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## CHAPTER 10

### The Data

THREE SAMPLES WERE ANALYZED IN THE COURSE OF THE STUDY. Inasmuch as the possible sources of data are limited, the coverage of the samples, and in considerable degree their composition, were dictated by necessity. Though in some respects the samples are far from ideal, in combination they are reasonably adequate for the task at hand. In any event, they are the best that could be gathered under the circumstances and the most comprehensive of any comparing book profit and taxable income.

#### A SAMPLES I AND II

Sample I was designed primarily to satisfy Objective 2b: to measure the relative size of the deviations between book profit and statutory net income caused by each component of net income such as depreciation. Consisting of the *Reconciliation of Net Income and Analysis of Changes in Surplus* schedules of the 1936 federal corporation income tax returns of 505 miscellaneous medium-size corporations, it was confined to 1936, the last year for which data could be collected with the facilities at the disposal of the project.

This relatively small sample was analyzed minutely since the reconciliation schedule of the tax returns is the most detailed source of available statistical information on specific divergences between the accounting practices followed for book and tax purposes. From a list of approximately 800 cor-

porations filing unconsolidated financial statements with the Securities and Exchange Commission under the Securities and Exchange Act of 1934,<sup>1</sup> all companies whose federal income tax returns were available were taken for Sample I.

Sample II compares statutory net income with book profits by matching federal income tax returns with reports filed by the same companies to the Securities and Exchange Commission on Forms 10 and 10K. As far as possible, the absolute and relative differences between the two income figures and their various components (gross income and deduction items), which in the aggregate determine net income, are measured (Objectives 1 and 2a). Unfortunately, differences in the classification of components severely curtailed the degree to which these items could be analyzed to good purpose.

Sample II includes 353 corporations in 1934, 469 in 1935, 588 in 1936, and 616 in 1937. For reasons indicated below, it too was compiled from a list of all corporations filing unconsolidated financial statements with the Securities and Exchange Commission under the Securities and Exchange Act of 1934. Investment trusts and corporations reporting on a cash basis were excluded. Moreover, most of the highly interesting oil producing companies had to be excluded because, when the sample was being selected, the basic data for them were being used by the Securities and Exchange Commission, with whose assistance the Sample II tabulations and analysis were made. All other companies on the list whose federal corporation income tax returns were available were included.

Most corporations appearing in the early years are present in all subsequent years. In each succeeding year after 1934 new companies were added, most of which were reporting to the Securities and Exchange Commission for the first time.

Samples I and II duplicate each other in part in 1936. Of the 505 corporations in Sample I, 361 are in Sample II. This duplication facilitates a comparison of tax data reported to

<sup>1</sup> Mining companies reporting on a cash basis are not listed.

the Treasury with similar business accounting data reported to the Securities and Exchange Commission. To ascertain the significance of the divergences between the tax and book data in Sample II, additional information on the sources of divergence is necessary. Sample I, to the extent that it duplicates Sample II, provides the additional information. Only 361 Sample II companies could be included in Sample I because the 1936 tax returns for the other Sample II corporations were in the field being audited when Sample II was being assembled in Washington early in 1940.

The nature of the available data made it impossible to select Samples I and II so that they would be statistically representative. In any event, they are scarcely large enough to yield precise estimates of the characteristics of their universe. Both samples, however, contain a sufficiently wide distribution of corporations to indicate rather clearly the general range and importance of various causes of divergence between book and tax accounts, at least for the years to which they pertain (Tables 1-3).

Since Sample I and II corporations duplicate each other to a considerable extent, the size distributions of the two samples are similar. However, Sample I corporations are on the whole somewhat smaller than Sample II corporations, for two reasons. First, tax returns are closed with more dispatch for small than for large corporations. Consequently, a larger portion of the tax returns of large corporations was in the field, and hence unavailable, when Sample I was selected. Secondly, data from the tax returns of some small corporations had not been transcribed by the Statistical Section of the Bureau of Internal Revenue. These corporations were not included in Sample II, although some are in Sample I. Despite these sources of bias, considerable insight into the size distribution of Sample I may be derived from Table 2. Table 3 gives further information with respect to the industrial and size distributions of the samples, in relation to each other and to the corporate universe.

**TABLE 1**  
**Industrial Classification of Corporations Comprising Sample I**

INDUSTRIAL GROUP	NUMBER OF CORPORATIONS
<b>Mining &amp; Quarrying</b>	
Coal mining	7
Metal mining	35
Oil & gas wells	15
Quarrying & nonmetal mining	1
'Other extractive' industries	0
<b>Manufacturing</b>	
Grain, milling & baking	5
Dairy products	1
Meat packing & allied products	5
Canning & preserving	2
Sugar refining	0
Miscellaneous food & related industries	4
Tobacco products	6
Breweries	24
Distilleries	2
'Other beverages' companies	3
Cotton textiles	0
Silk & rayon textiles	3
Apparel	10
Registered miscellaneous textile manufacturers	6
Paper & paper products	9
Printing, publishing, & allied industries	4
Chemicals & allied products	3
Heavy chemicals including fertilizers	0
Paints, varnishes, & vegetable oils	0
Drugs & medicines (incl. cosmetics & soaps)	2
Mineral oil refining (incl. distributing)	5
Building materials & supplies	13
Building equipment	6
Iron & steel (excl. machinery)	14
Nonferrous metals	8
Registered industrial machinery & tool manufacturers	40
Agricultural machinery & implements	4
Electrical supplies & equipment	25
Office machinery & equipment	3
Registered producers of miscellaneous machinery & tools	6
Registered railroad equipment	2
Radio	1

Automobiles & trucks	3
Automobile parts & accessories	32
Aircraft equipment	10
Shipbuilding	0
Miscellaneous manufacturing industries	19
Lumber & lumber products	0
Tires & other rubber products	2
Leather & leather manufacturers	4
Finance (incl. real estate)	
Investment & trading, general & limited management	28
Holding companies (excl. public utility holding companies)	7
Commercial credit & finance companies	3
Other financial & investment companies	5
Real estate	10
Trade	
Chain stores	24
Department stores & mail order houses	15
Wholesale commissions & brokerage	9
Miscellaneous merchandising	4
Service	
Amusement industries	3
Business service (incl. advertising)	6
Domestic & personal service (incl. hotels)	2
Public Utility Operating Companies	
Electric	12
Natural gas	6
Manufactured gas	3
Gas mixed	0
Mixed companies	6
Water companies	2
Miscellaneous Companies	
Construction & allied industries	6
Motor transportation	0
Steam shipping	0
Aviation	2
Telephone & telegraph	0
Miscellaneous transportation & communication companies	1
Miscellaneous domestic companies	7

The industrial codes were taken from the Securities and Exchange Commission code and used in Samples I and II of this study. The industrial grouping followed throughout the analysis of Sample I is indicated by the spacing in this table.

TABLE 2  
Sample II Corporations Distributed by Asset Classes and by Industrial Groups, 1934-1937  
(dollar figures in millions)

INDUSTRIAL GROUP *	CORPORATIONS		NUMBER AND ASSETS OF CORPORATIONS BY ASSET CLASSES										
	No. Assets	Under \$5	\$5-10	\$10-50.0	\$50-100.0	\$100.0 & over	No. Assets	No. Assets	No. Assets	No. Assets	No. Assets	No. Assets	No. Assets
<i>Mining &amp; quarrying</i>													
Coal	5	113.7											
Metal	19	234.7	2	0.8	2	1.6	3	10.5	1	6.0	1	97.2	
Oil & gas	2	4.5											
Quarrying & nonmetal	1	8.9											
Other extractive ind.	1	65.4											
<i>Manufacturing</i>													
Grain, milling & baking	3	41.8											
Dairy prod.	1	0.2											
Meat pack. & allied prod.	4	16.2											
Canning & preserving	3	21.4											
Sugar refining	1	5.5											
Misc. food & related ind.	5	7.7											
Tobacco prod.	11	242.2											
Breweries	13	23.9											
Distilleries													
Other beverage co.	3	10.7											
Iron & steel (excl. mach.)	13	160.3											
Nonferrous metals	7	29.8											
Reg. ind. mach. & tool mfr.	29	180.6											
Agr. mach. & implements	1	42.4											
Elec. supplies & equip.	14	34.0											
Office mach. & equip.	2	3.8											
Reg. prod. of misc. mach.	6	9.7											
Reg. tr. equip.	2	24.6											
Autos & trucks													
Auto parts & accessories	28	134.1	1	0.5	2	1.7	20	48.5	3	24.1	2	59.3	

Aircraft equip.	1	0.7	1	0.7	1	13.9	1	13.9		
Shipbuilding	1	13.9								
Radio										
Cotton textiles	2	17.5			1	4.5				
Silk & rayon textiles	1	6.3					1	6.3		
Apparel	11	32.3	1	0.3	1	18.8	2	12.6		
Reg. misc. textile mfr.	3	23.2			2	6.5			1	
Lumber & lumber prod.	1	2.3			1	2.3				
Paper & paper prod.	7	74.4	1	0.5	1	3.5	2	13.1	3	
Printing, pub., & allied ind.	4	11.0			4	11.0				
Chemicals & allied prod.	2	2.6			1	1.6				
Heavy chemicals	1	26.2							1	
Paints, varnishes, & veg. oils									26.2	
Drugs & medicines										
Mineral oil refining	3	6.5	1	0.7	2	5.8				
Tires & other rubber prod.	2	2.6	1	0.9	1	1.7				
Leather & leather mfr.	2	6.7	1	0.9			1	5.8		
Build. materials & supplies	10	98.2			4	10.2	3	23.3	3	
Building equip.	3	6.9			3	6.9				
Misc. mfg. ind.	12	41.4	3	2.1	7	14.0	1	9.1	1	
									16.2	
<i>Trade</i>										
Chain stores	13	64.2	1	0.6	10	26.9	1	6.7	1	29.9
Dept. stores & mail order houses	14	109.5			5	11.5	4	27.5	5	70.5
Wholesale com. & brokerage	8	34.7			5	14.2	3	20.5		
Misc. mdse.	4	9.8	1	0.9	3	8.9				
<i>Public utilities</i>										
Electric	13	1,079.3							4	279.2
Natural gas	4	88.1					1	7.4	3	80.7
Mfd. gas	3	130.2					2	15.8		
Gas mixed	1	61.6							1	61.6
Mixed co.	11	966.6							3	224.3
Water co.	6	91.7					1	7.0	5	84.6
<i>Finance (incl. real estate)</i>										
Holding co. (excl. pub. util.)	6	236.9							2	13.4
Commercial credit & finance co.	4	20.8			2	7.8	2	13.1		
Other finan. & investment co.	3	61.9					1	8.6	2	53.3
Real estate	7	88.9			2	5.5	2	15.6	3	67.8
									1	153.0



TABLE 2 (cont.)

INDUSTRIAL GROUP *	CORPORATIONS		NUMBER AND ASSETS OF CORPORATIONS BY ASSET CLASSES					CORPORATIONS BY ASSET CLASSES								
	No. Assets	Under \$5	\$5-10	\$10-50	\$50-100	\$100-500	\$500-1000	\$1000 & over	No. Assets	No. Assets						
<i>Miscellaneous companies</i>																
Construction & allied ind.	4	36.7		1	2.9	1	9.3	2	24.5							
Motor transp.	1	20.2				1	20.2									
Steam shipping																
Aviation																
Tel. & tel.	1	4.3		1	4.3											
Misc. transp. & commun.	1	3.4		1	3.4											
Misc. domestic co.																
<i>Service</i>																
Amusement ind.	7	22.0	2	1.7	4	11.1		1	10.2							
Business (incl. adv.)	2	1.8	1	0.6	1	1.2										
Domestic & personal																
<i>All corporations:</i>	353	4,922.2	7	2.7	35	26.3	156	395.1	61	496.1	74	1,621.4	11	779.0	9	1,661.5
<i>Mining &amp; quarrying</i>																
Coal	5	113.6					3	10.4	1	6.0			1	97.2		
Metal	21	235.9	1	0.5	2	1.3	5	13.8	8	57.4	4	111.5	1	51.4		
Oil & gas	2	4.4					2	4.4								
Quarrying & nonmetal	1	9.0							1	9.0						
Other extractive ind.	1	66.1											1	66.1		
<i>Manufacturing</i>																
Grain, milling & baking	5	44.0					2	3.0	1	5.2	2	35.8				
Dairy prod.																
Meat pack. & allied prod.	7	31.5	1	0.9	4	12.9			2	17.7	1	17.5				
Canning & preserving	3	22.7	1	0.9	1	4.3			1	5.4						
Sugar refining	1	5.4														
Misc. food & related ind.	6	10.0					6	10.0								
Tobacco prod.	12	263.9					1	0.5	4	9.8	2	12.8	4	87.3		
Breweries	22	37.6	2	0.8	4	3.1	16	33.7							1	153.4
Distilleries	1	1.0					1	1.0								
Other beverage co.	3	10.6					1	0.8	1	1.2	1	8.6				

Iron & steel (excl. mach.)	17	274.7					7	14.0	3	17.6	6	138.8
Nonferrous metals	8	67.4					4	11.8	3	20.4	1	35.2
Reg. ind. mach. & tool mfr.	38	233.8	2	0.6	4	3.2	18	36.6	8	54.3	6	139.1
Agr. mach. & implements	2	44.6					1	3.8			1	40.8
Elec. supplies & equip.	19	44.2			6	5.0	12	31.3	1	7.9		
Office mach. & equip.	2	4.3					2	4.3				
Reg. prod. of misc. mach.	6	12.4	1	0.4	1	0.7	4	11.2	1	8.4	1	12.9
Reg. rr. equip.	3	25.5					1	4.2				
Autos & trucks	1	3.0					1	3.0				
Auto parts & accessories	38	194.0	1	0.4	7	4.7	23	58.1	2	14.3	5	116.6
Aircraft equip.	1	0.7			1	0.7						
Shipbuilding	1	12.8									1	12.8
Radio												
Cotton textiles	2	17.9					1	4.8			1	13.1
Silk & rayon textiles	4	20.6					2	3.0	1	6.4	1	11.2
Apparel	15	51.1	1	0.3	2	1.6	9	24.7	2	13.7	1	10.8
Reg. misc. textile mfr.	4	27.9					3	9.1			1	18.8
Lumber & lumber prod.	1	2.2					1	2.2				
Paper & paper prod.	8	81.0			1	0.6	2	7.5	2	15.1	3	57.8
Printing, pub. & allied ind.	7	20.6					6	14.9	1	5.7		
Chemicals & allied prod.	2	2.6			1	1.0	1	1.6				
Heavy chemicals	1	26.3									1	26.3
Paints, varnishes, & veg. oils	1	3.3					1	3.3				
Drugs & medicines												
Mineral oil refining	5	9.4	1	0.2	1	0.7	3	8.5				
Tires & other rubber prod.	2	3.2					2	3.2				
Leather & leather mfr.	6	21.0	1	0.4			3	5.8	2	14.8		
Build. materials & supplies	12	99.2					6	15.4	3	23.1	3	60.8
Building equip.	5	15.2			1	0.9	4	12.3				
Misc. mfg. ind.	18	48.3	2	0.8	5	4.0	9	18.8	1	9.2	1	15.5
<i>Trade</i>												
Chain stores	19	79.4	1	0.5	2	1.2	14	38.8	1	7.7	1	31.2
Dept. stores & mail order houses	18	159.6					7	19.1	4	31.8	7	108.6
Wholesale com. & brokerage	11	86.8					6	16.7	2	10.7	3	59.4
Misc. mdse.	5	11.0			2	1.9	3	9.1				

TABLE 2 (cont.)

INDUSTRIAL GROUP *	CORPORATIONS		NUMBER AND ASSETS OF CORPORATIONS BY					ASSET CLASSES						
	No. Assets	Under \$5	No. Assets	\$5-10.0	\$10-50.0	\$50-100.0	\$100.0 & over	No. Assets	No. Assets	No. Assets				
<i>Public utilities</i>														
Electric	20	1,484.4	1	2.3	10	327.7	5	377.5	4	775.9				
Natural gas	7	220.5			4	93.6	2	119.9						
Mfd. gas	3	130.2							1	114.2				
Gas mixed	1	61.3							1	61.3				
Mixed co.	13	1,043.2			5	152.7	5	403.7	2	477.4				
Water co.	7	93.6	1	1.8	5	84.7								
<i>Finance (incl. real estate)</i>														
Holding co. (excl. pub. util.)	4	270.2			2	40.4	1	78.1	1	151.7				
Commercial credit & finance co.	3	17.8	1	4.5	2	13.2								
Other finan. & investment co.	5	110.0			1	8.6	4	101.4						
Real estate	9	112.3	2	5.8	2	14.4	5	92.1						
<i>Miscellaneous companies</i>														
Construction & allied ind.	7	45.3	4	11.0	2	19.1	1	15.2						
Motor transp.														
Steam shipping	1	18.5												
Aviation	1	5.1			1	18.5								
Tel. & tel.														
Misc. transp. & commun.	2	8.5	2	8.5										
Misc. domestic co.	1	3.5	1	3.5										
<i>Service</i>														
Amusement ind.	2	3.1	2	3.1										
Business (incl. adv.)	8	24.1	2	1.7	5	12.1	1	10.3						
Domestic & personal	3	16.5	1	0.6	1	1.2	1	14.6						
<i>All corporations</i>	469	6,225.5	13	41.9	47	36.0	221	555.4	67	483.0	17	1,255.2	10	1,778.0

	6	116.9	6	2.1	6	4.3	16	4	12.7	1	6.1	1	98.1
	40	266.4	6	2.1	6	4.3	16	4	44.6	7	51.1	4	113.9
	2	5.0					2		5.0				
	1	66.9								1	9.1		
	1	9.1											66.9
<i>Mining &amp; quarrying</i>													
Coal	6	116.9						4	12.7	1	6.1		98.1
Metal	40	266.4	6	2.1	6	4.3	16	4	44.6	7	51.1	4	113.9
Oil & gas	2	5.0					2		5.0				
Quarrying & nonmetal	1	66.9								1	9.1		
Other extractive ind.	1	9.1											66.9
<i>Manufacturing</i>													
Grain, milling & baking	8	50.6			2	1.9	4	4	13.6			2	35.1
Dairy prod.	1	0.2		0.2									
Meat pack. & allied prod.	9	38.0	1	0.5			6	6	19.7	2	17.9		
Canning & preserving	4	28.6			1	1.0	2	2	8.4	2	12.1	1	19.3
Sugar refining	2	12.1											
Misc. food & related ind.	7	11.2	1	0.5			6	6	10.7	2	12.3	4	87.6
Tobacco prod.	12	266.5			1	0.6	4	4	9.8	2	12.3		
Breweries	24	48.4	1	0.4	4	3.1	18	18	37.6	1	5.3		
Distilleries	5	5.0	1	0.4	1	0.7	3	3	3.9				
Other beverage co.	3	10.5	1	0.7	1	0.7	1	1	1.5	1	8.3		
Iron & steel (excl. mach.)	22	344.8	1	0.6	1	0.6	8	8	17.7	4	26.4	8	135.7
Nonferrous metals	10	81.0					5	5	17.3	4	27.0	1	30.7
Reg. ind. mach. & tool mfr.	45	271.2	2	0.9	5	4.0	24	24	55.5	8	58.7	6	152.2
Agr. mach. & implements	3	50.1					1	1	2.7	1	5.9	1	41.4
Elec. supplies & equip.	26	53.6	1	0.4	5	3.7	19	19	46.3	1	8.2		
Office mach. & equip.	3	5.1					2	2	5.1				
Reg. prod. of misc. mach.	8	15.6	1	0.5	2	1.4	4	4	8.3	1	5.4		
Reg. tr. equip.	3	27.8					1	1	4.8	1	9.6	1	13.4
Autos & trucks	3	7.0					2	2	6.6				
Auto parts & accessories	44	232.8	1	0.4	7	4.8	27	27	69.8	3	22.2	6	135.6
Aircraft equip.	5	5.3			3	1.9	2	2	3.4				
Shipbuilding	2	20.3								1	8.3	1	12.0
Radio	1	2.4					1	1	2.4				

TABLE 2 (cont.)

INDUSTRIAL GROUP *	CORPORATIONS		NUMBER AND ASSETS OF		CORPORATIONS OF		CORPORATIONS BY		ASSET CLASSES	
	No. Assets	Under \$5	No. Assets	\$5-10	No. Assets	\$10-50	No. Assets	\$50-100	No. Assets	\$100.0 & over
Cotton textiles	2	18.4			1	4.6	1	13.8		
Silk & rayon textiles	4	22.6			2	3.5	1	12.0		
Apparel	17	62.3	1	0.3	2	1.2	4	27.2	1	11.2
Reg. misc. textile mfr.	6	61.0			4	12.7			2	48.3
Lumber & lumber prod.	1	2.1			1	2.1				
Paper & paper prod.	12	139.5			5	15.3	1	6.7	5	116.6
Printing, pub., & allied ind.	7	20.9			6	15.2	1	5.8		
Chemicals & allied prod.	3	4.0			2	3.0				
Heavy chemicals	1	26.2							1	26.2
Paints, varnishes, & veg. oils	1	3.6			1	3.6				
Drugs & medicines										
Mineral oil refining	7	25.4	1	0.5	4	9.8	2	15.2		
Tires & other rubber prod.	3	5.7			3	5.7				
Leather & leather mfr.	6	22.0	1	0.4	2	4.6	2	16.1		
Build. materials & supplies	13	116.1			6	17.0	3	23.1	4	76.1
Building equip.	5	17.5			3	4.7	2	12.8		
Misc. mfg. ind.	24	56.2	3	0.9	5	3.5	14	26.5	1	15.9
<i>Trade</i>										
Chain stores	25	138.4			3	2.4	15	40.6	3	19.9
Dept. stores & mail order houses	21	197.1	1	0.4	8	22.7	3	23.7	9	150.2
Wholesale com. & brokerage	12	96.8			7	21.3	2	11.1	3	64.4
Misc. mdsc.	5	19.2			1	1.0	3	8.2	1	10.0
<i>Public utilities</i>										
Electric	24	1,819.5			1	2.3			13	390.4
Natural gas	9	247.4					2	12.5	5	113.4
Mfd. gas	3	127.1					2	16.1		
Gas mixed	1	62.0							1	62.0
Mixed co.	14	1,195.8					1	9.5	5	154.7
Water co.	7	95.8			1	1.8	1	7.1	5	86.9

<i>Finance (incl. real estate)</i>																		
Holding co. (excl. pub. util.)	6	233.0									3	21.8	1	10.6	1	77.9	1	122.7
Commercial credit & finance co.	6	40.2									3	12.1	1	13.8	1			14.3
Other finan. & investment co.	6	111.4									1	2.2	1	8.6	4			100.6
Real estate	10	120.6									3	8.9	1	8.8	6			103.0
<i>Miscellaneous companies</i>																		
Construction & allied ind.	7	45.8									4	12.1	2	18.8	1			14.9
Motor transp.	1	24.8													1			24.8
Steam shipping	1	18.6													1			18.6
Aviation	1	5.8													1			5.8
Tel. & tel.																		
Misc. transp. & commun.	2	8.6									2	8.6						
Misc. domestic co.	2	4.8									2	4.8						
<i>Service</i>																		
Amusement ind.	3	7.8									3	7.8						
Business (incl. adv.)	8	18.7									2	1.8	6	16.9				
Domestic & personal	3	13.6									1	0.6	1	1.3				11.7
<i>All corporations</i>	588	7,311.7	24	9.3	24	56	41.9	285	729.2	82	594.9	112	2,497.0	17	1,256.9	12	2,182.5	
<i>Mining &amp; quarrying</i>																		
Coal	6	114.8									4	12.1	1	6.0				96.7
Metal	39	256.6									16	45.1	7	48.7	4			105.5
Oil & gas	1	1.8									1	1.8						
Quarrying & nonmetal	1	9.1																
Other extractive ind.	1	69.3																69.3
<i>Manufacturing</i>																		
Grain, milling & baking	8	51.6									5	9.8	1	7.3	2			34.6
Dairy prod.																		
Meat pack. & allied prod.	8	33.6									4	14.1	1	8.1	1			10.0
Canning & preserving	4	33.5									2	9.2			1			23.4
Sugar refining	2	12.8													2			12.8
Misc. food & related ind.	6	10.3									6	10.3						
Tobacco prod.	12	288.6									4	9.7	2	12.3	4			86.0
Breweries	24	49.0									16	37.3	1	6.1				
Distilleries	5	6.0									2	1.5	2	4.2				
Other beverage co.	3	11.5									1	0.8	1	9.0				

TABLE 2 (concl.)

	CORPORATIONS		NUMBER AND ASSETS OF CORPORATIONS BY ASSET CLASSES											
	No. Assets	Under \$5	No. Assets	\$5-10	No. Assets	\$10-50	No. Assets	\$50-100	No. Assets	\$100-500	No. Assets	\$500-1000	No. Assets	\$1000 & over
Iron & steel (excl. mach.)	23	287.0	1	0.6	9	20.5	5	35.7	7	174.9	1	55.4		
Nonferrous metals	12	91.7			6	19.0	4	23.6	2	49.2				
Reg. ind. mach. & tool mfr.	51	310.4	6	4.4	29	70.6	10	73.3	5	106.6	1	55.6		
Agr. mach. & implements	4	57.4			3	10.7			1	46.8				
Elec. supplies & equip.	27	64.6	1	0.4	5	3.8	20	51.5	1	8.9				
Office mach. & equip.	2	5.2			2	5.2								
Reg. prod. of misc. mach.	9	18.0	3	2.0	5	10.1	1	6.0						
Reg. tr. equip.	3	29.4			1	4.7			2	24.7				
Autos & trucks	3	9.1	1	0.5	2	8.6								
Auto parts & accessories	44	215.0	1	0.4	8	6.0	26	66.6	5	36.6	4	105.3		
Aircraft equip.	7	8.5			4	2.8	3	5.7						
Shipbuilding	2	17.7							1	7.4	1	10.3		
Radio	1	2.5			1	2.5								
Cotton textiles	2	17.5			1	4.2			1	13.3				
Silk & rayon textiles	5	29.9			3	6.9			2	23.1				
Apparel	17	61.8	1	0.3	2	1.6	9	22.5	4	24.7	1	12.6		
Reg. misc. textile mfr.	6	63.5			4	13.1			2	50.4				
Lumber & lumber prod.	1	2.3			1	2.3								
Paper & paper prod.	12	167.2			6	17.4	1	7.8	4	82.1	1	60.0		
Printing, pub., & allied ind.	7	23.0			6	16.8	1	6.2						
Chemicals & allied prod.	4	9.7			1	1.0	2	3.4	1	5.4				
Heavy chemicals	1	26.0							1	26.0				
Paints, varnishes, & veg. oils	1	3.8			1	3.8								
Drugs & medicines	2	2.6			1	1.9								
Mineral oil refining	7	27.3	1	0.5	4	10.7	1	5.2	1	11.0				
Tires & other rubber prod.	3	4.5	1	0.4	2	4.1								
Leather & leather mfr.	1	19.4			4	9.6	1	9.4						
Build. materials & supplies	13	116.5			5	11.1	4	29.5	4	75.8				
Building equip.	7	71.2			3	5.3	2	13.0	2	52.9				
Misc. mfg. ind.	24	69.2	3	1.3	4	3.5	14	30.2	2	16.6	1	17.6		

<i>Trade</i>													
Chain stores	27	151.0				15	41.9	4	25.9	4	80.0		
Dept. stores & mail order houses	20	186.7	1	0.5		8	23.3	3	22.8	8	140.1		
Wholesale com. & brokerage	13	96.9				7	20.9	2	10.6	3	64.5		
Misc. mdse.	6	22.1				3	5.8	1	5.3	1	10.0		
<i>Public utilities</i>													
Electric	27	1,041.7				1	2.3	2	16.4	13	406.8	5 1,046.5	
Natural gas	9	321.6						2	15.5	5	117.4	1 84.7	
Mfd. gas	3	127.0						2	15.9			1 111.1	
Gas mixed	1	62.7								1	62.7		
Mixed co.	16	1,400.3								7	216.7	5 402.2	
Water co.	7	95.9				1	1.8	1	7.1	5	87.0	4 781.3	
<i>Finance (incl. real estate)</i>													
Holding co. (excl. pub. util.)	6	208.2						3	21.6	1	10.8	2 175.8	
Commercial credit & finance co.	7	53.6				1	3.2	4	25.1	2	25.3		
Other finan. & investment co.	6	111.4				1	2.2	1	8.6	4	100.6		
Real estate	11	124.2				3	8.2	4	38.0	4	78.0		
<i>Miscellaneous companies</i>													
Construction & allied ind.	7	44.8				4	11.8	2	17.7	1	15.3		
Motor transp.	3	50.8				1	4.1			2	46.7		
Steam shipping	1	18.3								1	18.3		
Aviation	2	7.9						1	7.0				
Tel. & tel.													
Misc. transp. & commun.	2	8.5				2	8.5						
Misc. domestic co.	2	4.7				2	4.7						
<i>Service</i>													
Amusement ind.	3	8.8				2	3.2	1	5.6				
Business (incl. adv.)	8	18.7				2	1.8	6	16.9				
Domestic & personal	3	13.3				1	0.6	1	1.2	1	11.5		
<i>All corporations</i>	616	7,859.5	18	7.2	64	49.6	292	754.1	94	671.6	115	2,571.0	21 1,583.3
													12 2,222.7

Because the dollar figures have been rounded to the nearest thousand, the individual items do not always add to the totals shown.

\* For complete titles of industrial groups see Table 1.



TABLE 3: Corporations Distributed by Industrial Groups and by Asset Classes, 1936

INDUSTRIAL GROUP	Sample I		Sample II		Sample III		<i>Statistics of Income</i>	
	No. of corp.	% of total	No. of corp.	% of total	No. of corp.	% of total	No. of corp.	% of total
Mining & quarry.	58	12.8	50	8.9	228	6.7	11,531	3.8
Manufacturing	286	63.3	361	64.5	1,616	47.6	80,353	26.3
Construction	6	1.3	7	1.3	85	2.5	14,574	4.8
Tran. & other pub. ut.	32	7.1	63	11.2	589	17.4	20,667	6.7
Trade	52	11.5	63	11.2	664	19.6	150,073	42.5
Service	11	2.4	14	2.5	210	6.2	48,590	15.9
Miscellaneous	7	1.6	2	0.4				
All corporations	452	100.0	560	100.0	3,392	100.0	305,788	100.0
ASSET CLASS (mil.)								
Under \$1.0			80	14.3	1,123	33.1	293,035	95.8
\$1.0-5.0			278	49.6	887	26.2	9,705	3.2
5.0-10.0			75	13.4	215	6.3	1,420	0.5
10.0-50.0			100	17.9	857	25.3	1,225	0.4
50.0 & over			27	4.8	310	9.1	403	0.1
All corporations			560	100.0	3,392	100.0	305,788	100.0

The *Statistics of Income* totals, which include only corporations submitting balance sheets with their returns, exclude corporations in agriculture and related industries, manufacturing not elsewhere classified, finance, and nature of business not given. No Sample III corporation falls in these groups.

To put Sample I and II corporations on a comparable basis with Sample III, 53 finance companies were excluded from the Sample I total and 28 finance companies from the Sample II total.

Table 4 indicates the coverage of Sample II by expressing the statutory net income (or deficit) reported by the sample corporations as a percentage of the statutory net income (or deficit) reported by all corporations included in *Statistics of Income* in 1937. Excluding the miscellaneous companies group, the sample contains—for net income corporations—from 3.5 percent to over 11 percent of the net income reported by the entire corporate universe. In two of the manufacturing subgroups and in the public utilities group the coverage is over 8 percent. The coverage for deficit corporations is much less adequate. Since, however, net income reported by net income corporations is over four times larger than deficits reported by deficit corporations, the coverage for all corporations is not much lower than that for net income corporations.

TABLE 4  
Comparison of Statutory Net Income (or Deficit) Reported by  
Sample II Corporations and in *Statistics of Income, 1937*

	RATIO OF STATUTORY NET INCOME (OR DEFICIT) REPORTED BY SAMPLE II CORPORATIONS TO STATUTORY NET INCOME (OR DEFICIT) REPORTED IN <i>Statistics of Income</i>	
	Net Income Corporations	Deficit Corporations
Mining	5.6%	2.5%
Manufacturing	6.6	2.7
Foods, beverages, & tobacco	11.0	1.8
Metals	8.1	4.4
Miscellaneous	3.5	2.4
Trade	3.6	0.1
Public utilities	9.2	1.0
Miscellaneous companies	1.7	0.2

### B SAMPLE III

Sample III, designed to satisfy Objective 1, was selected to obtain as good a measurement as possible of the relationship between book profit and statutory net income for most of the corporate universe. Whereas Samples I and II investigated a relatively small number of companies as intensively as possible, Sample III makes, for a much larger number of companies, only one comparison: that of book profit with statutory net income. Specifically, the book profit figure reported on the corporation income tax return is compared with statutory net income for the eight years, 1929-36. The book profit figure reported on the tax return was used in this important sample, despite the difficulties noted in Section C2, because it permitted statistical comparisons of book profit and statutory net income to be made for many more companies than would otherwise have been possible. The comparison could not be carried beyond 1936 because the corporation income tax return has not called for a book profit figure since 1936. Data were not collected for years prior to 1929 because a greater degree of coverage for eight years was considered preferable to poorer coverage for a longer period.

As Table 5 shows, the sample ranges from 1,873 companies

TABLE 5

## Number of Corporations and Statutory Net Income in Sample III and in Statistics of Income, 1929-1936

	1929			1936			NUMBER OF CORPORATIONS		
	Sample (1)	Stat. of Income is of (2)	% (3)	Sample (1)	Stat. of Income is of (2)	% (3)	Sample (1)	Stat. of Income is of (2)	% (3)
<i>Mining &amp; quarrying</i>	117	10,219	1.1	115	10,025	1.2	120	9,576	1.2
<i>Manufacturing</i>	1,103	79,241	1.4	1,010	78,830	1.3	1,074	73,532	1.5
Liquors & beverages	139	13,413	1.0	146	13,240	1.1	136	12,082	1.1
Tobacco products	164	13,662	1.2	142	13,711	1.0	12	318	3.8
Textiles	26	2,347	1.1	24	2,318	1.0	170	13,029	1.3
Leather products	20	587	3.4	20	556	3.6	28	2,096	1.4
Rubber & related products	74	7,094	1.0	45	6,824	0.7	68	500	4.4
Lumber & wood products	69	2,020	3.4	75	2,019	3.7	67	6,137	1.1
Paper	78	10,067	0.8	74	10,259	0.7	76	1,934	3.5
Printing & publishing	112	6,519	1.7	109	6,458	1.7	75	9,955	0.8
Petroleum	45	4,264	1.1	44	4,245	1.0	110	6,090	1.8
Chemicals & allied products	376	19,468	2.0	331	19,200	1.7	47	3,847	1.2
Stone, clay & glass	49	16,355	0.3	50	16,496	0.3	338	17,604	1.9
Metal products, excl. motor vehicles	291	17,258	1.7	287	17,248	1.7	54	15,350	0.4
Motor vehicles, incl. parts	401	117,583	0.3	316	119,792	0.3	291	16,457	1.8
<i>Construction</i>	104	28,710	0.4	95	30,312	0.3	348	113,886	0.3
<i>Transportation &amp; other public utilities</i>	2,065	269,966	0.8	1,873	272,703	0.7	1,985	257,346	0.8
<i>Trade</i>									
<i>Service</i>									
<i>All corporations</i>									
	121	10,020	1.2	121	10,020	1.2	121	10,020	1.2
	1,085	75,890	1.4	1,085	75,890	1.4	1,085	75,890	1.4
	131	12,085	1.0	131	12,085	1.0	131	12,085	1.0
	12	336	3.6	12	336	3.6	12	336	3.6
	169	13,462	1.3	169	13,462	1.3	169	13,462	1.3
	25	2,192	1.1	25	2,192	1.1	25	2,192	1.1
	21	509	4.1	21	509	4.1	21	509	4.1
	75	6,147	1.2	75	6,147	1.2	75	6,147	1.2
	72	2,006	3.6	72	2,006	3.6	72	2,006	3.6
	75	10,589	0.7	75	10,589	0.7	75	10,589	0.7
	114	6,472	1.8	114	6,472	1.8	114	6,472	1.8
	44	3,870	1.1	44	3,870	1.1	44	3,870	1.1
	347	17,322	2.0	347	17,322	2.0	347	17,322	2.0
	61	15,382	0.4	61	15,382	0.4	61	15,382	0.4
	311	17,547	1.8	311	17,547	1.8	311	17,547	1.8
	361	119,346	0.3	361	119,346	0.3	361	119,346	0.3
	97	34,552	0.3	97	34,552	0.3	97	34,552	0.3
	2,036	272,737	0.8	2,036	272,737	0.8	2,036	272,737	0.8

	1	9	3	3	4	9	3	5	1	9	3	6	
<i>Mining &amp; quarrying</i>	129	9,950	1.3		168	11,362	1.5	188	11,491	1.6	228	11,531	2.0
<i>Manufacturing</i>	1,089	76,949	1.4		1,311	80,268	1.6	1,419	80,417	1.8	1,616	80,353	2.0
Food & kindred products	{ 127	11,111	1.1		166	11,447	1.4	169	11,513	1.5	188	11,102	1.7
Liquors & beverages	{ 19	2,318	0.8		34	2,686	1.3	40	2,745	1.5	51	2,826	1.8
Tobacco products	12	351	3.4		13	347	3.8	13	341	3.8	14	334	4.2
Textiles	203	14,166	1.4		199	14,607	1.4	206	14,557	1.4	{ 198	7,314	2.7
Clothing & apparel											{ 37	7,536	0.5
Leather products	27	2,229	1.2		30	2,257	1.3	35	2,250	1.6	38	2,245	1.7
Rubber & related products	24	528	4.6		26	582	4.5	26	578	4.5	28	562	5.0
Lumber & wood products	62	6,161	1.0		64	6,179	1.0	74	6,200	1.2	101	6,067	1.7
Paper	75	2,042	3.7		83	2,163	3.8	82	2,156	3.8	90	2,186	4.1
Printing & publishing	76	10,551	0.7		91	11,032	0.8	95	11,270	0.8	103	11,156	0.9
Petroleum	130	6,558	2.0		162	7,032	2.3	181	6,963	2.6	{ 38	671	5.7
Chemicals & allied products	41	3,595	1.1		48	3,511	1.4	51	3,543	1.4	{ 121	6,212	2.4
Stone, clay & glass	293	17,339	1.7		395	18,425	2.1	447	18,301	2.4	{ 486	17,912	2.7
Metal products, excl. motor vehicles											{ 28	703	4.0
Motor vehicles, incl. parts													
<i>Construction</i>	28	14,398	0.2		40	14,082	0.3	48	14,117	0.3	85	14,574	0.6
<i>Transportation &amp; other public utilities</i>	315	17,706	1.8		519	21,265	2.4	559	21,149	2.6	589	20,667	2.8
<i>Trade</i>	365	120,064	0.3		477	127,457	0.4	554	130,317	0.4	664	130,073	0.5
<i>Service</i>	87	34,546	0.2		121	37,171	0.3	177	40,093	0.4	210	48,590	0.4
<i>All corporations</i>	2,013	273,613	0.7		2,636	291,605	0.9	2,945	297,584	1.0	3,392	305,788	1.1



	1	9	3	3	1	9	3	4	1	9	3	5	1	9	3	6
<i>Mining &amp; quarrying</i>	79.2	300.6	26.4		92.4	281.1	32.9		129.8	298.4	43.5		157.0	391.0		40.1
<i>Manufacturing</i>	850.7	2,606.1	32.6		1,100.2	2,714.3	40.5		1,516.1	3,293.2	46.0		1,732.5	4,114.2		43.3
Food & kindred products	{ 130.8	359.0	36.4		153.5	386.6	40.3		202.4	408.8	49.5		194.5	428.6		45.4
Liquors & beverages	{ 28.7	86.3	33.3		40.0	109.4	36.6		65.1	125.6	51.8		60.5	180.4		33.5
Tobacco products	44.3	91.7	48.4		64.0	108.4	59.1		70.9	118.4	59.9		71.7	128.1		55.9
Textiles													{ 59.3	256.5		23.1
Clothing & apparel	73.1	301.7	24.2		58.5	265.1	22.1		71.6	273.2	26.2		{ 9.2	68.2		13.5
Leather products	10.3	68.6	15.1		7.4	54.2	13.6		8.6	56.1	15.4		7.9	63.0		12.5
Rubber & related products	8.1	21.4	38.0		16.6	23.4	71.0		15.3	42.1	36.4		35.2	56.0		62.8
Lumber & wood products	9.3	113.7	8.2		9.8	101.7	9.6		12.3	90.8	13.5		12.2	116.0		10.5
Paper	25.5	87.1	29.2		26.2	108.7	24.1		32.3	122.8	26.3		36.8	129.1		28.5
Printing & publishing	32.8	127.9	25.6		62.2	181.0	34.4		52.0	186.7	27.8		59.2	209.2		28.3
Petroleum													{ 96.1	232.1		41.4
Chemicals & allied products	173.9	512.1	34.0		227.8	445.4	51.1		307.9	548.6	56.1		{ 258.8	482.3		53.7
Stone, clay & glass	24.5	91.0	26.9		34.3	101.4	33.9		45.5	129.7	35.0		67.4	165.1		40.9
Metal products, excl. motor vehicles	289.3	745.7	38.8		399.9	835.0	47.9		632.3	1,190.5	53.1		{ 494.0	1,159.7		42.6
Motor vehicles, incl. parts													{ 319.8	439.7		72.7
<i>Construction</i>	7.1	98.8	7.1		5.1	91.4	5.6		4.8	98.3	4.8		6.7	105.1		6.4
<i>Transportation &amp; other public utilities</i>	699.7	1,417.4	49.4		1,031.4	1,611.4	64.0		1,043.4	1,586.1	65.8		1,101.8	1,646.2		66.9
<i>Trade</i>	119.8	892.4	13.4		192.4	1,011.2	19.0		223.7	1,079.1	20.7		297.0	1,284.3		23.1
<i>Service</i>	32.9	382.8	8.6		22.5	369.3	6.1		57.3	366.2	15.6		59.6	435.1		13.7
<i>All corporations</i>	1,789.3	5,698.3	31.4		2,444.1	6,078.7	40.2		2,975.0	6,721.3	44.3		3,464.6	7,975.9		42.7

See Table 3, note.

Data for 1930 and 1929 are compiled net profit and deficit for all corporations, in contrast to 1931-36 when data are only for corporations filing balance sheets with their returns. In determining net income for purposes of this table algebraic signs were ignored. That is, a deficit of, say, \$100,000 was considered to be identical with a net income of \$100,000.

in 1930 to 3,392 companies in 1936.<sup>2</sup> In 1930, 0.69 percent of the total number of corporations reported in *Statistics of Income* for the industrial groups covered by the sample are included; in 1936, 1.11 percent. In terms of statutory net income, the percentage relationship ranges from 29.3 in 1932 to 44.3 in 1935.

The emphasis upon larger companies was deliberate. It was decided that more reliable estimates for corporations as a whole could be made from a stratified sample that gave greater representation to large than to small corporations. In 1936 the representation ranges from 0.4 percent of all companies reported in *Statistics of Income* with assets of less than \$1 million to 77 percent of companies with assets of over \$50 million; in terms of net income the representation ranges from 4 to 77 percent (Table 6). Companies could not be classified by size in the earlier years, but the samples for the earlier years were collected in the same manner and presumably would show substantially the same relationships.

Corporations for Sample III were selected from the unit file of transcript cards of income tax returns of the Bureau of Internal Revenue. The criteria for inclusion in the unit file were such that the sample may be presumed to be more representative for corporations with assets of over \$1 million than for smaller corporations. Once included in the unit file, a corporation is retained in later years even though it no longer meets the criteria for original inclusion. Sample III, accordingly, contains a large number of companies reporting in all eight years.

For 1936 a stratified sample was selected from the unit file with the objective of including at least a 50 percent representation of companies reporting total assets of \$10 million or over

<sup>2</sup> The number drops between 1929 and 1930 presumably because the disappearance of corporations due to the decline in business activity outweighed the annual addition of companies to the so-called 'unit file' described below. The *small* increases through 1933 are probably similarly explained.

TABLE 6

Number of Corporations and Statutory Net Income in Sample III and in *Statistics of Income*, by Asset Classes and by Net Income and Deficit Categories, 1936  
(dollar figures in millions)

	TOTAL	ASSET CLASSES					CLASSES GROUPED*	
		Under \$1.0	\$1.0-5.0	\$5.0-10.0	\$10.0-50.0	\$50.0 & over		
<b>ALL CORPORATIONS</b>								
<i>Statistics of Income</i>								
1	No. of corporations	305,788	293,035	9,705	1,420	1,225	493	...
2	Stat. net income or deficit	7,908.9	1,872.1	1,312.4	594.7	1,359.8	2,695.4	141.5
<b>Sample III</b>								
3	No. of corporations	3,392	1,123	887	215	857	310	...
4	Stat. net income or deficit	3,404.6	78.9	152.2	97.8	925.3	2,088.5	61.9
5	% line 3 is of line 1	1.1	0.4	9.1	15.1	70.0	76.9	...
6	% line 4 is of line 2	42.7	4.2	11.6	16.4	68.0	77.5	43.8
<b>NET INCOME CORPORATIONS</b>								
<i>Statistics of Income</i>								
1	No. of corporations	144,052	135,441	6,414	991	908	298	...
2	Stat. net income or deficit	6,780.4	1,313.4	1,114.5	530.0	1,228.7	2,470.2	123.6
<b>Sample III</b>								
3	No. of corporations	2,641	880	733	152	646	230	...
4	Stat. net income or deficit	3,054.8	66.7	139.3	83.1	827.9	1,882.0	55.8
5	% line 3 is of line 1	1.8	0.6	11.4	15.3	71.2	77.2	...
6	% line 4 is of line 2	45.0	5.1	12.5	15.7	67.4	76.2	45.2
<b>DEFICIT CORPORATIONS</b>								
<i>Statistics of Income</i>								
1	No. of corporations	161,736	157,594	3,291	429	317	105	...
2	Stat. net income or deficit	1,195.5	558.6	197.9	64.7	131.1	225.2	17.9
<b>Sample III</b>								
3	No. of corporations	751	243	154	63	211	80	...
4	Stat. net income or deficit	349.8	12.2	12.8	14.6	97.5	206.6	6.1
5	% line 3 is of line 1	0.5	0.2	4.7	14.7	66.6	76.2	...
6	% line 4 is of line 2	29.3	2.2	6.5	22.6	74.4	91.7	34.2

The samples and data in this table correspond with those in Table 5.

\* In *Statistics of Income* the data on statutory net income or deficit for some size classes in a few industrial groups are combined to avoid publishing data that would permit the identification of individual taxpayers. The 'classes grouped' heading is made necessary by this method of combining *Statistics of Income* data.



and smaller representations of companies with total assets of less than \$10 million.

As clerical assistance was limited and the file is indexed alphabetically by company names, all industries are not covered evenly. Only part of the entire file could be sampled; of the individual file drawers sampled, all companies with assets of \$10 million or over, but only a fraction of those with assets of less than \$10 million, were included.<sup>3</sup>

To a large extent identical companies are included in all eight years. Whenever a company is included in the sample for 1936, it is included also for all years in the period for which data are available. An exception was made, however, when the data appeared sufficiently different in the early years to indicate that the character of the company's activities had altered substantially. In some parts of the analysis, corporations included in the sample throughout the eight years were segregated for special treatment from those included for only part of the period.

This method of selecting the sample may impair somewhat the measurement of changes in the relationship of taxable income to book profit over time. As the composition shifts from year to year, the variations cannot be divided between those due to the modified composition of the sample and those due to a change in the relationship of the two income concepts for the continuing corporations in the sample. Rightly or wrongly, complete year-to-year comparability was sacrificed in favor of a larger aggregate sample for each year. With several exceptions, only one of which is of major importance, the sample covers all industrial groups for which data are reported in *Statistics of Income*. The major exception is that companies in the 'finance group', as defined by *Statistics of Income*, were

<sup>3</sup> For Sample III the 1936 industrial classification of the Bureau of Internal Revenue was accepted as governing. In general, companies whose activities changed so radically that their industrial classification was altered during 1929-36 were excluded from the sample. Samples I and II classifications, on the other hand, follow those of the Securities and Exchange Commission. The mechanics of gathering the data dictated these choices.

excluded. Preliminary investigation indicated that they were influenced by so many special factors that an analysis of them would not be meaningful.<sup>4</sup> The other exceptions are that no companies correspond to the *Statistics of Income* groups entitled 'agriculture and related industries', 'manufacturing not elsewhere classified', and 'nature of business not given'; none of these groups is large.

### C SECURITIES AND EXCHANGE COMMISSION AND INCOME TAX RETURN DATA

#### 1 *Gross Income and Deduction Items*

The Sample II analysis was originally planned with a dual objective: to find the relationship between book profit as reported to the Securities and Exchange Commission and statutory net income, and that between specific gross income and deduction items. To interpret the results of the second portion of the analysis, however, the comparability of the two bodies of data for the same company had to be ascertained. In general, book and tax figures may diverge for wholly different reasons. Some divergences, say in bad debt expenses, may result from known differences in the inclusiveness of the concept for accounting and tax purposes or from fortuitous differences in the classification of a particular bad debt expense on the income statements of a company. For example, the tax definition of bad debt losses is considerably more inclusive than the accounting concept. Thus, items reported as bad debt deductions for tax purposes may be designated as miscellaneous expenses in stockholder reports. Such differences in classification would not affect the amount of net income reported in a given year, but they would create a wholly artificial

<sup>4</sup> The more detailed data of Samples I and II were regarded to have sufficient significance to justify the inclusion of finance companies. The simple comparison of book profit with net income, without inquiry into the causes for divergences between the two figures, was not considered to be meaningful in analyzing Sample III.

and misleading divergence in the amounts of bad debt deductions reported for book and tax purposes.

Other differences in treatment, however, may alter the timing of bad debt deductions for the two sets of accounts or, indeed, the total amounts charged against income over a long period. For instance, an unusually large loss on a bad debt may be charged directly against surplus for book purposes but against income for tax purposes.

If the total scatter of divergences for any income or expense item cannot be apportioned in a fairly reliable manner into these two groups, so that real divergences can be segregated from apparent divergences, the significance of the analysis of specific gross income and expense items would be considerably impaired. Sample I was selected to facilitate this segregation. For the 361 corporations common to Samples I and II in 1936, divergences in Sample II can be checked against the reconciliation statements of the same corporations in Sample I. If a divergent item reported in Sample II is explained by the reconciliation statement, the book and tax data of Sample II can be assumed to be comparable.

The investigation to determine the comparability of the book and tax data of Sample II was disappointing. Divergences reported in Sample II that were not explained by Sample I were so common that only two were analyzed further: bad debt and depreciation and depletion deductions (Table 7).

Of the 361 identical companies, 112 reported the same depreciation deductions for book and tax purposes. Of the remaining 249 companies, 130 divergent deductions reported for the two purposes were completely explained by Sample I information. About half of the remaining divergences were partly explained by Sample I. In other words, divergences between book and tax deductions, not wholly or partly explained by Sample I, were found for only 61 companies in Sample II. Thus, while the comparability of the depreciation and depletion deductions of Sample II for book and tax purposes is by no means perfect, it is probably sufficient to justify careful

**TABLE 7**  
**Comparability of Deductions Reported by Sample I and II Corporations, 1936**

	Item Zero in Both Samples	Item not Zero but Equal in Both Samples	Sample II Divergence Wholly Reconciled in Sample I	Sample II Divergence Partly Reconciled in Sample I	No Recon- ciliation of Sample II Divergence in Sample I
	DEPRECIATION		AND	DEPLETION	CHARGES
<i>Mining &amp; quarrying</i>	5	7	7	1	7
<i>Manufacturing</i>					
Food & kindred products	0	3	2	4	6
Tobacco products	0	2	1	1	1
Liquors & beverages	0	4	10	4	4
Iron, steel & nonferrous metals	0	0	11	3	2
Indust., agr. & other mach. & tool mfr.	0	19	24	11	15
Autos, aircraft & shipbuilding	0	11	11	7	6
Textiles & clothing	0	6	7	1	2
Paper & paper products, print. & pub.	0	4	4	2	0
Chemicals & allied products	0	3	2	1	2
Building materials & equip.	0	4	6	3	1
Lumber, rubber, leather, & misc. mfg.	0	11	3	3	3
<i>Trade</i>	0	14	12	9	7
<i>Public utilities</i>	0	1	18	6	2
<i>Finance</i>	6	6	2	1	1
<i>Miscellaneous companies</i>	0	2	5	0	1
<i>Service</i>	0	4	5	1	1
<b>Total</b>	<b>11</b>	<b>101</b>	<b>130</b>	<b>58</b>	<b>61</b>
			BAD	DEBT	EXPENSE
<i>Mining &amp; quarrying</i>	21	1		2	1
<i>Manufacturing</i>					
Food & kindred products	3	6	1	3	2
Tobacco products	0	4	1	0	0
Liquors & beverages	1	11	8	0	2
Iron, steel & nonferrous metals	2	4	7	3	0
Indust., agr. & other mach. & tool mfr.	1	26	21	6	12
Autos, aircraft & shipbuilding	11	10	8	3	3
Textiles & clothing	2	7	2	1	4
Paper & paper products, print. & pub.	0	5	2	3	0
Chemicals & allied products	0	5	2	0	1
Building materials & equip.	0	3	4	2	5
Lumber, rubber, leather, & misc. mfg.	3	6	3	2	6
<i>Trade</i>	5	10	11	5	11
<i>Public utilities</i>	3	3	4	8	9
<i>Finance</i>	8	3	0	2	3
<i>Miscellaneous companies</i>	4	0	2	0	2
<i>Service</i>	3	4	3	0	1
<b>Total</b>	<b>70</b>	<b>108</b>	<b>81</b>	<b>39</b>	<b>63</b>

analysis of the Sample II statistics. On the whole, large divergences were explained more often than small divergences. Furthermore, the failure of the Sample I data to explain divergences found in Sample II may be the fault of Sample I.

The degree of comparability between the bad debt deductions reported to the two agencies is roughly the same as that between depreciation and depletion charges (Table 7). Here, too, the failure of the Sample I data to explain divergences in Sample II may be the fault of Sample I.

This comparison is much less damaging in its implications for the reliability of Sample I than for that of Sample II. In Sample I only items that actually cause divergences between taxable income and book profit are mentioned; divergences resulting merely from different classifications of the same item in the Treasury and Securities and Exchange Commission data are not reported. The real test of the accuracy of Sample I data is the extent to which book profit figures on tax returns correspond with book profit figures published by the same companies. As the next section shows, the correspondence between the two book profit figures is very close, although far from perfect. While some errors undoubtedly crept into the Sample I data because of careless reporting by taxpayers in filling out the surplus reconciliation schedule, it hardly seems possible that the over-all reliability of the Sample I data is greatly impaired thereby.

## 2 *Book Profit Reported to the Securities and Exchange Commission and Book Profit on Tax Returns*

In Samples I and III the figure for book profit is that on the corporate income tax return. On the 1936 return, for example, book profit is item nine on the Reconciliation of Net Income and Analysis of Changes in Surplus schedule and is entitled "Net profit or loss for year, as shown by books, before any adjustments are made therein". Unless the amount of book profit on the tax return is substantially the same as that reported to the Securities and Exchange Commission or to stockholders,

analyses based on it would have little value. Fortunately, a close correspondence between the two book profit figures can be demonstrated.

Since differences between book profit as reported to the Securities and Exchange Commission and to the public have never been large, the book profit figures reported to the Treasury also may be taken as representative of the book profit figures generally made available to the public. Moreover, when the Treasury and the Securities and Exchange Commission book profit figures coincide, it may safely be assumed that the reconciliation schedule of the tax return lists all the differences between taxable income and book profit as reported to the public.

Book profit as reported to the Securities and Exchange Commission and to the Treasury was compared for most Sample II corporations for 1934-36 (Tables 8 and 9). A positive ratio

TABLE 8  
Analysis Z Ratios for Book Profit, Sample II Corporations,  
1934-1936  
(percentages)

	1934	1935	1936
Mining	2.2	-0.5	1.6
Manufacturing	-2.1	-2.3	-2.7
Foods, beverages, and tobacco	-2.1	-1.3	-1.3
Metals	0.2	-2.5	-3.0
Miscellaneous	-6.3	-3.7	-3.6
Trade	-2.6	1.0	0.6
Public utilities	4.2	5.0	-3.6
Miscellaneous companies	7.9	-1.3	-0.2

The Analysis Z ratio measures the excess of the book profit reported to the Securities and Exchange Commission over that on the tax return.

indicates that the former is algebraically larger than the latter; a negative ratio indicates the reverse relationship.<sup>5</sup> The two book profit figures are sufficiently close to justify the use of the amount on the tax return as an approximation of that reported to the Securities and Exchange Commission. In 1936,

<sup>5</sup> The reasons for using the Analysis Z ratio and its meaning, are discussed in detail in Chapter 11.

TABLE 9  
Book Profit Reported to the Securities and Exchange Commission  
and on Tax Returns, Sample II Corporations, 1934-1936  
(dollar figures in millions)

	MINING	M A N U F A C T U R I N G				TRADE	PUB. UT.	MISC. CO.
		Total	Food, bev. & tob.	Metals	Misc.			
<i>1934</i>								
No. of corp.	28	211	44	104	63	39	38	36
Book profit reported								
To SEC	20.3	102.4	47.5	37.0	17.9	19.8	104.2	21.0
On tax returns	19.9	104.5	48.5	36.9	19.1	20.3	100.0	19.5
<i>1935</i>								
No. of corp.	29	287	60	135	92	53	50	44
Book profit reported								
To SEC	19.6	163.3	57.9	75.7	29.7	23.5	121.9	18.3
On tax returns	19.7	167.1	58.6	77.7	30.8	23.2	116.1	18.5
<i>1936</i>								
No. of corp.	44	358	75	172	111	63	54	52
Book profit reported								
To SEC	24.8	266.7	74.8	133.0	59.0	46.4	126.5	26.1
On tax returns	24.4	274.1	75.7	137.1	61.2	46.1	131.2	26.2

for example, none of the seven industrial groups in Table 8 has a ratio numerically as large as 4 percent, and in four groups the ratio is smaller than 2 percent. About the same relationships hold for 1934 and 1935, although the range is slightly wider. The tendency toward larger ratios in the early years might be interpreted to mean that the amount on the tax return is less representative of the amounts published in earlier years than in later years. However, the smaller size of the sample in 1934 and 1935 might equally well explain the slight tendency toward larger and more variable ratios in earlier years. In 1934 the comparison was made for 352 corporations, in 1935 for 463, and in 1936 for 571.<sup>6</sup>

<sup>6</sup> One reader of the manuscript questioned the significance of the Sample III results, pointing out that while the differences between the two book profit figures seem minor, they are sometimes as large as the differences between book profit and statutory net income. To avoid misunderstanding, a detailed comment is perhaps in order. As long as the errors in the book profit figures are small, the general order of magnitude of the differences between statutory net income and book profit will be little affected. For example, if in one set of data the Treasury book profit figure exceeds statutory net income by, say 50 percent,

Since the distribution of corporations about the average ratios for industrial groups is similar for all three years, 1936 distributions alone are presented. Slightly more than half the corporations report identical book profit figures to the two agencies (Table 10 and Chart 1). In well over 80 percent the ratios are less than 20 percent. In addition to the pronounced mode at zero percent, several charts show a small secondary mode at minus 12-16 percent. This mode reflects the fact that book profit is occasionally entered on the tax return before income taxes have been deducted, although in the vast majority of cases it is reported after income taxes. In Sample I somewhat more than 80 percent of the corporations reported book profit on their tax returns after deducting federal income taxes; fewer than 20 percent reported the figure before this deduction. Sample I data for individual companies were corrected for this discrepancy, but only an approximate overall adjustment could be made to Sample III data.

In view of the Sample I evidence, it was assumed that all Sample III corporations reported their book profit figure to the Treasury after deducting federal income taxes. Consequently, the amount of income tax liabilities reported by these corporations was added to their book profit figures in order to obtain book profit before the deduction of federal income taxes. For the companies that had originally reported their book profit before income taxes this adjustment would overstate their book profit by 10 to 15 percent. If, as was the case in Sample I, fewer than 20 percent of corporations reported

while in another the difference is 2 percent, we can safely conclude that the first difference is much larger than the second, after allowing, as we should, for a possible error of say 3 percent in the Treasury book profit figure. On the other hand, findings that turn upon the direction of difference between book profit and statutory net income may, if the differences are small, be very uncertain, owing to uncertainties in the book profit figures. Thus, a difference of +2 percent might become -2 percent if the book profit figure was corrected. The extent of the qualification made necessary by the shortcomings of the Treasury book profit figures may be judged in part by comparing Table 8 with Table 12 or 22.



TABLE 10  
Distribution of Analysis X Ratios for Book Profit, Sample II Corporations, 1936

	ANALYSIS X RATIO ( PERCENTAGES )										Total
	Below					Above					
	-100 & under	-50 to -99.99	-20 to -49.99	zero to -19.99	Zero	zero to 19.99	20 to 49.99	50 to 99.99	100 & over		
Mining	0.0	2.3	2.3	6.8	56.8	20.5	4.5	0.0	6.8	100.0	
Manufacturing											
Food, bev. & tobacco	1.3	0.0	5.3	18.7	52.0	14.7	4.0	1.3	2.7	100.0	
Metals	0.0	0.6	4.6	20.9	56.4	14.0	2.3	0.6	0.6	100.0	
Misc.	0.0	0.0	5.4	22.5	55.0	11.7	4.5	0.0	0.9	100.0	
Trade	0.0	3.2	6.3	22.2	42.8	17.5	4.8	1.6	1.6	100.0	
Public utilities	3.7	0.0	1.9	12.9	44.4	27.7	5.6	1.9	1.9	100.0	
Misc. companies	0.0	0.0	7.7	25.0	50.0	7.7	1.9	1.9	5.8	100.0	

The Analysis X ratio measures the divergence between book profit reported to the Securities and Exchange Commission and on tax returns, expressed as a percentage of the arithmetic means of the combined profits as reported to the two agencies. See discussion of this ratio in the text.

on a before tax basis, the aggregate error in the book profit data used in Sample III would be 2-3 percent.

Tables 8-10 are subject to one other minor qualification. From one to six corporations were removed from Sample II in each year because extreme divergences distorted the average ratio for some industrial groups and the data were otherwise questionable.<sup>7</sup> A few other corporations were necessarily omitted simply because no book profit figure was recorded on the Treasury transcript cards. Consequently, slightly fewer corporations are covered in Tables 8-10 than in Table 2.

#### D ADJUSTED STATUTORY NET INCOME IN DIFFERENT YEARS

The statutory net income concept used for 1937, *net income for excess profits computation*,<sup>8</sup> represents net income before the deduction of federal income and profits taxes, the dividends received credit, interest received from United States Savings Bonds and Treasury Bonds owned in the principal amount of over \$5,000, and interest received from obligations of instrumentalities of the United States other than obligations issued under the Federal Farm Loan Act or under such Act as amended. Other tax exempt interest is not included in adjusted statutory net income as here defined. The concept of statutory net income used before 1937 was adjusted to achieve maximum comparability with the 1937 concept. Thus, in 1936 the basic net income figure transcribed by the Bureau of Internal Revenue was net income for income tax computa-

<sup>7</sup> In several instances the data from the two sources were apparently not for the same corporate unit. In other instances the suspected errors seemed to be confined to the Treasury book profit figure; for example, an examination of the full transcript card indicated that a book loss had probably been transcribed as a book profit, or vice versa, or the Treasury book profit figure was so out of line with the other operating data of the company as to indicate an error in transcription. Items were not excluded simply because they had high ratios.

<sup>8</sup> This figure appears as item 28, Schedule A, on the 1937 tax return, and items 31 and 32 on the 1937 Form 1120 transcript card of the Statistical Section of the Bureau of Internal Revenue. The 'excess profits tax' referred to is, of course, the declared value excess profits tax, not the wartime tax.

**CHART 1**  
**Frequency Distribution of Analysis X Ratios for Book Profit**  
**Reported to Securities and Exchange Commission and on Tax Returns**  
**Sample II Corporations, 1936**

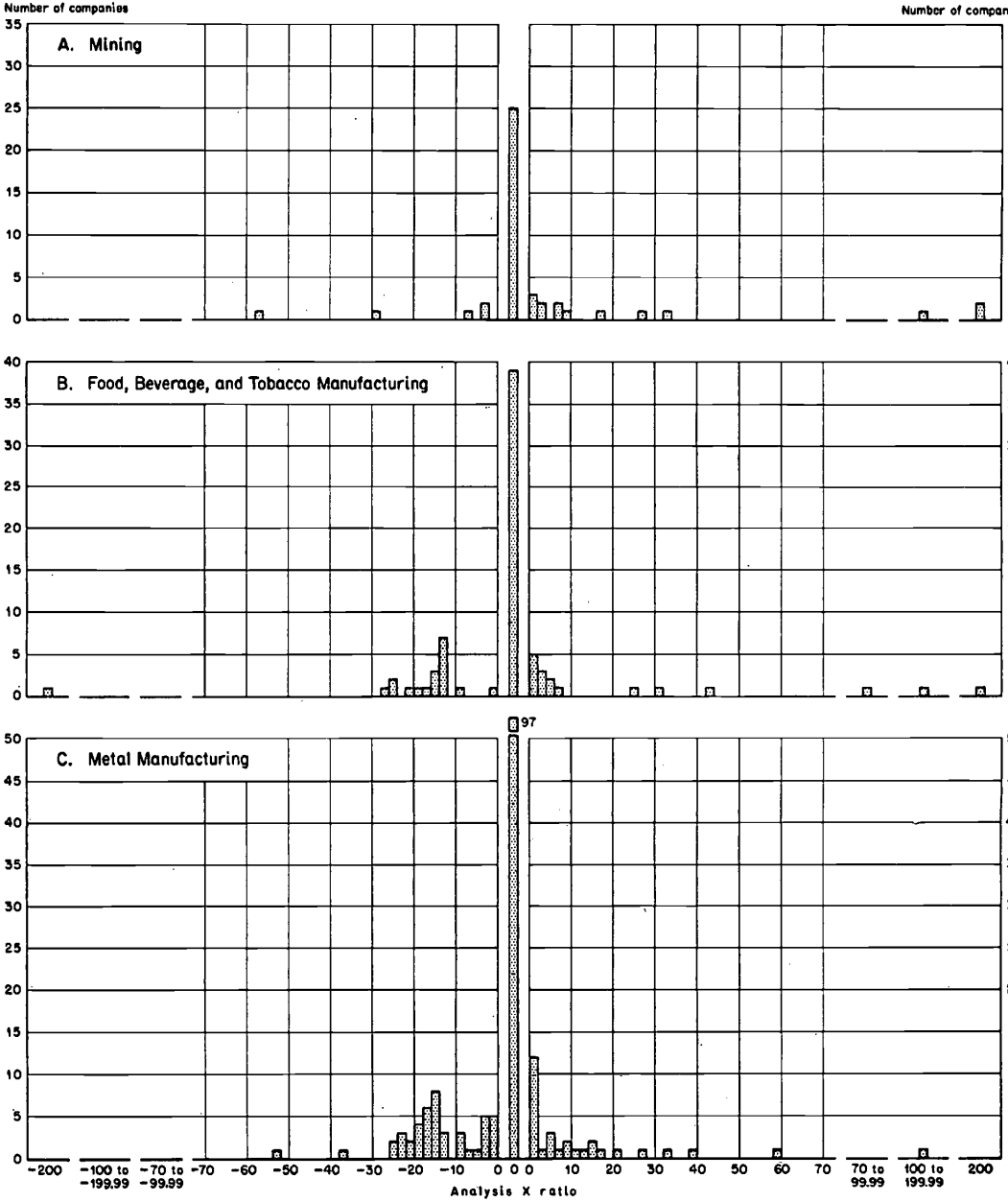
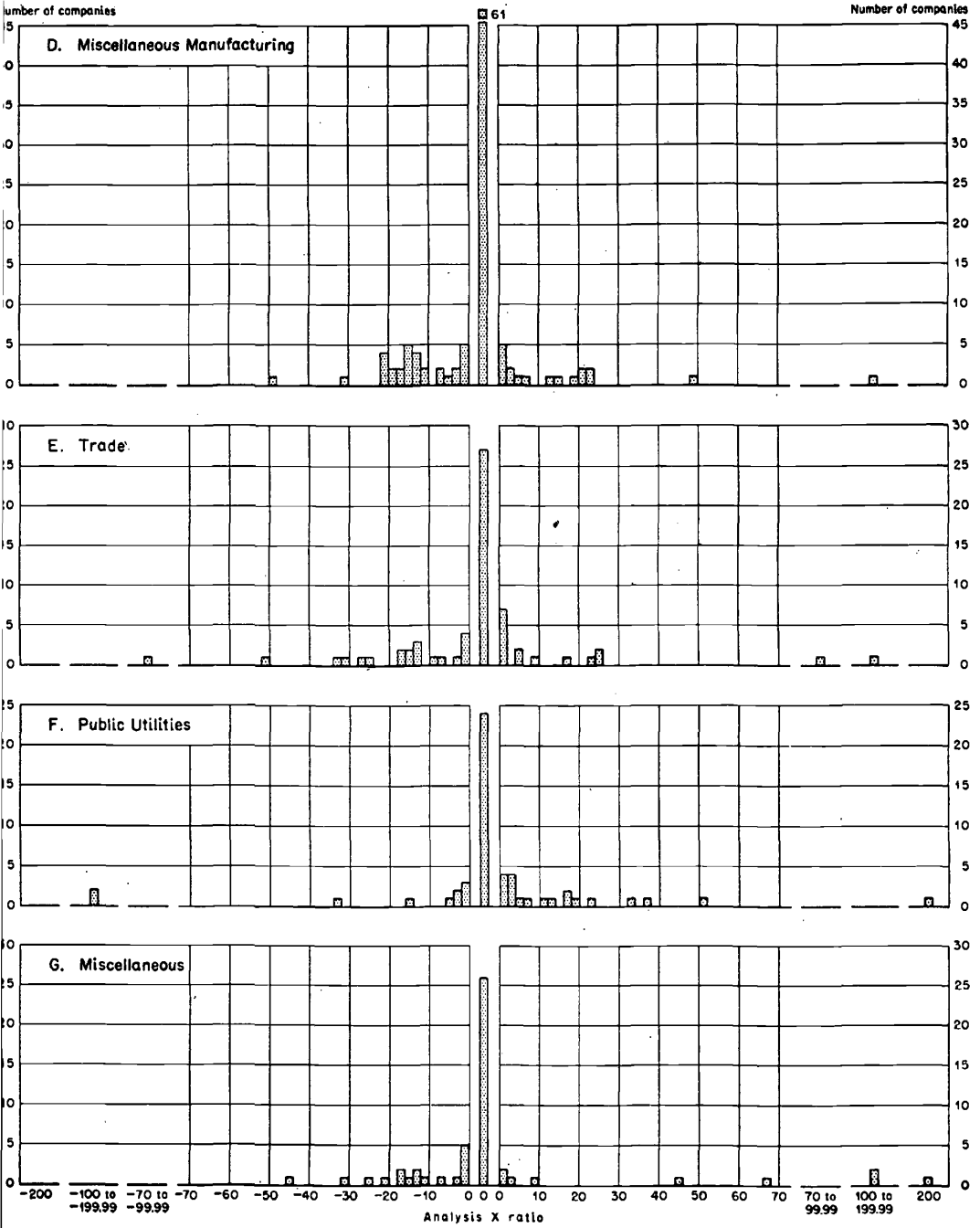


CHART 1 (concl.)



tion.<sup>9</sup> To this figure the federal declared value excess profits tax was added to obtain net income for excess profits tax computation. In 1935 and earlier years *net income* on the tax return was defined before the deduction of excess profits taxes but after the deduction of dividends on the stock of domestic corporations subject to taxation under Title I of the Revenue Act of 1934 or under the corresponding titles of earlier revenue acts. These dividends have been added to the net income figure described above in order to obtain an adjusted statutory net income concept as closely comparable as possible with the 1936 and 1937 concepts.

These adjustments do not eliminate all incomparabilities in the definitions of adjusted statutory net income for the period covered. For example, under the provisions of the Revenue Act of 1936 corporations were allowed for the first time to deduct contributions and gifts in computing their taxable incomes. But since the deduction was limited to 5 percent of net income before the deduction of contributions or gifts, and deductible contributions and gifts amounted to substantially less than 1 percent of net income in both 1936 and 1937, the deduction is of negligible size.

Likewise, in the Revenue Act of 1934 deductions for losses from sales or exchanges of capital assets were limited to the amount of capital gains plus \$2,000. The provisions for deducting losses from sales or exchanges of stocks and bonds were modified also in 1932 and 1933.<sup>10</sup> Doubtless other modifications in the definition of statutory net income between 1929 and 1936 could be cited. In general, however, the changes were not of major importance for most corporations.

<sup>9</sup> This figure appears as item 29, p. 2, on the tax return, and as items 42 and 43 on the Bureau's transcript card.

<sup>10</sup> The problem of including only a percentage of capital gains or losses, similar to the present treatment, in computing statutory net income did not arise in the years covered by Part Two. Capital gains of corporations were included in full during 1929-36, with special exceptions such as gains arising from an involuntary conversion of property. Capital losses were deductible in full until the arbitrary \$2,000 dollar limitation was imposed, beyond which they were totally disallowed in 1934, 1935, and 1936.

## E TAX DATA COMPILED FROM UNAUDITED RETURNS

The fact that the tax data were compiled from unaudited returns raises two questions: First, are data from unaudited or audited returns more appropriate to compare with book profit figures? Secondly, how large are auditing adjustments?

If the relevant comparison is between book profit and a 'correct' statement of taxable income, audited data are clearly more appropriate. As indicated below, auditing raises figures for taxable income. To the extent, however, that the pertinent comparison is between *Statistics of Income* and book profit data, it is relevant to use unaudited data, inasmuch as the *Statistics of Income* data are compiled from unaudited tax returns.

In computing its figure for corporate profits before taxes for national income purposes the Department of Commerce adjusts for 'profits disclosed by audit'. Thus, before a correction could be applied to national income data to take into account differences between book profit and taxable income, auditing adjustments in the tax data would have to be recognized. The size of the appropriate auditing adjustment cannot, however, be determined until several years have elapsed, since the process of auditing and the assessment of additional taxes take time.

The Department of Commerce has published data on the total amount of auditing adjustments in corporation returns for the years covered by Part Two, but no information on their industrial or size distribution. These adjustments range from about 3 to 7 percent of the combined net income and deficit data in *Statistics of Income* (Table 11).<sup>11</sup> The published

<sup>11</sup> As elsewhere in this study the 'net income' and 'deficit' figures from *Statistics of Income* were combined without regard for algebraic sign. The relationships shown in Table 11 would be distorted if the denominator of the percentage computation were reduced by deducting the deficit from the income data. Ideally, the adjustments should be shown separately for income and deficit corporations, but the data are not available in a form that makes this presentation possible. Table 11 is subject to other qualifications but, despite various statistical shortcomings, it is probably adequate to indicate in a general way the magnitude of the audit adjustment.

TABLE 11

Net Income Disclosed by Audit Expressed as a Percentage of Combined Net Income and Deficit of All Corporations, 1929-1936  
(dollar figures in millions)

	1929	1930	1931	1932	1933	1934	1935	1936
Combined net inc. & def. of all corp.	16,678	12,426	10,281	9,305	8,090	7,853	8,286	11,630
Net increase in inc. disclosed by audit	854	590	405	316	432	560	610	584
% inc. disclosed by audit is of combined net inc. & def. of all corp.	5.12	4.75	3.94	3.40	5.34	7.13	7.36	5.02

Data for 'income disclosed by audit' are taken from *Survey of Current Business, National Income Supplement*, July 1947, p. 47; data for 'combined net income and deficit of all corporations', from *Statistics of Income*. The latter data apply to all corporations, not merely the universe covered by Sample III.

As elsewhere in this study, the net income and deficit figures from *Statistics of Income* were combined without regard to algebraic sign. The 'net income' and 'deficit' data are so described in the 1936 *Statistics of Income*. From 1929 through 1935 the items described as 'compiled net profit' and 'compiled net loss' were used in order to achieve the maximum degree of comparability. This definition of net income involves a certain amount of double counting of dividend income, but not enough to distort the results seriously. Given the nature of the basic data, statistical imperfections in their presentation were unavoidable.

data on auditing adjustments probably understate somewhat the theoretically correct adjustments inasmuch as the Bureau of Internal Revenue very likely does not audit tax returns showing large deficits as intensively as those showing net incomes—especially in years when no loss carry-overs or carry-backs were permitted. If this supposition is correct, the adjustments from auditing will fall short of the theoretically correct adjustments to a greater degree in depression than in prosperous years.

The percentage adjustments in Table 11 cover a broader range of corporations than does Sample III, for Table 11 includes finance, agriculture, and the unclassified manufacturing and miscellaneous corporations—all of which are omitted from Sample III. But the best approximation that can be made, in the absence of more adequate data, is that 'true' taxable income is understated in the Sample III data to the degree shown in Table 11.

#### F SAMPLES I AND II RESTRICTED TO UNCONSOLIDATED REPORTS

The Revenue Act of 1934, Section 141, limited the privilege of filing tax returns on a consolidated basis to common carriers by railroad.<sup>12</sup> Consequently, to obtain comparable data Sample II is restricted to corporations filing unconsolidated reports with the Securities and Exchange Commission. This fact should be kept in mind in interpreting the Sample I and II analyses. Moreover, after 1933 most corporations in Sample III computed their book profit figures for their tax returns on an unconsolidated basis even though they may have prepared their financial statements on a consolidated basis.

<sup>12</sup> Common carriers by railroad include steam and electric railroads but exclude street, suburban, and interurban railways, and express, refrigerator, and sleeping car companies.