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Appendix C

A COMPARISON OF CONSOLIDATED AND UNCONSOLIDATED BALANCE SHEETS

In 1934 the Bureau of Internal Revenue discontinued the privilege of filing consolidated returns. With the aid of extensive tables published in *Statistics of Income for 1934*, Part 2, some of the differences between consolidated and unconsolidated statements can be appraised.[1] The importance of consolidated returns prior to 1934 is indicated by the fact that, over the period 1928-33, 44 percent of the gross income of all corporations was reported on a consolidated basis.[2] The shift in the basis of reporting affected not only the capital structure of corporations as a whole but also the comparative capital structure of different size classes and industry groups. There has been some offsetting tendency in recent years to eliminate subsidiaries altogether by consolidation with the parent corporation, in order to minimize taxes which would otherwise be paid on intercorporate dividends. This development, however, has been most pronounced since 1937, as tax rates have progressively increased, and would not affect the comparisons between 1934 and 1937.

The shift from a consolidated to an unconsolidated basis affected both the absolute dollar volume of various balance-sheet accounts and their size relative to each other. Since a detailed account of these changes in individual industries is too cumbersome, we shall confine our analysis to manufacturing corporations as a whole. Table C-1 presents balance-sheet data for manufacturing corporations with consolidated subsidiaries in 1933, and similar data for the same group of corporations and their subsidiaries as they appeared on an unconsolidated basis in 1934. The effect of this shift—a process which, for convenience, we may call deconsolidation—is, of course, combined with whatever other changes may have occurred in the various accounts of these corporations between 1933 and 1934.[3] A check on the magnitude of the purely temporal changes is provided, however, in Table C-2, which presents data for manufacturing corporations which were unconsolidated in both 1933 and 1934.

[1] See *Statistics of Income for 1934*, Part 2 (1937) pp. 113-94.

[2] By 1933 this percentage had declined slightly to 38 percent, probably in response to increased penalties imposed upon the filing of consolidated returns. See C. J. Hynning, *The Taxation of Corporate Enterprise*, Temporary National Economic Committee, Monograph No. 9 (Washington, 1941) Chapter 3.

[3] Both the 1933 and the 1934 data are grouped by their 1933 industrial classification, so that the industrial shifts resulting from deconsolidation are eliminated. These will be discussed separately below.

Table C-1—Balance-Sheet Effect of Elimination of Consolidated Returns, Combined with Temporal Change, 1933-34, All Manufacturing Corporations (dollar figures in millions)

	1933[a] (1)	*1934*[b] (2)	*Change 1933-34* (2)-(1)	*Percentage Distribution of Assets and Liabilities* 1933	1934
Number of corporations	2,407	7,570	5,163		
Cash	$1,518	$1,613	$ 95	4.7	3.9
Receivables	3,510	6,969	3,459	10.9	16.8
Inventory	3,792	4,062	270	11.7	9.8
Tax-exempt investments	710	696	−14	2.2	1.7
Total current assets	9,530	13,340	3,810	29.5	32.2
Other investments	6,681	12,601	5,920	20.7	30.4
Capital assets	14,403	13,136	−1,267	44.5	31.8
Other assets	1,712	2,334	621	5.3	5.6
Total assets	32,326	41,411	9,084	100.0	100.0
Notes and accounts payable	2,870	6,797	3,927	8.9	16.4
Bonds, mortgages	3,496	3,674	178	10.8	8.9
Other liabilities	2,103	2,802	699	6.5	6.8
Capital stock	16,545	19,798	3,253	51.2	47.8
Surplus less deficit	7,311	8,340	1,029	22.6	20.1
Total liabilities	32,326	41,411	9,084	100.0	100.0
Sales	15,676	20,832	5,156		

[a] 1933 (consolidated) returns for corporations reporting on a consolidated basis in 1933, by their 1933 industrial classification, from *Statistics of Income for 1934*, Part 2, Table 11, p. 146.

[b] 1934 (unconsolidated) returns for corporations reporting on a consolidated basis in 1933, by their 1933 industrial classification, from *Statistics of Income for 1934*, Part 2, Table 14, p. 186.

There were 2,407 manufacturing corporations with consolidated subsidiaries in 1933, and the total assets of these consolidated subsidiaries amounted to approximately $6,000,000,000.[4] Deconsolidation resulted in the approximate doubling of the dollar volume of both current receivables and current payables, which in consolidated balance sheets had about canceled each other out. The ratio of current receivables and current payables to total assets was also sharply increased. The increase in receivables was more than proportionate to the increase in sales, the ratio of receivables to sales rising from 22 to 33 percent. (Table C-2 reveals that the ratio of receivables to sales for unconsolidated corporations actually fell from 18 to 15 percent between 1933 and 1934.) The increase in current payables would normally be expected to be identical with the increase in current receivables,

[4] This may be an underestimate, since the prohibition of consolidated returns may have induced some corporations to merge their subsidiaries, which would therefore not appear in the increase in "other investments" that took place between 1933 and 1934.

apart from differences in temporal change. Actually it is larger by some $500,000,000, which may possibly be due to some unspecified shift in classification of short-term and long-term liabilities.

The sharp increase in "other investments" expresses the very fact of deconsolidation. The reduction in capital assets of $1,300,000,000 probably represents a downward revaluation of capital assets, reflecting the consequences of the depression, since there is no reason to assume that fixed capital assets would be reduced by deconsolidation. The plausibility of this explanation is supported by the decrease of fixed capital assets between 1933 and 1934 among unconsolidated corporations, shown in Table C-2.

Table C-2—Temporal Change in Balance Sheets of Corporations Unconsolidated in 1933 and 1934, All Manufacturing Corporations
(dollar figures in millions)

	1933[a] (1)	*1934*[b] (2)	*Change 1933-34* (2)-(1)	*Percentage Distribution of Assets and Liabilities* 1933	1934
Number of corporations	80,429	80,801	372		
Cash	$1,567	$1,758	$ 191	6.2	7.0
Receivables	3,255	3,209	−46	12.8	12.7
Inventory	4,292	4,549	257	16.9	18.0
Tax-exempt investments	1,273	1,086	−187	5.0	4.3
Total current assets	10,387	10,602	215	40.8	42.0
Other investments	2,817	2,747	−70	11.1	10.9
Capital assets	9,982	9,753	−229	39.3	38.7
Other assets	2,241	2,112	−129	8.8	8.4
Total assets	25,427	25,215	−212	100.0	100.0
Notes and accounts payable	2.852	2,855	3	11.2	11.3
Bonds, mortgages	1,525	1,448	−77	6.0	5.8
Other liabilities	1,564	1,721	157	6.2	6.8
Capital stock	13,853	13,549	−304	54.5	53.7
Surplus less deficit	5,632	5,642	10	22.1	22.4
Total liabilities	25,427	25,215	−212	100.0	100.0
Sales	18.256	22,116	3,860		

[a] 1933 (unconsolidated) returns for corporations not reporting on a consolidated basis in 1933, by their 1933 industrial classification, from *Statistics of Income for 1934*, Part 2, Table 11, p. 154.

[b] 1934 (unconsolidated) returns for corporations not reporting on a consolidated basis in 1933, by their 1934 industrial classification, from *Statistics of Income for 1934*, Part 2, Table 12, p. 170.

The increase in capital stock and surplus, like that in "other investments," is, of course, the direct consequence of deconsolidation. Although the dollar volume of capital stock and surplus is increased by deconsolidation, its proportion to total assets actually declines somewhat, because of increases in the current liabilities. In a similar manner, fixed capital assets, although relatively unchanged so far as dollar volume is concerned, may decrease as a proportion of total assets because of the rise in current assets.

The effects of deconsolidation on the distribution of corporate assets and liabilities by industry were of two types: First, a number of corporations were shifted from one industrial classification to another. Thus, a number of subsidiaries of predominantly manufacturing corporations were shifted to trade and mining. Second, the relative size of balance-sheet accounts in different branches of manufacturing was changed, owing to the fact that some branches of industry practiced consolidation more extensively and/or had a larger number of consolidated subsidiaries than others.

The first effect is illustrated in Table C-3, which compares the 1934 returns of manufacturing corporations that reported on a consolidated

Table C-3—EFFECT OF DECONSOLIDATION ON THE FINANCIAL STRUCTURE OF MANUFACTURING CORPORATIONS AS SHOWN BY INDUSTRIAL CLASSIFICATIONS OF 1933 AND 1934
(dollar figures in millions)

	All Manufacturing Corporations, 1934			*Percentage Distribution of Assets and Liabilities*		
	By 1933 Industrial Classification[a] (1)	By 1934 Industrial Classification[b] (2)	Change 1933-34 (2)-(1)	1933 Classification	1934 Classification	Change[c] 1933–34
Number of firms	7,570	4,697	−2,873			
Cash	$1,613	$1,248	$ −365	3.9	4.6	2.6
Receivables	6,969	4,274	−2,695	16.8	15.6	19.1
Inventory	4,062	3,770	−292	9.8	13.8	2.1
Tax-exempt investments	696	517	−179	1.7	1.9	1.3
Total current assets	13,340	9,809	−3,531	32.2	35.9	25.0
Other investments	12,601	5,307	−7,294	30.5	19.4	51.7
Capital assets	13,136	10,698	−2,438	31.7	39.2	17.3
Other assets	2,334	1,494	−839	5.6	5.5	6.0
Total assets	41.411	27,308	−14,103	100.0	100.0	100.0
Notes and accounts payable	6,797	3,912	−2,885	16.4	14.3	20.5
Bonds, mortgages	3,674	2,577	−1,097	8.9	9.4	7.8
Other liabilities	2,802	1,858	−944	6.8	6.8	6.7
Capital stock	19,798	13,382	−6,416	47.8	49.0	45.5
Surplus less deficit	8,340	5,579	−2,761	20.1	20.5	19.5
Total liabilities	41,411	27.308	−14,103	100.0	100.0	100.0
Sales	20,832	17,334	−3,498			

[a] 1934 (unconsolidated) returns of corporations which reported on a consolidated basis in 1933, according to their 1933 industrial classification, from *Statistics of Income for 1934*, Part 2, Table 14, p. 186.

[b] 1934 (unconsolidated) returns of corporations which reported on a consolidated basis in 1933, according to their 1934 industrial classification, i.e., those which remained in the manufacturing classification, from *Statistics of Income for 1934*, Part 2, Table 12, p. 162.

[c] As a percent of change in total assets.

basis in 1933, industrially distributed by their 1934 classification, with the same group of corporations, distributed by their 1933 industrial classification. Manufacturing lost 2,873 corporations with $14,000,000,000 of assets to other industrial classes. These corporations underwent a more than proportionate decrease of receivables and payables, reflecting the fact that trading subsidiaries were lost to a large extent.

Table C-4 presents what may be called the gross effect of deconsolidation for all manufacturing corporations combined with the temporal change in balance-sheet accounts from 1933 to 1934. This expresses the combination

Table C-4—GROSS EFFECT OF ELIMINATION OF CONSOLIDATED RETURNS, COMBINED WITH TEMPORAL CHANGE, 1933-34, ALL MANUFACTURING CORPORATIONS
(dollar figures in millions)

	1933[a] (1)	*1934*[b] (2)	*Change 1933-34* (2)-(1)	*Percentage Distribution of Assets and Liabilities* 1933	1934
Number of corporations	82,836	85,498	2,662		
Cash	$3,084	$3,006	$−78	5.3	5.7
Receivables	6,765	7,483	718	11.7	14.2
Inventory	8,084	8,319	235	14.0	15.9
Tax-exempt investments	1,983	1,603	−380	3.5	3.1
Total current assets	19,916	20,411	495	34.5	38.9
Other investments	9,499	8,055	−1,444	16.5	15.3
Capital assets	24,384	20,450	−3,933	42.2	38.9
Other assets	3,953	3,607	−346	6.8	6.9
Total assets	57,752	52,523	−5,228	100.0	100.0
Notes and accounts payable	5,722	6,768	1,046	9.9	12.9
Bonds, mortgages	5,021	4,025	−996	8.7	7.7
Other liabilities	3,669	3,580	−89	6.4	6.8
Capital stock	30,398	26,930	−3,468	52.6	51.3
Surplus less deficit	12,942	11,220	−1,721	22.4	21.3
Total liabilities	57,752	52,523	−5,228	100.0	100.0
Sales	32,361	39,042	6,681		

[a] 1933 (consolidated) returns of all manufacturing corporations, by their 1933 industrial classification, from *Statistics of Income for 1933*, Table 15, p. 161.

[b] 1934 (unconsolidated) returns of all manufacturing corporations, by their 1934 industrial classification. This excludes those (previously consolidated) subsidiaries of manufacturing corporations which were classified under trade or mining or elsewhere in 1934. From *Statistics of Income for 1934*, Part 2, Table 4, p. 67.

of the balance-sheet effect of deconsolidation, resulting in an increase of $9,000,000,000 of assets, with the industrial effect, resulting in a decrease of some $14,000,000,000, giving a net decrease of $5,000,000,000. The similarity in the percentage distribution for 1933 and 1934 is striking, the increase in the proportion of receivables and payables being very moderate and reflecting the shift from manufacturing to trade of some trading subsidiaries. Thus a fairly high degree of comparability is apparent in the balance-sheet proportions of the manufacturing data prior and subsequent to deconsolidation.

Space does not permit here discussion of the balance-sheet effect of deconsolidation upon the subdivisions of manufacturing and other industrial groups, although data are available in *Statistics of Income for 1934*. The data in Table C-5, however, indicate the extent to which subsidiaries are important in the various broad industrial groups. The number of deconsolidated subsidiaries per parent corporation did not vary greatly, except as between transportation and public utilities and all other corporations. The relative importance of deconsolidated subsidiaries, measured as a percentage

Table C-5—The Industrial Distribution of Subsidiaries, 1933

Industry	*Number of Subsidiaries Deconsolidated in 1934*[a]	*Number of Deconsolidated Subsidiaries per Parent Corporation*[a]	*Approximate Investment in Deconsolidated Subsidiaries as Percent of Total Assets of Industry, 1933*[b]
Mining and quarrying	*848*	*2.2*	*14.8*
All manufacturing	*5,163*	*2.1*	*10.2*
Food, beverages, tobacco	975	2.7	12.3
Textiles	299	1.1	1.8
Leather	117	1.6	2.6
Rubber	86	2.4	5.9
Forest products	283	1.5	2.2
Paper, pulp	206	2.4	15.6
Printing and publishing	391	1.9	1.3
Chemicals, petroleum, and allied products	923	3.1	14.7
Stone, clay, glass	162	1.6	5.9
Metals	1,432	2.3	11.2
Construction	*176*	*1.1*	[c]
Trade	*1,732*	*1.6*	*3.6*
Service	*1,251*	*2.5*	*3.4*
Transportation and public utilities	*3,283*	*5.3*	*18.0*
Finance	*2,643*	*1.6*	[c]
All corporations	*16,147*	*2.4*	*7.6*

[a] See *Statistics of Income for 1934*, Part 2, Tables 11 and 14, pp. 146 ff. and 186 ff.

[b] Approximate investment in subsidiaries is the difference in "other investments" between consolidated and unconsolidated balance sheets, as reported in the tables cited in footnote a.

[c] An actual decrease in "other investments" occurred in these groups when deconsolidated. This may be due to nonreporting of a few large concerns or to the decrease (revaluation) in the subsidiaries' net worth.

of the total assets of the various industrial groups, exhibits wider variation. Subsidiaries were particularly important in mining and quarrying, transportation and public utilities, paper and pulp, chemicals and petroleum, and food, beverages, and tobacco.

Since the bulk of the subsidiaries are owned by parent corporations in the upper size classes, the variations with size of balance-sheet accounts in unconsolidated statements might well be expected to differ from those in consolidated statements. The item of intercorporate investments would be greater in unconsolidated balance sheets, and most other asset items would accordingly comprise a smaller proportion of total assets of the large corporations. The rise in fixed capital assets as a percentage of total assets might be expected to be sharper in consolidated statements. On the other hand, as shown in Table C-1, deconsolidation sharply increased the proportion of

Table C-6—VARIATION WITH CORPORATE SIZE OF THE RATIO OF INTERCORPORATE INVESTMENTS TO TOTAL ASSETS, CONSOLIDATED AND UNCONSOLIDATED BALANCE SHEETS
(in percent of total assets)

Asset Size[a] (in thousands)	*All Manufacturing Corporations*[b]			
	1931—Consolidated		1937—Unconsolidated	
	Income	Deficit	Income	Deficit
Under $50	2.4	2.0	2.3	2.2
50–100	3.9	3.1	3.0	3.4
100–250	5.3	4.6	4.4	4.6
250–500	6.9	5.8	5.8	5.8
500–1,000	7.9	6.8	7.1	6.9
1,000–5,000	9.7	8.9	8.8	9.2
5,000–10,000	9.9	9.9	12.7	12.4
10,000–50,000	14.3	11.1	14.5	13.8
50,000–100,000	21.6 (50,000 and over)	20.3 (50,000 and over)	16.5	12.5
100,000 and over			23.9	14.6

Asset Size[a] (in millions)	*Listed Manufacturing Corporations, Consolidated Basis, 1937*[c]
Under $1	1.7
1– 3	1.2
3– 5	1.5
5– 10	1.3
10– 20	3.7
20– 50	2.2
50–100	3.1
100–200	1.9
200–500	2.9
500 and over	2.8

[a] Each size class is inclusive of the lower limit and exclusive of the upper.
[b] From *Source Book of Statistics of Income*.
[c] From *Statistics of American Listed Corporations*, Table 64.

receivables and current payables to total assets, which resulted in a higher ratio for total current assets and liabilities in the unconsolidated 1934 returns. Consequently it can be inferred that the decline in accounts receivable and accounts payable as a proportion of total assets, which we have observed in the variations with size in the 1937 data, would be even more pronounced if the balance sheets were consolidated.

Clearly, then, a comparison of 1931 (consolidated) statements and 1937 (unconsolidated) statements from Internal Revenue data is of interest. In Table C-6, the variation of the ratio of intercorporate investments to total assets is presented for the two years; and, in addition, data are tabulated for the SEC's listed manufacturing corporations, which are permitted to report on a consolidated basis. Quite contrary to expectations, the variation in the Internal Revenue data in 1931 and 1937 was approximately the same, with respect both to the absolute level and to the nature of the

Table C-7—VARIATION WITH CORPORATE SIZE OF THE RATIO OF RECEIVABLES AND OF PAYABLES TO TOTAL ASSETS, CONSOLIDATED AND UNCONSOLIDATED BALANCE SHEETS
(in percent of total assets)

Asset Size[a] (in thousands)	*All Manufacturing Corporations*[b]			
	1931—Consolidated		1937—Unconsolidated	
	Income	Deficit	Income	Deficit
	Accounts Receivable			
Under $50	25.7	22.1	26.7	23.2
50–100	24.1	19.6	23.4	20.2
100–250	21.4	17.5	20.4	16.8
250–500	19.1	15.0	19.1	15.1
500–1,000	17.2	13.6	16.0	12.7
1,000–5,000	14.5	11.5	14.6	12.4
5,000–10,000	12.6	10.1	12.2	9.9
10,000–50,000	10.6	9.5	11.0	10.2
50,000–100,000	15.3	9.1	9.6	6.2
100,000 and over			10.6	18.5
	Notes and Accounts Payable			
Under $50	22.5	39.6	27.4	43.3
50–100	19.4	30.2	22.5	35.2
100–250	15.8	24.7	19.8	31.1
250–500	12.8	20.9	17.0	24.8
500–1,000	10.2	16.8	14.8	23.5
1,000–5,000	7.4	12.5	12.8	19.2
5,000–10,000	5.5	9.5	9.6	12.6
10,000–50,000	5.0	9.0	8.9	14.8
50,000–100,000	8.4	5.7	9.3	8.0
100,000 and over			11.2	16.3

[a] Each size class is inclusive of the lower limit and exclusive of the upper.
[b] From *Statistics of Income for 1931*, *Statistics of Income for 1937*, Part 2, and *Source Book of Statistics of Income*.

increase with corporate size. This result indicates that unconsolidated balance sheets were filed to a great extent even when the privilege of consolidation existed. The intercorporate investments in the consolidated SEC data follow the expected pattern more closely, the ratio of investments to total assets being lower and its variation with size being insignificant.

The statement was made above that on the basis of the comparison of 1933 (consolidated) and 1934 (unconsolidated) data in Table C-1 both accounts receivable and accounts payable would be expected to show a sharper decline with size among consolidated balance sheets. This inference was based on the fact that most of the subsidiaries are held by the large corporations and are themselves relatively large. A comparison of the 1931 (consolidated) and 1937 (unconsolidated) returns, shown in Table C-7, does not confirm this expectation. We have already seen from Table C-6 that there is much greater similarity than expected between the pattern of intercorporate investment in 1931 and 1937. Apparently this is true also for receivables and payables. On the other hand, Table C-1 shows that the discontinuation of consolidated returns in 1934 caused a substantially increased percentage of receivables and payables. It is difficult to reconcile these two facts except on the assumption that industrial shifts, changes in the size of subsidiaries, and other factors resulted in an important reduction of receivables and payables among large corporations in 1937.