERCENTAGE INCOME TO SALES		1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
<i>Major group</i>											
3	Leather	12.1	2.2	1.6	9.2	6.8	8.4	7.6	7.3	9.5	7.6
<i>Minor group</i>											
22	Boots and shoes	11.8	7.7	6.1	10.6	9.1	10.4	8.7	9.2	11.1	10.3
23	Miscellaneous leather products	12.2	-4.2	-6.0	6.9	2.9	5.2	5.4	4.2	7.0	3.1
(C) PERCENTAGE INCOME TO CAPITALIZATION											
<i>Major group</i>											
3	Leather	34.1	4.3	2.4	15.5	11.2	12.8	12.7	12.1	15.4	11.5
<i>Minor group</i>											
22	Boots and shoes	33.1	18.2	11.4	20.4	16.2	16.4	16.1	15.2	17.6	14.8
23	Miscellaneous leather products	35.0	-6.8	-6.6	9.7	4.3	7.4	7.9	6.9	11.6	5.1

¹ Ten-year aggregate.

(D) PERCENTAGE PROFIT TO TOTAL CAPITAL		(E) PERCENTAGE OF INCOME PAID OUT IN CASH DIVIDENDS									
		1924	1925	1926	1927	1928	1924	1925	1926	1927	1928
<i>Major Group</i>											
3	Leather	12.6	12.5	12.0	15.0	12.2	26.7	33.0	33.7	24.4	58.4
<i>Minor group</i>											
22	Boots and shoes	16.2	15.9	15.0	17.3	14.7	16.6	25.4	26.8	15.9	49.3
23	Miscellaneous leather products	7.2	7.8	6.9	11.3	5.1	60.3	55.4	59.4	46.5	108.3

TABLE 45 (continued)

(F) FREQUENCY DISTRIBUTIONS OF PERCENTAGES OF TOTAL NET INCOME TO CAPITALIZATION, INDIVIDUAL CORPORATIONS, 1919-23. MAJOR GROUP 3: LEATHER AND LEATHER PRODUCTS

PERCENTAGE INCOME TO CAPITALIZATION	1919			1920			1921			1922			1923		
	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	MULATED BY SUCCESSIVE CLASSES	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	MULATED BY SUCCESSIVE CLASSES	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	MULATED BY SUCCESSIVE CLASSES	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	MULATED BY SUCCESSIVE CLASSES	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	MULATED BY SUCCESSIVE CLASSES
Under zero	.0	.0	25.9	25.9	25.9	25.9	25.9	3.7	3.7	3.7	3.7	3.7	9.3	9.3	9.3
Zero to 4	.0	.0	11.1	37.0	37.0	44.4	44.4	5.5	9.2	9.2	9.2	9.2	9.3	18.6	18.6
5 to 9	1.8	1.8	20.4	57.4	57.4	59.2	59.2	24.0	33.2	33.2	33.2	33.2	24.0	42.6	42.6
10 to 14	1.8	3.6	16.7	74.1	74.1	75.9	75.9	13.0	46.2	46.2	46.2	46.2	22.2	64.8	64.8
15 to 19	13.0	16.6	7.4	81.5	81.5	87.0	87.0	22.3	68.5	68.5	68.5	68.5	14.8	79.6	79.6
20 to 24	14.8	31.4	3.7	85.2	85.2	92.6	92.6	7.4	75.9	75.9	75.9	75.9	13.0	92.6	92.6
25 to 29	5.6	37.0	7.4	92.6	92.6	92.6	92.6	11.1	87.0	87.0	87.0	87.0	.0	92.6	92.6
30 and over	63.0	100.0	7.4	100.0	100.0	100.0	100.0	13.0	100.0	100.0	100.0	100.0	7.4	100.0	100.0

(G) FREQUENCY DISTRIBUTIONS OF PERCENTAGES OF TOTAL PROFIT TO TOTAL CAPITAL, INDIVIDUAL CORPORATIONS, 1924-28. MAJOR GROUP 3: LEATHER AND LEATHER PRODUCTS

PERCENTAGE INCOME TO CAPITALIZATION	1924			1925			1926			1927			1928		
	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	MULATED BY SUCCESSIVE CLASSES	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	MULATED BY SUCCESSIVE CLASSES	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	MULATED BY SUCCESSIVE CLASSES	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	MULATED BY SUCCESSIVE CLASSES	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	MULATED BY SUCCESSIVE CLASSES
Under zero	1.9	1.9	1.9	1.9	1.9	3.7	3.7	1.9	1.9	1.9	1.9	1.9	9.3	9.3	9.3
Zero to 4	13.0	14.9	16.6	18.5	18.5	24.1	27.8	9.3	11.2	11.2	11.2	11.2	11.1	20.4	20.4
5 to 9	27.7	42.6	25.9	44.4	44.4	16.6	44.4	20.3	31.5	31.5	31.5	31.5	27.8	48.2	48.2

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10 to 14	33.3	75.9	22.2	66.6	27.7	72.1	29.6	61.1	29.6	77.8
15 to 19	11.1	87.0	18.5	85.1	13.0	85.1	24.0	85.1	18.5	96.3
20 to 24	7.4	94.4	5.6	90.7	9.3	94.4	9.3	94.4	3.7	100.0
25 to 29	3.7	98.1	5.6	96.3	3.7	98.1	3.7	98.1	.0	100.0
30 and over	1.9	100.0	3.7	100.0	1.9	100.0	1.9	100.0	.0	100.0

CHAPTER 13

RUBBER AND RUBBER PRODUCTS

UNLIKE the other major groups, the Rubber group is not susceptible of division into several minor groups. Its 26 corporations, which in 1928 possessed a total capital of about 600 million dollars, manufacture rubber clothing, mechanical rubber goods such as belting, hose, tires and tubes, celluloid novelties, insulation, bakelite, bone, ivory and shell products. By far the principal product is mechanical rubber goods, consisting mainly of motor car tires.

TABLE 46

RUBBER AND RUBBER PRODUCTS, LARGE IDENTICAL MANUFACTURING CORPORATIONS SERIES

(A) SIZE AND CHARACTER OF SAMPLE

	NUMBER OF CORPORATIONS	AVERAGE CAPITAL PER CORPORATION ¹ (<i>millions of dollars</i>)	
		ARITHMETIC MEAN	MEDIAN
<i>Major group 4 (minor group 24)</i>			
Rubber and rubber products	26	31.03	2.83

¹ Total capital (i.e., includes funded debt) as of December 31, 1928.

TABLE 46 (continued)

(B) PERCENTAGE INCOME TO SALES

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1919-28 ¹
<i>Major group 4 (minor group 24)</i>											
Rubber and rubber products	12.1	1.1	-13.2	2.9	4.3	5.6	11.2	5.2	4.8	.8	4.0

(C) PERCENTAGE INCOME TO CAPITALIZATION

<i>Major group 4 (minor group 24)</i>											
Rubber and rubber products	19.0	2.1	-12.6	3.6	6.0	7.3	18.9	8.6	6.9	1.3	5.9

¹ Ten-year aggregate.

(D) PERCENTAGE PROFIT TO TOTAL CAPITAL

	1924	1925	1926	1927	1928
<i>Major group 4 (minor group 24)</i>					
Rubber and rubber products	6.8	15.7	7.6	6.4	2.3

(E) PERCENTAGE OF INCOME PAID OUT IN CASH DIVIDENDS

	1924	1925	1926	1927	1928
<i>Major group 4 (minor group 24)</i>					
Rubber and rubber products	24.1	21.4	56.4	114.1	270.1

TABLE 46 (continued)

(F) FREQUENCY DISTRIBUTIONS OF PERCENTAGES OF TOTAL NET INCOME TO CAPITALIZATION, INDIVIDUAL CORPORATIONS, 1919-23. MAJOR GROUP 4: RUBBER AND RUBBER PRODUCTS

PERCENTAGE INCOME TO CAPITALIZATION	1919		1920		1921		1922		1923	
	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES
Under zero	.0	.0	23.1	23.1	46.2	46.2	7.7	7.7	7.7	7.7
Zero to 4	.0	.0	19.2	42.3	7.7	53.9	7.7	15.4	7.7	15.4
5 to 9	.0	.0	15.4	57.7	11.5	65.4	23.1	38.5	15.4	30.8
10 to 14	19.2	19.2	11.5	69.2	19.2	84.6	7.7	46.2	34.7	65.5
15 to 19	15.4	34.6	15.4	84.6	7.7	92.3	23.1	69.3	23.1	88.6
20 to 24	11.6	46.2	7.7	92.3	7.7	100.0	15.4	84.7	3.8	92.4
25 to 29	19.2	65.4	7.7	100.0	.0	100.0	3.8	88.5	3.8	96.2
30 and over	34.6	100.0	.0	100.0	.0	100.0	11.5	100.0	3.8	100.0

(G) FREQUENCY DISTRIBUTIONS OF PERCENTAGES OF TOTAL PROFIT TO TOTAL CAPITAL, INDIVIDUAL CORPORATIONS, 1924-28. MAJOR GROUP 4: RUBBER AND RUBBER PRODUCTS

PERCENTAGE INCOME TO CAPITALIZATION	1924		1925		1926		1927		1928	
	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES
Under zero	7.7	7.7	.0	.0	15.4	15.4	19.2	19.2	23.1	23.1
Zero to 4	7.7	15.4	3.8	3.8	15.4	30.8	3.8	23.0	15.4	38.5
5 to 9	26.9	42.3	11.5	15.3	11.5	42.3	15.4	38.4	19.2	57.7

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10 to 14	19.2	61.5	27.0	42.3	23.1	65.4	27.0	65.4	27.0	84.7
15 to 19	30.8	92.3	27.0	69.3	23.1	88.5	15.4	80.8	7.7	92.4
20 to 24	7.7	100.0	23.1	92.4	3.8	92.3	3.8	84.6	.0	92.4
25 to 29	.0	100.0	3.8	96.2	7.7	100.0	7.7	92.3	3.8	96.2
30 and over	.0	100.0	3.8	100.0	.0	100.0	7.7	100.0	3.8	100.0

CHAPTER 14

LUMBER AND LUMBER PRODUCTS

THE Lumber Products group is composed of five minor groups: Lumber Manufacture; Planing Mill Products; Millwork; Furniture and Miscellaneous Lumber Products. The number of corporations included in each group and their average size are shown in Table 47. The groups are described briefly:

Lumber Manufacture: Includes establishments which produce piling, pulp wood, railroad ties, sawdust, shingles, and various other saw mill products.

Planing Mill Products: Doors, sashes, flooring, veneer, etc.

Millwork

Furniture: Includes all types of furniture, whether household, store, school or office, except those made of metal.

Miscellaneous Lumber Products: Includes numerous types of lumber products, such as automobile bodies, wagons, boxboard, cork, coffins, foundry patterns and shoe lasts.

TABLE 47

LUMBER GROUPS, LARGE IDENTICAL MANUFACTURING CORPORATIONS SERIES

(A) SIZE AND CHARACTER OF SAMPLE

	NUMBER OF CORPORATIONS	AVERAGE CAPITAL PER CORPORATION ¹ (millions of dollars)	
		ARITHMETIC MEAN	MEDIAN
<i>Major group</i>			
5 Lumber	190	2.95	1.15
<i>Minor group</i>			
25 Lumber manufacture	64	3.91	
26 Planing mills	26	1.05	
27 Millwork	17	2.30	
28 Furniture	55	1.47	
29 Miscellaneous lumber	28	5.82	

¹Total capital (i.e., includes funded debt) as of December 31, 1928.

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TABLE 47 (continued)

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1919- 1928 ^a
(B) PERCENTAGE INCOME TO SALES											
<i>Major group</i>											
5 Lumber	12.4	14.7	6.3	14.3	15.2	12.3	11.7	10.8	7.8	8.2	11.5
<i>Minor group</i>											
25 Lumber manufacture	18.5	21.9	5.7	17.0	22.6	14.0	14.0	13.6	10.6	10.5	15.3
26 Planing mills	2.8	16.9	8.6	17.4	16.4	14.8	12.9	10.1	8.1	7.4	9.8
27 Millwork	15.6	11.8	2.4	13.1	15.0	8.2	7.0	8.1	8.9	9.2	10.2
28 Furniture	17.1	14.2	7.6	15.0	14.2	11.8	12.4	11.6	9.2	8.4	12.0
29 Miscellaneous lumber	11.6	6.3	6.7	10.7	9.1	11.6	10.3	9.1	4.7	6.5	8.6

(C) PERCENTAGE INCOME TO CAPITALIZATION

<i>Major group</i>											
5 Lumber	19.1	18.0	4.6	14.2	16.9	12.8	12.3	11.6	7.1	8.5	12.1
<i>Minor group</i>											
25 Lumber manufacture	16.0	17.7	2.5	10.2	15.8	9.0	8.8	9.4	5.9	6.8	10.0
26 Planing mills	26.7	35.9	9.9	27.5	24.3	18.6	17.0	12.3	9.6	8.5	17.7
27 Millwork	18.6	15.5	1.8	13.1	15.7	7.8	6.4	7.1	7.3	8.3	9.8
28 Furniture	31.0	24.4	8.4	20.3	18.3	15.0	16.5	15.3	11.7	10.5	16.2
29 Miscellaneous lumber	18.5	11.3	8.0	18.3	17.2	19.2	17.4	14.3	6.1	10.1	13.7

^a Ten-year aggregate.

L U M B E R

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	1924		1925		1926		1927		1928	
20 to 24	13.2	45.9	10.0	48.5	4.2	93.2	16.3	64.7	17.4	68.4
25 to 29	9.5	55.4	12.1	60.6	3.2	96.4	8.4	73.1	13.7	82.1
30 and over	44.6	100.0	39.4	100.0	3.6	100.0	26.9	100.0	17.9	100.0

	1924		1925		1926		1927		1928	
Under zero	1.1	1.1	1.6	1.6	1.1	1.1	1.6	1.6	1.1	1.1
Zero to 4	9.5	10.6	11.6	13.2	12.6	13.7	17.4	19.0	18.9	20.0
5 to 9	17.4	28.0	14.7	27.9	24.2	37.9	33.7	52.7	27.9	47.9
10 to 14	26.3	54.3	30.0	57.9	26.3	64.2	19.5	72.2	25.3	73.2
15 to 19	16.8	71.1	14.2	72.1	11.6	75.8	11.5	83.7	13.1	86.3
20 to 24	14.2	85.3	8.9	81.0	13.2	89.0	5.7	89.4	7.9	94.2
25 to 29	4.7	90.0	9.5	90.5	6.8	95.8	5.3	94.7	3.2	97.4
30 and over	10.0	100.0	9.5	100.0	4.2	100.0	5.3	100.0	2.6	100.0

(G) FREQUENCY DISTRIBUTIONS OF PERCENTAGES OF TOTAL PROFIT TO TOTAL CAPITAL, INDIVIDUAL CORPORATION, 1924-28. MAJOR GROUP 5: LUMBER

CHAPTER 15

PAPER AND PAPER PRODUCTS

THE Paper Products group consists of four minor groups: Blank Paper, Cardboard Boxes, Stationery, and Miscellaneous Paper Products. The number of corporations in each group and their average size are shown in Table 48. The Miscellaneous Group includes paper utensils, wall paper, wrapping paper, fibre, paper pulp, etc.

TABLE 48
PAPER GROUPS, LARGE IDENTICAL MANUFACTURING
CORPORATIONS SERIES

(A) SIZE AND CHARACTER OF SAMPLE

	NUMBER OF CORPORATIONS	AVERAGE CAPITAL PER CORPORATION ¹ (<i>millions of dollars</i>)	
		ARITHMETIC MEAN	MEDIAN
<i>Major group</i>			
6 Paper	111	6.00	1.58
<i>Minor group</i>			
30 Blank paper	35	12.83	
31 Cardboard boxes	33	1.58	
32 Stationery	20	3.08	
33 Miscellaneous paper	23	4.49	

¹ Total capital (i.e., includes funded debt) as of December 31, 1928.

(G) FREQUENCY DISTRIBUTIONS OF PERCENTAGES OF TOTAL PROFIT TO TOTAL CAPITAL, INDIVIDUAL CORPORA-
TIONS, 1924-28. MAJOR GROUP 6: PAPER

	1924		1925		1926		1927		1928	
Under zero	0.9	0.9	1.8	1.8	1.8	1.8	0.9	0.9	1.8	1.8
Zero to 4	9.9	10.8	10.8	12.6	11.7	13.5	12.6	13.5	12.6	14.4
5 to 9	29.7	40.5	24.3	36.9	29.7	43.2	26.1	39.6	35.1	49.5
10 to 14	25.2	65.7	32.4	69.3	22.5	65.7	25.2	64.8	24.3	73.8
15 to 19	13.5	79.2	13.5	82.8	15.3	81.0	18.0	82.8	9.9	83.7
20 to 24	6.3	85.5	4.6	87.4	9.0	90.0	5.4	88.2	7.3	91.0
25 to 29	3.6	89.1	6.3	93.7	3.6	93.6	5.4	93.6	4.5	95.5
30 and over	10.9	100.0	6.3	100.0	6.4	100.0	6.4	100.0	4.5	100.0

CHAPTER 16

PRINTING AND PUBLISHING

FOUR industries make up the Printing group: Newspaper and Periodical Publishing, Book and Music Publishing, Job Printing, and Miscellaneous Printing and Publishing. The number of corporations in each group and their average size are given in Table 49. The groups are described briefly:

Newspaper and Periodical Publishing

Book and Music Publishing: Includes various types of books, also sheet music and bound music volumes.

Job Printing: Advertising novelties, signs, art calendars, tickets, bonds and notes, sales books, catalogues, stationery, playing cards, etc.

Miscellaneous Printing and Publishing: Bookbinding, photo-engraving, type-founding, etc.

TABLE 49

PRINTING AND PUBLISHING GROUPS, LARGE IDENTICAL MANUFACTURING CORPORATIONS SERIES

(A) SIZE AND CHARACTER OF SAMPLE

	NUMBER OF CORPORATIONS	AVERAGE CAPITAL PER CORPORATION ¹ (millions of dollars)	
		ARITHMETIC MEAN	MEDIAN
<i>Major group</i>			
7 Printing and publishing	100	5.69	1.36
<i>Minor group</i>			
34 Newspapers	20	19.23	
35 Books and music	17	3.18	
36 Job printing	46	2.57	
37 Miscellaneous printing and publishing	17	.72	

¹ Total capital (i.e., includes funded debt) as of December 31, 1928.

TABLE 49 (continued)

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1919- 1928 ¹
(B) PERCENTAGE INCOME TO SALES											
<i>Major group</i>											
7 Printing and publishing	16.5	16.5	14.4	20.7	17.8	18.4	15.2	17.7	17.5	15.8	17.0
<i>Minor group</i>											
34 Newspapers	19.4	18.8	17.2	25.9	20.5	21.8	16.4	20.5	21.1	17.1	19.6
35 Books and music	12.6	10.5	11.2	16.7	16.1	16.8	15.8	14.9	12.6	13.9	14.2
36 Job printing	14.2	15.1	11.4	14.6	14.2	13.4	12.9	12.7	11.1	12.4	13.2
37 Miscellaneous printing and publishing	17.0	20.3	16.9	16.8	13.4	11.8	13.4	12.4	11.1	11.4	14.3

(C) PERCENTAGE INCOME TO CAPITALIZATION

<i>Major group</i>											
7 Printing and publishing	23.0	26.9	17.6	26.6	21.7	21.0	17.2	23.0	19.4	21.5	21.4
<i>Minor group</i>											
34 Newspapers	26.4	30.1	21.5	35.9	26.8	24.4	18.2	29.7	23.6	26.5	25.6
35 Books and music	17.6	13.8	13.5	20.4	18.3	18.9	16.9	14.9	11.4	12.1	15.4
36 Job printing	19.8	26.2	13.1	16.7	15.6	15.5	14.9	14.5	12.7	13.9	15.8
37 Miscellaneous printing and publishing	31.2	45.6	24.4	26.1	18.8	17.7	21.4	19.1	18.1	17.1	22.9

¹ Ten-year aggregate.

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(G) FREQUENCY DISTRIBUTIONS OF PERCENTAGES OF TOTAL PROFIT TO TOTAL CAPITAL, INDIVIDUAL CORPORATIONS, 1924-28. MAJOR GROUP 7: PRINTING AND PUBLISHING

	1924		1925		1926		1927		1928	
Under zero	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0
Zero to 4	4.0	4.0	6.0	6.0	9.0	10.0	15.0	15.0	6.0	6.0
5 to 9	18.0	22.0	20.0	26.0	13.0	23.0	22.0	37.0	18.0	24.0
10 to 14	20.0	42.0	17.0	43.0	23.0	46.0	20.0	57.0	30.0	54.0
15 to 19	19.0	61.0	18.0	61.0	20.0	66.0	16.0	73.0	21.0	75.0
20 to 24	15.0	76.0	15.0	76.0	10.0	76.0	8.0	81.0	6.0	81.0
25 to 29	10.0	86.0	8.0	84.0	9.0	85.0	8.0	89.0	8.0	89.0
30 and over	14.0	100.0	16.0	100.0	15.0	100.0	11.0	100.0	11.0	100.0

CHAPTER 17

CHEMICALS

THE Chemical group is made up of seven minor groups: Crude Chemicals; Paints; Petroleum Refining; Proprietary Preparations; Toilet Preparations; Cleaning Preparations; Miscellaneous Chemicals and Products. The number of corporations in each group and their average size are shown in Table 50. The groups are described briefly:

Crude Chemicals: Sulphuric and other acids, camphor, cyanide, chlorine, lye, zinc and other oxides are among the products of this group. All fertilizers are included.

Paints: House paints, varnishes, lacquers and shellac, putty, shoe polish, dyes and inks.

Petroleum Refining: Processing of gasoline, benzine, kerosene, fuel, cutting and lubricating oils, vaseline and paraffin.

Proprietary Preparations: All sorts of druggist compounds, pills, powders, ointments, tonics and patent medicines.

Toilet Preparations: Cosmetics, cold creams, hair dyes, perfumery, etc.

Cleaning Preparations: Includes soaps, bleaching powder, furniture and metal polish, and glycerine.

Miscellaneous Chemicals: Includes baking powder, boiler compound, artificial fuel, adhesives, etc. Also contains some large general chemical enterprises, each making paints, crude chemicals, etc., in such roughly equal proportions (in respect of total volume of business done), that no clearly predominant activity made feasible their assignment to the Paint or Crude Chemicals group specifically.

TABLE 50

CHEMICAL GROUPS, LARGE IDENTICAL MANUFACTURING
CORPORATIONS SERIES

(A) SIZE AND CHARACTER OF SAMPLE

	NUMBER OF CORPORATIONS	AVERAGE CAPITAL PER CORPORATION ¹ (<i>millions of dollars</i>)	
		ARITHMETIC MEAN	MEDIAN
<i>Major group</i>			
8 Chemicals	210	34.44	2.22
<i>Minor group</i>			
38 Crude chemicals	9	14.89	
39 Paints	42	2.91	
40 Petroleum refining	52	109.96	
41 Proprietary preparations	56	4.24	
42 Toilet preparations	9	1.78	
43 Cleaning preparations	16	8.95	
44 Miscellaneous chemicals	26	33.14	

¹ Total capital (i.e., includes funded debt) as of December 31, 1928.

TABLE 50 (continued)

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1919-28 ¹
(B) PERCENTAGE INCOME TO SALES											
<i>Major group</i>											
8 Chemicals	14.0	12.5	3.7	12.9	9.4	12.3	15.4	15.6	9.6	17.5	12.6
<i>Minor group</i>											
38 Crude chemicals	15.0	10.9	10.5	22.7	12.3	11.9	13.8	12.0	13.9	15.9	13.9
39 Paints	12.9	8.6	4.1	13.0	12.4	10.8	11.2	11.1	9.8	11.8	10.7
40 Petroleum	14.8	14.4	1.9	11.8	6.9	10.8	15.3	14.7	6.5	16.1	11.5
41 Proprietary preparations	19.0	13.0	11.5	22.7	19.6	19.4	20.5	21.8	22.8	23.7	19.8
42 Toilet preparations	17.4	7.5	12.5	22.8	17.8	21.1	19.1	19.2	19.2	20.4	18.0
43 Cleaning preparations	5.0	-3.9	5.7	10.1	8.9	9.4	9.0	10.7	9.9	10.2	7.9
44 Miscellaneous chemicals	13.8	8.2	10.3	14.3	16.5	19.4	18.9	23.5	23.8	28.8	18.4
(C) PERCENTAGE INCOME TO CAPITALIZATION											
<i>Major group</i>											
8 Chemicals	18.0	16.5	2.9	9.2	6.7	9.1	12.2	12.1	7.5	11.6	10.2
<i>Minor group</i>											
38 Crude chemicals	15.0	11.9	6.6	18.3	9.7	8.6	10.5	9.6	10.3	11.9	11.1
39 Paints	27.2	16.5	4.9	20.0	17.2	14.8	15.9	15.5	13.0	14.8	15.6
40 Petroleum	18.4	19.8	14.5	7.9	4.6	7.3	11.0	10.3	4.8	9.8	8.7
41 Proprietary preparations	27.7	17.1	11.4	26.1	19.3	19.6	21.0	22.2	22.6	21.8	20.8
42 Toilet preparations	39.3	19.6	29.2	53.2	35.5	37.6	32.4	28.8	28.1	25.4	31.6
43 Cleaning preparations	13.9	-6.0	8.3	13.6	15.7	18.5	19.5	24.4	22.6	19.4	15.1
44 Miscellaneous chemicals	14.1	8.1	5.3	8.1	9.9	12.6	14.1	18.0	17.0	17.8	12.9

¹ Ten-year aggregate.

CHEMICALS

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	(D) PERCENTAGE PROFIT TO TOTAL CAPITAL			(E) PERCENTAGE OF INCOME PAID OUT IN CASH DIVIDENDS						
	1924	1925	1926	1927	1928	1924	1925	1926	1927	1928
<i>Major group</i>										
8 Chemicals	8.9	11.8	11.6	7.3	11.1	66.8	54.0	60.5	88.7	70.5
<i>Minor group</i>										
38 Crude chemicals	8.6	10.5	9.6	10.3	11.9	71.2	56.1	64.4	57.7	40.6
39 Paints	14.4	15.6	15.4	13.0	14.8	47.7	47.9	56.8	84.4	59.4
40 Petroleum	7.2	10.7	9.9	4.8	9.4	70.5	50.1	56.0	104.5	70.2
41 Proprietary preparations	19.0	20.3	21.8	22.1	21.4	58.0	57.3	61.2	63.2	65.5
42 Toilet preparations	37.4	32.4	28.8	28.1	25.4	62.7	38.6	31.6	60.3	47.7
43 Cleaning preparations	18.4	19.4	24.4	22.6	19.4	54.8	56.9	59.6	57.3	55.1
44 Miscellaneous chemicals	12.2	14.0	17.7	16.8	17.3	65.4	71.6	78.4	80.4	81.5

(F) FREQUENCY DISTRIBUTIONS OF PERCENTAGES OF TOTAL NET INCOME TO CAPITALIZATION, INDIVIDUAL CORPORATIONS, 1919-23. MAJOR GROUP 8: CHEMICALS

PERCENTAGE INCOME TO CAPITAL	1919			1920			1921			1922			1923		
	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	
Under zero	1.0	1.0	2.9	2.9	19.5	19.5	2.9	2.9	19.5	19.5	2.9	2.9	6.2	6.2	
Zero to 4	4.3	5.3	11.9	14.8	18.1	18.1	14.3	14.3	37.6	37.6	11.4	14.3	10.0	16.2	
5 to 9	8.6	13.9	16.6	31.4	19.5	19.5	31.4	31.4	57.1	57.1	14.3	28.6	17.6	33.8	
10 to 14	11.0	24.9	14.8	46.2	12.9	12.9	46.2	46.2	70.0	70.0	12.4	41.0	18.1	51.9	

TABLE 50 (continued)

(F) FREQUENCY DISTRIBUTIONS OF PERCENTAGES OF TOTAL NET INCOME TO CAPITALIZATION, INDIVIDUAL CORPORATIONS, 1919-23. MAJOR GROUP 8: CHEMICALS

PERCENTAGE INCOME TO CAP- ITALIZATION	1919				1920				1921				1922				1923			
	ACCU- MULATED BY SUC- CESSIVE CLASSES EACH CLASS	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES EACH CLASS	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES EACH CLASS	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES EACH CLASS	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES EACH CLASS	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES EACH CLASS	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES EACH CLASS	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES EACH CLASS	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES EACH CLASS	PERCENT- AGE IN EACH CLASS		
15 to 19	14.2	14.3	39.1	14.3	60.5	7.1	77.1	13.3	54.3	14.3	66.2	13.3	54.3	14.3	66.2	13.3	54.3	14.3		
20 to 24	12.4	9.0	51.5	69.5	6.7	83.8	11.0	65.3	10.5	76.7	11.0	65.3	10.5	76.7	11.0	65.3	10.5	76.7		
25 to 29	10.0	6.7	61.5	76.2	2.4	86.2	7.6	72.9	5.2	81.9	7.6	72.9	5.2	81.9	7.6	72.9	5.2	81.9		
30 and over	38.5	23.8	100.0	100.0	13.3	100.0	27.1	100.0	18.1	100.0	27.1	100.0	18.1	100.0	27.1	100.0	18.1	100.0		

(G) FREQUENCY DISTRIBUTIONS OF PERCENTAGES OF TOTAL PROFIT TO TOTAL CAPITAL, INDIVIDUAL CORPORATIONS, 1924-28. MAJOR GROUP 8: CHEMICALS

PERCENTAGE INCOME TO CAP- ITALIZATION	1924				1925				1926				1927				1928			
	ACCU- MULATED BY SUC- CESSIVE CLASSES EACH CLASS	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES EACH CLASS	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES EACH CLASS	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES EACH CLASS	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES EACH CLASS	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES EACH CLASS	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES EACH CLASS	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES EACH CLASS	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES EACH CLASS	PERCENT- AGE IN EACH CLASS		
Under zero	3.8	1.4	3.8	1.4	2.9	2.9	2.9	6.2	6.2	3.3	3.3	6.2	6.2	3.3	3.3	6.2	6.2	3.3		
Zero to 4	9.0	8.6	12.8	10.0	7.1	10.0	13.3	19.5	12.4	15.7	15.7	13.3	19.5	12.4	15.7	13.3	19.5	12.4		
5 to 9	24.2	22.8	37.0	32.8	19.0	29.0	17.2	36.7	18.1	33.8	33.8	17.2	36.7	18.1	33.8	17.2	36.7	18.1		
10 to 14	18.6	20.5	55.6	53.3	23.3	52.3	21.4	58.1	22.4	56.2	56.2	21.4	58.1	22.4	56.2	21.4	58.1	22.4		
15 to 19	8.6	12.8	64.2	66.1	14.8	67.1	14.8	72.9	11.4	67.6	67.6	14.8	72.9	11.4	67.6	14.8	72.9	11.4		
20 to 24	12.4	8.6	76.6	74.7	10.0	77.1	7.1	80.0	12.9	80.5	80.5	7.1	80.0	12.9	80.5	7.1	80.0	12.9		
25 to 29	4.8	6.2	81.4	80.9	4.3	81.4	4.3	84.3	4.3	84.8	84.8	4.3	84.3	4.3	84.8	4.3	84.3	4.3		
30 and over	18.6	19.1	100.0	100.0	18.6	100.0	15.7	100.0	15.2	100.0	100.0	15.7	100.0	15.2	100.0	15.7	100.0	15.2		

CHAPTER 18

STONE, CLAY AND GLASS

THE four minor groups comprising the Stone, Clay and Glass Products industry are: Ceramics; Glass; Portland Cement; and Miscellaneous Clay and Stone Products. The number of corporations in each and their average size are shown in Table 51. The groups are described briefly:

Ceramics: Includes the manufacture of both building and paving brick, terra cotta, china, crockery, porcelain ware and specialties of all sorts, tile and tile drain, refractory materials of various kinds, etc.

Glass: Includes window glass, plate glass, glassware.

Portland Cement

Miscellaneous Clay and Stone Products: Includes corporations making abrasives, concrete, lime plaster, asbestos, etc., and a few engaged in stone cutting.

TABLE 51

STONE, CLAY AND GLASS GROUPS, LARGE IDENTICAL MANUFACTURING CORPORATIONS SERIES

(A) SIZE AND CHARACTER OF SAMPLE

	NUMBER OF CORPORATIONS	AVERAGE CAPITAL PER CORPORATION ¹ (millions of dollars)	
		ARITHMETIC MEAN	MEDIAN
<i>Major group</i>			
9 Stone, clay and glass	114	6.48	2.08
<i>Minor group</i>			
45 Ceramics	48	3.46	
46 Glass	18	7.51	
47 Portland cement	21	11.73	
48 Miscellaneous clay and stone	27	7.08	

¹Total capital (i.e., includes funded debt) as of December 31, 1928.

TABLE 51 (continued)

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1919-28 ¹
(B) PERCENTAGE INCOME TO SALES											
<i>Major group</i>											
9 Stone, clay and glass	15.5	13.1	7.9	14.4	18.9	16.5	16.9	16.8	15.0	16.2	15.4
<i>Minor group</i>											
45 Ceramics	19.8	17.0	11.4	16.3	19.3	16.2	16.1	16.3	14.7	13.2	16.0
46 Glass	15.0	13.3	7.3	11.2	15.8	12.5	11.3	10.3	8.2	10.4	11.7
47 Portland cement	14.6	12.1	12.5	19.4	26.5	23.7	24.5	25.1	21.8	23.4	21.4
48 Miscellaneous clay and stone	14.2	11.0	1.9	12.6	16.3	15.2	17.4	17.3	16.3	18.2	14.8
(C) PERCENTAGE INCOME TO CAPITALIZATION											
<i>Major group</i>											
9 Stone, clay and glass	16.7	17.4	6.3	14.1	19.6	15.6	16.2	15.2	12.3	12.8	14.5
<i>Minor group</i>											
45 Ceramics	12.3	14.6	6.4	10.8	15.2	11.9	12.1	12.2	10.0	8.5	11.3
46 Glass	29.2	32.1	9.5	17.5	23.8	17.3	15.5	13.6	10.0	11.8	16.9
47 Portland cement	9.3	9.7	8.1	15.1	20.8	17.0	17.1	15.2	12.4	12.8	14.2
48 Miscellaneous clay and stone	20.7	17.2	1.5	14.2	19.1	16.3	19.7	19.6	16.0	17.1	16.4

¹ Ten-year aggregate.

	(D) PERCENTAGE PROFIT TO TOTAL CAPITAL				(E) PERCENTAGE OF INCOME PAID OUT IN CASH DIVIDENDS					
	1924	1925	1926	1927	1924	1925	1926	1927	1928	
<i>Major group</i>										
9 Stone, clay and glass	15.3	15.9	15.0	12.1	12.3	42.3	45.8	59.7	60.0	49.9
<i>Minor group</i>										
45 Ceramics	11.7	12.0	12.0	9.7	8.4	50.4	53.6	50.9	72.4	67.2
46 Glass	16.9	15.3	13.5	9.9	11.8	56.5	63.1	73.4	79.7	42.7
47 Portland cement	16.3	16.6	14.8	12.0	11.9	29.9	43.0	63.3	57.1	52.9
48 Miscellaneous clay and stone	16.3	19.6	19.5	15.9	16.8	39.1	31.9	53.5	47.0	43.4

(F) FREQUENCY DISTRIBUTIONS OF PERCENTAGES OF TOTAL NET INCOME TO CAPITALIZATION, INDIVIDUAL CORPORATIONS, 1919-23. MAJOR GROUP 9: STONE, CLAY AND GLASS

PERCENTAGE INCOME TO CAPITALIZATION	1919			1920			1921			1922			1923		
	PERCENT-AGE IN EACH CLASS	ACCU-MULATED BY SUC-CESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	PERCENT-AGE IN EACH CLASS	ACCU-MULATED BY SUC-CESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	PERCENT-AGE IN EACH CLASS	ACCU-MULATED BY SUC-CESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	PERCENT-AGE IN EACH CLASS	ACCU-MULATED BY SUC-CESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	PERCENT-AGE IN EACH CLASS	ACCU-MULATED BY SUC-CESSIVE CLASSES	
Under zero	.0	.0	0.9	0.9	14.0	14.0	.0	.0	.0	.0	.0	.0	.0	.0	
Zero to 4	6.1	6.1	3.5	4.4	21.9	35.9	10.5	10.5	10.5	10.5	2.6	2.6	2.6	2.6	
5 to 9	17.5	23.6	12.3	16.7	16.7	52.6	17.5	28.0	17.5	28.0	11.4	14.0	14.0	14.0	
10 to 14	18.4	42.0	21.9	38.6	14.9	67.5	19.3	47.3	19.3	47.3	14.0	28.0	28.0	28.0	
15 to 19	13.2	55.2	15.8	54.4	14.0	81.5	8.8	56.1	8.8	56.1	17.5	45.5	45.5	45.5	
20 to 24	9.6	64.8	7.9	62.3	6.1	87.6	6.1	62.2	6.1	62.2	17.5	63.0	63.0	63.0	
25 to 29	7.0	71.8	7.0	69.3	7.0	94.6	16.7	78.9	16.7	78.9	13.3	76.3	76.3	76.3	
30 and over	28.2	100.0	30.7	100.0	5.4	100.0	21.1	100.0	21.1	100.0	23.7	100.0	100.0	100.0	

TABLE 51 (continued)
 (G) FREQUENCY DISTRIBUTIONS OF PERCENTAGES OF TOTAL PROFIT TO TOTAL CAPITAL, INDIVIDUAL CORPORATIONS, 1924-28. MAJOR GROUP 9: STONE, CLAY AND GLASS

PERCENTAGE PROFIT TO TOTAL CAPITAL	1924		1925		1926		1927		1928	
	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES
Under zero	0.9	0.9	0.9	0.9	.0	0.9	0.9	0.9	2.6	2.6
Zero to 4	7.9	8.8	5.3	6.2	5.3	6.2	12.3	13.2	11.4	14.0
5 to 9	16.7	25.5	16.7	22.9	22.8	28.1	28.9	42.1	28.9	42.9
10 to 14	18.4	43.9	21.9	44.8	21.2	49.3	26.3	68.4	20.2	63.1
15 to 19	24.6	68.5	19.3	64.1	24.6	73.9	11.4	79.8	13.2	76.3
20 to 24	11.4	79.9	14.0	78.1	10.4	84.3	8.8	88.6	8.8	85.1
25 to 29	7.9	87.8	8.8	86.9	6.1	90.4	2.6	91.2	5.3	90.4
30 and over	12.2	100.0	13.1	100.0	9.6	100.0	8.8	100.0	9.6	100.0

CHAPTER 19

METALS

THE Metals group is made up of 22 minor groups: Castings and Forgings; Sheet Metal; Wire and Nails; Heating and Ventilating Machinery; Electrical Machinery; Textile Machinery; Printing Machinery; Road Machinery; Engines; Mining Machinery; Factory Machinery; Office Machinery; Railway Equipment; Motor Vehicles; Firearms; Hardware; Tools; Bolts and Nuts; Miscellaneous Machinery; Non-ferrous Metals; Jewelry; and Miscellaneous Metals. The number of corporations in each group and their average size are shown in Table 52. The groups are described briefly:

Castings and Forgings: Foundries, rolling mills, iron and steel plants of all sorts are included. Among their products are anchors, anvils, bars, chains, steel plates, pipes, springs and rails. Blast furnaces, sheet metals, machinery, and tools appear, however, in other minor groups; likewise, all non-ferrous metals are shown elsewhere.

Sheet Metals: Includes corrugated iron, cornices, pipes, gutters, stove and furnace parts, barrels, etc.

Wire and Nails: Includes wire, nails, fences, screens, and springs.

Heating and Ventilating Machinery: Blowers, boilers, furnaces, ovens, stoves, radiators, incinerators, air conditioning apparatus.

Electrical Machinery: Motors, dynamos, pumps, furnaces, stoves, fixtures, conduit wires, vacuum cleaners, washing machines, fans, flashlights, light bulbs, etc.

Textile Machinery: Carding and spinning machines, looms, dyeing machines and other textile manufacturing equipment.

Printing Machinery: Includes typesetting machines, printing presses, newspaper presses, lithographing machines, etc.

Road Machinery: Includes hoisting and excavating machinery and tractors as well as road machinery; also cranes, derricks, elevators, steam shovels, dredges, concrete mixers, graders and street sprinklers.

Engines and Parts: Stationary and marine engines, but not automobile motors.

Mining Machinery: Coal chutes, cars, tools, drills, drilling equipment, etc.

Factory Machinery: Includes flour and grist mill machinery, metal working

machinery such as drill-presses, forges, planers, gear-cutters, and general plant machinery for shoe factories, paper mills, laundries, etc., that is, all machinery *other* than textile, railroad equipment, and printing, electrical, and automotive machinery, which are classified in minor groups of their own.

Office Machinery: Cash registers, accounting machines, typewriters, mimeographing devices and all office appliances other than furniture.

Railway Equipment: Railroad cars, car wheels, locomotives, air brakes, couplings, parts and supplies.

Motor Vehicles: Passenger automobiles, trucks, trailers, and all automobile parts and accessories.

Firearms: Guns, rifles, gunpowder and explosives.

Hardware: Includes plumbers' supplies as well as hardware.

Tools: All manner of hand and shop tools, as well as machine tools are included: awls, axes, chucks, chisels, drills, files, hammers, jacks, jigs, pliers, shovels, saws, vises, wrenches, etc.

Bolts and Nuts: Includes related small iron and steel articles as screws, gaskets, rivets, taps and turnbuckles.

Miscellaneous Machinery: Includes machinery and machining processes not otherwise classified, such as ice machinery; air, oil and steam pumps, gasoline service station equipment; sewing machinery shops, blacksmith, machine and boiler shops, bottle capping machines; condensers and meat cutters.

Non-ferrous Metals: Aluminum, copper, lead, zinc and tin refining activities, as well as the refining of precious metals. Products made with precious metals (gold, iridium, platinum and silver) are not included;¹ but both the products of the other non-ferrous metals themselves and articles made of brass, bronze, nickel, babbitt and other alloys are here classified.

Jewelry: Precious stones, precious metal products of various sorts, watch cases (but not watches), bags, emblems, and novelty jewelry.

Miscellaneous Metals: Includes metals and metal processes not elsewhere classified: the principal activities and products are blast furnaces, agricultural implements, ornamental iron and steel, safes and vaults, cutlery and enameled granite ware.

¹ These are shown in the next group, together with jewelry.

TABLE 52

METALS GROUPS, LARGE IDENTICAL MANUFACTURING
CORPORATIONS SERIES

(A) SIZE AND CHARACTER OF SAMPLE

	NUMBER OF CORPORATIONS	AVERAGE CAPITAL PER CORPORATION ¹ (millions of dollars)	
		ARITHMETIC MEAN	MEDIAN
<i>Major group</i>			
10 Metals	648	18.31	2.38
<i>Minor group</i>			
49 Castings and forgings	99	49.27	
50 Sheet metal	20	3.09	
51 Wire and nails	20	4.31	
52 Heating machinery	42	4.91	
53 Electrical machinery	54	16.68	
54 Textile machinery	18	4.95	
55 Printing machinery	12	4.97	
56 Road machinery	22	6.09	
57 Engines	11	5.98	
58 Mining machinery	12	10.75	
59 Factory machinery	23	8.32	
60 Office machinery	13	9.38	
61 Railway equipment	25	21.71	
62 Motor vehicles	32	61.95	
63 Firearms	11	4.74	
64 Hardware	40	8.60	
65 Tools	30	3.85	
66 Bolts and nuts	15	1.93	
67 Miscellaneous machinery	32	4.58	
68 Non-ferrous metals	48	20.34	
69 Jewelry	24	1.53	
70 Miscellaneous metals	45	15.89	

¹ Total capital (i.e., includes funded debt) as of December 31, 1928.

TABLE 52 (continued)

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1919-28 ¹
(B) PERCENTAGE INCOME TO SALES											
<i>Major group</i>											
10 Metals	14.7	9.7	3.0	10.2	11.1	10.1	11.4	11.1	9.8	10.4	10.4
<i>Minor group</i>											
49 Castings and forgings	11.6	9.7	-7.0	3.3	7.3	5.9	6.5	7.4	5.9	7.8	6.9
50 Sheet metal	9.8	7.7	-18.3	6.5	9.2	7.9	7.9	9.1	7.0	9.5	7.1
51 Wire and nails	12.7	9.9	-6	12.2	13.8	11.1	10.7	10.7	10.3	14.2	10.9
52 Heating machinery	17.4	9.8	6.5	14.6	18.3	15.6	15.0	14.4	10.3	9.4	13.2
53 Electrical machinery	17.1	9.8	7.2	14.6	16.8	15.3	15.9	15.6	13.3	15.6	14.2
54 Textile machinery	25.3	15.3	23.0	29.4	20.4	19.0	23.2	23.1	25.3	24.7	22.6
55 Printing machinery	23.5	18.5	16.5	21.6	20.9	15.6	12.1	16.5	16.0	19.1	17.9
56 Road machinery	17.0	16.5	8.5	14.7	17.2	16.4	15.4	13.8	12.9	14.9	14.8
57 Engines	21.0	16.0	13.3	15.1	17.1	35.0	17.1	20.6	21.8	13.2	19.1
58 Mining machinery	15.1	12.6	3.4	9.9	11.2	5.5	9.1	11.4	10.1	9.3	10.1
59 Factory machinery	22.3	13.9	8.1	18.8	24.2	18.9	25.8	24.3	21.9	25.0	20.3
60 Office machinery	18.2	12.5	6.9	9.6	10.6	11.1	14.6	14.3	17.7	17.0	13.6
61 Railway equipment	13.5	10.6	7.4	9.9	11.6	10.4	7.4	10.3	9.1	6.9	10.2
62 Motor vehicles	18.6	9.3	6.6	16.1	11.6	11.5	13.9	11.8	9.8	8.6	11.5
63 Firearms	12.0	7.5	2.7	11.4	13.0	10.6	11.1	13.0	13.2	19.9	11.9
64 Hardware	17.5	13.6	2.3	12.9	16.7	13.0	12.8	10.9	9.4	10.4	12.2
65 Tools	25.3	18.8	-8.3	14.1	16.5	11.5	15.1	16.5	13.4	19.0	15.9
66 Bolts and nuts	15.5	15.3	-3.4	17.5	16.6	11.0	14.5	16.0	13.4	17.2	14.4
67 Miscellaneous machinery	18.4	10.5	-3.8	12.2	14.4	11.6	13.0	14.7	11.1	12.9	12.1
68 Non-ferrous metals	10.0	4.8	2.5	10.0	9.9	9.9	11.6	10.6	10.7	12.2	9.6
69 Jewelry	14.0	7.9	1.8	9.5	10.4	8.5	7.5	8.3	9.5	9.7	9.0
70 Miscellaneous metals	16.4	9.0	-6.3	5.2	13.4	11.5	15.7	16.6	15.3	15.1	12.4

¹ Ten-year aggregate.

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1919-28 ¹
(C) PERCENTAGE INCOME TO CAPITALIZATION											
<i>Major group</i>											
10 Metals	18.0	12.0	2.1	8.8	12.1	9.8	12.1	13.1	9.8	11.1	10.8
<i>Minor group</i>											
49 Castings and forgings	11.5	10.5	-4	2.1	6.8	4.7	5.6	7.7	4.5	6.0	5.8
50 Sheet metal	16.1	12.6	-12.4	7.2	13.2	10.4	11.8	13.1	8.9	11.8	9.3
51 Wire and nails	17.9	15.6	-4	12.4	16.1	11.4	11.4	11.7	9.9	13.8	11.9
52 Heating machinery	20.5	12.8	5.1	15.0	21.8	17.3	15.5	17.0	9.5	9.2	14.0
53 Electrical machinery	21.8	12.1	6.4	13.4	16.5	16.7	16.8	17.9	14.2	16.5	15.2
54 Textile machinery	27.4	17.2	22.6	22.3	18.3	10.6	14.8	14.4	15.9	14.6	17.1
55 Printing machinery	17.8	13.3	8.5	13.0	13.8	10.3	9.1	10.9	9.6	12.3	11.6
56 Road machinery	26.9	22.0	8.7	14.0	19.2	18.9	18.2	17.5	15.7	17.0	17.5
57 Engines	28.0	19.2	9.4	10.6	14.6	28.0	9.2	14.1	11.1	6.9	12.9
58 Mining machinery	36.3	25.1	3.4	13.9	15.2	6.2	11.2	16.0	11.6	10.2	13.6
59 Factory machinery	15.8	9.5	3.8	7.7	11.3	8.2	13.0	13.3	11.2	13.4	10.7
60 Office machinery	22.5	15.8	6.4	9.0	12.9	11.5	17.3	15.8	19.1	17.7	14.9
61 Railway equipment	17.0	10.6	4.3	7.2	13.5	8.4	5.3	7.6	5.6	3.4	8.1
62 Motor vehicles	38.8	18.4	8.4	23.3	20.8	17.3	23.7	20.7	16.1	16.1	19.7
63 Firearms	11.7	9.4	2.1	11.4	12.4	10.4	10.4	12.3	11.9	19.6	11.5
64 Hardware	29.0	21.7	1.9	15.7	20.9	15.1	15.9	13.6	10.4	11.0	14.7
65 Tools	29.8	19.5	-3.1	8.5	12.4	7.9	11.5	14.6	9.6	15.2	12.3
66 Bolts and nuts	19.6	21.8	-1.8	17.5	18.6	10.6	16.9	17.2	13.4	19.0	15.4
67 Miscellaneous machinery	24.2	12.8	-2.6	9.9	13.5	10.9	13.4	15.5	11.5	13.5	12.1
68 Non-ferrous metals	12.5	5.9	1.9	8.6	11.1	9.8	14.2	12.6	11.3	14.8	10.5
69 Jewelry	36.7	15.5	2.1	12.6	13.7	10.1	9.0	10.3	11.7	12.1	12.5
70 Miscellaneous metals	17.0	9.6	-2.9	3.0	9.0	8.1	12.9	14.7	13.3	15.6	10.1

¹ Ten-year aggregate.

TABLE 52 (continued)

	(D) PERCENTAGE PROFIT TO TOTAL CAPITAL				(E) PERCENTAGE OF INCOME PAID OUT IN CASH DIVIDENDS					
	1924	1925	1926	1927	1928	1924	1925	1926	1927	1928
<i>Major group</i>										
10 Metals	9.2	11.3	12.2	9.3	10.4	49.2	44.2	48.4	67.5	62.7
<i>Minor group</i>										
49 Castings and forgings	4.8	5.5	7.1	4.6	5.8	69.9	53.4	44.6	76.4	58.7
50 Sheet metal	9.9	11.0	12.1	8.7	10.8	46.6	38.5	38.7	54.3	40.3
51 Wire and nails	11.3	11.4	11.7	9.9	13.7	76.4	60.8	79.9	108.9	67.3
52 Heating machinery	16.8	15.1	16.7	9.1	8.9	44.7	48.8	52.0	84.0	79.8
53 Electrical machinery	15.9	16.2	17.2	13.6	15.8	38.1	43.7	41.2	65.7	58.2
54 Textile machinery	10.6	14.1	14.2	15.1	13.9	68.5	56.0	67.3	66.5	61.6
55 Printing machinery	9.6	8.6	10.3	9.1	10.9	49.4	43.6	48.5	57.1	36.1
56 Road machinery	18.9	18.2	17.5	15.3	16.5	36.7	39.5	44.1	55.5	49.6
57 Engines	27.5	9.2	14.0	11.0	6.9	28.6	71.1	50.5	58.8	87.3
58 Mining machinery	6.1	11.1	15.8	11.6	10.2	69.8	48.8	41.2	50.0	43.1
59 Factory machinery	8.1	12.8	13.1	11.1	13.3	63.6	62.8	57.1	70.1	66.4
60 Office machinery	11.4	17.1	15.6	19.0	17.6	49.6	37.5	60.3	54.2	54.4
61 Railway equipment	8.3	5.3	7.5	5.6	3.4	69.2	152.6	85.6	123.1	195.0
62 Motor vehicles	17.0	23.3	20.4	15.9	16.0	32.6	34.6	47.3	66.5	82.3
63 Firearms	10.4	10.4	12.3	11.9	19.5	59.5	63.6	56.8	50.1	34.6
64 Hardware	14.9	15.3	13.2	10.1	10.7	47.2	49.9	57.3	85.5	63.6
65 Tools	7.9	11.4	14.5	9.5	14.9	84.0	60.0	57.0	66.8	50.4
66 Bolts and nuts	10.6	16.9	17.2	13.4	19.0	72.8	66.0	59.4	63.5	44.6
67 Miscellaneous machinery	10.9	13.3	15.2	11.0	12.7	112.3	39.8	55.0	68.7	63.4
68 Non-ferrous metals	9.4	13.5	12.0	10.8	13.8	48.1	39.9	57.0	57.5	49.9
69 Jewelry	10.1	9.0	10.3	11.6	12.0	54.3	61.4	60.9	56.3	42.8
70 Miscellaneous metals	7.9	12.4	14.3	12.8	15.0	48.9	21.1	33.1	45.2	24.3

METALS

(F) FREQUENCY DISTRIBUTIONS OF PERCENTAGES OF TOTAL NET INCOME TO CAPITALIZATION, INDIVIDUAL CORPORATIONS, 1919-23. MAJOR GROUP 10: METALS

PERCENTAGE INCOME TO CAPITALIZATION	1919		1920		1921		1922		1923	
	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES
Under zero	1.2	1.2	3.2	3.2	33.5	33.5	4.9	4.9	0.9	0.9
Zero to 4	2.6	3.8	5.4	8.6	18.4	51.9	14.4	19.3	7.4	8.3
5 to 9	6.3	10.1	13.4	22.0	20.1	72.0	17.0	36.3	15.1	23.4
10 to 14	11.6	21.7	16.1	38.1	10.9	82.9	17.3	53.6	17.4	40.8
15 to 19	13.9	35.6	13.4	51.5	7.1	90.0	13.0	66.6	20.5	61.3
20 to 24	11.7	47.3	12.5	64.0	3.4	93.4	8.6	75.2	13.6	74.9
25 to 29	8.7	56.0	8.8	72.8	2.0	95.4	8.3	83.5	10.4	85.3
30 and over	44.0	100.0	27.2	100.0	4.6	100.0	16.5	100.0	14.7	100.0

(G) FREQUENCY DISTRIBUTIONS OF PERCENTAGES OF TOTAL PROFIT TO TOTAL CAPITAL, INDIVIDUAL CORPORATIONS, 1924-28. MAJOR GROUP 10: METALS

PERCENTAGE INCOME TO CAPITALIZATION	1924		1925		1926		1927		1928	
	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES
Under zero	2.2	2.2	1.7	1.7	1.5	1.5	3.9	3.9	4.5	4.5
Zero to 4	12.8	15.0	6.5	8.2	8.5	10.0	12.2	16.1	8.8	13.3
5 to 9	25.9	40.9	21.5	29.7	21.9	31.9	27.0	43.1	25.1	38.4
10 to 14	21.3	62.2	27.5	57.2	24.1	56.0	23.9	67.0	19.9	58.3

TABLE 52 (continued)

(G) FREQUENCY DISTRIBUTIONS OF PERCENTAGES OF TOTAL PROFIT TO TOTAL CAPITAL, INDIVIDUAL CORPORATIONS, 1924-28. MAJOR GROUP 10: METALS

PERCENTAGE PROFIT TO TOTAL CAPITAL	1924		1925		1926		1927		1928	
	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES	PERCENT- AGE IN EACH CLASS	ACCU- MULATED BY SUC- CESSIVE CLASSES
15 to 19	15.1	77.3	13.7	70.9	16.4	72.4	13.6	80.6	17.6	75.9
20 to 24	8.2	85.5	10.3	81.2	10.5	82.9	7.2	87.8	9.9	85.8
25 to 29	5.7	91.2	6.9	88.1	5.1	88.0	3.9	91.7	5.1	90.9
30 and over	8.8	100.0	11.9	100.0	12.0	100.0	8.3	100.0	9.1	100.0

CHAPTER 20

SPECIAL MANUFACTURING INDUSTRIES

FOUR minor groups which do not well fit into any other major manufacturing group are classified under the head of Special Manufacturing. They are: Professional and Scientific Instruments, including Optical Goods; Toys, Stationery Goods and School Supplies; Pianos, Organs and Parts; and Miscellaneous Special Manufacturing. The number of corporations contained in each group and their average size are shown in Table 53. The groups are described briefly:

Scientific Instruments: Included are not only bacteriological, X-ray, dental and optical apparatus, slide-rules, gyroscopes, thermometers, pyrometers, nautical and surveying instruments, cameras, eye glasses and binoculars, but also many kinds of medical, dental and optical supplies such as surgical gauze, elastic bandages, trusses, artificial eyes and teeth.

Toys: Includes not only dolls, games, sleds, velocipedes, but also stationers' supplies such as pencils, pens and school supplies.

Pianos: Pianos, player pianos, organs, keys, strings, sounding boards and other parts.

Miscellaneous Special Manufacturing: Contains branches of manufacture which could not be classed with Textiles Metals or with some other well-defined major group. The list of products includes artificial flowers, athletic goods, brooms, clocks, watches, hair goods, fire apparatus, soda fountains and umbrellas. (Since, however, 45 corporations comprise the group and in the pursuit of these diverse activities marketed nearly 300 million dollars worth of goods in 1928, the inclusion of their data is essential to complete the sample of large corporations engaged in manufacturing pursuits.)

TABLE 53

SPECIAL MANUFACTURING INDUSTRIES GROUPS, LARGE
IDENTICAL MANUFACTURING CORPORATIONS SERIES

(A) SIZE AND CHARACTER OF SAMPLE

	NUMBER OF CORPORATIONS	AVERAGE CAPITAL PER CORPORATION ¹ (<i>millions of dollars</i>)	
		ARITHMETIC MEAN	MEDIAN
<i>Major group</i>			
11 Special manufacturing industries	89	5.75	2.32
<i>Minor group</i>			
71 Scientific instruments	23	7.77	
72 Toys	12	2.36	
73 Pianos	11	5.38	
74 Miscellaneous special manufacturing industries	43	5.71	

¹ Total capital (i.e., includes funded debt) as of December 31, 1928.

TABLE 53 (continued)

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1919-28 ¹
(B) PERCENTAGE INCOME TO SALES											
<i>Major group</i>											
11 Special manufacturing industries	18.3	12.9	10.0	19.9	18.1	12.2	15.0	17.6	15.4	15.9	15.6
<i>Minor group</i>											
71 Scientific instruments	26.2	20.2	16.5	35.5	31.3	18.1	30.6	29.9	26.6	27.7	26.5
72 Toys	16.4	12.9	11.2	12.4	13.7	12.6	12.6	12.0	13.3	14.0	13.1
73 Pianos	13.6	11.0	2.7	12.0	13.7	11.7	12.5	12.1	9.0	7.8	10.8
74 Miscellaneous special manufacturing industries	14.2	9.5	7.8	13.6	12.1	8.9	5.9	11.9	10.2	10.3	10.4
(C) PERCENTAGE INCOME TO CAPITALIZATION											
<i>Major group</i>											
11 Special manufacturing industries	28.0	19.4	10.6	23.1	21.5	13.9	16.9	20.2	17.0	17.0	18.4
<i>Minor group</i>											
71 Scientific instruments	33.1	22.1	13.1	30.8	28.6	16.8	28.9	29.5	25.2	27.3	25.5
72 Toys	26.3	24.6	11.2	13.1	15.7	15.7	15.5	14.0	14.9	16.1	15.9
73 Pianos	17.2	13.9	2.3	12.0	14.3	11.7	13.2	11.9	7.5	5.9	10.7
74 Miscellaneous special manufacturing industries	26.2	18.0	10.6	20.3	17.8	11.8	7.6	15.7	13.2	12.4	14.7

¹ Ten-year aggregate.

TABLE 53 (continued)

	(D) PERCENTAGE PROFIT TO TOTAL CAPITAL			(E) PERCENTAGE INCOME PAID OUT IN CASH DIVIDENDS						
	1924	1925	1926	1927	1928	1924	1925	1926	1927	1928
<i>Major group</i>										
11 Special manufacturing industries	13.7	16.7	20.1	16.9	16.8	71.9	74.5	61.5	47.5	72.3
<i>Minor group</i>										
71 Scientific instruments	16.8	28.9	29.5	25.2	26.8	89.7	82.0	84.3	51.9	83.9
72 Toys	15.7	15.5	14.0	14.4	15.6	36.3	46.2	43.3	46.5	35.9
73 Pianos	11.5	12.9	11.9	7.4	5.8	43.2	30.1	39.6	53.9	72.5
74 Miscellaneous special manufacturing industries	11.5	7.5	15.5	13.2	12.3	63.1	77.2	33.6	40.1	59.2

(F) FREQUENCY DISTRIBUTIONS OF PERCENTAGES OF TOTAL NET INCOME TO CAPITALIZATION, INDIVIDUAL CORPORATIONS, 1919-23. MAJOR GROUP 11: SPECIAL MANUFACTURING INDUSTRIES

PERCENTAGE INCOME TO CAPITALIZATION	1919			1920			1921			1922			1923		
	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	PERCENT-AGE IN EACH CLASS	PERCENT-AGE IN EACH CLASS	ACCUMULATED BY SUCCESSIVE CLASSES	
Under zero	.0	.0	1.1	1.1	14.6	14.6	.0	.0	1.1	1.1	.0	.0	1.1	1.1	
Zero to 4	.0	.0	3.4	4.5	14.6	29.2	10.1	10.1	1.1	1.1	10.1	10.1	1.1	2.2	
5 to 9	7.9	7.9	13.5	18.0	18.0	47.2	5.6	15.7	12.4	12.4	15.7	15.7	14.6	14.6	
10 to 14	9.0	16.9	19.1	37.1	18.0	65.2	27.0	42.7	22.5	22.5	42.7	42.7	37.1	37.1	
15 to 19	13.5	30.4	20.2	57.3	11.2	76.4	20.2	62.9	23.6	23.6	62.9	62.9	60.7	60.7	
20 to 24	15.7	46.1	10.1	67.4	7.9	84.3	10.1	73.0	11.2	11.2	73.0	73.0	71.9	71.9	
25 to 29	10.1	56.2	12.4	79.8	6.7	91.0	6.8	79.8	13.5	13.5	79.8	79.8	85.4	85.4	
30 and over	43.8	100.0	20.2	100.0	9.0	100.0	20.2	100.0	14.6	14.6	100.0	100.0	100.0	100.0	

(G) FREQUENCY DISTRIBUTIONS OF PERCENTAGES OF TOTAL PROFIT TO TOTAL CAPITAL, INDIVIDUAL CORPORATIONS, 1924-28. MAJOR GROUP 11: SPECIAL MANUFACTURING INDUSTRIES

	1924		1925		1926		1927		1928	
Under zero	1.1	1.1	2.2	2.2	.0	.0	.0	.0	2.2	2.2
Zero to 4	5.6	6.7	5.6	7.8	6.8	6.8	12.4	12.4	11.2	13.4
5 to 9	20.2	26.9	15.7	23.5	21.3	28.1	25.8	38.2	22.5	35.9
10 to 14	23.6	50.5	32.6	56.1	25.8	53.9	21.3	59.5	29.3	65.2
15 to 19	20.3	70.8	11.3	67.4	15.8	69.7	15.8	75.3	9.0	74.2
20 to 24	10.1	80.9	11.3	78.7	14.6	84.3	14.6	89.9	15.7	89.9
25 to 29	11.2	92.1	10.1	88.8	9.0	93.3	5.6	95.5	6.7	96.6
30 and over	7.9	100.0	11.2	100.0	6.7	100.0	4.5	100.0	3.4	100.0