Volume Title: The Share of Financial Intermediaries in National Wealth and National Assets, 1900-1949

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The Growth of Assets of Financial Intermediaries

The total assets of the financial intermediaries included in this study increased from $18 billion in 1900 to $432 billion in 1949. The estimates in Table 1 may be regarded as representative of all financial intermediaries since they cover all but a few types of these institutions and the omitted types have relatively small assets. Table 2 shows that adding the two most important types of these omitted institutions would increase the totals of Table 1 by only 2 to 3 per cent for most benchmark dates. Although the figures as a rule reflect book values, neither the absolute amounts nor the percentage of increase would be substantially different were it possible to value all assets of financial intermediaries consistently at their market prices.[7]

The average rate of increase for the entire period of almost fifty years is about 6½ per cent a year,[8] a rate that implies a doubling of assets every eleven years. The rate of growth during the first three periods (i.e. from 1901 to 1912, 1913 to 1922, and 1923 to 1929) was close to this average, varying only between 6½ per cent in the first and 9 per cent in the second period. After a decline to a rate of nearly 4 per cent a year during the Great Depression the growth of assets was resumed in the mid-thirties,

[7] This is due partly to the fact that the assets of investment companies and personal trust departments, the two groups in which the difference between book and market values is relatively largest, are already on the market value basis.

[8] If Federal Reserve banks are excluded from the tabulation for the reason that their assets to a considerable extent duplicate those of the commercial banks, the average rate of growth is slightly reduced (from 6.6 to 6.4 per cent), but the pattern remains essentially unchanged. The discussion will, therefore, be limited to over-all figures. The figures excluding the Federal Reserve banks — and such exclusion would more than correct for duplication — can easily be calculated from the tables.

TABLE 1

Total Assets of Main Groups of Financial Intermediaries (billions of dollars)

	1900	1912	1922	1929	1933	1939	1945	1949
I *Banking System*								
1 Federal Reserve banks	. . .[c]	. . .	$5.25	$5.46	$7.04	$19.03	$44.85	$45.39
2 Commercial banks	$10.01	$21.82	47.47	66.24	46.13	66.31	160.15	157.46
3 Mutual savings banks	2.43	4.01	6.60	9.87	10.76	11.85	16.99	21.49
4 Postal Savings System	. . .	.03	.41	.17	1.23	1.32	3.02	3.31
Total[a]	12.44	25.87	59.46	81.74	65.16	98.50	225.01	227.66
II *Insurance*								
1 Private life insurance companies	1.74	4.41	8.65	17.48	20.90	29.24	44.80	59.55
2 Fraternal insurance organizations	.03	.16	.47	.85	.96	1.23	1.67	1.98
3 Private self-administered pension funds	. . .	. . .	.09	.50	.70	1.05	2.90	6.85
4 Federal } pension, retirement, and	. . .	. . .	.11	.96	2.14	4.57	22.44	33.98
5 State and local } social security funds	.01	.01	.15	.52	.82	1.66	3.03	4.87
6 Fire and marine insurance companies	.41	.77	1.63	3.08	2.23	2.84	4.24	6.56
7 Casualty and misc. insurance companies	.06	.21	.68	1.54	1.25	1.95	3.35	5.45
8 Mutual accident associations[b]	.01	.02	.05	.09	.06	.09	.19	.28
Total[a]	2.26	5.59	11.81	25.02	29.04	42.62	82.62	119.53
III *Miscellaneous Financial Intermediaries*								
1 Savings and loan associations	.49	.95	2.80	7.41	5.90	5.20	8.60	14.55
2 Credit unions	. . .	. . .	.01	.04	.04	.19	.43	.83
3 Investment companies	. . .	. . .	.10	2.94	1.20	1.41	2.40	2.95
4 Investment holding companies	. . .	. . .	. . .	4.35	1.72	1.55	2.27	2.44
5 Investment installment companies	. . .	. . .	.01	.05	.08	.18	.22	.29
6 Mortgage companies	.18	.37	.56	.78	.40	.41	.15	.50
7 Land banks	. . .	. . .	.97	1.94	1.89	2.45	1.24	1.01
8 Government lending institutions	. . .	.01	.56	.29	2.98	7.45	7.32	12.31
Total[a]	.67	1.32	5.01	17.81	14.21	18.84	22.63	34.87
IV *Personal Trust Departments*	3.00	7.00	18.00	30.00	25.00	35.00	45.00	50.00
Total[a], *current values*	18.37	39.78	94.28	154.57	133.40	194.96	375.26	432.06
Total, deflated (1929) values	36.74	62.16	93.81	157.72	173.25	233.48	295.48	287.08
Total, deflated values per head of population (dollars)	483	652	852	1295	1380	1784	2117	1924

[a] Totals, in this and other tables, may not add due to rounding.

[b] Because of the nature of the source material, data for some mutual accident associations are also included among casualty in[illegible] tion is, however, negligible in relation to total assets of financial intermediaries.

[c] Dots, in this and subsequent tables, indicate unavailability of

TABLE 2

Total Assets of Financial Intermediaries: Broader Definition

	Intermediaries Included in Table 1	*Investment Bankers and Dealers in Securities*	*Finance Companies*	*Total*	*Proportion of Security Dealers and Finance Companies (per cent)*
	(billions of dollars)				
	(1)	(2)	(3)	(4)	(5)
1900	$18.4	$.6	. . .	$19.0	3.2
1912	39.8	1.0	$.0	40.8	2.5
1922	94.3	4.0	.3	98.6	4.4
1929	154.6	10.0	2.4	167.0	7.4
1933	133.4	2.5	1.2	137.1	2.7
1939	195.0	2.0	2.7	199.7	2.4
1945	375.3	3.0	1.2	379.5	1.1
1949	432.1	2.7	7.0	441.8	2.2

1 From Table 1.

2 1900-1929: Very rough estimates based primarily on statistics of brokers' borrowings (R. W. Goldsmith, *A Study of Saving in the United States* [Princeton University Press, 1954], Table D-8).
1933-1949: Rough estimates based on data for brokers and dealers carrying margin accounts (*Federal Reserve Bulletin*, various issues); and balance sheets of incorporated security dealers (*Statistics of Income* "Source Book").

3 1912, 1922: Rough estimates.
1929, 1933: Based on assets of selected sales finance companies as shown in W. C. Plummer and R. A. Young, *Finance Companies and Their Credit Practices* (National Bureau of Economic Research, 1940), p. 59.
1939, 1945: From *Statistics of Income* "Source Book." Figures include the two subgroups of "sales finance" and "personal credit" companies distinguished in the "Source Book."
1949: Based on trend of assets in five large finance companies which account for nearly 50 per cent of total of group.

4 Sum of columns 1 through 3.

5 Sum of columns 2 and 3 divided by column 4.

first at about the average rate of 6½ per cent a year, but from 1939 to 1945 at one as high as 11½ per cent. The rate of growth in the relatively short period after World War II for which the figures are available was the lowest on record except for the Great Depression – 3½ per cent a year. There is, however, no substantial difference in the rate of growth between the three decades before 1930 taken together and the fifteen years since the end of the Great Depression. In both cases the total assets of financial intermediaries increased at an average rate of about 7½ per cent a year.

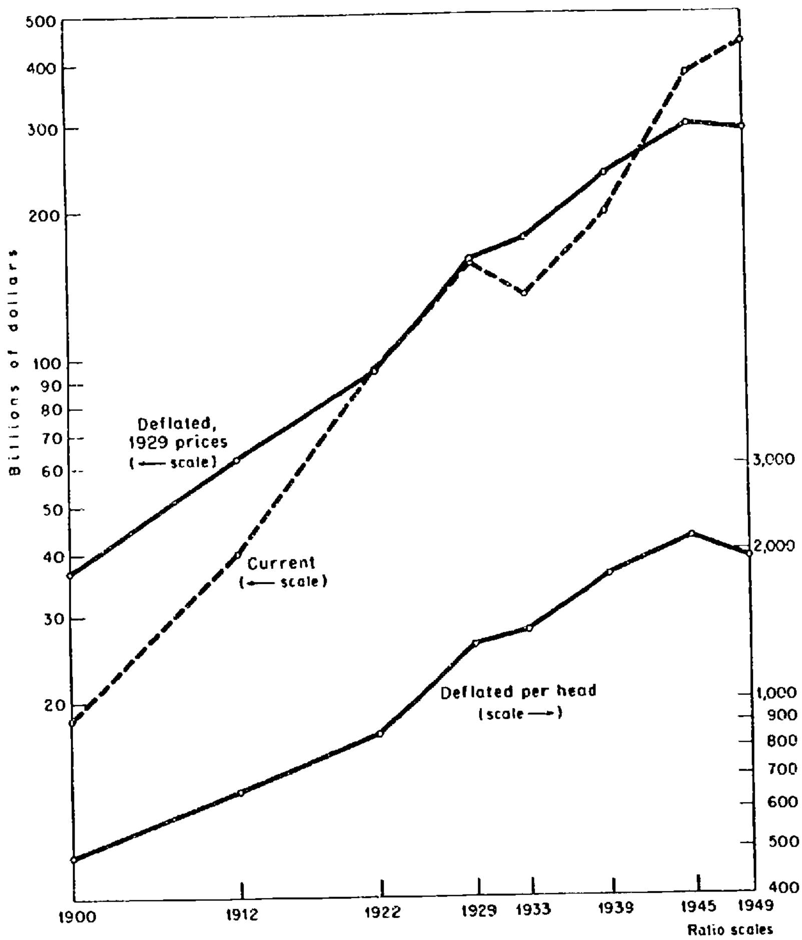
The figures for the total assets of financial intermediaries are, like many economic series, considerably affected by the changes in the purchasing power of the dollar during the last half century. If these are eliminated by deflating all values by means of an index of the general price level (i.e. the so-called gross national product deflator),[9] the rate of growth of financial intermediaries, measured by their total assets, is of course considerably lower because prices have tended upwards through most of the last fifty years. Reduced to 1929 prices the total assets of financial intermediaries increased from about $37 billion in 1900 to $287 billion in 1949. The average annual rate of increase in 1929 prices is equal to about 4¼ per cent, one-third less than the rate based on unadjusted figures.

Reduction to a stable price level not only sharply reduces the average rate of growth, but also considerably changes the pattern of growth over the past five decades. The first two periods running from the benchmarks of 1900 to 1922, it is true, again show a rate of growth very close to the average for the entire period. The twenties, however, now stand out as a period of extraordinarily rapid expansion of the assets of financial intermediaries, the annual rate of increase between 1922 and 1929 of 7½ per cent being 60 per cent higher than that for the next rapid period of expansion, that between 1933 and 1939. Deflation changes the slow decrease during the Great Depression into a small increase. It also reduces the rate of growth during the period of World War II to the average for the entire half century. Finally, it transforms the relatively slow increase after World War II into a very slight decline, the only one in the series of deflated values. These differences in the pattern of growth between the unadjusted and deflated values of the total assets of financial intermediaries stand out clearly in Chart I. The chart shows that the pattern of growth

[9] See Dept. of Commerce, *Survey of Current Business*, National Income Supplement, 1951, Part V.

CHART 1

Total Assets of All Financial Intermediaries



is considerably more regular for deflated than for current values and that an extrapolation of the rate of growth observed between 1900 and 1922 for another quarter of a century would produce approximately the figures actually observed in the late forties.

The picture is not much changed if the total assets of financial intermediaries are further reduced to a per head basis in order

TABLE 3

Total Assets of Main Groups of Financial Intermediaries (dollars per head, 1929 prices)

	1900	1912	1922	1929	1933	1939	1945	1949
I *Banking System*								
1 Federal Reserve banks	...	...	$47.5	$45.7	$72.8	$174.1	$253.0	$202.1
2 Commercial banks	$263.1	$357.7	429.2	555.0	477.0	606.7	903.4	701.2
3 Mutual savings banks	63.9	65.8	59.6	82.7	111.3	108.5	95.8	95.7
4 Postal Savings System	...	.5	1.3	1.5	12.8	12.1	17.1	14.8
Total	327.0	424.0	537.6	684.9	673.9	901.4	1269.3	1013.8
II *Insurance*								
1 Private life insurance companies	45.8	72.3	78.2	146.5	216.1	267.6	252.7	265.2
2 Fraternal insurance organizations	.7	2.7	4.2	7.1	9.9	11.3	9.4	8.8
3 Private self-administered pension funds	...	...	.8	4.2	7.2	9.6	16.4	30.5
4 Federal } pension, retirement, and	...	...	1.0	8.0	22.1	41.8	126.6	151.3
5 State and local } social security funds	.1	.2	1.3	4.3	8.4	15.2	17.1	21.7
6 Fire and marine insurance companies	10.9	12.7	14.7	25.8	23.1	26.0	23.9	29.2
7 Casualty and misc. insurance companies	1.6	3.4	6.2	12.9	12.9	17.8	18.9	24.3
8 Mutual accident associations	.2	.3	.4	.7	.6	.8	1.1	1.3
Total	59.3	91.6	106.8	209.5	300.3	389.9	466.1	532.3
III *Miscellaneous Financial Intermediaries*								
1 Savings and loan associations	12.9	15.6	25.3	62.1	61.0	47.6	48.5	64.8
2 Credit unions	...	...	.1	.4	.4	1.8	2.5	3.7
3 Investment companies	...	...	.9	24.6	12.4	12.9	13.5	13.1
4 Investment holding companies	...	...	...	36.5	17.8	14.2	12.8	10.9
5 Investment installment companies	...	...	.1	.4	.8	1.6	1.3	1.3
6 Mortgage companies	4.8	6.0	5.1	6.5	4.1	3.7	.8	2.2
7 Land banks	...	...	8.7	16.3	19.5	22.4	7.0	4.5
8 Government lending institutions	...	.1	5.0	2.5	30.8	68.2	41.3	54.8
Total	17.7	21.7	45.2	149.3	146.8	172.4	127.7	155.3
IV *Personal Trust Departments*	78.8	114.7	162.7	251.4	258.5	320.3	253.8	222.7
Total	482.8	652.0	852.3	1295.1	1379.5	1784.0	2116.9	1924.1

to take account of the growth in the scale of the American economy (Table 3). The annual rate of increase, on this basis, is reduced to slightly more than 2¾ per cent. The curve, however, retains the essential features of that of aggregate deflated values, i.e. it has its most rapid increase in the twenties, and the values for the middle of the century lie reasonably close to an extrapolation of the trend observed from 1900 to 1922.

Total assets of main types of financial intermediaries

To understand the growth of the aggregate assets of all financial intermediaries, it is necessary to look at it in at least two ways: from the point of view of the growth of the total assets of the two dozen main types of financial intermediaries and from that of the growth of the aggregate of about ten of the main forms of assets held by all financial intermediaries.

The rate of the growth of the different financial intermediaries has been very uneven. Indeed, of the twenty-one intermediaries for which separate totals are presented in this report, only eleven were in operation – or at least of even small quantitative importance – in 1900. Two of them began operations or acquired any quantitative importance between 1900 and 1912 – the Postal Savings System and government lending institutions. Another seven appear for the first time in the statistics of 1922 – Federal Reserve banks, private pension funds, federal insurance funds, credit unions, investment companies, investment installment companies, and land banks. The first estimate for investment holding companies is for 1929, although some of these companies operated throughout, and in a few cases before, the twenties.

The total assets of the financial intermediaries that have been operated throughout the last half century increased about seventeen times between 1900 and 1949, or at an average annual rate of nearly 6 per cent. The aggregate growth (1949 assets divided by 1900 assets) for the different types, arranged in ascending order, is as follows:[10]

[10] In evaluating the multiples shown in this and the following text table, as well as the average rates of growth of assets calculated from them (using only the initial (Continued on page 32)

Mortgage companies	2.7
Mutual savings banks	8.8
Commercial banks	15.7
Fire insurance companies	15.9
Personal trust departments	16.7
The 10 Groups	17.3[a]
Savings and loan associations	29.7
Mutual accident companies	31.6
Private life insurance companies	34.2
Fraternal insurance organizations	79.3
Casualty and misc. insurance companies	87.9

[a] State and local trust funds omitted since amount in 1900 was negligible.

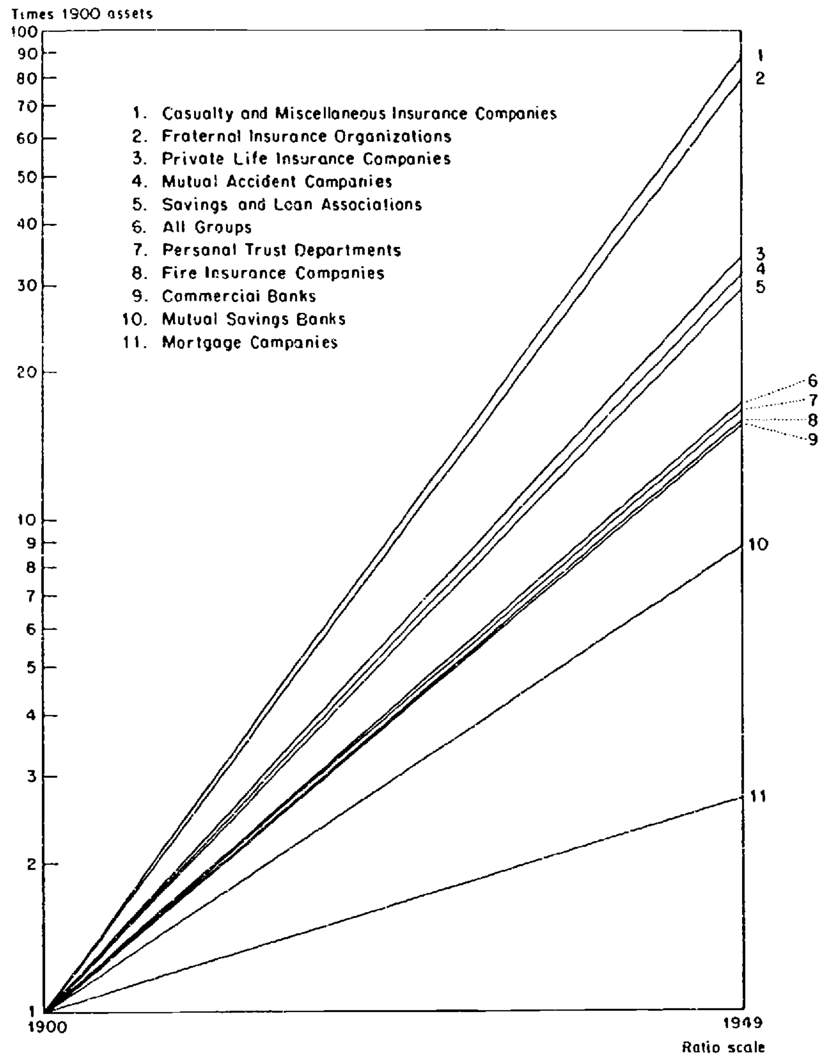
The ten financial intermediaries thus fall fairly naturally into four groups (see Chart 2).[11] There is, first, a group consisting of mortgage companies and mutual savings banks, the growth of which was considerably slower than the average for all groups of financial intermediaries already in operation in 1900. A second group, including commercial banks, their personal trust departments, and fire insurance companies show an average annual rate of growth close to the 6 per cent for the ten-group aggregate. Three types of intermediaries, including private life insurance companies and savings and loan associations, show an increase of assets between 1900 and 1949 of about thirty times, which corresponds to an average rate of growth of 7 per cent a year. Two small groups – fraternal insurance organizations and casualty insurance companies – finally, have increased their assets in the last

and terminal year of the period and thus assuming regular growth throughout it), two considerations should be kept in mind. First, the initial and terminal year of the period do not mark the beginning and the end of the growth process, but only concentrate attention on growth between two years selected partly for statistical convenience and partly because they mark turning points in the country's economic affairs but not necessarily in the life of every group of financial intermediaries. They are therefore more appropriate for some groups than for others. Second, higher rates of growth are more likely when the base figure – assets in the initial year – is small in absolute amount than when it is large, i.e. for small rather than for large groups of intermediaries and for groups in their early stage of development rather than after reaching maturity.

[11] The corresponding ratio for investment bankers and security dealers, which can be estimated only very roughly, is about 4.5, i.e. the second lowest in the group of eleven.

CHART 2

Growth of Assets of Main Types of Financial Intermediaries

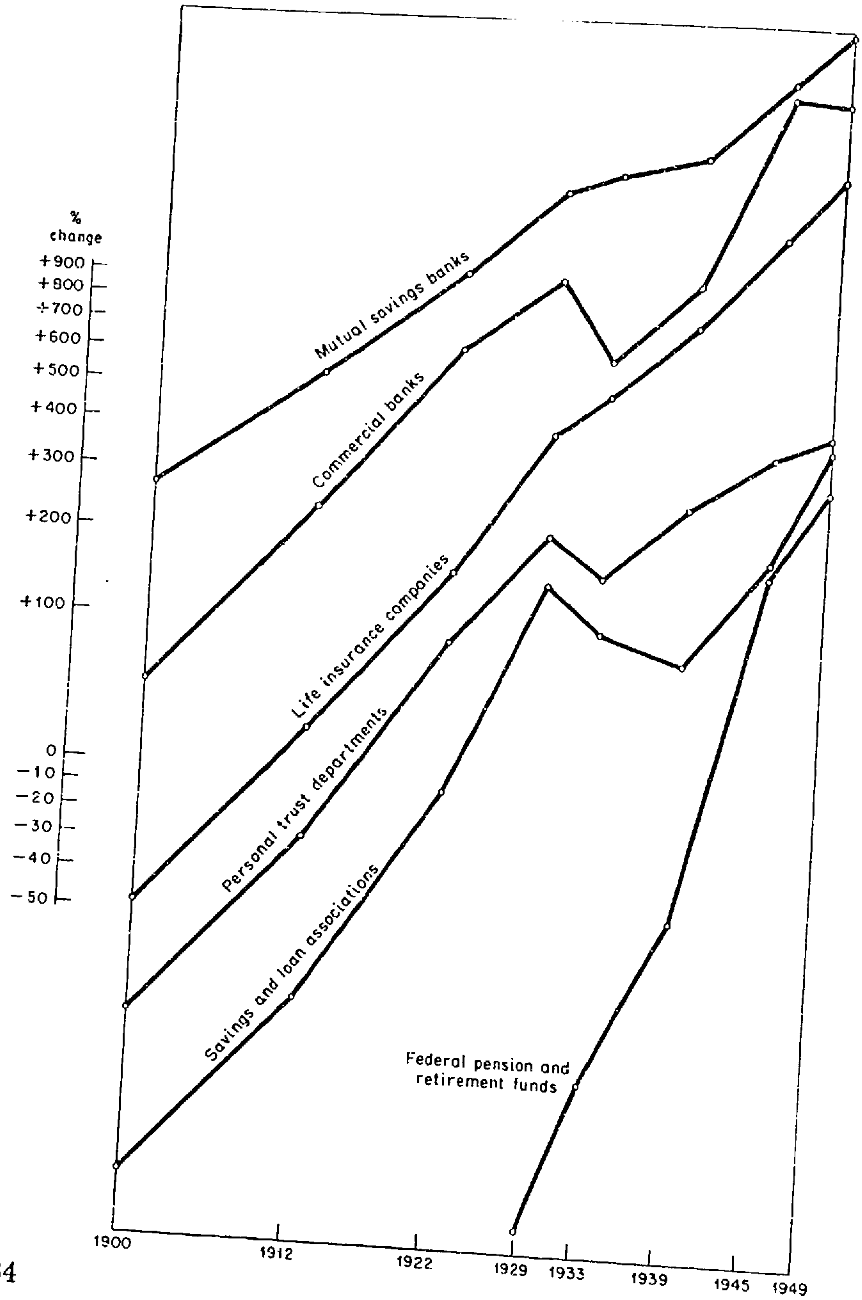


half century by between eighty and ninety times, which implies an average annual rate of growth of about 9 per cent.

The ten groups which started operations after 1900 have also

CHART 3

Growth of Assets of Selected Financial Intermediaries



differed considerably in the speed of growth. The fast growers among them include federal insurance funds, government lending institutions, credit unions, and the Postal Savings System. Investment companies (except in the twenties) and land banks, on the other hand, have grown rather slowly or have even reached and passed their peak within the period.[12]

For most of the groups of financial intermediaries the rate of growth in the twenty years after 1929 has been considerably slower than that in the preceding thirty years. Moreover, the ranking of the different groups in accordance with their rate of growth is in many cases different for the last twenty years than for the entire period since 1900 or since they began operations.

For the period between 1929 and 1949, when the aggregate assets of all twenty-one groups increased 2.8 times, those of a few groups even declined; those of some others grew but little; while some rose to ten or more times their 1929 size. These differences in the rate of growth of the different groups of financial intermediaries are evident from the following tabulation which indicates the ratio of assets at the end of 1949 to those of 1929:[13]

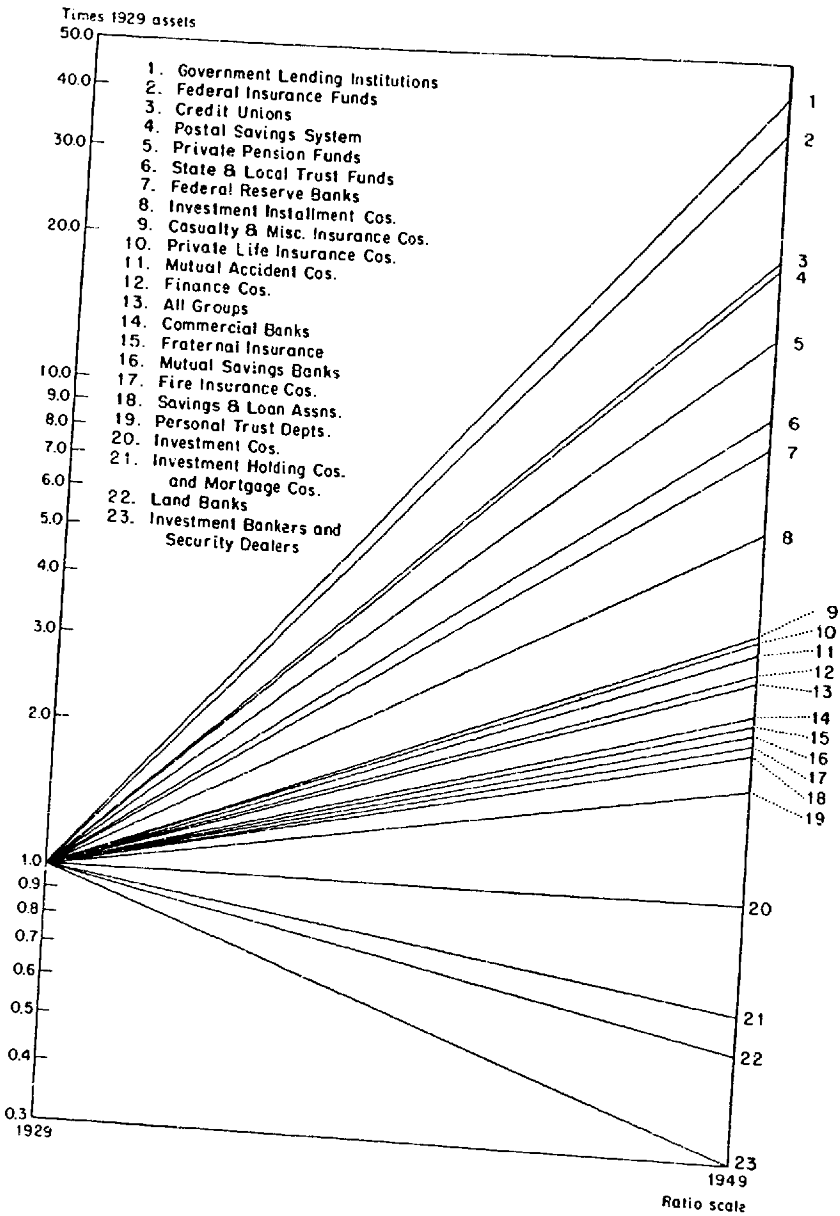
Land banks	0.5
Mortgage companies	0.6
Investment holding companies	0.6
Investment companies	1.0
Personal trust departments	1.7
Savings and loan associations	2.0
Fire insurance companies	2.1
Mutual savings banks	2.2
Fraternal insurance organizations	2.3
Commercial banks	2.4
All groups	2.8

[12] This classification applies to the total for all types of investment companies. It would also apply, and even more clearly so, to investment holding companies and closed-end management investment companies. Open-end investment companies, i.e. companies continuously issuing and redeeming their shares close to or at their net asset value, as well as investment installment (face value certificate) companies, on the other hand, would have to be classified among the groups growing rapidly, at least after the Great Depression.

[13] The corresponding ratios may be roughly estimated at 0.3 for investment bankers and security dealers (lower than for any of the twenty-one groups listed above) and at 2.9 for finance companies (slightly above the average for all groups).

CHART 4

Growth of Assets of Twenty-Two Groups of Financial Intermediaries



Mutual accident companies	3.2
Private life insurance companies	3.4
Casualty and misc. insurance companies	3.5
Investment installment companies	5.6
Federal Reserve banks	8.3
State and local trust funds	9.5
Private pension funds	13.7
Postal Savings System	19.0
Credit unions	19.7
Federal insurance funds	35.4
Government lending institutions	42.0

There is, however, a second aspect of the differences in the rates of growth of assets of the various types of financial intermediaries, and one in which such differences show up more promptly and conspicuously. This is the distribution of the change between two benchmark dates in the aggregate assets of all intermediaries among the different groups of intermediaries as it is shown in Table 4.[14]

The shares of the different groups in Table 4 naturally fluctuate much more than those of Table 5, which are based on holdings at benchmark dates. But both tables tell essentially the same story, although Table 4 does it more dramatically and more appropriately if interest is centered on the flow of funds over the period[15] rather than on holdings at the start or end of the period. Table 4, for instance, emphasizes the special character of the period after World War II — the predominance of insurance organizations as net suppliers of funds by financial intermediaries and the extraordinarily small role of commercial banks — much more than Table 5 does. Similarly, the high share of the banking system in the total

[14] Negative percentages in Table 4 indicate either a decline in the assets of one group of intermediaries when aggregate assets of all intermediaries increase or, for the period 1930-1933, an increase in a group's assets while those of all intermediaries decline.

[15] The changes between benchmark dates are, of course, not identical with the flow of funds within the period — revaluations, accruals and other non-cash entries prevent that — but they are in most periods (except for 1930-1933) a reasonably satisfactory approximation to it, particularly if it is not the absolute amount of the flow of funds but only the relation between different groups of intermediaries that is to be measured.

TABLE 4

Distribution of Changes in Total Assets among Main Groups of Financial Intermediaries Between Benchmark Dates (per cent)

	1901-1912	1913-1922	1923-1929	1930-1933	1934-1939	1940-1945	1946-1949
I *Banking System*							
1 Federal Reserve	...	9.6	.3	−7.5	19.5	14.3	1.0
2 Commercial	55.2	47.0	31.1	95.0	32.8	52.0	−4.7
3 Mutual savings	7.4	4.7	5.4	−4.2	1.8	2.9	7.9
4 Postal Savings	.1	.2	.1	−5.0	.1	.9	.5
Total	62.7	61.6	37.0	78.3	54.2	70.2	4.7
II *Insurance*							
1 Private life	12.5	7.8	14.6	−16.2	13.5	8.6	26.0
2 Fraternal	.6	.6	.6	−.5	.4	.2	.5
3 Private pension funds	...	.2	.7	−.9	.6	1.0	7.9
4 Federal } pens., retirement, & soc. sec. funds	...	.2	1.4	−5.6	3.9	9.9	20.3
5 State & local } pens., retirement, & soc. sec. funds	.0	.2	.6	−1.4	1.4	.8	3.2
6 Fire and marine	1.7	1.6	2.4	4.0	1.0	.8	4.1
7 Casualty and misc.	.7	.9	1.4	1.4	1.1	.8	3.7
8 Mutual accident assoc.	.0	.1	.1	.1	.0	.1	.2
Total	15.6	11.4	21.9	−19.0	22.1	22.2	65.0
III *Miscellaneous Financial Intermediaries*							
1 Savings & loan assoc.	2.2	3.4	7.6	7.1	−1.1	1.9	10.5
2 Credit unions	...	0	.1	0	.2	.1	.7
3 Investment cos.	...	.2	4.7	8.2	.3	.5	1.0
4 Investment holding cos.	...	...	7.2	12.4	−.3	.4	.3
5 Investment installment cos.	...	0	.1	−.1	.2	0	.1
6 Mortgage cos.	.9	.4	.4	1.8	0	−.1	.6
7 Land banks	...	1.8	1.6	.2	.9	−.7	−.4
8 Govt. lending agencies	0	1.0	−.4	−12.7	7.3	−.1	8.8
Total	3.0	6.8	21.2	17.0	7.5	2.1	21.5
IV *Personal Trust Departments*	18.7	20.2	19.9	23.6	16.2	5.5	8.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

increase in assets of financial intermediaries during war inflations, or in the decrease during deep depressions, stands out more clearly.

The differences between the rates of growth of the various groups of financial intermediaries have, of course, led to considerable changes in the distribution of the total assets of all financial intermediaries among the different groups (see Table 5). These shifts are summarized in Chart 5, below, which shows the trend of the share of the four major groups – the banking system, in-

TABLE 5

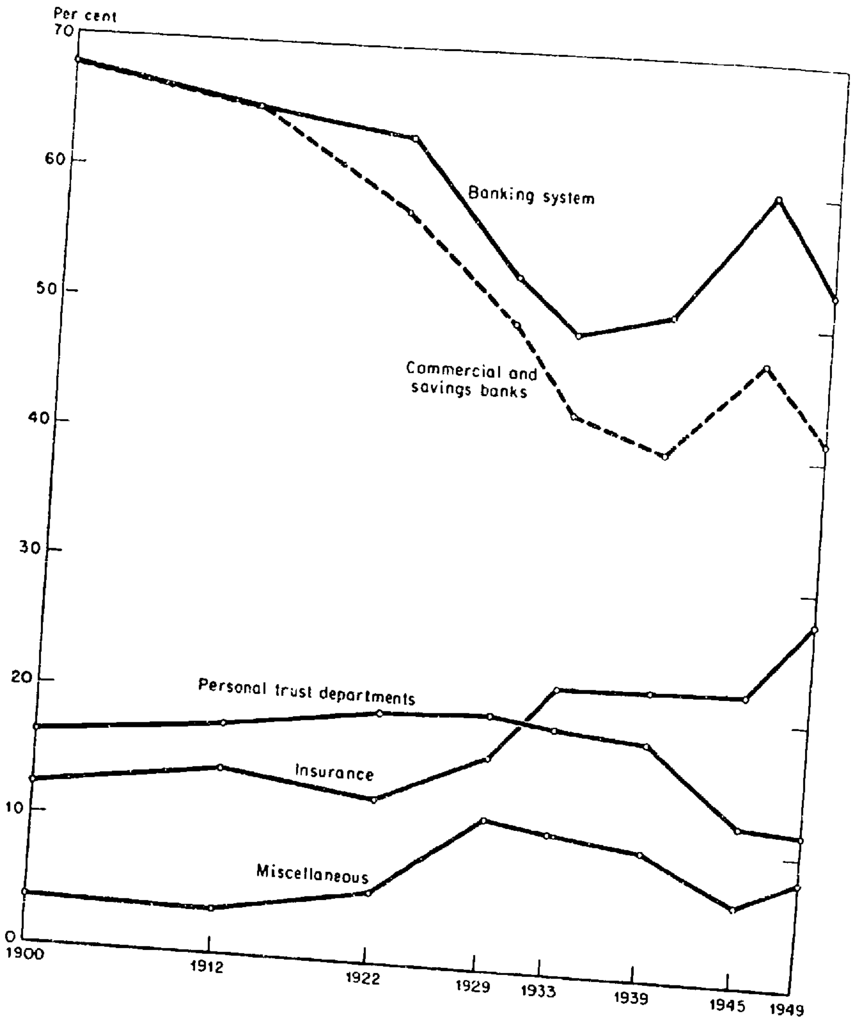
Distribution of Total Assets among Main Groups of Financial Intermediaries (per cent)

	1900	*1912*	*1922*	*1929*	*1933*	*1939*	*1945*	*1949*
I *Banking System*								
1 Federal Reserve	...	...	5.6	3.5	5.3	9.8	12.0	10.5
2 Commercial	54.5	54.9	50.4	42.9	34.6	34.0	42.7	36.4
3 Mutual savings	13.2	10.1	7.0	6.4	8.1	6.1	4.5	5.0
4 Postal Savings	...	.1	.1	.1	.9	.7	.8	.8
Total	67.7	65.0	63.1	52.9	48.8	50.5	60.0	52.7
II *Insurance*								
1 Private life	9.5	11.1	9.2	11.3	15.7	15.0	11.9	13.8
2 Fraternal life	.2	.4	.5	.5	.7	.6	.4	.5
3 Private pension funds	...	...	.1	.3	.5	.5	.8	1.6
4 Federal (pens., retirement, & soc. sec. funds)	...	...	.1	.6	1.6	2.3	6.0	7.9
5 State & local (pens., retirement, & soc. sec. funds)	.1	0	.2	.3	.6	.9	.8	1.1
6 Fire and marine	2.2	1.9	1.7	2.0	1.7	1.5	1.1	1.5
7 Casualty and misc.	.3	.5	.7	1.0	.9	1.0	.9	1.3
8 Mutual accident assoc.	.1	.1	.1	.1	0	0	.1	.1
Total	12.3	14.1	12.5	16.2	21.8	21.9	22.0	27.7
III *Miscellaneous Financial Intermediaries*								
1 Savings & loan assoc.	2.7	2.4	3.0	4.8	4.4	2.7	2.3	3.4
2 Credit unions	...	...	0	0	0	.1	.1	.2
3 Investment cos.	...	...	.1	1.9	.9	.7	.6	.7
4 Investment holding cos.	...	...	...	2.8	1.3	.8	.6	.6
5 Investment installment cos.	...	...	0	0	.1	.1	.1	.1
6 Mortgage cos.	1.0	.9	.6	.5	.3	.2	0	.1
7 Land banks	...	...	1.0	1.3	1.4	1.3	.3	.2
8 Govt. lending agencies	...	0	.6	.2	2.2	3.8	2.0	2.8
Total	3.6	3.3	5.3	11.5	10.7	9.7	6.0	8.1
IV *Personal Trust Departments*	16.3	17.6	19.1	19.4	18.7	18.0	12.0	11.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

surance, miscellaneous intermediaries, and personal trust departments — in the aggregate for all financial intermediaries. Each of the four groups shows a growth pattern of its own. The share of the banking system has declined steadily except for an interruption during World War II. Personal trust departments show a slight increase up to 1929, but declined during the last two decades, particularly since World War II. The miscellaneous group likewise has increased its share up to 1929, but has decreased it during

CHART 5

Distribution of Total Assets among Main Groups of Financial Intermediaries



most of the following twenty years. The share of insurance organizations, on the other hand, has been rising fairly steadily, particularly in the twenties and after World War II.

These movements, and still more the ups and downs in the shares of individual groups of intermediaries, are, of course, the result of manifold forces, both those peculiar to one group of institutions and those of more general scope. One of these general forces deserves particular stress — the influence of inflation and deflation. The share of the banking system in the total assets of financial intermediaries increases — compared to its secular downward trend — during war inflation and declines particularly rapidly during deflation. This is not unexpected since the main characteristic of inflation and deflation is a particularly sharp expansion and contraction of money and credit, i.e. essentially the assets and liabilities of the banking system. These movements are reflected, but as a rule only in attenuated form, in the assets and liabilities of the other types of financial intermediaries. The influence of inflation and deflation is slowest and least pronounced for those intermediaries whose liabilities are predominantly the result of a stock of old contracts and who invest their funds in assets with a value not fluctuating widely in accordance with the general price level. Insurance organizations are the outstanding representatives of this type of financial institution. As expected, their share declines, or remains unchanged, during inflations (see the behavior for the periods 1913-1922 and 1940-1945 in Chart 5) and increases rapidly during depressions. Personal trust departments might be excepted to increase their share during inflation and decrease it during deflation because of the relatively high share of common stock among their assets. These movements are not visible in Chart 5, apparently because they have been offset by long-term movements, particularly the low rate of growth — relative to other types of financial intermediaries — of personal trust departments since 1929.

A different type of basic movement is reflected in the trend of the share of public intermediaries, shown in Table 6. They remained insignificant until 1929 if the Federal Reserve banks are excluded, their share not exceeding 2 per cent at any benchmark date. Even if the Federal Reserve banks are included, the share of public intermediaries until 1929 was only up to 7 per cent. From then on the increase is sharp. The share is already above 11 per cent in 1933; it jumps to 18 per cent by 1939; and by 1949 reaches 23 per cent. If the Federal Reserve banks are excluded,

TABLE 6

Private and Public Financial Intermediaries, Total Assets

	Total Intermediaries	Private Intermediaries	Public Intermediaries Incl. FRB	Public Intermediaries Excl. FRB	Share of Public Intermediaries Incl. FRB	Share of Public Intermediaries Excl. FRB
	(billions of dollars)				(per cent)	
	(1)	(2)	(3)	(4)	(5)	(6)
1900	$19.0	$19.0	$.0	$.0	.0	.0
1912	40.8	40.7	.1	.1	.2	.2
1922	98.6	91.7	6.9	1.7	7.0	1.7
1929	167.0	158.3	8.7	3.2	5.2	1.9
1933	137.1	121.4	15.7	8.6	11.5	6.3
1939	199.7	163.4	36.3	17.3	18.2	8.7
1945	379.5	297.6	81.9	37.0	21.6	9.7
1949	441.8	340.9	100.9	55.5	22.8	12.6

Column
1 Includes investment bankers and finance companies. (From Table 2.)
2 Column 1 minus column 3.
3 Federal Reserve and Postal Savings Systems; Federal Land Banks; government pension, retirement and social security funds; government lending institutions. (From Table 1 deducting from line III.7 assets of joint-stock land banks.)
4 Column 3 excluding Federal Reserve banks. (From Table 1.)
5,6 Columns 3 and 4, respectively, divided by column 1.

the share rises from 2 per cent in 1929 to 9 per cent in 1939 and to 13 per cent in 1949, first largely as a result of the expansion of government lending institutions during and immediately after the Great Depression and later chiefly because of the continued and substantial growth in government insurance funds.[16]

Main types of assets of all financial intermediaries

Between 1900 and 1949 none of the main types of assets declined in absolute amount, i.e. in current dollars unadjusted for price level changes (see Table 7). Differences in the rate of growth were, nevertheless, very pronounced. Against an average growth of total assets during the half century of 24 times, some types of assets increased less than 10 times and one important type (United States

[16] The assets of public intermediaries do not include any foreign loans made directly by the United States government.

TABLE 7

Distribution of Assets and Liabilities of Financial Intermediaries (billions of dollars)

		1900	1912	1922	1929	1933	1939	1945	1949
	Assets								
1	U. S. govt. securities	$.7	$.8	$8.7	$8.5	$16.4	$38.3	$193.2	$178.1
2	State and local govt. securities	1.0	2.1	4.6	7.9	9.7	12.5	11.5	16.0
3	Corporate and foreign bonds	2.4	6.5	12.1	22.1	19.1	23.6	20.9	36.6
4	Corporate stock	.9	3.1	7.4	21.2	13.4	19.3	26.7	31.1
5	Mortgage loans	3.7	7.8	16.8	31.4	26.4	27.1	25.6	47.4
6	Loans on securities	.9	1.6	3.7	8.6	3.8	1.8	6.9	2.7
7	Consumer loans	.3	1.0	2.1	4.7	6.2	5.5	4.2	7.7
8	Domestic business loans	4.0	9.0	19.2	21.5	12.6	12.0	15.6	30.0
9	Owned tangible assets	.9	1.6	2.9	4.5	6.1	7.4	3.6	3.7
10	Cash	2.8	5.3	12.6	16.7	15.4	43.6	60.2	68.6
11	Other assets	.8	.8	4.1	7.5	4.3	4.1	7.0	10.2
12	*Total Assets*	18.4	39.8	94.3	154.6	133.4	195.0	375.3	432.1
	Liabilities and Net Worth								
1	Equity funds and reserves[a]	8.0	18.1	40.4	79.8	72.4	95.5	154.5	210.6
	Short-term liabilities to:								
2	Households	5.4	12.2	28.3	35.6	30.0	40.0	90.9	102.6
3	Business	2.1	4.2	6.8	11.2	9.0	12.6	23.1	28.0
4	Government	.2	.6	2.0	2.7	3.5	5.4	31.6	13.2
5	Banks	1.3	2.6	5.3	6.9	6.6	19.7	29.7	29.0
6	Foreigners	. . .	.1	.1	.4	.1	1.4	2.2	2.0
7	Bank notes and currency	.3	.7	3.1	2.6	4.0	5.0	24.7	23.6
8	Long-term liabilities	. . .	. . .	.9	2.5	2.5	7.4	2.1	1.9
9	Other liabilities	1.0	1.2	7.2	12.9	5.3	8.1	16.4	21.2
10	*Total Liabilities and Net Worth*	18.4	39.8	94.3	154.6	133.4	195.0	375.3	432.1

[a] The concept of equity funds and reserves as used here is considerably broader than that underlying Table 21, since it includes the value of personal trust funds administered by banks and trust companies and the reserve liabilities of private and government insurance organizations.

government securities) multiplied by as much as 270 times. The wide range of rates of growth is evident from the following table, which shows all holdings of the main types of assets at the end of 1949 as multiples of those of 1900 and breaks the increase down into that occurring before and after 1929.

	1949/1900	1929/1900	1949/1929
Cash	24.6	6.0	4.1
Miscellaneous assets	13.2	9.7	1.4
Short-term loans	8.8	6.1	1.4
Mortgages	12.8	8.5	1.5
United States government securities	269.9	12.8	21.1
State and local government securities	15.3	7.6	2.0
Corporate and foreign bonds	15.0	9.0	1.7
Stocks	33.4	22.8	1.5
Tangible assets	4.3	5.2	.8
Total Assets	23.5	8.4	2.8

Only one of the main types of assets – United States government securities – increased more rapidly than the aggregate both from 1900 to 1929 and from 1929 to 1949. On the other hand, three types of assets lagged in both periods behind the rate of growth in aggregate assets: short-term loans, state and local government securities, and tangible assets. Mortgages, corporate and foreign bonds, stocks, and the heterogeneous miscellaneous assets increased more rapidly than total assets before 1929 but less rapidly in the last twenty years. Cash, finally, lagged behind the growth of aggregate assets in the first period but exceeded it considerably in the second.

The differences in the rate of growth of the various assets are, of course, reflected in changes in the distribution of total assets of financial intermediaries. These changes result from two forces, changes in the structure of assets of given groups of financial intermediaries and differences in the relative growth of total assets of the various groups. No attempt will be made to separate the effect of these two forces in the discussion. They can, of course, be isolated by a study of the basic tables.

Until the benchmark of 1922, changes in the structure of assets

TABLE 8

Percentage Distribution of Assets and Liabilities of Financial Intermediaries

		1900	*1912*	*1922*	*1929*	*1933*	*1939*	*1945*	*1949*
	Assets								
1	U. S. govt. securities	3.6	2.0	9.2	5.5	12.3	19.6	51.5	41.2
2	State and local govt. securities	5.7	5.2	4.9	5.1	7.3	6.4	3.1	3.7
3	Corporate and foreign bonds	13.3	16.4	12.8	14.3	14.3	12.1	5.6	8.5
4	Corporate stock	5.1	7.8	7.8	13.7	10.0	9.9	7.1	7.2
5	Mortgage loans	20.1	19.7	17.8	20.3	19.8	13.9	6.3	11.0
6	Loans on securities	4.7	4.1	3.9	5.6	2.8	.9	1.3	.6
7	Consumer loans	1.6	2.6	2.2	3.0	4.7	2.8	1.1	1.8
8	Domestic business loans	21.8	22.7	20.4	13.9	9.4	6.2	4.2	6.9
9	Owned tangible assets	4.7	4.1	3.1	2.9	4.6	3.8	.9	.9
10	Cash	15.2	13.3	13.4	10.8	11.6	22.4	16.0	15.9
11	Other assets	4.2	2.1	4.4	4.8	3.2	2.1	1.9	2.3
12	*Total Assets*	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Liabilities and Net Worth								
1	Equity funds and reserves[a]	43.5	45.4	42.8	51.6	54.3	49.0	41.2	48.8
	Short-term liabilities to:								
2	Households	29.1	30.6	30.0	23.0	22.5	20.5	24.2	23.7
3	Business	11.4	10.7	7.3	7.2	6.7	6.5	6.2	6.5
4	Government	1.3	1.5	2.2	1.7	2.6	2.8	8.4	3.1
5	Banks	7.1	6.6	5.7	4.5	4.9	10.1	7.9	6.7
6	Foreigners	.2	.3	.1	.3	.1	.7	.6	.5
7	Bank notes and currency	1.6	1.8	3.3	1.7	3.0	2.6	6.6	5.5
8	Long-term liabilities	...	...	1.0	1.6	1.9	3.8	.6	.4
9	Other liabilities	5.7	3.1	7.7	8.4	4.0	4.2	4.4	4.9
10	*Total Liabilities and Net Worth*	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[a] The concept of equity funds and reserves as used here is considerably broader than that underlying Table 21, since it includes the value of personal trust funds administered by banks and trust companies and the reserve liabilities of private and government insurance organizations.

of all financial intermediaries, as derived from their combined balance sheet shown in Table 8, were rather small. Cash and miscellaneous assets accounted for about one-sixth of total assets. It is, of course, the distribution of the remaining five-sixths which is of primary economic interest. Among them the only substantial change was the increase in the share of United States government securities to 9 per cent of total assets in 1922 from only a few per cent before World War I. Short-term loans accounted for over one-fourth of total assets at the three benchmark dates of 1900, 1912, and 1922; mortgages for about one-fifth; and corporate bonds for approximately one-seventh. These three main outlets thus absorbed about three-fifths of total assets and nearly three-quarters of the non-cash assets of all financial intermediaries. Stocks and state and local government securities each accounted for between 5 and 8 per cent at the three benchmark dates, while the share of tangible assets – primarily the buildings in which the intermediaries conducted their business – declined from 5 to 3 per cent.

The first considerable shifts in the structure of assets occurred in the twenties. The most important was the decline in the share of short-term loans between 1922 and 1929 from 26 to 22 per cent. It was even more pronounced in short-term business loans, from 20 to 14 per cent. In the same period, loans on securities and consumer loans actually increased their share of total assets from 6 to 8 per cent. United States government securities fell sharply from 9 to 6 per cent as holdings acquired during World War I were liquidated. These declines were offset by increases in the proportion of total assets represented by stocks and by mortgage loans. The increase in the share of stocks from 8 to 14 per cent of total assets reflected both rising stock prices[17] and the entry of several groups of financial intermediaries which invest mainly in stocks: investment and investment holding companies. It is little influenced by an increase in the proportion of stocks among the assets of the oldest and largest financial institutions, particularly

[17] It will be recalled that the assets of those groups of financial intermediaries which held the largest amounts of stock, i.e. personal trust departments and investment companies, are valued at market prices. If stock held by other intermediaries, particularly property insurance companies, were revalued at market prices, the increase in the proportion of assets represented by stocks would be still more pronounced.

commercial banks and life insurance companies. The rise in the share of mortgage loans from 18 to 20 per cent of total assets is a reflection of the building boom of the twenties.

Changes in the structure of assets during the Great Depression were in part a continuation of the trends begun in the twenties, primarily the further decline in the share of short-term loans from 22 to 17 per cent. The reduction in the proportion of total assets represented by stocks from 14 to 10 per cent reflects mostly the fall in stock prices. The increase in the share of United States government securities from 6 to 12 per cent — well above the level of 1922 and possibly the highest point up to that time — and in that of state and local government securities from 5 to 7 per cent are both expressions of the tendency to shift into the most liquid and least risky interest-bearing assets available. The rise in the share of tangible assets from 3 to 5 per cent, on the other hand, is not the result of deliberate investment policy but of the necessity of foreclosing mortgaged properties.

The decline of the share of short-term loans continued between 1933 and 1939. At the end of the period they represented as little as 10 per cent of total assets, less than one-half of their share in 1922. Mortgages, whose share had held up fairly well until the early thirties, now declined sharply from 20 to 14 per cent of total assets, partly the result of the exchange for Home Owners' Loan Corporation and Federal Farm Mortgage Corporation bonds. The trend towards liquid and safe assets continued and was evidenced in the increasing share of United States government securities and cash. The share of corporate bonds declined, though only slightly, and that of stocks remained stationary because the absolute increase in these holdings did not keep pace with the growth of total assets.

World War II produced sharper changes in the structure of assets of financial intermediaries than had been experienced in any previous period. At its end United States government securities alone had come to represent 50 per cent and United States government securities plus cash almost 70 per cent of total assets. The share of all other assets necessarily declined sharply. In the four years after the end of 1945, there were clear indications of a tendency to return, or at least to get nearer to the prewar structure of assets. It may therefore be preferable to compare the distribution of assets in 1949 with that of 1939 without regard to the intervening benchmark of 1945. Even then there remains a sharp increase in the share of United States government securities from less than 20 to 40 per cent of total assets, which is only offset to a small extent by the reduction of cash from 22 to 16 per cent. The share of short-term loans remained at approximately one-tenth of total assets. That of stocks declined only moderately from 10 to 7 per cent, the resistance being due to the rise in stock prices. Reductions also occurred in the share of mortgages, corporate bonds, state and local government securities, and tangible assets, the decline in the latter case reflecting the liquidation of the holdings of foreclosed properties.

Considering the entire period of nearly half a century, five main trends appear:

1. A decline, substantial and reasonably steady since the early twenties, of the share of short-term loans, particularly those to business.

2. A less pronounced and rather irregular decline in the share of mortgage holdings.

3. A sharp increase, particularly since the Great Depression, in the share of assets invested in United States government securities.

4. A decline, though generally beginning only with the thirties, in the share of corporate bonds and state and local government securities.

5. A concave trend in the share of corporate stock, increasing up to 1929 and declining over the last two decades.

These movements reflect two forces. The first change is in the investment policies of financial intermediaries, which may be due to changes in statutes or regulations, to changes in scope and methods of operations or to management decisions reflecting judgments on prospective yield rates, asset prices, and default risks. While this report is not concerned with any of these changes and their effects on the asset structure of financial intermediaries, some may come under scrutiny in the main study. The second set of forces is the aggregate supply of the different types of assets. Again it is not within the purview of this report to analyze the factors that have determined the supply of these assets in the economy but only to compare the holdings of financial institutions with the total supply. This task will be taken up in the next section.