

Supplementary Appendixes to

FINANCIAL INTERMEDIARIES IN THE
AMERICAN ECONOMY SINCE 1900

by

Raymond W. Goldsmith

1958

National Bureau of Economic Research, Inc.
261 Madison Avenue, New York 16, N.Y.

Copyright, 1958 by

National Bureau of Economic Research, Inc.

261 Madison Avenue, New York 16, N.Y.

All Rights Reserved

Library of Congress catalog card number: 57-5476

Price \$4.00

Explanatory Note

Among the Supplementary Appendixes to Financial Intermediaries in the American Economy since 1900, collected in this volume, Appendixes C, D, H and I contain supplementary material too bulky for inclusion in the main text, and Appendixes B, E, F and G provide rather detailed descriptions of the derivation of estimates used in the book. While the second group is needed by readers who want to investigate the bases for some of the estimates -- and I wish they were numerous -- the other four have been included because they embody a substantial amount of material that has not hitherto been available to students of our financial history and is rather laborious to collect. To add these appendixes to the printed text would have been an unwarranted expense to many of its readers; therefore, to provide mimeographed copies for libraries and interested students seemed the best means of making the material accessible as the starting point for future research in this field. Its use will not be seriously impaired, it is hoped, by the fact that the appendixes are presented as working papers (written mostly between 1951 and 1953 and mimeographed at different times and by different hands, mainly in 1954) which, by virtue of their origin, lack some of the typographic uniformity, editorial polish, last minute revisions, and repeated checking usually and rightfully associated with printed work in hard covers.

I have had the assistance of Charlotte Scott on the statistical work underlying Appendixes C, D and G, that of Alexander Ganz on Appendixes E and F, and that of Howard Greenbaum on Appendix I.

Raymond W. Goldsmith

June 16, 1958

CONTENTS¹

		<u>Pages</u>
<u>Appendix B</u>	Estimates of Assets of Personal Trust Funds Administered by Banks and Trust Companies	B-1 - B-31
<u>Appendix C</u>	Notes and Statistics on Size Distribution among Financial Intermediaries	C-1 - C-5
<u>Appendix D</u>	Supplementary Tables on Regional Distribution of Financial Intermediaries	D-1 - D-59
<u>Appendix E</u>	Statistics of Investment Banking Outlets	E-1 - E-21
<u>Appendix F</u>	Estimates of Market Value of Corporate Stock	F-1 - F-60
<u>Appendix G</u>	Estimates of Securities and Mortgages Outstanding	G-1 - G-7
<u>Appendix H</u>	Factors Influencing Choice between Direct and Indirect Placement of Saving	H-1 - H-24
<u>Appendix I</u>	Material on Gross Flow of Funds through Financial Intermediaries	I-1 - I-57

1

Appendix A (Balance Sheets of Financial Intermediaries in 1900, 1912, 1922, 1929, 1933, 1939, 1945, 1949, and 1952) is included in the printed volume.

TABLES, Appendix B

	Page
B-1. Estimated Value of Personal Trust Funds (Excluding Pension Funds Administered by Banks and Trust Companies, Benchmark Years, 1900 to 1952	B-14
B-2. Percentage Distribution of Assets in Personal Trust Funds Administered by Banks and Trust Companies, Benchmark Years, 1900 to 1949	B-15
B-3. Estimates of the Value of Personal Trust Funds Administered by Corporate and Noncorporate Trustees Based on the Capitalization of Income Reported in Returns of Fiduciaries to the Bureau of Internal Revenue, 1939, 1945 and 1948	B-16
B-4. Distribution of Personal Trust Funds Administered by Corporate and Noncorporate Trustees, Based on the Capitalization of Income Reported in Returns of Fiduciaries to the Bureau of Internal Revenue, 1939, 1945 and 1948	B-18
B-5. Estimates of the Value of Personal Trust Assets Administered by Banks and Trust Companies, Based on Federal Reserve Board Estimates of Holdings of Long-Term Debt and Liquid Assets, and Bureau of Internal Revenue Reports of the Dividend Income of Fiduciaries, 1922, 1929, 1939 and 1950	B-19
B-6. Estimated Value of Personal Trust Assets Administered by Banks and Trust Companies, Based on Reported Value of Personal Trust Assets Administered by Banks and Trust Companies in Nine States, Benchmark Years 1900 to 1945, and 1948	B-20
B-7. Estimated Value of Certain Personal Trust Funds Based on Capitalization of Incomes Reported in Returns to the Bureau of Internal Revenue, 1922-1948	B-22
B-8. Some Additional Independent Estimates of the Value of Personal Trust Funds Administered by Banks and Trust Companies	B-24
B-9. Estimate of Principal in Estate and Trust Accounts in Trust Institutions in New York State, 1941	B-25

	Page
B-10. Comparison of Various Estimates of Personal Trust Funds Administered by Banks and Trust Companies	B-26
B-11. Distribution of Assets of Personal Trust Funds Administered by Trust Departments of Active National Banks, Benchmark Years, 1933 to 1952	B-27
B-12. Distribution of Assets of Personal Trust Funds Administered by Trust Institutions in Massachusetts, Benchmark Years, 1900 to 1945, and 1947	B-28
B-13. Distribution of Assets of Personal Trust Funds Administered by Banks and Trust Companies in the New England States, Various Years, 1930 to 1947	B-29
B-14. Percentage Distribution of Trust Investments of 190 Trusts, 1919, 1922, 1929 and 1932	B-30
B-15. Percentage Distribution of Assets of Discretionary Personal Trust Departments, by Geographical Regions, 1943	B-31

CHARTS and TABLES, Appendix C

Chart

C-1. Size Distribution of Assets of Selected Groups of Financial Intermediaries, 1949	C-14
C-2. Trends in Size Distribution among Commercial Banks and Savings and Loan Associations	C-19

Table

C-1. Size Distribution among Financial Intermediaries, 1949	C-8
C-2. Trend in Size Distribution among Financial Intermediaries, 1900 to 1949	C-22
C-3. Comparison of Size Distribution on the National and Local Level among Banks and Savings and Loan Associations; 1900, 1929 and 1949	C-34
C-4. Size Distribution of Personal Trust Fund Assets in Boston, 1900, 1929 and 1949	C-35
C-5. Share of Top Quartile among Banks and Savings and Loan Associations in 18 Largest Cities, 1949	C-37

Table	Page
C-6. Change in Size Distribution of Commercial Bank Deposits in 18 Largest Cities, 1900-1949	C-41
C-7. Stability of Leadership among Ten Leading Institutions of Selected Financial Intermediaries Ranked According to Assets, 1900 to 1949	C-43
C-8. Frequency of Appearance of Same Institutions among Top Ten, Ranked by Assets; Eight Benchmark Years 1900 to 1949	C-45
C-9. Size Distribution Statistics for Commercial Banks, Benchmark Years, 1900 to 1949	C-46
C-10. Size Distribution Statistics for Mutual Savings Banks, Benchmark Years, 1900 to 1949	C-51
C-11. Size Distribution Statistics for Savings and Loan Associations, Benchmark Years, 1900 to 1949	C-54
C-12. Size Distribution Statistics for Life Insurance Companies, Benchmark Years, 1900 to 1949	C-58
C-13. Size Distribution Statistics for Fraternal Insurance Organizations, Benchmark Years, 1900 to 1949	C-60
C-14. Size Distribution Statistics for Fire and Marine Insurance Companies, Benchmark Years, 1900 to 1949	C-62
C-15. Size Distribution Statistics for Casualty and Miscellaneous Insurance Companies, Benchmark Years, 1929 to 1949	C-64
C-16. Size Distribution Statistics for Casualty and Miscellaneous Insurance Companies Licensed in New York State, Benchmark Years, 1900 to 1949	C-66
C-17. Fire-Marine and Casualty-Miscellaneous Insurance Companies: Size Distribution of Assets of Individual Companies and Groups of Affiliated Companies, 1929 and 1949	C-67
C-18. Size Distribution Statistics for Credit Unions, Benchmark Years, 1912 to 1949	C-69
C-19. Size Distribution Statistics for Management Investment Companies, Selected Years 1929 to 1949	C-71
C-20. Selected Size Distribution Statistics for Investment Bankers, 1937 and 1949	C-73

Table		Page
C-21.	Size Distribution Statistics for 1,563 Sales Finance Companies, December 31, 1947	C-75
C-22.	Size Distribution Statistics for Trust Fund Assets of 2,976 Trust Institutions, 1947	C-76
C-23.	Size Distribution Statistics for Banks and Savings and Loan Associations in 18 Largest Cities; 1900, 1929 and 1949	C-77

TABLES, Appendixes D through I

D-1.	Resources of Selected Financial Intermediaries per Thousand Square Miles, by States and Regions, 1949	D-1
D-2.	Number of Selected Financial Intermediaries per Thousand Square Miles, by States and Regions, 1949	D-4
D-3.	Percentage Distribution of Resources of Selected Financial Intermediaries by States and Regions, 1900	D-7
D-4.	Percentage Distribution of Resources of Selected Financial Intermediaries by States and Regions, 1929	D-10
D-5.	Percentage Distribution of Resources of Selected Financial Intermediaries by States and Regions, 1949	D-14
D-6.	Resources of Selected Financial Intermediaries per 100,000 Inhabitants, by States and Regions, 1900	D-18
D-7.	Resources of Selected Financial Intermediaries per 100,000 Inhabitants, by States and Regions, 1929	D-20
D-8.	Resources of Selected Financial Intermediaries per 100,000 Inhabitants, by States and Regions, 1949	D-23
D-9.	Resources of Selected Financial Intermediaries per \$100 Million Income Payments to Individuals, 1929	D-27
D-10.	Resources of Selected Financial Intermediaries per \$100 Million Income Payments to Individuals, 1949	D-30
D-11.	Percentage Distribution of Number of Selected Financial Intermediaries by States and Regions, 1900	D-34
D-12.	Percentage Distribution of Number of Selected Financial Intermediaries by States and Regions, 1929	D-37

Table	Page
D-13. Percentage Distribution of Number of Selected Financial Intermediaries by States and Regions, 1949	D-41
D-14. Number of Selected Financial Intermediaries per 100,000 Inhabitants, by States and Regions, 1900	D-45
D-15. Number of Selected Financial Intermediaries per 100,000 Inhabitants, by States and Regions, 1929	D-46
D-16. Number of Selected Financial Intermediaries per 100,000 Inhabitants, by States and Regions, 1949	D-49
D-17. Number of Selected Financial Intermediaries per \$100 Million Income Payments to Individuals, by States and Regions, 1929	D-53
D-18. Number of Selected Financial Intermediaries per \$100 Million Income Payments to Individuals, by States and Regions, 1949	D-56
E-1. Number of Investment Banking Outlets by State; 1913	E-9
E-2. Number of Investment Banking Outlets by State; 1929	E-11
E-3. Number of Investment Banking Outlets by State; 1949	E-13
E-4. Number of Investment Banking Outlets; 50 Largest Cities; 1913	E-15
E-5. Number of Investment Banking Outlets; 50 Largest Cities; 1929	E-17
E-6. Number of Investment Banking Outlets; 50 Largest Cities; 1949	E-19
E-7. Number of Investment Banking Outlets by Type of Ownership; All United States Firms and Firms in New York City; 1913, 1929 and 1949	E-21
F-1. Percentage Distribution of Market Value of Stock Outstanding by Major Industry, Benchmark Years, 1900 to 1949	F-18
F-2. Relation of the Market Value of Corporate Stock to National Assets and Wealth; Benchmark Years, 1900 to 1949	F-24

Table	Page
F-3. Relation of Market Value to Book Value of Corporate Equity by Major Industrial Groups; Benchmark Years, 1929 to 1949	F-26
F-4. Market Value of Stock Outstanding Estimated by Census Method, Benchmark Years, 1900 to 1949	F-29
F-5. Estimate of the Market Value of Stock Outstanding, Census Method, End of 1949	F-32
F-6. Market Value of Stock Outstanding, Census Method, End of 1929	F-36
F-7. Market Value of Stock Outstanding, Census Method, End of 1900	F-39
F-8. Market Value of All Stock Outstanding, and of Non-corporate Holdings, Based on the Capitalization of Dividend Payments; Benchmark Years 1900 to 1949	F-41
F-9. Proportion of the Book Value of Capital Stock of Nonfinancial Corporations Listed on the Exchanges, by Asset Size of Corporation, 1937	F-44
F-10. Market Value of Stock Outstanding, and of Noncorporate Holdings, by Major Industry Group. Based on the Capitalization of Dividend Payments; Benchmark Years, 1900 to 1949	F-45
F-11. Market Value of Gas and Electric Utilities Stock Outstanding, Excluding Intercorporate Holdings, Based on Capitalization of Dividend Payments; Benchmark Years, 1900 to 1949	F-48
F-12. Market Value of the Equity of Commercial Banks, Benchmark Years, 1900 to 1949	F-50
F-13. Market Value of the Stock of Property Insurance Companies, Benchmark Years, 1900 to 1949	F-51
F-14. Market Value of the Stock of Investment Companies, Benchmark Years, 1922 to 1949	F-53
F-15. Individuals' Holdings of Corporate Stocks, Based on the Federal Reserve Board's Survey of Consumer Finances, Early 1950	F-55
F-16. Market Value of Noncorporate Holdings of Stock, Based on Estate Tax Returns, 1949	F-56

Table	Page
F-17. Comparison of Estimates of the Market Value of All Common and Preferred Stock Outstanding, Benchmark Years, 1900 to 1949	F-58
F-18. Comparison of Estimates of Market Value of Stock: 1922	F-59
F-19. Comparison of Estimates of Market Value of Stock: Moody's and This Study; Various Years, 1912 to 1929	F-60
G-1. Securities and Mortgages Outstanding, Benchmark Years, 1900 to 1949, and 1952	G-1
G-2. Corporate Bonds Outstanding, Benchmark Years, 1900 to 1949, and 1952	G-5
H-1. Rates of Current Yield on Funds Used Directly and Funds Entrusted to Financial Intermediaries; Selected Years, 1900 to 1952	H-9
I-1. Derivation of Net Change in Balance Sheet Accounts, New York State Mutual Savings Banks, 1943	I-7
I-2. Sources and Uses of Funds Derived by the Net Change Method of Analysis, New York State Mutual Savings Banks, 1943	I-9
I-3. Flow of Funds through New York Mutual Savings Banks, 1943	I-13
I-4. Comparison of Net Change and Gross Flow Methods, New York State Mutual Savings Banks, 1943	I-17
I-5. Annual Activity Ratios, in Selected Assets 1947 to 1949, of Four Types of Financial Intermediaries	I-24
I-6. Comparison of Annual Activity Ratios of Assets among Various Financial Intermediaries, 1949	I-27
I-7. Variations of Activity Ratios among Individual Financial Institutions, 1949	I-30
I-8. Annual Activity Ratios for Different Groups of Commercial Banks at Different Time Periods, 1949	I-34
I-9. Annual Activity Ratios: Mortgage Loans of Savings and Loan Associations and of Six Large Life Insurance Companies, 1919 to 1952	I-37

Table	Page
I-10. Activity Ratios for Assets of New York State Mutual Savings Banks, 1942 to 1949	I-39
I-11. Activity Ratios for Assets of Selected Financial Intermediaries, 1933 to 1952	I-40
I-12. Annual Activity Ratios of Liabilities of Financial Intermediaries, 1897 to 1952	I-43
I-13. Detail Supporting Summary of the Flow of Funds as Shown in Table I-3, Section I	I-49
I-14. New York State Mutual Savings Banks, Comparison of Data Supplied by Adjusted Net Change Method and Gross Flow Method - January 1, 1943 - December 31, 1943	I-52
I-15. Flow of Funds Through New York State Mutual Savings Banks - 1943, Adjustment of Gross Flow Data to Funds Available for Investment Basis	I-56
I-16. Flow of Funds Available for Investment by the New York State Mutual Savings Banks - January 1, 1943 - December 31, 1943, Comparison of Statistics Furnished by the Adjusted Net Change and Gross Flow Methods	I-57

APPENDIX B

ESTIMATES OF ASSETS OF PERSONAL TRUST FUNDS
ADMINISTERED BY BANKS AND TRUST COMPANIES

Appendix B

ESTIMATES OF ASSETS OF PERSONAL TRUST FUNDS ADMINISTERED BY BANKS AND TRUST COMPANIES

Personal trust funds administered by banks and trust companies are estimated to have held approximately \$60 billion of assets at the end of 1952, mostly invested in stocks, and government and corporate bonds. These departments are as important holders of securities as any group of financial institutions. Unfortunately there is less information available on them than on almost any financial intermediary, even those of much smaller size. We were, therefore, faced with the alternative of not segregating personal trust funds administered by banks and trust companies, i.e., of merging them with the direct holdings of individuals and thus omitting them altogether from this study; or of attempting to build up the necessary statistics from scarce and unsatisfactory information, and thus to put up with results that would necessarily be affected by a considerable margin of error. The result is a compromise. In view of the importance of personal trust funds administered by banks and trust companies an attempt has been made to derive rough estimates of the total value of such funds and their distribution for the nine bench-mark dates utilized throughout this study (1900, 1912, 1922, 1929, 1933, 1939, 1945, 1949, and 1952). The amount of time spent on these estimates, however, has had to be limited and no attempt has been made to collect additional primary data. The estimates presented here should be sufficient to evaluate trends in the total assets of personal trust funds administered by banks and trust companies over the last fifty years, and in the distribution of this total between the main types of investment. This is all that is required within the confines of this study. The estimates would hardly be satisfactory if analysis of the operation of trust departments were the major specific objective of study; nor is it claimed that better figures could not have been produced using only the material now available. It was felt, however, that those improvements which could have been made solely by more thorough use of printed material would not be sufficient to warrant the additional effort required. Serious work in this field calls for additional primary data of higher quality, particularly with respect to valuation, than are now available.

*1. Aggregate Value of Personal Trust Funds Administered
by Banks and Trust Companies*

a) Character of available information

No satisfactory census of the total assets in personal trust funds administered by banks and trust companies has ever been taken, nor do we even possess sample data systematically collected. A number of estimates of total value of personal trust funds exist, it is true, but they vary in definition and methods and each of them has been prepared for one date only, mostly since the late thirties. A summary of these estimates is given in Table B-8 although the listing is undoubtedly incomplete. Only one of these estimates, that of Stephenson, is based on an inquiry directed to all banks and trust companies administering personal trust funds, but even in this case there are questions about completeness of coverage and, more importantly, about the methods of valuation. All of the other estimates are synthetic, and are generally derived by blowing up figures for trust funds in certain states or for the trust funds administered by one group of banks.

Apart from the margin of error introduced by the blow-up procedure all estimates suffer from the uncertainties and differences in (a) the definition of the types of funds covered (particularly the extent to which accounts in which the banks have only limited discretionary or advisory powers are included), and (b) The method of valuation underlying the statistics which is probably their weakest point. It is known that none of the basic statistics, whether those of the Comptroller of the Currency or those of state bank supervisory authorities, prescribe a uniform method of valuation of assets administered by trust departments. This matter is apparently always left up to the reporting institutions with the result that virtually all available data represent a mixture, with weights unknown, of at least four methods of valuation, namely (i) market value of assets of personal trust departments as of date of report; (ii) market value of the assets at the time they were entrusted to the care of the administering bank or trust company; (iii) par or face value of assets, a method particularly common for bonds and other claims; (iv) so-called control value, an administrative device under which each share of stock is given the same value, usually \$1 but some-

times \$100, while claims are generally entered at face value.¹

¹Working on these statistics one is bound to think again of the Mikado's operations "on a cloth untrue with a twisted cue and elliptical billiard balls."

It is probably true to say that nobody knows to what extent these different valuations enter into the basic data of personal trust departments with which all statisticians have necessarily had to work. The market value of the assets at the reporting date, however, has probably been only rarely employed in reports to supervisory authorities, which form the background of all statistics, although this method has in recent years been spreading in internal use as a supplement to the other less consistent methods of valuation. It is also obvious that the uncertainties and the differences in the method of valuation affect stock to a particularly great extent, and are less serious for bonds, particularly United States Government securities.

In this situation, particularly in the absence of usable estimates for the period before the late thirties, it has been felt necessary to develop a new set of figures, partly following methods of calculation adopted by previous estimators and partly using different or modified approaches.

b) Estimates based on Bureau of Internal Revenue data

The only source for a comprehensive and continuous estimate of the value of assets administered by personal trust departments is provided by certain tabulations made by the Bureau of Internal Revenue as part of its *Statistics of Income*. This source, however, unfortunately has at least four drawbacks for our purposes. First, the data refer to the income from personal trust funds rather than to their assets and, therefore, call for capitalization at assumed rates of yield for the different types of assets, always a hazardous procedure. Secondly, the reports cover without distinction personal trust funds administered by banks and trust companies and by other trustees, particularly attorneys at law. Thirdly, the figures are available only since 1937. Fourthly, beginning with 1940 the Bureau of Internal Revenue has tabulated only the returns involving net income taxable to fiduciaries, which seem to

account for about one half of the total income of all trust departments. Notwithstanding these difficulties, the Bureau of Internal Revenue statistics are probably the most promising source of deriving comprehensive figures for the assets administered by personal trust departments personal trust against which all other data can be checked, particularly as they exclude pension funds and advisory and custodianship accounts, both of which seem to be included, though to an unknown extent, in virtually all other basic data. Such use would, however, require a more intensive analysis of the material now available (published in *Statistics of Income* or available at the Bureau) than could be made on this occasion. Much more importantly, it would call for a rearrangement and expansion of the tabulations now furnished by the Bureau of Internal Revenue, an expansion which should not be beyond the realm of possibility as a total of less than 300,000 returns a year is involved.

The Bureau of Internal Revenue data in fact provide not one but two bases for estimating personal trust assets. The first is given by the reports which have been made, since 1937, on Form 1041 by fiduciaries for each of the personal trust funds with a gross income of \$500 or over which they administer. It is with these returns that the preceding paragraph has dealt.

The second is the information on income from trust funds which is included in individuals' income tax returns and which has been shown separately since 1922 (and also for the solitary year 1916) in *Statistics of Income*. These figures, however before 1936 were essentially limited to nongovernment interest, and even after that date are so far below either the totals reported by the fiduciaries themselves² or below what the true figures probably are, that no use has been made of them since no method has

²For the year 1948, for instance, income from trusts and estates reported in individuals' income tax returns amounted to only \$1,315 million compared to over \$2,300 million reported in fiduciaries' returns. The two figures could not be expected to be equal, since individuals below the exemption limit do not have to file returns, part of fiduciary income remains undistributed, and some is distributed to nonindividuals. But the difference of approximately 75 percent -- which appears to have been of about the same size in other years -- is much too large to permit use of individuals' tax returns as a basis of an estimate of all personal trust funds.

been found to adjust for the obvious under-reporting as well as for the fact that the recipients of very small incomes from trust funds are not under obligation to report them.

It is possible to derive estimates of the assets of personal trust departments from the Bureau of Internal Revenue reports by fiduciaries if one is willing to apply an average rate of capitalization to the different types of income distinguished in the reports (dividends; taxable and tax exempt interest; rents and royalties; income from unincorporated business), and if one is further ready to accept the rather crude step-up for nontaxable returns which must be made after 1939. Such estimates have been prepared for 1939, 1945 and 1948 — the last year for which the basic data were available when these calculations were made — and are shown in Table B-3 and described in the footnotes thereto. It may be said by way of anticipation that the total so obtained is not unreasonable, but appears to be on the low side, provided it is assumed that the proportion of personal trust funds administered by trustees other than banks and trust companies is small.

c) Estimates based on reports from Comptroller of the Currency

The Comptroller has since 1929 included in his annual reports a tabulation of the total amount and distribution of personal trust funds administered by national banks (see Table B-11). These figures, while comprehensive in their field, have at least three serious shortcomings if one wants to use them as a basis of a national estimate of personal trust funds administered by banks and trust companies. The first is that national banks were not fully empowered to administer personal trust funds before 1927, and that the ratio of total trust funds administered by banks and trust companies accounted for by national banks apparently has been increasing throughout the period, and for part of it rapidly. This precludes the use of a constant blow-up ratio, and no information is available on which to base an adequate variation of the ratio. It is obvious, however, that the share of national banks in all personal trust funds administered by banks and trust companies was too small before the late thirties to regard

the rate of increase of the structure of the figures reported by the Comptroller as representative. The second drawback is the existence of an unclassified category which has included as much as two-fifths of the total. The third is shared by virtually all other basic data -- the lack of uniformity in the methods of valuation and the uncertainty as to what types of funds are included. Probably the figures include most of the pension funds administered by national banks, although these are generally not regarded as personal trust funds and must be kept separate to avoid double counting. More seriously, they have included at various dates widely varying amounts of funds in agency, custodian, escrow, and similar accounts which do not represent trust funds in the sense used here.

d) Estimates based on state data

Reports of the bank supervisory authorities of certain states constitute the only source of information which is available continuously, and within their limitations apparently consistently for a comparatively long period of time; and almost the only one which reaches back beyond 1929. Unfortunately, however, there are only two states which are large enough to give their figures a representative character and which have published them back to the turn of the century, viz. Massachusetts and Pennsylvania.³

³ A few other large states, notably Ohio and Illinois, provide figures at least back to the twenties and it is possible that similarly long series might have been found for some of the smaller states if the search had been extended to them.

The figures for one of these two states moreover (Massachusetts) are of doubtful value as a basis for national estimates as a substantial proportion of all trust funds is apparently administered by trustees other than banks and trust companies. By mischance -- or rather for reasons of interstate competition -- no official data have been published for the state with the largest amount of trust funds (New York), though an attempt at a circuitous estimate has been made for the early forties in Table B-9.

The data on trust funds administered by banks and trust companies in selected states obviously can be used as a basis for a national estimate only if it is assumed

that the trend of the figures in these states is representative of that of the entire United States; and that the methods of valuation have not changed too much. A certain check on the comprehensiveness and compatibility of the data from the different states is possible, though only since the mid-thirties, by comparing the ratios of the assets reported by the various states' supervisory authorities and the ratios of income reported by fiduciaries to the Bureau of Internal Revenue, particularly for the years 1937-39 when the Bureau tabulated all such returns. An attempt to derive an index of growth of personal trust departments since 1900 from these data is made in Table B-6.

e) Estimates based on Federal Reserve Board data

The staff of the Board of Governors of the Federal Reserve System has published, as part of its Liquid Assets Survey, for the period beginning with 1939 data on the demand and time deposits and on United States Government securities included among the assets of personal trust funds administered by banks and trust companies. While the information on deposits is obtained directly from bank reports and, therefore, can be regarded as both comprehensive and accurate, the figures for United States Government securities held are derived by multiplying the estimated holdings of national banks by a constant ratio of two and one-half. The holdings of United States Government securities by trust departments of national banks, in turn, were estimated to be about one-third of all their bond holdings between June 1939 and June 1941, and it was assumed that thereafter all increases in bond holdings consisted of United States government securities. These figures, which obviously contain in themselves a substantial margin of error, can be used as the basis of another estimate of the total assets of personal trust departments if certain assumptions, derived from the material to be discussed under (2), are made regarding the distribution of personal trust funds by type of asset.

Starting from these figures an estimate has been prepared for the years 1920, 1930, 1940 and 1950 by two members of the Board's staff of the aggregate holdings of public and long-term private debt by the trust departments of commercial banks (see Table B-5),

the methods of derivation of which have not been described in detail. The results are considerably higher than the comparable figures in other estimates, particularly in Table B-1, and are difficult to reconcile with them. These estimates, together with the Board's figures on holdings of U.S. Government securities by trust departments, can be used as a basis of yet another overall estimate of trust fund assets, which is shown in Table B-5. However, as the Board's figures are now in the process of revision it has not been felt that they should be given particular weight in attempting to evolve a synthetic estimate from the numerous partial data now available.

f) Selection of final aggregate estimate

The estimates of the total value of personal trust fund assets resulting from the different methods are shown for the main bench mark dates in Table B-1. To obtain even these fragmentary figures considerable stretching and patching of the original data was necessary. It is obvious that the differences between the estimates are substantial, but that the estimates nevertheless display a common basic pattern. To obtain a final estimate it has been necessary to piece a series together from the various estimates in Tables B-3 to B-13 and from fragmentary data discussed in the text or mentioned in the notes to tables. This has required, to a good extent, judgment about the quality and the nature and direction of the errors in the different estimates, judgment that generally must lack the support of quantitative data. The result of all this is the following set of very rough estimates of the total market value of personal trust funds administered by banks and trust companies, excluding pension funds and, of course, excluding all corporate trusts and agency accounts:

<i>Market Value in Billions</i>			
1900	\$ 3	1939	\$ 35
1912	7	1945	45
1922	18	1949	50
1929	30	1952	60
1933	25		

For 1949 and 1952 the error in the estimate, if the underlying definitions are accepted, may be as much as \$5 billion and probably not more than \$10 billion, i. e., it amounts to about 10. or 20. percent of the estimated value. The error is more likely to be in overestimating than in underestimating the correct figure, if a strict definition of personal trust funds (excluding all custodian and agency accounts) is adopted. For the earlier bench mark dates the absolute errors are generally smaller, but the relative errors larger. For the Purposes of this study, however, it does not make too much difference whether the increase in the value of personal trust funds administered by banks and trust companies between 1900 and 1952 was twentyfold, as these figures indicate, or actually only fifteenfold or possibly as large as twenty-fivefold. The main characteristics of the series -- a continuous substantial increase, particularly before 1929 and after 1939, and a stagnation between 1929 and 1939 -- are not likely to be profoundly altered by better figures. Nor is it probable that additional investigation will lead to shifting the level of the entire series substantially upward or downward, except possibly before the twenties when the estimates are, in effect, heavily dependent on data from only two states.

2. Distribution of Assets of Personal Trust Departments between Main Types of Investment

The task of estimating the structure of the total assets in personal trust funds administered by banks and trust companies, i. e., of determining the percentage and the amounts held in the main types of investments, is at the same time easier and more difficult than the derivation of the figures for the aggregate value of such funds at selected bench mark dates. It is easier because there is a little more information available on the distribution of assets since for this purpose use can be made of even small samples of trust accounts. It is more difficult because of the greater variety of the estimates; the differences between them; and the greater impact on the figures of the different methods of valuation for stocks on the one hand and claims on the other.

All methods used to derive estimates of the total value of personal trust departments also provide a breakdown between main types of assets: the capitalization of fiduciary income reported to the Bureau of Internal Revenue from 1939 on; the statistics of the Comptroller of the Currency from 1929; and the data on a few of the states, particularly Massachusetts, back to 1900. In addition there are data on the distribution of several small samples of trust accounts, particularly those of Riddle (Table B-14) and of Stephenson (Table B-15). Finally, some fairly reliable figures are available on specific assets, particularly on cash, although only beginning with 1939.

One example, and possibly the most important one, of the divergencies among the estimates is given by the proportion of stock. Most sources would lead to putting this proportion at the time these estimates were made (1952) at about 40 to 50 percent. Reports of the Comptroller of the Currency, however, show a ratio of *slightly more* than 20 percent, and it is not evident to what this great difference is due since the state reports and the other data presumably also do not value stocks at market either. Moreover, most sources indicate that the proportion of stocks increased slightly between 1939 and 1949 whereas the statistics of the Comptroller show a movement in the opposite direction. Similarly, most sources agree that the share of real estate is now very small, probably under 5 percent. Capitalization of the income statistics of the Bureau of Internal Revenue, however, would lead to putting real estate at well over 10 percent of the total assets administered by trust departments.

In view of the difference between these sources and the failure of any single one to satisfy critical requirements, the pattern of distribution of assets must be built up synthetically. The results of this process of picking and choosing, it is hoped judiciously, are shown in Table B-2.

3. Final Estimates

The final estimates shown in Table B-1 find insofar as this study goes, but not in any other sense — have been obtained by applying to the estimates of the

total amount of personal trust funds administered by banks and trust companies shown in Table B-11, the percentage distribution which is indicated in Table B-2. It has already been emphasized that the estimates of both the aggregate amount and of the distribution of assets are tentative and, at least for the earlier part of the period, are subject to a substantial margin of error. The estimates of the absolute value of the different types of investment held by personal trust departments are necessarily subject to even larger relative errors than those of the aggregate amounts. It is not yet possible -- and for the period before the thirties may never be -- to derive a set of estimates which does not conflict with at least some of the figures now available on either the total amounts of personal trust assets or their distribution. This is not astonishing in view of the differences in sources, methods, scope and quality of the available data. The best that can be done in this situation is to devise a set of figures which agrees reasonably closely with what are regarded, necessarily to some extent on a subjective basis, as the most reliable figures and which tries to avoid producing movements which are prima facie unreasonable. This is all that can be claimed of Table B-1.

In comparing this table with other data three features in particular should be kept in mind: (1) The figures are intended to reflect market values throughout and, therefore, may be expected to show more pronounced fluctuations than almost all the other estimates and source materials in this field which are generally based on book values or other methods which are removed from the up and down of market valuations. Nevertheless, the figures shown in Table B-1 probably still do not show sufficient fluctuations if the strict test of market prices is applied; (2) The figures are intended to exclude pension funds administered by banks and trust companies, a qualification which is of substantive importance only during the forties; (3) The estimates still include some funds, though probably not very large amounts of them, which are not of a strictly fiduciary character but are administered

on an agency basis including investment advice. (The estimates, however, are intended to exclude in principle all agency accounts, particularly those where the functions of the bank are only those of a custodian or limited to routine services.)

4. *Partial Checks*

While there is no possibility of checking the estimates for the various types of assets held by trust departments, as they are shown in Table B-1, comprehensively or for long periods of time, two sets of statistics have become available after the original estimates were completed which permit a check of the estimates for 1949 for two important categories of assets - stocks and mortgages.

A statistical study undertaken by the Brookings Institution for the New York Stock Exchange (L. H., Kimmel, *Share Ownership in the United States*, 1952) estimated that at the end of 1951, 11.3 percent of all shares outstanding in publicly-owned stock issues were held by fiduciaries. The proportion of the value of these shares accounted for by fiduciaries may be estimated at about 14 1/2 percent. Allowing for intercorporate holdings the share of fiduciaries probably amounted to about 17 percent of all non-corporate holdings of publicly-owned stock issues. (These figures are obtained by combination of data: *op. cit.*, pp. 67 and 79.) If this percentage is applied to the total value of non-corporate holdings of stock at the end of 1949, which has been estimated at about \$121 billion in Table F-2, we obtain an estimate of stocks held in trust funds administered by banks and trust companies of about \$19 billion. This is only negligibly below the estimate of \$20 billion shown in Table B-1. The margin of error both in the original estimates of the Brookings Institution (particularly that inherent in the application of the distribution of the beneficial ownership of nominee holdings in 20 selected corporations to all publicly-held stock issues as described in Appendix B) and in the adaption to an estimate of the value of stocks held by fiduciaries are sufficient to account for a difference of more than this size. The estimates of Table B-1, may, therefore, be regarded as compatible with, and even as reasonably confirmed by, the figures based on the Brookings enquiry.

The second check is provided by the statistics of real estate loans of registrants under Regulation X of the Federal Reserve Board. These statistics show that as of May 31, 1951 the mortgage loans of corporate fiduciaries registering under Regulation X amounted to \$949 million (*Federal Reserve Bulletin*, 1952, p. 634). This figure overstates the total value of real estate loans by corporate fiduciaries as of December 31, 1949 first, because of the probable increase in such loans in the seventeen months after December 31, 1949; and secondly, because of the fact that it includes a certain amount of loans made by the banks in their capacity as agents rather than as trustees. The figure, on the other hand, understates the correct total for the end of 1949 because corporate fiduciaries not regularly making real estate loans did not have to register under the terms of Regulation X, and because a presumably small proportion of fiduciaries failed to report. The estimate of \$1,000 million of Table B-1 may, therefore, be regarded as quite compatible with the new statistics, although it may well be slightly too high.

Table B-1

B - 14

Estimated Value of Personal Trust Funds (Excluding Pension
Funds) Administered by Banks and Trust Companies

(millions of dollars)

	1900	1912	1922	1929	1933	1939	1945	1949	1952
Total Assets	3,000	7,000	18,000	30,000	25,000	35,000	45,000	50,000	60,000
Stocks	600	2,450	6,300	12,600	8,000	12,950	18,000	20,000	25,000
Bonds	750	1,750	6,300	10,650	11,250	14,700	20,475	24,000	28,500
U.S. government	0	0	900	900	2,500	3,500	12,375	15,000	17,500
State and local government	150	350	1,800	3,000	3,750	4,200	4,500	5,000	6,000
Other	600	1,400	3,600	6,750	5,000	7,000	3,600	4,000	5,000
Mortgages	1,200	1,540	2,700	3,000	2,500	2,450	1,350	1,000	1,000
Real Estate	300	700	1,350	1,500	1,250	1,750	1,350	1,000	1,000
Bank Deposits	30	210	540	900	750	1,400	1,800	2,000	2,500
Other Assets	120	350	810	1,350	1,250	1,750	2,025	2,000	2,000

Source: 1900-1949: Totals of page B-8 multiplied by percentages shown in Table B-2.

1952: Rough estimates based on movement of total assets and the composition of assets of several leading New York City trust companies (unpublished data) and of personal trust departments of national banks as reported in *Annual Report of the Comptroller of the Currency*, 1952.

Table B-2

B - 15

Percentage Distribution of Assets in Personal Trust
Funds Administered by Banks and Trust Companies

	<i>1900</i>	<i>1912</i>	<i>1922</i>	<i>1929</i>	<i>1933</i>	<i>1939</i>	<i>1945</i>	<i>1949</i>
Stocks	20.0	35.0	35.0	42.0	32.0	37.0	40.0	40.0
Bonds	25.0	25.0	35.0	35.5	45.0	42.0	45.5	48.0
U.S. Government	0.0	0.0	5.0	3.0	10.0	10.0	27.5	30.0
State and local government	5.0	5.0	10.0	10.0	15.0	12.0	10.0	10.0
Other	20.0	20.0	20.0	22.5	20.0	20.0	8.0	8.0
Mortgages	40.0	22.0	15.0	10.0	10.0	7.0	3.0	2.0
Real Estate	10.0	10.0	7.5	5.0	5.0	5.0	3.0	2.0
Bank Deposits	1.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0
Other Assets	4.0	5.0	4.5	5.0	5.0	5.0	4.5	4.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

B - 15

Source: Based on Tables B-3 to B-15.

Table B-3

B-16

Estimates of the Value of Personal Trust Funds Administered by Corporate and
Noncorporate Trustees Based on the Capitalization of Income Reported
in Returns of Fiduciaries to the Bureau of Internal Revenue

(dollar figures in millions, except as noted)

	Total Number of Returns (thousands) (1)	Total Income Including Tax-exempt Interest (2)	Dividends (3)	Interest		Rents and Royalties (6)	Trade Business and Partnership (7)	Income from Fiduciaries (8)	Misc. Income ^a (9)	Demand Deposits (10)
				Taxable (4)	Tax-exempt (5)					
1939										
1) Taxable returns	63.1	570.8	322.7	108.6	64.3	43.7	14.8	11.1	5.6	....
2) Nontaxable returns	156.5	860.4	442.6	205.0	38.5	132.8	10.4	15.4	15.7	....
3) All returns	219.6	1,431.3	765.3	313.6	102.8	176.5	25.3	26.5	21.3	....
4) Estimated value of assets (in billions)		30.4	12.8	9.0	3.7	2.2	0.3	0.7	0.5	1.2
1945										
5) Taxable returns	124.1	794.1	371.7	123.9	74.3	84.9	108.9	11.8	18.6	....
6) All returns	359.5	1,782.8	762.1	303.6	165.8	282.7	185.6	24.3	58.7	....
7) Estimated value of assets (in billions)		48.2	16.6	11.7	10.4	3.5	2.3	0.6	1.5	1.6
1948										
8) Taxable returns	107.9	953.9	551.8	90.2	54.1	123.7	97.9	15.6	20.6	....
9) All returns	369.7	2,475.8	1,291.2	257.1	139.1	492.4	182.3	36.6	77.1	....
10) Estimated value of assets (in billions)		50.4	22.5	9.2	5.8	6.1	2.3	0.9	1.9	1.7

^a Does not include net capital gains or losses.

(sources noted on next page)

Notes to Table B-3

Line

- 1 Cols. 1 and 3 to 9: Taxable fiduciary returns with net income (*Statistics of Income for 1939*, Part I, Tables II and 15), adjusted upward by the ratio of the Collector of Internal Revenue's count of the number of taxable returns to the *Statistics of Income* report of the number of taxable returns.
Col. 2: Sum of cols. 3 to 9.
- 2 Cols. 1, 3, 4 and 6 to 9: Nontaxable fiduciary returns with net income and with no net income (*Statistics of Income, loc. cit.*) adjusted upward by the ratio of the Collector of Internal Revenue's count of the number of nontaxable returns to the *Statistics of Income* report of the number of nontaxable returns.
Col. 2: Sum of cols. 3 to 9.
Col. 5: Estimated by multiplying the taxable interest reported in nontaxable returns with net income and with no net income (*Statistics of Income, loc. cit.*) by the ratio of tax-exempt interest reported in nontaxable fiduciary returns with net income.
- 3 Sum of lines 1 and 2.
- 4 The various sources of income in line 3 were capitalized as follows^{1/2}
Col. 3: Average yield of common and preferred stock (see Table F-8, Line 5).
Col. 4: Moody's average corporate bond yields (see *Statistical Supplement to the Survey of Current Business*).
Col. 5: Standard and Poor's municipal high grade bond yield (*ibid.*)
Cols. 6 and 7: Assumed yield of 8 percent. (The implied multiplier of 12^{1/2} is higher than a given rent multiplier would be, as part of rents and royalties probably are reported on net basis.)
Cols. 8 and 9: Assumed yield of 4 percent.
Col. 10: From *Federal Reserve Bulletin*, 1951, p. 808.
- 5,8 Cols. 1,3,4 and 6 to 9: *Statistics of Income*, Part 1, 1945, Taxable Fiduciary Income Tax Returns, Table 2, pp. 280-1, and preliminary unpublished data on *Statistics of Income* for 1948. No adjustment was made, as the count of the Collector of Internal Revenue and the report in *Statistics of Income* were virtually identical.
Col. 2: Sum of cols. 3 to 9.
Col. 5: Estimated on the basis of the relationship between tax-exempt and taxable interest reported in taxable fiduciary returns in 1939.
- 6,9 Col. 1 and 3 to 9: Lines 5 and 8 multiplied by $1 \div a/b$ where (a) is the 1945 or 1948 ratio of the number of nontaxable returns (unpublished count of the Collector of Internal Revenue) to taxable returns, divided by the 1939 ratio of nontaxable to taxable returns, and (b) is the ratio of nontaxable income to taxable income, by source of income, in 1939 (line 2 divided by line 1, cols. 3 to 9).
- 7,10 Same sources and methods as line 4.

Table B-4

Distribution of Personal Trust Funds Administered by
Corporate and Noncorporate Trustees, Based on the
Capitalization of Income Reported in Returns of
Fiduciaries to the Bureau of Internal Revenue

	1939	1945	1948
	<i>Amount (billions of dollars)</i>		
Total Assets	30.4	48.2	50.4
Stock	12.8	16.6	22.5
Government Bonds (state and municipal, and tax-exempt U.S. Government)	3.7	10.4	5.8
Other Bonds (corporate, and taxable U.S. Government), Mortgages, Loans and Time Deposits	9.0	11.7	9.2
Real Estate and Mineral Rights	2.2	3.5	6.1
Unincorporated Business	0.3	2.3	2.3
Demand Deposits	1.2	1.6	1.7
Miscellaneous	1.2	2.1	2.8
	<i>Percentage Distribution</i>		
Total Assets	100.0	100.0	100.0
Stock	42.1	34.4	44.6
Government Bonds (state and municipal, and tax-exempt U.S. Government)	12.2	21.6	11.5
Other Bonds (corporate, and taxable U.S. Government), Mortgages, Loans and Time Deposits	29.6	24.3	18.3
Real Estate and Mineral Rights	7.2	7.3	12.1
Unincorporated Business	1.0	4.8	4.5
Demand Deposits	3.9	3.3	3.4
Miscellaneous	4.0	4.3	5.6

Source: Table B-3.

Table B-5

Estimates of the Value of Personal Trust Assets Administered by Banks and Trust Companies, Based on Federal Reserve Board Estimates of Holdings of Long-Term Debt and Liquid Assets, and Bureau of Internal Revenue Reports of the Dividend Income of Fiduciaries

(billions of dollars)

	1922	1929	1939	1950
	(1)	(2)	(3)	(4)
1) Total Assets	26-29	36-39	38	66
2) Commercial Bank Trust Departments' Holdings of Public and Private Long-Term Debt	15	17	22	39
3) U.S. Government Securities	1	1	3	24
4) State and Local Government Bonds, Corporate Bonds, Mortgages, Loans, and Time Deposits	14	16	19	15
5) Stocks	8-10	15-17	11	20
6) Bank Deposits	1	1	1	3
7) Real Estate and Miscellaneous	2-3	3-4	4	4

Line

- 1 Sum of lines 2, 5, 6 and 7.
- 2 "The Changing Importance of Institutional Investors in the American Capital Market," by Charles H. Schmidt and Eleanor J. Stockwell, in *Law and Contemporary Problems*, Duke University, Vol. 17, No. 1 Winter 1952) p. 5. The figures refer to 1920, 1930, 1940 and 1950 respectively.
- 3 Cols. 1 and 2: Rough estimate based partly on cols. 3 and 4. Cols. 3 and 4: *Federal Reserve Bulletin*, July 1951, p. 808.
- 4 Line 2 less line 3.
- 5 Cols. 1 and 2: Rough estimate based, in part, on cols. 3 and 4. Cols. 3 and 4: Based on Table B-3, col. 3.
- 6 *Federal Reserve Bulletin*, loc. cit.
- 7 Rough estimate: see Table B-1.

Table B-6

Estimated Value of Personal Trust Assets Administered by Banks and
Trust Companies, Based on Reported Value of Personal Trust
Assets Administered by Banks and Trust
Companies in Nine States

Year	Nine Selected States ^a			Estimated Value of Personal Trusts Administered by Banks and Trust Companies	
	Value of personal trust assets (billions of dollars) (1)	Population as percent of the United States total (2)	Fiduciary income as percent of the United States total (3)	Amount (billions of dollars) (4)	Index (1948= 100) (5)
1900	.....	33.6	.....	4	8
1912	.....	31.4	.....	7	13
1922	.....	30.2	.....	18	35
1929	19.5	30.4	65.6	30	58
1933	16.0	30.3	64.0	25	48
1939	18.5	30.3	51.8	36	69
1945	22.5	28.8	51.3	44	84
1948	25.0	28.9	48.7	52	100

^a Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, Pennsylvania, Illinois.

(source notes on next page)

Notes to Table B-6 (concl.)

Column

- 1 Pennsylvania, 1900-1948: *Comparative Statement of Consolidated Resources...*, Pennsylvania Department of Banking (data for national and state banks); *Annual Report of the Comptroller of the Currency*, 1949 (data for national banks).
Massachusetts, 1900-1948: *Annual Report of the Massachusetts Commissioner of Banks*, 1935, p. XXVI (data for state banks); "Institutional Investors For Basic Industry in New England," *Monthly Review*, October 1948, Federal Reserve Bank of Boston, Statistical Appendix (data for national and state banks).
Illinois, 1929-1948: *Statement Showing Total Resources and Liabilities of Illinois State Banks*, State Auditor of Public Accounts (data for state banks).
New England states, 1930-1947: Table B-13.
New York, 1929-1948: Estimates of assets administered by state institutions based chiefly on following sources: (1) "Trustees of Funds in New York State Consider Revamping Portfolios" *Wall Street Journal*, April 12, 1950, (2) Capitalization of income of trust departments of trust institutions for 1941 on the basis of the relationship of the fee rate to the amount of principal (see Table B-9). (3) "Fiduciary Business of U.S. Trust Soars," *New York Times*, January 4, 1950. (4) Unpublished data for selected years on the value of personal trust assets administered by the trust departments of several large state institutions having a sizable trust business. (5) Unpublished estimates of personal trust assets administered by all state institutions in New York, obtained from officials of several institutions with large trust departments.
- 2 1900-1948: *Statistical Abstract of the United States*, 1950; estimates for 1912, 1922 and 1929 interpolated from decadal census figures.
- 3 1929-1948: *Statistics of Income*, various issues.
- 4 1900, 1912, 1922: Derived by extrapolating backwards the estimates for the years 1929 to 1948 on the basis of data for Massachusetts and Pennsylvania on the value of personal trust assets (see notes to col. 1) and population as a percentage of the United States total.
1929-1948: Col. 1 divided by col. 3.
- 5 1900-1948: Based on col. 4.

Estimated Value of Certain Personal Trust Funds Based on Capitalization
of Incomes Reported in Returns to the Bureau of Internal Revenue

Year	Income from Fiduciaries Reported in Individuals' Income Tax Returns Excluding		Average Yield (percentage) (3)	Capitalized Value of Income from Fiduciaries Reported by Individuals (billions of dollars) (4) (5)		Fiduciary Income Excluding Tax-exempt Interest (millions of dollars) (6)	Individuals' Income from Fiduciaries as a Proportion of Fiduciary Income Excluding Tax-exempt Interest (percentage) (7)
	Dividends and Tax-exempt interest (millions of dollars) (1)	Tax-exempt interest (2)					
1922	258		5.95	4.3			
1923	329		6.04	5.4			
1924	310		5.80	5.3			
1925	306		5.47	5.6			
1926	333		5.21	6.4			
1927	422		4.97	8.5			
1928	462		4.94	9.4			
1929	520		5.21	10.0			
1930	449		5.09	8.8			
1931	398		5.81	6.8			
1932	330		6.87	4.8			
1933	296		5.89	5.0			
1934	297		5.69	5.2			
1935	336		5.50	6.0			
1936		835	5.30		15.8		
1937		841	5.10		16.5		
1938		666	4.90		13.6		
1939		724	4.71		15.4	54.5	
1940		782	4.72		16.6		
1941		784	4.74		16.5	50.1	

Table B-7 (concl.)

Year	Income from Fiduciaries Reported in Individuals' Income Tax Returns Excluding		Average Yield (Percentage) (3)	Capitalized Value of Income from Fiduciaries Reported by Individuals (billions of dollars)		Fiduciary Income Excluding Tax-exempt interest (millions of dollars) (6)	Individuals' Income from Fiduciaries as a Proportion of Fiduciary Income Excluding Tax-exempt Interest (percentage) (7)
	Dividends and Tax-exempt interest (1) (millions of dollars)	Tax-exempt interest (2) (millions of dollars)		(4)	(5)		
1942		783	4.48		17.5		
1943		839	4.22		19.9		
1944		923	3.96		23.3		
1945		946	3.70		25.6	1,617	58.5
1946		1,108	4.10		27.0		
1947		1,231	4.51		27.3		
1948		1,315	4.91		26.8	2,338	56.2

Column

- 1 1922-1935: *Statistics of Income for 1945*, Part 1, Table 21, pp. 233-41; excludes individuals' income from dividends on stock of domestic corporations, tax-exempt interest, capital net gain from sale of assets held more than two years, and dividends on share accounts in federal savings and loan associations.
- 2 1936-1945: *Statistics of Income, loc. cit.*; excludes individuals' income from tax-exempt interest.
1946-1948: Preliminary reports on *Statistics of Income*, Part 1, Treasury Department, various releases.
- 3 1922-1933: Moody's corporate bond yield averages (*Banking and Monetary Statistics*, p. 468).
1934-1938: Based on interpolation between yields for 1933 and 1939.
1939, 1941, 1945, 1948: Based on effective yield rates implied in estimates of personal trust assets, excluding tax-exempt bonds, derived by capitalizing returns of fiduciaries to the Bureau of Internal Revenue (Table B-3).
1940, 1942-44, 1946-1947: Based on interpolation between yields for 1939, 1941, 1945 and 1948.
- 4 Col. 1 divided by col. 3. Since Col. 1 includes short-term capital gains and losses, col. 4 is likely to overstate fluctuations in market value of trust fund assets.
- 5 Col. 2 divided by col. 3.
- 6 Income of trust funds, excluding tax-exempt interest, as reported by fiduciaries (Table B-3.)
- 7 Col. 2 divided by col. 6.

Table B-8.

Some Additional Independent Estimates of the Value of Personal
Trust Funds Administered by Banks and Trust Companies

Estimator	Year	Amount (billions of dollars)	Source
Riddle	1932	31	<i>The Investment Policy of Trust Institutions</i> , 1934.
Goss	1933	25-37	<i>Barron's</i> , March 6, 1933.
Westerfield	1938	over 30	<i>Money Credit and Banking</i> , p. 1055.
Davenport	1939	50 ^a	<i>Hearings before the Temporary National Economic Committee, Part 9, Savings and Investment</i> , p. 3729.
	1946	44.6	<i>Trusts and Estates</i> , January 1947, p. 95.
Stephenson	1947	36	<i>Trust Bulletin</i> , April 1948, "Trust Business in the United States, 1947," pp. 19-32

^aIncludes personal trust funds administered by individual trustees, as well as by corporate trustees.

Table B-9

Estimate of Principal in Estate and Trust Accounts
in Trust Institutions in New York State, 1941

	15 Institutions in New York City	17 Institutions outside New York City	Nonreporting Institutions	Total
1) Trust institutions' income from entire trust department (<i>millions of dollars</i>)	29.3	1.4	3.1	34.3
2) Trust institutions' income from estates and trust activities of trust department as a proportion of entire income from operation of trust department	0.445	0.710	0.600	0.473
3) Trust institutions' income from estates and trust activities of trust departments (<i>millions of dollars</i>)	13.3	1.0	1.9	16.2
4) Proportion of trust institutions' fees to principal of estates and trusts	0.0022	0.0022	0.0022	0.0022
5) Estimated value of principal of estates and trusts administered by trust institutions (<i>million dollars</i>)	6,050	460	860	7,370

Line

- 1 For reporting institutions, from *Special Report of the Superintendent of Banks, Trust Department Earnings and Expenses*, March 5, 1943, p. 12. For nonreporting institutions, assumed at 10 percent of reporting banks, from estimate in *Special Report*, p. 12, that the reporting institutions "on the basis of reported trust department volume, administered more than 90 per cent of the total estate and trust account business conducted by corporate fiduciaries in this state."
- 2 For reporting institutions, from *Special Report*, Table V. For nonreporting institutions, rough estimates based on figures for reporting banks.
- 3 Line 1 multiplied by line 2.
- 4 Estimated on basis of data in *Special Report*, Table XX.
- 5 Line 3 divided by line 4.

Table B-10

Comparison of Various Estimates of Personal Trust Funds
Administered by Banks and Trust Companies
(billions of dollars)

Year	Capitalization of Income (Bureau of Internal Revenue) ^a (1)	State Reports ^b (2)	Direct Reports ^b (3)	Federal Reserve Board Estimates of Claims and Bureau of Internal Revenue Capitalized Dividends ^c (4)
1948	50	52	36	66
1939	30	36		38
1929		30		36-39
1922		18		26-29
1912		7		
1900		4		

^a Includes trustees other than banks and trust companies, but excludes pension funds.

^b Probably includes most pension funds, but excludes nonbank trustees.

^c Coverage of stock as in (a), of claims as in (b); small amounts allowed for real estate, cash and miscellaneous assets.

^d Estimate for 1950.

Column

- 1 1939, 1948: From Table B-3, col. 2.
- 2 From Table B-6, col. 4.
- 3 G. T. Stephenson, "Trust Business in the United States, 1947," *Trust Bulletin*, April 1948, pp. 19-32.
- 4 From Table B-5, line 1.

Table B-11

Distribution of Assets of Personal Trust Funds Administered
by Trust Departments of Active National Banks

	1933	1939	1945	1949	1952
	<i>Amount (millions of dollars)</i>				
1. Bonds	2,518	3,787	8,082	11,149	14,517
2. Stocks	1,933	2,515	2,823	4,089	5,267
3. Mortgages	709	550	337	563	810
4. Real Estate	} 672	573	465	572	736
5. Miscellaneous		393	325	697	869
6. Time Deposits	12	33	95	192	421
7. Demand Deposits	193	371	654	699	823
8. Total Specified Assets ^a	6,037	8,222	12,781	17,961	23,443
9. Other Assets	276	1,062	2,984	3,625	16,223
	<i>Percentage Distribution</i>				
1. Bonds	41.7	46.1	63.2	62.1	61.9
2. Stocks	32.0	30.6	22.1	22.8	22.5
3. Mortgages	11.7	6.7	2.6	3.1	3.5
4. Real Estate	} 11.1	7.0	3.6	3.2	3.1
5. Miscellaneous		4.8	2.5	3.9	3.7
6. Time Deposits	0.2	0.4	0.7	1.1	1.8
7. Demand Deposits	3.2	4.5	5.1	3.9	3.5
8. Total Specified Assets	100.0	100.0	100.0	100.0	100.0

Source: *Annual Report of the Comptroller of the Currency*, various issues, e.g. 1952, pp. 103, 106.

^a Mostly custodian, agency and similar accounts. Specified assets apparently also include substantial amounts held in such accounts.

Distribution of Assets of Personal Trust Funds Administered
by Trust Institutions in Massachusetts

	1900	1912	1922	1929	1933	1939	1945	1947
<i>Amount (millions of dollars)</i>								
Total Assets	13.9	68.1	316.8	755.2	956.2	1,155.0	1,306.6	1,383.9
Total Bonds	3.0	8.6	128.8	303.8	393.1	465.8	525.5	574.2
Federal, state and local Government	0.4	2.2	63.4	85.5	117.1	185.4		
Other	2.6	6.4	65.4	218.3	276.0	280.4		
Total Stocks	2.6	30.2	125.3	324.6	433.1	535.0	656.6	693.8
Mortgages	6.2	18.1	29.6	61.8	53.4	33.0	11.7	8.1
Real Estate	1.1	7.0	16.7	34.2	44.0	51.0	33.9	31.7
Loans and Discounts	0.5	2.0	2.4	3.7	3.2	3.0	2.2	2.7
Demand Deposits	...	0.9	6.7	15.8	16.3	43.0	53.9	52.2
Time Deposits	0.1	0.5	2.4	8.6	7.9	17.0	17.1	16.2
Other	0.3	0.8	5.0	2.8	5.3	7.0	5.7	5.0
<i>Percentage Distribution</i>								
Total Assets	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Bonds	21.7	12.6	40.6	40.2	41.1	40.2	40.2	41.5
Federal, state and local Government	2.9	3.2	20.0	11.3	12.3	15.8		
Other	18.8	9.4	20.6	28.9	28.8	24.4		
Total Stocks	18.8	44.4	39.6	43.0	45.3	46.5	50.3	50.0
Mortgages	44.9	26.6	9.3	8.2	5.6	2.9	0.9	0.6
Real Estate	8.0	10.3	5.2	4.5	4.6	4.4	2.6	2.3
Loans and Discounts	3.6	2.9	0.8	0.5	0.3	0.3	0.2	0.2
Demand Deposits	...	1.3	2.1	2.1	1.7	3.7	4.1	3.8
Time Deposits	0.7	0.7	0.8	1.1	0.8	1.5	1.3	1.2
Other	2.2	1.2	1.6	0.4	0.5	0.6	0.4	0.4

Sources: 1900-1939: *Annual Report of the Massachusetts Commissioner of Banks*, 1939, p. XXVI.

1945-1947: "Institutional Investors Form Basic Industry in New England," *Monthly Review*, October 1948, Federal Reserve Bank of Boston, Statistical Appendix.

Table B-13

Distribution of Assets of Personal Trust Funds Administered
by Banks and Trust Companies in the New England States

	1930 ^{a,b}	1933 ^{a,b}	1939 ^a	1945 ^a	1947 ^a
<i>Amount (millions of dollars)</i>					
Total Assets	1,625	1,817	2,718	3,493	3,165
Bonds	550	631	965	1,218	1,175
Stocks	709	774	1,279	1,595	1,397
Mortgages	141	136	120	63	27
Real estate	64	95	137	104	70
Miscellaneous	...	...	10	20	21
Loans and discounts	5	6	4	2	0
Demand deposits	21	22	65	101	102
Time deposits	19	23	66	56	43
Other	96	130	72	334	331
<i>Percentage Distribution</i>					
Total Assets	100.0	100.0	100.0	100.0	100.0
Bonds	33.8	34.7	35.5	34.9	37.1
Stocks	43.6	42.6	47.1	45.7	44.1
Mortgages	8.7	7.5	4.4	1.8	0.9
Real estate	5.2	5.2	5.0	3.0	2.2
Miscellaneous	...	...	0.4	0.6	0.7
Loans and discounts	0.3	0.3	0.1	0.1	0.0
Demand deposits	1.3	1.2	2.4	2.9	3.2
Time deposits	1.2	1.3	2.4	1.6	1.4
Other	5.9	7.2	2.7	9.5	10.5

^a Does not include personal trust assets administered by state banks and trust companies in Maine, which comprised less than 1 percent of the New England total.

^b Does not include personal trust assets administered by national banks. In 1939 these assets accounted for 22 percent of the New England total.

Source: "Institutional Investors Form Basic Industry in New England," *Monthly Review*, October 1943, Federal Reserve Bank of Boston, Statistical Appendix.

Table B-14

Percentage Distribution of Trust Investments of 196 Trusts

	1919	1922	1929	1932
Total Assets	100.0	100.0	100.0	100.0
Total Bonds	22.9	31.0	31.3	36.6
U.S. Government	3.0	4.7	1.6	3.1
State and local	5.9	10.6	10.9	14.1
Other	14.0	15.7	18.8	19.1
Total Stocks	42.9	41.4	40.1	36.8
Preferred	7.9	7.6	5.9	4.4
Common	35.0	33.8	34.2	32.4
Mortgages	16.5	13.0	21.5	22.3
Real Estate	17.0	13.6	6.2	3.0
Miscellaneous	0.7	1.0	0.9	1.6

Source: *The Investment Policy of Trust Institutions*, N. Gilbert Riddle, 1934, Table VIII, p. 147.

Table B-15

Percentage Distribution of Assets of Discretionary Personal
Trust Departments, by Geographical Regions
1943

Type of Investment	New England States	Eastern States	Southern States	Mid-Western States	Western States	Pacific States	U.S.A.
Federal, State and Local Government Securities	42.6	44.3	46.8	39.4	47.3	54.4	43.9
Corporate Bonds	11.7	12.3	13.6	20.9	13.6	11.0	14.8
Total Bonds	54.3	56.6	60.4	60.3	60.9	65.4	58.7
Common Stocks	41.0	23.0	20.0	27.7	18.7	23.3	25.3
Preferred Stocks	3.0	14.4	10.0	8.2	7.7	10.7	10.9
Total Stocks	44.0	37.4	30.0	35.9	26.4	34.0	36.2
Mortgages and Real Property	1.7	6.0	9.6	3.8	12.7	0.6	5.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Based on \$176.4 million of trust assets in 463 typical discretionary trust accounts held by 96 trust institutions in 50 cities of 34 states.

Source: "Present Day Practices in Diversification of Trust Investments," Gilbert T. Stephenson, *Trust Bulletin*, September 1944, beginning on p. 14.

APPENDIX C

NOTES AND STATISTICS ON SIZE DISTRIBUTION
AMONG FINANCIAL INTERMEDIARIES

Appendix C

Notes and Statistics on Size Distribution among Financial Intermediaries

1. An Introductory Warning

At first sight size distribution appears to be a simple enough concept. It is used here to denote a measure, or rather a set of measures, of the distribution of the total assets of a group of financial intermediaries at a given date among the units making up the group. The distribution to which the concept is most commonly applied is that of total assets or a similar magnitude. It is for instance asked what is the share at the end of 1949 of the ten largest life insurance companies, or the top percentile of all life insurance companies, in the total assets of all life insurance companies operating at that date in the United States.¹

¹ The concept can also be applied to a distribution of units not according to the size of their assets but by other characteristics, e.g. by location. This leads, for instance, to a measure of distribution — discussed in Section 8 of Chapter IV, and Section 3 of this Appendix — of the assets of financial intermediaries in New York City.

Even the simple approach limited to a one-way distribution (by size of assets of individual units) of one aggregate (total assets of a group of financial intermediaries) raises a number of problems, some of which are purely statistical while others are of a more complex nature. From a practical point of view the most important of these are:

1. The definition of the group of financial intermediaries to which the measure of size distribution is applied.
2. The measurement of total assets of individual units, and hence of the group.
3. The choice between a narrow (legally independent entity) and a broad (common control by stock ownership or other means) basis of distinguishing individual units.
4. The precise nature of the measure of distribution to be used.

The first problem generally does not give rise to serious difficulties. There may be a question, for instance, whether to treat all property insurance companies as one group or

to distinguish, for the purpose of calculating measures of size distribution, two separate groups (fire and marine; casualty and miscellaneous), or even a larger number of groups. Such questions have to be decided from case to case. The main criterion generally will be whether the units are sufficiently similar in the nature of their operations to be regarded as belonging to one "industry," which in turn may be interpreted as meaning whether or not they are directly in competition with each other. No classification of this character will ever be entirely satisfactory in serving all purposes, but the possibility of obtaining misleading results should be small unless gross errors are made in selecting the groups to be used and in assigning individual units to them.

The second question likewise does not raise serious difficulties so long as the assets of the different units in the group are valued on the same basis, i.e. so long as all units value the same type of asset or liability in the same way. It remains true, however, that even a basis of valuation uniform for all units, such as valuation at original cost, will not produce exactly the same measure of distribution as alternative uniform valuation methods, e.g. market price, because the ratio of book to market values differs as between individual units. It is unlikely, however, that measures of distribution will differ significantly unless there is a marked correlation between the size of the units and the ratio of book to market values (or the ratio between other possible measures of valuation).

Differences between the narrow and the broad basis, on the other hand, are often very considerable. They do not arise where intragroup ownership or common control by owners outside the group is absent or negligible. This is the case, for instance, for mutual savings banks, savings and loan associations, credit unions, and mutual and fraternal insurance organizations, generally because the legal form of organization does not permit ownership control of one unit by another unit in the group, or ownership control of more than one unit by the same group of outsiders. Wherever the corporation is the predominant form of organization there is a possibility of intragroup ownership control or of control of more than one unit by identical outsiders, and there is also the possibility of control by other means such as interlocking directorates or management contracts. These possi-

bilities have been realized, although to a different degree and to an extent changing over time, in the field of commercial banks, stock property insurance companies, investment companies, and sales and personal finance companies. They may take the form either of operation through fully-owned subsidiaries of a common parent holding company, such as is common among sales and personal finance companies, chiefly because of the character of state regulatory legislation applicable to them and in some areas among commercial banks; or of groups and chains, held together by majority or minority stock ownership, such as are found among property insurance companies, closed-end investment companies and commercial banks; or, finally, of common management without ownership control, encountered among open-end investment and property insurance companies. There would seem to be little doubt that it is preferable, as being more in keeping with the realities of the situation, to regard parents and fully-owned subsidiaries as one unit in measuring distribution. The decision is open to question in cases of majority ownership, and is still more in doubt for minority ownership and control by means other than ownership. For some purposes it is preferable to adhere to the legal concept and to count each formally independent unit separately, while for others all units under common ownership or management are better counted as one unit. Hence, measures of distribution should be calculated on both bases for those branches of financial intermediaries in which groups are of significance, one measure being based on the narrow (legal entity) and the other on the broad (common control) concept. The available statistical data do not always permit this to be done, but it has been possible to calculate both ratios for property insurance companies and management investment companies beginning with the late nineteen-twenties, the groups and period for which differences between the two measures are likely to be considerable.

Statisticians have not yet devised a generally accepted single measure of size distribution applicable to all situations. Probably the most popular device for measuring size distribution is the so-called Lorenz curve. When applied to the assets of groups of financial

intermediaries the curve reflects the share in the group's total assets of individual units cumulated from the smallest to the largest unit.² The Lorenz curve can be plotted only if

² The curve is calculated by determining the cumulative share in the total assets of the group of the first, second, etc. percent of all units arranged by size starting from the smallest ones (or such other percentages as are available from a size distribution). If a group's total assets were equally divided among all units, the cumulated percentages of units and of assets obviously would be identical, e.g., any 10 etc. percent of all units will also account for 10 etc. percent of total assets. Whenever a group's total assets are unequally distributed, the cumulated percentages of assets (starting from the smallest unit) are smaller than the corresponding percentages of number of units. The extent of the difference between the two percentages -- taken either at selected points of the curve or summed over its entire range -- then measures the degree of inequality.

the assets of all individual units belonging to the group are known so that they can be arranged into a size distribution. This is not generally the case for financial intermediaries, particularly before the nineteen-thirties. Presentation of Lorenz curves, therefore, has been limited to the year 1949 and to the larger groups of financial intermediaries. For the other years, and hence for the measurement of changes in size distribution, use has been made of five simple measures, viz.:

1. The share of the largest individual unit in a group's aggregate assets
2. The share of the ten largest units
3. The share of the one-hundred largest units
4. The share of the top percentile of units (i.e. the largest one-hundredth of the total number of units)
5. The share of the top decile of units.

Rationale and interpretation of ratios 1 to 3 differ somewhat from those applicable to 4 and 5. The share of the ten or one-hundred largest units obviously does not take account of differences in the number of units belonging to a group either as between different dates or as between different groups. Hence these shares will, other things being equal, be smaller the larger the number of units in the group. The share of the top percentile or top decile of units, on the other hand, automatically makes allowance for difference on changes in the number of units (the top percentile, for instance, comprises the largest ten units of a group of 1,000 but comes to include the largest twenty if the number of units in the group increases

to 2,000), and is therefore based on a changing number of large companies. For a full understanding of the changes in size distribution it is generally necessary to consider both types of measures, those based on an absolute number of large units and those derived from a fixed percentage of all units in the group.

Measures of size distribution based on a given proportion of the number of all units, such as ratios 4 and 5, have the disadvantage that they are very sensitive to the extent to which very small units, often quite numerous but of negligible quantitative importance, are covered by the statistics. They may therefore vary, over time or as between different groups, depending solely on completeness in coverage of small units and changes in it. Ratios of a given number of large units, such as ratios 1 to 3, are hardly susceptible to this variation (as total assets of the group are only slightly increased by the addition of those of the smallest units), and hence are generally preferable for comparisons over time where the degree of coverage in the basic statistics has changed significantly, unless there has been a substantial change in the total number of units consistently defined. In that case, and therefore also in most cases of comparisons of size distribution among industries, shares of a given proportion of all units are less likely to be misleading.

It must now be emphasized as strongly as possible that all measures of size distribution used here do nothing but summarize the size distribution of total assets among units belonging to one group of financial intermediaries. They cannot be used without further investigation, which would have to extend far beyond the field covered by this study, as indicators of "concentration of economic power" or as measures of the degree of competition and monopoly. All that can be claimed is that the statistical measures of size distribution of total assets in any given group of financial intermediaries at a given date provide indications of potential economic power, but they cannot tell anything about the questions whether and how that potentiality has been realized. The statistics of size distribution may indicate a high degree of inequality among the sizes of individual units and yet an industry may be quite competitive and evidence little actual use of the potential

economic power inherent in the concentration of a large proportion of the group's total assets in a few enterprises. On the other hand a statistically low degree of inequality may hide monopolistic characteristics and abuse of economic power exercised through other means such as cartel-type agreements. Similarly, changes in statistical measures of size distribution over time may provide a starting point for an investigation of changes in the degree of monopoly or concentration of economic power, but taken by themselves they cannot do much more than that. It would mean taking a low view of the tasks and difficulties of economic and sociological analysis to believe that calculation of a few simple statistical measures could provide the answers to economic problems of great complexity. All that such statistical measures can do — and that is not a negligible achievement and one that must precede further and more adequate analysis — is to throw into relief certain quantitative characteristics of the structure of financial intermediaries which may be, and often are, of economic importance. By doing so they may possibly lead to the formulation of hypotheses, but such hypotheses then have to be explored in much more detail and often by quite different methods before being confirmed, rejected or modified.

2. Size Distribution of Financial Intermediaries on a National Scale

This section deals only with size distribution of financial intermediaries (in the purely statistical sense of the share of the largest units in total assets or deposits) on a national scale. This means that all financial intermediaries of a given type operating within the United States are regarded as constituting one "population." The question of size distribution at the local level, i.e. the share of the largest units in assets or deposits of all financial intermediaries of one type operating in one city, will be taken up in Section 3. We shall begin by describing the character of the size distribution existing in 1949 among all major groups — about a dozen — of financial intermediaries, and by a brief exploration of the significance of the differences in distribution that will be found. This will be

followed by a look at the trends in size distribution between 1900 and 1949 for the most important types of financial intermediaries that have operated throughout the first half of the twentieth century insofar as the material is available, i.e. for commercial and mutual savings banks, savings and loan associations, and life and property insurance companies.

a). Size distribution of financial intermediaries in 1949

As has been pointed out in Section 1, two types of measures readily suggest themselves. The first is the share of the largest one, ten or one-hundred units, or of the top percentile or decile among each group of financial intermediaries; the second the Lorenz curve. Because it covers the entire size range and can be approximated by an algebraic expression, the Lorenz curve is theoretically a preferable measure of distribution. However, the data necessary to construct Lorenz curves are not available for all types of financial intermediaries or for all benchmark dates, and the measures characterizing the shape of the Lorenz curve are somewhat more difficult to understand than the simple shares of the largest units.

Table C-1 shows, where applicable, five measures of size distribution for each group of financial intermediaries: the share of the largest one, ten and one-hundred units and the share of the top percentile and decile of units. In a few cases where the differences are significant, separate figures are shown on the narrow (legal entity) and the broad (common control) basis. The share of the largest individual unit in total assets (or deposits or other relevant aggregate) of a group of financial intermediaries ranges from less than 1 percent for savings and loan associations to more than 20 percent for sales finance companies.³ Differences are similar for the shares of the largest ten and one-

³ Figures shown in text and tables of this appendix do not reflect later revisions made in total assets and distribution of assets of the various financial intermediaries. However, the measures shown here would be only slightly altered if the later figures were used.

hundred units. The share of the largest one-hundred units, for instance, is as low as 21 percent for savings and loan associations, but reaches 97 percent for life insurance companies.

Table C-1

Size Distribution among Financial Intermediaries, 1949

	<i>Percent of deposits ^a or assets ^a held by:</i>				
	Unit	Largest		Top	
		10 Units	100 Units	Percent- tile	Decile
1) Commercial banks: A	4.0	19.7	45.5	49.8	76.9
2) Mutual savings banks	4.4	24.4	72.7	15.8	58.1
3) Savings and loan associations	0.7	4.8	20.6	15.4	49.4
4) Credit unions	...	5.2	23.6	13.7	51.1
5) Personal trust departments	(5.0)	(20-25)	78.7	47.0	91.7
6) Life insurance companies	16.3	66.4	96.5	55.5	93.2
7) Fraternal insurance organizations	8.5	47.2	...	16.5	62.7
8) Fire insurance companies	4.8	28.4	...	22.0	64.0
9) Casualty insurance companies	5.7	32.3	...	16.7	62.5
10) Property insurance companies: A	2.6	16.9	52.6	16.9	52.3
B	5.3	31.8	79.5	26.1	68.7
11) Management investment companies: A	8.7	36.0	...	14.2	53.0
B	9.5	47.5	...	9.5	47.5
12) Sales finance companies (1947)	23.3	66.6	36.6	70.7	90.1
13) Personal finance companies	17.3	53.7 ^b	...	...	...
14) Investment bankers and security dealers	7.1	30.3	84.9	21.8	75.6

^a Percent of total deposits for banks, of participations in registered issues for investment bankers and security dealers, and of total assets for other groups.

^b Thirteen companies with assets over \$10 million.

A: Based on legal entity, unadjusted for existence of common control.

B: Adjusted for the existence of common control.

Notes to Table C-1 (concl.)

Line

- 1 to 12, 14 Tables C-9 to C-22, except for the shares of the largest and ten largest personal trust departments, which are very rough estimates.
- 13 See notes to Table A-26.

These measures are influenced by the number of units within a group, and hence are necessarily higher for groups consisting of a relatively small number of units such as life insurance companies, mutual savings banks, and investment companies, than for groups made up of a much larger number of units such as commercial banks and savings and loan associations. It is therefore often preferable to use a measure which in some sense adjusts for this difference in the number of units belonging to a group. When such measures are used the differences among types of financial intermediaries, though still quite pronounced, are somewhat reduced. What is more interesting, the different branches of financial intermediaries now seem to fall in to a few distinct groups showing a substantially different degree of concentration.

The share of the top percentile of units is low -- smaller than one-sixth -- among mutual savings banks, savings and loan associations, credit unions, fraternal insurance organizations, property insurance companies and management investment companies. It is high -- close to or in excess of one-half -- for commercial banks, personal trust departments, life insurance companies, sales finance companies and personal finance companies. Moreover, there is a wide gap between the highest ratio in the first group (22 percent for investment bankers and security dealers), and the lowest ratio of the second group (47 percent for personal trust departments). The situation is similar if instead of the share of the top percentile, the share of the top decile is used as the measure of size distribution. The same groups show relatively low ratios -- now ranging between one-half and two-thirds -- and the same ones show high ratios -- now nine-tenths or more -- as when the share of the top percentile of units was used as the criterion.

It may have been noticed that most groups with low ratios operate locally, i.e. their offices are located in one city or metropolitan area, and most of their depositors and direct borrowers are situated in the same area, though this applies more to measures based on the largest units than on these using percentiles.⁴ On the other hand, most groups with

⁴ To the extent that resources are invested in the securities of the Federal Government or of large corporations, the distinction between localized and nation-wide operations loses its significance. This fact, however, would seriously invalidate the value of the distinction

only if either most of the assets were so invested, or if the remaining geographical differences in the sources of funds and in the location of offices were regarded as of negligible importance.

high ratios operate on a nation-wide scale, i.e. their office or agency-net covers the entire United States or considerable parts of it; they draw their funds not from a restricted geographical area but again from the entire territory of the United States or large sectors of it; and they make their resources available to borrowers distributed over a similarly wide area. This grouping is entirely natural.⁵

⁵ Even if the number of units and the pattern of size distribution were the same in every city but total assets varied among cities, national concentration ratios would generally be higher than the uniform local ratios as is readily apparent from simple numerical examples. Assume, e.g. three cities each with five units having assets of ratios 1: 2: 3: 4: 5 as follows:

	<i>City</i>			
	<i>A</i>	<i>B</i>	<i>C</i>	<i>All three</i>
Unit 1	50	100	150	300
Unit 2	40	80	120	240
Unit 3	30	60	90	180
Unit 4	20	40	60	120
Unit 5	10	20	30	60
Total assets	150	300	450	900

The ratio for the first quintile of units on a national basis is $\frac{370}{900} = 0.411$ against 0.333 for each city. The difference will be relatively larger if there is positive correlation between degree of concentration and size of city (measured by assets), and smaller if correlation is negative (see Section 3, part b).

There are, however, apparent exceptions in each instance. The ratio for property insurance companies is close to those typically found for local intermediaries although many property insurance companies operate on a nation-wide basis. This apparent exception disappears if we take account of the existence of groups (fleets) of companies which are particularly important in this industry. On the other hand, commercial banks — although essentially local in operation — show a ratio close to that typical for financial intermediaries operating on a nation-wide scale. This may be due to operation beyond the local level on

the part of large banks, particularly those in financial centers like New York and Chicago; or it may reflect very high local ratios, a question that will be investigated in Section 3. The apparent deviation is still more striking in the case of personal trust departments. Though in form local they show as high a share for the large units as nation-wide intermediaries. There are three possible explanations, first, a high degree of concentration of wealthy individuals in a few cities, well in excess of the concentration of population, national income and assets of financial intermediaries; secondly, a very high degree of local concentration of personal trust business; and thirdly, the likelihood that personal trust departments of large banks in financial centers attract business from well beyond their metropolitan area. All three factors probably have actually been at work.

Local or nation-wide operation — understood in the effective rather than the formal sense — seems to be the only characteristic of financial intermediaries which is reasonably closely connected with the shape of the size distribution of assets. At least no such connection is evident when financial intermediaries are grouped by two other criteria which might be thought to reveal such a relation — age and size. There is no evidence that the share of large institutions is higher for old branches of financial intermediaries, such as banks and insurance companies, than for new branches like investment companies, credit unions, and sales and personal finance companies. Nor do large groups of financial intermediaries, measured by total assets, such as commercial banks, life insurance companies, and personal trust departments, seem to have higher ratios — once the local or nation-wide character of operations is taken into account — than relatively small groups like mutual savings banks, savings and loan associations, management investment companies, credit unions, property insurance companies, sales finance and personal finance companies. Indeed, the highest ratios are shown by two relatively small groups (sales and personal finance companies), but the lowest ratios are also found among smaller branches of financial intermediaries (credit unions; savings and loan associations).

Essentially the same picture of size distribution is shown in Chart C-1 by Lorenz curves for almost a dozen groups of financial intermediaries as of 1949. This chart provides a pic-

ture of size distribution over the entire size range for each group of intermediaries rather than limiting itself, as Table C-1 necessarily does, to indicating the shares of the large units. As the chart is arranged the character of the distribution is indicated by the size of the segment between the Lorenz curve and the diagonal line of equal distribution in comparison to the size of the entire triangular area between the diagonal and the horizontal and vertical axes. The larger the area of the segment compared to that of the triangle, i.e., the more convex the Lorenz curve is to the horizontal axis, the more unequal the distribution.⁶

⁶ For a mathematical discussion of measures of size distribution derived from the Lorenz curve see, for instance, The Advanced Theory of Statistics, by M. G. Kendall, Vol. 1, pp. 43-45.

It is immediately evident from Chart C-1 that the inequality in the distribution by size is considerably less pronounced for savings and loan associations, mutual savings banks and credit unions⁷ and property insurance companies⁸ than for life insurance companies,

⁷ While the curve labelled "credit unions" is actually based on federally-chartered unions, which in 1949 accounted for 46 percent of the number and 38 percent of the assets of all credit unions, there is no reason to assume that the shape of the curve would be considerably different if data had been available also for state-chartered unions.

⁸ If the curve for property insurance companies were based on "fleets" (i.e. groups of affiliated companies), inequality would be considerably more pronounced,

sales finance companies and personal trust departments, and for commercial banks it is approximately mid-way between that typical for the other two groups. In the first group it takes the top decile of units to account for one-half of the total assets of the branch of financial intermediaries to which the curve applies. In the second group usually 1 to 2 percent of the units, and in some cases considerably less, suffice for the same purpose. Alternatively, the largest 50 percent of the units accounted for not much over 90 percent of total assets in the first group of intermediaries, but represented 98 percent or more of total assets among financial intermediaries belonging to the second group.⁹

⁹ No mention is made in the text of the degree of inequality in size among investment bankers and security dealers first because of the lack of comprehensive data, and secondly because of doubts whether in this case, total assets, net worth or volume of business (represented e.g. by participation in underwritings) provide a better basis for the calcu-

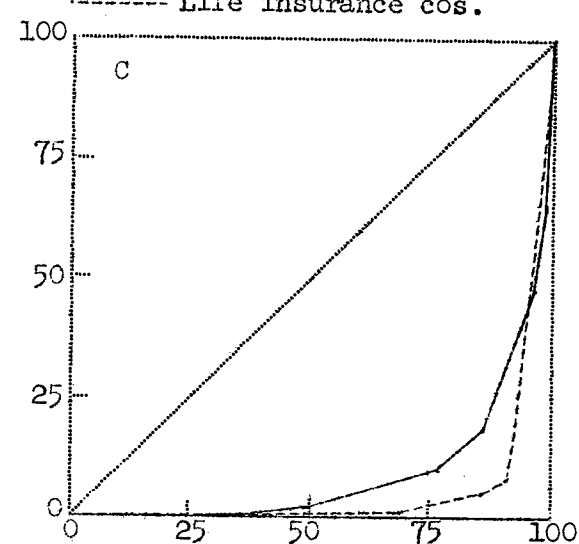
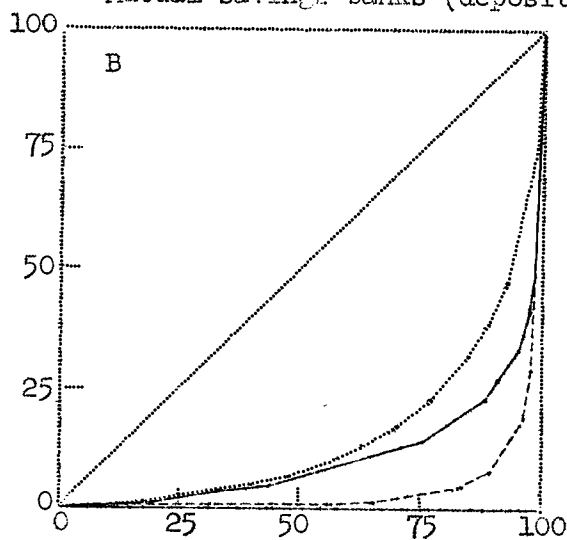
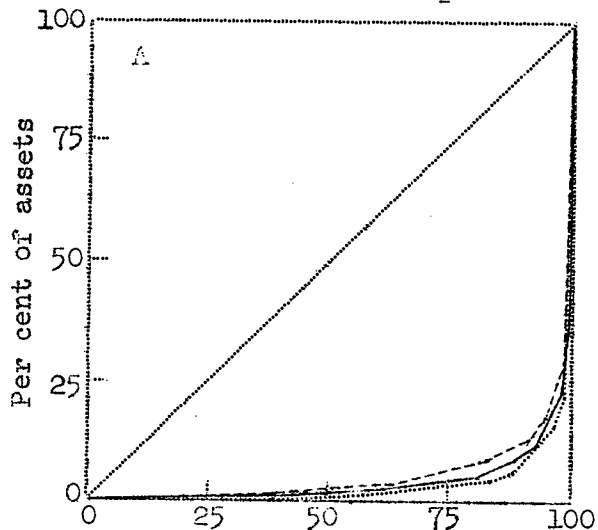
Chart C-1

Size Distribution of Assets of Selected Groups of Financial Intermediaries, 1949

- All corporations
- - - Nonfinancial corps.
- · · Financial corps.

- Commercial banks (deposits)
- - - Personal trust departments
- · · Mutual savings banks (deposits)

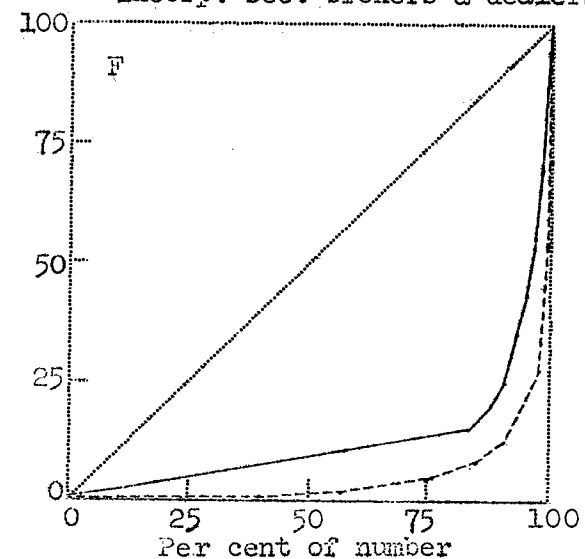
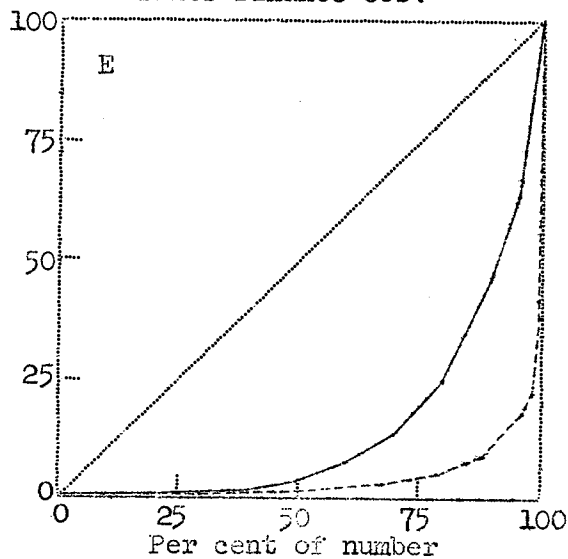
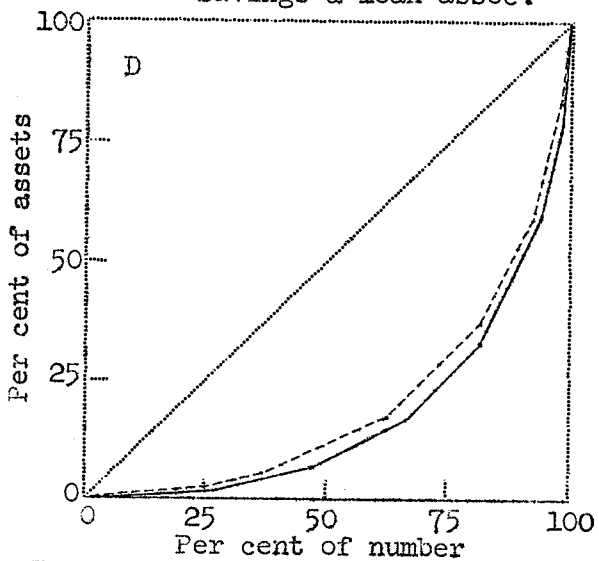
- Property insurance cos.
- - - Life insurance cos.



- Credit unions
- - - Savings & loan assoc.

- Management investment cos.
- - - Sales finance cos.

- Inv. bankers (participations)
- - - Incorp. sec. brokers & dealers



For sources see next page.

Sources for Chart C - 1

Graph

- A *Statistics of Income for 1949*, Source Book.
- B Commercial banks: Deposits of insured commercial banks as of September 30, 1949 from *Annual Report of the Federal Deposit Insurance Corporation*, 1949, pp. 82, 92.
- Mutual savings banks: Derived from the Directory of the National Association of Mutual Savings Banks, *Mutual Savings Banks of the United States 1950*. Data refer to deposits.
- Personal trust departments: Data for 1947 from "Trust Business in the United States 1947," by G. Stephenson, *Trust Bulletin*, April 1948, p. 21.
- C *Statistics of Income for 1949*, Source Book.
- D Credit unions: Covers federal credit unions, from *Annual Report of Operations - Federal Credit Unions 1949*, Federal Security Agency.
- Savings and loan associations: Covers Federal Home Loan Bank members, from *Combined Financial Statements; Members of the Federal Home Loan Bank System 1949*, Home Loan Bank Board.
- E Management investment companies: Unpublished Security and Exchange Commission data.
- Sales finance companies: *Statistics of Income for 1949*, Source Book.
- F Investment bankers: Derived from Securities and Exchange Commission, *Statistical Bulletin*, March 1950, pp. 8-9
- Security and commodity exchange brokers: *Statistics of Income for 1949*, Source Book.

lation. The few relevant figures available for 1949 and 1937 have been assembled in Table C-20. The difference among ratios derived from different bases is striking. Inequality is quite pronounced if based on either new corporate issues managed or assets of incorporated security dealers, the distribution closest in concept to that used for other groups of financial intermediaries and one which may not be entirely unrepresentative for unincorporated security dealers also; but is relatively low if calculated on the basis of underwriting participations or net worth of the 400-odd firms of substantial size.

While it is evident that there are considerable differences in the degree of inequality in size if different groups of financial intermediaries are compared — even though the Lorenz curve appears to be fairly far from the diagonal in all cases — it remains to be seen whether inequality is smaller among financial intermediaries than among nonfinancial business enterprises, or whether it is significantly higher. The comparisons necessary to decide this question are rather difficult to make. One way would be a comparison of the shape of the size distribution in the different branches of financial intermediaries with that found in individual non-financial industries. In that case selection of industries for comparison presents a problem, particularly the question how broad the definition of nonfinancial industries used for comparison should be. The main immediate obstacle, however, is the absence of comparable measures for nonfinancial industries and the impossibility of providing them here.¹⁰

¹⁰The only readily available measures refer to nearly 300 manufacturing industries in 1935 (National Resources Committee, *The Structure of the American Economy*, 1939, Part I, Appendix 7), and provide information only on the share of the largest four and eight producers in total value of product (and some other aggregates) rather than a complete Lorenz curve based, as in the case of financial intermediaries, on total assets. It is evident from this material — even keeping in mind the differences between statistical sources and methods used — that the share of the largest eight producers varies somewhat more among manufacturing industries than the share of the largest ten units does among branches of financial intermediaries, although this may be due simply to the fact that the number of separate manufacturing industries is much larger than that of individual branches of financial intermediaries. The typical degree of inequality, however, appears to be approximately the same among manufacturing industries as among financial intermediaries. Among twenty-one large industries (defined as having more than 100,000 wage earners) the median share of the largest eight producers in total value of product was 26 percent. (The comparable ratio was 32 percent for forty-four medium industries and approximately 55 percent for 210 small industries.) The median for nine of the groups of financial intermediaries shown in Table C-2, which probably is best compared with the figure of 26 percent for the large manufacturing industries, is 33 percent for 1933, the nearest year for which comparison is possible. (The figure represents data for 1929, 1936, and 1937 in the case of fraternal insurance organizations, investment companies, and investment bankers respectively.)

All that can be done, therefore, is to compare the size distribution among all financial and all nonfinancial corporations in 1949, using income tax returns with their varying degree of consolidation between parents, subsidiaries and affiliates. The relevant data, appearing in Chart C-1, show that over most of the range inequality is slightly less pronounced among nonfinancial corporations than among financial corporations.¹¹

¹¹ The difference would probably be more pronounced if it were possible to include unincorporated business enterprises. In that case both curves would shift toward the diagonal — indicating a lower degree of inequality — and it is likely that the shift would be more pronounced for non financial than for financial enterprises.

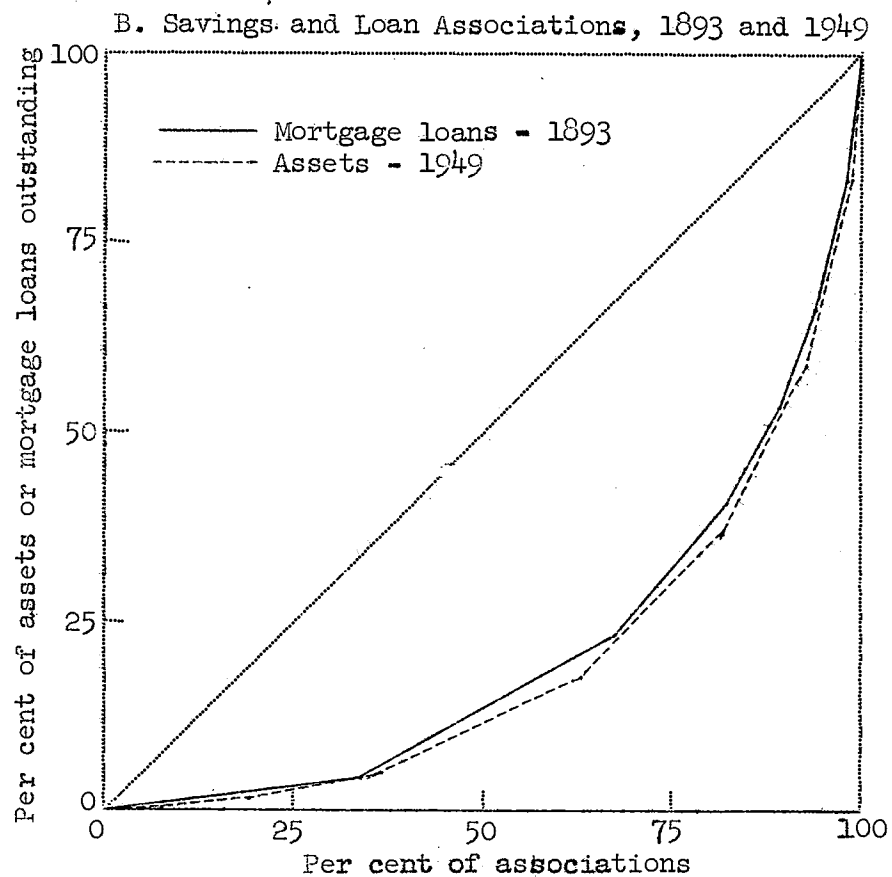
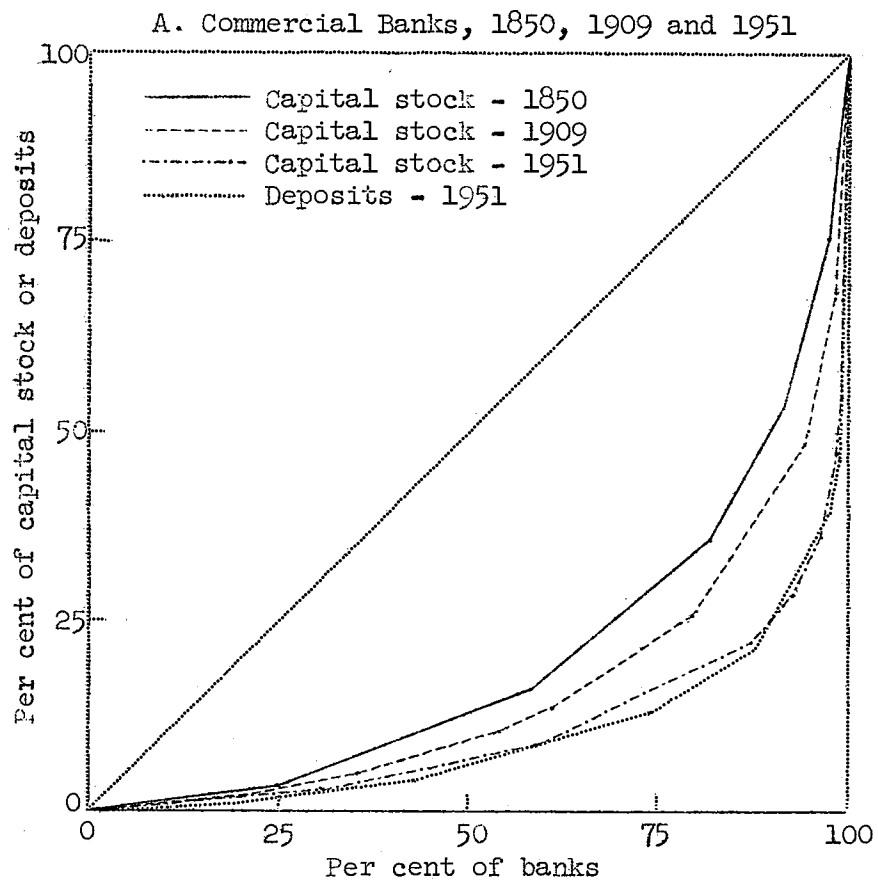
In both cases it takes considerably less than the top percentile of corporations to account for one-half of total assets, and the largest 50 percent of nonfinancial corporations represented slightly over 99 percent of total assets, while the top 50 percent of financial corporations accounted for about one percentage point less of their total assets.

b) Changes in size distribution from 1900 to 1949

For observation of the trend in size distribution among the different branches of financial intermediaries we must rely chiefly on the simple ratios for the largest units as they are shown in Table C-2. The only historical size distributions which were easily available consist of data on savings and loan associations and commercial banks, and these data appear in Chart C-2, in the form of Lorenz curves. Although it would have been possible to derive such curves from the primary material for some other groups, particularly for insurance companies, the effort required did not seem justified in view of the peripheral importance of this additional information. We may, however, be fairly confident that no really important changes in size distribution will be missed by limiting attention to Table C-2.

Chart C-2

Trends in Size Distribution among Commercial Banks and Savings and Loan Associations



For sources see next page.

Sources for Chart C-2

Commercial banks: Capital stock data derived for 1950 from the *Bankers Almanac for 1950*, pp. xvii-xxviii; for 1909 from the National Monetary Commission's *Special Report from the Banks of the United States*, p. 89; and for 1951 from unpublished tabulations of the Federal Deposit Insurance Corporation. Deposit data for 1951 from *Annual Report of the Federal Deposit Insurance Corporation, 1951*, pp. 156-7. For 1951, covers insured commercial banks; for the earlier years, all commercial banks.

Savings and loan associations: Mortgage loans outstanding for 1893 from Commissioner of Labor, *Report on Building and Loan Associations, 1893*; asset data for 1949, covering members of the Home Loan Bank System, from *Combined Financial Statements; Members of the Federal Home Loan Bank System 1949*, Home Loan Bank Board.

There are only six groups of financial intermediaries which have operated over the entire first half of this century and for which sufficient data are available to calculate the share of the largest units, viz. commercial banks, mutual savings banks, savings and loan associations, life insurance companies, fraternal insurance companies, and fire insurance companies. Among these groups changes in size distribution are small, whatever the measure used, for mutual savings banks and savings and loan associations, although a slight tendency for most ratios that measure inequality to increase over the period can be detected. In the case of the other four

Table C-2

Trend in Size Distribution among Financial Intermediaries, 1900 to 1949

Legal Entity Basis ^a

	1900	1922	1929	1939	1949	1900	1922	1929	1939	1949
	<i>Share ^b of Largest Unit</i>					<i>Share ^b of Largest 10 Units</i>				
Commercial banks	2.3	2.0	3.2	4.9	4.0	10.8	10.4	17.9	25.8	19.7
Mutual savings banks	3.1	3.7	3.7	4.9	4.4	22.6	21.7	21.6	25.5	24.4
Savings and loan associations	2.1	...	0.7	...	0.7	6.7	...	5.3	...	4.8
Credit unions	—	...	...	...	...	—	...	...	...	5.2
Life insurance companies	18.7	14.6	17.2	17.6	16.3	79.0	70.4	68.7	69.8	66.4
Fraternal insurance organizations	9.9	...	11.3	...	8.5	49.7	...	45.0	...	47.2
Property insurance companies										
Fire and marine	3.4	4.9	4.2	4.4	4.8	24.5	29.0	28.3	28.2	28.4
Casualty and miscellaneous	...	...	7.6	7.0	5.7	...	...	34.6	32.5	32.3
Management investment companies	—	—	6.5	...	8.7	—	—	32.6	...	36.0
Sales finance companies	—	—	...	...	23.3	—	—	...	...	66.6
Personal finance companies ^c	—	—	...	...	17.3	—	—	...	...	...
Personal trust departments	...	...	...	...	...	...	...	...	...	...
Investment bankers	...	...	...	6.4 ^d	7.1	...	...	...	42.3 ^d	30.3

(notes on second page following)

Table C-2 (cont.)

	1900	1922	1929	1939	1949	1900	1922	1929	1939	1949
	<i>Share^b of Largest 100 Units</i>					<i>Share^b of Top Percentile of Units</i>				
Commercial banks	35.3	32.2	43.8	56.0	45.5	38.8	...	55.2	60.5	49.8
Mutual savings banks	66.9	...	65.4	70.2	72.7	15.7	15.9	16.0	16.7	15.8
Savings and loan associations	19.8	...	21.1	...	20.6	14.7	...	23.3	...	15.4
Credit unions	—	...	...	...	23.6	—	...	...	...	13.7
Life insurance companies	—	95.1	96.1	96.9	96.5	18.7	36.5	46.5	49.0	55.5
Fraternal insurance organizations	...	...	...	...	...	36.7	...	21.6	...	16.5
Property insurance companies										
Fire and marine	...	...	...	...	...	14.3	25.6	26.5	21.1	22.0
Casualty and miscellaneous	...	...	...	...	...	...	...	19.9	14.9	16.7
Management investment companies	—	—	...	...	...	—	—	22.6	...	14.2
Sales finance companies	—	—	...	...	86.6	—	—	...	...	70.7
Personal finance companies	—	—	...	...	...	—	—	...	...	(50-60)
Personal trust departments	...	...	...	...	78.7	...	...	...	...	47.0
Investment bankers	...	...	...	...	84.9	...	...	...	28.4 ^d	21.8
	<i>Share^b of Top Decile of Units</i>									
Commercial banks	68.8	...	81.7	82.1	76.9					
Mutual savings banks	56.3	...	53.5	56.4	58.1					
Savings and loan associations	45.9	...	...	...	49.4					
Credit unions	—	...	...	...	51.1					
Life insurance companies	74.0	88.9	90.8	91.5	93.2					
Fraternal insurance organizations	89.8	...	69.3	...	62.7					
Property insurance companies										
Fire and marine	57.1	63.7	68.9	59.9	64.0					
Casualty and miscellaneous	...	...	71.4	60.4	62.5					
Management investment companies	—	—	62.9	...	53.0					
Sales finance companies	—	—	...	...	90.1 ^c					
Personal finance companies	—	—	...	...	...		
Personal trust departments	...	...	...	...	91.7 ^c					
Investment bankers	...	...	...	73.7 ^d	75.6					

Notes to Table C-2

^a Group-adjusted figures for property insurance companies and management investment companies may be found in Tables C-16 and C-19.

^b Percent of total deposits for banks, of participations for investment bankers, and of total assets for other groups.

^c Figures for 1947.

^d Figures for 1937.

Sources: Same as Table C-1.

groups, judgment about trends in size distribution depends to some extent on the measure used. On the basis of the share of the largest ten or one-hundred units inequality declined between 1900 and 1922; increased sharply from 1922 to 1939; and declined again between the benchmarks of 1939 and 1949, although not enough to undo the advance between the early twenties and late thirties. If, on the other hand, preference is given to the share of the top percentile and decile of units, measures which adjust for the change in the number of units within each branch of financial intermediaries, the picture is one of a fairly continuous increase in inequality, although at different speed — generally much faster between 1900 and 1929 than in the following two decades.

The most interesting and most important development is the marked increase in inequality in the nineteen-twenties and thirties which is shown whichever ratio is used; and which applies to all branches of banking and insurance if allowance is made for the formation of groups within the twenties among property insurance companies. The increase, however, is of an entirely different character in the two decades. The nineteen-twenties were, in the field of finance, the heyday of the merger and concentration movement, comparable to the zenith of industrial mergers around the turn of the century. The ratios, however, fail to do justice to the extent of this movement, and for two reasons. First, in addition to concentration through mergers, which are fully reflected in the data, there was concentration through ownership control of groups of banks or insurance companies or other financial intermediaries by holding companies or by individuals or groups of them, and concentration through establishment of common management without ownership control. The first of these forms of concentration is only incompletely measured — not for intrinsic reasons but simply because the exhaustive analysis of primary data necessary for reasonable completeness was beyond the possibilities of this study — by the ratios on the broad (common control) basis, while the other is even less amenable to adequate measurement. The second aspect of the concentration movement which the ratios do not fully reflect is the interconnection among different groups of financial intermediaries which lead to extending

common control in some cases — though not in many of importance — beyond the boundaries of one group.

The trend toward greater inequality during the twenties was probably most conspicuous in the field of commercial banking. From 1922 and 1929 the share of the largest ten banks rose from 10 to 18 percent and that of the largest one-hundred banks advanced from 32 to 44 percent, and this happened while the number of banks declined from nearly 30,000 to not much over 24,000. The movement would appear even more pronounced if full allowance could be made for the formation of bank groups and chains, which had been of only relatively little importance in 1922. The share of the one-hundred largest banks (now using the common control rather than the legal entity basis) would probably exceed one-half in 1929¹²

¹² This estimate is based on adding a rough estimate of deposits of banks belonging to groups and chains dominated by or including one or more of the top one-hundred largest independent banks to the aggregate deposits of these banks.

compared to not more than one-third only seven years earlier — an increase in the degree of inequality hardly equalled for any other major branch of financial intermediaries in so short a period.

Increase in inequality, though not entirely absent, was much less striking among life insurance companies. Here, however, it was not the result of mergers or the formation of groups and chains, but of a slightly more rapid rate of growth of the large units during a period in which the number of units increased by almost one-third. Indeed, the share of the ten largest companies decreased somewhat and the share of the largest one-hundred companies rose by one percentage point only. The share of the top percentile and decile of units, however, advanced considerably — the former by about 10 percentage points and the latter by about 2 percentage points — the rise in these two instances being due in part to the increase in number of companies which e.g. lifted the number included in the top decile from 35 to 44.

Developments among property insurance companies provide a good example of the possibility of being misled by ratios based on the narrow (legal entity) concept. On that basis the size distribution would appear to have changed but little between 1922 and 1929. If instead an attempt is made to calculate ratios for 1929 which take account of the existence among property insurance companies of groups, "fleets", which were of relatively small importance in 1922, effective concentration is found to have made considerable strides in the twenties. Among fire and marine insurance companies, for instance, the share of the ten largest companies or of the top percentile of units both increased by approximately 10 percentage points to 40 and 35 percent respectively.

The continued increase in the ratios during the nineteen-thirties was to a large extent of a different character. Mergers continued to have some effect, but they were overshadowed in most branches by large-scale liquidations which often affected smaller units proportionately more than larger ones. The movement was again most pronounced among commercial banks. The share of the top ten and one-hundred banks rose between 1929 and 1939 from 18 to 26 percent and from 44 to 56 percent respectively — by coincidence exactly the same absolute increase in percentage points as took place from 1922 to 1929 — and that of the top percentile of banks increased from 55 to 60 percent although it included only 145 banks in 1939 against 243 banks in 1929. This time even mutual savings banks were affected, although the ratio increased only a few percentage points. Life insurance companies, on the other hand, showed hardly any increase in the ratios, possibly a reflection of the fact that mergers and liquidations were relatively rare in this industry.¹³

¹³ In these statements ratios on the broad (common control) basis have been used in the case of property insurance companies beginning with 1929 when they deviate substantially from those on the narrow (legal entity) basis. The ratios for commercial banks would also be somewhat higher from 1929 on if it were possible to make quantitative allowance for the existence of bank chains and groups. For most of the other groups the difference between ratios calculated on the broad and narrow bases is insignificant.

It would thus seem permissible to summarize the data in the statements (a) that the degree of inequality in asset size prevailing among commercial banks and insurance companies has increased considerably during the last half century; (b) that most of the increase has taken place between the benchmark dates of 1922 and 1939; and (c) that the process has almost come to a halt — at least insofar as it is reflected in these simple ratios — in the nineteen-forties. The other branches of financial intermediaries, which because of their youth permit a study of the process only since the twenties, add little to the picture.¹⁴

¹⁴The apparent sharp decline in the degree of inequality in asset size among management investment companies, provided the share of the top percentile or decile of units is used as the basis of measurement, reflects the sharp reduction in the number of units. This reduction, in turn, results partly from mergers and liquidations, but is apparently also due in part to the more comprehensive character of the statistics available for the earlier part of the period. In this case it may therefore be preferable to use the share of the ten largest companies as the basis of measurement, which would lend us to infer a slight increase in inequality.

3. Size Distribution on the Local Level

a) Approach

Up to this point we have dealt with size distribution on the national level, regarding all units of a given type of financial intermediaries as one "population." For closer analysis, in particular for the evaluation of possible monopolistic or oligopolistic characteristics of the situation, it is necessary to go down to the local level. The reason is that it is inappropriate for many purposes, or at least inadvisable, to regard the entire United States as one capital market. It is often more realistic to recognize that the effective geographic area over which competitive forces work is more limited, both from the point of view of the borrowers intending to raise funds and from the point of view of financial intermediaries attracting funds from the public and placing them. It is, of course, very difficult to delimit such areas exactly or unequivocally. To make matters still more difficult the ex-

tent of these areas varies among branches of financial intermediaries and among different parts of the country, and has been subject to change over time — all topics to which very little attention has yet been given in the literature. It nevertheless appears justified for many purposes to regard the financial intermediaries operating in one city, or in one metropolitan area, as the "population" distribution among which is the object of measurement. In some cases the population may consist of all financial intermediaries in the city irrespective of their character. In others interest may be limited to the size distribution among local financial intermediaries of one type, or of a few types which are regarded as competing with each other, either for the public's funds or for investment outlets. Statistics cannot easily cope with such a multiplicity of possible uses. Generally, however, one or two approaches will suffice. The first is a measure of inequality in asset size among financial intermediaries of a given type operating within a city or metropolitan area, the second the extension of the population to all financial intermediaries in the city for which data are available. Since computations of this type are rather laborious, and since they have, unfortunately, not as yet been undertaken on a comprehensive scale, and since the topic is not of primary importance for this study, the analysis of intralocal size distributions has been severely limited in four directions. First, it has been undertaken for only eighteen of the largest financial centers, defined as all cities that had more than 500,000 inhabitants in 1949, i.e., New York, Chicago, Philadelphia, Los Angeles, Detroit, Baltimore, Cleveland, St. Louis, Washington, Boston, San Francisco, Pittsburgh, Milwaukee, Houston, Buffalo, New Orleans, Minneapolis and Cincinnati. Secondly, it has been limited to three benchmark dates, 1900, 1929 and 1949. Thirdly, it has generally been proven feasible only for three types of financial intermediaries, commercial banks, mutual savings banks, and savings and loan associations. It has not been possible because of lack of data to extend coverage to life insurance companies, personal trust departments, pension funds, sales finance and personal finance companies, nor to the smaller types of financial intermediaries as no data are available on a city

basis. Fourthly, only total assets or deposits have been used as a basis of measuring the degree of inequality rather than the specific and different forms of liabilities or assets of financial intermediaries which more nearly participate in the same market.

These are serious limitations. The data, however, still permit us to follow a number of important trends because they cover most of those institutions that operate on a local basis and for which the market is predominantly local both with respect to supply of funds and to uses of funds, and because the three institutions covered accounted over the last half century for between one-half and two-thirds of the assets of all private financial intermediaries for which a problem of local concentration can be said to exist. The usefulness of the data for an analysis of local situations would be greatly enhanced if it could be assumed that the degree of inequality among financial institutions which generally operate on a nation-wide basis is the same in all cities, e.g. that the share of the largest five or ten life insurance companies in premium reserves or insurance in force shows no substantial difference from city to city. While such an assumption cannot be made in its most rigorous form, there is reason to believe that the ratios are of the same order of magnitude in most cities, at least for those branches of financial intermediaries operating on a nation-wide scale that do not show strong regional characteristics, i.e. those branches in which the business of the large companies is fairly evenly divided over the entire United States. This is probably the case for life insurance companies, sales finance and personal finance companies,¹⁵ insofar as this assumption can be made,

¹⁵ This can be tested only for life insurance companies and for one city — Washington, D.C. In this case the local ratios are reasonably close to the corresponding national figures:

<i>Share in insurance outstanding</i>	<i>1900</i>	<i>1929</i>	<i>1949</i>
Largest company			
Washington, D.C.	0.21	0.11	0.12
U.S.A.	0.17	0.13	0.14
Five largest companies			
Washington, D.C.	0.54	0.45	0.42
U.S.A.	0.60	0.44	0.43
Ten largest companies			
Washington, D.C.	0.76	0.69	0.56
U.S.A.	0.72	0.64	0.54

Source: Spectator Company, *Insurance Yearbook*, various issues.

In the case of life insurance companies it is also possible to test this assumption, at least roughly, by comparing the proportion of insurance in force or of premium receipts in the different states among the leading companies in each state. Taking the leading five companies' share of ordinary insurance in force in each state, the variations among the 48 states and District of Columbia are still fairly large - ranging from a high of 0.64 to a low of 0.30. The standard deviation from the arithmetic average of 0.44 for all states is 19 percent. (The weighted average is only slightly below the unweighted.) All the New England and Middle Atlantic states (New York, New Jersey, and Pennsylvania) have ratios of over 0.50 (representing 9 out of the 12 states in this group), but the differences among the remaining states show no particular groupings. The high ratios for the Northeastern states are probably due to the large share of life insurance business accounted for by a few large companies in home-office territory, but may also point to a tendency for higher ratios in large cities.

the ratios derived on a national basis may be regarded as also applicable for individual financial centers and may be considered in conjunction with the specific data on inequality among the localized institutions in assessing the degree of inequality among the different groups of financial intermediaries in a given city.

b) Level of inequality in asset size in 1949

The expectation that inequality -- based on the *number* of large institutions rather than on a given fraction of all institutions -- is much higher at the local than the national level for institutions like commercial banks, mutual savings banks, and savings and loan associations operating primarily within one city is borne out by Table C-3, which is based partly on the data for each of the 18 large cities shown in Table C-23.

In 1949 the largest commercial or savings bank typically accounted for over one-third of the total assets of all commercial or savings banks in the city, while the largest commercial or savings bank in the country held only approximately 4 percent of the total national assets of this group. The largest savings and loan association typically held slightly less than one-fifth of the assets of all associations operating in the city, indicating a lesser degree of inequality, but again one as much above the corresponding national ratio as found among commercial or savings banks. The shares of the largest ten

institutions likewise are considerably higher on the local than on the national level.

On the other hand, national ratios considerably exceed local ones when the share of the largest quartile of institutions is considered -- a measure which takes account of differences in the number of units in the groups. The excess of the national ratio is largest for mutual savings banks, next largest for commercial banks, and least for savings and loan associations.¹⁶ As explained and illustrated earlier, there are two reasons

¹⁶ The relevant figures for 1949 are as follows:

	Percentage share of top quartile of institutions in resources	
	Local (average of 18 major cities)	National
Commercial banks	76	86
Mutual Savings banks	62	79
Savings and loan associations	67	73

Source: Local data from Table C-23; national data derived as follows: commercial banks (insured commercial banks) from *Annual Report of Federal Deposit Insurance Corporation*, 1949, pp. 82,92; mutual savings banks from the Directory of the National Association of Mutual Savings Banks, *Mutual Savings Banks of the United States 1950*; savings and loan associations (members of the Federal Home Loan Bank System) from *Combined Financial Statements Members of the Federal Home Loan Bank System*, Home Loan Bank Board, 1949, p. 50.

for the differences in the ratios: (1) Even given the same ratio in individual cities, the national ratio will be larger, the larger the difference in total assets among the cities. Hence, the excess of the national over the local ratio is largest for mutual savings banks where the largest city (in terms of deposits) has 9.2 times the deposits of the second largest city, while similar ratios for commercial banks and savings and loan associations are only 3.1 and 1.0 respectively: (2) The national ratio will be larger if a positive relationship exists between the local ratio and size of city (as measured by assets or deposits). The second factor is probably negligible in the present situation since only slight positive correlations were found between the two variables.¹⁷

¹⁷ Coefficient of rank correlation = 0.17 for commercial banks and 0.22 for savings and loan associations. The calculation is not relevant for mutual savings banks as only four cities are involved.

The ratios nevertheless indicate a considerable degree of inequality at the local level.¹⁸ In the case of commercial banks local concentration probably now is as high

¹⁸ Inequality among trust funds administered by banks can be measured only for one of the 18 cities -- Boston (Table C-4). In this case the ratios are substantially below those for banks' own assets, but of course again far above the corresponding national ratios in terms of the largest or largest ten institutions, and far below the national ratio when measured by the quartile share. The largest institution, e.g., accounted for one-fourth of the city total and the largest five (out of 13) institutions for a little over three-fourths.

in the United States as it is in Canada or in European countries which have a system of nation-wide branch banking dominated by a small number -- generally approximately half-a-dozen -- of large institutions. In American large cities the five largest commercial banks now typically account for more than four-fifths of all banking assets. This may not be a higher proportion than prevails in countries with nationwide branch banking, but it is quite possible that the share of the largest bank (which typically amounts to two-fifths) is higher in this country than abroad.¹⁹

¹⁹ It is difficult to be more definite about these relationships since statistics of banking assets on a local basis are not available for other countries in which nation-wide branch systems predominate. It is known, of course, that in such countries all large banks as a rule are represented in all large cities, but the share of their branches in the total banking resources of a city may vary considerably from the national average for individual institutions.

The degree of inequality varies considerably among cities, but the range of variations and the rank of individual cities depend to some extent on the measure used, all of which can be examined in Table C-23.

Table C-3

Comparison of Size Distribution on the National and Local Level among
Banks and Savings and Loan Associations; 1900, 1929 and 1949

	<i>Percent of deposits^a or assets^a held by:</i>					
	Largest institution			Largest 10 institutions		
	1900	1929	1949	1900	1929	1949
Commercial Banks						
U.S.A.	0.02	0.03	0.04	0.11	0.18	0.20
Large cities ^b	0.16	0.30	0.38	0.71	0.85	0.92
Mutual Savings Banks						
U.S.A.	0.03	0.04	0.04	0.23	0.22	0.24
Large cities ^c	0.35	0.32	0.34	0.84	0.79	0.66
Savings and Loan Associations						
U.S.A.	0.02	0.01	0.01	0.07	0.05	0.05
Large cities ^b	0.20	0.26	0.19	0.64	0.60	0.63

^a Percent of total deposits for commercial and mutual savings banks; of total assets for savings and loan associations.

^b Average of ratios for 18 cities with more than 500,000 inhabitants in 1950.

^c Average of ratios for 4 cities.

Source: Tables C-9, C-10, C-11 and C-23.

Table C-4

Size Distribution of Personal Trust Fund Assets in Boston

	1900	1929	1949
Number of trust institutions	16	26	13
Number exercising fiduciary powers	7	21	13
Trust fund assets (<i>millions of dollars</i>)	12	763	1716
Average assets per institution exercising fiduciary powers (<i>million dollars</i>)	1.7	36.3	132.0
Share of total assets (percent)			
Largest institution	45.9	27.1	25.4
5 largest institutions	99.9	86.5	76.8
Largest quartile of institutions	70.9	87.2	60.2

Source: Compiled from *Annual Report of the Commissioner of Banks* of the Commonwealth of Massachusetts, various issues. Date for national banks exercising trust powers are roughly estimated for 1949 on the basis of the trend in trust fund assets of all Massachusetts national banks for the decade 1939 to 1949.

Using the share of the largest fourth of institutions, which takes account of the differences in number of units in a city, the ratios in 1949 range for commercial banks from 0.54 in New Orleans to 0.95 in New York; varies from 0.42 in San Francisco to 0.82 in Chicago for savings and loan associations; but keep within a considerably narrower range -- close to 0.60 -- in the few large cities in which mutual savings banks are represented.²⁰

²⁰ Standard deviations (measured in percent) of top quartile ratios are as follows:

	1900	1929	1949
Commercial banks	15.7	13.4	14.2
Savings and loan associations	15.7	12.4	16.2
Mutual savings banks	16.4	5.7	2.5

Thus, the extent of variation among cities has been about the same for commercial banks and savings and loan associations, and has changed relatively little for the past fifty years. In the case of mutual savings banks for which only a few cities are involved, inter-city variations in the ratio have dropped substantially since 1900.

Among commercial banks very large cities seem to tend towards higher ratios than smaller ones. The ratio for the four largest cities, for instance, averages 0.83 compared to 0.71 for the four smallest among the 18 cities of Table C-6.²¹ A similar slight association between concentration ratio and size appears in the case of savings and loan associations.²² There is no evidence of a markedly higher or lower inequality in any part of the country. Apart maybe from population, local peculiarities seem to determine the share of the size distribution now prevailing in a given city.

²¹ The rank coefficient of correlation between population and ratio (share of top fourth of institutions) is 0.17, indicating only a slight systematic relationship.

²² The rank coefficient of correlation is 0.22

Table C-5

Share of Top Quartile among Banks and Savings and Loan Associations
in 18 Largest Cities, 1949

Percent of deposits^a of assets^a held by top quartile of institutions:

Commercial Banks		Mutual Savings Banks		Savings and Loan Associations	
New York	0.95	Boston	0.64	Chicago	0.82
Pittsburgh	0.92	Philadelphia	0.63	Detroit	0.79
Minneapolis	0.88	Baltimore	0.61	Baltimore	0.76
Houston	0.85	New York	0.60	Buffalo	0.76
Chicago	0.85			Philadelphia	0.75
Milwaukee	0.84			Minneapolis	0.69
St. Louis	0.77			Cincinnati	0.68
Cleveland	0.77			Boston	0.68
Philadelphia	0.76			Washington	0.67
Boston	0.76			St. Louis	0.67
Detroit	0.74			New York	0.66
Los Angeles	0.74			Pittsburgh	0.64
Cincinnati	0.73			Los Angeles	0.62
Buffalo	0.70			Cleveland	0.54
San Francisco	0.63			Milwaukee	0.54
Washington	0.62			New Orleans	0.47
Baltimore	0.62			San Francisco	0.42
New Orleans	0.54				
Median	0.76	Median	0.62	Median	0.67
Average	0.76	Average	0.62	Average	0.67
Standard deviation (percent) ^b	14.2	Standard deviation (percent) ^b	2.5	Standard deviation (percent) ^b	16.2

^a Percent of total deposits for banks; of total assets for savings and loan associations.

^b Calculated on basis of average for 18 cities = 100.

Source: Table C-23.

C) Trends in size distribution from 1900 to 1949

The trend in size distribution on the local level is similar to that observed on the national level in Section 2b.²³ Among commercial banks inequality increased throughout the period,

²³Local concentration of resources of financial intermediaries may take two forms: differential growth of individual institutions, and mergers. It has not been possible to separate the effects of these two factors.

though much more sharply and uniformly from 1900 to 1929. No definite trend is discernible for mutual savings banks. Among savings and loan associations inequality seems to have declined, but the movement is of small dimension and irregular.

These trends are evident if observation is based on average or median values for the 18 cities. Variations among cities, however, are considerable, and there is also some difference depending on which of the measures is used. Textual discussion may be limited to commercial banks as the most important group and the one showing the clearest trends. For commercial banks average ratios for the 18 cities have moved as follows:

	1900	1929	1949
Share of			
Largest Bank	0.16	0.30	0.38
Five Largest banks	0.54	0.72	0.84
Ten largest banks	0.71	0.85	0.92
Largest fourth of banks	0.59	0.79	0.76

Thus the share of the largest one, five and ten banks rose both from 1900 to 1929 and from 1929 to 1949, and the increase was not much different in the two periods. The share of the top fourth of banks, on the other hand, declined slightly between 1929 and 1949 after a sharp increase in the preceding three decades. The reason for the different behavior of this measure is that the number of commercial banks declined substantially in most cities between 1929 and 1949, so that the top fourth represents a smaller number of institutions in 1949 than twenty years earlier.

Whatever measure is used there are some variations among cities, although the movement is reasonably homogeneous. Using, for example, the share of the five largest institutions only four cities differ from the behavior of the average, which rises in both periods. When inequality is measured by the top fourth of institutions twelve of the eighteen cities share the typical movement -- upward from 1900 to 1929, downward from 1929 to 1949 -- and all but one of the dissenters show the pattern typical of the ratios for the largest one, five or ten institutions, viz. an increase in both periods. It may therefore be said that over the period as a whole the trend towards greater inequality in the distribution of banking assets in large cities is a typical movement.

No simple relation appears to exist between changes in the degree of inequality on the one hand and factors like changes in the number of banks or size or growth rate of city on the other, as inspection of Table C-6 will indicate. There seems to be some tendency for increasing inequality (measured by the share of the top fourth of institutions) to be more pronounced for very large cities or for cities increasing their population with particular rapidity, but the differences are not marked.

The relationship of inequality to changes in the number of banks, of course, depends on the measure employed. If the share of a given number of banks is used one would expect inequality to be highest where the decline in the number of banks is sharpest, and that expectation is roughly borne out in Table C-6. On the other hand, if inequality is measured by the share of the top fourth of all institutions there is no reason to assume such a correlation, and indeed it is not evident in Table C-6. Of the five cities in which inequality so measured increased most pronouncedly, three actually showed an increase in the total number of banks and only two a decrease. On the other hand, most cities in which the number of banks was reduced to one-half or less between 1900 and 1949 show only a moderate increase in the ratio.

4. Stability of Leadership

The interpretation of statistical indicators of inequality depends to a considerable extent on whether the leading institutions in any one group of financial intermediaries are

stable or change rapidly. If they change a given degree of inequality in asset distribution may mean much less in terms of effective influence of the leading institutions within the industry than if the same individual firms remain within the leading group (statistically defined as the institutions with the largest assets) for protracted periods of time. While the question of stability of leadership is important from different points of view, it can be treated here only very briefly partly because its adequate analysis requires going well beyond the type of statistics to which this study is limited. Furthermore, even the basic statistical data from which changes in leadership can be studied are not available for some groups of financial intermediaries, but are essentially limited to banks, insurance and investment companies.

If no changes in leadership occur, the same institutions would appear at all benchmark dates in the same position when all institutions of a certain type are ranked by size of assets. Thus, if the ten largest institutions are regarded as "leaders," the list would include only the names of ten individual institutions irrespective of the number of benchmark dates for which the statistics are collected. On the other hand if there was a complete change in leadership between benchmark dates the list of leaders would include more and more names the longer the period covered. (If L stands for the number of institutions classified as leaders and N for the number of dates for which the statistics are collected, the list would contain a total of $L \times N$ names). The ratio between the number of names of different institutions actually appearing as leaders at two or more benchmarks and the number that would appear if there was a complete turnover of leadership between every two benchmarks, which can vary only between $\frac{1}{N}$ and unity, may be used as a simple measure of stability of leadership. The lower this ratio the greater the stability of leadership as measured purely by ranking based on aggregate resources of each institution.

We then find (see Table C-7) in the case of commercial banks for the leading ten institutions and the eight benchmark dates between 1900 and 1949 the names of 21 indivi-

Table C- 6

Change in Size Distribution of Commercial Bank Deposits
in 18 Largest Cities, 1900-1949

Percent of total deposits held by:

City ^a	Population growth, 1949	Number of banks		Largest five institutions			Top fourth of institutions		
	1900	1900	1949	1900	1949	Change	1900	1949	Change
New York	2.30	156	71	0.26	0.61	+0.35	0.80	0.95	+0.15
Chicago	2.13	36	67	0.55	0.72	+0.17	0.74	0.85	+0.11
Philadelphia	1.60	78	34	0.32	0.87	+0.55	0.64	0.76	+0.12
Los Angeles	19.31	18	8	0.58	0.96	+0.38	0.54	0.74	+0.20
Detroit	6.47	23	10	0.50	0.94	+0.44	0.55	0.74	+0.19
Baltimore	1.87	29	14	0.46	0.76	+0.30	0.56	0.62	+0.06
Cleveland	2.40	52	9	0.31	0.98	+0.67	0.59	0.77	+0.18
St. Louis	1.49	25	28	0.53	0.71	+0.18	0.60	0.77	+0.17
Washington	2.88	19	19	0.61	0.63	+0.02	0.59	0.62	+0.03
Boston	1.43	59	12	0.32	0.87	+0.55	0.64	0.76	+0.12
San Francisco	2.26	24	13	0.66	0.79	+0.13	0.71	0.63	+0.08
Pittsburgh	1.50	58	27	0.30	0.87	+0.55	0.61	0.92	+0.31
Milwaukee	2.24	9	19	0.85	0.85	0	0.57	0.84	+0.27
Houston	13.24	5	24	1.00	0.79	-0.21	0.42	0.85	+0.43
Buffalo	1.65	17	7	0.58	0.99	+0.41	0.52	0.70	+0.18
New Orleans	1.99	16	6	0.65	0.98	+0.33	0.54	0.54	0
Minneapolis	2.57	13	19	0.82	0.89	+0.07	0.64	0.88	+0.24
Cincinnati	1.55	18	14	0.46	0.85	+0.39	0.43	0.73	+0.30
Average	3.83	36	22	0.54	0.84	+0.30	0.59	0.76	+0.17
Median	2.19	23½	16½	0.54	0.85	+0.31	0.59	0.76	+0.17

^a Cities are ranked by 1950 population

Source: Concentration data from Table C-23. Population data (figures for April 1900 and April 1950) from *Statistical Abstract of the United States, 1952*, pp. 18-21.

vidual institutions out of a possible 80, or a ratio of 0.26, where 10 names or a ratio of 0.125 would indicate complete stability. Similar ratios are slightly lower, i.e. stability is greater, for mutual savings banks at 0.20, for life insurance companies, and fire insurance companies at 0.19. The ratio is higher only, and not by much, with 0.30 in the case of casualty and miscellaneous insurance companies. Stability among the leading ten institutions is more pronounced for the four benchmark dates between 1933 and 1949 than it is for the earlier benchmarks of 1900 to 1929. For commercial banks, for example, the ratio declines from 0.45 for the first four benchmarks to 0.30 for the last four. (The minimum ratio in both cases is 0.25).

The results are similar if the comparison is made directly between the individual institutions appearing in the list of the ten leaders at the beginning and at the end of the period. In this case the number of names could fluctuate only between ten (complete stability) and twenty (complete changeover). Actually the lists contain sixteen names of commercial banks, fifteen of mutual savings banks and life insurance companies, fourteen of fire insurance companies and seventeen of casualty and miscellaneous insurance companies. Thus, over a period of over half a century about one-half of the ten leaders of 1900 were still in a group in 1949 — though possibly in a different position within it — while the other half joined the group later. If the comparison is made separately for the two halves of the period it again appears that stability of leadership was greater between 1929 and 1949 than between 1900 and 1929. The difference is particularly pronounced in the case of commercial banks among which the merger movements of the nineteen-twenties led to numerous changes in position.

Another way of illustrating stability of leadership is to look at the number of benchmarks at which the same institution appears among the leading ten (see Table C-8). Among commercial banks there are only two institutions which are found for all eight benchmark dates in that position. For the other groups the number of institutions found at all benchmark dates on the list of ten leaders is larger, viz. five for mutual savings

Table C-7

Stability of Leadership among Ten Leading Institutions of Selected
Financial Intermediaries Ranked According to Assets, 1900 to 1949

Ratio of number of institutions appearing among top ten to the
maximum that would appear with complete turnover

	Ratios for all benchmark dates within period			Ratios for two single years		
	1901 to 1929	1934 to 1949	1901 to 1949	1900 and 1929	1929 and 1949	1900 and 1949
Commercial banks ^b	0.45	0.30	0.26	0.85	0.65	0.80
Mutual savings banks ^b	0.32	0.30	0.20	0.65	0.65	0.75
Life insurance companies	0.32	0.30	0.19	0.65	0.60	0.70
Fire and marine insurance companies	0.38	0.30	0.19	0.70	0.60	0.70
Casualty and miscellaneous insurance companies	0.42	0.40	0.30	0.75	0.75	0.85
Management investment companies						
Open-end	—	0.52 ^c	—	—	0.80 ^d	—
Closed-end	—	0.42 ^e	—	—	0.75	—
Ratio in case of complete stability of leadership ^f	0.25	0.25	0.125	0.50	0.50	0.50

^a See text page C-40 for explanation of this ratio.

^b Ranking is by total deposits rather than assets.

^c Based on 1933, 1936, 1945 and 1949.

^d Based on 1933 and 1949.

^e Based on 1929, 1936, 1945 and 1949.

^f Ratio of minimum to maximum appearances; e.g. for col. 1 = $\frac{10}{40} = 0.25$

(source notes on next page)

Sources for Table C-7

Commercial banks: For 1900-1912, Compiled from *Bankers Encyclopedia* (later called *Polk's Bankers Encyclopedia*), March 1901 and March 1913. For 1922-49, compiled from *American Banker*, various issues.

Mutual savings banks: For 1900-1922, compiled from official state banking reports except for data for Philadelphia in 1922, which were obtained from *Rand-McNally Bankers Directory*, January 1923. For 1929-49, compiled from *American Banker*, various issues.

Life insurance companies: For 1900-1922, compiled from the Life Volume of the Spectator Company's *Insurance Yearbook*, various issues. For 1929-49, compiled from yearly rankings shown in *Weekly Underwriter*.

Fire and marine and casualty and miscellaneous insurance companies: For 1900-1949, compiled from the Fire and Marine and Casualty and Miscellaneous Volumes of the Annual Report of the Superintendent of Insurance, State of New York, various years-except for casualty and miscellaneous companies for 1949, which were compiled from *Insurance Almanac*, 1950.

Management investment companies: For 1929-1936, Compiled from *Investment Trusts and Investment Companies*, Securities and Exchange Commission, pp. 53-54, 56. For 1945-49, compiled from *Investment Companies*, by A. Wiesenberger, 1946 and 1950.

banks and life insurance companies and six for fire insurance companies, though only three for casualty and miscellaneous insurance companies.²⁴

²⁴ If we combine institutions that appear in seven or eight of the eight benchmark dates, life insurance shows the greatest stability of leadership with eight institutions, followed by fire insurance with seven, commercial and mutual savings bank with five, casualty insurance being the least steady group with only three names appearing at seven or eight of the eight benchmark dates.

Table C-8

Frequency of Appearance of Same Institutions among Top Ten,
Ranked by Assets;^a Eight Benchmark Years, 1900 to 1949

Number of institutions appearing among top ten:	Banks ^a		Insurance Companies			Management investment companies ^b	
	Commer- cial	Mutual savings	Life	Fire- marine	Casualty- misc.	Open- end	Closed- end
Eight benchmark years	2	5	5	6	3	-	-
Seven benchmark years	3	0	3	1	0	-	-
Six benchmark years	2	4	1	1	2	-	-
Five benchmark years	1	0	1	0	2	-	-
Four benchmark years	1	1	0	1	4	3	5
Three benchmark years	3	0	1	1	0	2	2
Two benchmark years	4	6	1	5	5	6	4
One benchmark year	5	0	3	2	8	10	6
Total number of individual institutions appearing among top ten	21	16	15	17	24	21	17

^a Ranking is by total deposits rather than assets.

^b 1929 to 1949.

Sources: Same as Table C-7.

Table C-9

Size Distribution Statistics for Commercial Banks

End of year	1900	1912	1922	1929 ^a		1933	1939	1945	1949
				A	B				
Banks (number)									
1) Units in U.S.A.	12,910	26,235	29,973	24,340	14,792	14,498	14,142	14,156	
2) Offices in U.S.A.	13,029	26,877	31,774	27,778	17,578	18,004	18,096	18,735	
3) Units in New York City	156	133	121	130	80	85	79	71	
4) Offices in New York City	158	250	348	760	556	547	541	573	
Employees									
5) Number (000)	...	...	...	332	242	255	312	375	
Deposits (\$000,000)									
6) Total	7,292	16,777	37,607	50,398	50,890	32,717	57,463	148,705	144,899
7) Largest bank	171	225	757	1,650	1,339	2,804	5,742	5,775	
8) Ten largest banks	788	1,450	3,922	9,124	7,619	14,822	32,332	28,538	
9) One hundred largest banks	2,576	4,946	12,100	21,839	22,276	17,737	32,194	72,538	65,950
10) Top percentile of banks	2,826	...	...	27,650	28,102	19,329	34,740	78,814	72,139
11) Top decile of banks	5,020	...	...	41,067	41,588	...	...	118,140	111,491
12) Banks in New York City	1,854	3,446	7,235	11,007	11,499	7,713	15,772	32,761	26,658
Share in deposits (percent of national total)									
13) Largest bank	2.3	1.3	2.0	3.3	3.2	4.1	4.9	3.9	4.0
14) Ten largest banks	10.8	8.6	10.4	18.1	17.9	23.3	25.8	21.7	19.7
15) One hundred largest banks	35.3	29.5	32.2	43.3	43.8	54.2	56.0	48.8	45.5
16) Top percentile of banks	38.8	...	...	54.9	55.2	59.1	60.5	53.0	49.8
17) Top decile of banks	68.8	...	...	81.5	81.7	84.9	82.1	79.1	76.9
18) Banks in New York City	25.4	20.5	19.2	21.8	22.6	23.6	27.4	22.0	18.4
19) Deposits per bank (\$000,000)	0.56	0.64	1.25	2.09	2.21	3.93	10.51	10.24	
20) Deposits per employee (\$000)	...	...	...	153	135	225	477	386	

^a For 1929, col. A excludes, and B includes, J. P. Morgan and Company.

Notes to Table C-9

Line

- 1 1900-1933: Federal Reserve Board, *Revised Statistics of All Banks in the United States 1896 to 1950* (mimeographed report, 1952). June figures are averaged to obtain end of year data.
- 1939-49: *Annual Report of the Federal Deposit Insurance Corporation*, various issues.
- 2 1900-1933: Line 1 plus branches from *Monetary Policy and the Management of the Public Debt* (Joint Committee on the Economic Report, Part I, 82nd Congress, Second Session), p. 555. Figure for 1912 is interpolated on basis of 1910 and 1915 data. For 1900-1922, the branch figures are for various months. The figure for 1929 is an average of June data. The 1933 figure refers to end of year.
- 1939-40: Line 1 plus branches from *Annual Report of the Federal Deposit Insurance Corporation*, various issues.
- 3 1900: Compiled from individual bank data in the *Bankers' Encyclopedia* (in recent years called *Polk's Bankers' Encyclopedia*), March 1901. For all years figures include banks located in New York City as now constituted.
- 1912-39: Number of national banks compiled from section entitled "Individual Statements of Condition of National Banks," published as part of *Annual Report of the Comptroller of the Currency* through 1922 and as a supplement thereafter except during World War II. Data for other banks compiled individually from State of New York, Superintendent of Banks, *Report on Banks of Deposit and Discount* and *Report on Savings Banks, Trust Companies, Safe Deposit Companies and Miscellaneous Corporations* (titles vary in some years), except for 1933 when they were derived from *Polk's Bankers' Encyclopedia*, March 1934.
- 1945: National Banks from *Polk's Bankers' Encyclopedia*, March 1946; others from sources for 1912 to 1929.
- 1949: From sources for 1912 to 1929.
- 4 1900: Line 3 plus branches as shown in the *New York Herald Tribune*, July 8, 1951 (article by John Elliott, source of data not indicated).
- 1912: Line 3 plus branches enumerated from *Rand-McNally Bankers' Directory*, but increased somewhat to account for probable omissions.
- 1922,29: Line 3 plus branches as shown in *Concentration of Banking*, by John M. Chapman, 1934, p. 239.
- 1933-49: Line 3 plus branches as shown in *Polk's Bankers' Encyclopedia*, various issues, less branches of mutual savings banks (from Table C-10).
- 5 1929: The ratio of commercial banking to total banking employment for 1933 applied to 1929 total banking employment figure.

Notes to Table C-9 (cont.)

Line

- 1933-49: Personnel of insured commercial banks increased by the ratio of assets of all commercial banks to assets of insured commercial banks from *Annual Report of the Federal Deposit Insurance Corporation*, various issues. The resulting figure was raised slightly to account for the probably higher ratio of personnel to assets in smaller non-insured banks. Data for 1933 refer to June 1934.
- 6 1900-1949: Deposits as shown in Table A-3, plus bank and mail float (Raymond W. Goldsmith, *A Study of Saving in the United States*, Princeton University Press, Volumes I and II, 1955, Volume III, 1956 — cited hereinafter as *A Study of Saving...* — Table L-4). (Col. A for 1929 excludes and col. B includes J. P. Morgan and Company).
- 7,8 1900, 1912: Compiled from individual bank figures in *Bankers' Encyclopedia*, March 1901 and March 1913. Deposits generally refer to the February 13 call date or dates earlier in the year.
- 1922-49: Compiled from deposits of individual banks, listed by rank, in *American Banker*, various issues (generally an issue appearing in the latter half of January or early February).
- 9 1900-1949: From source to line 7. For 1922 the figure represents deposits as of December 31, 1922 for the one-hundred largest banks in 1923.
- 10 1900: Compiled from source to line 7.
- 1929-33: Resources as given in *Moody's Manual of Investments: Banks and Finance 1930* for individual banks, lowered by ratio of total deposits to total assets obtained for 1929 and 1933 by averaging June data from Federal Reserve Board, *Revised Statistics of All Banks in the United States 1896 to 1950*.
- 1939-49: Derived from totals for the top one-hundred and data on individual banks from *American Banker*, various issues.
- 11 1900: Compiled from source to line 7.
- 1929: Derived similarly to line 9 for 1929 to 1933.
- 1945, 1949: Compiled from total deposit figures and figures on individual banks from *American Banker*, various issues.
- 12 1900: Compiled from source to line 7.
- 1912: Deposits in national banks from source described in notes to line 8, 1912 to 1929. Deposit figure of national banks in Brooklyn and Manhattan is an average of November 26, 1912 and February 4, 1913 data, while a negligible amount in Queens and Staten Island banks is as of September 4, 1912; to deposits in national banks are added deposits in state banks and trust companies shown in State of New York, Superintendent of Banks, *Report on Banks of Deposit and Discount*, 1913, p. 275.

Line

Notes to Table C-9 (cont.)

- 1922: Deposits in national banks from source for 1912; other deposits from source for 1912 as well as New York State, Superintendent of Banks, *Report on Savings Banks, Trust Companies, Safe Deposit Companies and Miscellaneous Corporations.*
- 1929-49: Figures shown in *American Banker*, March 17, 1950, p. 3. Deposits of J. P. Morgan and Company were not included in the *American Banker* data for 1929 and were added (Col. B for 1929) on the basis of data shown in Committee on Banking and Currency, United States Senate, *Stock Exchange Practices*, 73rd Congress, 1933, p. 22.
- 13-18 1900-1949: Lines 7 through 12 each divided by line 6, except that in line 17 for 1933 and 1939 the ratio of top decile of deposits is based on distribution of licensed commercial banks according to size of deposits, shown for October 1, 1934 in *Annual Report of the Federal Deposit Insurance Corporation for 1934*, pp. 184-185, and for June 30, 1939, in *Annual Report of the Federal Deposit Insurance Corporation for 1939*, pp. 100, 114. The corresponding absolute deposit figures are not shown for 1933 and 1939 in line 11, as total deposits of line 6 differ somewhat from the Federal Deposit Insurance Corporation figures, principally because of differences in date.
- 19,20 1900-1949: Line 6 divided by lines 1 and 5 respectively.

Note on the Treatment of Private Banks

As defined in the Federal Reserve Board's *Revised Statistics of All Banks in the United States 1896 to 1950* (mimeograph, 1952) — from which the aggregates shown in lines 1 and 6 are derived for the earlier years — commercial banks include all banks other than mutual savings banks, i.e. national, state-incorporated, stock savings, and private banks, and loan and trust companies. Private banks, while therefore included, nonetheless required the most hazardous estimation in the series prior to 1933. (*Ibid.*, pp. 41-51.)

In figures for number of banks, line 3 and 4, and in the ranking figures appearing in lines, 7 through 12, private banks are not included for the period 1900 to 1933 (except for 1929 and 1933, concerning which see next paragraph) since the leading private bank, J. P. Morgan and Company (the exclusion of Brown Brothers Harriman and Company probably made relatively little difference), was not under the supervision of the New York Banking Department, and hence not required to submit balance sheet data. The Federal Reserve Board was able to include private banks in its series principally because it obtained data for these two firms on a confidential basis.

For 1929, deposit figures excluding and including J. P. Morgan and Company are shown for lines 6,9-12 and 13-18, and the difference in the ratios is found to be negligible except for New York City banks. For 1933, data for J. P. Morgan and Company are included in all deposit figures. For 1939, 1945 and 1949 data on *all* private banks are included in all figures. Only two private banks were operating in New York City in 1945 and 1949 (Brown Brothers Harriman and Company and Laidlaw and Company), since J. P. Morgan and Company was incorporated as a trust company in 1940.

For the period 1900 to 1922 the main effect of this treatment of private banks has been (1) to overstate the denominator (total deposits) in line 6 by the inclusion of private banks (or conversely, to understate slightly lines 7 through 11 and consequently 13 through 17 by the difference between the deposits of J. P. Morgan and Company and those of the last bank included in the particular ranking into which the former would have fallen); and (2) to understate lines 12 and 18 slightly, owing to the exclusion of J. P. Morgan and Company.

The exclusion, in the period 1900 to 1933, of other private bankers from the totals of lines 7-12 is assumed to be negligible. In 1929, for example, twenty-five private banks (excluding J. P. Morgan and Brown Brothers Harriman) operating in New York City had deposits of less than \$9 million (State of New York, Superintendent of Banks, *Report on Banks of Deposit and Discount and Private Bankers 1929*) as compared to deposits of J. P. Morgan and Company of \$492 million (Committee on Banking and Currency, United States Senate, *Stock Exchange Practices*, 73rd Congress, 1933, p. 22). Deposits in the second leading private New York City bank — Brown Brothers Harriman and Company — are not available for 1929, but on the basis of subsequent years probably amounted to less than 20 percent of the deposits in J. P. Morgan and Company. None of the other twenty-five small private banks would have been within the top decile of commercial banks.

Table C-10

Size Distribution Statistics for Mutual Savings Banks

End of year	1900	1912	1922	1929	1933	1939	1945	1949
Banks (number)								
1) Units in U.S.A.	628	624	616	596	564	551	542	531
2) Offices in U.S.A.	...	...	...	695	689	683	685	730
3) Units in New York City	49	58	62	64	59	57	56	54
4) Offices in New York City	49	58	62	68	98	101	110	122
Employees								
5) Number (000)	...	...	...	...	14	15	17	18
Deposits (\$000,000)								
6) Total	2,224	3,687	6,002	8,838	9,488	10,523	15,385	19,293
7) Largest bank	70	125	224	323	507	513	589	852
8) Ten largest banks	503	825	1,302	1,911	2,470	2,687	3,466	4,716
9) One hundred largest banks	1,488	...	...	5,780	6,626	7,391	10,888	14,029
10) Top percentile of banks	349	595	955	1,417	1,827	1,755	2,257	3,045
11) Top decile of banks	1,253	...	...	4,726	5,561	5,932	8,583	11,205
12) Banks in New York City	719	1,166	2,147	3,372	3,924	4,442	6,596	8,920
Share in deposits (percent of national total)								
13) Largest bank	3.1	3.4	3.7	3.7	5.3	4.9	3.8	4.4
14) Ten largest banks	22.6	22.4	21.7	21.6	26.0	25.5	22.5	24.4
15) One hundred largest banks	66.9	...	...	65.4	69.8	70.2	70.8	72.7
16) Top percentile of banks	15.7	16.1	15.9	16.0	19.3	16.7	14.7	15.8
17) Top decile of banks	56.3	...	...	53.5	58.6	56.4	55.8	58.1
18) Banks in New York City	32.3	31.6	35.8	38.2	41.4	42.2	42.9	46.2
19) Deposits per bank (\$000,000)	3.54	5.91	9.74	14.83	16.82	19.38	28.39	36.40
20) Deposits per employee (\$000)	...	...	...	...	678	702	905	1,072

Notes to Table C-10

Line

- 1 1900-1933: Averages of June data from Federal Reserve Board, *Revised Statistics of All Banks in the U.S., 1896-1950*, Table 6.
1939-49: *Annual Report of the Federal Deposit Insurance Corporation*, various issues.
- 2 1929: Line 1 plus branches from *Federal Reserve Bulletin*, December 1930, p. 813.
1933: Line 1 plus branches as shown in *Monetary Policy and the Management of the Public Debt* (Joint Committee on the Economic Report, 82nd Congress, 2nd Session), p. 553.
1939-49: Line 1 plus branches from *Annual Report of the Federal Deposit Insurance Corporation*, various issues.
- 3 1900-1922: Compiled from data on individual banks in *Report on Savings Banks, Trust Companies, Safe Deposit Companies and Miscellaneous Corporations*, Banking Department, State of New York, various issues.
1929-49: Compiled from individual bank data in *Mutual Savings Banks of the U.S.*, Directory of the National Association of Mutual Savings Banks, various issues. Beginning in January 1927 this publication appeared biannually until 1931, and annually thereafter.
- 4 1900-1922: Same as line 3.
1929-49: Line 3 plus branches compiled from *Mutual Savings Banks of the U.S.*, various issues. The first legislation providing for savings bank branch facilities became effective in 1923 (Morgan and Parker, *New York Banking Law 1923*, pp. 254-6).
- 5 1933, 1939: Based on Department of Commerce, National Income Division figures for 1934 and 1939. On the basis of the change in total banking employment between 1933 and 1934, the change in mutual savings bank employment can be assumed negligible between the two years.
1945: The 1942 ratio of employment in mutual savings banks (based on National Income Division data) to employment in total banking (Bureau of the Census figure) applied to total banking for 1945, as given in *National Income Supplement 1951, Survey of Current Business*, p. 181.
1949: Based on a 1951 questionnaire survey of the National Association of Mutual Savings Banks covering 506 banks.
- 6 1900-1949: Table A-5, line 30.

Line

Notes to Table C-10 (concl.)

- 7-11 1900: Compiled from state reports on individual banks for 1900. Figures for Maryland were partly estimated on the basis of individual bank data first appearing in 1914; those for Ohio were roughly estimated on the basis of the state total for number of banks and deposits.
- 1912, 1922: Top ten and top percentile compiled from official state reports.
- 1929-49: Compiled from individual bank data shown in *American Banker*, various issues.
- 12 1900-1949: Compiled from individual bank data shown in annual reports of New York State, Superintendent of Banks, *Report on Savings Banks, Safe Deposit Companies and Miscellaneous Corporations* (title varies in some years).
- 13-18 1900-1949: Lines 7 through 12 each divided by line 6.
- 19 1900-1949: Lines 6 divided by line 1.
- 20 1933-49: Line 6 divided by line 5.

Table C-11

Size Distribution Statistics for Savings and Loan Associations

End of year	1900	1912	1922	1929	1933	1939	1945	1949
Associations (number)								
1) Units	5,356	5,344	10,009	12,342	10,596	7,719	6,149	5,983
2) Offices in U.S.A.	***	***	***	***	***	***	***	6,150
3) Units in New York City	126	85	92	91	82	70	71	61
4) Offices in New York City	126	85	92	95	86	78	74	80
Employees								
5) Number (000)	***	***	***	***	35	***	18	25
Assets (\$100,000)					A 6,712			A 15,734
6) Total	571	1,012	3,343	8,695	B 7,018	5,524	8,747	B 14,622
7) Largest association	12	***	***	60	46	***	73	106
8) Ten largest associations	38	***	***	463	258	***	425	763
9) One hundred largest associations	113	***	***	1,840	1,107	***	1,896	3,238
10) Top percentile of associations	84	***	***	2,030	1,142	***	1,444	2,420
11) Top decile of associations	262	***	***	***	2,922	***	***	7,771
12) Associations in New York City	38	23	57	200	181	204	359	658
Share in assets (percent of national total)								
13) Largest association	2.1	***	***	0.7	0.7	***	0.8	0.7
14) Ten largest associations	6.7	***	***	5.3	3.8	***	5.3	4.8
15) One hundred largest associations	19.8	***	***	21.1	16.5	***	23.7	20.6
16) Top percentile of associations	14.7	***	***	23.3	17.0	***	18.0	15.4
17) Top decile of associations	45.9	***	***	***	43.5	***	***	49.4
18) Associations in New York City	6.7	2.3	1.7	2.3	2.6	3.7	4.1	4.5
19) Assets per association (\$100,000)	0.11	0.19	0.33	0.70	0.66	0.72	1.42	2.44
20) Assets per employee (\$1000)	***	***	***	***	201	***	486	585

(source notes on next pages)

Notes to Table C-11.

Line

- 1 1900, 1912: Estimated from state reports collected or made by H. F. Cellarius, shown in *History of Building and Loan in the U.S.*, M. Bodfish, ed., p. 136.
1922-49: Home Loan Bank Board, *Trends in the Savings and Loan Field*, 1950, Table 1, p. 4.
- 2 1949: Line 1 plus number of branches. State-chartered institutions had 87 branches at the end of 1949 (from unpublished study of the National Savings and Loan League), while federal institutions had 80 (figure from annual *Report of the Home Loan Bank Board for the year-ending Dec. 31, 1949*, p. 21). } d
- 3 1900-1933: Compiled from county totals shown in State of New York, Building Department, *Report on Savings and Loan Associations* (title varies), various issues.
1939-49: State-chartered institutions from source for 1900-1933, plus federals from Home Loan Bank Board, *Annual Report of Federal Savings and Loan Associations* for 1939 and 1945, and from Federal Savings and Loan Insurance Corporation, *List of Member Institutions* for 1949.
- 4 1900-1922: Same as line 3.
1929-49: Line 3 plus branches of Federal associations (1939-49) from data of Home Loan Bank of New York, and branches of State-chartered institutions from data of State of New York, Superintendent of Banks. Among branches of state associations are included "stations." The latter are legally more restricted in their operations than branches (e.g. stations accept deposits and withdrawals but do not negotiate loans or open accounts; McKinney's *Consolidated Laws of New York*, Article 10, Section 396). Legislation permitting stations was first adopted in 1929, while the law first permitted branches in 1939, after which no new stations would be established; no stations were still operating in 1952 (information from the State of New York Banking Department).
- 5 1933: *Census of Business 1935* figure for 1935 of 31,806 employees (covering 70 percent of all associations in the United States), arbitrarily raised 10 percent on assumption that the associations not reporting were on the average of small size.
1945, 1949: Estimate of U.S. Savings and Loan League.
- 6 1900, 1912:
1922-49: Same sources as for line 1. Total asset figures differ from Appendix Table A-18, by amount of pledged mortgage shares which are omitted from latter. For 1933 and 1949, A gives end of June 1934 and 1949 figures, obtained by averaging December 31 figures; B gives December 31 figures for the year in question. The June figures afford comparison with lines 7 through 10, some of which are June data. } 1950

Line

Notes to Table C-11 (cont.)

- 7-11 1900: Derived from state building and loan department reports on individual associations. Data in general refer to December 31 or balance sheet dates in the latter part of the year. Available state reports covered eighteen states having 79 percent of all U.S. building and loan associations and 83 percent of their assets. It was assumed that no association in the unaccounted states ranked among the first ten. A rough estimate of concentration in the unaccounted states for the purposes of lines 9 and 10 was based on the size distribution in the reporting states, adjusted for the lower ratio of average assets per institution in the nonreporting states. (Among the latter, Maryland was the most important omission, with total assets estimated at about 16 percent of aggregate assets of nonreporting states).
- 1929: Derived from data on individual associations from U.S. Building and Loan League, *Building and Loan Annals*, 1930, pp. 548-9. Only members of the league are covered. (In 1949 league members represented about 62 percent of the associations in the U.S. and about 85 percent of their assets.) Since only the first ranking 89 companies are listed in the *Annals*, figures for the 100 largest associations and top percentile of associations are based on extrapolation.
- 1933: Derived from data as of July 1, 1934 on individual league member associations, U.S. Building and Loan League, *Building and Loan Annals*, 1934, pp. 700-901.
- 1945: Invested capital (including paid-in savings and share accounts plus general reserves and undivided profits) from *American Banker*, June 11, 1947, pp. 6-7. Total invested capital for 1945 equals 92 percent of total assets (*Trends in the Savings and Loan Field*, 1950, p. 4). (A comparison of 1949 of percentage shares obtained by the top ten, top one-hundred, and top percentile of institutions, based on savings bank capital and assets, shows 4.9, 16.9, and 22.7 percent respectively when based on savings bank capital, and 4.8, 15.4, and 20.6 percent respectively when based on assets.) The figure of \$73 million in line 7 represents assets of the leading association as of October 30, as shown in *Annual Report of the Perpetual Building Association for the year-ending October 30, 1945*.
- 1949: For league member associations; derived in same way as for 1933 from *Savings and Loan Annals*, 1950, pp. D-17 to D-155. The data are as of July 1, 1950. For comparison, data released by the Home Loan Bank Board on *200 Largest Savings and Loan Associations Listed in Order of Total Assets* show the following December 31, 1949 figures for all operating associations (in millions):

Ten largest associations	\$ 712
100 largest associations	3,304
Top percentile of associations	2,426

The difference between the latter figures and the league figures (negligible except for ten largest associations) arises because the league data are of six months later and — influencing the difference in an opposite direction — because not all large associations are members of the league.

- Line *Notes to Table C-11 (concl.)*
- 12 1900-1933: Compiled from State of New York, Superintendent of Banks, *Report on Savings and Loan Associations*, various issues. Figure for 1922 represents arithmetic average of 1921 and 1923 assets.
- 1939-49: Assets of state-chartered institution from source for 1900-1933; plus assets of federal associations from Home Loan Bank Board, *Annual Report of Federal Savings and Loan Associations* for 1939 and 1945. Figure for 1949 compiled partly from Federal Savings and Loan Insurance Corporation, *200 Largest Savings and Loan Associations Listed in Order of Total Assets, December 31, 1949*, and partly from data for June 30, 1950 given in U.S. Savings and Loan League, *Savings and Loan Annals*.
- 13-17 1900-1949: Lines 7 through 11 each divided by line 6, except for lines 8 to 11 in 1945 where divisor equals total invested capital of \$8,010 million (obtained from *Trends in the Savings and Loan Field*, 1950, p. 4). For 1933 and 1949, figure A (June of the following year) is used as the denominator for reasons explained in the notes to line 6. These ratios are slightly understated since it may be assumed that some associations ranking among first ten and first decile of associations are not Savings and Loan League members. For 1949, ratios based on the comprehensive Home Loan Bank figures given in the notes to lines 7 through 11 for 1949, and using the B (December 31, 1949) figure as the denominator, all shown below, are found to differ only slightly from the ratios obtained from the league data used in the table:
- | | |
|--------------------------------|--------------|
| Ten largest associations | 4.9 percent |
| 100 largest associations | 22.6 percent |
| Top percentile of associations | 16.6 percent |
- 18 1900-1949: Line 12 divided by line 6 (figure B, i.e. end-of-year assets, used as divisor for 1933 and 1949).
- 19 1900-1949: Line 6 divided by line 12.
- 20 1933, 1945, 1949: Line 6 divided by line 5.

Table C-12

Size Distribution Statistics for Life Insurance Companies

End of year	1900	1912	1922	1929	1933	1939	1945	1949
Companies (number)								
1) In U.S.A.	84	305	347	438	375	410	463	609
2) In New York City ^a	14	11	13	16	17	19	21	22
Employees (number, 000)								
3) Total in U.S.A.	.....	.....	.....	.....	.....	246	266	336
4) In head office	.....	.....	.....	.....	94	74	80	110
5) Full-time agents	.....	.....	.....	.....	158	135	135	161
Assets (\$ 000,000)								
6) Total	1,742	4,409	8,652	17,482	20,896	29,243	44,797	59,630
7) Largest company	326	720	1,260	3,011	3,861	5,142	7,562	9,703
8) Ten largest companies	1,376	3,307	6,089	12,015	14,694	20,405	30,504	39,616
9) One hundred largest companies	—	4,357	8,232	16,797	20,299	23,329	43,180	57,545
10) Top percentile of companies	326	1,832	3,155	8,123	10,228	14,328	23,469	33,117
11) Top decile of companies	1,289	4,134	7,691	15,879	19,011	26,756	40,972	55,593
12) Companies with head office in New York City ^a	1,155	2,794	4,972	9,893	10,814	16,926	25,009	32,280
Share in assets (percent of national total)								
13) Largest company	18.7	16.3	14.6	17.2	18.5	17.6	16.9	16.3
14) Ten largest companies	79.0	75.0	70.4	68.7	70.3	69.8	68.1	66.4
15) One hundred largest companies	—	98.8	95.1	96.1	97.1	96.9	96.4	96.5
16) Top percentile of companies	18.7	41.6	36.5	46.5	48.9	49.0	52.4	55.5
17) Top decile of companies	79.0	93.8	88.9	90.8	91.0	91.5	91.5	93.2
18) Companies with head office in New York City ^a	66.3	63.4	57.5	56.6	51.8	57.9	56.0	54.1
19) Assets per company (\$ 000,000)	20.7	14.5	24.9	39.9	55.7	71.3	96.8	97.9
20) Assets per employee (\$ 000)	.....	.....	.....	.....	.....	119	168	177

^a Including Prudential and Mutual Benefit of Newark, N.J.

(source notes on next pages)

Notes to Table C-12

Line

- 1 1900-1933: J. O. Stalson, *Marketing Life Insurance*, pp. 752-3.
 1939: Spectator Company, *Insurance Yearbook*, Life Volume, figure for 306 companies raised by the ratio of the Spectator estimate to the Institute of Life Insurance estimate for 1945.
 1945-49: Estimates of the Institute of Life Insurance. These, like Stalson's, include a sizable number of small companies, predominantly in the South. They cover all companies which are considered legal reserve companies by their state insurance departments. The inclusion of the small companies has only a negligible influence on total asset figures, but raises the percentile and decile figures substantially.
- 2 1900-1949: Companies with head office in New York City derived from *Best's Life Insurance Reports*, various issues.
- 3,4 1933: Census of Business (1935), figure for 1935.
 1939: Unpublished estimate of Institute of Life Insurance.
 1945, 1949: Institute of Life Insurance, *Tally*, July 1952.
- 5 1933: Extrapolated on basis of 1934-36 trend, as shown in *Census of Life Insurance Agents in U.S.*, Life Insurance Sales Research Bureau, 1940.
 1939: Stated figure from *ibid.*
 1945, 1949: Institute of Life Insurance, *Tally*, July 1952.
- 6 1900-1949: From Table A-8, line 1.
- 7-11 d / 1900-1922: Derived from data on individual companies given in Spectator *Yearbook*, various issues (e.g. 1922 figure from 1923 volume on "Financial Standing and Business in 1922 of U.S. Life Insurance Companies," pp. A311-A318). For 1922 and following years, casualty assets of two large life insurance companies with casualty departments are excluded, on the basis of life assets reported in various issues of the *Insurance Report*, of the Superintendent of Insurance, State of New York.
 1929-49: Derived from data on individual companies listed according to size of assets in the *Weekly Underwriter*, generally around the middle of the year (e.g. 1945 figure appears May 11, 1946, p. 1241).
- 12 1900-1922: Derived from individual company data in Spectator *Yearbook*, various issues.
 1929-49: Derived from individual company data in *Best's Life Insurance Reports*, various issues.
- 13-18 1900-1949: Lines 7 through 12 each divided by line 6.
- 19 1900-1949: Line 6 divided by line 1.
- 20 1939-49: Line 6 divided by line 3.

Table C-13

Size Distribution Statistics for Fraternal Insurance Organizations

	End of year	1901	1912	1922	1929	1933	1939	1945	1949
1) Number of orders		489	397	245	269	206	251	180	176
<i>Assets (\$ 000,000)</i>									
2) Total		29.4	164	465	848	957	1,199	1,645	1,978
3) Largest order		2.9	...	...	96	...	...	...	169
4) Ten largest orders		14.6	...	...	382	...	...	...	934
5) Top percentile of orders		10.8	...	...	163	...	...	...	326
6) Top decile of orders		26.4	...	...	588	...	...	...	1,240
<i>Share in assets (percent of national total)</i>									
7) Largest order		9.9	...	...	11.3	...	...	...	8.5
8) Ten largest orders		49.7	...	...	45.0	...	...	...	47.2
9) Top percentile of orders		36.7	...	...	21.6	...	...	...	16.5
10) Top decile of orders		69.8	...	...	69.3	...	...	...	62.7
11) Assets per company (\$ 000,000)		0.06	0.41	1.90	3.15	4.65	4.78	9.13	11.24

Line

- 1 1901-1949: Specator Company, *Insurance Yearbook*, Life Volume, various issues.
 As no data on the number of companies were given for 1900, the figures for 1901 were used instead. Beginning with 1922 the figures refer only to reporting orders. Since the addition of the nonreporting orders — which are presumed to be small — would probably raise the total number of orders substantially, but total assets (line 2) only negligibly, the absolute asset amounts for the ten largest orders (lines 4 and 5), and their percentage share (line 8), are only slightly overstated, but the shares of the top percentile and decile (lines 9 and 10) are probably considerably understated for 1929 and 1949. For the same reason, the values of line 11 are overstated for 1929 to 1949.

Notes to Table C-13 (concl.)

Line

- 2 1901: *Spectator Yearbook*, 1913, p. 313.
1912-49: From Table A-9, line 1.
- 3-6 1901, 1929, 1949: Derived from data on individual companies from *Spectator Yearbook*, various issues.
- 7-10 1901, 1929, 1949: Lines 3 to 6 each divided by line 2.
- 11 1901-49: Line 2 divided by line 1.

Table C-14

Size Distribution Statistics for Fire and Marine Insurance Companies

	End of year 1900	1912	1922	1929	1933	1939	1945	1949
1) Number of companies	493	595	754	931	672	553	548	615
Assets (\$ 000,000)								
2) Total	413	775	1,627	3,084	2,230	2,840	4,237	6,558
3) Largest company	14	34	80	130	88	126	200	318
4) Largest ten companies	101	205	472	872	595	801	1,236	1,862
5) Top percentile of companies	59	149	416	816	475	599	837	1,440
6) Top decile of companies	236	497	1,117	2,125	1,376	1,701	2,563	4,197
Share in assets (percent of national total)								
7) Largest company	3.4	4.4	4.9	4.2	3.9	4.4	4.7	4.8
8) Ten largest companies	24.5	26.5	29.0	28.3	26.7	28.2	29.2	28.4
9) Top percentile of companies	14.3	19.2	25.6	26.5	21.3	21.1	19.8	22.0
10) Top decile of companies	57.1	64.1	68.7	68.9	61.7	59.9	60.5	64.0
11) Assets per company (\$ 000,000)	0.8	1.3	2.2	3.3	3.3	5.1	7.7	10.7

Line

- 1 Data from the Spectator Company's *Insurance Yearbook*, Fire and Marine Volumes, as shown in *Statistical Abstract of the United States*, various years. These figures, and all others in the table cover United States companies and United States branches of foreign companies. From 1933 to 1949 the figures refer to reporting companies.
- 2 From Table A-12, line 1.

Notes to Table C-14 (concl.)

Line

3-6 Compiled from data in the Fire and Marine Volumes of the *Annual Report* of the Superintendent of Insurance, State of New York, various years. The data cover companies authorized to do business in New York State, and were assumed to include all companies in the United States falling within the decile range. As a check, a separate distribution for all companies in the United States for 1949 (derived from data on individual companies shown in the *Insurance Almanac 1950*, pp. 932-947) gave results almost identical (28.4 percent for ten largest companies; 21.9 percent for top percentile; 63.2 percent for top decile) those obtained by using the New York State data. ↑ with

7-10 Lines 3 through 6 each divided by line 2.

11 Line 2 divided by line 1.

Table C-15

Size Distribution Statistics for Casualty and Miscellaneous Insurance Companies

	End of year 1929	1933	1939	1945	1949
1) Number of companies	456	260	292	290	365
Assets (\$ 000,000)					
2) Total	1,544	1,248	1,945	3,351	5,447
3) Largest company	117	90	137	223	313
4) Ten largest companies	535	410	633	1,146	1,758
5) Top percentile of companies	307	180	289	508	910
6) Top decile of companies	1,102	715	1,175	1,942	3,405
Share in assets (percent of national total)					
7) Largest company	7.6	7.2	7.0	6.7	5.7
8) Ten largest companies	34.6	32.9	32.5	34.2	32.3
9) Top percentile of companies	19.9	14.4	14.9	15.2	16.7
10) Top decile of companies	71.4	57.3	60.4	58.0	62.5
11) Assets per company (\$ 000,000)	3.4	4.6	6.7	11.6	14.9

Line

- 1 Reporting companies from aggregates for the United States shown in the Spectator Company *Insurance Yearbook*, Casualty and Miscellaneous Volumes, various issues. The Spectator data exclude a substantial number of small mutual companies, whose inclusion would raise total assets (line 2) relatively little but would increase the percentage shares (lines 7 to 10), which are thus somewhat understated. Reference to Table C-16, which gives data on companies licensed in New York, shows that the latter hold about 80 percent of total assets in the country while comprising less than one-half the number of companies. Hence, the percentages in lines 9 and 10 of Table C-16 are considerably lower than the corresponding lines of this table. Figures prior to 1929 are omitted from the present table since Spectator does not show aggregates for mutual companies 1929.

↳ before

Notes to Table C-15 (concl.)

Line

- 2 From Table A-13. Mutual accident and health and life assessment associations are deducted according to sources stated in the cited table.
- 3-6 State of New York, Superintendent of Insurance, *Annual Report, Casualty and Miscellaneous Volume*, various issues. The data cover companies authorized to do business in New York State, and were assumed to include all companies in the United States falling within the decile range. As a check, a separate distribution for all companies in the United States for 1949 (derived from data on individual companies shown in the *Insurance Almanac 1950*, pp.950-957) gave results very similar (31.4 percent for the ten largest companies; 16.6 percent for top percentile; 63.8 percent for top decile) to those obtained by using the New York State data.
- 7-10 Lines 3 to 6 divided by line 2.
- 11 Line 2 divided by line 1

Table C-16

Size Distribution Statistics for Casualty and Miscellaneous Insurance
Companies Licensed in New York State

	End of year 1900	1912	1922	1929	1933	1939	1945	1949
1) Number of companies licensed	31	63	95	140	109	123	132	126
Assets (\$ 000,000)								
2) Total	47	162	617	1,352	1,046	1,686	2,951	4,591
3) Largest company	6	17	59	117	90	137	223	313
4) Ten largest companies	33	88	304	535	410	633	1,146	1,758
5) Top percentile of companies	—	17	59	117	90	137	223	313
6) Top decile of companies	16	61	304	640	410	713	1,266	1,959
Share in assets (percent of total)								
7) Largest company	12.8	10.5	9.6	8.7	8.6	8.1	7.6	6.8
8) Ten largest companies	70.2	54.3	49.3	39.6	39.2	37.5	38.8	38.3
9) Top percentile of companies	—	10.5	9.6	8.7	8.6	8.1	7.6	6.9
10) Top decile of companies	34.0	37.7	49.3	47.3	39.2	42.3	42.9	42.7
11) Assets per company (\$ 000,000)	1.5	2.6	6.5	9.7	9.6	13.7	22.4	35.9

Source: State of New York, Superintendent of Insurance, *Annual Report*, Casualty and Miscellaneous Volume, various issues. The New York State Insurance Fund, covering workmen's compensation insurance and started in 1914, is excluded.

Table C-17

Fire-Marine and Casualty-Miscellaneous Insurance Companies:
Size Distribution of Assets of Individual Companies and
Groups of Affiliated Companies

End of year	1929		1949	
	A	B	A	B
1) Number of companies	1,387	1,303	980	748
Assets (\$000,000)				
2) Total		4,628		12,005
3) Largest company	130	290	318	637
4) Ten largest companies	940	1,498	2,023	3,821
5) One hundred largest companies	2,903	3,277	6,316	9,540
6) Top percentile of companies	1,157	1,707	2,023	3,130
7) Top decile of companies	3,173	3,459	6,275	8,252
Share in assets (percent of national total)				
8) Largest company	2.8	6.3	2.6	5.3
9) Ten largest companies	20.3	32.4	16.9	31.8
10) One hundred largest companies	62.7	70.8	52.6	79.5
11) Top percentile of companies	25.0	36.9	16.9	26.1
12) Top decile of companies	68.6	74.7	52.3	68.7
13) Assets per company (\$000,000)	3.3	3.6	12.3	16.0

A: All companies treated as single units.

B: Groups of affiliated companies treated as single units.

(source notes on next pages)

Notes to Table C-17

Line

- 1 1929 and 1949, col. A: Table C-14, line 1 plus Table C-15, line 1.
 1929, col. B: Figure of col. A adjusted for the existence of 34 groups of 118 affiliated companies. Since only groups whose leading company had assets of at least \$20 million at the end of 1929 were considered, the number and assets of groups are somewhat understated, and the number and assets of independent units somewhat overstated. Information relating to groups was obtained from *Moody's Manual of Investments: Banks and Finance 1930*.
 1949, col. B: Figure of col. A adjusted for existence of 106 groups of 338 affiliated companies. Data on groups was obtained from a listing in *Best's Fire and Casualty Aggregates and Averages 1950*, pp. 2-13.
- 2 1929, 1949: Table C-14, line 2 plus Table C-15, line 2. A consolidated total figure (for col. B) could not be calculated since the amount of inter-company holdings (at book values) was not shown in *Moody's*. As the consolidation would decrease the assets of the larger companies and would reduce them proportionately more than total assets, the values of lines 3 to 7 and the percentages of lines 8 to 12 are somewhat overstated.
- 3-7 1929 and 1949, col. A: Sources to Tables C-14 and C-15, lines 3 to 6.
 1929, col B: Combined assets of groups of companies and assets of independent companies from *Annual Report 1930*, Superintendent of Insurance, State of New York, Fire-Marine and Casualty-Miscellaneous Volumes, and *Moody's Manual of Investments: Banks and Finance 1930*. *Moody's Manual* was used primarily in those cases where an affiliated company was not licensed in New York State.
 1949, col. B: Combined assets of groups of companies from *Best's Fire and Casualty Aggregates and Averages 1950*, pp. 2-13, and assets of independent companies from *Annual Report 1949*, State of New York, Superintendent of Insurance, Fire-Marine and Casualty-Miscellaneous Volumes.
- 8-12 1929, 1949: Lines 3 to 7 each divided by line 2.
- 13 1929, 1949: Line 2 divided by line 1.

Table C-18

Size Distribution Statistics for Credit Unions

	End of year 1912	1922	1929	1933	1939	1945	1949
1) Number of credit unions	26	200	974	2,016	8,077	8,882	10,073
2) Assets (\$ 000,000)	0.1	11.3	42.4	37.0	192.7	434.6	828.0
Share in assets (percent of national total)							
3) Ten largest associations	....	1.1	4.1	....	....	7.5	5.2
4) One hundred largest associations	....	....	....	....	....	28.0	23.6
5) Top percentile of associations	....	....	....	....	....	15.9	13.7
6) Top decile of associations	....	....	....	....	....	53.4	51.1
7) Assets per association (\$ 000)	4	56	44	18	24	49	82

Line

- 1 1912: Number of credit unions in Massachusetts from Commonwealth of Massachusetts, *Annual Report of the Commissioner of Banks* 1912, Part IV. Massachusetts passed first credit union legislation in 1909 and was the only state in 1912 where credit unions existed.
- 1922: Figure for 1923 estimated by R. Nugent, *Consumer Credit and Economic Stability*, p. 100.
- 1929-49: U.S. Department of Labor data as shown in *Statistical Abstract of the United States*, 1952, p. 423. Figures cover chartered institutions and exceed those reporting (for 1929, 838; 1933, 1,772; 1939, 7,849; 1945, 8,615; and 1949, 9,897) principally because the latter exclude associations chartered but not in operation by the end of the year, and associations in liquidation which had not relinquished their charters.
- 2 1912-49: Goldsmith, *Study of Saving ...*, Table L-40, col. 1

Notes to Table C-18 (concl.)

Line

3-6 1945, 1949: Derived by interpolation from an asset size distribution of eleven groupings for federal credit unions only (hence no absolute values are shown) from Federal Deposit Insurance Corporation (1945) and Federal Security Agency (1949), *Annual Report of Operations of Federal Credit Unions*. For 1945 the percentages are based on 3,757 reporting (out of 3,959 existing) federal credit unions having assets of \$153 millions; for 1949 they are based on 4,494 reporting (out of 4,646 existing) federal credit unions having assets of \$316 million.

7 1912-49: Line 2 divided by line 1.

Table C-19
 Size Distribution Statistics for
 Management Investment Companies

End of Year	1929		1936	1945	1949	
	A	B			A	B
1) Number of companies	548	531	339	190	195	95
Assets (\$000,000)						
2) Total	3,850	3,568	1,907	2,792	3,207	3,130
3) Largest company	252	452	130	213	278	296
4) Ten largest companies	1,258	1,424	778	944	1,155	1,488
5) Top percentile of companies	870	1,089	349	335	455	296
6) Top decile of companies	2,425	2,296	1,338	1,368	1,700	1,488
Assets (percent of national total)						
7) Largest company	6.5	12.7	6.8	7.6	8.7	9.5
8) Ten largest companies	32.6	39.9	40.8	33.8	36.0	47.5
9) Top percentile of companies	22.6	30.5	18.3	12.0	14.2	9.5
10) Top decile of companies	62.9	64.3	70.2	49.0	53.0	47.5
11) Assets per company (\$000,000)	7.0	6.7	5.6	14.7	16.4	32.9

A: All companies treated as single units.

B: Groups of affiliated companies treated as single units.

(source notes on next pages)

Notes to Table C-19

Line

- 1 1929, 1936: Securities and Exchange Commission, Investment Trusts and Investment Companies, 1929 pp. 27, 112-114. Includes all open- and closed-end management companies, as well as "unclassified" management companies having assets of less than \$500,000. The latter, except for difference in size, are similar to "management investment companies proper" (op. cit., p. 27). For 1929, col. A represents the actual number of companies shown by the Securities and Exchange Commission, while col. B represents the number less subsidiaries of parent companies with assets of \$20 million and over. The purpose of this calculation is to show, in lines 2-6 and 7-10, the effects of consolidating companies under common ownership (and treating them as single units) upon concentration. The names of the major companies considered were obtained from Securities and Exchange Commission, op. cit., pp. 53, 56, while information relating to ownership was taken from Moody's Manual of Investments: Banks and Finance, 1930.
- 1945, 1949: Securities and Exchange Commission, Statistical Bulletin. Christiana Securities Corporation is deducted. Cols. A and B for 1949 have the same meaning as for 1929, except that for 1949 col. B equals col. A less the number of companies which are subsidiaries through stock control of a parent management investment company, as well as the number of companies affiliated with another company through common management by contract, and less the number of companies operating as independently incorporated "classes" of shares but managed in common (e.g., Keystone Custodian Funds, Group Securities, and New York Shares each manage a group of classes of shares or funds, each of which is a separate company in the legal sense). The reductions were made on the basis of listings and descriptions of management investment companies with \$40 million and over in assets (Arthur Wiesenberger, Investment Companies, 1946). Hence, as for 1929, the figure in col. B overstates slightly the number of companies with independent management.
- 2 1929, 1936: Securities and Exchange Commission, Investment Trusts and Investment Companies. Asset figures throughout this table are generally at market values. For 1929 col. B is a Securities and Exchange Commission figure and refers to consolidated balance sheets in the case of "substantial intercompany holdings of investment company securities" (op. cit., p. 27). Col. A is intended to represent a nonconsolidated total and equals col. B plus intercompany holdings of companies having assets of \$20 million and over. Data on intercompany holdings were obtained from Moody's Manual of Investments. For 1936 the figure is similar to 1929, col. B and is therefore not entirely consistent since the rest of the data for 1936 are nonconsolidated and refer to individual units.
- 1945, 1949: Securities and Exchange Commission, Statistical Bulletin. For 1949 cols. A and B have the same meaning as for 1929 except that for 1949 the nonconsolidated figure of col. A is the published figure of the Securities and Exchange Commission, while col. B equals col. A less intercompany holdings of groups the parent company of which has assets of \$40 million and over. (Wiesenberger, op. cit.). Assets of Christiana Securities Corporation are deducted on basis of figures in Standard and Poor's Corporation Records (cumulative) 1953, p. 2121.
- 3-6 1929, 1936: Securities and Exchange Commission, Investment Trusts and Investment Companies. For col. B, 1929, intercompany holdings of jointly owned subsidiaries are deducted on the basis of figures for individual companies shown in Moody's Manual of Investments, 1930.
- 1945: Compiled from data on individual companies in Wiesenberger, op. cit.
- 1949: Col. A compiled from data on individual companies from Securities and Exchange Commission worksheets (unpublished). Col. B represents consolidated figures for the major companies as described in notes to line 1, 1949, derived from data on individual companies in Wiesenberger's Investment Companies, 1950.
- 7-10 1929-49: Lines 3 to 6 divided by line 2.
- 11 1929-49: Line 2 divided by line 1.

Table C-20

Selected Size Distribution Statistics for Investment Bankers

	1937 ^a		Participations in registered issues (3)	Management of registered issues (4)	Net worth (5)	Total assets ^b (6)
	Participations in registered issues (1)	Management of registered issues (2)				
1) Number of firms	515	515	618	618	443	1,369
Amount of new issues, net worth or assets (\$000,000)						
2) Total	1,756	1,756	2,500	2,500	484	1,385
3) Largest firm	113	614	177	393	23	109
4) Ten largest firms	743	1,201	758	1,765	131	837
5) One hundred largest firms	...	...	2,123	-	385	1,136
6) Top percentile of firms	498	982	544	1,413	69	887
7) Top decile of firms	1,295	1,480	1,891	2,480	292	1,219
Share in line 2 (percent of national total)						
8) Largest firm	6.4	35.0	7.1	15.7	4.7	13.8
9) Ten largest firms	42.3	68.4	30.3	70.6	27.1	60.0
10) One hundred largest firms	...	...	84.9	-	79.6	82.0
11) Top percentile of firms	28.4	55.9	21.8	56.5	14.2	64.0
12) Top decile of firms	73.7	84.3	75.6	99.2	60.4	88.0

^a New issues offered during year; assets and net worth held at end of year.

^b Corporations only.

(source notes on next page)

Notes to Table C-20

Line

1-7 Cols. 1 and 2: Derived from data for 40 individual firms in Securities and Exchange Commission, Selected Statistics on Securities and on Exchange Markets, 1939, p. A-32. The decile figure is estimated by extrapolation. Figures (as in cols. 3 and 4) are limited to participations in issues registered under the Securities Act of 1933.

Cols. 3 and 4: Derived from data for 100 participating firms and 25 managing firms in Securities and Exchange Commission, Statistical Bulletin, March 1950, pp. 8-10. The decile figure for managed issues (col. 4) is estimated by extrapolation (total issues of \$2,500 million were managed by 73 firms).

Col. 5: Compiled from data shown in Finance, March 15, 1950, pp. 31-33, 74-80.

Col. 6: Compiled by interpolation, from 10 asset-size groups from Statistics of Income, 1949, Part II, Source Book.

8-12 Cols. 1 to 6: Lines 3 to 7 each divided by line 2.

Table C-21

Size Distribution Statistics for 1,563 Sales Finance Companies, December 31, 1947

	Assets	
	Amount (millions of dollars)	Percent of total
Total	2,934	100.0
Largest company	684	23.3
Largest five companies	1,793	61.1
Largest ten companies	1,953	66.6
Largest one hundred companies	2,540	86.6
Top percentile of companies	2,073	70.7
Top decile of companies	2,645	90.1
Assets per company	1.9	-

Source: Largest company from Moody's Manual of Investments, 1949. Other rankings from Statistics of Income, 1947, Source Book, from which figures for the various rankings were estimated by interpolation from nine asset size groups. Reference to Moody's Manual of Investments, 1949, shows that the leading three companies alone had 53 percent of total assets in 1947. Personal loan companies are excluded.

Table C-22

Size Distribution Statistics for Trust Fund Assets of 2,976 Trust Institutions, 1947

	Assets	
	Amount (millions of dollars)	Percent of total
Total	36,162	100.0
Largest one hundred institutions	28,445	78.7
Top percentile of institutions	17,000	47.0
Top decile of institutions	33,150	91.7

Source: Gilbert T. Stephenson, "Trust Business in the United States," Trust Bulletin, April 1948, p. 21. The rankings are derived by interpolation from a size distribution which uses eleven size groups. The percentile figure is roughly calculated on the basis of the size distribution of all companies plotted on a double-logarithmic scale, and therefore subject to a larger margin of error.

Table C-23
Size Distribution Statistics for Banks and Savings and Loan Associations
in 18 Largest Cities, 1900, 1929 and 1949

City and Population April 1950 (000)	Commercial banks			Mutual savings banks			Savings and loan associations		
	1900	1929	1949	1900	1929	1949	1900	1929	1949
New York (7,892)	Number of institutions	156	130	71	49	54	126	91	61
	Total assets ^a (\$000,000)	1,854	11,499	26,658	719	8,920	38	200	658
	Assets per inst. (\$000,000)	11.9	88.5	375.5	14.7	152.7	0.3	2.2	10.8
	Share in total assets (%):								
	Largest institution	9.2	14.3	21.7	9.7	9.6	20.7	29.0	7.8
	Five largest institutions	25.8	49.0	60.7	40.7	34.2	35.8	56.8	33.0
Ten largest institutions	40.0	70.7	82.7	63.6	51.7	47.9	69.0	52.6	
Top quartile of insts.	79.6	98.6	95.1	69.2	66.4	61.3	85.6	65.7	
Chicago (3,621)	Number of institutions	36	211	67	--	--	220	364	175
	Total assets ^a (\$000,000)	417	2,792	8,617	--	--	19	109	636
	Assets per inst. (\$000,000)	11.6	13.2	128.6	--	--	0.1	0.3	3.6
	Share in total assets (%):								
	Largest institution	16.7	31.5	27.2	--	--	3.3	3.7	11.3
	Five largest institutions	54.5	60.9	71.8	--	--	14.6	14.7	38.1
Ten largest institutions	77.6	72.4	79.3	--	--	29.3	22.2	50.8	
Top quartile of insts.	74.1	88.5	84.7	--	--	61.8	69.0	81.8	
Philadelphia (2,072)	Number of institutions	78	92	34	8	4	480	2,823	160
	Total assets ^a (\$000,000)	349	1,476	3,111	83	407	44	885	300
	Assets per inst. (\$000,000)	4.5	16.0	92.1	10.4	81.3	0.1	0.3	1.8
	Share in total assets (%):								
	Largest institutions	10.0	40.8	54.8	68.3	64.8	1.0	0.7	4.8
	Five largest institutions	31.6	73.3	87.3	99.9	100.0	4.7	2.1	21.1
Ten largest institutions	49.8	86.8	98.8	--	--	8.6	3.5	35.0	
Top quartile of insts.	64.3	82.2	76.2	86.1	66.5	54.2	59.8	75.0	
Los Angeles (1,970)	Number of institutions	18	18 ^b	8 ^b	--	--	17	30	32
	Total assets ^a (\$000,000)	26	1,412	4,867	--	--	3	127	438
	Assets per inst. (\$000,000)	1.4	78.4	608.3	--	--	0.2	4.2	13.7
	Share in total assets (%):								
	Largest institution	21.1	38.4	41.1	--	--	23.0	29.2	19.0
	Five largest institutions	58.0	91.5	95.5	--	--	64.0	66.8	46.9
Ten largest institutions	84.1	99.3	--	--	--	90.1	87.8	69.6	
Top quartile of insts.	54.3	87.7	74.0	--	--	56.6	79.1	61.6	

Table C-23 (cont.)

City and Population April 1950 (000)	Commercial banks		Mutual savings banks		Savings and loan associations		
	1900	1929	1900	1929	1900	1929	1949
Detroit (1,950)	23	30	10	10	6	6	12
Number of institutions	76	981	2,802	2,802	4	32	117
Total assets ^a (\$000,000)	3.3	32.7	280.2	280.2	0.7	5.4	9.7
Assets per inst. (\$000,000)	12.0	26.3	46.2	46.2	56.4	48.5	46.3
Share in total assets (%):	50.3	64.1	94.1	94.1	99.4	99.1	91.4
Largest institution	75.4	86.2	100.0	100.0	99.4	99.1	99.9
Five largest institutions	55.4	80.2	74.3	74.3	67.2	70.7	79.0
Ten largest institutions	29	28	14	14	...	51 ^c	87
Top quartile of insts.	68	398	997	997	...	39 ^c	238
Number of institutions	2.4	14.2	71.2	71.2	...	0.8	2.7
Total assets ^a (\$000,000)	15.1	19.3	26.8	26.8	...	11.3	12.2
Assets per inst. (\$000,000)	45.7	57.4	75.9	75.9	...	39.0	43.4
Share in total assets (%):	68.2	77.1	95.1	95.1	...	58.3	56.0
Largest institution	56.2	66.6	61.7	61.7	...	66.5	75.9
Five largest institutions	52	17	9	9	...	68	38
Ten largest institutions	111	932	2,199	2,199	...	166	296
Top quartile of insts.	2.1	54.9	237.7	237.7	...	2.4	7.8
Number of institutions	8.2	32.0	49.5	49.5	...	14.3	9.6
Total assets ^a (\$000,000)	31.0	91.6	98.1	98.1	...	77.4	44.9
Assets per inst. (\$000,000)	50.6	98.9	98.9	98.9	...	89.7	61.7
Share in total assets (%):	59.2	91.7	77.0	77.0	...	82.3	56.7
Largest institution	25	53	28	28	...	41	34
Five largest institutions	160	614	1,727	1,727	...	30	95
Ten largest institutions	6.4	11.6	61.7	61.7	...	0.7	2.8
Top quartile of insts.	19.9	26.1	25.2	25.2	...	18.0	22.5
Number of institutions	53.1	68.0	70.8	70.8	...	54.0	52.7
Total assets ^a (\$000,000)	76.7	80.0	83.3	83.3	...	48.5	71.3
Assets per inst. (\$000,000)	60.4	84.0	77.2	77.2	...	53.9	66.8
Share in total assets (%):	19	40	19	19	...	24	28
Largest institution	32	256	1,053	1,053	...	72	358
Five largest institutions	1.7	6.4	55.4	55.4	...	3.0	12.8
Ten largest institutions	17.9	18.0	28.4	28.4	...	32.2	29.5
Top quartile of insts.	61.4	50.3	63.4	63.4	...	68.2	57.6
Number of institutions	83.8	69.4	83.6	83.6	...	92.4	77.9
Total assets ^a (\$000,000)	59.3	69.2	62.1	62.1	...	75.1	66.7
Assets per inst. (\$000,000)	...	...	...	...	...	...	...
Share in total assets (%):	...	...	...	...	...	...	...
Largest institution	...	...	...	...	...	...	...
Five largest institutions	...	...	...	...	...	...	...
Ten largest institutions	...	...	...	...	...	...	...
Top quartile of insts.	...	...	...	...	...	...	...

Table C-23 (cont.)

City and Population April 1950 (000)	Commercial banks		Mutual savings banks		Savings and loan associations		
	1900	1929	1900	1929	1900	1929	1949
Boston (801)							
Number of institutions	59	32	18	23	18	52	40
Total assets ^a (\$000,000)	303	2,513	167	575	6	141	240
Assets per inst. (\$000,000)	5.1	209.4	9.3	25.0	0.3	2.7	6.0
Share in total assets (%)							
Largest institution	10.0	40.8	23.2	16.5	19.7	21.2	12.6
Five largest institutions	31.6	73.3	70.0	59.4	57.4	54.3	53.9
Ten largest institutions	49.8	86.8	89.9	84.6	83.8	69.5	67.7
Top quartile of insts.	64.3	82.2	66.9	62.1	54.1	75.7	67.7
San Francisco (775)							
Number of institutions	24	13	—	—	68	24	12
Total assets ^a (\$000,000)	136	4,152	—	—	11	80	85
Assets per inst. (\$000,000)	5.7	319.4	—	—	0.2	3.3	7.1
Share in total assets (%)							
Largest institution	21.8	19.2	—	—	12.1	81.7	16.5
Five largest institutions	65.8	79.3	—	—	38.3	90.5	64.4
Ten largest institutions	87.5	99.2	—	—	53.6	96.0	98.0
Top quartile of insts.	70.8	59.8	—	—	65.1	91.9	42.0
Pittsburgh (677)							
Number of institutions	58	65	1	1	116	241	81
Total assets ^a (\$000,000)	168	2,189	20	43	12	102	154
Assets per inst. (\$000,000)	2.9	81.1	—	—	0.1	0.4	1.9
Share in total assets (%)							
Largest institutions	7.5	17.1	—	—	12.7	8.8	8.5
Five largest institutions	29.6	53.9	—	—	35.3	17.2	27.1
Ten largest institutions	47.8	71.3	—	—	43.2	24.9	44.5
Top quartile of insts.	60.5	81.1	—	—	65.9	63.8	64.0
Milwaukee (637)							
Number of institutions	9	39	—	2	14	85	54
Total assets ^a (\$000,000)	47	270	—	2	1	200	1666
Assets per inst. (\$000,000)	5.2	6.9	—	0.9	0.1	2.4	3.1
Share in total assets (%)							
Largest institution	32.6	53.6	—	83.9	26.9	13.1	8.9
Five largest institutions	85.4	74.5	—	—	72.1	34.3	28.6
Ten largest institutions	—	83.0	—	—	95.5	46.5	44.8
Top quartile of insts.	57.3	82.7	—	—	57.2	66.6	54.2
Houston (596)							
Number of institutions	5	18	—	—	—	12	3
Total assets ^a (\$000,000)	7	160	—	—	—	21	35
Assets per inst. (\$000,000)	1.4	8.9	—	—	—	1.8	11.5
Share in total assets (%)							
Largest institution	34.1	21.9	—	—	—	38.7	57.6
Five largest institutions	100.0	66.4	—	—	—	93.9	—
Ten largest institutions	—	90.6	—	—	—	99.9	—
Top quartile of insts.	41.6	62.8	—	—	—	81.8	—

Table O-23 (concl.)

City and Population April 1950 (000)	Commercial banks			Mutual savings banks			Savings and loan associations		
	1900	1929	1949	1900	1929	1949	1900	1929	1949
	Number of institutions								
Total assets ^a (\$000,000)									
Assets per inst. (\$000,000)									
Share in total assets (%):									
Largest institution									
Five largest institutions									
Ten largest institutions									
Top quartile of insts.									
Number of institutions									
Total assets ^a (\$000,000)									
Assets per inst. (\$000,000)									
Share in total assets (%):									
Largest institution									
Five largest institutions									
Ten largest institutions									
Top quartile of insts.									
Number of institutions									
Total assets ^a (\$000,000)									
Assets per inst. (\$000,000)									
Share in total assets (%):									
Largest institution									
Five largest institutions									
Ten largest institutions									
Top quartile of insts.									

Notes to Table C-23

The table includes all cities with more than 500,000 inhabitants in April 1950.

a

Asset data for banks refer throughout to total deposits; for savings and loan associations, to total assets.

b

Owing to the importance in California of state-wide branch banking, an adjustment was made to eliminate the distortion which would result if total deposits of the Bank of America N.T. and S.A. were allocated entirely to San Francisco. Hence for 1929 and 1949 only the deposit liabilities of the San Francisco and Los Angeles branches of the Bank of America are shown in the sections for these two cities, the Los Angeles branches being treated for this purpose as a separate institution. For 1929 the allocation was made on the basis of the shares of the two cities in total Bank of America deposits as of February 1930 (Hearings Before the Committee on Banking and Currency, House of Representatives, 71st Congress, 2nd Session, 1930, under H.R. 141, Vol. 2, Part II, pp. 1385-8). For 1949 the allocation was based on the share of the two cities in Bank of America individual, partnership and organization deposits in 1947 (Transamerica Hearings, Federal Reserve Board, Exhibit Number 16).

Other out-of-town branches of San Francisco or Los Angeles banks were not of sufficient importance to justify making similar adjustments, which in any case would have been arbitrary. The only other city (as far as the present table is concerned) where out-of-town branches are relevant is Baltimore, and there only a few suburban branches are involved. In the other fifteen cities covered, branches in 1949 were still either expressly prohibited (as in Chicago, St. Louis, Minneapolis, Houston and Milwaukee), or essentially restricted to branches within or close to city limits (Board of Governors of the Federal Reserve System, Compilation of Federal and State Laws Relating to Branch Banking within the United States, July 1, 1951).

c

Data for 1934. (see reference to Baltimore in savings and loan source note below).

d

Data for 1909 (see source note).

e

Data for 1907 (see source note).

f

Data for 1934 (see source note).

Commercial Banks

Most data on number and deposits of commercial banks in the major cities were compiled for 1900 from the Bankers' Encyclopedia (later known as Poik's), March 1901, and for 1929 and 1949 from Rand-McNally Bankers' Directory. The data refer almost entirely to end of year; for 1900 a few of the figures may relate to the February 13, 1901 call date or to earlier balance sheet dates in 1901. New York City figures for all three years were obtained from sources indicated in the notes to Table C-9, and the 1949 figures for Chicago were derived from American Banker, January 12, 1950, p. 12. The statistics cover incorporated commercial banks and trust companies and stock savings banks in all years. Due to inadequacies of data (discussed in the special note to Table C-9), private banks are wholly excluded in 1900; excluded with the exception of J. P. Morgan and Company in 1929; and included insofar as those outside New York City and Chicago are listed in the bankers' directory in 1949. By treating private banks in this way, city-wide totals of deposits are probably not much understated (with the possible exception of New York City in 1900 owing to the omission of J. P. Morgan and Company). Percentage shares of the largest, largest five and largest ten banks are likewise little affected. In those cases where a large number of private banks existed, their exclusion from the statistics may understate the quartile share, but not substantially except in those cases where there is a relatively small number of non-private banks and the size of individual banks beyond the top quartile is large relative to the city-wide total. The assumption probably justified made here is that average deposits of private banks in 1900 and 1929 (with the exception, again, of a few New York City institutions) were small.

Mutual Savings Banks

Data were compiled, wherever possible, from official state banking reports. In the few cases where state reports were not available, Polk's Bankers' Encyclopedia or Rand-McNally Bankers' Directory was used. The figures generally refer to the end of the year.

Savings and Loan Associations

With the exception of Baltimore, Washington, D.C., and Minneapolis, all data for 1900 and 1929 are based on official state reports of savings and loan superintendents. Maryland state-chartered associations have never been under supervision and no official data are available. In the absence of such reports for Maryland, no figures could be shown for Baltimore in 1900. The figures used in lieu of 1929 are data for 1934 applying to members of the United States Savings (then called Building) and Loan League and listed in the League's Savings and Loan Annals, 1934. Even though most of the larger Baltimore associations may be assumed to have belonged to the league, many small institutions probably did not, so that the coverage of the statistics is not entirely adequate and percentage shares are somewhat overstated. Washington, D.C., associations chartered under the District Code reported (until jurisdiction was transferred to the Home Loan Bank Board in 1951) to the Comptroller of the Currency, from whose Annual Reports the data are compiled. (No figures are available for 1900 since the institutions first reported to the Comptroller in 1907.) For Minnesota associations, although supervised, published data are available only for 1900. Data used for 1929 are 1934 figures, derived similarly to those for Baltimore. Data for Houston are not available for 1900. Those shown for New Orleans for 1900 refer to 1907, the date of the first Louisiana state report.

To compile city-wide totals for 1949, it was necessary to combine data for state-chartered associations (generally obtained from official state reports) with those of federally-chartered associations. Statistics for the latter were not available in a single source, and the method used to collect the figures was (1) to ascertain the names of federal associations from the Federal Savings and Loan Insurance Corporation's List of Member Institutions, 1949; and (2) to obtain data for individual associations from one of the following sources: (a) United States Savings and Loan League, Savings and Loan Annals 1950; (b) National Savings and Loan League, Membership Directory 1950; (c) Federal Savings and Loan Insurance Corporation, 200 Largest Savings and Loan Associations (mimeographed release dated March 8, 1951); (d) direct inquiry from the individual association. This method gave complete data for all cities except for the following, for which no published reports were available: Houston, Minneapolis, Baltimore, Pittsburgh and Philadelphia. For these five cities the data are certain to cover (1) all insured associations, (2) all members of the two savings and loan leagues, and (3) all associations ranked nationally among the top 200. Whatever deficiencies in coverage remain are probably negligible for Houston and Minneapolis, but may be substantial for Pittsburgh, Baltimore and Philadelphia, especially the latter, where the present table shows the number of associations to have declined from 2,823 to 160 between 1929 and 1949, or from 72 to 18 percent, while the total for Pennsylvania (see Tables C-12 and C-13) dropped only from 3,901 to 902.

Data on Washington, D.C., associations for 1949 were compiled from A Financial Survey of Building and Loan Associations in the District of Columbia, by Edward F. Stauber (unpublished dissertation, Catholic University of America, 1951), p. 414.

APPENDIX D

SUPPLEMENTARY TABLES ON REGIONAL DISTRIBUTION
OF FINANCIAL INTERMEDIARIES

Table D-1

Resources of Selected Financial Intermediaries per 1000 Square Miles by States and Regions, 1949
\$ mill. (except col. 9)

	Commercial banks			Mutual	Savings	Per-	Credit	Life	Manage-	Postal	State-	Total,
	Deposits			sav-	and	sonal			ment		local	
	Total	Demand	Time	ings	loan	trust			in-		un-	
1	2	3	banks	asso-	de-	vest-	employ-	retire-	12			
			de-	Total	Total	Total	Policy	Share-	Total	de-	Assets	cols. 1,
			posits	assets	assets	assets	re-	hold-	de-	posits	Assets	4 to 8,
			4	5	6	7	8	9	10	11		10 and 11
Maine	13.4	7.0	6.1	7.1	1.3	1.9	0.1	8.2	409	0.1	1.4	33.5
New Hampshire	27.0	13.9	12.1	29.6	5.1	3.4	0.3	21.4	888	0.3	3.0	90.1
Vermont	24.7	8.6	15.8	8.8	1.7	2.6	0.0	13.8	540	0.1	1.9	53.6
Massachusetts	471.4	332.8	92.8	393.5	70.0	197.8	8.7	243.4	7265	5.4	31.5	1421.7
Rhode Island	579.9	311.4	251.2	217.5	82.4	258.6	14.8	279.2	6161	3.3	32.9	1468.6
Connecticut	283.2	189.6	82.4	264.1	38.9	169.1	4.6	191.6	3787	5.8	39.5	996.8
New England	104.3	67.8	29.3	81.5	19.1	43.8	1.8	58.7	1704	1.3	8.9	319.5
New York	602.2	420.2	81.5	224.0	25.7	272.0	1.2	172.1	3146	3.8	45.4	1346.4
New Jersey	555.6	283.9	259.5	69.7	74.8	138.7	2.7	312.5	4930	5.0	81.5	1240.5
Pennsylvania	213.5	128.6	69.7	23.4	21.1	104.6	1.0	90.7	1552	3.4	20.8	478.5
Middle Atlantic	427.2	281.1	89.8	123.7	27.4	188.0	1.2	146.9	2579	3.7	37.3	955.4
Ohio	165.9	92.8	64.4	5.7	47.4	45.2	1.2	70.0	935	3.8	18.5	357.7
Indiana	80.1	52.6	24.1	1.2	13.5	6.0	0.7	30.1	325	3.8	6.9	142.3
Illinois	203.3	124.3	54.9	-	21.6	40.3	1.6	64.8	1112	8.1	10.9	350.6
Michigan	83.9	42.2	37.2	-	5.7	15.2	0.8	29.3	491	3.3	6.8	145.0
Wisconsin	50.4	25.0	22.4	0.2	5.7	3.8	0.6	19.6	594	2.1	6.6	89.0
E. North Central	116.5	66.9	40.5	1.2	17.4	22.0	1.0	42.1	705	4.3	9.6	214.1

Table D-1 (cont.)

D - 2

	Commercial banks			Mutual sav- ings banks	Savings and loan asso- cia- tions	Per- sonal trust de- part- ments	Credit unions	Life insur- ance com- panies	Manage- ment in- vest- ment com- panies	Postal Sav- ings System	State- local un- employ- ment and retire- ment funds	Total, cols. 1, 4 to 8, 10 and 11								
	Deposits												Total de- posits	Total assets	Total assets	Total assets	Policy re- serves	Share- hold- ers	Total de- posits	Assets
	Total	Demand	Time																		4	5	6	7	8	9	10	11	12
Minnesota	32.4	18.4	10.4	1.9	3.9	13.3	0.3	10.8	276	1.2	2.1	65.9								
Iowa	39.0	27.2	9.4	-	2.9	1.0	0.2	14.1	158	2.5	1.8	61.5								
Missouri	56.3	36.7	9.8	-	4.3	12.1	0.4	18.2	549	1.5	2.9	95.7								
North Dakota	8.4	5.8	2.3	-	0.6	0.1	0.1	1.1	17	0.5	0.2	11.0								
South Dakota	6.2	4.8	1.1	-	0.1	0.1	0.0	1.5	17	0.5	0.1	8.5								
Nebraska	15.5	11.8	1.8	-	1.5	0.6	0.1	4.4	100	0.9	0.5	23.5								
Kansas	18.9	15.7	2.0	-	2.1	0.4	0.1	5.2	101	0.9	0.9	26.5								
W. North Central	24.5	16.7	5.1	0.3	2.2	4.1	0.2	7.6	172	1.1	1.2	41.2								
Delaware	195.9	153.1	33.1	42.8	11.7	269.8	0.5	60.8	558	1.0	6.8	41.1								
Maryland	141.9	91.4	40.2	37.6	31.2	76.9	0.5	67.8	1048	0.7	18.5	375.1								
District of Columbia ^a	14355.0	10338.5	3045.0	-	5220.0	5887.0	203.0	4843.0	116478	101.5	884.5	31494.0								
Virginia	42.5	24.5	14.5	-	3.5	10.6	0.1	15.4	262	0.4	75.0	147.5								
West Virginia	39.4	26.3	11.2	-	2.3	4.5	0.1	15.2	153	0.6	4.4	66.5								
North Carolina	29.8	18.9	7.6	-	5.4	4.0	0.2	9.1	173	1.2	4.0	53.7								
South Carolina	19.9	16.3	2.9	-	3.7	0.9	0.0	6.8	151	1.8	2.3	35.4								
Georgia	25.8	17.9	5.4	-	3.5	2.8	0.2	9.0	143	0.7	2.0	44.0								
Florida	29.0	20.9	5.7	-	5.4	2.3	0.2	8.0	340	1.6	1.6	48.1								
South Atlantic	39.4	26.6	9.7	1.7	6.6	10.2	0.2	13.9	275	1.1	3.5	76.6								
Kentucky	35.2	26.2	5.7	-	5.8	7.2	0.2	11.8	124	1.1	3.3	64.6								
Tennessee	42.9	27.4	10.6	-	3.1	4.5	0.3	11.8	181	0.8	2.6	66.0								
Alabama	22.1	16.0	5.0	-	1.1	2.8	0.2	5.6	104	0.7	1.4	33.9								
Mississippi	15.3	11.5	2.8	-	0.9	0.3	0.0	3.3	35	0.2	1.0	21.0								
E. South Central	28.1	19.8	5.9	-	2.6	3.5	0.2	7.8	108	0.7	2.0	44.8								

Table D-1 (cont.)

D - 3

	Commercial banks			Mutual sav- ings banks	Savings and loan asso- cia- tions	Per- sonal trust de- part- ments	Credit unions	Life insur- ance com- panies	Manage- ment in- vest- ment com- panies	Postal Sav- ings System	State- local un- employ- ment and retire- ment funds Assets	Total cols. 1, 4 to 8, 10 and 11							
	Deposits												Total de- posits	Total assets	Total assets	Total assets	Policy re- serves	Share- hold- ers	Total de- posits
	Total	Demand	Time																
	1	2	3	4	5	6	7	8	9	10	11	12							
Arkansas	13.7	11.0	1.8	-	1.1	0.3	0.0	3.5	52	0.9	0.9	20.4							
Louisiana	33.7	23.9	5.9	-	4.5	2.0	0.2	9.6	146	0.5	2.8	53.3							
Oklahoma	21.9	17.9	1.7	-	2.7	0.4	0.1	5.7	84	0.8	0.8	32.4							
Texas	22.0	17.1	2.4	-	1.2	0.7	0.1	3.0	61	0.4	1.1	28.5							
W. South Central	22.2	17.3	2.6	-	1.8	0.8	0.1	4.2	73	0.6	1.2	30.8							
Montana	3.6	2.8	0.7	-	0.2	0.0	0.0	0.9	8	0.2	0.3	5.2							
Idaho	4.9	3.6	1.2	-	0.4	0.0	0.0	0.9	23	0.2	0.3	6.7							
Wyoming	2.3	1.7	0.5	-	0.2	0.1	0.0	0.6	9	0.1	0.1	3.4							
Colorado	10.0	7.1	2.1	-	1.2	1.3	0.1	3.4	94	0.5	0.6	17.1							
New Mexico	2.4	1.9	0.3	-	0.2	0.0	0.0	0.6	21	0.1	0.2	3.5							
Arizona	3.6	2.7	0.9	-	0.3	0.2	0.0	1.0	30	0.1	0.3	5.5							
Utah	6.2	3.7	2.0	-	0.9	0.5	0.1	1.6	32	0.1	0.5	9.9							
Nevada	1.4	0.9	0.5	-	0.2	0.2	0.0	0.3	7	0.0	0.1	2.2							
Mountain	4.2	3.0	1.0	-	0.4	0.3	0.0	1.1	27	0.2	0.3	6.4							
Washington	26.8	17.5	7.7	2.9	4.0	3.1	0.2	7.6	278	1.2	2.8	48.6							
Oregon	12.6	8.3	3.9	0.2	1.2	1.0	0.1	3.1	172	0.5	1.0	19.7							
California	79.5	39.2	36.4	-	7.8	12.6	0.4	18.8	679	1.4	6.0	126.5							
Pacific	48.4	25.3	20.6	0.7	5.0	7.2	0.3	11.7	443	1.1	3.8	78.1							
Total United States	45.5	29.1	12.0	6.4	4.8	12.0	0.3	15.0	310	1.1	3.6	88.6							

a

Ratios for the District of Columbia are based on a total area of 69 square miles.

Source: Resources data from sources to Table D-5; area data from Statistical Abstract, 1952, p. 7.

Table D-2

D - 4

Number of Selected Financial Intermediaries per 1000 Square Miles, by States and Regions, 1949

	Commercial banks		Mutual savings banks		Savings and loan associations	Personal trust depts.	Credit unions	Investment bankers		Postal Savings offices	Total, excl. cols. 1,3 and 8
	Units	Offices	Units	Offices				Units	Offices		
	1	2	3	4	5	6	7	8	9	10	11
Maine	1.9	4.0	1.0	1.0	1.1	1.4	1.4	0.9	1.4	2.2	12.5
New Hampshire	8.2	8.4	3.7	3.8	2.9	3.7	1.4	1.1	2.0	5.1	27.3
Vermont	7.3	8.4	0.7	1.7	1.0	5.1	3.1	0.1	0.4	2.5	22.2
Massachusetts	22.3	42.9	23.0	28.2	24.8	12.9	65.3	22.2	30.6	17.9	222.6
Rhode Island	15.7	60.1	7.4	12.4	7.4	10.7	39.5	17.3	31.3	12.4	173.8
Connecticut	23.4	30.5	14.4	15.0	9.6	18.0	54.7	7.2	16.0	15.6	159.4
New England	8.0	13.1	5.2	6.1	5.0	5.1	14.2	4.2	6.6	5.8	55.9
New York	12.9	28.2	2.6	4.5	4.7	5.9	15.9	17.3	21.4	5.8	83.7
New Jersey	42.4	61.6	2.9	3.8	12.9	26.9	34.7	10.0	16.3	19.3	225.5
Pennsylvania	21.6	25.6	0.2	0.5	19.9	8.5	14.4	4.1	7.2	8.6	84.7
Middle Atlantic	19.0	29.6	1.6	2.7	15.8	8.7	16.7	10.9	14.8	8.1	96.4
Ohio	16.0	21.3	0.1	0.1	14.8	1.9	15.5	3.2	4.5	6.9	65.0
Indiana	13.4	16.2	0.1	0.1	6.4	5.8	9.0	1.4	1.6	6.5	45.6
Illinois	15.8	15.8	-	-	10.4	2.3	15.7	2.9	4.2	6.7	55.1
Michigan	7.6	11.5	-	-	1.2	0.7	5.5	1.0	1.8	5.1	25.8
Wisconsin	9.8	12.5	0.1	0.1	2.7	1.1	9.5	0.9	1.3	3.8	31.0
E. North Central	12.2	15.0	0.0	0.0	6.7	2.1	10.9	1.8	2.6	5.7	43.0
Minnesota	8.1	8.2	0.0	0.0	0.8	0.3	4.0	0.5	0.9	3.2	17.4
Iowa	11.8	14.7	-	-	1.6	2.9	3.6	0.5	0.7	4.5	28.0
Missouri	8.6	8.6	-	-	2.2	1.0	5.6	1.1	1.5	3.2	22.1
North Dakota	2.1	2.4	-	-	0.2	0.1	1.3	0.1	0.1	2.2	6.3
South Dakota	2.2	2.8	-	-	0.2	0.1	0.5	0.0	0.0	1.6	5.2
Nebraska	5.4	5.4	-	-	0.8	0.2	1.1	0.3	0.6	2.8	10.9
Kansas	7.4	7.4	-	-	1.3	0.4	1.6	0.4	0.5	2.6	13.8
W. North Central	6.4	6.8	0.0	0.0	1.0	0.6	2.5	0.4	0.6	2.8	14.3

Table D-2 (cont.)

D - 5

	Commercial banks		Mutual savings banks		Savings and loan associations	Personal trust depts.	Credit unions	Investment bankers		Postal Savings offices	Total, excl. cols. 1, 3 and 8
	Units	Offices	Units	Offices				Units	Offices		
	1	2	3	4	5	6	7	8	9	10	11
Delaware	18.5	25.8	1.0	1.5	19.4	15.1	4.9	1.9	2.9	4.9	74.5
Maryland	15.5	26.4	0.9	2.4	33.7	2.8	7.6	3.3	4.7	3.3	80.9
District of Columbia ^a	27.55	870.0	-	-	406.0	159.5	1740.0	319.0	478.5	14.5	3668.5
Virginia	7.6	10.3	-	-	1.8	2.5	2.6	0.7	0.8	1.8	19.8
West Virginia	7.4	7.4	-	-	1.5	1.9	2.8	0.3	0.5	3.1	17.2
North Carolina	4.3	8.0	-	-	3.3	0.9	4.2	0.4	0.9	3.0	20.3
South Carolina	4.9	6.2	-	-	2.3	0.5	1.0	1.1	1.4	3.2	14.6
Georgia	6.7	7.4	-	-	1.2	0.6	2.6	0.5	1.1	2.8	15.7
Florida	3.3	3.4	-	-	0.9	0.5	3.5	0.4	1.1	2.8	12.2
South Atlantic	6.0	8.0	0.0	0.1	3.3	1.3	3.6	0.7	1.2	2.8	20.3
Kentucky	9.6	10.6	-	-	3.0	2.5	2.8	0.3	0.5	2.4	21.8
Tennessee	7.0	9.1	-	-	0.9	1.4	3.6	0.8	1.1	1.9	18.0
Alabama	4.4	4.8	-	-	0.5	0.5	1.7	0.3	0.6	1.7	9.8
Mississippi	4.2	5.6	-	-	0.7	0.9	0.7	0.2	0.3	2.2	10.4
E. South Central	6.1	7.3	-	-	1.2	1.3	2.1	0.4	0.6	2.0	14.5
Arkansas	4.4	4.8	-	-	0.8	0.5	0.6	0.2	0.3	3.1	10.1
Louisiana	3.3	4.8	-	-	1.6	0.9	3.6	0.8	1.0	1.3	13.2
Oklahoma	5.5	5.5	-	-	0.9	0.3	1.2	0.2	0.4	3.1	11.4
Texas	3.1	3.2	-	-	0.5	0.2	1.5	0.3	0.4	1.2	7.0
W. South Central	4.1	4.1	-	-	0.7	0.4	1.6	0.3	0.5	1.8	9.1

Table D-2 (cont.)

D - 6

	Commercial banks		Mutual savings banks		Savings and loan associations	Personal trust depts.	Credit unions	Investment bankers		Postal Savings offices	Total, excl. cols. 1,3 and 8
	Units	Offices	Units	Offices				Units	Offices		
	1	2	3	4	5	6	7	8	9	10	11
Montana	0.8	0.8	-	-	0.1	0.1	0.3	0.0	0.0	0.7	2.0
Idaho	0.5	1.1	-	-	0.1	0.1	0.4	0.1	0.1	1.0	2.8
Wyoming	0.5	0.5	-	-	0.1	0.2	0.2	0.0	0.0	0.4	1.4
Colorado	1.4	1.4	-	-	0.5	0.3	1.1	0.5	0.6	1.2	5.1
New Mexico	0.4	0.5	-	-	0.2	0.0	0.3	0.1	0.1	0.4	1.5
Arizona	0.1	0.5	-	-	0.1	0.1	0.3	0.1	0.1	0.4	1.5
Utah	0.6	0.9	-	-	0.2	0.1	0.8	0.2	0.2	0.4	2.6
Nevada	0.1	0.2	-	-	0.0	0.0	0.1	0.0	0.1	0.3	.7
Mountain	0.6	0.7	-	-	0.2	0.1	0.4	0.1	0.1	0.6	2.1
Washington	1.8	3.7	0.0	0.1	0.9	0.3	2.6	1.1	1.4	2.4	11.4
Oregon	0.7	1.7	0.0	0.0	0.3	0.1	0.7	0.2	0.3	1.3	4.4
California	1.3	7.3	-	-	1.1	0.3	3.5	1.0	2.1	2.1	11.9
Pacific	1.2	4.9	0.0	0.0	0.8	0.2	2.5	0.8	1.6	1.9	11.9
Total United States	4.7	6.2	0.2	0.2	2.0	1.0	3.3	0.9	1.4	2.4	16.5

a

Ratios for the District of Columbia are based on a total area of 69 square miles.

Source: Number from sources to Table D-13; area data from Statistical Abstract 1952, p. 7

Table D-3

Resources of Selected Financial Intermediaries by States and Regions, 1900

	Percent					
	Commercial banks			Mutual savings banks	Savings and loan associations	Life insurance companies
	Deposits			Total deposits	Total assets	Estimated policy reserves
Total	Demand	Time				
1	2	3	4	5	6	
Maine	0.5	0.5	0.7	3.1	0.5	0.9
New Hampshire	0.3	0.3	0.7	2.2	0.4	0.6
Vermont	0.3	0.2	1.2	1.3	0.0*	0.6
Massachusetts	6.1	7.0	0.4	25.1	4.9	7.1
Rhode Island	1.0	1.0	1.8	3.4	0.4*	1.0
Connecticut	0.9	1.2	0.2	8.6	0.7	2.0
New England	9.1	10.2	5.0	43.7	6.9	12.2
New York	30.6	31.9	5.5	43.3	6.3	19.9
New Jersey	1.9	2.1	2.9	2.4	8.1	4.6
Pennsylvania	11.4	11.5	13.8	4.9	19.3	12.6
Middle Atlantic	43.9	45.5	22.2	50.6	33.7	37.1
Ohio	4.9	4.6	7.8	1.9	18.6	6.4
Indiana	1.8	2.2	1.0	0.3	5.3	2.4
Illinois	8.2	6.8	10.9	-	8.4	7.3
Michigan	2.7	2.1	7.9	-	1.8	2.3
Wisconsin	1.8	1.6	4.5	0	0.7	2.1
E. North Central	19.4	17.3	32.1	2.2	34.8	20.5
Minnesota	1.7	1.7	2.0	0.5	0.4	1.6
Iowa	2.9	2.4	7.2	-	0.9	1.9
Missouri	3.7	3.2	3.0	-	1.9	3.4
North Dakota	0.2	0.1	0.4	-	0.0	0.2
South Dakota	0.2	0.2	0.6	-	0.0*	0.2
Nebraska	1.1	1.1	1.0	-	0.7	0.7
Kansas	0.9	1.1	0.4	-	0.5	0.7
W. North Central	10.7	9.8	14.6	0.5	4.4	8.7
Delaware	0.2	0.2	0	0.2	0.2*	0.3
Maryland	1.4	1.5	0.6	2.7	2.8*	2.0
District of Columbia	0.5	0.6	0.1	-	0.9*	0.7
Virginia	0.8	0.8	0.7	-	0.7*	1.4
West Virginia	0.6	0.6	0.8	0	0.5*	0.5
North Carolina	0.3	0.3	0.3	-	1.1*	0.7
South Carolina	0.5	0.4	1.4	-	0.4*	0.6
Georgia	0.5	0.6	0.5	-	0.0*	1.4
Florida	0.2	0.2	0.1	-	0.2*	0.4
South Atlantic	5.0	5.2	4.5	2.9	6.8	8.0

Table D-3 (cont.)

	Percent					
	Commercial banks			Mutual savings banks	Savings and loan associations	Life insurance companies
	Deposits			Total deposits	Total assets	Estimated policy reserve
	Total	Demand	Time			
1	2	3	4	5	6	
Kentucky	1.1	1.2	0.5	-	1.4*	2.2
Tennessee	0.7	0.9	0.4	-	0.5	1.1
Alabama	0.4	0.5	0.3	-	0.4*	0.9
Mississippi	0.3	0.3	0.2	-	0.2*	0.5
E. South Central	2.5	2.9	1.4	-	2.5	4.7
Arkansas	0.2	0.3	0.2	-	0.5*	0.5
Louisiana	0.6	0.7	0.6	-	1.1	1.2
Oklahoma	0.1	0.2	0.1	-	1.6*	0.2
Texas	1.0	1.4	0.1	-	1.6*	1.9
W. South Central	1.9	2.6	1.0	-	4.8	3.8
Montana	0.4	0.4	0.3	-	0.2*	0.4
Idaho	0.1	0.1	0.1	-	0.0*	0.1
Wyoming	0.1	0.1	0.1	-	0.2*	0.1
Colorado	1.1	1.2	0.5	-	0.5*	0.9
New Mexico	0.1	0.1	0.1	-	0.0*	0.1
Arizona	0.1	0.1	0	-	0.0	0.1
Utah	0.3	0.4	0.4	-	0.5	0.2
Nevada	0	0	0.1	-	0.2*	0.1
Mountain	2.2	2.4	1.6	-	1.6	2.0
Washington	0.6	0.6	0.7	-	1.4*	0.4
Oregon	0.4	0.4	0.6	-	0.4*	0.4
California	4.3	2.8	15.9	-	3.3	2.2
Pacific	5.3	3.8	17.2	-	5.1	3.0
United States, percent	100.0	100.0	100.0	100.0	100.0	100.0
United States, \$ mill.	6785	4502	962	2129	571	1420

Note: For explanation of * see notes.

Notes to Table D-3

- Columns 1 to 4 : Based on Federal Reserve Board estimates. Commercial bank figures refer to June 30, 1900 while mutual savings bank figures refer to dates in the latter part of 1900.
- Column 5 : Derived from a compilation by Cellarius, H. F., in Bodfish, M., ed., History of Building and Loan in the United States, pp. 136, 627-656. Assets for states designated by asterisk were not shown separately. The difference between total assets and assets of the listed states were apportioned among the missing states according to the distribution of assets among these in 1929, as shown in Table D-4.
- Column 6 : Since no distribution of policy reserves by state is available for 1900, the percentages shown are those for insurance in force which, on the basis of a comparison for 1911, is assumed to be distributed similarly to policy reserves. Data are derived from Spectator Company, Insurance Yearbook 1901.

Table D-4

Resources of Selected Financial Intermediaries by States and Regions, 1929
(Percent)

	Commercial banks			Mutual savings banks	Savings and loan associations	Life insurance companies	Postal Savings System	Credit unions
	Deposits			Total	Total	Policy	Total	Loans
	Total	Demand	Time	deposits	assets	reserves	deposits	outstanding
	1	2	3	4	5	6	7	8
Maine	0.6	0.3	1.0	1.3	0.3	0.7	0.1	0.2
New Hampshire	0.2	0.2	0.3	2.0	0.1	0.4	0.2	4.3
Vermont	0.3	0.1	0.6	1.1	0.0	0.3	0.0	-
Massachusetts	4.0	4.4	3.4	23.0	6.3	5.3	4.1	40.3
Rhode Island	0.7	0.5	1.0	1.9	0.3	0.9	0.3	6.0
Connecticut	1.3	1.3	1.4	7.1	0.3	2.0	0.7	0.1
New England	7.1	6.8	7.7	36.4	7.3	9.6	5.4	50.9
New York	25.2	31.4	14.0	50.2	4.9	21.3	18.4	36.8
New Jersey	4.2	3.5	5.7	3.0	13.3	4.8	1.4	0.2
Pennsylvania	9.7	8.5	11.6	5.0	16.1	9.9	5.6	-
Middle Atlantic	39.1	43.4	31.3	58.2	34.2	36.0	25.3	37.0
Ohio	5.2	4.4	6.8	1.2	14.8	6.4	1.9	0.0
Indiana	1.7	1.7	1.9	0.3	3.6	2.4	1.0	0.4
Illinois	8.2	8.1	7.9	-	5.2	8.0	4.3	1.4
Michigan	4.2	3.5	5.6	-	1.9	3.3	1.4	0.8
Wisconsin	1.9	1.5	2.7	0.1	3.3	2.2	0.9	1.5
E. North Central	21.2	19.2	24.9	1.6	28.6	22.3	9.6	4.1
Minnesota	1.8	1.4	2.3	0.8	0.4	1.9	5.4	1.5
Iowa	1.8	1.3	2.6	-	0.6	1.7	5.4	0.3
Missouri	2.5	2.5	2.0	-	2.3	3.3	3.4	1.0
North Dakota	0.3	0.3	0.4	-	0.1	0.2	1.4	-
South Dakota	0.3	0.3	0.4	-	0.1	0.3	2.9	-
Nebraska	0.9	0.9	0.8	-	1.9	0.8	0.9	0.1
Kansas	0.9	1.2	0.6	-	1.5	0.8	2.3	0.0
W. North Central	8.5	7.9	9.1	0.8	6.9	9.0	21.7	2.9

Table D-4 (cont.)

D - 11

	Commercial banks			Mutual savings banks	Savings and loan associations	Life insurance companies	Postal Savings System	Credit unions
	Deposits			Total deposits	Total assets	Policy reserves	Total deposits	Loans outstanding
	Total	Demand	Time	4	5	6	7	8
	1	2	3					
Delaware	0.2	0.3	0.2	0.3	0.2	0.3	0.1	-
Maryland	1.3	1.1	1.5	2.2	2.5	1.5	0.1	0.1
District of Columbia	0.5	0.6	0.5	-	0.8	0.6	0.2	0.0
Virginia	1.0	0.8	1.3	-	0.7	1.2	0.2	0.8
West Virginia	0.7	0.7	0.8	-	0.5	0.8	0.6	0.2
North Carolina	0.8	0.7	0.9	-	1.1	1.1	0.4	0.4
South Carolina	0.4	0.3	0.5	-	0.3	0.6	1.0	0.0
Georgia	0.7	0.6	0.8	-	0.1	1.2	1.3	0.8
Florida	0.7	0.7	0.7	-	0.3	0.6	5.2	0.1
South Atlantic	6.3	5.8	7.2	2.5	6.3	7.9	8.9	2.4
Kentucky	0.9	0.9	1.1	-	1.3	1.2	0.2	0.3
Tennessee	0.9	0.9	1.0	-	0.2	1.2	0.4	0.8
Alabama	0.5	0.5	0.6	-	0.3	0.8	0.2	0.3
Mississippi	0.4	0.4	0.5	-	0.2	0.5	0.1	-
E. South Central	2.7	2.7	3.2	-	2.0	3.7	0.8	1.4
Arkansas	0.4	0.5	0.4	-	0.5	0.5	0.4	0.0
Louisiana	0.9	1.0	0.7	-	2.2	1.0	0.2	0.1
Oklahoma	1.0	1.2	0.6	-	1.6	0.8	3.7	-
Texas	2.3	3.1	1.2	-	1.6	1.1	2.8	0.0
W. South Central	4.6	5.8	2.9	-	5.9	3.4	7.1	0.1
Montana	0.3	0.3	0.4	-	0.2	0.3	4.0	0.0
Idaho	0.2	0.2	0.2	-	0.0	0.2	1.7	-
Wyoming	0.1	0.1	0.1	-	0.1	0.1	1.2	-
Colorado	0.6	0.6	0.6	-	0.6	0.8	2.5	0.3
New Mexico	0.1	0.1	0.1	-	0.1	0.1	1.0	-
Arizona	0.2	0.2	0.2	-	0.0	0.2	0.9	0.0
Utah	0.3	0.2	0.4	-	0.6	0.3	0.4	-
Nevada	0.1	0.1	0.1	-	0.0	0.0	0.3	-
Mountain	1.9	1.8	2.1	-	1.7	2.0	12.1	0.3

Table D-4 (cont.)

D - 12

	Commercial banks			Mutual savings banks	Savings and loan associations	Life insurance companies	Postal Savings System	Credit unions
	Deposits			Total deposits	Total assets	Policy reserves	Total deposits	Loans outstanding
	Total	Demand	Time	4	5	6	7	8
	1	2	3					
Washington	0.9	0.9	0.8	0.6	1.2	1.1	4.5	0.2
Oregon	0.6	0.6	0.6	-	0.3	0.6	2.5	0.1
California	7.2	4.9	10.4	-	5.5	4.4	2.0	0.4
Pacific	8.7	6.4	11.8	0.6	7.0	6.1	9.0	0.7
United States, percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
United States, \$ mill.	49385	25183	19858	8885	8693	13373	152.77	31.346

Notes to Table D-4

- Columns 1 to 4 : Based on Federal Reserve Board estimates. Figures refer to June 30, 1929.
- Column 5 : Data gathered from official state reports and compiled by Cellarius, H. F., shown in Bodfish, M., ed., History of Building and Loan in the United States, pp. 136, 627-656.
- Column 6 : Unpublished data of 49 large companies (accounting for about 90 percent of total policy reserves of U.S. companies) compiled by the Life Insurance Association of America.
- Column 7 : Compiled from Office of Postmaster General, Report of Operations of the Postal Savings System 1929. Figures refer to June 30, 1929.
- Column 8 : Monthly Labor Review, Nov. 1930, p. 2 and March 1931, p. 121. Based on 818 reporting (out of 974 existing) institutions. Loans outstanding were not shown for Michigan and Missouri and were estimated (for Michigan, on the basis of share capital and the ratio of loans outstanding to share capital for neighboring states; and for Missouri, on the basis of the number of borrowers in Missouri during year, the average amount borrowed for the country as a whole, and the ratio of total loans made during year to loans outstanding at end of year for the country as a whole).

Table D-5

D - 14

Resources of Selected Financial Intermediaries by States and Regions, 1949
(Percent)

	Commercial banks			Mutual sav-ings banks	Sav-ings and loan asso-cia-tions	Per-sonal trust de-part-ments	Credit unions	Life in-surance-com-panies	Management investment companies	Postal Sav-ings System	State-local unemploy-ment and retire-ment funds
	Deposits			Total de-posits	Total assets	Total assets	Total assets	Policy reserves	Number of shareholders	Total de-posits	Assets
	Total	demand	time	4	5	6	7	8	9	10	11
Maine	0.3	0.3	0.6	1.2	0.3	0.2	0.3	0.6	1.4	0.1	0.4
New Hampshire	0.2	0.1	0.3	1.4	0.3	0.1	0.3	0.4	0.9	0.1	0.3
Vermont	0.2	0.1	0.4	0.4	0.1	0.1	0.0	0.3	0.6	0.0	0.2
Massachusetts	2.8	3.1	2.1	16.8	6.0	4.5	8.9	4.4	6.4	1.4	2.4
Rhode Island	0.5	0.4	0.8	1.4	0.7	0.9	2.2	0.7	0.8	0.1	0.4
Connecticut	1.0	1.1	1.1	6.9	1.3	2.3	2.9	2.1	2.0	0.9	1.8
New England	5.0	5.1	5.3	28.1	8.7	8.1	14.6	8.5	12.1	2.6	5.5
New York	21.7	23.7	11.1	57.6	8.7	37.3	7.2	18.9	16.6	5.7	20.8
New Jersey	3.2	2.5	5.6	2.8	4.0	3.0	2.6	5.4	4.1	1.2	5.9
Pennsylvania	7.0	6.6	8.7	5.5	6.5	13.1	5.8	9.1	7.5	4.8	8.7
Middle Atlantic	31.9	32.8	25.4	65.9	19.3	53.4	15.6	33.4	28.2	11.7	35.5
Ohio	5.0	4.3	7.3	1.2	13.4	5.2	6.0	6.4	4.1	4.7	7.1
Indiana	2.1	2.2	2.4	0.2	3.4	0.6	3.1	2.4	1.3	4.2	2.3
Illinois	8.3	8.0	8.5	-	8.4	6.3	11.4	8.1	6.7	14.0	5.7
Michigan	3.6	2.8	6.0	-	2.3	2.4	6.0	3.8	3.0	5.9	3.6
Wisconsin	2.1	1.6	3.5	0.1	2.2	0.6	4.4	2.4	3.6	3.6	3.4
E. North Central	21.1	18.9	27.7	1.5	29.6	15.1	30.9	23.1	18.7	32.4	22.1

Table D-5 (cont.)

D - 15

	Commercial banks			Mutual sav-ings banks	Sav-ings and loan asso-cia-tions	Per-sonal trust de-part-ments	Credit unions	Life in-surance-com-pa-nies	Management investment companies	Postal Sav-ings System	State-local unemploy-ment and retire-ment funds
	Deposits			Total de-posits	Total assets	Total assets	Total assets	Policy reserves	Number of shareholders	Total de-posits	Assets
	Total	demand	time	4	5	6	7	8	9	10	11
Minnesota	2.0	1.8	2.4	0.8	2.3	3.1	3.0	2.0	2.5	3.1	1.6
Iowa	1.6	1.7	1.5	-	1.1	0.2	1.3	1.8	0.9	4.3	0.9
Missouri	2.9	2.9	1.9	-	2.0	2.3	3.1	2.8	4.1	3.2	1.9
North Dakota	0.4	0.5	0.4	-	0.3	0	0.6	0.2	0.1	1.0	0.1
South Dakota	0.3	0.4	0.2	-	0.1	0	0.1	0.2	0.1	1.2	0.1
Nebraska	0.9	1.0	0.4	-	0.8	0.1	0.5	0.7	0.8	2.2	0.4
Kansas	1.1	1.5	0.4	-	1.2	0.1	0.9	0.9	0.9	2.4	0.6
W. North Central	9.2	9.8	7.2	0.8	7.8	5.8	9.5	8.6	9.4	17.5	5.7
Delaware	0.3	0.4	0.2	0.5	0.2	1.5	0.1	0.3	0.1	0.0	0.1
Maryland	1.1	1.1	1.2	2.1	2.3	2.2	0.6	1.6	1.2	0.2	1.8
District of Columbia	0.7	0.8	0.6	-	2.5	1.1	1.7	0.7	0.9	0.8	0.6
Virginia	1.3	1.1	1.6	-	1.0	1.2	0.6	1.4	1.1	0.5	0.9
West Virginia	0.7	0.7	0.7	-	0.4	0.3	0.3	0.8	0.4	0.4	1.0
North Carolina	1.1	1.1	1.1	-	2.0	0.6	1.0	1.1	1.0	1.9	1.9
South Carolina	0.4	0.6	0.2	-	0.8	0.1	0.1	0.5	0.5	1.8	0.7
Georgia	1.1	1.2	0.9	-	1.4	0.4	1.3	1.2	0.9	1.3	1.1
Florida	1.2	1.4	0.9	-	2.2	0.4	1.6	1.0	2.1	2.9	0.9
South Atlantic	7.9	8.4	7.4	2.6	12.6	7.8	7.3	8.6	8.2	9.7	9.0
Kentucky	1.0	1.2	0.6	-	1.6	0.8	1.0	1.0	0.5	1.4	1.2
Tennessee	1.3	1.3	1.2	-	0.9	0.5	1.4	1.1	0.8	1.0	1.0
Alabama	0.8	0.9	0.7	-	0.4	0.4	1.1	0.6	0.6	1.0	0.7
Mississippi	0.5	0.6	0.4	-	0.3	0	0.1	0.4	0.2	0.3	0.4
E. South Central	3.6	4.0	2.9	-	3.2	1.7	3.6	3.1	2.1	3.8	3.4

Table D-5 (cont.)

D - 16

	Commercial banks			Mutual sav-ings banks	Sav-ings and loan asso-cia-tions	Per-sonal trust de-part-ments	Credit unions	Life in-surance com-panies	Management investment companies	Postal Sav-ings System	State-local unemploy-ment and retire-ment funds
	Deposits										
	Total	demand	time	4	5	6	7	8	9	10	11
	1	2	3								
Arkansas	0.5	0.7	0.3	-	0.4	0	0.1	0.4	0.3	1.5	0.4
Louisiana	1.2	1.3	0.8	-	1.5	0.3	1.0	1.0	0.8	0.7	1.3
Oklahoma	1.1	1.4	0.3	-	1.3	0.1	0.7	0.9	0.6	1.8	0.5
Texas	4.3	5.2	1.7	-	2.2	0.5	4.1	1.8	1.7	3.6	2.7
W. South Central	7.1	8.6	3.1	-	5.4	0.9	5.9	4.1	3.4	7.5	4.9
Montana	0.4	0.5	0.3	-	0.2	0	0.2	0.3	0.1	0.8	0.3
Idaho	0.3	0.3	0.3	-	0.2	0	0.1	0.2	0.2	0.5	0.3
Wyoming	0.2	0.2	0.1	-	0.1	0	0.1	0.1	0.1	0.2	0.1
Colorado	0.8	0.8	0.6	-	0.8	0.4	1.1	0.8	1.0	1.5	0.6
New Mexico	0.2	0.3	0.1	-	0.2	0	0.1	0.2	0.3	0.3	0.2
Arizona	0.3	0.3	0.3	-	0.2	0.1	0.2	0.3	0.4	0.4	0.3
Utah	0.4	0.4	0.5	-	0.5	0.1	0.6	0.3	0.3	0.2	0.4
Nevada	0.1	0.1	0.2	-	0.0	0.1	0.0	0.1	0.1	0.1	0.1
Mountain	2.7	2.9	2.4	-	2.4	0.7	2.4	2.3	2.5	4.0	2.4
Washington	1.3	1.4	1.5	1.0	1.9	0.6	1.3	1.1	2.0	2.4	1.8
Oregon	0.9	0.9	1.0	0.1	0.8	0.3	0.6	0.7	1.8	1.5	0.9
California	9.2	7.1	15.9	-	8.5	5.6	8.2	6.6	11.5	6.9	8.8
Pacific	11.4	9.4	18.4	1.1	11.2	6.5	10.1	8.4	15.3	10.8	11.5
United States, percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
United States, \$mill.	137523	87983	36300	19293	14594	36162	812	45255	937551	3264.4	10794
(except col. 9)									(number)		

Notes to Table D-5

- Columns 1 to 3 : Based on Federal Reserve Board estimates. Figures refer to June 30, 1949. End-of-year data shown in Federal Deposit Insurance Corporation, Annual Report for the Year Ended Dec. 31, 1949, were not used because a breakdown of deposits by state is provided only for insured banks and uninsured bank deposits cannot be assumed to be regionally distributed similarly to insured banks.
- Column 4 : Tabulated from data in Federal Deposit Insurance Corporation, Annual Report for the Year Ended Dec. 31, 1949, p. 49.
- Column 5 : Home Loan Bank Board, Trends in the Savings and Loan Field, 1950, pp. 11-15.
- Column 6 : Data for 1947 from Stephenson, Gilbert, "Trust Business in the United States," The Trust Bulletin, April 1948, p. 21. Date in year to which figures refer is not indicated.
- Column 7 : Monthly Labor Review, Nov. 1951. Covers 9737 reporting out of 9923 existing institutions.
- Column 8 : Unpublished data of 49 large companies (accounting for about 90 per cent of total policy reserves of U.S. companies) compiled by the Life Insurance Association of America.
- Column 9 : Figure for end of 1951 from mimeographed survey of National Association for Investment Companies, July 1, 1952.
- Column 10 : Deposits as of June 30, 1949 from Office of Postmaster General, Report of Operations of the Postal Savings System, 1949.
- Column 11 : Covers funds available to states for unemployment compensation benefits as of Dec. 31, 1949, and assets of state and locally administered public retirement systems as of June 30, 1949. Of locally administered retirement funds, only cities having over 250,000 inhabitants in 1940 are included since statistics for smaller cities are not available. The exclusion of the latter, however, probably affects the totals negligibly. Unemployment compensation fund amounts are Department of Labor data, shown in Statistical Abstract, 1952, p. 233; assets of state administered public employee retirement systems were obtained from Bureau of the Census, Compendium of State Government Finances in 1949, p. 45; and those of city employee retirement systems from Bureau of the Census, Large-City Finances in 1949, September 1950, p. 48.

Table D-6

Resources of Selected Financial Intermediaries per 100,000 Inhabitants,
by States and Regions, 1900
(\$ mill.)

	Commercial banks			Mutual savings banks	Savings and loan associations	Life insurance companies
	Deposits			Total deposits	Total assets	Policy reserves
	Total	Demand	Time			
	1	2	3	4	5	6
Maine	4.6	3.2	1.0	9.5	.4	1.9
New Hampshire	5.3	2.9	1.7	11.4	.5	2.2
Vermont	6.3	2.6	3.5	8.1	0	2.6
Massachusetts	14.8	11.3	.1	19.1	1.0	3.6
Rhode Island	15.1	10.6	3.9	16.7	.5	3.2
Connecticut	6.8	6.0	.2	20.0	.4	3.0
New England	11.0	8.2	.9	16.6	.7	3.1
New York	28.2	19.5	.7	12.5	.5	3.8
New Jersey	7.0	5.1	1.5	2.7	2.4	3.4
Pennsylvania	12.1	8.1	2.1	1.6	1.7	2.8
Middle Atlantic	19.1	13.1	1.4	6.9	1.2	3.4
Ohio	8.0	5.0	1.8	1.0	2.5	2.2
Indiana	4.9	4.0	.4	.2	1.2	1.3
Illinois	11.4	6.2	2.2	-	1.0	2.1
Michigan	7.6	3.9	3.1	-	.4	1.4
Wisconsin	6.0	3.4	2.1	.1	.2	1.4
E. North Central	8.2	4.8	1.9	.3	1.2	1.8
Minnesota	6.3	4.3	1.1	.6	.1	1.3
Iowa	8.8	4.9	3.1	-	.2	1.2
Missouri	8.1	4.7	.9	-	.4	1.5
North Dakota	3.3	1.8	1.2	-	0	.9
South Dakota	3.7	2.2	1.5	-	0	.7
Nebraska	7.0	4.5	.9	-	.4	.9
Kansas	4.0	3.4	.3	-	.2	.7
W. North Central	6.9	4.3	1.4	.1	.2	1.2
Delaware	5.9	5.4	.0	2.7	.5	2.2
Maryland	8.0	5.6	.5	-	1.3	2.3
District of Columbia	11.0	10.3	.4	20.6	1.8	3.5
Virginia	2.7	2.0	.4	-	.2	1.1
West Virginia	4.0	2.9	.8	0	.3	.7
North Carolina	1.0	.7	.2	-	.3	.5
South Carolina	2.4	1.3	1.0	-	.1	.7
Georgia	1.7	1.3	.2	-	0	.9
Florida	2.0	1.7	.2	-	.2	1.1
South Atlantic	3.1	2.3	.4	.6	.4	1.1

Table D-6 (cont.)

	Commercial banks			Mutual savings banks	Savings and loan associations	Life insurance companies
	Deposits			Total deposits	Total assets	Policy reserves
	Total	Demand	Time			
	1	2	3	4	5	6
Kentucky	3.5	2.5	.2	-	.4	1.4
Tennessee	2.4	1.9	.2	-	.1	.8
Alabama	1.4	1.2	.2	-	.1	.7
Mississippi	1.1	.9	.1	-	.1	.4
E. South Central	2.2	1.7	.2	-	.2	.9
Arkansas	1.1	1.0	.2	-	.2	.5
Louisiana	3.0	2.2	.4	-	.4	1.2
Oklahoma	1.0	.9	.1	-	1.0	.3
Texas	2.3	2.0	.0	-	.3	.9
W. South Central	2.0	1.7	.1	-	.4	.8
Montana	9.5	7.5	1.2	-	.4	2.4
Idaho	3.5	2.9	.6	-	0	.6
Wyoming	6.2	4.2	1.0	-	1.0	1.0
Colorado	12.8	10.0	.9	-	.5	2.3
New Mexico	3.0	2.5	.5	-	0	.5
Arizona	3.9	3.1	0	-	0	.8
Utah	7.9	6.1	1.4	-	1.1	1.1
Nevada	6.8	4.5	2.3	-	2.3	2.3
Mountain	8.3	6.5	.9	-	.5	1.6
Washington	7.1	5.2	1.3	-	1.4	1.1
Oregon	7.1	4.7	1.4	-	.5	1.4
California	19.4	8.3	10.1	-	1.2	2.0
Pacific	14.6	7.0	6.6	-	1.2	1.7
Total United States	8.8	5.9	1.3	2.8	.7	1.8

Table D-7

D - 20

Resources of Selected Financial Intermediaries per 100,000 Inhabitants, by States and Regions, 1929
(\$ mill.)

	Commercial banks			Mutual Savings banks	Savings and loan associations	Life insurance companies	Postal Savings System	Credit unions
	Deposits			Total	Total	Policy	Total	Loans
	Total	Demand	Time	deposits	assets	reserves	assets	outstanding
	1	2	3	4	5	6	7	8
Maine	36.0	10.0	25.5	14.2	3.0	11.3	.01	.01
New Hampshire	23.2	8.8	13.5	37.4	2.8	12.5	.06	.29
Vermont	40.0	8.3	31.4	27.5	1.1	12.2	.01	-
Massachusetts	46.4	26.2	16.1	48.1	12.8	16.5	.15	.30
Rhode Island	48.8	19.4	28.4	24.6	4.1	17.0	.06	.27
Connecticut	38.6	20.6	16.9	39.0	1.6	16.4	.07	.00
New England	42.4	21.2	18.7	39.5	7.8	15.6	.10	.20
New York	98.8	62.8	22.1	35.5	3.4	22.6	.22	.09
New Jersey	51.0	21.9	28.1	6.7	28.5	15.9	.05	.00
Pennsylvania	49.8	22.2	24.0	4.6	14.5	13.7	.09	.00
Middle Atlantic	73.5	41.6	23.7	19.7	11.3	18.3	.15	.04
Ohio	38.9	16.7	20.2	1.6	19.3	12.9	.04	.00
Indiana	26.2	13.1	11.9	.8	9.6	9.8	.05	.00
Illinois	52.8	26.7	20.6	-	5.9	14.1	.09	.01
Michigan	42.4	18.0	23.0	-	3.3	9.1	.04	.01
Wisconsin	32.5	12.6	18.3	.3	9.6	9.9	.05	.02
E. North Central	41.4	19.0	19.6	.5	9.8	11.8	.06	.01
Minnesota	35.1	14.0	17.7	2.8	1.5	10.1	.32	.02
Iowa	36.2	13.7	20.6	-	2.0	9.4	.33	.00
Missouri	33.3	17.6	10.7	-	5.5	12.0	.15	.01
North Dakota	22.0	9.5	12.0	-	1.6	4.6	.32	-
South Dakota	22.2	11.1	10.2	-	.7	5.6	.63	-
Nebraska	31.8	16.0	12.2	-	11.8	8.0	.10	.00
Kansas	23.5	15.9	6.2	-	7.0	6.0	.19	.00
W. North Central	31.5	15.0	13.4	.5	4.5	9.2	.25	.01

Table D-7 (cont.)

D - 21

	Commercial banks			Mutual Savings banks	Savings and loan associations	Life insurance companies	Postal Savings System	Credit unions
	Deposits			Total	Total	Policy	Total	Loans
	Total	Demand	Time	deposits	assets	reserves	assets	outstanding
	1	2	3	4	5	6	7	8
Delaware	48.7	31.5	16.0	10.5	5.9	14.3	.04	-
Maryland	38.6	17.1	18.3	11.9	13.2	11.9	.01	.00
District of Columbia	54.2	30.0	20.9	-	14.0	17.7	.08	.00
Virginia	20.1	8.5	10.4	-	2.4	6.7	.01	.01
West Virginia	19.8	9.7	9.5	-	2.4	6.4	.05	.00
North Carolina	12.0	5.6	5.4	-	3.0	4.8	.02	.00
South Carolina	10.2	4.3	5.3	-	1.5	4.6	.09	.00
Georgia	12.0	5.5	5.2	-	.2	5.7	.07	.01
Florida	23.1	11.8	9.3	-	1.5	5.2	.54	.00
South Atlantic	19.5	9.2	8.9	1.4	3.5	6.7	.09	.00
Kentucky	17.8	8.5	8.5	-	4.2	6.2	.01	.00
Tennessee	16.7	8.4	7.2	-	.6	6.2	.02	.01
Alabama	10.0	5.2	4.3	-	1.1	4.2	.01	.00
Mississippi	11.0	5.6	5.0	-	1.0	3.3	.01	-
E. South Central	14.1	7.0	6.3	-	1.8	5.1	.01	.00
Arkansas	11.8	6.7	4.1	-	2.4	3.6	.04	.00
Louisiana	20.6	11.8	6.3	-	9.1	6.3	.02	.00
Oklahoma	19.6	12.7	5.3	-	5.8	4.7	.23	-
Texas	19.8	13.5	4.2	-	2.4	2.5	.07	.00
W. South Central	18.7	12.0	4.7	-	4.2	3.7	.09	.00

Table D-7 (cont.)

D - 22

	Commercial banks			Mutual Savings banks	Savings and loan associations	Life insurance companies	Postal Savings System	Credit unions
	Deposits			Total deposits	Total assets	Policy reserves	Total assets	Loans outstanding
	Total	Demand	Time					
	1	2	3	4	5	6	7	8
Montana	30.7	14.7	14.5	-	3.7	7.4	1.15	.00
Idaho	19.6	11.2	7.6	-	.9	4.7	.59	-
Wyoming	27.9	15.0	11.5	-	4.9	4.9	.84	-
Colorado	29.1	15.6	11.5	-	5.2	10.0	.37	.01
New Mexico	10.4	7.1	2.8	-	1.2	3.3	.36	-
Arizona	21.8	12.4	8.9	-	.9	5.0	.31	.00
Utah	29.1	11.2	15.0	-	10.2	6.9	.12	.00
Nevada	50.5	23.1	26.4	-	1.1	6.6	.43	-
Mountain	25.6	13.2	11.0	-	4.1	6.8	.50	.00
Washington	27.7	14.9	10.1	3.5	6.7	9.1	.44	.00
Oregon	29.2	14.6	13.0	-	2.9	8.0	.40	.01
California	62.5	21.8	36.4	-	8.4	10.3	.05	.00
Pacific	52.0	19.6	28.7	.7	7.4	9.8	.17	.00
Total, United States	40.2	20.5	16.2	7.2	7.1	10.9	.12	.03

Table D-8

D - 23

Resources of Selected Financial Intermediaries per 100,000 Inhabitants, by States and Regions, 1949
\$ mill. (except col. 9)

	Commercial banks			Mutual Savings banks	Savings and loan associations	Personal trust departments	Credit unions	Life insurance companies	Management Investment companies	Postal Savings System	State-local unemployment and retirement fund assets							
	Deposits											Total deposits	Total assets	Total assets	Total assets	Policy reserves	Number of share-holders	Total deposits
	Total	Demand	Time															
	1	2	3	4	5	6	7	8	9	10	11							
Maine	49.3	25.5	22.5	25.8	4.6	7.5	.2	29.8	1486	.4	5.2							
New Hampshire	48.0	24.7	21.6	51.6	8.8	6.4	.6	37.3	1550	.5	5.3							
Vermont	64.6	22.6	41.4	22.5	4.2	7.1	0	35.2	1373	.2	4.8							
Massachusetts	81.6	57.6	16.1	69.3	18.7	35.5	1.5	42.8	1279	1.0	5.5							
Rhode Island	89.0	47.8	38.6	33.3	12.6	40.9	2.3	42.8	944	.5	5.0							
Connecticut	70.7	47.4	20.6	65.9	9.7	43.6	1.1	47.8	945	1.4	9.9							
New England	74.2	48.3	20.8	58.3	13.7	32.3	1.3	42.0	1218	.9	6.4							
New York	202.5	141.3	27.4	74.9	8.6	96.0	.4	57.5	1052	1.3	15.2							
New Jersey	91.0	46.5	42.5	11.3	12.1	24.2	.4	50.7	797	.8	13.2							
Pennsylvania	93.0	56.0	30.3	10.1	9.1	47.4	.4	39.2	670	1.5	9.0							
Middle Atlantic	146.6	96.5	30.8	42.1	9.3	67.6	.4	50.0	878	1.3	12.7							
Ohio	85.5	47.8	33.2	3.0	24.6	24.0	.6	36.3	485	1.9	9.6							
Indiana	74.6	49.0	22.4	1.1	12.4	5.9	.6	27.8	300	3.5	6.4							
Illinois	132.9	81.2	35.9	-	14.0	27.4	1.1	41.9	720	5.3	7.0							
Michigan	77.9	39.2	34.9	-	5.2	14.6	.8	26.8	448	3.0	6.2							
Wisconsin	85.0	42.3	37.8	.3	9.3	6.6	1.0	32.1	971	3.4	10.7							
E. North Central	96.0	55.1	33.4	1.0	14.2	18.8	.8	34.3	576	3.5	7.9							
Minnesota	93.3	53.0	30.0	5.3	11.1	40.1	.8	30.5	779	3.4	5.9							
Iowa	86.0	60.0	20.7	-	6.3	2.4	.4	30.2	339	5.3	3.8							
Missouri	100.5	65.4	17.6	-	7.6	22.2	.6	32.1	966	2.6	5.2							
North Dakota	101.5	70.5	27.8	-	6.6	.9	.8	12.7	198	5.5	2.1							
South Dakota	76.7	60.0	13.9	-	1.7	1.6	.2	17.2	199	6.2	1.7							

Table D-8 (cont.)

D - 24

	Commercial banks			Mutual Savings banks	Savings and loan associations	Personal trust departments	Credit unions	Life insurance companies	Management Investment companies	Postal Savings System	State-local unemployment and retirement fund assets
	Deposits			Total deposits	Total assets	Total assets	Total assets	Policy reserves	Number of shareholders	Total deposits	
	Total	Demand	Time	4	5	6	7	8	9	10	11
Nebraska	93.2	71.1	10.8	-	8.9	3.5	.3	25.3	580	5.5	2.9
Kansas	83.4	69.4	8.7	-	9.0	2.1	.4	22.3	437	4.1	3.7
W. North Central	92.2	62.8	19.2	1.1	8.1	16.1	.6	27.9	632	4.1	4.4
Delaware	126.3	98.7	21.3	27.7	7.5	179.0	.3	39.3	361	.5	4.4
Maryland	64.2	41.3	18.2	17.0	14.1	35.1	.2	30.3	473	.3	8.4
District of Columbia	118.0	85.0	25.0	-	44.9	44.1	1.7	41.6	1002	3.1	7.6
Virginia	52.6	30.3	17.9	-	4.3	13.5	.2	18.9	322	.5	3.0
West Virginia	49.1	32.8	13.9	-	2.8	5.8	.1	18.3	184	.7	5.3
North Carolina	39.8	25.3	10.1	-	7.0	5.6	.2	11.8	224	1.5	5.1
South Carolina	30.8	25.2	4.4	-	5.4	1.4	0	10.0	222	2.7	3.4
Georgia	45.1	31.3	9.4	-	6.0	4.9	.3	15.4	244	1.2	3.5
Florida	63.3	45.7	12.5	-	11.4	5.3	.5	16.9	719	3.4	3.3
South Atlantic	53.0	35.8	13.1	2.3	8.7	14.1	.3	18.2	363	1.5	4.6
Kentucky	49.7	37.0	8.0	-	7.9	10.4	.3	16.1	171	1.6	4.5
Tennessee	55.4	35.5	13.7	-	4.0	5.9	.4	15.2	233	1.0	3.3
Alabama	38.0	27.5	8.6	-	1.9	4.8	.3	9.4	175	1.1	2.4
Mississippi	35.1	26.4	6.5	-	1.9	.6	0	7.3	76	.5	2.2
E. South Central	45.5	32.0	9.5	-	4.1	5.8	.3	12.4	172	1.1	3.2
Arkansas	39.7	31.8	5.3	-	2.9	1.0	.1	9.6	144	2.5	2.4
Louisiana	62.0	44.1	10.9	-	8.1	3.7	.3	17.3	265	.8	5.1
Oklahoma	72.0	58.9	5.6	-	8.3	1.3	.3	17.8	264	2.6	2.5
Texas	76.5	59.7	8.2	-	4.2	2.6	.4	10.3	213	1.5	3.7
W. South Central	68.4	53.1	8.0	-	5.4	2.4	.3	12.7	221	1.7	3.6

Table D-8 (cont.)

D - 25

	Commercial banks			Total deposits	Savings and loan associations	Personal trust departments	Credit unions	Life insurance companies	Management Investment companies	Postal Savings System	State-local unemployment and retirement fund assets
	Deposits										
	Total	Demand	Time								
1	2	3	4	5	6	7	8	9	10	11	
Montana	95.0	72.6	17.3	-	4.9	1.4	.3	21.7	189	4.4	6.3
Idaho	71.2	52.4	17.1	-	6.1	.6	.2	13.4	332	2.8	4.9
Wyoming	82.2	61.6	16.7	-	6.2	1.9	.3	18.6	313	2.8	4.5
Colorado	83.4	59.2	17.7	-	9.3	11.4	.7	26.6	740	3.7	4.8
New Mexico	45.6	37.0	6.3	-	4.0	.7	0	10.0	373	1.4	3.4
Arizona	54.2	40.2	13.0	-	4.1	3.4	.1	15.3	448	1.8	4.5
Utah	77.7	46.1	25.7	-	10.7	6.1	.7	19.2	396	.8	6.2
Nevada	96.9	59.1	36.5	-	3.1	12.4	0	17.5	512	1.9	8.8
Mountain	74.0	52.8	17.2	-	6.8	5.2	.4	18.9	458	2.6	5.1
Washington	77.0	50.3	22.2	8.1	11.5	9.1	.5	21.6	796	3.3	8.2
Oregon	81.8	53.7	25.1	1.1	7.6	6.9	.3	20.1	1096	3.2	6.6
California	120.2	59.3	55.1	-	11.7	19.7	.6	28.2	1018	2.1	9.0
Pacific	109.1	57.2	46.5	1.5	11.2	16.6	.6	26.2	990	2.4	8.6
Total United States	92.6	59.2	24.4	12.8	9.7	25.2	.5	30.0	622	2.2	7.2

Notes to Tables D-6 to D-8

Selected balance sheet items of financial intermediaries from sources to Tables D-3, D-4 and D-5 for 1900, 1929 and 1949 respectively. (For 1900 life insurance reserves are estimated by applying the percentage distribution of insurance in force to total policy reserves.) Population data for 1900 (averages of July 1, 1900 and July 1, 1901) are obtained from Bureau of the Census, Vital Statistics Rates in the United States, 1900-1940, pp. 824-839; for 1929, 1947 and 1949 from Statistical Abstract 1952, pp. 11, 14. The Census figure for April 1930 is applied to the 1929 data; the intercensal estimate for July 1, 1947 is applied to personal trust department assets in Table D-8; the Census figure for April 1950 is used throughout Table D-8, except for deposits of commercial banks which, since the figures refer to June 30, 1949, are divided by the intercensal estimates for that date.

Table D-9

D - 27

Resources of Selected Financial Intermediaries per \$100 Million Income Payments to Individuals, 1929
(\$ mill.)

	Commercial banks			Mutual Savings banks	Savings and loan associations	Life insurance companies	Postal Savings System	Credit unions
	Deposits			Total	Total	Policy	Total	Loans
	Total	Demand	Time	deposits	assets	reserves	deposits	outstanding
	1	2	3	4	5	6	7	8
Maine	63.9	17.8	55.2	25.2	5.3	20.0	.02	.02
New Hampshire	35.8	13.6	20.9	57.6	4.3	19.2	.10	.45
Vermont	66.7	13.9	52.3	45.8	1.9	20.4	.02	-
Massachusetts	52.0	29.4	18.1	53.9	14.4	18.6	.16	.33
Rhode Island	57.9	23.0	33.7	29.2	4.8	20.2	.07	.32
Connecticut	42.6	22.7	18.6	43.0	1.7	18.0	.08	.00
New England	51.0	25.5	22.5	47.5	9.4	18.8	.12	.23
New York	85.9	54.6	19.2	30.8	2.9	19.7	.19	.08
New Jersey	63.0	27.1	34.7	8.2	35.3	19.7	.06	.00
Pennsylvania	65.4	29.2	31.5	6.1	19.1	18.0	.12	.00
Middle Atlantic	76.9	43.6	24.8	20.6	11.8	19.2	.15	.05
Ohio	52.6	22.6	27.3	2.1	26.1	17.4	.06	.00
Indiana	45.2	22.5	20.6	1.3	16.6	16.8	.08	.01
Illinois	57.3	28.9	22.4	-	6.4	15.3	.09	.01
Michigan	57.9	24.6	31.5	-	4.5	12.5	.06	.01
Wisconsin	51.7	20.0	29.1	.5	15.3	15.7	.08	.03
E. North Central	54.5	25.0	25.8	.7	12.9	15.5	.08	.01
Minnesota	62.4	24.9	31.4	5.0	2.7	18.0	.57	.03
Iowa	66.4	25.1	37.7	-	3.6	17.2	.61	.01
Missouri	54.8	28.8	17.6	-	9.0	19.7	.24	.01
North Dakota	56.8	24.6	31.1	-	4.2	11.7	.82	-
South Dakota	53.5	26.7	24.7	-	1.7	13.5	1.53	-
Nebraska	57.3	28.9	22.0	-	21.3	14.4	.18	.01
Kansas	44.3	30.0	11.6	-	13.2	11.3	.36	.00
W. North Central	57.3	27.3	24.4	1.0	8.2	16.7	.45	.01

Table D-9 (cont.)

D - 28

	Commercial banks			Mutual Savings banks	Savings and loan associations	Life insurance companies	Postal Savings System	Credit unions
	Deposits			Total deposits	Total assets	Policy reserves	Total deposits	Loans outstanding
	Total	Demand	Time	4	5	6	7	8
	1	2	3					
Delaware	53.2	34.4	17.4	11.5	6.4	15.6	.05	-
Maryland	57.0	25.2	27.0	17.5	19.4	17.5	1.1	2.0
District of Columbia	41.4	22.9	16.0	-	10.7	13.5	.06	.00
Virginia	49.4	20.8	25.4	-	6.0	16.4	.03	.03
West Virginia	43.1	21.2	20.7	-	5.3	13.9	.11	.01
North Carolina	39.2	18.4	17.6	-	9.9	15.7	.06	.01
South Carolina	40.6	17.1	21.2	-	5.9	18.3	.35	.00
Georgia	36.4	16.8	15.9	-	.5	17.3	.21	.03
Florida	48.8	24.9	19.6	-	3.2	11.1	1.14	.01
South Atlantic	45.4	21.5	20.7	3.2	8.0	15.6	.20	.01
Kentucky	48.3	22.9	22.9	-	11.5	16.9	.02	.01
Tennessee	48.3	24.3	20.9	-	1.8	18.0	.07	.03
Alabama	33.0	17.2	14.3	-	3.7	13.7	.04	.01
Mississippi	40.8	20.6	18.6	-	3.7	12.3	.02	-
E. South Central	43.2	21.5	19.5	-	5.5	15.6	.04	.01
Arkansas	38.8	22.2	13.5	-	7.8	11.9	.12	.00
Louisiana	50.2	28.7	15.3	-	22.2	15.4	.04	.01
Oklahoma	43.6	28.3	11.7	-	13.0	10.4	.52	-
Texas	43.1	29.5	9.1	-	5.1	5.4	.16	.00
W. South Central	43.9	28.3	11.2	-	9.9	8.8	.21	.00

Table D-9 (cont.)

D - 29

	Commercial banks			Mutual Savings banks	Savings and loan associations	Life insurance companies	Postal Savings System	Credit unions
	Deposits			Total	Total	Policy	Total	Loans
	Total	Demand	Time	deposits	assets	reserves	deposits	outstanding
	1	2	3	4	5	6	7	8
Montana	50.8	24.3	24.0	-	6.2	12.3	1.90	.00
Idaho	37.8	21.7	14.8	-	1.7	9.1	1.13	-
Wyoming	40.9	22.1	16.9	-	7.1	7.1	1.23	-
Colorado	47.6	25.6	18.8	-	8.5	16.4	.61	.01
New Mexico	27.3	18.6	7.5	-	3.1	8.7	.96	-
Arizona	38.8	22.0	15.9	-	1.6	9.0	.56	.00
Utah	54.4	21.0	27.9	-	19.1	12.9	.23	.01
Nevada	62.2	28.4	32.4	-	1.4	8.1	.53	-
Mountain	45.3	23.3	19.5	-	7.2	12.1	.88	.01
Washington	39.2	21.1	14.3	4.9	9.5	12.9	.62	.01
Oregon	46.3	23.1	20.6	-	4.6	12.6	.63	.01
California	68.0	23.7	39.6	-	9.1	11.3	.60	.00
Pacific	61.5	23.2	33.9	.8	8.8	11.6	.20	.00
Total United States	59.8	30.5	24.0	10.8	10.5	16.2	.18	.04

Resources of Selected Financial Intermediaries per \$100 Million Income Payments to Individuals, 1949
\$ mill. (except col. 9)

	Commercial banks			Mutual Savings banks	Savings and loan associations	Personal trust departments	Credit unions	Life insurance companies	Management Investment companies	Postal Savings System	State-local unemployment and retirement fund assets
	Deposits										
	Total	Demand	Time								
1	2	3	4	5	6	7	8	9	10	11	
Maine	43.3	22.4	19.7	22.9	4.1	6.5	.2	26.4	1319	.4	4.7
New Hampshire	40.5	20.8	18.2	44.4	7.6	5.4	.5	32.1	1332	.5	4.5
Vermont	58.1	20.3	37.3	20.8	3.9	6.2	0	32.6	1272	.2	4.4
Massachusetts	56.4	39.8	11.1	47.1	12.7	25.3	1.0	29.1	869	.6	4.8
Rhode Island	63.3	34.0	27.4	23.7	9.0	29.0	1.6	30.5	672	.3	3.6
Connecticut	44.2	29.6	12.9	41.2	6.1	27.1	.7	29.9	591	.9	6.2
New England	52.3	34.0	14.7	41.0	9.6	23.0	.9	29.5	854	.6	4.5
New York	114.2	79.7	15.4	42.5	4.9	55.0	.2	32.6	596	.7	8.6
New Jersey	61.9	31.7	28.9	7.8	8.3	16.6	.3	34.8	550	.6	9.1
Pennsylvania	67.4	40.6	22.0	7.4	6.6	34.6	.3	28.6	490	1.1	6.6
Middle Atlantic	92.3	60.8	19.4	26.7	5.9	43.2	.3	31.7	557	.8	8.1
Ohio	60.2	33.7	23.4	2.1	17.2	17.3	.4	25.4	339	1.4	6.7
Indiana	56.7	37.2	17.0	.8	9.5	4.6	.5	21.3	230	2.7	4.9
Illinois	81.5	49.8	22.0	-	8.7	17.1	.7	26.0	446	32.6	4.4
Michigan	54.5	27.4	24.2	-	3.7	10.3	.5	19.1	319	2.1	4.4
Wisconsin	63.3	31.4	28.1	.3	7.2	5.0	.8	24.7	746	2.6	8.2
E. North Central	65.8	37.8	22.9	.7	9.8	13.1	.6	23.7	398	2.4	5.4

Table D-10 (cont.)

D - 31

	Commercial banks			Mutual Savings banks	Savings and loan associations	Personal trust departments	Credit unions	Life insurance companies	Management Investment companies	Postal Savings System	State-local unemployment and retirement fund assets							
	Deposits											Total deposits	Total assets	Total assets	Total assets	Policy reserves	Number of share-holders	Total deposits
	Total	Demand	Time															
	1	2	3	4	5	6	7	8	9	10	11							
Minnesota	74.9	42.5	24.1	4.3	9.1	32.7	.7	25.0	639	2.8	4.9							
Iowa	66.5	46.4	16.0	-	5.0	2.0	.3	24.0	269	4.2	3.0							
Missouri	77.8	50.7	13.6	-	5.9	18.4	.5	25.2	758	2.1	4.0							
North Dakota	85.5	59.4	23.4	-	5.9	.6	.7	11.4	177	4.9	1.9							
South Dakota	65.3	51.1	11.8	-	1.5	1.2	.1	15.4	179	5.6	1.5							
Nebraska	72.1	55.0	8.4	-	7.1	2.8	.2	20.2	463	4.4	2.3							
Kansas	68.4	56.9	7.2	-	7.5	1.5	.4	18.7	366	3.4	3.1							
W. North Central	73.0	49.7	15.2	.9	6.5	12.8	.5	22.6	513	3.3	3.5							
Delaware	75.2	58.8	12.7	16.4	4.5	118.3	.2	23.3	214	.3	2.6							
Maryland	48.9	31.5	13.8	13.0	10.7	28.5	.2	23.4	361	.2	6.4							
District of Columbia	52.4	37.7	11.1	-	19.0	23.3	.7	17.7	425	1.3	3.2							
Virginia	53.7	31.0	18.3	-	4.5	14.5	.2	19.4	331	.5	3.1							
West Virginia	49.0	32.7	13.9	-	2.9	5.8	.2	18.9	190	.7	5.5							
North Carolina	46.7	29.7	11.8	-	8.5	6.5	.2	14.3	271	1.8	6.2							
South Carolina	39.0	31.8	5.6	-	7.2	1.8	.1	13.4	296	3.6	4.5							
Georgia	51.7	35.9	10.8	-	7.0	5.8	.4	18.1	287	1.4	4.1							
Florida	57.3	41.3	11.4	-	10.7	5.1	.4	15.8	673	3.1	3.1							
South Atlantic	51.1	34.4	12.6	2.3	8.5	14.1	.3	18.0	357	1.5	4.5							
Kentucky	57.3	42.7	9.2	-	9.4	12.7	.3	19.2	203	1.9	5.4							
Tennessee	63.7	40.8	15.7	-	4.7	6.9	.4	17.6	270	1.2	3.8							
Alabama	49.5	35.8	11.2	-	2.5	6.2	.4	12.5	232	1.5	3.2							
Mississippi	54.8	41.2	10.1	-	3.2	.9	.1	11.9	124	.8	3.5							
E. South Central	57.0	40.1	11.9	-	5.2	7.3	.3	15.9	220	1.4	4.1							

Table D-10 (cont.)

D - 32

	Commercial banks			Mutual Savings banks	Savings and loan associations	Personal trust departments	Credit unions	Life insurance companies	Management Investment companies	Postal Savings System	State-local unemployment and retirement fund assets							
	Deposits											Total deposits	Total assets	Total assets	Total assets	Policy reserves	Number of shareholders	Total deposits
	Total	Demand	Time																1	2	3	4	5	6	7	8	9	10	11
Arkansas	50.0	40.0	6.7	-	3.8	1.3	.1	12.6	188	3.3	3.2							
Louisiana	61.6	43.7	10.9	-	8.2	4.3	.3	17.5	268	.8	5.2							
Oklahoma	66.9	54.7	5.3	-	8.1	1.3	.3	17.4	258	2.5	2.5							
Texas	63.7	49.7	6.8	-	3.5	2.3	.4	8.6	178	1.3	3.1							
W. South Central	62.5	48.5	7.3	-	5.0	2.4	.3	11.8	206	1.6	3.4							
Montana	69.9	53.4	12.7	-	3.8	.9	.3	16.8	147	3.4	4.8							
Idaho	57.7	42.6	13.9	-	5.1	.4	.1	11.2	278	2.3	4.1							
Wyoming	55.6	41.7	11.3	-	4.4	1.3	.2	13.2	223	2.0	3.2							
Colorado	61.4	43.5	13.0	-	7.2	8.4	.5	20.8	577	2.9	3.8							
New Mexico	42.4	34.5	5.9	-	4.0	.7	0	10.0	374	1.4	3.4							
Arizona	49.4	36.6	11.8	-	3.7	3.2	.1	13.8	402	1.6	4.1							
Utah	64.8	38.4	21.4	-	9.1	5.3	.6	16.3	336	.7	5.3							
Nevada	57.9	35.3	21.8	-	1.9	7.5	0	10.5	308	1.1	5.3							
Mountain	58.2	41.6	13.5	-	5.6	4.1	.3	15.5	377	2.1	4.2							
Washington	52.3	34.1	15.1	5.6	7.8	6.3	.3	14.7	542	2.3	5.5							
Oregon	58.9	38.6	18.1	.8	5.6	5.1	.2	14.7	803	2.4	4.9							
California	75.0	37.0	34.4	-	7.4	12.5	.4	17.7	641	1.3	5.6							
Pacific	69.9	36.7	29.8	.9	7.3	10.8	.4	17.0	640	1.6	5.6							
Total United States	69.9	44.7	18.4	9.8	7.4	19.5	.4	23.0	476	1.7	5.5							

Notes to Tables D-9 and D-10

Balance sheet items of financial intermediaries from sources to Appendix Tables D-4 and D-5 for 1929 and 1949 respectively. Income payments -- no statistics are available prior to 1929 -- are obtained from Survey of Current Business, August 1952, p. 16. (Income payments for 1947 are applied to personal trust department assets.)

Table D-11

Number of Selected Financial Intermediaries by States and Regions, 1900
(percent)

	Commercial Banks Units 1	Commercial Banks Offices 2	Mutual Savings Banks 3	Savings and Loan Associations 4
Maine	0.8	0.9	8.1	0.6
New Hampshire	0.6	0.6	6.9	0.3
Vermont	0.5	0.5	3.5	..
Massachusetts	2.3	2.3	29.7	2.4
Rhode Island	0.5	0.5	4.6	..
Connecticut	0.8	0.8	14.2	0.3
New England	5.5	5.6	67.0	..
New York	6.3	6.3	20.4	5.5
New Jersey	1.3	1.4	4.0	6.1
Pennsylvania	6.2	6.1	1.9	20.8
Middle Atlantic	13.8	13.8	26.3	32.4
Ohio	5.8	5.8	0.6	14.2
Indiana	3.9	3.9	0.8	7.6
Illinois	8.0	7.9	-	10.7
Michigan	4.2	4.2	-	1.2
Wisconsin	2.8	2.8	0.2	0.9
E. North Central	24.7	24.6	1.6	34.6
Minnesota	4.1	4.1	1.6	0.6
Iowa	9.2	9.1	-	1.5
Missouri	5.5	5.4	-	3.2
North Dakota	1.2	1.2	-	0.1
South Dakota	1.7	1.6	-	..
Nebraska	4.2	4.1	-	1.1
Kansas	3.9	3.9	-	0.7
W. North Central	29.8	29.4	1.6	..
Delaware	0.2	0.2	0.3	..
Maryland	1.0	1.0	2.9	..
District of Columbia	0.2	0.2	-	..
Virginia	1.3	1.4	-	..
West Virginia	1.0	1.0	0.2	..
North Carolina	1.0	1.0	-	..
South Carolina	1.1	1.1	-	..
Georgia	1.8	1.8	-	..
Florida	0.3	0.3	-	..
South Atlantic	7.9	8.0	3.3	..
Kentucky	2.5	2.6	-	..
Tennessee	1.5	1.5	-	0.4
Alabama	0.9	0.9	-	..
Mississippi	0.9	1.0	-	..
E. South Central	5.8	6.0	-	..

Table D-11 (cont.)

	Commercial Banks		Mutual	Savings
	Units	Offices	Savings	and Loan
	1	2	Banks	Associations
			3	4
Arkansas	1.0	1.0	-	..
Louisiana	0.6	0.6	-	0.6
Oklahoma	1.3	1.2	-	..
Texas	3.3	3.3	-	..
W. South Central	6.2	6.1	-	..
Montana	0.4	0.4	-	..
Idaho	0.3	0.4	-	..
Wyoming	0.3	0.3	-	..
Colorado	1.0	0.9	-	..
New Mexico	0.1	0.1	-	..
Arizona	0.2	0.2	-	..
Utah	0.3	0.3	-	..
Nevada	0.1	0.1	-	..
Mountain	2.7	2.7	-	..
Washington	0.9	0.9	-	..
Oregon	0.6	0.6	-	..
California	2.3	2.3	-	2.8
Pacific	3.8	3.8	-	..
United States, percent	100.0	100.0	100.0	100.0
United States, number	12389	12508	626	5356

Notes to Table D-11

- Column 1 : Federal Reserve Board estimates for June 1900.
- Column 2 : Commercial bank units plus branches from Banking and Monetary Statistics, p. 298. Branch figures refer to different dates in the year.
- Column 3 : Same as for col. 2.
- Column 4 : Derived from a compilation by Cellarius, H. F., shown in Bodfish, M., ed., History of Building and Loan in the United States, pp. 136, 627-650. The state-by-state figures shown by Cellarius add to 81.6 percent of the 5336 United States associations reported by him.

Table D-12

D - 37

Number of Selected Financial Intermediaries by States and Regions, 1929
(percent)

	Commercial banks		Mutual Savings Banks	Savings and Loan Associations	Credit Unions	Investment bankers		Postal Savings Offices
	Units 1	Offices 2				Units 6	Offices 7	
Maine	0.4	0.6	5.5	0.3	0.2	0.8	1.0	1.8
New Hampshire	0.3	0.3	6.9	0.2	0.3	0.2	0.3	1.4
Vermont	0.3	0.3	3.2	0.1	-	0.0	0.1	1.0
Massachusetts	1.0	1.4	32.8	1.8	30.7	8.7	7.7	4.0
Rhode Island	0.1	0.2	1.5	0.1	1.3	0.5	0.9	0.6
Connecticut	0.8	0.7	12.5	0.4	0.1	1.6	2.6	2.1
New England	2.9	3.5	62.4	2.9	32.6	11.9	12.6	10.7
New York	4.1	6.0	25.1	2.5	12.8	32.9	26.7	7.0
New Jersey	2.2	2.2	4.5	12.7	1.1	0.9	1.9	2.8
Pennsylvania	6.4	6.2	1.3	31.6	0.2	5.6	7.3	7.5
Middle Atlantic	12.7	14.4	30.9	46.8	14.1	39.3	35.9	17.4
Ohio	4.1	4.6	0.5	6.6	0.3	2.7	3.3	5.1
Indiana	3.9	3.5	0.8	3.3	3.3	1.2	1.1	3.6
Illinois	7.2	6.3	-	7.5	4.2	11.4	9.1	4.9
Michigan	3.4	4.5	-	0.6	3.0	2.6	3.3	3.7
Wisconsin	3.8	3.4	1.0	1.5	1.4	0.8	1.5	2.8
E. North Central	22.4	22.3	2.3	19.5	12.2	18.7	18.4	20.2
Minnesota	4.3	3.8	0.8	0.6	4.4	1.8	2.5	3.1
Iowa	5.6	4.9	-	0.6	3.7	1.3	1.5	2.5
Missouri	5.3	4.7	-	1.9	4.4	3.8	4.3	2.6
North Dakota	1.7	1.5	-	0.2	-	0.1	0.1	1.3
South Dakota	1.6	1.4	-	0.2	-	-	0.0	0.9
Nebraska	3.5	3.1	-	0.7	0.7	0.4	0.6	2.0
Kansas	4.3	3.8	-	1.3	1.0	0.5	0.9	3.2
W. North Central	26.3	23.2	0.8	5.5	14.2	7.8	10.0	15.5

Table D-12 (cont.)

D - 38

	Commercial banks		Mutual Savings Banks	Savings and Loan Associations	Credit Unions	Investment bankers		Postal Savings Offices
	Units	Offices				Units	Offices	
	1	2				3	4		5	6	7	8
Delaware	0.2	0.2	0.3	0.4	-	0.0	0.1	0.2
Maryland	0.9	1.2	2.3	9.7	0.3	2.2	1.8	0.5
District of Columbia	0.2	0.2	-	0.2	0.1	0.7	1.1	0.0
Virginia	1.9	1.9	-	0.7	3.1	0.6	0.5	1.2
West Virginia	1.2	1.1	-	0.5	0.9	0.4	0.4	1.2
North Carolina	1.9	1.9	-	1.9	4.7	0.5	0.4	1.0
South Carolina	0.9	1.0	-	1.2	0.5	0.4	0.3	0.6
Georgia	1.8	1.7	-	0.3	4.0	0.6	0.8	1.2
Florida	1.0	0.9	-	0.6	0.1	0.3	0.3	1.6
South Atlantic	10.0	10.1	2.6	15.5	13.7	5.7	5.7	7.6
Kentucky	2.3	2.1	-	1.3	1.0	0.7	0.7	1.5
Tennessee	2.0	2.0	-	0.3	1.5	0.6	0.6	0.9
Alabama	1.4	1.3	-	0.3	4.0	0.3	0.4	0.9
Mississippi	1.3	1.2	-	0.3	-	0.1	0.1	1.0
E. South Central	7.0	6.6	-	2.2	6.5	1.7	1.9	4.3
Arkansas	1.7	1.5	-	0.6	0.3	0.3	0.3	1.5
Louisiana	0.9	1.2	-	0.9	0.6	0.7	0.6	0.8
Oklahoma	2.6	2.3	-	0.7	0.3	0.4	0.4	2.7
Texas	5.7	5.0	-	1.4	1.2	1.4	1.4	3.8
W. South Central	10.9	10.0	-	3.6	2.4	2.8	2.7	8.9

Table D-12 (cont.)

D - 39

	Commercial banks		Mutual Savings Banks	Savings and Loan Associations	Credit Unions	Investment bankers		Postal Savings Offices
	Units	Offices				Units	Offices	
	1	2				3	4		5	6	7	8
Montana	0.8	0.7	-	0.2	0.1	0.1	0.1	1.3
Idaho	0.5	0.5	-	0.1	-	0.2	0.2	1.2
Wyoming	0.3	0.3	-	0.1	-	-	0.0	0.6
Colorado	1.1	1.0	-	0.6	0.2	2.2	1.6	1.8
New Mexico	0.2	0.2	-	0.2	-	-	0.0	0.8
Arizona	0.2	0.2	-	0.1	0.2	0.1	0.1	0.6
Utah	0.4	0.4	-	0.2	0.5	0.5	0.3	0.4
Nevada	0.1	0.1	-	0.0	-	0.0	0.0	0.4
Mountain	3.6	3.4	-	1.5	1.0	3.1	2.4	7.2
Washington	1.4	1.2	0.8	0.6	0.6	1.3	1.4	2.4
Oregon	0.9	0.8	-	0.3	0.3	0.3	0.6	1.7
California	1.8	4.6	-	1.8	2.0	7.3	8.4	4.3
Pacific	4.1	6.6	0.8	2.7	2.9	9.0	10.5	8.4
United States, percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
United States, number	24985	28433	598	12345	974	2702	4679	5902

Notes to Table D-12

- Column 1 : Federal Reserve Board estimates for June 30, 1929.
- Column 2 : Commercial bank units as of June 30, 1929 plus branches as of December 31, 1929 from Federal Reserve Bulletin, April 1930, pp. 152-3, as branch figures as of June 30, 1929 are not available. Branch figures in the Federal Reserve Bulletin include 99 mutual savings bank branches which, however, were not broken down by state and were allocated to them on the basis of the distribution of 124 mutual savings bank branches existing on Dec. 31, 1935 (Banking and Monetary Statistics, p. 311), the first date for which regional figures on mutual savings bank branches are available, allowing for the fact that no branches existed in Connecticut and New Hampshire in 1929.
- Column 3 : Federal Reserve Board estimates for June 30, 1929.
- Column 4 : Data from official state reports compiled by Cellarius, H. F., shown in Bodfish, M., ed., History of Building and Loan in the United States, pp. 136, 627-656.
- Column 5 : Monthly Labor Review, Nov. 1930, p. 2.
- Columns 6 and 7 : Tabulated from Investment Bankers and Brokers of America, (Babize, A. C., Chicago). See Appendix E for a discussion of method of compilation.
- Column 8 : Compiled from Office of Postmaster General, Report of Operations of the Postal Savings System, 1929. Figures refer to June 30, 1929.

Table D-13

D - 41

Number of Selected Financial Intermediaries, by States and Regions, 1949
(percent)

	Commercial banks		Mutual savings banks		Savings and loan asso- ciations	Credit Unions	Personal trust depart- ments	Investment bankers		Postal Savings offices
	Units	Offices	Units	Offices				Units	Offices	
	1	2	3	4	5	6	7	8	9	10
Maine	0.5	0.7	6.0	4.7	0.6	0.5	1.6	1.0	1.1	1.0
New Hampshire	0.5	0.4	6.4	4.8	0.5	0.1	1.1	0.4	0.4	0.7
Vermont	0.5	0.4	1.3	2.2	0.2	0.3	1.6	0.0	0.1	0.3
Massachusetts	1.3	1.9	35.8	31.9	3.4	5.4	3.6	6.4	6.0	2.1
Rhode Island	0.1	0.4	1.7	2.1	0.2	0.5	0.4	0.7	0.9	0.2
Connecticut	0.8	0.8	13.6	10.3	0.8	2.8	3.0	1.3	1.9	1.1
New England	3.7	4.6	64.8	56.0	5.7	9.6	11.3	9.8	10.4	5.4
New York	4.5	7.5	24.5	30.3	3.9	7.9	9.8	30.0	25.1	4.0
New Jersey	2.3	2.6	4.3	4.1	8.3	2.7	7.1	2.7	3.0	2.1
Pennsylvania	6.9	6.2	1.3	3.3	15.1	6.6	13.0	6.6	7.7	5.5
Middle Atlantic	13.7	16.3	30.1	37.7	27.3	17.2	29.9	39.4	35.8	11.6
Ohio	4.7	4.7	0.6	0.4	10.2	6.4	2.6	4.6	4.4	4.0
Indiana	3.4	3.1	0.8	0.5	3.9	3.3	7.1	1.8	1.3	3.3
Illinois	6.3	4.8	-	-	9.8	8.9	4.4	5.6	5.6	5.3
Michigan	3.2	3.6	-	-	1.2	3.2	1.3	2.0	2.4	4.1
Wisconsin	3.9	3.8	0.8	0.5	2.6	5.4	2.1	1.8	1.8	3.0
E. North Central	21.5	20.0	2.2	1.4	27.7	27.2	17.5	15.9	15.5	19.7
Minnesota	4.8	3.7	0.2	0.1	1.2	3.4	0.9	1.6	1.7	3.7
Iowa	4.7	4.4	-	-	1.5	2.1	5.4	0.9	0.9	3.6
Missouri	4.2	3.2	-	-	2.6	4.0	2.3	2.8	2.4	3.1
North Dakota	1.1	0.9	-	-	0.3	0.9	0.1	0.1	0.1	2.1
South Dakota	1.2	1.2	-	-	0.2	0.4	0.3	0.1	0.1	1.7
Nebraska	2.9	2.2	-	-	1.0	0.9	0.6	0.9	1.0	3.0
Kansas	4.3	3.3	-	-	1.7	1.4	1.1	1.1	1.0	3.0
W. North Central	23.2	18.9	0.2	0.1	8.5	13.1	10.7	7.5	7.3	20.3

Table D-13 (cont.)

D - 42

	Commercial banks		Mutual savings banks		Savings and loan asso- ciations	Credit Unions	Personal trust depart- ments	Investment bankers		Postal Savings offices
	Units	Offices	Units	Offices				Units	Offices	
	1	2	3	4				5	6		7	8	9	10
Delaware	0.3	0.3	0.4	0.4	0.7	0.1	1.0	0.1	0.1	0.1
Maryland	1.2	1.5	1.7	3.4	6.0	0.8	1.0	1.2	1.2	0.5
District of Columbia	0.1	0.3	-	-	0.5	1.2	0.4	0.8	0.8	0.0
Virginia	2.2	2.2	-	-	1.2	1.1	3.5	1.0	0.8	1.0
West Virginia	1.3	1.0	-	-	0.6	0.7	1.5	0.2	0.3	1.0
North Carolina	1.6	2.3	-	-	2.9	2.2	1.6	0.8	1.1	2.2
South Carolina	1.1	1.0	-	-	1.2	0.3	0.5	1.2	1.0	1.4
Georgia	2.8	2.3	-	-	1.2	1.5	1.2	1.0	1.2	2.1
Florida	1.4	1.1	-	-	0.9	2.0	1.0	0.9	1.5	2.3
South Atlantic	12.0	12.0	2.1	3.8	14.9	9.9	11.5	7.3	7.9	10.8
Kentucky	2.7	2.3	-	-	2.0	1.1	3.5	0.5	0.5	1.3
Tennessee	2.1	2.0	-	-	0.7	1.5	2.0	1.1	1.1	1.1
Alabama	1.6	1.3	-	-	0.5	0.9	0.8	0.6	0.8	1.2
Mississippi	1.4	1.4	-	-	0.6	0.4	1.5	0.3	0.4	1.5
E. South Central	7.8	7.0	-	-	3.8	3.9	7.8	2.5	2.7	5.2
Arkansas	1.6	1.4	-	-	0.7	0.3	0.8	0.4	0.3	2.3
Louisiana	1.1	1.2	-	-	1.3	1.7	1.5	1.3	1.1	0.9
Oklahoma	2.7	2.1	-	-	1.0	0.8	0.7	0.6	0.6	3.1
Texas	6.4	4.8	-	-	2.4	4.4	2.3	3.0	2.9	4.8
W. South Central	11.8	9.5	-	-	5.4	7.2	5.3	5.3	5.0	11.1

Table D-13 (cont.)

D - 43

	Commercial banks		Mutual savings banks		Savings and loan asso- ciations	Credit Unions	Personal trust depart- ments	Investment bankers		Postal Savings offices
	Units	Offices	Units	Offices				Units	Offices	
	1	2	3	4	5	6	7	8	9	10
Montana	0.8	0.6	-	-	0.3	0.5	0.5	0.1	0.2	1.5
Idaho	0.3	0.5	-	-	0.2	0.4	0.2	0.2	0.2	1.1
Wyoming	0.4	0.3	-	-	0.2	0.2	0.5	0.1	0.1	0.6
Colorado	1.1	0.8	-	-	0.9	1.2	0.9	1.7	1.4	1.8
New Mexico	0.4	0.3	-	-	0.3	0.4	0.1	0.2	0.2	0.7
Arizona	0.1	0.3	-	-	0.1	0.3	0.3	0.2	0.2	0.7
Utah	0.4	0.4	-	-	0.3	0.7	0.4	0.5	0.4	0.5
Nevada	0.1	0.1	-	-	0.0	0.1	0.1	0.1	0.2	0.4
Mountain	3.6	3.3	-	-	2.3	3.8	3.0	3.1	2.8	7.3
Washington	0.9	1.4	0.6	0.8	1.0	1.8	0.8	2.6	2.2	2.3
Oregon	0.5	0.9	0.2	0.1	0.5	0.7	0.3	0.8	0.8	1.7
California	1.5	6.2	-	-	3.0	5.7	1.4	5.8	9.6	4.6
Pacific	2.9	8.5	0.8	0.9	4.5	8.2	2.5	9.2	12.6	8.6
United States, percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
United States, number	14156	18735	531	730	5974	9923	2976	2852	4239	7132

Notes to Table D-13

- Columns 1 to 4 : Tabulated from data in Federal Reserve Bulletin, May 1950, pp. 600-1.
- Column 5 : Home Loan Bank Board, Trends in the Savings and Loan Field 1950, pp. 11-15.
- Column 6 : Department of Labor, Bureau of Labor Statistics data, shown in Statistical Abstract, 1951, p. 417.
- Column 7 : Data for 1947 from Stephenson, Gilbert, "Trust Business in the United States," The Trust Bulletin, April 1948, p. 21. Data in year to which figures refer is not indicated.
- Columns 8 and 9 : Tabulated from Security Dealers of North America (Seibert, D., New York). See Appendix E for method of compilation.
- Column 10 : Offices existing June 30, 1949 from Office of Postmaster General, Report of Operations of the Postal Savings System, 1949.

Table D-14

Number of Selected Financial Intermediaries per 100,000 Inhabitants,
by States and Regions, 1900

	Commercial banks		Mutual Savings banks	Savings and loan associations
	Units	Offices		
	1	2	3	4
Maine	14.2	15.5	7.3	4.7
New Hampshire	17.7	18.0	10.4	3.9
Vermont	19.4	19.4	6.4	..
Massachusetts	10.1	10.1	6.7	4.5
Rhode Island	14.0	15.1	6.7	..
Connecticut	11.4	11.4	9.7	1.7
New England	12.3	12.5	7.5	..
New York	10.6	10.7	1.7	4.0
New Jersey	8.7	9.3	1.3	17.3
Pennsylvania	12.0	12.0	.2	17.5
Middle Atlantic	10.9	11.1	1.1	11.1
Ohio	17.1	17.3	.1	18.2
Indiana	19.1	19.1	.2	16.1
Illinois	20.3	20.3	-	11.7
Michigan	21.4	21.7	-	2.7
Wisconsin	16.7	16.8	.0	2.3
E. North Central	19.0	19.1	.1	11.5
Minnesota	28.6	28.6	.6	1.9
Iowa	51.1	51.1	-	3.5
Missouri	21.7	21.7	-	5.6
North Dakota	45.8	45.8	-	1.8
South Dakota	50.0	50.0	-	..
Nebraska	48.1	48.2	-	5.6
Kansas	32.9	32.9	-	2.7
W. North Central	35.4	35.4	.1	..
Delaware	12.4	14.0	1.1	..
Maryland	10.3	10.3	1.5	..
District of Columbia	7.1	7.1	-	..
Virginia	8.5	9.1	-	..
West Virginia	13.0	13.0	.1	..
North Carolina	6.2	6.2	-	..
South Carolina	10.1	10.2	-	..
Georgia	9.9	10.3	-	..
Florida	7.1	8.0	-	..
South Atlantic	9.2	9.4	.2	..
Kentucky	14.6	14.8	-	..
Tennessee	9.0	9.1	-	1.1
Alabama	5.7	6.0	-	..
Mississippi	7.2	7.8	-	..
E. South Central	9.4	9.7	-	..

Table D-14 (cont.)

	Commercial banks		Mutual Savings banks	Savings and loan associations
	Units	Offices		
	1	2	3	4
Arkansas	9.4	9.4	-	..
Louisiana	5.6	5.6	-	2.3
Oklahoma	18.1	18.1	-	..
Texas	13.3	13.3	-	..
W. South Central	11.5	11.5	-	..
Montana	20.2	20.2	-	..
Idaho	23.5	27.1	-	..
Wyoming	34.4	34.4	-	..
Colorado	21.0	21.0	-	..
New Mexico	7.0	7.0	-	..
Arizona	16.4	18.8	-	..
Utah	13.9	13.9	-	..
Nevada	22.7	22.7	-	..
Mountain	18.8	19.3	-	..
Washington	19.3	19.3	-	..
Oregon	18.4	18.4	-	..
California	18.9	18.9	-	9.7
Pacific	18.9	18.9	-	..
Total United States	16.1	16.3	.8	7.0

(Notes follow Table D-16)

Table D-15

D - 46

Number of Selected Financial Intermediaries per 100,000 Inhabitants, by States and Regions, 1929

	<u>Commercial banks</u>		<u>Mutual Savings banks</u>		Savings and loan associations	<u>Investment bankers</u>		Postal Savings offices
	Units 1	Offices 2	Units 3	Offices 4		Units 6	Offices 7		8
Maine	12.7	20.3	4.1	4.5	.3	2.6	6.1	13.3
New Hampshire	17.6	17.6	8.8	6.2	.6	1.3	2.8	17.2
Vermont	23.6	25.6	5.3	3.9	-	.3	1.4	15.8
Massachusetts	6.2	9.3	4.6	5.3	7.0	5.5	8.4	5.5
Rhode Island	3.5	8.3	1.3	1.2	1.9	2.0	5.8	4.9
Connecticut	12.1	12.1	4.7	2.7	.1	2.7	7.7	7.7
New England	9.2	12.0	4.6	4.4	3.9	3.9	7.2	7.8
New York	8.1	13.5	1.2	2.5	1.0	7.1	9.9	3.3
New Jersey	13.3	15.8	.7	38.7	.3	.6	2.2	4.2
Pennsylvania	16.5	18.3	.1	40.5	.0	1.6	3.5	4.6
Middle Atlantic	12.0	15.6	.7	22.0	.5	4.0	6.4	3.9
Ohio	15.4	19.5	.0	12.2	.0	1.1	2.3	.5
Indiana	30.3	30.6	.2	12.4	1.0	1.0	1.6	6.6
Illinois	23.6	23.6	-	12.1	.5	4.0	5.6	3.8
Michigan	17.6	26.6	-	1.4	.6	1.4	3.2	4.5
Wisconsin	32.6	32.9	.2	6.4	.5	.7	2.4	5.7
E. North Central	22.2	25.1	.1	9.5	.5	2.0	3.4	4.7
Minnesota	41.6	41.8	.2	3.1	1.7	1.9	4.5	7.2
Iowa	56.4	56.4	-	3.0	1.5	1.4	2.8	5.9
Missouri	36.5	36.5	-	6.5	1.2	2.8	5.6	4.2
North Dakota	63.7	63.7	-	2.9	-	.4	.6	11.0
South Dakota	57.1	57.1	-	3.3	-	-	.3	7.6
Nebraska	63.3	63.4	-	6.0	.5	.9	2.0	8.6
Kansas	57.2	57.2	-	8.2	.5	.7	2.3	9.9
W. North Central	49.4	49.4	0	5.0	1.0	1.6	3.5	6.9

Table D-15 (cont.)

D - 47

	<u>Commercial banks</u>		<u>Mutual Savings banks</u>		Savings and loan associations	<u>Investment bankers</u>		Postal Savings offices
	<u>Units</u>	<u>Offices</u>	<u>Units</u>	<u>Offices</u>		<u>Units</u>	<u>Offices</u>	
	1	2	3	4	5	6	7	8
Delaware	19.3	24.4	.8	18.5	-	.4	2.1	5.9
Maryland	13.8	20.6	.9	73.5	.2	3.6	5.1	1.7
District of Columbia	8.4	13.3	-	4.9	.2	3.9	10.3	.2
Virginia	20.1	22.6	-	3.8	1.2	.7	.9	2.9
West Virginia	17.9	17.9	-	3.6	.5	.6	1.2	4.1
North Carolina	14.9	17.3	-	7.5	1.5	.4	.6	1.9
South Carolina	12.8	16.1	-	8.7	.3	.6	.8	2.0
Georgia	15.2	16.5	-	1.2	1.3	.6	1.2	2.5
Florida	17.4	17.4	-	4.7	.1	.5	1.1	6.5
South Atlantic	15.8	18.3	.1	12.1	.8	1.0	1.7	2.8
Kentucky	21.8	22.9	-	6.0	.4	.7	1.3	2.7
Tennessee	18.7	21.3	-	1.5	.6	.6	1.1	2.0
Alabama	13.2	13.9	-	1.5	1.5	.3	.8	2.0
Mississippi	15.8	17.0	-	2.1	-	.1	.3	2.8
E. South Central	17.5	18.9	-	2.8	.6	.5	.9	2.5
Arkansas	22.7	22.8	-	3.8	.2	.4	.7	4.7
Louisiana	10.8	15.8	-	5.0	.3	.9	1.3	2.4
Oklahoma	27.2	27.2	-	3.8	.1	.5	.9	6.6
Texas	24.3	24.3	-	3.0	.2	.6	1.1	3.9
W. South Central	22.3	23.2	-	3.6	.2	.6	1.0	4.3

Table D-15 (cont.)

D - 48

	<u>Commercial banks</u>		<u>Mutual Savings banks</u>		Savings and loan associations	<u>Investment bankers</u>		Postal Savings offices
	<u>Units</u>	<u>Offices</u>	<u>Units</u>	<u>Offices</u>		<u>Units</u>	<u>Offices</u>	
	1	2	3	4	5	6	7	8
Montana	36.8	36.8	-	5.0	.2	.6	.9	14.5
Idaho	30.8	30.8	-	3.1	-	1.3	1.8	16.2
Wyoming	38.5	38.5	-	5.8	-	-	.4	16.4
Colorado	26.9	26.9	-	6.7	.2	5.7	7.4	10.1
New Mexico	13.7	13.7	-	4.5	-	-	.2	10.6
Arizona	10.8	15.8	-	1.8	.5	.5	1.1	8.7
Utah	20.7	20.7	-	4.7	1.0	2.6	3.0	4.5
Nevada	38.5	38.5	-	4.4	-	1.1	1.1	27.5
Mountain	25.6	26.1	-	4.8	.3	2.3	3.1	11.4
Washington	21.7	22.0	.3	4.7	.4	2.2	4.3	9.1
Oregon	24.6	24.7	-	4.1	.3	.9	3.0	10.6
California	7.9	23.1	-	3.9	.3	3.5	7.0	4.5
Pacific	12.4	23.1	.1	4.1	.3	3.0	6.0	6.1
Total United States	20.4	23.2	.5	10.1	.8	2.2	3.8	4.8

(Notes follow Table D-16)

Table D-16

D - 49

Number of Selected Financial Intermediaries per 100,000 Inhabitants, by States and Regions, 1949

	Commercial banks		Mutual savings banks		Savings and loan associations	Personal trust depart- ments	Credit unions	Investment bankers		Postal Savings offices
	Units	Offices	Units	Offices				Units	Offices	
	1	2	3	4				5	6		7	8	9	10
Maine	7.0	14.7	3.5	3.7	3.8	5.5	4.9	3.2	5.1	8.0
New Hampshire	14.3	14.6	6.4	6.6	5.1	6.8	2.4	1.9	3.6	8.8
Vermont	18.5	21.4	1.9	4.2	2.6	13.8	7.9	.3	1.1	6.3
Massachusetts	3.9	7.5	4.1	5.0	4.4	2.3	11.5	3.9	5.4	3.2
Rhode Island	2.4	9.2	1.1	1.9	1.1	1.7	6.1	2.7	4.8	1.9
Connecticut	5.8	7.6	3.6	3.7	2.4	4.6	13.7	1.8	4.0	3.9
New England	5.7	9.4	3.7	4.4	3.6	3.8	10.2	3.0	4.7	4.1
New York	4.3	9.4	.9	1.5	1.6	2.1	5.3	5.8	7.2	1.9
New Jersey	6.9	10.0	.5	.6	10.2	4.7	5.6	1.6	2.6	3.1
Pennsylvania	9.3	11.0	.1	.2	8.6	3.9	6.2	1.8	3.1	3.7
Middle Atlantic	6.5	10.1	.5	.9	5.4	3.1	5.7	3.7	5.0	2.7
Ohio	8.3	11.0	.0	.0	7.7	1.0	8.0	1.7	2.3	3.6
Indiana	12.4	14.9	.1	.1	5.9	5.7	8.3	1.3	1.4	6.0
Illinois	10.2	10.3	-	-	6.7	1.6	10.2	1.8	2.7	4.3
Michigan	7.0	10.5	-	-	1.1	.6	5.1	.9	1.6	4.6
Wisconsin	16.1	20.5	.1	.1	4.5	1.9	15.6	1.5	2.2	6.1
E. North Central	10.0	12.3	.0	.0	5.4	1.8	8.9	1.5	2.2	4.6
Minnesota	22.9	23.1	.0	.0	2.4	.9	11.3	1.5	2.5	8.9
Iowa	25.3	31.6	-	-	3.4	6.7	7.8	1.0	1.5	9.7
Missouri	15.1	15.1	-	-	3.9	1.8	9.9	2.0	2.6	5.7
North Dakota	24.2	27.7	-	-	2.6	.7	14.5	.6	.6	24.7
South Dakota	25.9	33.2	-	-	1.8	1.4	5.5	.5	.5	18.5
Nebraska	31.3	31.4	-	-	4.4	1.5	6.5	2.0	3.2	16.4
Kansas	32.0	32.0	-	-	5.4	1.8	7.0	1.6	2.3	11.1
W. North Central	23.4	25.1	.0	.0	3.6	2.4	9.1	1.5	2.2	10.3

Table D-16 (cont.)

	Commercial banks		Mutual savings banks		Savings and loan associations	Personal trust depart- ments	Credit unions	Investment bankers		Postal Savings offices
	Units	Offices	Units	Offices				Units	Offices	
	1	2	3	4	5	6	7	8	9	10
Delaware	11.9	16.7	.6	.9	12.6	10.0	3.1	1.3	1.9	3.1
Maryland	7.0	11.9	.4	1.1	15.2	1.3	3.4	1.5	2.1	1.5
District of Columbia	2.4	7.5	-	-	3.5	1.2	15.0	2.7	4.1	.1
Virginia	9.4	12.7	-	-	2.2	3.2	3.3	.9	1.0	2.2
West Virginia	9.0	9.0	-	-	1.8	2.4	3.3	.3	.5	3.7
North Carolina	5.6	10.4	-	-	4.3	1.3	5.5	.6	1.2	3.9
South Carolina	7.1	9.1	-	-	3.4	.8	1.4	1.6	2.0	4.7
Georgia	11.5	12.6	-	-	2.1	1.1	4.4	.8	1.5	4.4
Florida	7.0	7.1	-	-	2.0	1.2	7.3	.9	2.3	6.0
South Atlantic	7.9	10.6	.1	.1	4.3	1.7	4.7	1.0	1.6	3.6
Kentucky	13.1	14.5	-	-	4.1	3.7	3.9	.5	.7	3.3
Tennessee	9.0	11.6	-	-	1.2	1.9	4.6	1.0	1.4	2.4
Alabama	7.3	8.1	-	-	.9	.8	2.8	.5	1.0	2.9
Mississippi	9.3	12.2	-	-	1.5	2.2	1.6	.4	.7	4.9
E. South Central	9.7	11.5	-	-	1.9	2.1	3.4	.6	1.0	3.2
Arkansas	12.1	13.2	-	-	2.1	1.3	1.7	.6	.7	8.5
Louisiana	6.0	8.7	-	-	2.8	1.7	6.4	1.4	1.8	2.4
Oklahoma	17.3	17.3	-	-	2.7	1.0	3.6	.8	1.1	9.8
Texas	11.7	11.8	-	-	1.9	.9	5.7	1.1	1.6	4.5
W. South Central	11.6	12.3	-	-	2.2	1.1	5.0	1.0	1.4	5.4

Table D-16 (cont.)

D - 51

	Commercial banks		Mutual savings banks		Savings and loan associations	Personal trust depart- ments	Credit unions	Investment bankers		Postal Savings offices
	Units	Offices	Units	Offices				Units	Offices	
	1	2	3	4	5	6	7	8	9	10
Montana	18.8	18.8	-	-	3.2	2.7	7.8	.7	1.2	18.4
Idaho	7.3	16.3	-	-	1.9	1.2	5.9	.8	1.2	13.9
Wyoming	18.2	18.2	-	-	3.4	5.8	5.8	1.4	1.4	14.4
Colorado	11.2	11.3	-	-	3.8	2.3	8.7	3.6	4.4	9.6
New Mexico	7.5	9.3	-	-	2.8	.5	5.6	1.0	1.2	7.5
Arizona	1.3	8.3	-	-	.8	1.3	4.0	.8	1.3	6.6
Utah	8.0	11.3	-	-	2.8	1.8	9.9	1.9	2.3	4.9
Nevada	5.0	16.9	-	-	1.2	2.0	6.2	1.2	5.0	18.8
Mountain	9.5	12.6	-	-	2.7	2.0	7.1	1.8	2.3	10.3
Washington	5.1	10.7	.1	.3	2.6	1.0	7.4	3.1	3.9	6.8
Oregon	4.6	10.9	.1	.1	1.8	.5	4.7	1.4	2.1	8.1
California	1.9	10.9	-	-	1.7	.4	5.3	1.6	3.9	3.1
Pacific	2.7	10.9	.0	.0	1.9	.5	5.6	1.8	3.7	4.2
Total United States	9.4	12.4	.4	.5	4.0	2.1	6.6	1.9	2.8	4.7

(Notes on next page)

Notes to Tables D-14 to D-16

Number of financial intermediaries from sources to Appendix Tables D-11, D-12, and D-13 for 1900, 1929 and 1949 respectively. Population data for 1900 (average of July 1, 1900 and July 1, 1901) were obtained from Bureau of the Census, Vital Statistics Rates in the United States, 1900-1940, pp. 824-839; for 1929, 1947 and 1949 from Statistical Abstract, 1952, pp. 11, 14. The Census figure for April 1930 is applied to the 1929 data; the intercensal estimate for July 1, 1947 is applied to personal trust departments in Table D-13, since personal trust data are for 1947 and the Census figure for April 1950 is used throughout Table D-13.

Table D-17

D - 53

Number of Selected Financial Intermediaries per \$100 Million Income Payments to Individuals, by States and Regions,
1929

	<u>Commercial banks</u>		Mutual Savings banks	Savings and loan associations	Credit unions	<u>Investment bankers</u>		Postal Savings offices
	Units 1	Offices 2				Units 6	Offices 7	
Maine	22.5	36.1	7.3	8.0	.4	4.7	10.9	23.6
New Hampshire	27.2	27.2	13.6	9.6	1.0	2.0	4.3	26.5
Vermont	39.4	42.6	8.8	6.5	-	.5	2.3	26.4
Massachusetts	6.9	10.5	5.2	6.0	7.9	6.2	9.5	6.2
Rhode Island	4.1	9.8	1.6	1.4	2.2	2.4	6.9	5.9
Connecticut	13.4	13.4	5.1	3.0	.1	3.0	8.4	8.4
New England	11.0	14.5	5.5	5.3	4.7	4.7	8.7	9.3
New York	7.0	11.8	1.0	2.1	.9	6.1	8.6	2.8
New Jersey	16.5	19.6	.8	47.8	.3	.8	2.7	5.1
Pennsylvania	21.7	24.0	.1	53.1	0	2.0	4.6	6.1
Middle Atlantic	12.5	16.4	.7	23.0	.6	4.2	6.7	4.1
Ohio	20.9	26.3	.1	16.5	.1	1.5	3.2	6.1
Indiana	52.3	52.7	.3	21.4	1.7	1.7	2.8	11.4
Illinois	25.6	25.6	-	13.2	.6	4.4	6.1	4.1
Michigan	24.0	36.4	-	1.9	.8	1.9	4.4	6.1
Wisconsin	51.8	52.3	.3	10.1	.8	1.1	3.8	9.1
E. North Central	29.2	33.0	.1	12.5	.6	2.6	4.5	6.2
Minnesota	73.9	74.4	.3	5.5	3.0	3.3	8.0	12.8
Iowa	103.4	103.4	-	5.5	2.7	2.5	5.1	10.8
Missouri	60.0	60.0	-	10.7	1.9	4.6	9.2	6.9
North Dakota	164.4	164.4	-	7.6	-	1.1	1.5	28.4
South Dakota	137.5	137.5	-	8.0	-	-	.7	18.4
Nebraska	114.1	114.1	-	10.9	.9	1.6	3.7	15.4
Kansas	107.9	107.9	-	15.5	1.0	1.3	4.4	18.7
W. North Central	89.7	89.9	.1	9.2	1.9	2.9	6.4	12.5

Table D-17 (cont.)

D - 54

	Commercial banks		Mutual Savings banks	Savings and loan associations	Credit unions	Investment bankers		Postal Savings offices
	Units	Offices				Units	Offices	
	1	2	3	4	5	6	7	8
Delaware	21.1	26.6	.9	20.2	-	.5	2.3	6.4
Maryland	20.3	30.4	1.3	108.5	.3	5.3	7.6	2.5
District of Columbia	6.4	10.2	-	3.8	.2	3.0	7.8	0.2
Virginia	49.3	55.5	-	9.2	3.0	1.6	2.2	7.1
West Virginia	39.1	39.1	-	7.9	1.1	1.4	2.5	9.0
North Carolina	48.9	56.8	-	24.6	4.8	1.4	2.0	6.2
South Carolina	50.9	63.9	-	34.5	1.1	2.3	3.2	7.8
Georgia	46.2	50.3	-	3.8	4.1	1.7	3.8	7.5
Florida	36.8	36.8	-	9.9	.1	1.0	2.3	13.8
South Atlantic	36.8	42.4	.2	28.2	2.0	2.3	3.9	6.6
Kentucky	59.2	62.1	-	16.4	1.0	2.0	3.4	9.3
Tennessee	54.1	61.7	-	4.2	1.7	1.9	3.2	5.7
Alabama	43.6	46.0	-	5.0	4.9	1.0	2.5	6.5
Mississippi	58.3	62.9	-	7.9	-	.4	1.1	10.5
E. South Central	53.7	58.1	-	8.7	2.0	1.4	2.7	7.8
Arkansas	74.7	75.3	-	12.6	.5	1.4	2.3	15.7
Louisiana	26.2	38.5	-	12.3	.7	2.2	3.2	5.8
Oklahoma	60.3	60.3	-	8.4	.3	1.1	1.9	14.7
Texas	53.0	53.0	-	6.6	.4	1.4	2.4	8.5
W. South Central	52.4	54.5	-	8.6	.5	1.5	2.5	10.1

Table D-17 (cont.)

D - 55

	<u>Commercial banks</u>		Mutual Savings banks	Savings and loan associations	Credit unions	<u>Investment bankers</u>		Postal Savings offices
	Units	Offices				Units	Offices	
	1	2	3	4	5	6	7	8
Montana	60.9	60.9	-	8.3	.3	.9	1.5	24.0
Idaho	59.6	59.6	-	6.1	-	2.6	3.5	31.3
Wyoming	56.5	56.5	-	8.4	-	-	.6	24.0
Colorado	44.1	44.1	-	10.9	.3	9.3	12.2	16.6
New Mexico	36.0	36.0	-	11.8	-	-	.6	28.0
Arizona	19.2	28.2	-	3.3	.8	.8	2.0	15.5
Utah	38.6	38.6	-	8.8	1.8	4.8	5.5	8.5
Nevada	47.3	47.3	-	5.4	-	1.4	1.4	33.8
Mountain	45.2	46.2	-	8.5	.5	4.0	5.4	20.2
Washington	30.7	31.2	.5	6.6	.5	3.2	6.1	12.9
Oregon	39.0	39.1	-	6.5	.5	1.5	4.8	16.7
California	8.5	25.1	-	4.3	.4	3.8	7.6	4.8
Pacific	14.7	27.3	.1	4.8	.4	3.5	7.1	7.2
Total United States	30.2	34.4	.7	14.9	1.2	3.3	5.7	7.1

(Notes follow Table D-18)

Table D-18

D - 56

Number of Selected Financial Intermediaries per \$100 Million Income Payments to Individuals, by States and Regions, 1949

	Commercial banks		Mutual Savings banks		Savings and loan associa- tions	Personal trust depart- ments	Credit unions	Investment bankers		Postal Savings offices
	Units	Offices	Units	Offices				Units	Offices	
	1	2	3	4	5	6	7	8	9	10
Maine	6.2	13.0	3.1	3.3	3.4	4.8	4.4	2.8	4.6	7.1
New Hampshire	12.3	12.6	5.5	5.6	4.4	5.7	2.1	1.6	3.1	7.6
Vermont	17.2	19.9	1.7	3.9	2.5	12.2	7.4	.2	1.0	5.9
Massachusetts	2.7	5.1	2.8	3.4	3.0	1.7	7.8	2.7	3.7	2.1
Rhode Island	1.7	6.6	.8	1.3	.8	1.2	4.3	1.9	3.4	1.3
Connecticut	3.6	4.8	2.2	2.3	1.5	2.9	8.5	1.1	2.5	2.4
New England	4.0	6.6	2.6	3.1	2.5	2.7	7.1	2.1	3.3	2.9
New York	2.4	5.3	.5	.8	.9	1.2	3.0	3.3	4.1	1.1
New Jersey	4.7	6.9	.3	.4	7.0	3.2	3.9	1.1	1.8	2.1
Pennsylvania	6.8	8.1	.0	.2	6.3	2.8	4.5	1.3	2.3	2.7
Middle Atlantic	4.1	6.4	.3	.6	3.4	2.0	3.6	2.4	3.2	1.7
Ohio	5.8	7.7	.0	.0	5.4	.7	5.6	1.2	1.6	2.5
Indiana	9.5	11.5	.1	.1	4.6	4.4	6.4	1.0	1.1	4.6
Illinois	6.3	6.4	-	-	4.2	1.6	6.3	1.1	1.7	2.7
Michigan	5.0	7.5	-	-	.8	.5	3.6	.6	1.1	3.3
Wisconsin	12.3	15.7	.1	.1	3.4	1.5	12.0	1.2	1.7	4.7
E. North Central	6.9	8.5	.0	.0	3.8	1.3	6.2	1.0	1.5	3.2
Minnesota	18.8	18.9	.0	.0	2.0	.8	9.3	1.3	2.0	7.3
Iowa	20.1	25.1	-	-	2.7	5.6	6.2	.8	1.2	7.7
Missouri	11.9	11.9	-	-	3.1	1.5	7.8	1.6	2.0	4.4
North Dakota	21.7	24.9	-	-	2.3	.5	13.0	.6	.6	22.1
South Dakota	23.3	29.9	-	-	1.7	1.0	5.0	.4	.4	16.7
Nebraska	25.0	25.1	-	-	3.5	1.2	5.2	1.6	2.6	13.1
Kansas	26.8	26.8	-	-	4.5	1.3	5.9	1.3	1.9	9.3
W. North Central	19.0	20.4	.0	.0	2.9	1.9	7.4	1.2	1.8	8.3

Table D-18 (cont.)

D - 57

	Commercial banks		Mutual Savings banks		Savings and loan associa- tions	Personal trust depart- ments	Credit unions	Investment bankers		Postal Savings offices
	Units	Offices	Units	Offices				Units	Offices	
	1	2	3	4	5	6	7	8	9	10
Delaware	7.1	9.9	.4	.6	7.5	6.6	1.9	.7	1.1	1.9
Maryland	5.3	9.1	.3	.8	11.6	1.1	2.6	1.1	1.6	1.1
District of Columbia	1.0	3.2	-	-	1.5	.6	6.3	1.2	1.7	0.1
Virginia	9.7	13.0	-	-	2.3	3.5	3.3	.9	1.0	2.3
West Virginia	9.3	9.3	-	-	1.9	2.4	3.4	.4	.6	3.8
North Carolina	6.8	12.6	-	-	5.2	1.5	6.6	.7	1.4	4.7
South Carolina	9.5	12.1	-	-	4.5	1.1	1.9	2.1	2.6	6.3
Georgia	13.5	14.8	-	-	2.5	1.2	5.1	1.0	1.8	5.2
Florida	6.5	6.7	-	-	1.9	1.2	6.9	.9	2.1	5.6
South Atlantic	7.8	10.4	.1	.1	4.2	1.7	4.6	1.0	1.6	3.6
Kentucky	15.6	17.2	-	-	4.8	4.5	4.6	.6	.8	3.9
Tennessee	10.4	13.5	-	-	1.4	2.2	5.3	1.1	1.7	2.8
Alabama	9.8	10.8	-	-	1.2	1.1	3.8	.7	1.4	3.8
Mississippi	15.2	20.0	-	-	2.5	3.3	2.6	.7	1.2	8.0
E. South Central	12.4	14.8	-	-	2.5	2.7	4.3	.8	1.3	4.1
Arkansas	15.9	17.4	-	-	2.8	1.7	2.3	.8	1.0	11.2
Louisiana	6.1	8.8	-	-	2.9	2.0	6.5	1.4	1.8	2.5
Oklahoma	16.9	16.9	-	-	2.7	1.0	3.5	.7	1.1	9.6
Texas	9.8	9.9	-	-	1.6	.8	4.7	.9	1.3	3.7
W. South Central	10.8	11.4	-	-	2.1	1.1	4.6	1.0	1.3	5.1

Table D-18 (cont.)

D - 58

	Commercial banks		Mutual Savings banks		Savings and loan associa- tions	Personal trust depart- ments	Credit unions	Investment bankers		Postal Savings offices
	Units	Offices	Units	Offices				Units	Offices	
	1	2	3	4	5	6	7	8	9	10
Montana	14.5	14.5	-	-	2.5	1.8	6.0	.5	.9	14.3
Idaho	6.1	13.6	-	-	1.6	.9	5.0	.7	1.0	11.6
Wyoming	13.0	13.0	-	-	2.5	4.0	4.2	1.0	1.0	10.3
Colorado	8.8	8.8	-	-	3.0	1.7	6.8	2.8	3.4	7.5
New Mexico	7.5	9.3	-	-	2.8	.5	5.6	1.0	1.2	7.5
Arizona	1.2	7.4	-	-	.7	1.2	3.6	.7	1.2	5.9
Utah	6.8	9.6	-	-	2.3	1.6	8.4	1.6	2.0	4.2
Nevada	3.0	10.2	-	-	.8	1.2	3.8	.8	3.0	11.3
Mountain	7.8	10.4	-	-	2.2	1.6	5.8	1.4	1.9	8.5
Washington	3.5	7.3	.1	.2	1.7	.7	5.0	2.1	2.7	4.6
Oregon	3.4	8.0	.0	.0	1.3	.4	3.5	1.1	1.5	5.9
California	1.2	6.9	-	-	1.1	.3	3.3	1.0	2.4	1.9
Pacific	1.8	7.0	.0	.0	1.2	.3	3.6	1.2	2.4	2.7
Total United States	7.2	9.5	.3	.4	3.0	1.6	5.0	1.4	2.2	3.6

(Notes on next page)

Notes to Tables D-17 and D-18

Number of financial intermediaries derived from sources to Tables D-15 and D-16 for 1929 and 1949 respectively. Income payments -- no statistics are available prior to 1929 -- are obtained from Survey of Current Business, August 1952, p. 16. (Income payments for 1947 are applied to personal trust departments since data on their number refer to that year.)

APPENDIX E

STATISTICS OF INVESTMENT BANKING OUTLETS

APPENDIX E

STATISTICS OF INVESTMENT BANKING OUTLETS

1. Approach

There are no detailed statistics of the investment banking machinery -- i.e. the number of firms, offices and employees -- before the mid-thirties when the Securities and Exchange Commission began publishing data on brokers and dealers registered under Section 15 of the Securities Exchange Act of 1934. Even these statistics, though giving the most important totals by states, are not set up to permit a study of the structure of the investment banking machinery. They include a number of firms not engaged in the distribution of new securities; the figures are not tabulated by cities; and no information is given on branch systems.

It is therefore necessary, unfortunately, to start almost afresh if we want to obtain a quantitative picture of investment banking outlets and their geographic distribution and interrelation. The only sources for such a picture are trade directories, and even these are available only beginning with 1914. The shortcomings of such directories are obvious. They may not be complete or entirely reliable. More importantly, they are often vague, particularly in early years, about the activities of the firms listed, making it difficult to distinguish firms actually distributing new securities from those limited to dealing in outstanding securities or primarily engaged in other financial activities. The directories furthermore contain information only on the number of firms and offices, and possibly on the form of organization; but they say nothing about the size of the firms.

To make matters more difficult there is no trade directory which has been published for the entire period from 1914 on a uniform basis. Indeed, before World War I there is no choice, the only directory available being Investment Bankers and Brokers of America, published by Henry W. Sites. In recent years the only directory is Security Dealers of North America, published by D. Seibert, New York. For 1929 Investment Bankers and Brokers of America, published by A. C. Babize, Chicago, was used as it appeared to be a successor to Sites' directory of the same name, and thus promised to be more comparable to the 1914 volume than other directories available for 1929.

The tables derived from these directories obviously cannot be regarded as exhaustive or exact statistics of investment banking outlets. The objective has been to include all firms, and only those, that participate in the distribution of new corporate and foreign securities, excluding firms limited to brokerage and dealing in outstanding securities as well as firms which distribute government securities only. This objective has been approached for 1949 somewhat more closely than for 1929 and distinctly more closely than for 1913, as the following notes will indicate. There is little doubt that the tabulations for 1913, and to a smaller extent those for 1929, include a number of firms which are predominantly brokers and dealers in outstanding securities, and would not have been included in the 1949 tabulations which could use the more detailed and presumably more reliable descriptions in the more recent directories. On the other hand there is indication that the 1929 tabulations are not complete for the security affiliates of smaller commercial banks, a category of investment outlets which did not exist in either 1914 or 1949. The data for the three benchmark dates are thus not entirely comparable. There seems to be no way to overcome this defect so

long as trade directories -- supplemented for 1949 by the listing of Securities and Exchange Commission registrants -- must be used as the main source of statistics. While the differences are far from negligible, they are not regarded as invalidating the major trends shown by the figures. But these differences and shortcomings must, of course, be taken carefully into account when interpreting the statistics.

2. Coverage

All firms were included which were listed in the trade directories if the description of their activities indicated, directly or by inference, participation in security distribution or investment banking business. Brokerage houses which also carried on investment banking operations were considered within the definition. Those firms whose only listed activity was brokerage, commission business or similar descriptions were excluded, as were firms whose activities were essentially the making or arranging of noncorporate real estate mortgage, or collateral and personal loans.

On the basis of the description of activities given in the trade directories, three principal categories of firms were distinguished: (1) Investment Bankers; (2) Commercial Banks; and (3) Investment Bankers dealing exclusively in municipal securities.

In the 1914 directory the business activity for a large number of firms listed was described simply as "Investment securities." In the absence of other indications bearing on their activities all the firms which showed this designation were included. The number of firms which fell into this classification in 1913 was large relative to that shown for 1929, and it was found that a number of firms whose activity was described as "Investment

securities" for 1913 were listed in later directories as brokers or as dealers in municipals. Consequently, a further breakdown was attempted by comparing the description of firms whose names were listed without substantial change in the 1913 and in the 1923 and 1930 directories. Approximately one-fifth of the 1913 firms were subjected to this test, and between 20 and 30 per cent were found to be listed in later and more comprehensive directories as brokers or dealers in municipal securities and thus probably should not have been included in the tabulation for 1913.

Firms included in the directories but eliminated from the tabulation were those for whom no business activity was listed or whose activities were described as follows: stock, bond, or commodity brokers; stock exchange members (without additional description of activities); traders and brokers in securities; traders and dealers in securities who are sole proprietors; curb brokers and floor brokers; agents or representatives of investment banking firms; agents for foreign banking firms; odd lot dealers; put and call brokers; commercial bankers (all excluded in 1949, those not members of I.B.A. excluded in 1913 and 1929); consulting financiers; dealers in commercial paper or foreign exchange; investment managers; mine owners and operators; financiers of automobile dealers' conditional contracts; dealers in controlling blocks of securities; dealers in, or distributors of first mortgage investments; representatives for domestic firms; specialists; consultants; advisors; in receivership or undergoing liquidation; "mail returned," "office closed," or "retired from business."

3. Completeness of Directories

The directories appear to have listed the vast majority of security dealers and brokers and investment bankers. Omissions may be discounted as minor

with the exception, already mentioned, of security affiliates of smaller banks in 1929. However, discrepancies were noted in comparing the various directories as to the nature and completeness of the description of the business activity of the firms listed.

As a check on the completeness of the tabulations the results of the 1949 tabulation were compared with those published by the Securities and Exchange Commission for the same year. The Securities and Exchange Commission figures show 3,959 brokers and dealers registered under Section 15 of the Securities Exchange Act of 1934. (Sixteenth Annual Report of the Securities and Exchange Commission, p. 194.) The tabulation for 1949 based on the directory indicated a total of 2,852 security distributors and investment banking outlets. (See columns 1 and 2 of Table E-3.) The difference of 1,107 may be accounted for in several ways. By definition these tabulations are limited to investment bankers and security dealers. The Securities Exchange Act, on the other hand, requires the registration of all brokers and dealers using instrumentalities of interstate commerce to effect transactions in securities. Hence, many Securities and Exchange Commission registrants had to be eliminated because they were designated as brokers in the directories. Further comparison with the New York City registrants revealed approximately 100 registrants who were classified as specialists and therefore omitted. Finally, a considerable number of firms register with the Securities and Exchange Commission although their business is limited to dealing in government securities. While detailed reconciliation is not possible it would appear that these categories of registrants, which are excluded from the tabulations of investment banking outlets, are sufficient to account for the difference between the two sets of figures. Comparison of directory listings and Securities and Exchange Commission

registrants for a number of cities failed to show a significant number of firms apparently engaged in the distribution of securities but not listed in the directory. If the directories, and hence the tabulations, err it is rather in including a number of firms which on strict definition can not be regarded as distributors of new corporate and foreign securities.

4. Commercial Bank Affiliates

A total of 70 bank affiliates with 248 branches were listed in Investment Bankers and Brokers of America, 1930, and were tabulated for 1929. It is known, however, that there were at least 192 security affiliates of National Banks alone in 1931,¹ although some of these may have been very small, in-

¹ Senate Document 4118, p. 135.

active or limited to government securities; and that numerous non-national banks also possessed such affiliates.² The directories thus are clearly

² W. N. Peach, using Security Dealers of North America as source found 132 bank affiliates, including 84 of national banks. (The Security Affiliates of National Banks, 1941, p. 83.) Peach argues that the tabulation of the Federal Reserve Board for 1931 referred to in the text used a broader definition of security affiliates.

incomplete for this group. However, as the tabulations were limited to firms included in the directory no further attempt was made to identify the unlisted bank affiliates which in 1929 may have numbered from 200 to 300.

5. Treatment of Branch Offices

In a limited number of cases the listing indicated the existence of a branch (or branches) when listing the head office, but did not list the other office separately in the geographical breakdown of the directory. In such instances

the offices were included in the tabulations on the assumption that the exclusion from the text was probably due to defects in the mechanics of setting up the directory.

In the majority of cases the directory differentiated between the head and branch office. However, in a few cases where the directory did not supply the information and an arbitrary decision had to be made to designate the head office the following criteria, listed in order of importance, were used -- (1) the office located in the city wherein membership in the Investment Bankers Association was indicated; (2) the office located in the area indicated by the description of the business activity, i.e. "Pacific Securities"; (3) the office not operated by an office manager; (4) the office located in the larger financial center. If a firm had a branch which did not handle securities, that branch was omitted.

Firms with foreign affiliates were included with certain limitations. American head offices having only foreign branches were treated as firms without branches. Branch offices of foreign firms were treated as branch offices without a counterpart head office.

6. Determination of Form of Organization

Generally, the name of the firm was used to determine its type of business organization since the directories do not specifically indicate whether a firm is a proprietorship, partnership, or corporation. Three classifications were distinguished: sole proprietors, partnerships, and corporations. A listing in the directories such as John D. Doe was interpreted as indicating sole proprietorship. All firm names such as John Doe and Company, J. & D. Doe, Doe Brothers, or Smith and Doe, were classified as partnerships.

Where information was lacking in the title of the firm, firm names such as the John Doe Company, the Doe Investment Company, or the Doe Bond and Stock Company were considered corporations. All commercial banks were classified as corporations. In all cases, a head office and its corresponding branch offices were given the same classification by type of business organization.

It is probable, and corroborated for 1949 by comparison with the listing of firms registered with the Securities and Exchange Commission, that this method of classification treats a number of partnerships as sole proprietorships, and a number of corporations as partnerships. The tabulations, therefore, almost certainly understate the number of corporations and overstate the number of sole proprietorships, while the effect on the number of partnerships is uncertain.

Table E-1

Number of Investment Banking Outlets by State; 1913

State	Firms with Main Office within State				Out-of-State Firms			All Firms	
	Firms without branches (1)	Firms with Branches (2)		Branches in other states (4)	N.Y. City (5)		Other Branches within state (6)	Offices within state ^a (7)	Branches within state ^b (8)
		Firms (2)	Branches within state (3)		Branches within state (5)	Branches within state (6)			
Alabama	6	...	...	...	...	...	6	...
Arizona	...	...	...	...	...	...	...	...
Arkansas	1	...	...	...	...	...	1	...
California	101	4	5	1	5	2	117	12	
Colorado	15	2	...	2	...	4	21	4	
Connecticut	26	4	4	3	12	11	57	27	
Delaware	3	...	...	...	...	...	3	...
District of Columbia	34	...	...	...	4	2	40	6
Florida	2	...	...	...	...	...	2	...
Georgia	9	1	...	1	1	...	11	1	
Idaho	...	...	...	...	...	...	...	...
Illinois	76	14	...	25	25	18	133	43	
Indiana	10	...	...	...	...	1	11	1
Iowa	3	1	...	1	...	1	5	1	
Kansas	...	...	...	...	...	...	...	...
Kentucky	17	...	...	...	...	...	17	...
Louisiana	52	1	1	...	2	...	56	3	
Maine	14	2	2	...	...	8	26	10
Maryland	50	2	...	2	7	3	62	10	
Massachusetts	236	32	12	78 ^c	26	10	316	48	
Michigan	19	...	...	...	5	13	37	18
Minnesota	19	4	4	...	2	2	31	8	
Mississippi	...	...	...	...	...	...	...	...
Missouri	53	3	...	4	3	1	60	4	
Montana	1	...	...	...	...	1	2	1
Nebraska	1	...	...	...	...	1	2	1
Nevada	4	...	...	...	...	...	4	...
New Hampshire	1	...	...	...	...	...	1	...
New Jersey	19	2	2	1	5	...	28	7	

Table E-1 (cont.)

State	Firms with Main Office within State			Out-of-State Firms		All Firms	
	Firms without branches (1)	Firms with Branches (2)		N.Y. City Branches within state (5)	Other Branches within state (6)	Offices within state (7)	Branches within state ^b (8)
		(3)	(4)	(5)	(6)	(7)	(8)
New Mexico	...	...	...	...	...	...	...
New York	976	70	32 ^d	...	61	1,139	93
North Carolina	3	...	...	...	...	3	...
North Dakota	...	...	...	...	...	...	...
Ohio	64	9	6	7	4	90	17
Oklahoma	2	...	...	...	1	3	1
Oregon	2	1	...	...	2	5	2
Pennsylvania	212	25	16	29	5	287	50
Rhode Island	23	3	...	2	7	35	9
South Carolina	4	...	...	...	...	4	...
South Dakota	...	...	...	...	...	...	...
Tennessee	10	...	...	1	...	11	1
Texas	9	...	...	...	...	9	...
Utah	45	1	2	...	...	48	2
Vermont	...	...	...	...	...	...	...
Virginia	5	1	...	1	...	7	1
Washington	12	...	...	1	...	14	2
West Virginia	3	...	...	...	...	3	...
Wisconsin	8	...	...	...	6	14	6
Wyoming	...	...	...	...	...	...	...
Total U.S.	2,150	182	86	306 ^f	138	2,721	389

^a Sum of cols. 1, 2, 3, 5 and 6.
^b Sum of cols. 3, 5 and 6.
^c Includes 1 foreign branch.
^d Of the 32 branches, 29 belong to New York City firms.
^e Includes 2 foreign branches.
^f Differs from the sum of cols. 5 and 6 because col. 4 includes 3 foreign branches.

Source: See text of Appendix E.

Table E-2
Number of Investment Banking Outlets by State; 1929

State	Firms with Main Office within State			Out-of-State Firms			All Firms	
	Firms without branches (1)	Firms (2)	Branches within state (3)	Branches within state (4)	N.Y. City Branches within state (5)	Other Branches within state (6)	Offices within state (7)	Branches within state (8)
Alabama	5	3	5	1	3	4	20	12
Arizona	1	1	3	2	...	...	5	3
Arkansas	7	1	2	...	1	2	13	5
California	143	55	129	34	35	33	395	197
Colorado	53	6	5	4	4	9	77	18
Connecticut	24	20	34	11	25	20	123	79
Delaware	...	1	...	1	3	1	5	4
District of Columbia	18	1	...	6	14	17	50	31
Florida	6	1	...	...	3	5	16	9
Georgia	14	2	5	1	7	8	36	20
Idaho	4	2	2	...	...	...	8	2
Illinois	234	75	34	321 ^c	...	...	427	118
Indiana	27	5	4	3	49	35	53	21
Iowa	26	8	6	8	4	25	69	35
Kansas	10	3	11	12	2	18	44	31
Kentucky	17	2	3	1	2	9	33	14
Louisiana	15	4	...	8	4	5	28	9
Maine	19	2	2	...	7	19	49	28
Maryland	43	15	4	51	12	9	84	25
Massachusetts	179	56	48	150	55	20 ^d	358	123
Michigan	49	20	22	25	19	45 ^d	155	86
Minnesota	34	14	14	2	15	39	116	68
Mississippi	2	...	...	...	...	4	6	4
Missouri	84	18	20	43	28	51	201	99
Montana	3	...	...	...	...	2	5	2
Nebraska	6	6	4	7	4	9	29	17
Nevada	1	...	...	...	...	...	1	...
New Hampshire	6	...	...	...	...	7	13	7
New Jersey	21	4	4	1	46	13	88	63
New Mexico	...	...	...	...	...	1	1	1

Table E-2 (cont.)

State	Firms with Main Office within State			Out-of-State Firms			All Firms	
	Firms without branches (1)	Firms with Branches within in other states (4)		N.Y. City Branches within state (5)	Other Branches within state (6)	Offices within state ^a (7)	Branches within state ^b (8)	
		Firms (2)	Branches within state (3)					Branches within state (3)
New York	721	167	202 ^e	563 ^f	161 ^g	1,251	363	
North Carolina	12	2	1	1	...	19	5	
North Dakota	3	...	...	...	1	4	1
Ohio	63	11	17	26	35	156	82	
Oklahoma	6	...	...	...	4	15	9
Oregon	7	2	...	4	7	29	20	
Pennsylvania	126	24	32	21	117	340	190	
Rhode Island	12	2	1	4	8	40	26	
South Carolina	10	1	1	...	1	15	4	
South Dakota	...	...	...	...	2	2	2
Tennessee	12	5	5	9	3	29	12	
Texas	31	6	9	3	9	65	28	
Utah	12	1	1	1	1	15	2	
Vermont	1	...	...	...	4	5	4
Virginia	13	3	2	1	1	22	6	
Washington	29	6	5	3	18	67	32	
West Virginia	8	3	3	4	1	20	9	
Wisconsin	17	4	2	4	10	70	49	
Wyoming	...	...	...	...	...	1	1
Total U.S.	2,134	563	642	1,336 ^h	556	4,673	1,976	

^a Sum of cols. 1, 2, 3, 5 and 6.

^b Of the 202 branches, 151 belong to New York City firms.

^c Sum of cols. 3, 5 and 6.

^d Includes 7 foreign branches.

^e Includes 1 foreign branch.

^f Includes 4 branches of foreign firms.

^g Includes 1 branch of a foreign firm.

^h Differs from the sum of col. 5 and 6 because col. 4 includes 8 foreign branches and col. 6 includes 6 branches of foreign firms in the United States.

Source: See text of Appendix E.

Table E-3
Number of Investment Banking Outlets by State; 1949

State	Firms with Main Office within State				Out-of-State Firms			All Firms	
	Firm without branches (1)	Firms with Branches (2)		Branches within state (3)		Branches within other states (4)		Offices within state ^a (7)	Branches within state ^b (8)
		Firm without branches (1)	Firms with branches (2)	Branches within state (3)	Branches in other states (4)	N.Y. City Branches within state (5)	Other Branches within state (6)		
Alabama	13	3	3	...	7	6	32	16	
Arizona	6	...	...	...	4	...	10	4
Arkansas	11	...	...	...	3	...	14	3
California	119	47	172	23 ^c	53	18	409	243	
Colorado	44	4	2	8	4	4	58	10	
Connecticut	25	11	19	3	13	12	80	44	
Delaware	2	2	...	3	2	...	6	2	
District of Columbia	19	3	...	7	8	3	33	11	
Florida	23	3	5	...	26	6	63	37	
Georgia	26	3	13	11	10	...	52	23	
Idaho	4	1	1	1	...	1	7	2	
Illinois	141	20	17	49	37	21	236	75	
Indiana	51	...	...	...	4	2	57	6
Iowa	20	6	5	2	2	6	39	13	
Kansas	25	5	2	7	...	11	43	13	
Kentucky	13	1	2	...	4	1	21	7	
Louisiana	36	2	1	2	6	3	48	10	
Maine	28	1	1	...	6	11	47	18	
Maryland	30	5	2	9	6	7	50	15	
Massachusetts	145	38	25	80	43	2	253	70	
Michigan	45	12	25	2	15	5	102	45	
Minnesota	38	8	10	4	7	11	74	28	
Mississippi	7	2	3	1	1	3	16	7	
Missouri	67	12	8	36	9	6	102	23	
Montana	4	...	...	...	...	3	7	3
Nebraska	25	2	2	...	1	13	43	16	
Nevada	2	...	...	...	...	6	8	6
New Hampshire	10	...	...	...	2	7	19	9
New Jersey	75	3	1	2	41	8	128	50	
New Mexico	7	...	...	...	1	...	8	1

Table E-3 (cont.)

State	Firms with Main Office within State			Out-of-State Firms		All Firms	
	Firms without branches (1)	Firms with Branches		N.Y. City Branches within state (5)	Other Branches within state (6)	Offices within state ^a (7)	Branches within state ^b (8)
		Firms (2)	within state (3)					in other states (4)
New York	734	123	129 ^d	...	77	1,063	206
North Carolina	19	4	2	17	6	48	25
North Dakota	4	...	...	...	...	4	...
Ohio	113	19	31	19	4	186	54
Oklahoma	14	3	1	4	3	25	8
Oregon	21	1	...	2	8	32	10
Pennsylvania	155	33	45	78	17	328	140
Rhode Island	20	1	...	9	8	38	17
South Carolina	32	1	1	1	7	42	9
South Dakota	3	...	...	...	...	3	...
Tennessee	28	4	8	5	2	47	15
Texas	78	8	9	20	8	123	37
Utah	11	2	2	1	...	16	3
Vermont	1	...	...	2	1	4	3
Virginia	28	1	1	...	2	32	3
Washington	67	6	10	5	5	93	20
West Virginia	6	1	...	1	3	11	4
Wisconsin	46	6	8	2	13	75	23
Wyoming	4	...	...	...	...	4	...
Total U.S.	2,445	407	566	481	340	4,239	1,387

E 1 14

a. Sum of cols. 1, 2, 3, 5 and 6. d. Of the 129 branches, 114 belong to New York City firms.

b. Sum of cols. 3, 5 and 6. e. Includes 33 foreign branches.

c. Includes 1 foreign branch. f. Exceeds the sum of cols. 5 and 6 because col. 4 includes 34 foreign branches.

Source: See text of Appendix E.

Table E-4

Number of Investment Banking Outlets; 50 Largest Cities; 1913

City ^a	Firms with Main Offices within State				Out of-State Firms		All Firms	
	Firms without branches (1)	Firms with Branches		Other Branches within city (7)	N.Y. City Branches within city (6)	Offices within city ^b (8)	Branches within city ^c (9)	
		Firms (2)	Branches within state (3)					Branches in other states (4)	Branches within city (5)
New York	947	68	29	140	...	1,080	65	
Chicago	76	14	...	25	25	133	43	
Philadelphia	86	17	13	21	21	129	26	
Los Angeles	4	2	3	1	1	9	3	
Detroit	16	...	...	...	5	29	13
Baltimore	49	2	...	2	7	61	10	
Cleveland	20	2	2	2	4	27	5	
St. Louis	44	3	...	4	2	49	2	
Washington	34	...	...	...	4	40	6
Boston	216	31	11	78	24	278	31	
San Francisco	96	2	2	...	4	105	7	
Pittsburgh	111	6	2	7	3	121	4	
Milwaukee	6	...	...	...	...	10	4
Houston	...	...	...	...	...	...	...
Buffalo	9	...	...	...	...	18	9
New Orleans	53	1	1	...	2	56	2	
Minneapolis	12	3	3	...	2	19	4	
Cincinnati	25	3	...	5	3	36	8	
Seattle	6	...	...	...	1	8	2
Kansas City	9	...	...	...	1	11	2
Newark	10	1	1	1	1	12	1	
Dallas	...	...	...	...	...	...	...
Indianapolis	10	...	...	...	...	11	1
Denver	13	2	...	2	3	18	3	
San Antonio	...	...	...	...	...	...	...
Memphis	3	...	...	...	...	3	...
Oakland	1	...	...	...	...	2	...
Columbus, Ohio	13	...	...	...	...	15	1
Portland, Oregon	2	1	...	1	...	5	2	
Louisville	17	...	...	...	...	17	2

Table E-4 (cont.)

City ^a	Firms with Main Offices within State				Out-of-State Firms		All Firms	
	Firms without branches (1)	Firms with Branches		N.Y. City Branches within city (6)	Other Branches within city (7)	Offices within city ^b (8)	Branches within city (9)	
		Firms (2)	Branches within state (3)					Branches in other states (4)	Branches within city (5)
San Diego	...	...	...	...	...	...	...
Rochester	6	2	3	...	...	11	3
Atlanta	7	1	...	1	...	9	1	
Birmingham	4	...	...	...	...	4	...
St. Paul	5	1	...	3	...	9	3	
Toledo	3	3	3	...	1	7	1	
Jersey City	3	...	...	...	...	3	...
Fort Worth	...	...	...	...	...	...	...
Akron	...	...	...	...	...	...	...
Omaha	1	...	...	...	1	2	1
Long Beach	...	...	...	...	...	...	...
Miami	...	...	...	...	...	...	...
Providence	22	3	7	...	...	32	7
Dayton	2	...	...	2	5	2	...
Oklahoma City	...	...	...	...	...	...	...
Richmond	3	...	...	1	...	4	1
Syracuse	2	...	...	...	...	4	2
Norfolk	...	1	1	...	...	1	...
Jacksonville	...	...	...	...	...	...	...
Worcester	7	...	...	2	1	15	8
Total 50 cities	1,953	169	74	301 ^d	116	2,405	283	
Total U.S.	2,150	182	86	306 ^d	138	2,721	389	

^a

The 50 cities with largest population in April 1950.

^b

Sum of cols. 1, 2, 5, 6 and 7.

^c

Sum of cols. 5, 6 and 7.

^d

Includes 3 foreign branches: 2, New York City; 1, Boston.

Source: See text of Appendix E.

Table E-5

Number of Investment Banking Outlets; 50 Largest Cities; 1929

City ^a	Firms with Main Offices within State				Out-of-State Firms			All Firms	
	Firms without branches (1)	Firms with Branches		Other Branches within city (7)	N.Y. City Branches within city (6)	Branches within city (8)	Branches within city (9)	Offices within city ^b (8)	Branches within city ^c (9)
		Firms (2)	Branches within state (3)							Branches in other states (4)	Branches within city (5)
New York	624	149	153	562	...	137	149	922	149
Chicago	215	73	29	321	49	33	83	371	83
Philadelphia	78	16	23	17	46	25	71	165	71
Los Angeles	63	25	64	2	14	14	60	148	60
Detroit	30	17	19	24	15	25	41	88	41
Baltimore	41	16	4	51	11	9	20	77	20
Cleveland	26	6	11	20	13	12	26	58	26
St. Louis	64	13	19	30	18	31	49	126	49
Washington	18	1	...	6	14	17	31	50	31
Boston	153	48	37	145	42	18	64	265	64
San Francisco	62	25	59	32	18	18	39	126	39
Pittsburgh	21	2	...	2	20	10	33	56	33
Milwaukee	10	4	2	4	10	29	39	53	39
Houston	4	1	3	1	3	3	8	13	8
Buffalo	34	7	18	1	...	9	31	72	31
New Orleans	13	4	...	8	4	4	8	25	8
Minneapolis	21	8	...	2	10	24	39	68	39
Cincinnati	18	3	2	6	11	4	19	40	19
Seattle	17	2	2	...	7	14	23	42	23
Kansas City	1	...	...	...	...	1	2	3	2
Newark	15	3	3	1	22	7	29	47	29
Dallas	8	3	3	1	1	4	7	18	7
Indianapolis	16	3	2	3	4	7	11	30	11
Denver	41	5	2	4	3	8	12	58	12
San Antonio	4	1	2	1	1	2	3	8	3
Memphis	8	1	...	3	2	2	7	16	7
Oakland	3	...	...	...	1	1	18	21	18
Columbus, Ohio	5	...	...	...	1	2	7	12	7
Portland, Oregon	7	2	...	4	3	11	17	26	17
Louisville	15	2	3	1	6	7	9	26	9

Table E-5 (cont.)

City ^a	Firms with Main Offices within State				Out-of-State Firms		All Firms	
	Firms without branches (1)	Firms with Branches		N.Y. City Branches within city (6)	Other Branches within city (7)	Offices within city (8)	Branches within city ^c (9)	
		Firms (2)	Branches within state (3)					Branches in other states (4)	Branches within city (5)
San Diego	3	...	...	15	...	19	16
Rochester	12	2	...	27	2	43	29	
Atlanta	7	1	...	1	8	24	16	
Birmingham	4	2	...	...	3	12	6
St. Paul	9	5	...	7	10	35	21	
Toledo	3	...	...	2	4	10	7
Jersey City	2	...	...	1	...	7	5
Fort Worth	8	...	...	1	...	11	3
Akron	3	...	...	3	...	8	5
Omaha	5	2	6	...	7	21	11	
Long Beach	1	1	...	13	...	15	13	
Miami	9	...	...	1	...	1	1
Providence	3	1	4	...	17	36	25	
Dayton	3	1	...	1	...	7	3	
Oklahoma City	5	...	...	...	1	7	2
Richmond	7	1	...	...	2	11	3
Syracuse	10	4	...	20	4	38	24	
Norfolk	1	1	1	...	...	2	...
Jacksonville	3	...	...	...	2	5	2
Worcester	5	2	...	16	2	29	22	
Total 50 cities	1,735	467	1,263 ^d	225	550 ^e	3,371	1,169	
Total U.S.	2,134	563	1,336 ^d	642	778 ^e	4,673	1,976	

^a The 50 cities with largest population in April 1950.

^b Sum of cols. 1, 2, 5, 6 and 7.

^c Sum of cols. 5, 6 and 7.

^d Includes 8 foreign branches: New York City, 6; Buffalo, 1; and Chicago, 1.

^e Includes 6 United States branches of foreign firms: New York City, 4; Detroit, 1; and Boston, 1.

Source: See text of Appendix E.

Table E-6

Number of Investment Banking Outlets; 50 Largest Cities; 1949

City ^a	Firms with Main Offices within State				Out-of-State Firms		All Firms	
	Firms without branches (1)	Firms with Branches		Other Branches within city (7)	N.Y. City Branches within city (6)	Offices within city ^b (8)	Branches within city ^c (9)	
		within state (3)	in other states (4)					Branches within city (5)
New York	597	118	114	514	...	848	133	
Chicago	103	20	17	49	37	179	56	
Philadelphia	83	22	24	20	29	145	40	
Los Angeles	41	24	68	1	21	115	50	
Detroit	25	10	20	2	9	48	13	
Baltimore	26	5	2	9	4	37	6	
Cleveland	32	10	19	9	10	55	13	
St. Louis	39	7	4	11	7	56	10	
Washington	19	3	...	7	8	33	11	
Boston	119	34	21	79	32	189	36	
San Francisco	37	18	95	22	10	74	19	
Pittsburgh	23	6	12	7	10	43	14	
Milwaukee	19	3	6	2	2	30	8	
Houston	15	2	2	...	3	22	5	
Buffalo	30	4	6	...	...	43	9
New Orleans	31	3	1	3	4	40	6	
Minneapolis	18	6	8	4	5	36	12	
Cincinnati	40	4	2	2	4	50	6	
Seattle	32	4	8	4	4	41	5	
Kansas City	1	...	...	...	2	2	1
Newark	26	1	1	1	7	35	8	
Dallas	24	3	4	...	4	37	10	
Indianapolis	16	...	...	...	3	21	5
Denver	27	4	2	8	3	37	6	
San Antonio	11	1	1	...	3	18	6	
Memphis	10	...	...	...	3	16	6
Oakland	5	2	6	...	3	18	11	
Columbus, Ohio	9	2	6	...	2	17	6	
Portland, Oregon	19	1	1	1	2	28	8	
Louisville	7	1	2	...	2	11	3	

Table E-6 (cont.)

City ^a	Firms with Main Offices within State				Out-of-State Firms			All Firms	
	Firms without branches (1)	Firms with Branches		Branches within city (5)	N.Y. City Branches within city (6)	Other Branches within city (7)	Offices within city (8)	Branches within city (9)	
		Firms (2)	Branches within state (3)						Branches in other states (4)
San Diego	7	1	10	3	1	22	14		
Rochester	15	3	6	...	...	22	6
Atlanta	12	11	1	...	...	20	7
Birmingham	6	3	...	4	3	16	7		
St. Paul	11	1	5	1	...	18	6		
Toledo	10	1	4	...	...	15	4
Jersey City	11	...	...	7	...	19	7
Fort Worth	3	1	...	2	...	6	2		
Akron	...	...	2	2	1	5	5
Omaha	17	1	...	1	6	25	7		
Long Beach	3	...	14	1	...	18	15		
Miami	5	...	...	4	3	12	7
Providence	19	...	...	7	7	34	14
Dayton	7	2	2	1	...	11	3		
Oklahoma City	7	...	1	1	2	12	4		
Richmond	9	...	...	...	2	11	2
Syracuse	16	1	7	...	1	25	8		
Norfolk	5	...	...	...	...	5	...
Jacksonville	2	...	1	2	1	6	4		
Worcester	7	1	5	2	...	15	7		
Total 50 cities	1,656	334	767 ^e	273	164	2,641	651		
Total U.S.	2,445	407	855 ^e	481	340	4,239	1,387		

^a The 50 cities with largest population in April 1950.

^b Sum of cols. 1, 2, 5, 6 and 7.

^c Sum of cols. 5, 6 and 7.

^d Of the 59 branches, 54 belong to New York City firms.

^e Includes 34 foreign branches: 33 of New York City firms and 1 of San Francisco.

Source: See text of Appendix E.

Table E-7

Number of Investment Banking Outlets by Type of Ownership;
All United States Firms and Firms in New York City; 1913, 1929, 1949

	All United States Firms			New York City Firms		
	<u>1913</u>	<u>1929</u>	<u>1949</u>	<u>1913</u>	<u>1929</u>	<u>1949</u>
1. Firms without branches						
a. Sole proprietorships	1,304	474	1,001	705	122	190
b. Partnerships	786	997	650	237	144	250
c. Corporations	60	663	794	5	358	157
d. Total	2,150	2,134	2,445	947	624	597
2. Firms with branches						
A. Firms						
a. Sole proprietorships	10	10	34	3	2	7
b. Partnerships	150	282	211	63	97	84
c. Corporations	22	271	162	2	50	27
d. Total	182	563	407	68	149	118
B. Branches within state						
a. Of sole proprietorships	5	32	23	1	3	3
b. Of partnerships	74	307	329	28	82	104
c. Of corporations	7	303	214	...	68	7
d. Total	86	642	566	29	153	114
C. Branches in other states ^a						
a. Of sole proprietorship	5	78	13	2	48	3
b. Of partnerships	260	533	562	130	262	367
c. Of corporations	38	717	246	6	246	111
d. Total	303	1,328	821	138	556	481
3. Total offices (firms plus branches)						
a. Sole proprietorships	1,324	594	1,071	711	175	203
b. Partnerships	1,270	2,119	1,752	458	585	805
c. Corporations	127	1,954	1,416	13	722	302
d. Total	2,721	4,667	4,239	1,182	1,482	1,310

a

Excluding foreign branches owing to deficiencies in data.

Source: See text of Appendix E.

APPENDIX "F"

ESTIMATES OF MARKET VALUE OF CORPORATE STOCK

APPENDIX F

ESTIMATES OF MARKET VALUE OF CORPORATE STOCK

In connection with the preparation of statements showing the distribution of different types of assets and liabilities among economic groups, need has arisen for an estimate of the market value of stocks at benchmark dates, i.e. for 1900, 1912, 1922, 1929, 1933, 1939, 1945 and 1949. To fit into the framework of this study these estimates should show separate figures for common and preferred stock and, moreover, should distinguish between at least the stocks of railroads, public utilities and all other corporations.

Astonishingly enough figures of this type, which are obviously of great importance in all studies of national wealth and in long range investigations in finance, are unavailable. There was not a single published estimate for this period of even the total market value of all corporate stock for any date when these calculations were begun, except a rough figure for 1949 prepared from Securities and Exchange Commission sources.¹ Even estimates for

1

See Hoffman, G. W., Character and Extent of the Over-the-Counter Markets, p. 10.

parts of the universe were rare and never extended over the entire period to be covered by this study or substantial fractions of it. This situation is not the reflection of lack of primary material from which such estimates could have been fashioned, but is apparently attributable to the reluctance to invest the required time and effort, and to the necessarily hazardous nature of some of the calculations. Since the estimates of the market value of stock, while of importance, are not crucial for this study, full exploitation of the raw data available has not been regarded as justified and calculations were generally stopped after the most important figures had been derived;

or when it was felt that further refinement would not produce significant changes in the estimates; or sometimes simply when all the effort that could be justified within the study had been spent on a specific aspect of the estimates. Undoubtedly, even with the raw material within easy reach, a better, and particularly a more detailed, estimate of the market value of stock could be prepared. The one described in this appendix should, however, be acceptable for the purposes of this study even if it does not satisfy stricter requirements.

1. Scope of Estimates.

The estimates measure, in principle, the market value of corporate stock at certain benchmark dates. The concept of market value is quite realistic for a large proportion of all stock, viz. that regularly traded on a stock exchange or in the over-the-counter-market, although even here the assumption must be made that the price for the relatively small quantities which are actually traded can be used as the basis of calculating the market value of the entire capitalization of a company. For stocks with no regular market the concept is valid only by analogy; what is measured here is the price that could be expected to prevail in the market if the stock were traded there.

Because part of all corporate stock outstanding is held by other corporations and financial institutions three different estimates are required. The first includes all corporate stock outstanding; the second excludes a corporation's stock held by any of its parents, subsidiaries or affiliates; the third excludes any additional stock held by other (unaffiliated) corporations as well as by financial institutions in non-corporate form such as mutual insurance companies and mutual savings banks. The third estimate

thus measures the market value of the holdings by domestic individuals (including personal trust departments), unincorporated business enterprises, nonprofit organizations, governments and foreigners. This appendix deals only with the derivation of the estimates of all corporate stock outstanding and of stocks not held by other corporations. Material on the holdings by financial institutions is presented in other parts of this study.

Separate estimates have been prepared for common and preferred stocks. The industrial breakdown is, in both cases, rather limited, distinguishing five groups:

- a. Railroad stock
- b. Bank stock
- c. Stock of property insurance companies
- d. Stock of investment companies
- e. All other stock

Each of these groups has, at one or more benchmark dates, accounted for at least 2 percent of total stock outside the corporate system. A further breakdown of the "all other" group, which accounts for between two-fifths and four-fifths of the total, would have been possible, particularly for the period from 1929 on. It was, however, felt that the work involved in such a breakdown was too large to justify it. The more detailed figures, while of considerable general interest, are not specifically required in this study, as the statistics of holdings of stock by the major types of financial institutions are likewise not detailed enough to permit a finer breakdown than the one adopted here.

2. Methods of Estimation

The main characteristic of the estimates presented in this appendix, which probably would be shared by any comprehensive estimate of the market value

of stock over an extended period, is that they rule out exclusive reliance on any one method, but require use of different approaches for different sectors and consideration of the results of the different estimates in the final estimates. The following paragraphs present a summary of the methods of estimation that have been used. For the details of sources and methods, however, reference to the individual tables is required.

a. Census method (Tables F-4 - F-7)

This method theoretically requires for each issue of stock information on the number of shares outstanding and the market price at the benchmark date. Actually the method can be applied satisfactorily only for stocks listed on exchanges, and even there only for the later part of the period. For the stocks listed on the New York Stock Exchange, which account for one-third to one-half of all corporate stock outstanding, a comprehensive figure of this type is available annually since 1924. Comparable figures could be derived also for the period before the twenties from security manuals and quotation lists. To save time the figures have been approximated here by determining the average price per share at the benchmark dates before 1929, and then applying that average to the number of shares listed, the only comprehensive figure easily available. The results of this calculation should not differ much from the correct total, the Cowles Commission figures on the value of well over 90 percent of common stock listed on the New York Stock Exchange, derived issue by issue, furnishing a rather close check.

The Census method provides fairly firm ground for an estimate of the market value of about one-half, and in recent years even more, of total stock outstanding. On the other hand, it is without a solid basis for (a) part of the stocks not listed on an exchange; and (b) the proportion of intercorporate holdings included among the listed amounts before the 1940's.

Estimation of the ratio between the market value of listed and unlisted stock must remain of the roughest until a large amount of spade work is done. At the moment the only estimate available is the one of Moody's putting the ratio for 1930 at 2.5 for common and 1.8 for preferred stocks. It is not possible without considerable further work to evaluate how good the estimate is even for its time, and there is no firm ground for judging whether it is also applicable to dates twenty years before or after. Any estimate applying this ratio, or modifications which necessarily have to be based to a good deal on judgment, is thus bound to contain a considerable margin of error.

b. Capitalization of dividends (Tables F-8 - F-11)

Theoretically the multiplication of total dividend payments by corporations with a capitalization factor (the reciprocal of average yield) promises excellent results because the approach is comprehensive, because it produces estimates both for all outstanding stock and for intercorporate holdings, and because it can provide considerable industrial detail. This approach is based on the statistics of dividend payments and receipts by corporations available since the 1920's in Statistics of Income, which have been carried back to 1897 in A Study of Saving in the United States,* though with a

* Hereafter referred to as A Study of Saving... For full citation see Table C-9, note to line 6.

considerable margin of error. The main problem arising in this method is the choice of the appropriate rate of capitalization, i.e. the ratio between market value and dividend payments. A seemingly small error in this rate will lead to a very substantial difference, both in absolute and relative figures, in the final estimates.

Direct information on the rate of capitalization is available only for listed and for certain groups of unlisted stocks. It is a great advantage

of this method that an annual series of the rate of capitalization for almost all common stock listed on the New York Stock Exchange has been prepared by the Cowles Commission back to 1900 and beyond. Direct information, however, is almost completely lacking on over-the-counter and unlisted stocks except for scattered groups such as large banks and insurance companies since 1929. It would be possible, given the necessary clerical resources, to develop series for the yield of over-the-counter securities, and to analyze the data on listed and over-the-counter securities in such a way that they would permit reasonably good estimates for unlisted securities of comparable character. This detailed approach has not been feasible here, and the estimates of the capitalization rate for unlisted stocks are admittedly rough, even though an attempt has been made to use all the scattered material available, and though some new data have been developed, necessarily on a small scale, for a few benchmark dates for some groups of stocks traded on the over-the-counter market.

As the basic sources provide information on dividends received by corporations it is possible to make separate estimates of intercorporate holdings, if it is assumed that the ratio of the market value of intercorporate holdings to total outstanding capitalization is the same as that of dividends received to dividends paid by all corporations or by certain groups of corporations.

c. Ratio of market to book value (Tables F-12 - F-14)

This method is not generally applicable as we lack statistics on both book value and market value for large groups of corporations, although such

figures could be derived for many of them without difficulty except the expense involved.² The method is best adapted to cases in which a reasonably

2

Information of this type is available for two recent dates - the estimates of the Department of Economics of the McGraw Hill Publishing Company (Business Needs for Venture Capital, p. 58), and those of D. T. Smith (Corporate Financial Policy, pp. 259-283). Both indicate that at the beginning and middle of 1949 the market value of approximately 3 out of 4 issues was below book value, but that the average ratio was close to unity. One might expect this average relation to hide a correlation between size of corporation and the ratio of market to book value, but closer examination fails to disclose a significant relationship.

close relation between market value and book value (or some variant of it like the so-called "liquidating value" of property insurance companies) may be expected, i.e. primarily for stock of commercial banks, investment companies and property insurance companies. In all these cases it is necessary to select a sample of individual companies and to derive from it an average ratio of market to book value which can then be applied to figures of the book value of entire industries derived from their balance sheets. (This method does not provide any information on the proportion of intercorporate holdings.) An approximation to the strict method is, however, feasible on a rather broad scale. It consists of dividing the dividend yield of a group of corporations (such as the Cowles Commission and Moody's series), i.e. the ratio of dividends paid to market price, by the ratio of dividends to book value of equity (stated value of common stock plus true reserves plus surplus) for as nearly comparable a group of corporations as obtainable - generally from Statistics of Income. This division yields an approximate ratio of book to market value if the two groups of corporations are reasonably similar and homogeneous

$$\left(\frac{\text{Dividends}}{\text{Market Value}} \div \frac{\text{Dividends}}{\text{Book Value}} = \frac{\text{Book Value}}{\text{Market Value}} \right)$$

d. Blown-up samples of individuals' stock holdings.

Methods a to c are all based on aggregates for all stocks outstanding or for stocks of large corporations. An entirely different approach, however, is possible by means of the use of information of stockholdings of samples of individuals which can then be blown-up to yield estimates of stockholdings of all individuals or certain groups of them. Samples of this type are provided by the Survey of Consumer Finances, particularly that for early 1950, and by estate tax returns. These methods, of course, yield estimates only for the holdings of individuals, which can be compared with the figures excluding intercorporate holdings derived by methods a to c only after adding stockholdings administered by personal trust departments and nonprofit organizations. The method also yields only one aggregate figure for all stockholdings, without distinction of common and preferred stock and without an industrial breakdown. This limitation is not inherent in the approach, but reflects limitations of the data now available.

(i) Estimate based on Survey of Consumer Finances (Table F-15)

In the Survey of Consumer Finances taken early in 1950 the respondents - about 3,500 spending units selected in a way to produce a representative sample of all spending units in the United States - were asked the approximate value of their stockholdings. The replies indicated, when blow-up to a national aggregate, holdings in publicly owned and closely held corporations of \$62 billion. The figures do not include stocks held by personal trust departments, which at that date aggregated approximately \$20 billion. Total individuals' holdings of stock would thus have amounted to slightly over \$85 billion if some allowance is made for the holdings of the institutional population and a few other small groups not covered by the Survey.

There is good reason to believe that the estimates of assets - as well as those for income and saving - obtained by the Survey are too low. Indeed for liquid assets the understatement seems to amount to about two-fifths (Federal Reserve Bulletin, 1950, p. 1585). If it is assumed that approximately the same understatement has occurred in the case of corporate stock, the estimates derived from Survey data would have to be increased to about \$85 billion excluding, and approximately \$110 billion including stocks held by personal trust departments and by nonprofit organizations.

(ii) Estimate based on estate tax returns (Table F-16)

Since estate tax returns, which broadly speaking cover all estates of \$60,000 or more, include separate information on the market or fair value of corporate stock, it is possible to use the returns as the source of an additional and largely independent estimate of the total value of stock held by domestic individuals. For that purpose it is necessary to multiply the value of corporate stock in estates by appropriate factors (inverse death rates for different age groups of decedents) in order to arrive at an estimate of the value of corporate stock held by all individuals having gross assets of \$60,000 or more. This procedure requires a breakdown of estate tax returns by age of decedent and a set of death rates appropriate to people having estates of \$60,000 or more rather than to the general population; and presupposes that the people of a certain age dying in a given year may be regarded with respect to their estate as a random sample of the living of the same age. As estate tax returns have been cross-tabulated by age of decedents and by type of property only for 1944, this is the sole year for which a direct estimate by this method can be made. This has been done in A Study of Saving..., Volume III, Part III, which utilizes the

unpublished detail of the Bureau of Internal Revenue data and includes the necessary discussion of sources and methods.³

³

For a short summary of methods and results see Mendershausen and Goldsmith, "Measuring Estate Tax Wealth" in Studies in Income and Wealth, Vol. XIV.

In that study the value of corporate stock held by people having estates of \$60,000 or more in 1944 is estimated at \$59 billion, (Table E-62). This figure, because of the nature of its derivation, presumably includes holdings by personal trust departments. Adjustment, however, is necessary for the understatement customarily found in estate tax returns and for that involved in gifts in anticipation of death. Using an adjustment factor of 15 percent,⁴ the market value or fair value of corporate stock owned by

⁴

Based on Harris' study of audits of estate tax returns, "Wealth Estimates as Affected by Audit of Estate Tax Returns", National Tax Journal, Dec. 1949.

people with estates of \$60,000 and over can then be estimated at approximately \$70 billion for 1944.

No equally detailed data are available for later years. It is known that the value of corporate stock reported in estate tax returns filed in 1950 was 30 percent higher than the corresponding returns filed in 1945. (These returns may be regarded as representing deaths in the years 1944 and 1949 respectively). This figure is only insignificantly reduced if account is taken of the age distribution of decedents, which after 1944 is known only for total assets and not for holdings of estate components such as corporate stock. The value of corporate stock in taxable returns, i.e. those with gross estates of \$60,000 or more in 1949 may, therefore, be estimated at about \$90 billion provided there was no substantial change in mortality of estate owners between 1944 and 1949. However, the increase

in stock prices during 1949 brings the estimated value of corporate stock in estates with assets of \$60,000 or more as of the end of 1949 to about \$100 billion.⁵

5

All the preceding calculations have been based on the standard death rates underlying the calculations in Volume III of A Study of Saving... In that study consideration is also given to two other sets of rates which would lead to estimates of estate tax wealth higher by about 9 percent and 23 percent respectively (see Table E-69). Hence, the figures in the text should probably be regarded as minima.

In order to make this figure comparable with the other estimates of domestic individuals' stockholdings it is necessary to determine the proportion of total stockholdings accounted for by estates of \$60,000 or more. The Survey of Consumer Finances permits the inference that at the beginning of 1950 estates of \$60,000 or more accounted for about 76 percent of all corporate stock held by domestic individuals. This ratio, however, does not take account of corporate stock administered by trust departments, where the proportion in trusts of over \$60,000 probably exceeded 76 percent. There is, moreover, strong reason to believe that the estimates obtained from the Survey of Consumer Finances understate the value of stockholdings (see previous subsection); and that the understatement is substantially more important for the larger than for the smaller estates. If account is taken of these two factors, necessarily in only a very rough and speculative way, it would seem reasonable to assume that estates of \$60,000 or more (including trust funds of such size) actually account for 80 to 85 percent of all corporate stock held by domestic individuals. On that assumption the value of corporate stock held by all domestic individuals at the end of 1949 would have to be estimated, starting from estate tax returns, at a minimum

of \$115 billion and more probably at from \$120 to \$125 billion.

(iii) Comparison and Selection of Estimates

Two estimates are available for the market value of all stock outstanding, the one derived from the census method (incorporating for certain categories of stock estimates based on typical ratios of market to book values) and that obtained by the capitalization of dividends. Two additional methods can be used for the end of the period, estate tax returns and data from Survey of Consumer Finances. Of these only the census method provides separate figures for common and preferred stock and furnishes detail for all benchmark dates for stocks of railroads and several groups of financial corporations.

Table F-17 shows that the estimates following the census and capitalization method are reasonably close for most benchmark dates. The difference, disregarding sign, averages only 10 percent but is as high as 25 percent in one year.

For 1949 the six estimates for stock outstanding excluding intercorporate holdings range from a low of \$87 billion (Survey of Consumer Finances, unadjusted for under-reporting) to a high of \$125 billion (upper limit of estimate based on estate tax returns). We may, however, disregard or attach only little weight to the lowest estimate, the unadjusted Survey estimate. The remaining five estimates then all lie within the range from \$100 to \$125 billion. The census method, with an estimate of \$121 billion, is fairly close to, though slightly higher than, the midpoint of this range.

There are only two recent outside estimates - published after this Appendix was prepared - with which our figures can be compared. The first of these puts the value of stock outstanding, less permanent intercorporate and less institutional holdings (the latter excluding personal trust funds)

at \$170 billion at the end of 1952.⁶ The second estimates individuals'

6

I. Friend, Fortune, March 1953, pp. 107-109.

holdings - which conceptually should be equal to those of the first estimate or almost so - at \$175 billion for the same date.⁷ If these two estimates

7

I. Friend and V. Natrella, Individuals' Saving: Volume and Composition, 1954, p. 29.

are adjusted for net new issues and stock price increases during 1950, 1951 and 1952 they point to values of approximately \$115 and \$120 billion, respectively, at the end of 1949 for individuals' holdings of stock. These figures compare with an estimate of \$121 billion by the Census method, which is likewise limited to stock held by individuals either directly or indirectly in personal trust funds. The two sets of estimates thus seem to corroborate each other, but their common level may nevertheless deviate not negligibly from the (unknown) true value.

On the basis of these comparisons the decision was made to adopt the Census method estimates as shown in Table F-4. While certainly subject to further improvement, and possibly slightly on the low side, they have the advantage of being available at all benchmark dates; of showing more detail than any of the other estimates; and of being compatible with other independent estimates which are worthy of consideration after allowance is made for the shortcomings of the various methods.

While no other estimates have been found of the market value of all corporate stock before 1949 there are a few estimates close enough in coverage or method to justify at least mention and discussion of their relationship

to estimates developed in this Appendix.⁸

8

The estimates of outstanding securities for 1905 by Charles G. Conant (The World's Wealth in Negotiable Securities), and for 1910 by S.S. Pratt (The Work of Wall Street) are omitted from the discussion since they are based on par or book rather than on market values, and no adequate description of sources and methods has been found.

The first of these are the estimates prepared by King for each year from 1908 to 1925.⁹ They cover nine major industries (factories; mines,

9

The National Income and Its Purchasing Power, pp. 204 ff. and 225 ff.

quarries and oil wells; railroads; pullman; express; street railways; electric light and power; telephone; and telegraphs), and thus omit trade, services, construction, agriculture and all finance. It is not possible to say how large the omission is in terms of market value of stock outstanding.

In 1926, the earliest year for which information is available, the omitted industries accounted for 31 percent of the book value of the stock of all corporations covered by the tabulations of the Bureau of Internal Revenue, and probably for a somewhat smaller proportion of total market value. On the other hand, the figures include estimates for the equity of unincorporated business enterprises in manufacturing and mining. Although the figures are not given separately they can be approximated on the basis of King's statement that the figures for corporations alone were raised "..... on the basis of the number of employees working for corporations and for individual entrepreneurs, as shown by the reports of the Bureau of the Census, ".¹⁰

10

King, Op.cit., p. 205.

Using the relevant Census figures it is found that the estimates for 1909 should include an allowance of about 24 percent for unincorporated business enterprises in manufacturing and mining; those for 1919 one of 13 percent; and those for 1929 one of 10 percent. On the assumption that the ratios followed a straight line between Census dates the amount of equity of unincorporated business enterprises included in Kings's estimates would be close to \$5 billion both in 1912 and 1922. When the two adjustments, which tend in opposite directions, are compared it appears that for the twenties the value of stock of corporations in the industries omitted from King's estimates is considerably higher than the equity of unincorporated business enterprises in manufacturing and mining which is included. Before World War I the two deviations from coverage of all corporations would come considerably closer to cancelling. Since the estimates are described as referring to stocks "in the hands of individuals" it must be assumed that all intercorporate holdings are excluded. On this basis the following comparison is obtained:

	Estimated value (billions of dollars)			Percentage ratio of (3) to (2) (4)
	King Original (1)	King Adjusted (2)	This Study (3)	
1912	36.7	40.0	31.5	79
1922	51.4	65.0	50.0	86

The comparison shows that the estimates of King are higher than those of this Appendix by about one-fifth in 1912, and by about one-seventh for 1922. Reconciliation or exploration of the reasons for the discrepancy is hardly possible since King has limited himself to a very brief and general description of how the estimates were obtained. In particular no breakdown is given into securities listed on exchanges, traded in the

over-the-counter market and held closely which alone would permit an evaluation of the differences between the two estimates.

The second set of estimates available are those of Moody's Investors Services which cover all stock issues listed in their Manuals. They are available for 1916, 1920, and 1923 to 1928¹¹ and provide separate figures

11

An isolated estimate of the total market value of listed and unlisted stocks of railroad, utility and industrial companies made by Moody's for 1932 (Moody's Manual of Industrials, 1933, p. a 107) shows the value to be about \$55 billion of which \$48 billion in common and \$7 billion in preferred stocks. This estimate does not include stocks of banks, insurance companies, and other financial organizations.

for about half-a-dozen industries. They are described as "designed to find the approximate true value of all the stocks owned in the United States", and as representing "the amount of securities in the hands of the American people". There is thus no certainty that they include intercorporate holdings. Probably, however, issues owned entirely by other corporations, as they are common in holding company systems, are not included since they would either not be listed in the Manuals or no market price would be available. The estimates obviously also exclude all closely held stocks and probably many smaller issues traded only occasionally in the over-the-counter market. Furthermore, the proportion of coverage of the Manuals has increased as time went on. It is, unfortunately, not clear whether the figures are uniformly based on the year-end or average market prices or whether the basis of valuation has varied among issues.

Moody's estimates are compared with those developed in this Appendix and those of King in Tables F-18 and F-19. Since Moody's figures cover only a fraction of all stock outstanding they cannot provide a check on the level of the estimates developed here. They may, however, be used for a comparison

of movements during the twenties. From 1922 to 1928 Moody's estimates increased by about 150 percent. This compares with an increase of nearly 165 percent in the estimates of this study between 1922 and the end of 1929 when stock prices were about 10 percent lower than they had been a year earlier, but about the same as the 1928 average. Irrespective of exactly which prices were used in Moody's compilations, the increase between 1922 and 1928/29 is therefore substantial, though not radically larger in our estimates, particularly if it is assumed that the percentage of all issues in the Manuals increased over this period. While a comparison for the earlier period is difficult since Moody's figures are available only for 1916 and those of this Appendix for 1912, it would appear that the difference in movement was in the same direction as during the twenties, i.e. that Moody's estimates show a smaller increase than ours. (This may reflect shortcomings in the one or the other of the estimates; or, less likely, a sharper increase in the prices of stock not included in the Manuals).

4. Some Findings

a. Structural changes in the value of stock

Economists' interest in estimates of the market value of stock stem mostly from the fact that such figures reflect the market's valuation of the equity of the various branches of the corporate economy and thus of the bulk of the business economy of the country.

(i) Share of main industries.

Looking at the distribution of the total market value of all corporate stock among various branches of the economy, as it is shown in Table F-1, the outstanding feature is the decline in the proportion of aggregate corporate equity accounted for by railroads and banks and the corresponding increase

Table F-1

Distribution of Market Value of Stock Outstanding by Major Industry

(percent)

	<u>1900</u>	<u>1912</u>	<u>1922</u>	<u>1929</u>	<u>1933</u>	<u>1939</u>	<u>1945</u>	<u>1949</u>
1. Railroads	39	26	10	6	5	4	4	3
2. Banks	18	14	14	9	4	6	6	5
3. Property insurance companies	2	1	2	2	2	3	2	3
4. Investment companies	.	.	0	1	1	1	2	2
5. All other	41	59	74	82	88	86	86	87
5.a Public utilities	7	7	5	11	10	12	9	10
6. Total	100	100	100	100	100	100	100	100

Source: Based on absolute figures obtained as follows:

Line 1 : Figures for 1900, 1912 and 1922 derived by multiplying the par value of railroad stock as reported in Statistics of Railways, 1947, p. 158, by the ratio of market value to par value for common and preferred stock. These ratios calculated from a sample of market and par value quotations in the Commercial and Financial Chronicle. Estimates for 1929-1949 from Table F-3, line 9.

Line 2 : From Table F-12, col. 2

Line 3 : From Table F-13, col. 3

Line 4 : From Table F-14, line 1.

Line 5 : Line 6 minus sum of lines 1 - 4

Line 5a : Sum of market value of stock of electric and gas utilities (Table F-11, col. 3) and of American Telephone and Telegraph Company obtained by multiplying number of shares (1900-1929 Investigation of the Telephone Industry in the United States, Report of the Federal Communications Commission, 1939, Table 69, p. 442; 1939-1949 Moody's Public Utilities) by market price on the New York Stock Exchange as reported in the Commercial and Financial Chronicle. Since estimate for electric and gas utilities is derived by capitalization method line 5.a is not exactly comparable to other estimates underlying table.

Line 6 : From Table F-4, line 1.

in the share of manufacturing and mining. The change is most spectacular for railroads. In 1900 railroad stock represented nearly 40 percent of the total equity of all corporations. This reflected the fact that the railroads had been the first industry in which large-scale corporate enterprise developed and the industry the growth of which had dominated the country's economic development during a large part of the 19th Century. By 1922 the share of railroads in total corporate equity had declined to 10 percent and by 1949 it had become almost insignificant - a mere 3 percent. The continuous and sharp decline in the share of railroads reflects up to 1929 primarily the slower growth in the value of railroad stock, but since 1929 mostly an actual decline in the market's valuation of the equity of railroads. Commercial banks have also shown a definitely declining trend, but the movement and its reasons have been somewhat different from the railroads. In 1900 bank stock represented nearly one-fifth of total equity in corporations and at that time constituted the most important single type of equity investment next to railroad stock. At the end of 1929 bank stock, however, had declined to less than one-tenth of total equity in corporations, the decline reflecting both the slower growth in banking compared to other industries and a less precipitous rise in bank stock prices, except for some speculative favorites, than in the stocks of non-financial enterprises. From 1933 on bank stocks have represented not much over 5 percent of total corporate equity as their prices have never made up, compared to other equities, for the particularly sharp decline they suffered during the Great Depression.

The increase is thus concentrated - disregarding the two relatively small groups of property insurance and investment companies - in the

miscellaneous group which is dominated by the stock of manufacturing corporations. In 1900 this group accounted for 40 percent of the market value of all corporate equity. By 1912 its share had already risen to nearly 60 percent, and by 1922 it exceeded 70 percent. From then on the increase has necessarily been less rapid, but it apparently has been continuing though at an irregular pace. Since the thirties this group has generally represented slightly more than 80 percent of total market value of all stock outstanding including utilities and approximately 70 percent without them. The group's share in total corporate equity exclusive of intercorporate holdings may be slightly lower than its share in all stock outstanding, because the extent of intercorporate holdings is probably relatively larger in this group than among some of the other groups, particularly railroads, banks and property insurance companies.

There are at least four reasons for this spectacular increase in the share of manufacturing and miscellaneous corporations. First, manufacturing and mining have grown more rapidly than railroads, most of the utilities, and banks. Secondly, within manufacturing and mining, as well as within trade and service which are also included in this group, the share of corporations has risen considerably; in manufacturing, for instance, it has increased from 70 percent around the turn of the century to over 95 percent since the thirties. This factor obviously has not been at work in the railroads, utilities, banking and insurance, industries which always have been operated almost exclusively in corporate form. Thirdly, the differential in profitability between manufacturing and mining, on the one hand, and railroads, utilities and banks on the other, apparently has been increasing over the last fifty years, partly due to the fact that the latter three industries are effectively regulated in their earning power. Fourthly,

the differential in the rate of capitalization has decreased as "industrials" matured as investments and sold at yields less and less above those prevailing for railroads, utilities and banks.

(ii) Stock traded on New York Stock Exchange

There may also be some interest in following the proportion of all stock listed on the country's dominating securities market, the New York Stock Exchange. In 1900 approximately 35 percent of all stocks outstanding were listed on the New York Stock Exchange and this proportion was maintained through the twenties. From then on, however, the New York Stock Exchange has accounted for an increasing share of all corporate stock, the proportion rising to 45 percent in 1933, and approximately 50 percent in 1939 and 1949. This movement is the result of various contrasting trends. On the one hand there is the tendency for more and more corporations to have their securities listed on the New York Stock Exchange. The decline in the relative importance of bank stocks which are not listed there has worked in the same direction, but only until the early 1930's. On the other hand, the decline in the share of railroad stocks has tended to reduce the proportion of corporate equity traded on the New York Stock Exchange, but this tendency obviously has not been strong enough to offset those making for a rise in the share listed. Differential price movements - a sharper rise and a less pronounced decline for listed stocks - may, of course, have played a role, but unfortunately not enough is known about them to assess their importance.

b. Relation of Value of Stock to National Assets and Wealth

As the equity of corporations is one of the main components of national assets and wealth¹² there is obviously reason for a comparison

¹² For a definition of these two concepts and some problems involved in their rise, see Chapter II of the main text.

between the market value of stock and either total national assets and wealth or a part of it like business or private wealth. Such a comparison, however, encounters considerable difficulties. The market value of corporate stock is essentially the resultant of the capitalization of expected dividends and earnings. Estimates of national wealth are also often presented as approximating market values which, in turn, are supposed to reflect capitalization of expected net incomes, but in practice they rarely adhere closely to such concepts. In particular, business enterprises and corporations are usually represented in national wealth or assets by something like the replacement cost of their tangible assets, their intangible assets and their liabilities cancelling in national consolidation against liabilities and claims of other groups of economic units. The wealth and asset estimates of A Study of Saving... used here are specifically based on consistent use of replacement cost in the sense of depreciated original cost adjusted for differences between the price level at the time the original investment was made and the date of the wealth estimate. When we relate the market value of corporate stock to estimates of the current value of national wealth or assets we are, therefore, actually comparing results of basically different methods of valuation. In the very long run, it is true, the results of these two methods are not likely to diverge drastically. For shorter periods, and even for decades, the differences may, however, be very large and they actually have been substantial. A comparison of the market value of stock with estimates of the current value of national wealth or of national assets, therefore, does not measure the share of corporate equity in national equity or national assets, but rather provides an indication of the parallelism or divergence of movement of

significant indicators of wealth or assets of the nation with those of an important component.

Even when these limitations are borne in mind there may be some interest in noting from Table F-2 that the ratio of market value of corporate stock (excluding intercorporate holdings) to national wealth is not much higher now (1952) than it was at the beginning of the century - fully one-seventh now against fully one-eighth then. This increase is remarkably small if we recall that during this period the share of corporations in total business wealth increased considerably, possibly from as little as 50 percent to about 80 percent. Hence, the proportion of total business equity to national wealth, assuming unincorporated business enterprises to have been valued on the same principles as the stock of corporations apparently failed to increase and may even have declined slightly from the beginning to the middle of this century. This statement, however, is affected by the low level at which corporate dividends or earnings are now (1952) being capitalized, particularly in comparison to the pure rate of interest. This situation may not last. Hence, the proportion of corporate equity to national wealth may well increase unless corporate earnings should decline considerably compared to national income.*

Apart from the slow upward trend in the ratio of corporate equity to national wealth one feature of Table F-2 is worth notice, the high level of the ratios in 1945 and particularly 1929. These, of course, were years in which stock prices were relatively high both in comparison to the immediately preceding and following years and in relation to corporate dividends and earnings. The exceptional situation of 1929 is evident even though it is understated in the table since this is based on the prices at the end

* Cf. footnote 1 to Table F-2.

Table F-2

Relation of the Market Value of Corporate Stock to
National Assets and Wealth; Selected Dates 1900 to 1949

Year	National assets (billions of dollars) (1)	National wealth (billions of dollars) (2)	Market value of corporate stock excluding intercorporate holdings		
			Amount (billions of dollars) (3)	Percentage ratio to National National assets wealth (4) (5)	
1900	160	88	12.0	10.7	13.7
1912	310	165	31.5	29.0	19.1
1922	650	334	56.0	56.0	16.8
1929	980	439	141.5	159.5	32.2
1933	730	330	58.5	63.8	17.7
1939	880	396	76.0	82.0	19.2
1945	1,560	571	119.5	133.2	20.9
1949	2,020	898	121.0		13.5
1952	2,500	1,200	180.0		15.0 ^a

Source: Columns 1 and 2 - 1900-1949 : The Share of Financial Intermediaries in National Wealth and National Assets, by Raymond W. Goldsmith (National Bureau of Economic Research, Occasional Paper 42, 1954), p. 97.

1952 : Goldsmith, "The National Balance Sheet of the United States," Income and Wealth, Series IV, 1955, p. 361.

Column 3 - 1900-1949 : From Table F-4, line 16.

1952 : Rough estimate based on movement of stock price index and net new issues.

Columns 4 and 5 - 1900-1952 : Col. 3 divided by cols. 1 and 2.

^a

1955 postscript: The ratio at the end of 1955 is in the neighborhood of 9 percent for col. 4 and of 19 percent for col. 5.

of the year. At the peak, September 1929, the share of corporate equity in national wealth, viewed as the replacement cost of tangible assets, would have been at the unprecedented level of about 40 percent, more than twice the ratio for any other benchmark year.

The picture is similar in its main outlines for the ratio of the market value of stock to the aggregate current value of all types of assets (excluding intercorporate holdings), a ratio which is conceptually simpler than that between the market value of stock and the replacement cost of tangible assets, i.e. national wealth. This ratio shows no secular rise whatever over the past fifty years, being slightly in excess of 7 percent both in 1900 and 1952. Except for the peak of the late 1920's the ratio has moved within the range of 6 and 10 percent without showing any long-term movement upward or downward.

c. Relation of market value to book value of stock

It is well known that the market value of corporations, if regarded as adequately represented by the product of the number of shares outstanding and the price per share, deviates upward or downward from the book value - i.e. the stated value of the stock plus surplus plus true reserves - if only because book value is based on depreciated original cost of tangible and intangible assets and, therefore, does not reflect changes in the price level. It is also known that market values are much more volatile than book values. To what extent this has been the case in this country can be seen in Table F-3 for the period from 1929 to 1949.

For all corporations taken together market value has been below book value as shown in the balance sheets submitted to the Bureau of Internal Revenue except in 1929 and 1945, even though book value includes only small

Table F-3

Ratio of Market Value to Book Value of Corporate Equity
By Major Industrial Groups

	End of year	<u>1929</u>	<u>1933</u>	<u>1939</u>	<u>1945</u>	<u>1949</u>
<u>All Corporations</u>						
1. Market value	(\$ bill.)	177.9	73.8	95.0	147.2	148.5
2. Adjusted book value	(\$ bill.)	180.8	125.0	138.7	170.1	252.7
3. Book value	(\$ bill.)	165.0	127.6	129.0	143.5	198.3
4. Ratio of market value to adjusted book value	(percent)	98.4	59.0	68.5	86.5	58.8
<u>Industrial and Miscellaneous</u>						
5. Market value	(\$ bill.)	145.7	64.2	81.8	125.9	129.0
6. Adjusted book value	(\$ bill.)	148.4	102.6	112.9	134.1	208.8
7. Book value	(\$ bill.)	135.8	104.6	105.6	114.3	164.4
8. Ratio of market value to adjusted book value	(percent)	98.2	62.6	72.5	93.8	61.8
<u>Railroads</u>						
9. Market value	(\$ bill.)	10.6	3.9	3.4	6.4	4.6
10. Adjusted book value	(\$ bill.)	18.6	13.9	15.3	21.6	26.0
11. Book value	(\$ bill.)	15.4	14.5	12.9	14.8	16.0
12. Ratio of market value to adjusted book value	(percent)	57.0	28.1	22.2	29.6	17.8
<u>Banks, Property Insurance and Management Investment Companies</u>						
13. Market value	(\$ bill.)	21.6	5.7	9.8	15.0	15.1
14. Book value	(\$ bill.)	13.8	8.5	10.5	14.4	17.9
15. Ratio of market value to book value	(percent)	156.5	67.1	93.3	104.2	84.4

Notes to Table F-3

- Line 1 : From Table F-4, line 1
- Line 2 : Line 3 adjusted for the difference between replacement cost of fixed depreciated assets and the figures as given in Statistics of Income which are substantially on a book value or original cost basis. The ratio of replacement to original cost of private nonfarm plant and equipment for the various years was derived from A Study of Saving..., Vol. III, Tables W-1 and W-5. (Also see Table W-7.)
- Line 3 : Statistics of Income, various issues.
- Line 4 : Line 1 divided by line 2
- Line 5 : Line 1 less lines 9 and 13.
- Line 6 : Line 2 less lines 10 and 14.
- Line 7 : Line 3 less lines 11 and 14.
- Line 8 : Line 5 divided by line 6.
- Line 9 : Market value of railroad stock listed on the New York Stock Exchange given for 1929 in Annual Report of the President of the New York Stock Exchange, 1930; 1933 New York Stock Exchange Bulletin, Jan. 1934, p. 2; 1939-1949 All Stocks Listed on the New York Stock Exchange as of the Close of Business, Dec. 31, 1939, Dec. 31, 1945 and Dec. 31, 1949, increased by 5 percent on the basis of the figure for the market value of over-the-counter railroad stock as given by Butters, Thompson and Bollinger in Effects of Taxation: Investments by Individuals, p. 404.
- Line 10 : Line 11 adjusted by same procedure as described in line 2.
- Line 11 : Statistics of Railways, 1949, p. 153. (The unconsolidated book value of railroad stock).
- Line 12 : Line 9 divided by line 10.
- Line 13 : Sum of Table F-12, col. 2, Table F-13, col. 3 and Table F-14, line 1.
- Line 14 : Sum of Table F-12, col. 1, Table F-14, lines 2, 3 and 7 minus 9, and estimate of book value of stock of property insurance companies based on figures given in Spectator Insurance Yearbook.
- Line 15 : Line 13 divided by line 14.

allowances for patents, goodwill and similar intangible assets. At the end of 1929 market value was slightly less than 10 percent higher than book value. It is only at the peak of the stock market boom of the twenties that the market value of all corporate stock was substantially above its book value. The Great Depression, of course, reduced market value to a fraction of book value - about three-fifths in 1933. From this low point the ratio moved up to another high so that market and book value were about equal in 1945. By 1949 it was down again to 75 percent, as the market value was about the same as in 1945 while book value increased by almost two-fifths in the four years 1946 to 1949.¹³

13

It will be recalled that for stocks listed on the New York Stock Exchange aggregate book and market values in 1949 were approximately the same (p. F-7). The difference in the totals for all corporations must therefore reflect, except for errors in estimation, a considerable excess of book values over market values (or the statistical approximations to them) for the other half of outstanding stock not listed on the New York Stock Exchange.

These figures overstate the ratio between the market and book value as the book value figures should be adjusted in such a way that tangible assets are not entered at their original but at their replacement cost. In that case - and the adjustment to a replacement cost basis can be made only crudely - market value is slightly below adjusted book value in 1929 and less than 60 percent in 1949. In other words in 1949 a dollar of corporate equity, valued at depreciated original cost though adjusted for price changes, sold in the market for slightly more than 50 cents, and a similar relation still held in 1952. This, at least, is the picture which presents itself on the basis of market values which are always established on the basis of transactions involving only small fractions of total capitalization. When large, and particularly controlling, blocks of stock of a corporation

change hands the prices are often substantially higher.

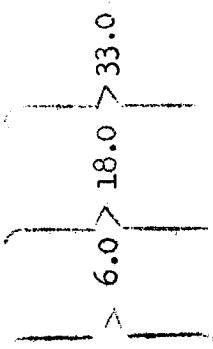
The relationships just set forth, of course, hold only for all corporations taken together. There are naturally many corporations whose stock sells for more than its book value. Table F-3, however, shows that market value is below book value not only for relatively declining industries such as the railroads, or for industries whose stocks are relatively out of favor like commercial banks; but also for the miscellaneous group which includes and largely consists of the stock of large manufacturing corporations, by number undoubtedly the majority.

Table F-4

Market Value of Stock Outstanding Estimated by Census Method

(\$bill.)

	<u>1900</u>	<u>1912</u>	<u>1922</u>	<u>1929</u>	<u>1933</u>	<u>1939</u>	<u>1945</u>	<u>1949</u>
1. All stock outstanding	13.5	37.0	67.5	177.9	73.8	95.0	147.2	148.7
2. Common	10.7	29.0	56.0	159.5	63.8	82.0	133.2	133.7
3. Preferred	2.8	7.5	11.5	18.4	10.0	13.0	14.0	15.0
4. Stock traded on exchanges				107.9	47.1	58.6	91.2	91.6
5. Common				94.2	40.6	49.5	79.7	81.6
6. Preferred				13.7	6.5	9.0	11.4	10.0
7. New York Stock Exchange	4.8	13.6	24.0	64.7	33.1	46.5	73.8	76.3
8. Common	3.5	10.2	19.0	57.0	28.7	40.3	64.9	68.3
9. Preferred	1.3	3.4	5.0	7.7	4.4	6.2	8.9	8.0
10. New York Curb Exchange				26.1	10.0	10.1	14.4	12.2
11. Regional Exchanges				17.1	4.0	2.0	3.0	3.1
12. Stock of corporations not traded on exchanges, excluding lines 13 to 15.				48.5	21.0	26.5	41.0	42.0
13. Bank stock	2.4	5.0	9.2	15.8	3.1	6.1	9.3	8.2
14. Stock of property insurance companies	.3	.4	1.1	3.1	1.6	2.6	3.5	4.2
15. Stock of management investment companies			.1	2.6	1.0	1.2	2.2	2.7
16. All stock outstanding excluding intercorporate holdings	12.0	31.5	56.0	141.5	58.5	76.0	119.5	121.0
17. Common	9.5	25.0	46.5	127.5	51.0	66.2	109.0	109.5
18. Preferred	2.5	6.5	9.5	14.0	7.5	9.8	10.5	11.5



Notes to Table F-4

- 1900 - Lines 1 to 18 : From Table F-7.
- 1912 and 1922 - Lines 1 to 15 : Sources and methods are similar to those used in deriving the estimate for 1900.
- Lines 16 to 18 : Derived from lines 2 and 3 respectively by deducting between 15 and 17.5 percent for common and preferred stock on basis of relationship for 1900 and 1929.
- 1929 - Lines 1 to 18 : From Table F-6.
- 1933, 1939 and 1945 - Line 1 : Sum of lines 4 and 12 to 15.
- Lines 2 and 3 : Based on lines 5 and 6, 12 to 15. Lines 13 and 14 are assumed to contain only negligible amounts of preferred stock.
- Line 4 : Sum of lines 7, 10 and 11.
- Lines 5 and 6 : Based on lines 7, 10 and 11.
- Lines 7 to 9 : From New York Stock Exchange Yearbook, various issues; New York Stock Exchange Bulletin, mimeographed statement All Stocks Listed on the New York Stock Exchange, as of the Close of Business, December 31, 1939, and December 31, 1945 issues. Figures include, as do those for 1900 to 1929, small amounts of stocks of foreign corporations, e.g. 2 percent in 1922 and 1929.
- Line 10 : 1933 estimated on the basis of the change in the relationship between the market value of stock listed on the New York Curb Exchange and the market value of stock listed on the New York Stock Exchange between 1930 and 1936. (See New York Stock Exchange Yearbook, 1930, 1934, 1937; Report of the President of the New York Curb Exchange, 1937-38); 1939 and 1945, as reported in the mimeographed statistical tabulation issued by the New York Curb Exchange.

Notes to Table F-4 (cont.)

- Line 11 : Based on the change in the relationship between the unduplicated market value of stock listed on the New York Stock Exchange and the New York Curb Exchange and other Exchanges between 1929 and 1949, (see Tables F-5 and F-6).
- Line 12 : Based on the change in the relationship between the market value of unlisted stock and the market value of stock listed on the Exchanges between 1929 and 1949, (see Table F-5 and F-6).
- Line 13 : From Table F-12, col. 2.
- Line 14 : From Table F-13, col. 3 .
- Line 15 : From Table F-14, col. 1
- Line 16 : Sum of lines 17 and 18.
- Lines 17 and 18 : Derived from lines 2 and 3 respectively by deducting between 20 and 18 percent from common and between 25 and 24 percent for preferred stock, the ratios assumed for 1929 and 1949.
- 1949 - Lines 1 to 18 : From Table F-5.

Table F-5

Estimate of the Market Value of Stock Outstanding, Census Method, End of 1949

	<u>\$ billion.</u>
1. All stock outstanding	148.7
2. Common	133.7
3. Preferred	15.0
4. Stock traded on Exchanges	91.6
5. Common	81.6
6. Preferred	10.0
7. New York Stock Exchange	76.3
8. Common	68.3
9. Preferred	8.0
10. New York Curb Exchange	12.2
11. Common	10.5
12. Listed	2.1
13. Unlisted	8.4
14. Preferred	1.7
15. Listed	0.8
16. Unlisted	0.9
17. Regional Exchanges	3.1
18. Unlisted and unregistered stock of corporations, excluding banks and investment companies, with 300 or more holders and assets of \$3 million or more.	19.0
19. Unregistered stock of corporations, excluding banks and investment companies, with 300 or more holders and assets of \$3 million or more.	12.0
20. Nonfinancial	11.0
21. Financial	1.0
22. Unregistered stock of nonfinancial corporations, excluding banks and investment companies and closely-held corporations, with less than 300 holders and assets of less than \$3 million.	5.0
23. Unregistered stock of closely-held corporations	25.0
24. Bank stock	8.2

Table F-5 (cont.)

	<u>\$ billion</u>
25. Stock of property insurance companies	4.2
26. Stock of management investment companies	2.7
27. Common	2.5
28. Preferred	0.2
29. All stock outstanding excluding intercorporate holdings	121.0
30. Common	109.5
31. Preferred	11.5

(notes on next page)

Notes to Table F-5

- Line 1 : Sum of lines 4, 19, 22-26. Does not include stock of wholly-owned subsidiaries.
- Line 2 : Line 1 minus line 3.
- Line 3 : Lines 6 and 28 plus estimate of preferred stock included in lines 19 and 23 (approximately \$5.0 billion). This figure compares with the book value of preferred stock of \$15.4 billion in 1949, as reported by the Bureau of Internal Revenue (Release S-3079, June 20, 1952).
- Line 4 : Sum of lines 7, 10 and 17.
- Line 5 : Sum of lines 8, 11 and rough allocation of line 17.
- Line 6 : Line 4 minus line 5.
- Lines 7 to 9 : From mimeographed statement All Stocks Listed on the New York Exchange as of the Close of Business, December 31, 1949
- Lines 10 to 16 : From mimeographed statistical tabulation issued by the New York Curb Exchange, January 1950.
- Line 17 : Lines 7 and 10 multiplied by average of ratio of unduplicated listings on New York and regional Exchanges for end of 1948 and 1950 (Securities and Exchange Commission, 15th Annual Report, p. 37; 17th Annual Report p. 31).
- Line 18 : From A Proposal to Safeguard Investors in Unregistered Securities; Supplemental Report to Congress, Securities and Exchange Commission, 1950, pp. 17-19.
- Line 19 : Line 18 minus lines 13 and 16 (adjusted for holdings of unlisted by listed companies, particularly Humble Oil and Refining Company and Creole Petroleum) and part of line 25.
- Line 20 : Line 19 minus line 21.
- Line 21 : Rough estimate. About one-half of total is accounted for by Christiana Corporation.
- Line 22 : Rough estimate, guided by listings in security manuals and number of issues traded in over-the-counter market. (See Hoffman, Character and Extent of Over-the-Counter Markets, pp. 1, 21).
- Line 23 : Rough estimate. See Table F-15.

Notes to Table F-5 (cont.)

Line 24 : From Table F-12, col. 2.

Line 25 : From Table F-13, col. 3.

Lines 26, 27 and 28 : From Table F-14, col. 1, 2-4 and 8 respectively.

Line 29 : Sum of line 30 and 31.

Line 30 : Line 2 less allowance for intercorporate holdings estimated for stocks traded on exchanges at 18 percent of outstandings on basis of distribution of shareholdings by ownership shown in Kimmel, Share Ownership in the United States, pp. 64, 66 and at a somewhat smaller percentage for other stock.

Line 31 : Same method and sources as for line 30 except ratio for stock traded on exchanges is estimated at approximately 24 percent.

Table F-6

Market Value of Stock Outstanding, Census Method, End of 1929

	<u>\$ billion</u>
1. All stock outstanding	177.9
2. Common	159.5
3. Preferred	18.4
4. All nonfinancial stock outstanding	156.4
5. Common	138.7
6. Preferred	17.7
7. Stock listed on exchanges	107.9
8. Common	94.2
9. Preferred	13.7
10. New York Stock Exchange	64.7
11. Common	57.0
12. Preferred	7.7
13. New York Curb Exchange	26.1
14. Common	22.2
15. Preferred	3.9
16. Regional Exchanges	17.1
17. Common	15.0
18. Preferred	2.1
19. Unlisted nonfinancial stock	48.5
20. Common	44.4
21. Preferred	4.0
22. Bank stock	15.8
23. Stock of property insurance companies	3.1
24. Stock of management investment companies	2.6
25. Common	1.9
26. Preferred	.7
27. All stock outstanding excluding intercorporate holdings	141.5
28. Common	127.5
29. Preferred	14.0

Notes to Table F-6

- Line 1 : Sum of lines 4, 22, 23 and 24.
- Line 2 : Sum of lines 5, 22, 23 and 25.
- Line 3 : Sum of lines 6 and 26.
- Line 4 : Sum of lines 5 and 6.
- Lines 5 and 6 : Lines 11 and 12 multiplied by ratios of all nonfinancial common and preferred stock, respectively, to common and preferred stock listed on the New York Stock Exchange. These ratios are based on estimates reported in Moody's Manual of Investments, Industrial Securities, 1933, pp. a106 and a107. Moody's ratios were derived by relating the book value of common and preferred stock listed on the New York Stock Exchange to the unduplicated book value of all common and preferred stock reported in corporations' balance sheet data by the Bureau of Internal Revenue, undoubtedly a very hazardous procedure which may easily overstate the relative market value of unlisted stock. Moody's loc. cit. also reported the unduplicated market value of common and preferred stock listed on 23 Exchanges, including the New York Stock Exchange, at the end of 1930. When these two sets of estimates are compared, they yield an unreasonable residual estimate of the market value of unlisted nonfinancial common stock. To adjust for this, the ratios, as reported in Moody's op. cit. were modified slightly.
- Line 7 to 9 : Based on the relationship between the market value of stock listed on 23 Exchanges, including the New York Stock Exchange, and the New York Stock Exchange at the end of 1930, as reported in Moody's op. cit.
- Lines 10 to 12 : Moody's loc. cit.
- Lines 13 to 18 : Same as lines 7 to 9
- Line 19 : Line 4 less line 7.
- Line 20 : Line 5 less line 8.
- Line 21 : Line 6 less line 9.
- Line 22 : From Table F-12, col. 2.
- Line 23 : From Table F-13, col. 3.

Notes to Table F-6 (cont.)

Lines 24 : From Table F-14, col. 1, 2-4 and 8 respectively.
to 26

Lines 27 : Line 1 less intercorporate holdings estimated on basis of
to 29 1949 relationship at about 20 percent of outstanding for
common and 25 percent for preferred stock as shown in lines
1 to 3 which do not include part of stock of wholly-owned
subsidiaries.

Table F-7

Market Value of Stock Outstanding, Census Method, End of 1900

	<u>\$ billion</u>
1. Total stock outstanding	13.5
2. Common	10.7
3. Preferred	2.8
4. Stocks listed on the New York Stock Exchange	4.8
5. Common	3.5
6. Preferred	1.3
7. Unlisted nonfinancial stock ^a	6.0
8. Common	4.5
9. Preferred	1.5
10. Bank stock	2.4
11. Stock of property insurance companies	.3
12. All stock outstanding excluding intercorporate holdings	12.0
13. Common	9.5
14. Preferred	2.5

a.

Includes stock not listed on the New York Stock Exchange except stock of banks and property insurance companies.

(source notes on next page)

Notes to Table F-7

- Line 1 : Sum of lines 2, 3 and 11.
- Line 2 : Sum of lines 5, 8, 10 and 11.
- Line 3 : Sum of lines 6 and 9.
- Line 4 : Number of shares listed on the New York Stock Exchange, as of January 1, 1901, (New York Stock Exchange Yearbook, 1951), multiplied by the unweighted average price of 197 common and preferred stocks (\$84) traded on the New York Stock Exchange, (quotations taken from Commercial and Financial Chronicle). Shares traded in unlisted department are regarded as included in line 7. Figure of \$4.8 billion compares with total par value of stock traded (excluding unlisted department) on January 30, 1902 of \$7.5 billion (Pratt, The Work of Wall Street, 1921, pp. 52-53). Additional listings in 1901 and January 1902 amounted to over \$2 billion. (Ayres, Turning Points in Business Cycles, p. 191).
- Line 5 : Based on tabulation of issues accounting for 93 percent of number of shares listed. Figure is compatible with reading of line entitled "Market value of common stocks included in the all stock index", Cowles, Common Stock Indexes, Chart 2, p. 54, adjusted for incomplete coverage of railroad stock. Cowles' series included all industrial and public utility stocks and 93 percent of the market value of railroad stocks traded on the New York Stock Exchange.
- Line 6 : Line 4 less line 5.
- Lines 7
8 and 9 : Estimates based, in part, on (1) tabulation of the par value of preferred stock of industrial corporations listed in Moody's Manual of Statistics of Railroads and Corporation Securities, 1901; (2) value of common and preferred stock of steam railroads, as reported in Statistics of Railways in the United States, Annual Report, 1948, p. 153; (3) par value of common and preferred stock of electric utility corporations, as reported in United States Census of Street and Electric Railways, 1902; (4) value of stock in unlisted department of New York Stock Exchange, (Pratt, op.cit. p. 52); and (5) approximately \$0.5 billion for value of common stock certificates of the Standard Oil Company, (for prices of certificates, see Report of the Commissioner of Corporations on the Petroleum Industry. Part II, pp. 526 and 567).
- Line 10 : From Table F-12, col. 2
- Line 11 : From Table F-13, col. 3
- Lines 12
to 14 : Line 1 minus intercorporate holdings estimated at about 10 percent of line 1.

Table F-8

Market Value of All Stock Outstanding, and of Noncorporate Holdings,
Based on the Capitalization of Dividend Payments

	End of year	<u>1900</u>	<u>1912</u>	<u>1922</u>	<u>1929</u>	<u>1933</u>	<u>1939</u>	<u>1945</u>	<u>1949</u>
1. Market value of all stock outstanding (\$ bill.)		13.0	35.3	49.7	156.6	58.8	96.6	127.0	145.0
2. Market value of noncorporate holdings of stock outstanding (\$ bill.)		10.9	29.4	38.1	105.9	39.5	64.6	97.3	112.6
3. Gross dividend payments (\$ mill.)		764	2,308	3,437	8,520	3,127	5,747	6,081	9,674
4. Net dividend payments (\$ mill.)		637	1,923	2,634	5,763	2,101	3,841	4,663	7,512
5. Average yield, common and preferred stock (percent)		5.86	6.53	6.91	5.44	5.32	5.95	4.79	6.67
6. Average yield of common stock listed on the New York Stock Exchange (percent)		4.17	5.11	5.87	4.37	3.98	5.25	3.50	6.36

(notes on next page)

Table F-8

- Lines 1 and 2 - 1900-1949 : Lines 3 and 4 respectively divided by line 5.
- Line 3 - 1900,1912 : A Study of Saving..., Table C-6, col. 1
 1922-1945 : Statistics of Income for 1945, Part 2, pp. 386 and 387, Table 15.
 1949 : U.S. Treasury Department Press Release No. S-3079, June 20, 1952.
- Line 4 - 1900-1945 : A Study of Saving..., Table C-50, col. 1
 1949 : Same source as for line 3.
- Line 5 - 1900-1949 : Weighted average of (1) the average yield of common stock listed on the New York Stock Exchange (line 6 of this table); (2) of high-grade preferred stocks (Standard and Poor's revised series from 1929 on as given in Statistical Supplement to Survey of Current Business, various issues. For 1929 and 1933 average annual figures were averaged to give year-end figures; for 1939 to 1949 December and following January figures averaged); and (3) the assumed yield of 8 percent for unlisted nonfinancial stock (based on examination of reported dividend payments and high and low stock prices of a sample of companies in Moody's Industrials). Weights determined from Table F-4, assuming the yield of common stocks listed on New York Stock Exchange to apply for 1900-1922 to line 1 minus line 6, and for 1929-1949 to the sum of lines 5, 13, 14 and part of 15; the yield of high-grade preferred stock to line 6 and the remaining part of line 15 (obtained from Table F-14, line 8); and an 8 percent yield to line 12.
- Line 6 - 1900-1922 : Cowles, Common Stock Indexes, yield series Ya-1, all common stocks, pp. 372/373. Series derived by dividing total actual dividends paid in each calendar year by total stock values as represented by an average of the monthly values for the year, for all common stocks listed on the New York Stock Exchange. Year-end yield rates estimated by averaging the yield rates for the given and following year.

- 1929 : Same source and method as for 1900-1922, modified on the basis of the difference between (1) the year end yield, calculated as the average for calendar year 1929 and 1930, and (2) the year end yield, calculated as the average of December 1929 and January 1930, from Cowles yield series Y-1, all common stocks, which represents the total expected annual dividend payments divided by total stock values for each month. This modification appeared to be desirable in view of the sharp decline in stock prices in the latter part of 1929.
- 1933-1949 : Mean dividend yield rates for common stock listed on the New York Stock Exchange, including common stocks that did not pay dividends, are estimated by dividing the reported cash dividends paid on common stock during the calendar year by the year end market value of all common stock listed on the New York Stock Exchange, (see (1) The Exchange, various issues, 1939 to 1950; (2) mimeographed statistical bulletin of the New York Stock Exchange, December issues, 1939 and 1949).

Table F-9

Proportion of the Book Value of Capital Stock of Nonfinancial Corporations
Listed on the Exchanges, by Asset Size of Corporation, 1937

Distribution of Capital Stock by Asset Size of Corporations

(\$mill.)

	Under 1	1 - 4.9	5 - 9.9	10 - 49.9	50 and over	Total
1. All nonfinancial corporations (\$mill.)	13,438	8,644	4,022	10,500	31,943	68,547
2. Corporations listed on the national exchanges (\$mill.)	138	692	808	4,117	20,677	26,432
3. Proportion of the book value of capital stock of nonfinancial corporations listed on the national exchanges (percent)	1.0	8.0	20.1	39.2	64.7	38.6

Sources: Line 1 - Statistics of Income for 1937, Part 2. Table 6, pp. 87, 88, 135 and 136.

Line 2 - Statistics of American Listed Corporations, Part 1, Securities and Exchange Commission, 1940, p. 86.

Line 3 - Line 2 divided by line 1.

Market Value of Stock Outstanding, and of Noncorporate Holdings, by Major Industry Group,
Based on the Capitalization of Dividend Payments

End of Year	Industry Group	Total out- standing \$ billion	Non- corporate holdings	Gross dividend payments \$ million	Net dividend payments million	Relation of net to gross dividend payments	Dividend yield percent
		(1)	(2)	(3)	(4)	(5)	(6)
1.	All industries	13.0	10.9	764	637	.834	5.86
2.	Railroads	4.2	4.0	149	143	.960	3.59
3.	Other	8.8	6.9	615	494	.803	6.99
4.	All industries	35.3	29.4	2,308	1,923	.833	6.53
5.	Railroads	7.9	6.9	391	340	.870	4.94
6.	Other	27.4	22.5	1,917	1,583	.826	7.00
7.	All industries	49.7	38.1	3,437	2,634	.766	6.91
8.	Railroads	5.6	4.4	344	267	.776	6.12
9.	Other	44.1	33.7	3,093	2,367	.765	7.01
10.	All industries	156.6	105.9	8,520	5,763	.676	5.44
11.	Railroads	11.9	10.8	570	516	.905	4.78
12.	Other	144.7	95.1	7,950	5,247	.660	5.49
13.	All industries	58.8	39.5	3,127	2,101	.672	5.32
14.	Railroads	5.8	3.7	161	104	.644	2.79
15.	Other	53.0	35.8	2,966	1,997	.673	5.60
16.	All industries	96.6	64.6	5,747	3,841	.668	5.95
17.	Railroads	4.1	3.2	182	142	.780	4.41
18.	Other	92.5	61.4	5,565	3,699	.665	6.02
19.	All industries	127.0	97.3	6,081	4,663	.767	4.79
20.	Railroads	6.5	5.1	299	237	.793	4.63
21.	Other	120.5	92.2	5,782	4,426	.765	4.80
22.	All industries	145.0	112.6	9,674	7,512	.777	6.67
23.	Railroads	4.5	3.3	312	231	.739	6.91
24.	Other	140.5	109.3	9,362	7,281	.778	6.66

Notes to Table F-10

Column

- 1 All industries, from Table F-8, line 1. Railroads, col. 3 divided by col. 6. Other: figure for all industries less that for railroads.
- 2 All industries, from Table F-8, line 2. Railroads, col. 4 divided by col. 6. Other: figure for all industries less that for railroads.
- 3 All industries, from Table F-8, line 3. Railroads, from A Study of Saving..., Table C-7, col. 3. Other: figure for all industries less that for railroads.
- 4 All industries, from Table F-8, line 4. Railroads, col. 3 multiplied by col. 5. Other: figure for all industries less that for railroads.
- 5 All industries, col. 4 divided by col. 3. Railroads, based on gross and net dividend payments as reported for 1900-1939 in Analysis of Steam Railway Dividends, 1890-1941, Interstate Commerce Commission; for 1945 in Statistics of Income, 1945, Part 2, Table 3, p. 113; and for 1949 in U.S. Treasury Department Press Release S-3079. Other: col. 4 divided by col. 3.
- 6 All industries, from Table F-8, line 5.

Railroads: For 1900-1939, from Cowles, Common Stock Indexes, yield series Ya-3, pp. 372/373. Series derived by dividing actual dividends paid in each calendar year by total stock values as represented by an average of the monthly values for the year, for all railroad common stock listed on the New York Stock Exchange. Year-end yield rates estimated by averaging yield rates for the given and following year. For 1939-49, obtained by averaging December and following January figures, which were derived by linking the 1935-38 annual average of Ya-3 from Common Stock Indexes to Moody's common stock yield for railways as given in Statistical Supplement to the Survey of Current Business, various issues.

Other: col. 3 divided by col. 1.

Table F-11

Market Value of Gas and Electric Utilities Stock Outstanding, Excluding
Intercorporate Holdings, Based on Capitalization of Dividend Payments

End of year	Net dividend payments \$ mill. <u>(1)</u>	Dividend yield percent <u>(2)</u>	Value of stock outstanding excluding intercorporate holdings \$ bill. <u>(3)</u>
1900	39	4.57	0.9
1912	106	5.38	2.0
1922	171	7.60	2.2
1929	463	2.74	16.9
1933	346	6.41	5.4
1939	491	5.72	8.6
1945	424	4.49	9.4
1949	621	5.91	10.5

*(notes on next page)

Notes to Table F-11

- Column 1 - 1900, 1912, 1922 : Gross dividend payments of electric utilities (A Study of Saving..., Tables C-6, col. 3 and C. 20, col. 2), were reduced to net dividend payments on the basis of the ratio of net dividend payments to gross dividend payments in 1919, (see S. Kuznets, National Income and Its Composition, 1919-1938, Vol. II, pp. 880, 883, 885, 886). Net dividend payments of the American Telephone and Telegraph Company (see Telephone Investigation, Federal Communications Commission, 1938, pp. 514, 598), were subtracted.
- 1929-1949 : Net dividend payments of the electric and gas utilities and communications industries were obtained from the Statistics of Income Source Book, unpublished tabulations of the Bureau of Internal Revenue. Figure for 1949 obtained from Treasury Department, Press Release S-3079. Net dividend payments of the American Telephone and Telegraph Company, (see Telephone Investigation, op. cit. and various issues of Moody's Investors Service, and the Commercial and Financial Chronicle) were subtracted.
- Column 2 - 1900-1933 : Cowles, Common Stock Indexes, Series Ya-4. Year-end values obtained by averaging the given figures.
- 1939-1949 : Obtained by averaging December and January figures which were derived by linking the 1935-38 annual average of Cowles figures to Moody's Investors Service, common stock yield for 24 public utilities (excluding American Telephone and Telegraph stock), as reported in Statistical Supplement to Survey of Current Business, 1951. Monthly data obtained from Department of Commerce.
- Column 3 - 1900-1949 : Col. 1 divided by col. 2

Table F-12

Market Value of the Equity of Commercial Banks, Selected Years 1900 to 1949

(\$mill.)

End of year	Equity of Commercial Banks	
	Book value (1)	Market value (2)
1900	1,938	2,422
1912	4,033	5,041
1922	6,134	9,201
1929	9,044	15,827
1933	6,204	3,102
1939	6,885	6,059
1945	8,950	9,308
1949	10,967	8,225

Notes to Table F-12Column 1 : Appendix Table A-3.

Column 2 : Col. 1 multiplied by the following ratios of market price per share to book value per share for bank stocks: 1900 1.25; 1912 1.25; 1922 1.50; 1929 1.75; 1933 .50; 1939 .88; 1945 1.04; 1949 .75. The ratios were derived as follows: 1900, 1912, based on samples of banks and trust companies reported in Manual of Statistics, Stock Exchange Handbook, (1901, pp. 735 to 776; 1913, pp. 1044 to 1102); 1922 derived by interpolating movement in ratio between 1912 and 1929; 1929 based on a sample of banks drawn from Moody's Manual of Investments, Banks, Insurance Companies, Investment Trusts, Real Estate, Finance and Credit Companies, 1930; 1933, 1939, 1945 and 1949, ratio of cash dividends to capital accounts (i.e. book value) of national banks (see Annual Report of the Controller of the Currency, 1949, p. 102) divided by Moody's common stock yield for 15 banks (see Survey of Current Business). The value for 1949 so obtained (.75) is quite close to ratio of market to book value of a sample of banks drawn from Moody's Manual of Investments, Banks, Insurance Companies, Investment Trusts, Real Estate, Finance and Credit Companies, 1950.

Table F-13

Market Value of the Stock of Property Insurance Companies

End of year	Par	Liquidating	Market	Ratio of	Ratio of	Fire and
	value	value	value	market value	market	marine
		(\$mill.)		to par value	value to	insurance
	(1)	(2)	(3)	(4)	liquidating	stock price
				(percent)	value	index
					(5)	1935-39=100
	(1)	(2)	(3)	(4)	(5)	(6)
1900	86	.	302	351	.	.
1912	153	.	392	256	.	.
1922	261	.	1,100	.	.	71.4
1929	566	2,821	3,131	480	111	165.3
1933	483	1,884	1,639	440	87	61.1
1939	517	2,611	2,611	685	100	107.6
1945	628	3,817	3,473	735	91	136.6
1949	742	5,084	4,220	818	83	168.3

(notes on next page)

Notes to Table F-13

- Column 1 - 1900-1949 : Spectator Insurance Yearbook, 1901, 1913, 1933; Spectator Insurance Yearbook, Fire and Marine Volume, 1930, 1934, 1940, 1946, 1950; Spectator Insurance Yearbook, Casualty and Surety Volume, 1930, 1934, 1940, 1946, 1950.
- Column 2 - 1929-1949 : Calculated, following practice of Spectator, as capital, surplus, and 40 percent of unearned premium of property insurance companies.
- Column 3 - 1900,1912 : Col. 1 multiplied by col. 4.
 1922 : Estimated by adjusting col. 1 on the basis of (1) the movement of col. 6 between 1922 and 1929 and (2) the movement of col. 4 between 1912 and 1929.
 1929-1949 : Col. 2 multiplied by col. 5.
- Column 4 - 1900,1912 : Median ratio determined from a sample of 29 and 15 property insurance companies, respectively, on the basis of the annual high (1900) and the average of the annual high and low (1912) prices. (As year-end prices were not easily available either the high or the low of the year or the average of them was selected depending on which of the three, judging by common stock price indices, was closest to the price level of the end of the year). Price quotations were taken from The Manual of Statistics, Stock Exchange Handbook, 1901, pp. 586-7; 1913, pp. 913-4.
 1929-1949 : Median ratio determined from a sample of 38 property insurance companies on the basis of the annual low (1929) and high (1933-1949) prices, respectively, as listed in Moody's Manual of Investments, Banks, Insurance Companies, Investment Trusts, Real Estate, Finance and Credit Companies, 1930, 1934, 1940, 1946, 1950.
- Column 5 - 1929-1949 : Median ratio of market value to liquidating value for a sample of 38 companies on the basis of the annual low (1929) and high (1933-1949) prices, respectively, as listed in Moody's Manual.
- Column 6 - 1922-1949 : Standard and Poor's "Fire and Marine Insurance Stock Price Index", as reported in Survey of Current Business. Average of December and following January data.

Table F-14

Market Value of the Stock of Investment Companies

(\$mill.)

End of year	<u>1922</u>	<u>1929</u>	<u>1933</u>	<u>1939</u>	<u>1945</u>	<u>1949</u>
1. Market value of stock of management investment companies	75	2,601	985	1,168	2,196	2,680
2. Assets of open-end management investment companies	-	134	170	532	1,266	1,941
3. Assets of fixed and semi-fixed investment companies	-	164	204	92	82	32
4. Market value of common stock of closed-end management investment companies	41	1,588	136	310	496	553
5. Ratio of market value to net asset value of common stock of closed-end management investment companies	1.0	1.0	.8	.7	.8	.8
6. Net asset value of common stock of closed-end management investment companies	41	1,588	170	443	620	691
7. Assets of closed-end management investment companies	100	2,638	830	784	1,050	902
8. Preferred stock of closed-end management investment companies	34	715	475	234	352	154
9. Liabilities of closed-end management investment companies	25	335	185	107	78	57

Notes to Table F-14

- Line 1 - 1922-1949 : Sum of lines 2-4 and 8.
- Lines 2 and 3 - 1922-1945 : A Study of Saving..., Tables V-60 and V-69.
 1949 : See notes to Table A-21, line 1.
- Line 4 - 1922-1949 : Line 5 multiplied by line 6.
- Line 5 - 1922-1939 : Based on the frequency distribution of year end ratios of market prices to net asset values of common stocks for a group of closed-end management investment companies, as given in Investment Trusts and Investment Companies, Report of the Securities and Exchange Commission, Part II, Statistical Survey of Investment Trusts and Investment Companies, Table 107, p. 347. Estimates for 1922 and 1939 based on 1927 and 1936 respectively.
- 1945 : Based on the average ratio of market to asset (book) value of a group of closed-end investment company common shares as given in A. Wiesenberger, Investment Companies, 1946 edition, pp. 80, 106-225.
- 1949 : Same method as for 1945. Source Wiesenberger, op. cit., 1950 edition, pp. 239-303.
- Line 6 - 1922-1949 : Line 7 less lines 8 and 9
- Line 7 - 1922-1945 : A Study of Saving..., Table V-62, col. 1
 1949 : See notes to Table A-21, line 1.
- Lines 8 and 9 - 1922-1939 : Based on distribution of liabilities and capital of closed-end management investment companies from Investment Trusts, Tables 32, 33 and 41, pp. 139, 141, 143, 155. Estimates for 1922 and 1939 based on distribution for 1927 and 1936 respectively.
- 1945, 1949 : Based on portfolio data from Investment Companies, 1946 and 1950 editions.

Table F-15

Individuals' Holdings of Corporate Stocks, Based on the Federal Reserve Board's Survey of Consumer Finances, Early 1950

	\$ billion
1. Common and preferred stock of publicly and closely held corporations	62
2. Stock in personal trust departments	20
3. Holdings of corporate stock by private nonprofit institutions and other small groups not covered by the Survey	5
4. Total - Unadjusted for under-reporting	87
5. Total - Adjusted for under-reporting	111

Notes to Table F-15

- Line 1 : Based on blow-up of unpublished data reported in the Survey of Consumer Finances, of the Board of Governors of the Federal Reserve System. (See A Study of Saving..., Volume III, Table W-44).
- Line 2 : Not covered by Survey; very rough estimate with a range of \$15 to \$25 billion (cf. Table B-1).
- Line 3 : Not covered by Survey; from A Study of Saving..., Volume III, Table X-3 for private nonprofit institutions.
- Line 4 : Sum of lines 1 through 3.
- Line 5 : Line 1 increased by 39 percent in line with apparent under-reporting of liquid assets (Federal Reserve Bulletin, 1950, 1585) plus lines 2 and 3.

Table F-16

Market Value of Noncorporate Holdings of Stock, Based on Estate Tax Returns, 1949

		<u>1944</u>	<u>1947</u>	<u>1949</u>
1. Market value of stock reported in estate tax returns for estates of decedents of \$60,000 and over	\$ mill.	1,358	1,772	1,773
2. Devolution rate	multiplier	43.8	.	.
3. Market value of stock held by all individuals with estates of \$60,000 and over	\$ bill.	59.5	77.6	77.7
4. Adjustment factor for under-reporting on estate tax returns	Ratio	1.15	.	.
5. Adjusted estimate of the market value of stock held by all individuals with estates of \$60,000 and over	\$ bill.	68.4	89.2	89.4
6. Proportion of all corporate stock held by domestic individuals with estates of \$60,000 and over	percent	.	.	76
7. Line 6 adjusted for (a) the higher proportion in trusts of over \$60,000 of corporate stock holdings; and (b) understatement, in <u>Survey of Consumer Finances</u> , of stockholdings of the larger estates	percent	.	.	80 - 85
8. Market value of stock held by all individuals, average for year	\$ bill.	.	.	105 - 112
9. Market value of stock held by all individuals, end of year	\$ bill.	.	.	115 - 125

Notes to Table F-16

- Line 1 - 1944, 1947 : Statistics of Income, Part I, 1944; 1947.
 1949 : Statistics of Income Source Book.
- Line 2 - 1944 : A Study of Saving..., Volume III, Part III,
 Table E-62.
- Line 3 - 1944-1949 : Line 1 multiplied by line 2. Devolution rate
 (line 2) in 1947 and 1949 assumed for purposes
 of the calculation to be the same as for 1944.
- Line 4 - 1944 : See A Study of Saving..., Vol. III, p. 293, for
 basis of estimate.
- Line 5 - 1944, 1949 : Line 3 multiplied by line 4. Adjustment factor
 (line 4) assumed to be the same in 1947 and 1949
 as in 1944.
- Line 6 - 1949 : A Study of Saving..., Volume III, Table W-53.
- Line 7 - 1949 : Rough estimate
- Line 8 - 1949 : Line 5 divided by line 7.
- Line 9 - 1949 : Line 8 adjusted to year end on basis of movement
 in stock prices.

Table F-17

Comparison of Estimates of the Market Value of All
Common and Preferred Stock Outstanding

(\$ bill.)

End of year	Estimated market value of stock			Capital- ization of gross dividend payments (4)	Book value of equity of corporations		
	Census method				Bureau of Internal Revenue		
	Total (1)	Common stock (2)	Preferred stock (3)		Total (5)	Common stock (6)	Preferred stock (7)
1900	13.5	10.7	2.8	13.0			
1912	37.0	29.0	7.5	35.3			
1922	67.5	56.0	11.5	49.7			
1929	177.9	159.5	18.4	156.6	165.0	145.2	19.7
1933	73.8	63.8	10.0	58.8	127.6	109.2	18.4
1939	95.0	82.0	13.0	96.6	129.0	111.8	17.3
1945	147.2	133.2	14.0	127.0	143.5	128.7	14.8
1949	148.7	133.7	15.0	145.0	198.3	182.9	15.4

Columns 1, 2 and 3 : From Table F-4, lines 1, 2 and 3 respectively.

Column 4 : From Table F-8, line 1.

Columns 5, 6 and 7 : Statistics of Income, 1929, 1933, 1939 and 1945; and Treasury Department, Release No. S-3079, June 20, 1952.

Table F-18

Comparison of Estimates of Market Value of Stock : 1922
(\$ bill.)

	This Study		King	Moody's
	Including inter- corporate holdings (1)	Excluding inter- corporate holdings (2)	(excluding inter- corporate holdings) (3)	
1. Manufacturing and mining	.	.	40.9 ^b	16.3
2. Street railways	.	.	1.0	1.1
3. Railways	6.5	(5.6)	6.1 ^c	5.7
4. Electric and gas utilities	(3.0)	2.2	1.8	2.5
5. Telephone	.9	(.9)	1.0	1.1
6. Telegraph, Express, Pullman	.	.	.4	.
7. Total, lines 1 to 6	.	.	51.4	26.7
8. Banks and Trust Companies	9.2	(9.0)	.	3.4
9. Others	.	.	.	.6
All stocks	67.5	56.0	.	30.7

a
Only securities listed in Manuals.

b
Including equity in unincorporated business enterprises to extent of about \$5 billion.

c
Probably includes intercorporate holdings.

Columns 1 and 2 : Table F-19. Figures in () are guesses based on estimates in cols. 1 or 2.

Column 3 : The National Income and Its Purchasing Power, pp. 227, 229, 269.

Column 4 : Moody's Industrials, 1923, p. XLV.

Table F-19

Comparison of Estimates of Market Value of Stock : Moody's and This Study

	All stocks		Railroads		Electric utilities		Telephone		Commercial banks		All other	
	Moody's study (1)	This study (2)	Moody's study (3)	This study (4)	Moody's study* (5)	This study (6)	Moody's study (7)	This study (8)	Moody's study (9)	This study (10)	Moody's study (11)	This study (12)
1912		37.00		9.70		2.00		.47		5.04		19.75
1916	23.95		5.42		1.17		.65		2.30		14.41	
1922	30.72	67.50	5.72	6.50	1.84	2.20	1.07	.86	3.43	9.20	18.66	48.74
1928	76.63		8.88		8.09		3.29		8.35		48.01	
1929		177.90		10.60		16.90		2.92		15.83		131.65

* Excluding intercorporate holdings.

Columns 1, 3, 5, 7, 9 and 11 : Moody's Industrials, 1923, p. XLV (for 1916 and 1922), and 1929, p. XLIV (for 1928).

Column 2 : Table F-4, line 1.

Column 4 : See notes to Table F-1, line 1.

Column 6 : Table F-11, col. 3.

Column 8 : See notes to Table F-1, line 5.

Column 10 : Table F-12, col. 2

Column 12 : Col. 2 less sum of cols. 4, 6, 8, and 10.

APPENDIX G

ESTIMATES OF SECURITIES AND MORTGAGES OUTSTANDING

Table G-1

Securities and Mortgages Outstanding
(millions of dollars)

	<u>1900</u>	<u>1912</u>	<u>1922</u>	<u>1929</u>	<u>1933</u>	<u>1939</u>	<u>1945</u>	<u>1949</u>	<u>1952</u>
1. U.S. Government securities	1,239	1,191	22,995	16,301	23,994	47,646	278,682	257,160	267,445
2. State and local government securities	1,730	3,823	8,951	14,595	17,481	18,026	14,864	20,795	29,331
3. Domestic corporate bonds	6,887	17,526	24,234	38,978	38,494	33,506	26,956	39,303	50,367
4. Domestic corporate stock	12,300	32,100	57,100	146,900	62,500	81,100	126,200	129,900	195,000
5. Foreign bonds	120	623	4,000	7,375	5,400	2,600	3,050	2,870	3,220
6. Foreign stocks	39	200	700	2,200	800	1,700	2,150	2,250	2,780
7. Nonfarm mortgages	4,409	7,451	16,197	36,480	31,881	30,435	32,592	58,877	86,069
8. Residential	2,917	4,881	11,080	27,001	23,083	22,740	24,643	45,896	66,684
9. One-to-four family	2,625	4,100	8,532	18,912	15,352	16,337	18,543	37,496	58,684
10. Nonresidential	1,492	2,570	5,117	9,479	8,798	7,695	7,949	12,981	19,385
11. Farm mortgages	2,312	4,348	10,786	9,631	7,685	6,586	4,760	5,579	7,140

Notes to Table G-1

Line 1 Includes direct and guaranteed issues, United States savings stamps, and from 1945 on special notes issued to the International Bank and Monetary Fund. Figures differ from those given in Survey of Current Business, October 1950, p. 11, primarily because in the calculations in Appendix A gross federal agency debt less that held by United States Treasury and other federal agencies is not entirely included in federal government debt, as in the Commerce series, but divided into guaranteed and not fully guaranteed issues, the former portion being included in federal government debt and the latter in corporate debt.

1900, 1912: Daily Treasury Statement, various issues.

1922-1939: Banking and Monetary Statistics, pp. 509-512.

1945-1952: Treasury Bulletin, various issues.

Line 2 1900-1952: Excludes sinking fund holdings. Total outstanding derived for 1900-1929 from A Study of Saving..., Table G-21, col. 1, converted to year-end figures by simple arithmetic averaging, plus col. 2; for 1933-1949, ibid., Table V-11, col. 3; for 1952, figures for outstanding security debt of states were obtained by averaging June data given in Bureau of Census, Summary of State Government Finances in 1953, p. 7, and Summary of Governmental Finances in 1952, p. 32, plus similar figures for local governments given loc. cit. However, for local governments data given were not averaged since in 1952 for most cities fiscal year ended on December 31.

Sinking fund holdings for 1900 are a rough estimate based on figures for later years. For 1912-1945 they were derived by multiplying total outstanding by ratio obtained by arithmetic averaging of the ratio of sinking fund holdings to total outstanding for fiscal years based on data given in Annual Report of the Secretary of Treasury, 1946, p. 669 and 1949, p. 591, and Survey of Current Business, September 1953, p. 16. For 1949 and 1952 same procedure as for 1912-1945 was used, but fiscal year sinking fund holdings of state and local securities in 1950 and 1952 were derived for states by adding to the 1949 fiscal year figure 30 per cent of the annual change in total assets of state sinking funds (as shown in Bureau of Census, Compendium of State Government Finances, various issues). This method was called for because no detailed sinking fund data have been published by the Bureau of the Census for years after 1949, and was based on the fact that for the period 1945-1949 states' own and other state and local securities constituted about 30 per cent of total sinking fund assets. For local governments the 1950 fiscal year figure is given, as for the earlier years, in Survey of Current Business, September 1953, p. 16, but the 1952 figure had to be estimated by the same procedure as for states.

Notes to Table G-1 (cont.)

(The ratio was found to be 66 per cent on the basis of data shown in Bureau of Census, Large-City Finances and Compendium of City Government Finances, various issues.) The estimating procedure for local governments is probably more accurate than in the case of state governments since annual movements in total sinking fund assets and sinking fund state and local security holdings in the period 1945-1949 are very close. Also since no 1953 fiscal year data were available at time these calculations were made, the 1952 fiscal year ratio of sinking fund holdings to total outstanding was applied to the calendar-year total outstanding figure to obtain the 1952 calendar-year sinking fund figure.

Line 3 1900-1952: From Table G-2, line 1.

Line 4 1900-1952: Rounded sum of corporate stock outstanding excluding intercorporate holdings (1900-1949 from Table F-4, line 16; 1952 rough estimate derived by adjusting 1949 stock outstanding figure for net new issues and stock price changes during 1950, 1951 and 1952) and corporate stock holdings of financial intermediaries other than personal trust departments (sum of Tables A-1, A-7 and A-18). The figures thus exclude other intercorporate holdings.

Line 5 Limited to American holdings of foreign securities.

1900-1922: From A Study of Saving..., Table K-7, line 4.

1929,1939: Ibid., Table K-7, line 3 plus line 4.

1933,1945: Rough estimates largely developed according to the procedure for other years described in notes to ibid., Table K-7.

1949,1952: Figures for foreign dollar bonds from Survey of Current Business, May 1954, p. 12. Figures for bonds payable in local currencies from Department of Commerce.

Line 6 1900-1929, 1939: A Study of Saving..., Table K-7, line 5.

1933,1945: Same procedure as for line 5.

1949,1952: Based on figures for American holdings of foreign stock from Department of Commerce.

Line 7 1900-1922: A Study of Saving..., Table R-34, col. 1.

1929-1952: Sum of lines 8 and 10.

Line 8 1900-1922: A Study of Saving..., Table R-34, col. 2 slightly reduced for overstatement discussed in A Study of Saving..., Table R-39.

1929-1949: Line 9 plus A Study of Saving..., Table R-35, col. 4.

Notes to Table G-1 (cont.)

1952: Line 9 plus estimate of mortgage debt on multi-family dwellings, based on number of multi-family (over 2-family) structures as given in Department of Labor, Bureau of Labor Statistics releases and construction expenditures on residential buildings from Survey of Current Business, various issues.

Line 9 1900-1922: Derived according to procedure described in A Study of Saving..., Table R-34, col. 2.

1929: Home Loan Bank Board, Source Book, Savings and Home Financing, 1953, p. 21.

1933-1952: Ibid., 1954, p. 21.

Line 10 1900-1922: Line 7 minus line 8.

1929-1939: A Study of Saving..., Table M-12, col. 3.

1945-1952: Estimates for multi-family mortgage debt (line 8 minus line 9) deducted from figures for total multi-family and commercial mortgage debt as given in Survey of Current Business, September 1953, p. 18 plus adjustment made in A Study of Saving..., Table M-12, col. 3 (1952 adjustment same as 1949).

Line 11 1900-1933: A Study of Saving..., Table A-54, col. 2.

1939-1952: Department of Agriculture, The Balance Sheet of Agriculture, 1953, p. 24.

Table G-2

Corporate Bonds Outstanding
(millions of dollars)

	<u>1900</u>	<u>1912</u>	<u>1922</u>	<u>1929</u>	<u>1933</u>	<u>1939</u>	<u>1945</u>	<u>1949</u>	<u>1952</u>
1. Total	6,887	17,526	24,234	38,978	38,494	33,506	26,956	39,303	50,367
2. Three main industry groups	6,852	17,396	22,542	29,955	30,189	27,567	23,908	35,946	46,467
3. Railroad	5,210	9,802	10,842	12,349	12,430	11,868	...	...	...
4. Public utility	1,262	4,987	7,044	11,465	12,509	11,652	...	...	...
5. Industrial	380	2,606	4,656	6,151	5,250	4,048	...	...	...
6. Investment companies	-	-	16	612	439	216	a	a	a
7. Finance companies	-	-	...	259	86	337	a	a	a
8. Real estate	35	130	807	6,219	5,952	3,000	1,850	1,400	1,200
9. Customer ownership	-	-	13	89	105	105	105	105	105
10. Sold directly to independent pension funds	-	-	5	23	36	79	128	364	450
11. Joint-stock land banks	-	-	208	573	367	97	0	0	0
12. Federal land banks	-	-	643	1,188	1,192	1,746	643	716	815
13. U.S. Government, not fully guaranteed	-	-	-	50	128	359	322	772	1,330

a. Included in line 2.

Notes to Table G-2:

Figures generally refer to par amounts, except for real estate bonds, the series for which is a mixture of par (up to 1933) and market values (from 1939 on).

Totals given in line 1 should be regarded as minimum figures for domestic nongovernment bonds outstanding, since no estimates were made for certain types of bonds, e.g. church and timber bonds, outstanding amounts of which are known to be small, and for some other minor types the size of which is not well known.

Comparison of line 2 with the Department of Commerce series for corporate long-term minus mortgage debt (Survey of Current Business, October 1950, p. 11) indicates that estimates derived from the National Bureau of Economic Research Corporate Bond Project statistics are somewhat lower. The difference is partly accounted for by the fact that the National Bureau series (even as adjusted in this table) is limited to bonds, while the Department of Commerce figures include other types of long-term debt. Corporate bonds issued to the Reconstruction Finance Corporation, for example, are omitted from this table. The Commerce series also includes term loans. Whether term loans should, for the purposes of this study, be included in a series of corporate bonds outstanding depends on how they are treated by the respective holder groups. For the two institutions -- banks and life insurance companies -- for which term loans have since 1939 constituted a significant item in security holdings, term loans were as a rule not included in reported corporate bond holdings. If this is the prevalent practice, omission of term loans from total bonds outstanding as shown in this table is the appropriate treatment.

In the absence of conclusive evidence as to whether the National Bureau or the Commerce series more nearly represent the true amount of corporate bonds outstanding, it was decided to use the National Bureau series (as adjusted in this table) since its composition is described in detail, while the scope of the Bureau of Internal Revenue figures, the basis of Commerce series, is not exactly known.

Line 1 1900-1952: Sum of lines 2, 6-13.

Line 2 1900-1939: W. B. Hickman, The Volume of Corporate Bond Financing since 1900, Table A-1.

1945-1952: Estimated by adding to the 1943 outstanding figure as given loc. cit., and rough estimates of amount of investment and finance company bonds outstanding, net issues of corporate bonds (Federal Reserve Bulletin, July 1953, p. 758 and April 1954, p. 382).

Lines 3-5 1900-1939: Same source as for line 2.

1945-1952: Not estimated.

Notes to Table G-2 (cont.)

Line 6 1929-1939: Sum of outstanding bonds of management investment companies (from Table A-21, line 23) and of investment holding companies (1929-1933: Derived from distribution of liabilities for 27 companies as given in Securities and Exchange Commission, Investment Trusts and Investment Companies, Part II, Table 43; 1939: Derived from 1936 distribution as given ibid.)

1945-1952: Included in line 2.

Line 7 1922: Not estimated, but small.

1929-1939: Sum of Table A-25, line 15, Table A-26, line 13 and Table A-27, line 10.

1945-1952: Included in line 2.

Line 8 1900-1949: A Study of Saving..., Table R-41, col. 1.

1952: Rough estimate based on figure for 1949 and trend in previous years.

Line 9 1922-1952: Cumulation of A Study of Saving..., Table V-14, col. 8.

Line 10 1922-1949: Cumulation of A Study of Saving..., Table V-14, col. 9.

1952: Rough estimate based on data given in Table A-10, information from American Telephone and Telegraph Company, and figures for earlier years.

Line 11 1922-1952: From Table A-22, line 10.

Line 12 1922-1952: From Table A-23, line 12.

Line 13 1929-1952: From Table A-24, line 20.

APPENDIX H

FACTORS INFLUENCING CHOICE BETWEEN DIRECT
AND INDIRECT PLACEMENT OF SAVING

APPENDIX H

FACTORS INFLUENCING CHOICE BETWEEN DIRECT AND INDIRECT PLACEMENT OF SAVING

In section 2-d of Chapter II a list of the main factors likely to influence savers in their choice between direct and indirect placement¹ of their saving

¹

The term "placement" is used to indicate the acquisition of any type of intangible asset other than money and is thus a parallel to the economist's use of "investment" in the sense of the acquisition of tangible assets.

financial intermediaries were listed but not discussed. This Appendix provides a very brief description of the nature of these factors and the way they influence the choice between direct and indirect saving. Because of both intrinsic difficulties and limitations of space, this discussion is kept in rather abstract terms, and statistical evidence is added on only one factor -- yield differentials, which is among the most important ones.

1. Yield Differentials

a. Basic Relations. What is important in determining the saver's choice between direct and indirect placement is not apparent yield (the ratio of stipulated interest or current dividends to the price of the asset), but expected yield averaged over the entire life of the commitment. So formulated, yield loses its simplicity and other factors (primarily risk) become inextricably mixed with apparent yield.

As a general rule, the apparent yield of claims against financial intermediaries is lower, from the point of view of the potential lender, than the yield of comparable direct loans. For example, the yield on home mortgages made directly is higher than the yield on deposits with savings and loan associations (the so-called dividend on the shares of these associations) which invest almost all their funds in home mortgages. Similarly, the current yield on common stocks of investment companies is lower than the yield on comparable stocks held directly.

Such a yield differential is necessary to permit financial intermediaries to function, since it must provide for (1) current cost of operation of financial intermediaries (salaries of staff and other operating expenses); (2) the absence of any return on that part of assets which has to be kept uninvested; (3) reserves for losses expected on their own assets; and (4) some allowance for building up surplus or an undesignated general reserve. If financial intermediaries are profit making enterprises, as is the usual case, the differential must also include (5) a contribution to the earnings on the financial intermediaries' paid-in capital, since shareholders or proprietors expect a yield in excess of the interest rate on long-term claims. This yield differential may be regarded as a payment for the advantages, from the lenders' point of view, provided by financial intermediaries.

Along the lines of general economic theory, it may be asserted that the yield differential will, in the long run, be just great enough to compensate the marginal supplier of funds to financial intermediaries for his own evaluation of the advantages implied in using a financial intermediary rather

than holding comparable intangible assets directly. In other words, there exists at every level of yield differentials a certain amount of lenders' funds of a given type that is available for indirect in preference to direct financing. The supply curve of indirect financing of different types that reflects this relation between yield differentials and available funds faces a demand curve which links the amounts of funds of a given type which financial intermediaries are willing to absorb at varying differentials. The intersection of the two curves determines the amount of funds actually supplied to, and absorbed by, financial intermediaries.

This is obviously but a very simplified theoretical scheme. In actuality there are so many different pairs of curves, and they are so much subject to one-time or continuous shifts, that nobody has yet been able to make a significant statement about the actual shape of these curves beyond generalities, which usually are not supported by empirical data. In this situation all that can be done is to speculate about some characteristics of the curves that, if correct, would have a significant influence on the distribution of funds between indirect and direct financing. It may suffice here to state that the importance of financial intermediaries for a given form of financing (reflected in the share of financial intermediaries in the volume outstanding or the changes in outstandings of different types of intangible assets) will -- other things being equal -- vary in a direction opposite to that of the yield differential. Thus, the larger the differential between the yields of direct and indirect holding of the same type of assets, the smaller the share of financial intermediaries in the total amount outstanding. This general statement, of course, holds only if the position or shape of the supply and demand curves of the funds under consideration does not change, a condition which in actual life unfortunately seems to be the exception rather than the rule.

b. The Evidence. In contrast to the situation prevailing for most of the other factors that influence lenders' choice between direct and indirect holding of intangible assets, there is statistical evidence to indicate the width of interest rate differentials and their movements over the last fifty years.²

2

It is necessary to keep in mind in this connection that the choice generally is not between holding one and the same asset directly or through a financial intermediary. The choice is rather between (1) holding one or a bundle of intangible assets directly and (2) holding a claim against a financial intermediary which in turn will hold not one but a bundle of intangible assets, whose exact nature often is not known or is of no interest to those who supply funds to financial intermediaries. There is naturally no necessary correspondence between the type of intangible asset that the financial intermediary acquires with the funds supplied by depositors and the type of asset the depositor would himself have acquired. Indeed, the redirection of funds that takes place as a result of the existence and operation of financial intermediaries is one of their most important economic functions and effects.

The material is, however, much less detailed than one would wish, and more difficult to interpret than might be assumed at first sight.

Among the practical difficulties of a comparison between rates on direct and indirect holding of intangible assets, the following deserve mention:

(1) Yields are virtually always, though not necessarily, calculated on the basis of current income and current asset prices and thus do not measure expected or actually realized yields. However, the difference between current and realized yields is probably not too large, though by no means negligible, for corporate bonds as a whole. It is virtually absent for government bonds but, on the other hand, for foreign bonds probably has been substantial. The difference between expected and current yields is of importance only for common stocks, but here may be large enough at times to make current yields unrepresentative as a factor in the formation of stock prices.

(2) No information is available on yields on inter-personal loans and on neighborhood financing, which together probably constitute a significant and, moreover, changing (declining) proportion of directly held claims. These rates are almost certainly higher than those listed for direct holdings in Table H-1.

(3) The yield on investment company stocks is influenced by the capital gains dividends paid by these companies, which have no parallel in the calculation of the yield of directly held stocks. Hence, the yield differential between direct and indirect holding of common stock is larger than Table H-1 shows.

(4) The figures available for yields on directly held intangible assets generally have to be taken from open market data and, hence, probably somewhat understate the average rates actually charged on loans of this type by non-institutional lenders.

These limitations of the statistics suggest caution in drawing definite conclusions from Table H-1, particularly conclusions for individual forms of placement and on the exact size of differentials. The trends, however, are pronounced enough to make it unlikely that figures better conforming to theoretical requirements would lead to substantially different results.

The most important fact reflected in Table H-1, and one not seriously affected by the limitations of the data, is that the yields on direct holding of assets not only have been continuously above those of indirect holding over the last half century, as expected, but that the differential has widened beginning with the 1930's.

The only case in which direct and indirect holdings can be compared without too many qualifications is provided by the dividend rate on savings and loan shares and the yield on urban mortgage loans, which constitute the bulk of the assets of these institutions. In this case the yield differentials appear to be small up to the Great Depression, hardly exceeding 0.5 per cent if Table H-1 can be believed. This figure, however, probably understates the effective differential because the mortgage rates shown in Table H-1, are based on data in two large cities (New York and St. Louis) and are likely to be substantially below the national average actually obtained by individual lenders. The differentials for 1938 and 1952 are conspicuously larger. The absolute difference is now as high as 1.5 to 2.5 per cent, and the relative differences are still more pronounced (nearly 40 per cent of the rate of indirect holding in 1938 and almost as much as 90 per cent in 1952). The reasons for this sharp widening in the differentials appear to be varied. In 1952, when the differential was particularly large, one of the important factors

was the virtual unavailability of mortgage insurance to noninstitutional lenders. The portfolios of savings and loan associations, on the other hand, contain a large proportion of insured mortgages on which the current yield is necessarily lower, and this is reflected in lower dividend rates. Another factor is the increasing, though still small, share of low yielding liquid assets held by savings and loan associations.

For other types of assets and other financial intermediaries, the comparison is more difficult. However, virtually any reasonable combination of directly held assets will show an increase in differentials beginning with the 1930's when compared with the yield on deposits with financial intermediaries.

At the turn of the century, for example, a mortgage portfolio containing both urban and farm mortgages yielded about 6 percent, and average corporate bonds close to 4 percent. By comparison, time deposits in commercial and savings banks, then probably the most important form of claims subject to choice between direct and indirect holding, paid only 3.5 percent. The differential, averaging the yield from directly held mortgages and corporate bonds, thus was of the order of 1.5 percent, or two-fifths of the yield on indirect holdings. By 1925, when mortgages and corporate bonds yielded approximately 6 and 5 percent, respectively, against a rate of less than 4 percent on time deposits and approximately the same rate on life insurance contracts (guaranteed rate), which had become much more important, the differential was of the same order of absolute or relative magnitude. In 1952, finally, direct holdings of mortgages still earned about 5 percent,

though bonds paid only slightly more than 3 percent. At this date, time deposits with financial institutions yielded approximately 2 percent (weighted average of rate for commercial and savings banks) and the guaranteed rate of life insurance contracts was not much over 2.5 percent. The absolute differential thus remained in the order of 2 percent, but this now represented nearly 100 percent of the rate available on indirect holding of assets.

There is, as has been pointed out, much less scope for choice between direct and indirect holding of equities. Probably the best comparison that can be made is between the current dividend yield (excluding distributions reflecting profits on sales of securities) on the stock of open-end investment companies and the average yield of a large number of common stocks held directly. The differential between these two rates, which can be observed only for the last twenty years since open-end investment companies began to operate on a large scale only after the Great Depression, seems to have retained the same absolute size (approximately 1.5 percent), but to have declined slightly in comparison to the yield on indirect holding of common stock.

We may therefore conclude, even if we make all reservations necessitated by conceptual difficulties and statistical shortcomings, that the yield differential between direct and indirect holding of intangible assets, particularly of claims, has widened, but that the widening process has been essentially limited to the last twenty years. It further would seem, although this cannot be supported by statistical evidence, that holders' evaluation of the advantages of indirect holding has increased considerably and has done so with particular strength since the Great Depression. The

Table H-1

RATES OF CURRENT YIELD ON FUNDS USED DIRECTLY AND
FUNDS ENTRUSTED TO FINANCIAL INTERMEDIARIES

(per cent)

TYPE OF FUND	Direct Use of Funds				
	1900	1913	1925	1938	1952
1. Mortgages, urban	5.42	5.70	5.96	5.25	5.13
2. Mortgages, farm, recorded, all lenders	-	6.40	6.30	5.20	4.70
3. Mortgages, farm, outstanding, all lenders	-	6.10	6.20	4.60	4.70
4. Mortgages, farm, outstanding, individuals	-	6.10	6.10	5.30	-
5. U.S. Government bonds, long	2.18	2.78	3.86	2.56	2.68
6. Corporate bonds, high grade	3.30	4.00	4.50	3.00	3.09
7. Corporate bonds, second grade	-	-	6.27	5.80	3.52
8. Preferred stocks	-	-	5.90	4.34	4.13
9. Common stocks	4.28	5.37	5.19	4.38	5.50
	Use of Financial Intermediaries				
10. Time deposits in commercial banks	3.48	3.49	3.28	1.55	1.16
11. Savings bank deposits	3.48	3.69	4.06	2.10	(2.30)
12. Savings and loan shares	5.41	5.10	5.55	3.81	(2.75)
13. Demand deposits in commercial banks	1.25	1.25	1.19	-	-
14. Open-end investment company shares	-	-	-	(about 3-)	(about 4-)
15. Life insurance contracts (guaranteed rate)	-	-	-	(about 3-)	(about 2 3/4)

Table H-1

- Line 1 - 1900-1952: Average of mortgage interest rates on Manhattan and St. Louis properties as given by Leo Grebler, David M. Blank, and Louis Winnick, Capital Formation in Residential Real Estate: Trends and Prospects, Princeton University Press for the National Bureau of Economic Research, in press, Appendix Table O-1.
- Line 2 - 1900: Data not available.
- 1913, 1925: Historical Statistics, Bureau of the Census, 1949, p. 111.
- 1938: Straight-line interpolation between 1935 and 1941 figures as given in Historical Statistics, p. 111.
- 1952: Continuation to 1952 of Historical Statistics, p. 14.
- Line 3 - Average interest rates for farm mortgage loans held by all lenders, Dec. 31.
- 1900: Data not available.
- 1913-1938: Historical Statistics, p. 111.
- 1952: Agricultural Finance Review, Dept. of Agriculture, Nov. 1953, p. 92.
- Line 4 - Average interest rates for farm mortgage loans held by individuals, Dec. 31.
- 1900: Data not available.
- 1913, 1925: Straight-line interpolation between 1910 and 1920 or 1920 and 1930 figures given in Agricultural Finance Review, Nov. 1953, p. 92.
- 1938: Agricultural Finance Review, Nov. 1953, p. 92.
- 1952: Data not available.
- Line 5 - 1900, 1913: Derived by applying index of Savings Bank Trust Company (D. Creamer, Personal Income during Business Cycles, Princeton University Press for the National Bureau of Economic Research, 1956, p. 134) to 1925 value.
- 1925, 1938: Average yield of partially tax-exempt bonds as given in Banking and Monetary Statistics, Board of Governors of the Federal Reserve System, 1943, p. 468.
- 1952: Fully taxable, marketable 2 1/2 per cent bonds first callable after 12 years. Of these the 1967-72 bonds are the longest term issues. Prior to April 1, 1952 only bonds due or first callable after 15 years were included. From Federal Reserve Bulletin, May 1954, p. 489.

Line 6 - Represents bonds of 40 years to maturity.

1900-1938: Banking and Monetary Statistics, p. 477.

1952: Statistical Abstract, 1953, p. 458.

Line 7 - Yield of Baa corporate bonds as calculated by Moody's.

1900, 1913: Not available.

1925, 1938: Banking and Monetary Statistics, p. 468.

1952: Federal Reserve Bulletin, May 1954, p. 489.

Line 8 1900, 1913: Data not available.

1925, 1928: Historical Statistics, p. 280.

1952: Statistical Abstract, 1953, p. 458.

Line 9 1900-1925: Historical Statistics, p. 280.

1938: Business Statistics, Supplement to the Survey of Current Business, 1951, p. 98.

1952: Survey of Current Business, various issues.

Line 10 - 1900-1938: A Study of Saving..., Table L-23, col. 2.

1952: Ratio of interest paid during year to average deposits (average of figures, excluding interbank deposits, reported at beginning, middle, and end of year) for insured commercial banks. Data from Annual Report of the Federal Deposit Insurance Corporation, 1952, pp. 110, 114.

Line 11 - 1900-1938: A Study of Saving..., Table L-38, col. 4 divided by June deposit figures from Federal Reserve Board, Revised Statistics of All Banks in the U.S. 1896-1950, (unpublished), Table 6.

1952: Preliminary estimates.

Line 12 - 1900-1938: A Study of Saving..., Table J-11, col. 2.

1952: Preliminary estimate.

Line 13 - 1900-1925: A Study of Saving..., Table L-23, col. 1.

1938-1952: No interest paid on demand deposits.

Line 14 - 1938, 1952: Rough estimates based on yields on stock of about a dozen leading companies, excluding capital gain dividends.

Line 15 - 1938, 1952: Rough estimates based on information on contracts sold by leading companies.

movements of yield differentials and of the other elements affecting the choice between direct and indirect holding of intangibles - which will be discussed briefly in the sections that follow - have been in opposite direction, as is to be expected. A quantitative balance between these two forces, of course, cannot be struck. The facts, however, at least do not contradict the hypothesis suggested by the rising trend of financial intermediaries in all competitively held claims, viz. that the widening of the yield differential between direct and indirect holding has not been sufficient -- and indeed it was almost absent until the Great Depression -- to offset the increasing value apparently put by holders on the other advantages of indirect holding, apart from yield. Insufficient difference in yield between direct and indirect holding of claims -- insufficient primarily in comparison to other attractions of indirect holding -- thus may be regarded as a factor which during the last half century, and particularly during the past two decades, has strengthened the position of financial intermediaries, and thus has enabled them to increase their share in virtually all types of intangible assets and particularly in claims.

Interestingly, developments differ strikingly as between claims and equities. In the case of most types of claims the attractions of indirect holding, compared to the yield differential in favor of direct holding, are apparently so pronounced that direct holding by individuals (which, as here defined, does not include holding through personal trust funds), has become the exception rather than the rule save for United States Savings Bonds. On the other hand, in the case of stock and particularly common stock, indirect holding as yet accounts for only a small fraction of total outstandings, (although the yield differential between direct and indirect holding is

relatively much smaller than for claims) and is concentrated in personal trust funds for which the indirect character of the holding is less evident. The inference is obvious that, at least up to now, individuals have not put a high value on the advantages of indirect holding of stock, or possibly have rated their own ability of obtaining better results than professional managers in selecting stocks and in timing purchases and sales rather highly.

2. Liquidity

One major advantage of indirect over direct financing and asset holding from the lenders' point of view is that it generally increases the liquidity of their holdings (the chance of turning assets into cash at the going market price and without appreciable delay, cost or inconvenience). This difference in liquidity is obvious, for example, between a direct mortgage loan on an individual farm and a land bank bond, or between an individual personal loan and a short-term debenture of a personal loan company. The reason for this increase in liquidity inherent in the use of financial intermediaries may be subsumed under the heading of "credit substitution": the replacement of a smaller and less well-known debtor by a larger and better known one, a financial institution.

The improvement in liquidity inherent in a shift from direct to indirect holding of intangibles is obviously evaluated differently by different economic units, and the dispersion of these evaluations for a given type of asset is probably very wide at any one time and within one group of economic units. There nevertheless seem to occur at times definite and substantial movements in one or the other direction which affect the bulk of such evaluations. Whenever

lenders increase the value they put on liquidity, the share of financial intermediaries in financing and in holding intangible assets will rise, and for two reasons. The first is that such an increase in "liquidity preference", as it has been called, will lead to a shift into cash which is a form of necessarily indirect holding. The second reason is that an increase in liquidity will induce a shift from direct to indirect holding even among noncash assets.

3. Reduction of Risk

This is another advantage associated in lenders' minds with indirect financing which is based on credit substitution. Both subjectively and objectively the probability of loss is smaller for an intangible asset of similar character if a financial intermediary is the debtor. The scope for this reduction of risk is created primarily by the fact that financial intermediaries generally spread their assets among numerous debtors, so that the chance of substantial average loss is much smaller than it would be if the lender entrusted all his funds to one or a few individual borrowers as is often the case in direct financing.³

3

On the other hand, the chance of a small (average) loss in any one period is larger for a financial intermediary than it is in direct financing by individual lenders. This consideration, however, is not relevant for the lender, since such small losses are absorbed by the reserves set up by financial intermediaries for that purpose or by intermediaries' net worth.

In fact, when claims against certain financial intermediaries are automatically covered by government sponsored insurance (as is the case in the United States for most deposits with banks and savings and loan associations), the risk of holding such claims virtually disappears.

In the effect on the supply of funds, it is the lenders' current evaluation of the risk differential that matters for the distribution between direct and indirect holding. In the long run, however, there is a tendency for lenders' evaluation of risk to move in the same direction as differences in the actual losses experienced in the two ways of holding the different types of intangible assets. This does not mean that subjective and objective risk differential are not occasionally separated by a fairly wide gap, or even that the actual difference in loss is smaller than lenders' evaluation even in the long run. In other words, discrepancies between realized and expected yields may persist for protracted periods and some may not even show any pronounced tendency to disappear.

As with other factors, a given risk differential is associated in lenders' minds with a given distribution between direct and indirect holding of the volume outstanding, and changes in it, of a given type of asset. When the differential widens, the share of financial intermediaries in assets and financing of a given type may be expected to increase. However, it is very difficult to isolate the effect of this factor except insofar as one may assume -- and that is generally justified in the long run -- that anticipated risk differentials move in the same direction as actual loss differentials.

Unfortunately it is very difficult to get adequate data even on the latter.⁴

4

Pioneering efforts in this field have been made by the National Bureau of Economic Research's Financial Research Program, e.g. W. Braddock Hickman, The Volume of Corporate Bond Financing Since 1900, 1953; and in Dr. Lawrence B. Jones and David Durand, Mortgage Lending Experience in Agriculture, 1953, both published by the Princeton University Press for the National Bureau of Economic Research.

4. Price Fluctuations versus Yield Fluctuations

This consideration does not affect the choice between direct and indirect holding of short-term claims, or of long-term claims, or of equities. Whether held directly or indirectly, long-term claims are free of fluctuations in current income, but are subject to fluctuations in price reflecting primarily movements in the pure rate of interest and the market's evaluation of risk; equities are subject to fluctuations in income and prices; and short-term claims are generally free from fluctuations on either account. The alternative comes into play when, as is often the case, direct holding of bonds is weighed against holding of claims against financial intermediaries which in turn hold bonds in addition to their other intangible assets. In such a choice, lenders' preference (or dislike) of fluctuations in capital value of their assets compared with fluctuations in current income from them, becomes important. A lender who buys a bond is certain of the same current income until the bond is redeemed (disregarding the possibility of default), but he

does not know the price he will receive should he decide to liquidate the bond before maturity. A lender who chooses a deposit with a financial intermediary, on the other hand, is certain that he will maintain the value of his asset (in current dollars although not in purchasing power), but he cannot be sure of his current income since interest rates on deposits with financial intermediaries are subject to change at only short notice. Lenders who attach more importance to stability of income than of capital will use financial intermediaries only at lower yield differentials between deposits with financial intermediaries and bonds, than will lenders more averse -- because of their special situation or because of prejudice -- to capital losses than to reduction in current income.

5. Imperfect Divisibility of Direct Holdings

Most types of claims against financial intermediaries are almost perfectly divisible. They can be acquired in virtually any amount above an almost negligible minimum, and it is very easy to increase or decrease them by any amount desired. Both of these characteristics are absent, or at least less applicable, in the case of direct holding of intangibles. Most forms of direct financing require substantial initial minimum amounts, and it generally is not easy to vary the original commitment by relatively small amounts. This "lumpiness" is particularly pronounced in the case of mortgage loans, probably the most important single form of direct holding of claims. It is also noticeable in the form of corporate bonds which, in the United States at least, are usually issued only in large denominations (\$1,000). Lumpiness also used to characterize government bonds. The introduction of savings bonds in denominations as low as \$25 marks the farthest reaching divisibility of direct holding yet achieved.

The difference in the degree of divisibility between direct and indirect holding has two effects. First, in cases where the funds which the individual economic unit has available for either type of holding are of small absolute amount direct holding is practically ruled out. Even if gradual and regular accrual of small saving installments finally builds up within individual economic units to amounts sufficient for direct holding, inertia will often keep the funds with the financial intermediaries with which they have been held during the period of accumulation. Secondly, even where the funds available exceed the minimum required for direct holding, the flexibility involved in the possibility of increasing or decreasing holdings by any desired amount gives indirect holding the edge, other things being equal.

While it may look like a mere technical consideration, the almost perfect divisibility of claims against financial intermediaries probably has in practice been one of the most important attractions that financial intermediaries have had in competition for free funds. It certainly has been a crucial factor in the growth of financial intermediaries which specialize in handling claims of small absolute amount, such as savings banks, savings and loan associations, and credit unions.

6. Convenience

The greater ease and convenience of indirect compared with direct financing may be regarded from the theorist's point of view as an ill-defined factor in the competition for funds, and one not amenable to quantification. It is, nevertheless, fairly evident that in practice this has been another very powerful factor helping financial intermediaries to attract funds which otherwise might have been used in external direct financing, given the tendency of most

households and of many business enterprises to follow the easiest and best trodden path in placing funds not required in the unit's own operation and not destined for uses in which financial intermediaries must of necessity be employed (cash holding, insurance protection).

Under this heading we may subsume the following features:

(1) Easy accessibility (in the physical sense) of the offices of financial intermediaries.

(2) Lack of formality (particularly lack of need of legal documents and advice) in acquiring claims against financial intermediaries or in liquidating them, a characteristic which is a corollary of the "standardization" of these claims.

(3) Absence of need to search for a unit that can utilize just the amount of funds available to the lender and can match the terms of maturity, repayment schedule, security, and other characteristics that the lender desires.

(4) Lack of need to ascertain the financial standing of the debtor (the financial intermediary) even though neglect of this precaution may not always have been objectively justified. This advantage enjoyed by financial intermediaries is part of the prestige which many types of financial intermediaries have acquired as they have grown old and have become a familiar part of the economic landscape even to economic units not engaged in business and innocent of all financial sophistication.

7. Preservation of Purchasing Power

This is one of the few points in which direct holding of assets, even of intangible assets, would seem to have a decided advantage over indirect holding. Investors who are more interested in the preservation of the purchasing power of

their assets or the income from them than in nominal yields and capital values will prefer to hold tangible assets and equities rather than claims, because there is a good chance that both of these types of assets will move in the same direction as the general price level and the cost of living, although at times exceeding and at other times falling short of the latter's upward or downward movements.

These facts do not in themselves constitute an advantage of direct over indirect holding of assets since, theoretically, tangible assets and equities may also be held indirectly. As a matter of fact, no effective ways have as yet been found to permit individuals, particularly those of smaller means, to hold tangible assets indirectly. While investment companies represent a technically almost perfect means for indirect holding of equities, their use has up to the present time been restricted to a small proportion of all assets holders, and even for them apparently has absorbed only a small part of total assets.⁵ This may be due partly to the fact that people have not been aware

5

The total assets of investment companies at the end of 1949 aggregated approximately \$3 billion (Table A-21), or 0.4 per cent of individuals' total assets, and 0.7 per cent of their intangible assets (A Study of Saving..., Volume III, Table W-16). The number of shareholders in open-end investment companies has been estimated for 1952 at not much over 600,000 (L. H. Kimmel, Share Ownership in the United States, Brookings Institution p. 111), or a little over 1 per cent of all households. (The ratio would be somewhat lower if duplications which arise when more than one individual in a family owns shares in an investment company could be eliminated.)

of the possible or probable differences between preservation of nominal capital and that of its purchasing power, but is probably also due to the less evident advantages of indirect over direct holding in the case of equities as compared to that of claims. The fact that investment companies do not, or not yet, share in some of the advantages which financial intermediaries raising their funds through credit substitution enjoy (such as convenience, prestige, and superior divisibility) may also have been relevant. At the present time, therefore, increasing emphasis on the preservation of the purchasing power of capital or income would probably lead to a shift from indirect to direct holding of equities. Such an effect, however, might be absent in a different environment, in particular in one in which investment companies, or organizations permitting indirect investment in real estate equities, are more widely used.

8. Income Taxes

If income taxes are levied on a progressive scale but hit all forms of income equally, as is the usual case, they will reduce the absolute yield differentials between different forms of placement, in particular between the yield on direct and indirect holding of assets, but they will leave relative yield differentials unchanged.⁶

6

Relative yield differentials are affected -- specifically, reduced -- only when the tax progression leads to application of a higher rate to the excess interest or dividend income that is obtained from direct placement than to the lower income from indirect placement.

Whether income taxes act in practice as a deterrent to direct compared with indirect holding depends, therefore, on whether lenders are influenced predominantly by absolute or by relative yield differentials. No empirical material is available on which a confident judgment could be based. However, it is likely that absolute differentials are given considerable attention by lenders in addition or in preference to relative differentials. If this assumption is correct, the existence of a progressive income tax constitutes another advantage to indirect placement through financial intermediaries. This advantage is particularly pronounced in the case of individuals with large incomes and in periods of high income tax rates, e.g. in the United States since the mid-thirties.

However, the American income tax, as it has operated during most of the last forty years, has contained two features which, taken by themselves, favor income from direct holding. The first of these is the lower tax on capital gains compared to current income. Since capital gains are virtually absent in holdings through financial intermediaries (except investment companies), but are important for many forms of direct holding, particularly the holding of equities and of real estate, lower tax rates on capital gains in effect widen the after-tax yield differential between direct and indirect holding of these assets.⁷

7

This factor is still more important in countries in which capital gains are not subject to income tax, e.g. Great Britain. On the entire subject of effects of capital gains see Lawrence H. Seltzer, The Nature and Tax Treatment of Capital Gains and Losses, National Bureau of Economic Research, 1951.

A second advantage of direct holding is the tax exemption of the interest on state and local government securities.⁸ This tax exemption would be

8

During some periods the interest from certain securities of the federal government was also partially or fully exempt from income tax. (Cf. C.O. Hardy, Tax Exempt Securities and the Surtax, Brookings Institution, 1926).

significant for taxable financial intermediaries holding only state and local government securities since they would then enjoy tax exemption for their entire income. Actually, however, there are no financial intermediaries of this character. State and local government securities are held in considerable amounts both by taxable financial intermediaries (e.g. commercial banks and property insurance companies) and by tax-exempt ones (e.g. mutual savings banks, government insurance funds). In the case of tax-exempt financial intermediaries, the exemption of interest from state and local government securities is in effect wasted, while it is effective for direct individual holders. For taxable financial intermediaries, the privilege is diluted since state and local government securities usually make up only a small proportion of assets.

The effect of the tax exemption of state and local government interest upon yield differentials between direct and indirect placement may be assumed to increase with income tax rates. Hence it should have grown considerably over the last half century, particularly during the last twenty years; and it should have had a stronger effect on lenders with high than with low income. Indeed, for individuals in very high income tax brackets, the yield differential

provided by tax exemption is so large that it has led to the majority of state and local government securities being held directly or through trust funds by individuals in the upper groups.⁹

9

See Goldsmith and Mendershausen in A Study of Saving in the United States, Volume III (Princeton University Press, 1956), Part III.

9. Legal Arrangements and Government Regulation

Government regulations and legal arrangements, by requiring for most types of financial intermediaries some degree of governmental supervision and regulation and by providing special legal arrangements for them, have given financial intermediaries another advantage over direct financing; subjectively by strengthening lenders' confidence in the solvency and effective managements of financial intermediaries and objectively by reducing their losses as a result of the holding of risky assets. Compulsory insurance schemes, virtually underwritten by the government, such as are now in effect in this country for most deposits in banks and savings and loan associations, are examples. Another is the legislation regarding incorporated trustees.

APPENDIX I

MATERIALS ON GROSS FLOW OF FUNDS THROUGH FINANCIAL INTERMEDIARIES

APPENDIX I

MATERIALS ON GROSS FLOW OF FUNDS THROUGH FINANCIAL INTERMEDIARIES

1. The Importance of Gross Flow Information

The body of this study is based, as are virtually all previous studies in this field, on the reported holdings of different types of assets and liabilities by financial intermediaries or on net changes in these holdings sometimes adjusted for certain valuation entries to come closer to the balance of cash purchases and sales.¹ This means doing without information

1

The terms "purchases" and "sales" are intended to include all other acquisitions and disposals and to apply to liabilities and equity as well as to assets.

on how, i.e. by what transactions and other entries, the changes in holdings which appear in the balance sheets of the different types of financial institutions have been brought about. We may, for instance, know that the holdings of an asset by one group of financial intermediaries in a given year has increased by a certain amount, but we still do not know whether this increase was due to purchases unaccompanied by sales; or whether it represented the excess of purchases over sales and how large purchases and sales were; or whether and to what extent the reported change is also affected by unrealized or realized capital gains and losses or other valuation adjustments. More specifically, a change in reported holdings can be broken down as follows into its components:

Reported holdings at end of period	(Actual cost of purchases less actual proceeds from sales) + (realized capital gains minus realized capital losses) +
less	(writeups minus writedowns) + (other
reported holdings at beginning of period	positive adjustments less negative adjustments)

Each of the four bracketed expressions on the right hand side may be positive or negative, and each may be as large or even larger than the change in reported holdings. If we are interested only in the net purchases or sales balance, i.e. the first bracket on the right hand side, it will suffice to estimate the three other terms on that side from the income account or supplementary information and to deduct them from the change in reported holdings. This indeed is the method which has occasionally been followed in social accounting, e.g. in the measurement of saving.²

2

See A Study of Saving ..., Vol. II, Chapter II.

If, on the other hand, our interest is in total transactions or in the relationship of purchases and sales, information on gross actual sales and purchases is required, information which as a rule does not form part of the balance sheets or income accounts of financial institutions as now published.

Our inability to break down reported changes in holdings into their components and our ignorance of the volume of transactions which are responsible for these changes would not be a serious matter if the effects of a given change in reported holdings on the financial institutions themselves, on the capital market and on the economy were the same irrespective of how they were brought about, in particular irrespective of the extent to which they reflect actual cash purchases and sales rather than valuation adjustments and irrespective of the relation between purchases and sales that finally result in a given net change. This is obviously not the case. Ignoring the gross flows behind changes in reported holdings can then be justified only on the assumption that by and large the relationships between changes in holdings, purchases, sales, and the other components of the basic equation do not change; or that if they change they do so in a regular way known to us for

which we can make allowance. Such an assumption appears to be hardly justified to say the least. The customary limitation to changes in reported holdings, therefore, can be defended only by the absence of gross flow data. So long as it continues we shall be debarred from one of the most important approaches to the study of financial institutions and of the capital market, a detailed analysis of the flow of funds through financial institutions. Specifically we shall not be in a position to set up tables, similar to the well-known input-output tables developed in inter-industrial relations research,³ cross-classifying all gross flows involving one or more types of

3

See, for instance, Leontief, W., "The Structure of American Economy, 1919-1929" (1941); and Studies in Income and Wealth, Volume 18 (1954).

intangible assets as to buyers and sellers. There are only very few types of assets with very high rates of turnover, such as cash, Treasury bills, and short-term loans, for which the reported change in holdings, at least if it is adjusted for valuation changes, may be economically more significant than total activity reflected in the sum of all purchases and sales. For most other types of assets and liabilities held by financial intermediaries it is of great importance to know how a reported change in holdings is related to the difference between sales and purchases; to what extent it reflects valuation changes rather than actual flows of funds; and what the ratio between transactions and holdings, i.e. velocity of turnover, is.

Gross flow data, i.e. information on all the factors which take part in reported change in holdings, particularly actual purchases and sales, are thus an important means of following and analyzing the operations of financial

intermediaries. Unfortunately they are only rarely available. Almost the only case in which gross flow data are at hand in readily usable form for a substantial group of financial intermediaries is represented by New York State mutual savings banks. In other instances a more or less extensive amount of gross flow data is available for individual institutions, e.g. in the reports which life and property insurance companies submit to their supervisory authorities, but these data have not - save in a few cases⁴ -

⁴

An example is the unpublished statistics of large insurance companies prepared by the Life Insurance Association of America.

been combined for representative groups of them. It was therefore evident when this study started that supplementation of the basic data on holdings and changes in them by data on purchases and sales, or on net balances of actual transactions, for the entire period from 1900 to 1949, or even a substantial part of it, was out of the question, and that whatever could be done in this field had to be of an exploratory nature. An attempt has, nevertheless, been made to collect as many gross flow data for financial intermediaries as possible and in doing so to resort if necessary to unpublished material. It was, however, decided from the beginning not to go outside the short recent period of 1947 to 1949 and it was evident that any data collected would have to be regarded as illustrative only.

Although a considerable amount of work on gross flow of funds through the main types of financial intermediaries was thus done in connection with this study most of it was of an exploratory and experimental nature and must be charged to experience gained without yielding substantive results directly

usable in this study or amenable to publication.⁵ Attention here will

5

Most of this work was done during 1951 and 1952 by Dr. Howard H. Greenbaum, then Instructor in Accounting, School of Business Administration, Columbia University. Other commitments unfortunately prevented Dr. Greenbaum from analysing the data he had collected to the extent originally planned or to prepare a full report on his findings. Parts of this Appendix, however, make use of some of Dr. Greenbaum's preliminary reports, but they utilize only a fraction of the data collected. Dr. Greenbaum's unpublished thesis Fund Flow Analysis in Economic Research (Columbia University, 1952) treats in detail some of the problems only touched upon here and includes a survey of the literature.

therefore be limited to two aspects of this work. The first is an illustration of the methods by which gross flow data can be derived from balance sheets, income statements and other accounting data. The brief textual discussion in Section 2 uses New York mutual savings banks during the year 1943 as an example, selected because of the availability of aggregate data for a substantial group of financial intermediaries. Accompanying tables show the procedures used.

The only substantive contribution to the information on the gross flow of funds through financial institutions is made in Section 3 in the form of a brief review of activity ratios for the years 1947-1949, or part of that period, for commercial banks, mutual savings banks, the postal savings system, life insurance companies, property insurance companies, and savings and loan associations. An attempt is made there to compare activity ratios for different types of assets and different groups of financial intermediaries, as it is felt that in the present almost complete absence of material in this field the analysis of scattered absolute figures would be premature. This is supplemented by a brief review of the few available historical series, most of which relate to deposits with financial institutions.

2. An Example: Gross Flow of Funds through New York State Mutual Savings Banks, 1943⁶

6

This section closely follows a draft by Howard H. Greenbaum.

The accounting techniques applicable in this study of gross flows of funds through financial institutions will be illustrated by aggregate figures for 131 New York mutual savings banks during the year 1943. The basic data were obtained from the New York State Banking Department's combination of individual reports made by the 131 banks.

The derivation of gross flow statistics will be described in three steps: The first step discusses the manner in which comparative balance sheets allow the derivation of statements of sources and uses of funds based on unadjusted net changes in each account balance. The second step indicates the procedure whereby a more accurate statement of net sources and net uses may be derived by adjusting for items which are reflected in the accounts but do not represent a flow of funds. The third step derives gross flow statistics by substituting detail for the adjusted net sources and adjusted net uses of funds. The text is limited to a brief description, the details which show the various accounting operations being given at the end (Tables I-13 through I-16, beginning on page I-49).

a. Sources and uses of funds derived from the net change in balance sheet accounts

Table I-1 shows the application of the unadjusted net change method of analysis. Columns 1 and 2 contain the amounts for the various balance sheet accounts at the beginning and end of the year 1943.⁷ The difference between

7

The account titles employed are almost identical with those required by the New York State reporting form for 1943. The main exception related to the handling of reserves. On the reporting form they are separately indicated, but in Table I-1 they have been offset against their related asset account.

Table I-1

Derivation of Net Change in Balance Sheet Accounts, New York State Mutual Savings Banks, 1943
(\$ 000.)

I - 7

	Balance Sheet		Net Change				Uses (7)	Sources (8)
	December 31, 1942	December 31, 1943	Asset		Liability and Equity			
	(1)	(2)	Increase (3)	Decrease (4)	Increase (5)	Decrease (6)		
<u>Assets</u>								
Cash on hand and cash items	\$45,668	\$45,501		\$167				
Due from banks and trust companies	318,807	425,099	\$106,292				\$106,125	
Promissory notes - net of reserve	1,036	796		240				\$240
Bond investments - net of reserve	2,659,889	3,359,488	699,599				699,599	
Mortgage investments - net of reserve	2,887,579	2,783,023		104,556				104,556
Advances for taxes, insurance, etc. - net of reserve	1,153	924		229				229
Real estate owned - net of reserve	191,066	130,176		60,890				60,890
Real estate sold on contract - net of reserve	8,159	6,940		1,219				1,219
Banking house - net of reserve	65,931	61,629		4,302				4,302
Furniture and fixtures - net of reserve	157	82		75				75
Accrued interest receivable - net of reserve	32,584	32,329		255				255
Mutual savings banks fund - net of reserve	9,322	0		9,322				9,322
Institutional securities corporation stock, savings bank trust company stock and debentures	37,404	37,358		46				46
Other assets - net of reserve	4,833	4,814		19				19
Total	\$6,263,588	\$6,888,159						
<u>Liabilities and Surplus</u>								
Deposits	\$5,574,423	\$6,173,503			\$599,080			599,080
Accrued taxes, expenses, dividends	6,186	5,936				\$250	250	
Other liabilities	10,334	12,166			1,832			1,832
Surplus fund	503,903	524,422			20,519			
Undivided profits	150,874	154,287			3,413			
Reserve for contingencies	17,886	17,845				23		
Total	\$6,263,588	\$6,888,159					\$805,974	\$805,974

Source: Derived from data (partly unpublished) of the New York State Superintendent of Banks.

these amounts for each account is extended either into column 7 (uses of funds), indicated by asset increases and liability or surplus decreases, or column 8 (sources of funds) indicated by asset decreases and liability or equity increases. It is seen that 74 percent of the total sources of funds amounting to \$806 million were obtained from increased time deposits; 21 percent from the conversion of mortgage loan and real estate assets; and approximately 3 percent from retained earnings the remainder was mainly due to a variety of asset conversions. Approximately 87 percent of these funds were placed in bond investments of various types while 13 percent were employed to build up cash balances.

b. Sources and uses of funds derived from the adjusted net change in balance sheet accounts.

By adjusting the various accounts for items reflected in them which do not involve a flow of funds, Table I-2 arrives at a more accurate statement of the sources and uses of funds. While columns 1 and 2 contain the same data as in columns 7 and 8 of Table I-1, there has been a certain amount of rearrangement of stubs and combination of accounts.⁸

8

The stub, "operations", represents the difference in the surplus, undivided profits and contingency reserve accounts; the stub, "other liabilities" includes accrued taxes, expenses, and dividends and other liabilities; real estate owned and real estate sold on contract have been considered as one category termed real estate; furniture and fixtures and banking house have been reported under the stub "banking house"; cash on hand and cash items together with due from banks and trust companies are grouped under the term "cash and due from banks."

Columns 10 and 11 of Table I-2 indicate the uses and sources of funds after adjustment. The information needed for these adjustments was obtained from the income surplus statement and special account analyses contained in the New York State reporting form. These adjustments, indicated in columns 3-9, are of two types. One concerns book entries that do not involve funds,

Sources and Uses of Funds Derived by the Net Change Method of Analysis, New York State Mutual Savings Banks, 1943
(\$ 000)

	Unadjusted		Profits on Sales (3)	Recoveries (4)	Losses on Sales (5)	Direct Charge-off (6)	Valuation Allowance		Mortgage Valuation Allowance Ap- plied Directly to Real Estate (9)	Adjusted	
	Use (1)	Source (2)					Return of Reserve (7)	Current Provision (8)		Use (10)	Source (11)
Operations		\$23,908	\$-24,351	\$-60,728	\$9,854	\$57,648	\$-22,840	\$90,142			\$73,633
Deposit liabilities		599,080									599,080
Mortgages		104,556		404		-6,003	8,913	-75,114	\$12,851		45,607
Real estate		62,109	1,507	4,876	-6,610	-25,843	920	-5,723	-12,851		18,385
Banking house		4,377				-1,934		-2,963		\$520	
Mutual savings banks fund		9,322		32,699		-3,403	30	-15			38,633
Other liabilities ^a		1,582									1,582
Promissory notes		240					2				242
Advances for taxes		229				-347	302	-372			188
Accrued interest receivable		255				-709	207	-110			357
Other assets		19				-3,388	839	-811			3,340
Institutional securities											
corporation stock and											
savings bank trust											
company stock and											
debentures			46								46
Bond investments	\$699,599		22,844	22,749	-3,244	-16,021	11,627	-5,034			666,678
Cash and due from banks	106,125										106,125
	<u>\$805,724</u>	<u>\$805,724</u>									<u>666,678</u>
											<u>106,125</u>
											<u>\$777,208</u>
											<u>\$777,208</u>

a

Includes accrued taxes, expenses, dividends - thus accounting for difference in totals between cols. 7 and 8 of Table I-1 and Cols. 1 and 2 above.

Note: An adjustment amount preceded by a minus sign (-) represents an item with the same effect as a use of funds, while the lack of a sign before an adjustment amount represents an item with the same effect as a source of funds.

Source: Same as Table I-1.

e.g. direct charge-offs, current provision for valuation allowances, reversal of valuation allowances found to be unnecessary, and the application of mortgage valuation allowances to real estate owned.⁹ The other type of

9

The write-off of an asset by a charge to valuation allowances is not noted here because the asset accounts in Tables I-1 and I-2 are net of reserves. Hence, any write-off against reserves does not affect the balance.

adjustment relates to transactions in which funds are part of the exchange but the reflection on the books of record and on the balance sheet as practiced in ordinary accounting is not suitable for the purposes of fund-flow analysis. In this category are found profits, losses and recoveries involving the realizations upon, or sales of, mortgages, real estate, securities and other assets. Upon the sale of an asset, such as real estate or securities, the normal accounting procedure calls for the retirement of the book value of the asset and the indication of the difference between the funds received and such book value as a profit, recovery, or loss in the income statement.¹⁰ The net change in the asset account reflects the

10

A loss indicates that funds received were less than book value of the asset at time of disposition. Both a profit and a recovery denote that funds received were greater than the book value of the asset at time of disposition. However, a profit notes that the funds received were greater than the funds invested while a recovery notes only that the funds received were greater than the book value at time of disinvestment. It is thus possible for one transaction to give rise to both a recovery and a profit.

decrease in book value and not the funds received on disposition. Inasmuch as the book value may be less, as a result of a previous write-down, than the original investment, it is preferable to reflect sales proceeds by combining the asset decrease with the profit, recovery, or loss.

To gain an adjusted measure of funds from operations the unadjusted operations figure of \$23.9 million in column 1 is increased by the amount of direct charge-offs, current reserve provisions and losses on sales, while an adjustment of opposite sign is proper for the amounts of valuation reserves returned and of profits on sales and recoveries. The adjusted figure of \$73.6 million then represents the net sources of funds arising from regular banking operations, i.e. revenues providing funds less expenses and dividends requiring funds. This excludes valuation adjustments and realized capital gains and losses. Sources of funds from mortgage loans were adjusted from \$104.6 million to \$45.6 million largely as a result of eliminating the effect of reserve provisions and write-offs. Unadjusted sources of funds from real estate owned of \$62.1 million decreased to \$18.4 million after adjusting for reserve provisions and write-offs. The banking house account is reflected as a source of funds of \$4.4 million in the unadjusted figure but upon being adjusted for direct charge-offs and current reserve provisions including depreciation credits to the asset account, the adjusted figure is indicated as a use of funds of \$.5 million. The other accounts are treated similarly, being subject to more or less adjustment.

By far the largest adjustments are required because of current valuation reserve provisions, direct charge-offs and recoveries. The adjustments relating to profit on sales and return of unnecessary valuation reserves are next in size and the losses on sales are the smallest in dollar amount. If the asset accounts had been stated gross of reserves, additional adjustments amounting to \$27.6 million would have been necessary to remove the effect of charge-offs against existing valuation allowances.

c. The gross flow of funds derived by substituting detail behind adjusted net change.

A statement indicating the gross sources and gross uses of funds may be derived by indicating the detailed transactions back of each of the net sources and net uses of funds. To accomplish this it is necessary to adopt a fund concept in order to insure a consistent measurement procedure. The purpose behind the work will determine the concept to be employed, although this often must be tempered in light of available data. For the purpose of tracing the flow of funds through financial intermediaries in a manner that can be integrated with fund-flow statements of other sectors of the economy, it is desirable to select a fund concept enabling the measurement of all transactions in goods and all loan and security market transactions. Inasmuch as not all transactions involving goods and services are captured by a cash fund-flow concept because of the existence of trade credit and of accrued and deferred items, the fund concept here adopted is broader than cash alone. The actual components of "funds" of mutual savings banks may be seen by reference to Section II of Table I-3.

A summary of the gross flow of funds through the New York State mutual savings banks for the year 1943 is presented in Section I of Table I-3. Total sources of funds of \$4,701 million from deposits, bond sales and redemptions, reductions of mortgage loan account, security liquidation, real estate sales and the sale of services exceeded by \$104 million the total uses of funds of \$4,597 million due to withdrawals, bond investments, mortgage loans, security acquisitions, real estate acquisitions, and the purchase of goods and services.

Table I-3

Flow of Funds through New York State Mutual Savings Banks, 1943
(\$ 000)

Section I - Summary of the Flow of Funds^a

Sources of funds:

Deposits ^b	\$1,868,810	
Bond sales and redemptions	2,235,038	
Reduction of mortgage loan account	219,241	
Other repayments and security liquidation	38,921	
Real estate sales	92,404	
Receipts for goods and services ^c	229,935	
Recoveries and other sources	<u>17,044</u>	
Total sources of funds ^d		\$4,701,393

Uses of funds:

Withdrawals by depositors	1,269,730	
Bond investments	2,901,716	
Mortgage loans	173,634	
Other loans and security acquisitions	188	
Real estate acquisitions	73,624	
Payments for goods and services ^b	173,111	
Losses and other uses	<u>5,121</u>	
Total uses of funds		<u>\$4,597,124</u>

Net sources of funds for period

\$104,269Section II - The Fund Area and Changes Induced by the Flow of Funds

	<u>Jan. 1, 1943</u>	<u>Dec. 31, 1943</u>	<u>Net change</u>
Cash on hand and cash items	\$45,668	\$45,501	\$-167
Due from banks and trust companies	318,807	425,099	106,292
Accrued interest receivable-net of reserve	32,584	32,329	-255
Other assets - net of reserve	4,833	4,814	-19
Total	<u>\$401,892</u>	<u>\$507,743</u>	<u>\$105,851</u>
Accrued taxes, expenses, dividends	\$6,186	\$5,936	\$-250
Other liabilities	10,334	12,166	1,832
Total	<u>\$16,520</u>	<u>\$18,102</u>	<u>\$1,582</u>
Net funds	<u>\$385,372</u>	<u>\$489,641</u>	<u>\$104,269</u>

Notes to Table I-3

a

For supporting schedules see Table I-13.

b

Includes interest credits.

c

Excludes real estate not utilized in operation of banking house.
Includes banking house and other fixed asset acquisitions.

d

Comparison of totals or individual accounts with similarly labelled stubs in subsequent tables may show some slight differences. For example, the figure of \$4,701,393 thousand labelled "total sources of funds" in the present table compares with \$4,701,928 thousand in col. 5 of Table I-4. Such differences result primarily from (1) the necessity of incorporating the fund area into the source and use presentation so as to provide the same type of presentation as in net change analysis; and (2) the effort to conform to the net change analysis conception of "operations" resulting in a different treatment of some capitalizable items.

Source: Same as Table I-1.

Table I-13 supplies the detail supporting the summary of gross sources of funds in Section I of Table I-3. It indicates the breakdown of deposits into new deposits and dividend credits; the composition of bond sales and redemptions as to redemptions, sales (with note as to profit, loss or recovery attendant thereto) and amortization; the composition of the reduction in the mortgage loan account, as to foreclosures, payments, refinancing and recoveries; the composition of other repayments and security liquidations as to promissory notes, advances for taxes and insurance, and mutual savings bank insurance fund; the composition of real estate sales as to real estate sold on contract and real estate sold outright; the composition of services sold as to interest from various sources, rentals, fees and commissions, and other miscellaneous sources; and the composition of recoveries and other sources.

In like manner Table I-13 elaborates upon the summary gross uses of funds presented in Section I of Table I-3. The gross use of funds relative to the mortgage loan account is divided as to new loans and additions to loans, and purchase money mortgages related to sales of owned real estate; the composition of other loans and securities requiring the use of funds is noted; payments for goods and services are detailed as to capitalizable expenditures (services and materials, n.e.c.), payroll, interest or dividends, insurance, rent, taxes, service fees, and other services and materials.

Just as Table I-13 details Section I of Table I-3, so an additional section might detail Table I-13. For instance, deposits and withdrawals might be analyzed by size of account, geographical location, industrial centers and age of depositor; and bonds sold and purchased by type of security, type of issuer, time to maturity, method of acquisition (original issue or

otherwise), etc. The elaboration could extend in many ways. The available data, however, do not provide these additional breakdowns. The statistics therefore have to be restricted to gross flow unrefined for the large amount of detail appropriate for an adequate understanding of many problems.

A comparison of the flow of funds calculated from unadjusted and adjusted changes in assets and liabilities, on the one hand, and from three variants of the gross flow method on the other hand, is provided in Table I-4.¹¹ While total sources and uses come to approximately \$800 million

11

The differences among the three methods must be interpreted in the light of the purpose and construction characteristic of each method. Under the first variant (I) of the gross flow method bond sales and redemptions are considered as sources and uses within the flow of funds available for investment; the second variant (II) nets bond sales and redemptions against bond investments so that bonds sold or redeemed in the year studies are not viewed as furnishing funds available for investment; the third variant (III) evolves the fullest description of all important goods and financial transactions and the least amount of netting as compared to the other variants of the gross flow method or the two variants of the net change method.

The number of variants used depends, first, on the nature of the institutions and the particular accounts studied; and, second, on certain assumptions made on whether mobilization of sources of funds was intentional or not and whether the disposition of such funds received occurred by intention or otherwise, i.e., whether funds received permitted decisions as to the manner of investment. Thus, for example, variant II of Table I-4 attempts to point out the flow of funds available for investment on the assumption that bond sales and redemptions do not furnish such funds when exceeded by bond investments.

under the net change method, they rise to \$4,700 million under the fullest gross flow presentation. The difference is due primarily to the fact that gross flow method includes deposits received offset by deposit withdrawals to the extent of nearly \$1,300 million, and bond purchases offset by bond sales to the extent of over \$2,200 million, which are essentially omitted under the net change method. Differences are, however, substantial in

Comparison of Net Change and Gross Flow Methods, New York State Mutual Savings Banks, 1943

	Net Change		Gross Flow			Net Change		Gross Flow		
	Unadjusted	Adjusted	I ^a	II ^b	III ^c	Unadjusted	Adjusted	I ^a	II ^b	III ^c
	(percent of total sources of funds)					(\$ 000)				
	(6)	(7)	(8)	(9)	(10)	(1)	(2)	(3)	(4)	(5)
Sources of Funds:										
Operations	3.0%	9.5%	2.3%	8.3%	5.2%	\$23,908	\$73,633	\$73,633	\$73,633	\$245,932
Deposit liabilities	74.4	77.1	19.2	68.1	39.7	599,080	599,080	599,080	599,080	1,868,810
Mortgages	13.0	5.9	4.7	16.6	4.7	104,556	45,607	145,617	145,617	219,241
Real estate	7.7	2.4	0.7	2.4	2.0	62,109	18,385	20,986	20,986	92,404
Banking house	0.5	..	..	..	..	4,377	--	--	--	--
Mutual savings bank fund	1.2	5.0	1.2	4.4	0.8	9,322	38,633	38,633	38,633	38,633
Other liabilities	0.2	0.2	0.1	0.2	d/	1,582	1,582	1,582	1,582	1,582
Promissory notes	d/	d/	d/	d/	d/	240	242	242	242	242
Advances for taxes	d/	..	..	..	..	229	--	--	--	--
Accrued interest receivable	d/	..	..	..	..	255	--	--	--	--
Other assets	d/	..	..	..	..	20	--	--	--	--
Institutional securities corporation										
stock and savings bank trust company						46	46	46	46	46
stock and debentures	d/	d/	d/	d/	d/	--	--	2,235,038	--	2,235,038
Bonds	..	..	71.8	..	47.5	--	--	--	--	--
Total	100.0%	100.0%	100.0%	100.0%	100.0%	\$805,724	\$777,208	\$3,114,857	\$879,819	\$4,701,928
Uses of Funds:										
Bonds	86.8%	85.8%	93.2%	75.8%	61.7%	\$699,599	\$666,678	\$2,901,716	\$666,678	\$2,901,716
Mortgages	..	..	3.3	11.7	3.7	--	--	102,611	102,611	173,634
Cash and due from banks	13.2	13.7	3.4	12.1	2.3	106,125	106,125	106,125	106,125	106,125
Advances for taxes	..	d/	d/	d/	d/	--	188	188	188	188
Accrued interest receivable	..	d/	d/	d/	d/	--	357	357	357	357
Other assets	..	0.4	0.1	0.4	0.1	--	3,340	3,340	3,340	3,340
Banking house	..	0.1	d/	0.1	d/	--	520	520	520	520
Deposit withdrawals	..	..	..	..	27.0	--	--	--	--	1,269,730
Operations	..	..	..	..	3.7	--	--	--	--	172,299
Real estate	..	..	..	..	1.6	--	--	--	--	74,019
Total	100.0%	100.0%	100.0%	100.0%	100.0%	\$805,724	\$777,208	\$3,114,857	\$870,819	\$4,701,928

Notes to Table I-4

a

Funds available for investment. For details see Table I-15.

b

Funds available for investment treating the net increase in bonds as a use of funds. This presentation is identical with gross flow Method I with one exception. The gross source of funds from bond sales and redemptions indicated in Method I has been netted against the gross bond investments to derive a figure for Method II which can be termed the net use of funds on bond account.

c

Fullest gross flow presentation.

d

Less than 0.5 percent.

Source: Same as Table I-1.

several other items too, and not only as between the net change and gross flow method but also between the variants of each, particularly between the unadjusted and adjusted net change method. This is only an illustration of the fact that, as has been stressed in the preceding section, the two methods and their variants cannot be indiscriminately used together or in lieu of each other.

Table I-14 compares in more detail the statistics supplied by the adjusted net change presentation of Table I-2 and the gross flow presentation of Table I-3. The purpose of this table is to indicate the manner in which each item in the adjusted net change presentation appears in the gross flow statistics. In general the gross flow method simply substitutes detail for adjusted net figures. However, the adoption of a special fund concept roughly corresponding to cash and trade credit (excluding all loan and security accounts) compels certain other readjustments. Thus, for example, (1) changes in the constituents of the fund concept, e.g. granting or repayment of trade credit, are not considered as sources or uses of funds; (2) charge-offs, reserve provisions, and returns of reserves affecting constituents of the fund concept are considered as uses or sources of funds; and (3) capitalized items affecting accounts such as real estate and banking house are grouped with other purchases of goods and services found in the detail supporting income and expense operations.

3. Velocity of turnover of assets as measured by gross flow data.

One of the more promising uses of gross flow data is the determination of the velocity of turnover of different types of assets for various groups of financial intermediaries, measured by activity ratios, i.e. the ratio

of purchases plus sales to average holdings. This ratio can be derived only from true gross flow data, i.e. specific information on the value of debits (purchases) and sales (credits), but not from unadjusted or adjusted net changes in holdings. Hence the scope for such calculations is still very limited.¹²

12

The activity ratio is thus about twice as high as the usual velocity of turnover which is calculated as the ratio of debits to average holdings and therefore takes account only once of every transaction between two units. When there is a net increase in holdings of an asset the activity ratio is less than twice the velocity of turnover as usually calculated, since debits exceed credits. More specifically the activity ratio falls short of twice the velocity of turnover by the ratio of net increase in holdings to average holdings, which for annual data is usually a small fraction. In periods of net declines of holdings credits will be larger than debits and the activity ratio higher than twice a turnover ratio based on debits. The relations are just the opposite for liability accounts. Here the activity ratio is above twice velocity of turnover when net balances rise and below that level when net balances fall.

The concept of velocity of circulation was first developed in connection with money, using either an aggregate for all forms of money or separate ratios for different types of money like currency and demand deposits. The concept has also been extended to time deposits whether or not they are regarded as part of the money supply. In its application to money velocity may be regarded either as velocity of turnover of liabilities of the issuing institutions (banks or governments) or as velocity of turnover of assets of holders - all economic units together or certain groups of them. The data on velocity of turnover derived from the gross flow statistics of financial intermediaries must, on the other hand, be regarded primarily as illuminating the investment habits and policies of these institutions. Since in most cases the various groups of financial intermediaries are not the only holders of a given asset, it is not possible to draw direct

conclusions from their activity ratios as to the average or typical velocity of circulation of the asset in question.

Probably the first objective in the calculation of activity ratios for different assets of financial institutions is the determination of the extent of shifting between assets. This can be interpreted in several ways. First we may regard every acquisition or disposition of an asset of a given type as a relevant shift. The activity ratio is then calculated simply as the sum of purchases and sales divided by average holdings, commonly equated to the average of holdings at the beginning and end of the accounting period, often one year. Alternatively it may be argued that the first acquisition of an asset (other than cash) should be excluded from the calculation of activity, as not representing a shift among assets, and that for the same reason a sale representing a net decrease in holdings over the period should be excluded. If this point of view is adopted, activity ratios will be calculated as the sum of purchases and sales less the absolute value of the net change in holdings over the period divided by average holdings, a measure which obviously will be smaller than an unadjusted activity ratio and will differ from it by the ratio of net change in holdings to average holdings. This formula, of course, implies the assumption that net purchases of a given asset over a period approximate, though they may not be identical with, first purchases. Since this assumption is not likely to be generally correct the adjusted activity ratios should as a rule be used only in periods when there are sharp changes in net holdings, particularly when the changes are in the same direction for total assets and most individual assets so that net purchases or sales are not so much shifts among assets, as reflections of general expansion or contraction of assets. In such cases the adjusted formula is likely to be closer to the use of purchases and sales which reflect shifts among assets than the unadjusted formula.

The activity ratios for given types of asset (or liability) for one or more groups of financial institutions are of interest from several angles. First, the typical level of velocity of activity - if one exists - is an important determinant of the character of the market for the asset in question. High velocities of turnover of financial institutions for a given asset generally point to an active market and, hence, a substantial degree of liquidity for that asset. Secondly, stability or variability of activity ratios for various assets and different groups of financial institutions are significant factors to be taken into account in the analysis of the different sectors of the capital and securities markets. The smaller the variability in the activity ratios of financial institutions the greater in general the stability of the market. Thirdly, in the cases where velocity of turnover can be measured or approximated for the total holdings in the economy -- as is the case for corporate bonds and stocks and residential mortgages -- the activity ratios of financial institutions, and the data on purchases, sales, and holdings underlying them, permit estimation of the velocity of turnover for non-institutional holdings and comparisons between groups of holders which are helpful in the analysis of these sectors of the capital market. Finally, there is reason to assume that activity ratios for an appropriately selected sample of financial intermediaries of a given type is characteristic for the entire group. This permits indirect estimation of gross flows for broader groups of financial institutions, which is important in view of the scarcity of comprehensive direct data on gross flows.

The discussion of activity ratios for individual assets will already have indicated that there is little room or use for activity ratios for aggregate assets of financial institutions, or even for total non-cash assets. The assets of financial intermediaries are too heterogenous with respect to their velocity of turnover to give economic significance to such aggregate ratios which by their nature are unable to shed light on any specific sector of the capital and securities markets. Indeed the same objection can be raised against activity ratios calculated for very broad groups of assets, such as aggregate security holdings or even all bond holdings. Activity ratios generally are useful only when they apply to a fairly homogenous group of assets or liabilities.

a. Data for 1947-1949.

Before presenting a few results of calculations of activity ratios for the period 1947-49 a word may be said about the nature of the material. Comprehensive gross flow data were available only for mutual savings banks in New York State, and these (covering the years 1942-1949) will be found summarized in Table I-5. For all other groups gross flow data on assets could be obtained only for samples, since data on acquisitions and dispositions of different types of assets were available only for individual institutions, generally from their reports to supervisory agencies, and it was not feasible within the limits of this study to collect this material for all institutions of a given type or even a large proportion of them. In the case of life insurance companies use could be made of the gross flow data for the eighteen largest institutions collected by the Life Insurance Association of America. For property insurance companies we have to be satisfied with two samples of both fire

Table I.5
Annual Activity Ratios, in Selected Assets 1947 to 1949, of Four Types of Financial Intermediaries

	18 largest life insurance companies		10 largest fire and marine insurance companies		10 largest casualty and misc. insurance companies		New York State mutual savings banks		
	1947 (1)	1948 (2)	1949 (3)	1948 (4)	1949 (5)	1948 (6)	1949 (7)	1947 (8)	1948 (9)	1949 (10)

a. Gross activity + average holdings

1. Mortgage loans	.47	.45	.39	.15	.11	.23	.26	.34	.35	.40
2. Real estate	.42	.47	.28	.12	.16	.12	.12	2.11	3.29	4.16
3. Total stocks	.29	.17	.19	.73	.74	1.12	1.00	.87	.81	.76
4. Total bonds	.28	.33	.20	.19	.52	.67	.21	.63	.80	.57
a. Railroad	.17	.11	.08	.83	.54	.19	.74	1.40	.77	.90
b. Public utility	.41	.27	.18	.47	.16	.84	.54	1.67	1.15	1.35
c. Industrial & misc.	.61	.49	.35	.51	.43	.83	.53	1.20	1.22	1.43
d. State, local, foreign	.17	.28	.21	.82	.84	.48	1.11	.86	.80	.75
e. U.S. government	.20	.34	.15							

b. Net change in holdings + gross activity

1. Mortgage loans	.35	.50	.48	.95	.93	.59	.45	.20	.36	.37
2. Real estate	.52	.67	.70	.05	.48	.14	.12	.04	.16	.22
3. Total stocks	.65	.44	.72	.29	.11	.89	.29	.07	.02	.04
4. Total bonds	.15	.11	.12	.15	.13	.03	.32	.49	.79	.39
a. Railroad	.06	.35	.10	.41	.10	.15	.83	.41	.65	.10
b. Public utility	.57	.85	.60	.47	1.00	.82	.60	.54	.56	.02
c. Industrial & misc.	.68	.76	.55	.76	.54	.08	.08	.47	.38	.25
d. State, local, foreign	.07	.49	.22	.26	.06			.04	.05	.02
e. U.S. government	.45	.56	.78							

c. Net activity + average holdings = [a (1 - |b|)]

1. Mortgage loans	.31	.23	.20	.01	.01	.09	.14	.27	.22	.25
2. Real estate	.20	.16	.08	.11	.08	.96	.88	2.03	2.76	3.24
3. Total stocks	.10	.10	.05	.52	.66	.07	.15	.81	.79	.73
4. Total bonds	.24	.29	.16	.16	.45	.18	.50	.32	.17	.35
a. Railroad	.16	.07	.07	.49	.00	.71	.09	.83	.27	.81
b. Public utility	.18	.04	.07	.25	.00	.15	.21	.77	.51	1.32
c. Industrial and misc.	.20	.12	.16	.12	.20	.15	.21	.64	.76	1.07
d. State, local, foreign	.16	.14	.16	.61	.79	1.09	1.02	.83	.76	.74
e. U.S. government	.11	.15	.03							

Notes to Table I-5

Source: Columns 1 to 7: Derived from individual company reports.

Columns 8 to 10: Same source as Table I-1.

and casualty and miscellaneous insurance companies, the one including the ten largest companies in each of the two branches, and the other a small random sample of companies of lesser size. The situation is even worse for commercial banks. Here published gross flow data are entirely lacking for assets and notwithstanding considerable efforts could be obtained only for a few large New York banks for limited periods and a few asset categories. Hence an experiment was made with various substitute methods which are described below. The statistics of the Securities and Exchange Commission provide quarterly data on the purchases and sales of investment companies, but since these cover all securities other than U.S. government without breakdown they are of limited use. No gross flow data at all are available for personal trust departments, private pension funds, and a number of smaller groups of financial intermediaries. A little more information is at hand on turnover ratios for the main liabilities of several important groups of financial intermediaries. The activity ratio of deposits of commercial banks, New York State mutual savings banks, and the Postal Savings System, can be calculated from official statistics - and on a comprehensive basis covering most or all institutions in the group - for three decades or more, and that for savings and loan associations for the last decade.

The main results obtained from the calculation of activity ratios are summarized in Tables I-5 and I-6. The first of these shows for each of the years 1947-1949 activity ratios based on gross (unadjusted) purchases and sales, and on net activity (purchases and sales adjusted for net changes in holdings) for eight types of assets. It is, however, limited to four groups of financial intermediaries (life insurance companies; fire and

Comparison of Annual Activity Ratios^a of Assets Among Various Financial Intermediaries, 1949

	Mortgage loans (1)	Total stocks (2)	Bonds		
			Total (3)	State, local, foreign (4)	United States Govt. (5)
a. Gross activity ÷ average holdings					
18 Largest life insurance companies	.39	.19	.20	.21	.15
10 Largest fire and marine insurance companies	.	.16	.74	.43	.84
10 Small fire and marine insurance companies	.	.17	.87	.39	.98
10 Largest casualty and misc. insurance companies	.	.26	1.00	.53	1.11
8 Small casualty and misc. insurance companies	.	.06	.35	.26	.32
New York State mutual savings banks	.40	-	.76	1.43	.75
4 New York City banks	1.14	.	.17	.	1.49
Investment companies, closed-end	-	-	.55	.	.
Investment companies, open-end	-	-	.35	.	.
Investment companies, all	-	-	.	.	.
Savings and loan associations	.54	.	.	.	.
b. Net change in holdings ÷ gross activity					
18 Largest life insurance companies	.48	.72	.12	.22	.79
10 Largest fire and marine insurance companies	.	.48	.13	.54	.06
10 Small fire and marine insurance companies	.	.29	.22	.36	.43
10 Largest casualty and misc. insurance companies	.	.45	.12	.60	.08
8 Small casualty and misc. insurance companies	.	.68	.29	.34	.31
New York State mutual savings banks	.37	-	.04	.25	.02
4 New York City banks	.02	.	.	.	.
Investment companies, closed-end	-	-	-.09	-	-
Investment companies, open-end	-	-	.14	-	-
Investment companies, all	-	-	.17	-	-
Savings and loan associations	.11	.	.	.	.
c. Net activity ÷ average holdings = [a (1 - b)]					
18 Largest life insurance companies	.20	.05	.16	.16	.03
10 Largest fire and marine insurance companies	.	.08	.66	.20	.79
10 Small fire and marine insurance companies	.	.11	.62	.24	.51
10 Largest casualty and misc. insurance companies	.	.14	.88	.21	1.02
8 Small casualty and misc. insurance companies	.	.01	.21	.10	.18

	Mortgage loans (1)	Total stocks (2)	Total (3)	Bonds		United States Govt. (5)
				State, local, foreign (4)	States	
New York State mutual savings banks	.25	-	.73	1.07		.74
4 New York City banks	1.12					
Investment companies, closed-end	-		.15			
Investment companies, open-end	-		.47			
Investment companies, all	-		.29			
Savings and loan associations	.48					

c. Net activity : average holdings = [a (1-|b|)]

a. Based on complete gross flows except for commercial bank figures, which are derived from week-to-week data.

Sources: Data for life and property insurance companies and mutual savings banks as in Table I-5; data for four New York City banks supplied by individual banks; investment company data from Securities and Exchange Commission, Statistical Bulletin, various issues; savings and loan data from Home Loan Bank Board, Source Book Savings and Home Financing 1953, p. 25.

marine insurance companies; casualty and miscellaneous insurance companies; New York State mutual savings banks), the only ones for which gross flow data could be obtained in sufficient detail. Table G-6 covers several additional groups of financial intermediaries - small property insurance companies; certain groups of commercial banks; investment companies; and savings and loan associations - but it is limited to the year 1949 and to a few asset categories.

The main impression conveyed by the two tables is one of very great diversity in activity ratios. This diversity is observable among activity ratios for different assets of the same group of financial institutions as well as among ratios of different institutions for the same type of asset. It is also noticeable in Table I-5 in changes from year to year. Indeed, the variations are so great that until considerably more material is available, in particular data for a longer series of years, generalizations are hazardous and only very few appear justified at this early stage of the investigation of the whole problem of gross flow of funds by means of activity ratios of financial institutions. Caution in interpretation is particularly indicated in view of the probability that variations among activity ratios are still more pronounced if attention is directed towards ratios for individual institutions, or if the ratios are calculated for narrower asset categories than those distinguished in Table I-5 or Table I-6. While it is not yet possible to document in detail the influence of a finer asset breakdown on activity ratios, some idea of the variations among ratios for individual financial institutions is given in Table I-7, which compares the range of individual ratios and measures of central tendency with the group averages which have been used in Tables I-5 and I-6.

Table I-7
Variations of Activity Ratios^a Among Individual Financial Institutions, 1949

	Number of institutions (1)	Un- weighted (2)	Average Weighted (3)	Median (4)	Inter- quartile (5)	Total (6)
1. Commercial banks						
a. Non-real estate loans	3	2.36	.	2.46	-	-
2. Life insurance, 10 largest companies						
a. Mortgage loans	18	.38	.39	.39	.34 - .42	.24 - .51
b. All bonds	18	.19	.20	.19	.17 - .20	.07 - .31
c. U.S. government bonds	18	.13	.15	.12	.06 - .18	.00 - .33
d. Other government bonds	18	.28	.21	.27	.17 - .36	.02 - .48
e. Railroad bonds	18	.08	.08	.08	.05 - .10	.02 - .22
f. Public utility bonds	18	.18	.18	.17	.11 - .21	.06 - .31
g. Industrial and misc. bonds	18	.47	.35	.43	.36 - .53	.22 - 1.11
h. Stocks	18	.19	.19	.17	.11 - .28	.00 - .60
3. Fire & marine insurance, 10 largest companies						
a. All bonds	19	.81	.74	.72	.56 - 1.11	.17 - 1.69
b. U.S. government bonds	10	.91	.84	.64	.51 - 1.23	.00 - 2.14
c. Other government bonds	10	.45	.43	.48	.31 - .53	.22 - .74
d. Railroad bonds	9	.68	.52	.45	.10 - 1.12	.03 - 2.01
e. Public utility bonds	10	3.47	.54	.53	.29 - .73	.03 - 28.14
f. Industrial and misc. bonds	6	.16	.16	.09	.04 - .10	.03 - .58
g. Stocks	9	.17	.16	.15	.12 - .18	.09 - .38
h. Railroad stocks	7	.15	.13	.15	.14 - .16	.02 - .26
i. Public utility stock	10	.55	.48	.60	.55 - .63	.28 - .80
j. Industrial, financial and misc. stocks	10	.12	.12	.11	.08 - .12	.02 - .36
4. Fire & marine insurance, 10 small companies						
a. All Bonds	10	.69	.87	.39	.33 - .68	.12 - 1.91
b. U.S. government bonds	10	.71	.98	.35	.26 - .74	.10 - 1.91
c. Other government bonds	6	.49	.39	.49	.48 - .51	.12 - .87
d. Railroad bonds	4	.25	.07	.13	-	.08 - .07
e. Public utility bonds	6	2.05	.23	.32	.31 - .32	.02 - 9.33

Table I-7 (Cont.)

I - 31

	Number of institutions (1)	Average		Median (4)	Range	
		Un-weighted (2)	Weighted (3)		Inter-quartile (5)	Total (6)
f. Industrial and misc. bonds	5	.80	.55	.48	.40 - .92	.28 - 1.91
g. Stocks	9	.34	.17	.22	.10 - .39	.08 - 1.04
5. Casualty and misc. insurance, 10 largest companies	10	1.01	1.00	1.00	.72 - 1.10	.27 - 1.93
a. All bonds	10	1.12	1.11	1.07	.69 - 1.44	.21 - 2.20
b. U.S. government bonds	10	.56	.53	.53	.45 - .58	.42 - .87
c. Other government bonds	9	.25	.21	.26	.03 - .28	.01 - .66
d. Railroad bonds	8	1.60	.74	1.13	.18 - 2.08	.03 - 5.83
e. Public utility bonds	7	.43	.54	.16	.02 - .60	.00 - 1.42
f. Industrial and misc. bonds	10	.30	.26	.27	.23 - .32	.12 - .75
g. Stocks	7	.64	.18	.28	.15 - .31	.11 - 1.53
h. Railroad stocks	10	.66	.62	.59	.41 - .74	.35 - 1.27
i. Public utility stock	10	.20	.17	.16	.16 - .25	.07 - .40
j. Industrial, financial and misc. stocks	10					
6. Casualty and misc. insurance, 8 small companies	7	.49	.35	.53	.37 - .53	.08 - 1.19
a. All bonds	7	.44	.32	.48	.37 - .53	.06 - .94
b. U.S. government bonds	5	1.50	.26	.67	.47 - 1.27	.02 - 5.08
c. Other government bonds	4	.37	.27	.32	-	.06 - .78
d. Railroad bonds	5	.66	.29	.33	.28 - .38	.26 - 2.02
e. Public utility bonds	2	.22	.18	-	-	.15 - .30
f. Industrial and misc. bonds	6	.30	.06	.16	.09 - .24	.04 - .95
g. Stocks						

a. Acquisitions + Disposals
Average Holdings

Source: Bank ratios based on data furnished by individual banks; life and property insurance ratios based on data derived from individual company reports.

Apart from the high degree of variability of the activity ratios, only the following tentative conclusions seem to be warranted:

1. Variability is smaller and the level of the ratios lower for net (adjusted) than for gross (unadjusted) activity ratios. This is to be expected in a period like 1947-49 when total assets increased considerably and there were sharp shifts among major groups of assets, particularly a reduction of holdings of U.S. government securities and a sharp expansion for most other assets.

2. The level of the activity ratios is considerably higher for some institutions than for others. In particular the activity ratios of life insurance companies are considerably lower - for the same asset category - than those for property insurance companies, mutual savings banks or investment companies. These differences between groups of financial institutions seems to be more important than differences in the activity ratios of the various types of assets for the same group of institutions.

3. Generally a gross flow of between \$2 and \$10 accompanies a net change of \$1 in holdings over a year. This relationship is a rough indication of what is lost for analysis when only data on changes in holdings are available.

In the absence of gross flow data for commercial banks some experiments were made with indirect approaches to the derivation of activity ratios. Obviously the net change in asset holdings approaches the sum of purchases and sales more closely the shorter the reporting period and the less the offsets (of one institution's net purchases against another's net sales) among institutions included in the statistics. Indeed, if daily changes in holdings were available separately for each institution within the

group, the sum of the changes for all institutions would differ from gross flow data for the same group only to the extent that acquisitions and disposals of the same type of asset (or liability) offset each other for a given date and institution. The difference might therefore be expected to be relatively small for assets in which transactions are intermittent rather than continuous. The longer the reporting period and the larger the number of institutions aggregated the greater as a rule the difference between net changes in holdings and gross flows and the activity ratios calculated from them.

While no daily data have been published, weekly figures are available for reporting member banks and it has been possible to obtain, through the courtesy of the Federal Reserve Bank of New York, aggregate weekly net changes in the main assets of reporting member banks in the Second Federal Reserve District which represent the total of weekly net purchases or sales of each of the institutions included disregarding the sign of the balance, i.e. which are not affected by offsets among institutions included in the statistics. It is also possible to obtain from published statistics figures for net changes, although with offsets among institutions, on a weekly, 4-weekly, quarterly and semi-annual basis. Results of these computations are shown in Table I-8 for the year 1949 together with gross flow figures for two to four large New York banks, which were kindly made available by these institutions, for four important types of assets (U.S. government securities with maturity of more than five years; other securities; real estate loans; and all other loans) and for time deposits.

As expected the activity ratios based on net changes are always smaller than those derived from gross flow data. Even the ratio derived from weekly

Table I-8
Annual Activity Ratios^a for Different Groups of Commercial Banks at Different Time Periods, 1949

	Weekly reporting member banks						United States	
	Four large NYC banks (1)	Net aggregate ^b New York City (2)	Offsets eliminated			All member banks (6)	All insured commercial banks (7)	
			New York City (3)	New York district (4)	All districts, leading cities (5)			
1. U.S. Government bonds ^c								
a. Gross flow (1 bank)	.41							
b. Weekly net change	1.49	.24	.23	.22				
c. Four-week's net change	1.28	.18	.17	.18				
d. Quarterly net change	.88	.10	.11	.12				
e. Semi-annual net change	.70	.10	.11	.12	.47	.47		.47
2. All other securities								
a. Gross flow (1 bank)	1.25							
b. Weekly net change	1.18	.80	1.09	.29				
c. Four-week's net change	.76	.62	.53	.25				
d. Quarterly net change	.41	.34	.28	.18				
e. Semi-annual net change	.34	.21	.18	.19	.13	.13		.11
3. Real estate loans								
a. Gross flow (2 banks)	2.23							
b. Weekly net change	1.14	.68	1.31	.41				
c. Four-week's net change	.48	.35	.24	.07				
d. Quarterly net change	.27	.24	.20	.07				
e. Semi-annual net change	.24	.24	1.29	.19	.07	.07		.07
4. All other loans								
a. Gross flow (3 banks)	2.36							
b. Weekly net change	.84	.45	1.10	.39				
c. Four week's net change	.61	.21	.21	.17				
d. Quarterly net change	.45	.22	.22	.17				
e. Semi-annual net change	.37	.14	1.07	.14	.15	.15		.15

	Weekly reporting member banks					
	Four large NYC banks (1)	Net aggregate ^b New York City (2)	New York City (3)	New York district (4)	All districts, leading cities (5)	United States All insured commercial banks (6) (7)
5. Time deposits						
a. Gross flow (1 bank)	.78					
b. Weekly net change	1.98	.37	.82	.24	.05	
c. Four-week's net change	.67	.15		.10	.03	
d. Quarterly net change	.48	.11		.08	.02	
e. Semi-annual net change	.37	.02	.79	.02	.02	.01

a Acquisitions + Dispositions
Average Holdings

b Net change divided by average holdings

c Bonds with maturity greater than five years in the case of cols. 1, 6 and 7.

Column 1 - Data supplied by individual banks.

Column 2 - Federal Reserve Bulletin, various issues (Table titled "Weekly Reporting Member Banks - New York City and Outside").

Column 3 - Data on aggregate acquisitions plus dispositions were supplied by the Federal Reserve Bank of New York. Data on holdings are those of col. 2.

Columns 4 and 5 - Federal Reserve Bulletin, various issues.

Column 6 - Federal Reserve Board, Member Call Report No. 114, pp. 2, 6.

Column 7 - Annual Report of the Federal Deposit Insurance Corporation, pp. 146-7.

net changes without offsets is still considerably below that based on gross flow data. The decline in activity ratios with increasing length of reporting period also conforms to expectations. More important than these relationships, which are arithmetically inherent in the situation, are the substantial differences among groups of banks and types of assets in the level of activity ratios, in the relation of the ratio to the length of the reporting period, and in the effect of the elimination of offsets which appears in a comparison between columns 2 and 3. These differences can be followed in Table I-8. They do not need to be analyzed here in detail as the table is chiefly intended to illustrate the application of different methods of measuring or approximating gross flows.

b. Historical data.

Historical series of gross flow data and activity ratios for financial intermediaries are scarce. Indeed, they are available for only one asset category, mortgage loans, and here only for few groups of institutions; and for deposits and similar liabilities.

The longest series for any type of asset concerns the activity ratio of mortgage loans of a group of six large life insurance companies. Although this series, shown in Table I-9, goes back to 1919, there is no clear indication of a long-term change in velocity of turnover. Mortgage activity is equal to nearly one-half of holdings a year in the late nineteen-twenties as well as in the late forties, both periods of rapid expansion in holdings of mortgage loans. Activity is much lower, falling to one-fifth and less of holdings a year, in periods when few new loans are made, as in the early twenties, the late thirties and during World War II. The thirty-year average of the activity ratio of approximately

Table I-9

Annual Activity Ratios - Mortgage Loans of Savings and Loan Associations and of Six Large Life Insurance Companies, 1919-1952

	<u>Gross activity</u>		<u>Net change</u>		<u>Net activity</u>	
	Average holdings		Gross activity		Average holdings	
	Life insur- ance cos (1)	Savings and loan assns. (2)	Life insur- ance cos (3)	Savings and loan assns. (4)	Life insur- ance cos (5)	Savings and loan assns. (6)
1919	.14		-.04		.13	
1920	.23		.44		.13	
1921	.28		.52		.13	
1922	.35		.32		.24	
1923	.39	.72	.41	.23	.23	.55
1924	.41	.63	.42	.30	.24	.44
1925	.45	.66	.45	.27	.25	.48
1926	.44	.67	.53	.20	.21	.54
1927	.37	.60	.44	.22	.21	.47
1928	.34	.55	.42	.17	.20	.46
1929	.28	.50	.41	.14	.17	.43
1930	.24	.41	.27	-.04	.18	.39
1931	.20	.37	.14	-.22	.17	.29
1932	.10	.33	-.22	-.41	.08	.19
1933	.10	.32	-.68	-.46	.03	.17
1934	.15	.40	-.70	-.45	.04	.22
1935	.20	.44	-.45	-.27	.11	.32
1936	.22	.46	-.18	-.00	.18	.46
1937	.23	.48	.04	.11	.22	.43
1938	.21	.41	.19	.10	.17	.37
1939	.21	.48	.09	.11	.19	.43
1940	.22	.52	.11	.15	.20	.44
1941	.23	.53	.15	.20	.20	.42
1942	.21	.46	.06	.00	.20	.46
1943	.22	.52	-.09	.00	.20	.52
1944	.24	.57	-.11	.08	.21	.52
1945	.29	.64	-.20	.18	.23	.52
1946	.36	.66	-.00	.33	.36	.51
1947	.52	.74	.33	.29	.35	.53
1948	.54	.60	.12	.25	.48	.45
1949	.29	.54		.11		.48
1950	.25	.67		.24		.51
1951		.59		.22		.46
1952		.60		.28		.43

Sources: Data for life insurance companies derived from official state reports and processed by National Bureau of Economic Research. (See chart in Saulnier, Urban Mortgage Lending by Life Insurance Companies, 1950, p. 18). Savings and loan data from Home Loan Bank Board, Trends in the Savings and Loan Field 1951, and Source Book Savings and Home Financing 1953.

0.28 a year, of course, reflects mostly new loans made and repayments on them, as there is little shifting of loans among lending institutions.

Movements are quite similar in the activity ratios of mortgage loans of savings and loan associations, which can be followed in Table I-9 back to the early nineteen-twenties. Here too there is no indication of a long-term trend, the ratios for the middle twenties and the late forties being very similar. The level of the ratios is somewhat higher than that for life insurance companies. The difference would probably be smaller if the latter ratios were limited to mortgage loans on one-to-four family structures, as those for savings and loan associations practically are. Table I-11 shows activity in these loans to have been considerably above the average for all mortgage loans of life insurance companies since the more detailed data became available in 1939.

The data for mortgage activity of mutual savings banks (see Table I-10) do not permit the establishment of long-term trends since they are at hand only for the last decade. The ratios are naturally higher since the end of World War II, but this cannot be taken as an indication of a trend. The level of the ratios is similar to that for life insurance companies.

Historical data on activity ratios for securities are limited to the holdings of investment companies, which consist mostly of common stocks, shown in Table I-11. These ratios show a marked decline between the middle thirties and the period since 1943 when they again become available, but no definite trend within the last decade.

Table I-10

Activity Ratios for Assets of New York State
Mutual Savings Banks, 1942 to 1949

	Mortgage loans	All bonds	U.S. Govt. bonds	Other Govt. bonds	Railroad bonds	Public utility bonds	Industrial and misc. bonds	Real estate	Time deposits
a. Gross activity ÷ average holdings									
1942	.12	.	.	.	.	.	.	.75	.49
1943	.13	1.66	1.80	.	.	.	.	1.22	.52
1944	.16	1.97	2.05	1.14	.78	.44	.61	2.47	.55
1945	.18	1.59	1.59	1.89	1.70	1.45	1.85	4.31	.60
1946	.29	1.01	1.00	.36	1.46	1.37	1.67	6.42	.69
1947	.34	.87	.86	1.20	.63	1.40	1.67	2.11	.62
1948	.35	.81	.80	1.22	.80	.77	1.15	3.29	.63
1949	.40	.76	.75	1.43	.57	.90	1.35	4.16	.60
b. Net change in holdings ÷ gross activity									
1942	.16	.	.	.	.	.	.	.07	-.03
1943	.12	.13	.16	.	.	.	.	.11	.17
1944	.04	.16	.17	.96	.21	.41	.50	.34	.23
1945	.00	.16	.18	.67	.14	.01	.16	.45	.23
1946	.13	.11	.10	.81	.12	.35	.34	.50	.13
1947	.20	.07	.04	.47	.49	.41	.54	.04	.08
1948	.36	.02	.05	.38	.79	.65	.56	.16	.06
1949	.37	.04	.02	.25	.39	.10	.02	.22	.09
c. Net activity ÷ average holdings									
1942	.10	.	.	.	.	.	.	.70	.48
1943	.11	1.44	1.51	.	.	.	.	1.09	.43
1944	.15	1.65	1.70	.05	.62	.26	.30	1.63	.42
1945	.18	1.34	1.30	.62	1.46	1.44	1.55	2.37	.46
1946	.25	.90	.90	.07	1.28	.89	1.10	3.21	.60
1947	.27	.81	.83	.64	.32	.83	.77	2.03	.57
1948	.22	.79	.76	.76	.17	.27	.51	2.76	.59
1949	.25	.73	.74	1.07	.35	.81	1.32	3.24	.49

Source: Same as Table I-1.

Table I-11

Activity Ratios for Assets of Selected Financial Intermediaries, 1933-1952

	Life insurance companies					Policy loans (6)	Private security hold- ings of management in- vestment companies		
	Mortgage loans						All companies (7)	Open- end (8)	Closed- end (9)
	1 to 4 family (1)	Multi- family (2)	Commercial (3)	Farm (4)	All (5)				
1933							1.08	1.22	1.04
1934							.60	.70	.56
1935							.78	.76	.84
1936									
1937									
1938									
1939	.38	.15	.21	2.8	.25				
1940	.36	.21	.20	.27	.25				
1941	.49	.17	.20	.28	.29				
1942	.39	.13	.19	.30	.26				
1943	.34	.13	.23	.38	.22		.18 ^a	.35 ^a	.11 ^a
1944	.33	.31	.18	.41	.29		.36	.64	.24
1945	.39	.24	.37	.40	.35	.25	.34	.45	.27
1946	.55	.27	.38	.49	.43	.29	.42	.71	.23
1947	.73	.27	.42	.50	.48	.32	.33	.53	.19
1948	.59	.44	.33	.51	.47	.34	.36	.54	.21
1949	.45	.37	.33	.41	.40	.36	.35	.55	.17
1950	.54	.32	.31	.42	.44	.37	.42	.64	.22
1951	.43	.26	.32	.41	.38	.35	.40	.66	.14
1952	.30	.22	.27	.34	.29	.33	.31	.51	.10

a

Data for 9 months beginning April 1, 1943.

Notes to Table I-11 (Cont.)

- Columns 1 to 5 - 1939-1952: New mortgages made plus repayments divided by average mortgages held; based on data in Home Loan Bank Board, Mortgage Investments of Life Insurance Companies, 1952, pp. 6, 7.
- Column 6 - 1945-1952: Loans made plus repayments divided by average holdings; data derived from Institute of Life Insurance, Life Insurance Fact Book, various issues.
- Columns 7 to 9 - 1933-1935;
1943-1952: Acquisitions plus sales of nongovernment securities divided by average holdings; derived from data of Securities and Exchange Commission; for 1933-1935 from Investment Trusts and Investment Companies, pp. 634-5; for 1943-1952 from Statistical Bulletin, various issues. The ratios shown for 1933-1935 represent medians based on 107 companies; since the figures shown by the Securities and Exchange Commission equalled half of aggregate sales and purchases divided by average holdings, the Securities and Exchange Commission figures were doubled.

Historical material is less deficient for deposit liabilities, at least for banks and savings and loan associations. The main data available will be found in Table I-12. Activity ratios can be followed to the beginning of the century and even beyond for deposits of commercial banks and mutual savings banks.¹³ Considerable differences in trend are evident

13

The series for deposits of commercial and savings banks, originally given as turnover ratios (debits ÷ average holdings) have been roughly transformed in a way described in the notes to Table I-12 into activity ratios to make them comparable to the other ratios used in this chapter.

between the activity ratios for the two types of deposits. The activity of demand deposits has shown a declining trend since the twenties. This apparently continued a trend already observable during the last quarter of the nineteenth and the first quarter of the twentieth century.¹⁴

14

For this period the only relevant data relate the ratio of bank clearings to all individual deposits of national banks, but the figures are bound to reflect primarily the activity of demand deposits. (The series used are the absolute values of the deposit turnover ratios underlying Snyder's index - Business Cycles and Business Measurements, p. 299 - which were kindly made available by the Federal Reserve Bank of New York).

The activity ratio of time deposits, on the other hand, fails to show any definite secular change since the beginning of the century if mutual savings banks in New York State can be regarded as typical. The average annual activity ratio for them is slightly above 0.50, i.e. deposits and withdrawals average one-half of holdings, and approximately four years are required for a complete turnover of the stock. Activity ratios are considerably higher for the time deposits in commercial banks. The annual average of approximately 1.00 observed during the last decade reflects the existence of a relatively small number of accounts of business and

Table I-12 (Cont.)

Year	Time deposits							Open-end investment company shares (8)	Life insurance policy reserves (9)
	Total deposits National banks (1)	Demand deposits Commercial banks (2)	Commercial banks American Bankers Assn. sample (3)	Commercial banks Member banks outside N.Y.C. (4)	State mutual savings banks (5)	Savings and loan assns. (6)	Postal Savings System (7)		
1927		82			.67		1.39		.37
1928		94			.68		1.25		.37
1929		107			.76		1.46		.37
1930		81			.66		1.82		.37
1931		66			.70		2.15		.37
1932		55			.59		2.27		.37
1933		54			.56		2.00		.35
1934		53			.52		1.61		.34
1935		50		1.52	.51		1.57		.32
1936		49		1.53	.52		1.51		.29
1937		50		1.34	.53		1.53		.28
1938		43		1.54	.49		1.49		.28
1939		41			.48		1.42		.26
1940		39	1.06		.47		1.42		.25
1941		39	1.16		.51		1.42		.24
1942		38	1.08		.49		1.36		.22
1943		32	.98		.52	.47	1.25	.29	.21
1944		29	.94		.53	.49	1.26	.33	.22
1945		27	.98		.58	.53	1.22	.40	.21
1946		30	1.20		.68	.65	1.31	.41	.21
1947		34	1.12		.60	.62	1.25	.27	.21
1948		39	.		.60	.64	1.22	.29	.21
1949		38	.90		.57	.63	1.20	.29	.21
1950		41	.96			.69	1.20	.36	.21
1951		44	.92			.71	1.19	.40	.21
1952		44				.71			.21

Notes to Table I-12

- Column 1 - Based on average monthly ratios of total clearings to individual deposits in all national banks tabulated by the Federal Reserve Bank of New York. The monthly averages were multiplied by 12 in order to arrive at annual ratios, and then doubled in order to arrive at activity ratios. The resulting figures should, strictly speaking, be adjusted for net changes in deposit balances as well as interest credits (see note to column 4); such adjustments would, however, be negligible in the case of demand deposit activity ratios. (The same comment applies to column 2).
- Column 2 - Based on turnover ratios (debits to demand deposits divided by average demand deposit balances) as shown for 1919-1941 in Banking and Monetary Statistics, p. 254, and for 1942-1952 in unpublished Federal Reserve Board tabulations. (The primary data refer to commercial banks belonging to about 334 clearing houses and exclude interbank deposits). The turnover ratios were doubled in order to arrive at activity ratios (debits plus credits to demand deposits divided by average demand deposit balances).
- Column 3 - Turnover ratios of time deposits in a sample survey (conducted by the American Bankers Association) of 140 (for 1940-1947) and 808 (for 1949-1951) commercial banks converted to activity ratios in the same way as for column 2. The turnover ratios are shown in Garvy, George, "The Velocity of Time Deposits", Journal of the American Statistical Association, June 1953, p. 182. Due to lack of data about the sample, no further adjustment could be made beyond doubling the turnover ratios; as a result, the activity ratios are slightly understated (overstated) in years of net increase (decrease) in time deposit balances.
- Column 4 - Turnover ratios (read from chart in Garvy, op. cit. p. 180) doubled and added to net change in holdings (less interest credits)
average time deposit balances
 in order to arrive at activity ratios. Data on average holdings and net changes in time deposits of member banks outside New York City were obtained from Banking and Monetary Statistics, p. 41; and the adjustment for interest credits was made by applying the average rate on commercial bank time deposits (A Study of Saving..., Table L-23, col. 2) to average holdings for the year.
- Column 5 - Turnover data (shown in Garvy, op. cit. p. 184) adjusted in same way as column 4; data on net change in deposits (less interest credits) from A Study of Saving..., Table L-38, col. 6; and average (June 30) deposits in all mutual savings banks from Federal Reserve Board, Revised Statistics of Banks in the United States, 1896-1950, Table 5. Since turnover ratios for New York State mutual savings banks were applied to data for all mutual savings banks, some chance of error in the calculated activity ratios exists. However, since New York State has generally accounted for from 50 to 60 percent of all mutual savings bank deposits, and since independently calculated data for New York State alone for the years 1942-1949 (see Table I-10) agrees almost exactly with figures in the present table, such errors are probably slight.

Notes to Table I-12 (Cont.)

Column 6 - From data shown in Home Loan Bank Board, Source Book 1953.

Column 7 - From Post Office Department data shown for 1912-1945 in Historical Statistics, p. 272; and for 1946-1951 in Statistical Abstract, various years. The data refer to fiscal years ending June 30.

Column 8 - Repurchases plus sales by open-end companies of their own stock divided by the average market value of total stock outstanding, from data shown in Securities and Exchange Commission, Statistical Bulletin, various issues. (Since no data on the value of stock outstanding were shown by the Securities and Exchange Commission it was assumed as equal to 95 percent of total assets).

Column 9 - Total benefit payments plus premiums received divided by average policy reserves. Benefit payments and premium receipts for 1897-1949 from A Study of Saving..., Table I-8; benefit payments and premium receipts for 1950-1952 and policy reserves from 1897-1952 from Institute of Life Insurance, Life Insurance Fact Book 1953, p. 54.

other depositors which are used like demand deposits. Whether the small decrease in the turnover ratios during the forties, the only period for which the figures are available, represents a long-term movement is still in doubt, although it may well do so as the proportion of time deposits other than savings deposits has been declining.¹⁵ As a result the dif-

15

For a discussion of velocity of turnover of time deposits see the paper by Garvy in Journal of the American Statistical Association, June 1953.

ference in activity ratio for time deposits in New York State mutual savings banks and in commercial banks has considerably narrowed. Activity of postal savings deposits substantially exceeded not only that of savings deposits in New York State mutual savings banks, but also that of time deposits in commercial banks. Apparently at least part of the postal savings accounts are actively used by their owners in the place of checking accounts. A downward trend in activity seems to be present, but it has been of slight dimensions since the nineteen-twenties.

Activity in share accounts of savings and loan associations has shown an increase during the postwar period, but this probably does not represent a long-term trend. The level of the ratios is the same as for mutual savings bank deposits, another indication of the economic similarity of these two forms of saving notwithstanding differences in name and legal character.

The concept of activity ratio may also be applied to two types of liabilities of financial institutions for which it is less familiar, premium reserves of life insurance companies and shares of open-end investment companies.

Activity of life insurance reserve accounts (measured by premium and benefit payments) has shown a definite downward trend since the beginning of the century, from nearly two-fifths to not much over one-fifth a year. This very low level of activity reflects, of course, the fact that both premium and benefit payments in any one year are necessarily small compared to the stock of premium reserves for large aggregates of policies, and that only the making and the repayment of policy loans are subject to sudden movements.

Activity of shares of open-end investment companies (i.e. purchases plus redemptions by investors) is relatively low - approximately 0.30 a year - indicating that a considerable proportion of the shares is treated by their owners as long-term investments.

Table I-13

Detail Supporting Summary of the Flow of
Funds as Shown in Table I-3, Section I.

Sources of Funds

S-1 Deposits:

New deposits	\$1,772,870	
Dividends credited	95,940	
	<u>1,868,810</u>	<u>\$1,868,810</u>
Total per Table I-3, Section I ^a		

S-2 Bond sales and redemptions:

Book value at time of sale or redemption		2,192,282
Add: net profit recoveries	\$22,844 <u>22,749</u>	\$45,593
Deduct: net loss Proceeds	3,244	<u>42,349</u>
		2,234,631
Return of principal through amortization of premiums		407
		<u>407</u>
Total per Table I-3, Section I		<u>\$2,235,038</u>

S-3 Reduction of mortgage loan account:

Transferred to real estate owned		73,053
Payments and/or refinancing		145,784
Recoveries and unidentified items		404
		<u>219,241</u>
Total per Table I-3, Section I		<u>\$219,241</u>

S-4 Other repayments and security liquidations:

Promissory notes		242
Institutional securities corporation stock, savings banks trust company stock and debentures		46
Mutual savings banks fund		38,633
		<u>38,921</u>
Total per Table I-3, Section I		<u>\$38,921</u>

S-5 Real estate sales (including profits, losses and recoveries)^a

Real estate sold on contract		1,175
Real estate owned		90,379
Unidentified items		850
		<u>92,404</u>
Total per Table I-3, Section I		<u>\$92,404</u>

Sources of Funds (continued)

S-6 Receipts for services:

Interest - bank balance	1,509		
bonds	72,474		
mortgages	125,858		
promissory notes	62		
real estate contracts	<u>374</u>	200,277	
Rentals - real estate owned - gross			
operating income	24,430		
safe deposit	913		
banking house	<u>1,992</u>	27,335	
Fees and commissions		154	
Other - Income on securities of			
institutional securities			
corporation and savings			
banks trust companies	1,064		
Other	<u>1,105</u>	2,169	
Total per Table I-3, Section I			<u>\$229,935</u>

S-7 Recoveries and other sources:

Recoveries - accrued interest receivable	\$207		
other assets	<u>838</u>	1,045	
Other sources - extraordinary income			
collected for prior			
periods	15,997		
all other and rounding			
differences	<u>2</u>	15,999	
Total per Table I-3, Section I			<u>\$17,044</u>

Uses of Funds

U-1 Mortgage loans:

New loans and additions	101,555		
Purchase money mortgages	71,023		
other - unexplained	<u>1,056</u>		
Total per Table I-3, Section I			<u>\$173,634</u>

U-2 Other loans and security acquisitions:

Advances for taxes, insurance, etc.	188		
Stock and obligations of housing companies	n.c. ^b		
Promissory notes	- ^b		
Institutional securities corporation stock;			
savings banks trust company stock and			
debentures	- ^b		
Total per Table I-3, Section I			<u>\$188</u>

Table I-13 (Cont.)

Uses of Funds (continued)

U-3 Payments for services and materials			
Services and materials, n.e.c.			
Banking house	316		
Furniture and fixtures	204		
Real estate capital improvements	1,496		
Real estate acquisition costs	3,500		
Real estate nonrecurring charges	<u>775</u>	6,291	
Payroll - salaries	21,582		
extra compensation	<u>920</u>	22,502	
Interest or dividends		95,940	
Insurance - pension plan contributions	838		
group insurance	187		
deposit insurance	3,598		
premium on fidelity bonds	<u>178</u>	4,801	
Rent - banking house		580	
Taxes - social security	611		
franchise	<u>4,481</u>	5,092	
Service fees - committees	519		
mortgage servicing	535		
legal	825		
advertising	1,780		
audits and examinations	<u>456</u>	4,115	
Other payments for services and materials the benefit of which was generally derived this period:			
Luncheons	\$556		
Printing, stationery and postage	913		
Banking house expense	5,712		
Operating expenses - real estate owned	22,780		
Other	<u>3,829</u>	<u>\$33,790</u>	
Total per Table I-3, Section I			<u>\$173,111</u>
U-4 Losses and other uses:			
Losses - accrued interest receivable	819		
other assets	<u>4,199</u>	5,018	
Other uses - unidentified		<u>103</u>	
Total per Table I-3, Section I			<u>\$5,121</u>

Source: Same as Table I-1.

a

During this period there was taken into the income account because of real estate transactions profits of \$1,507 (000), recoveries of \$4,786 (000), and losses of \$6,610 (000).

b

These items were noted so as to indicate possible inclusions under this category. Stock and obligations of housing companies were not a classified item until 1945. The other two will be found as sources of funds this period in Schedule S-4.

Table I-14
New York State Mutual Savings Banks, Comparison of Data Supplied by Adjusted Net Change
Method and Gross Flow Method - January 1, 1943 - December 31, 1943 (\$ 000)

I - 52

Adjusted Net Change Method of Analysis - Per Table I-2			Gross Flow Method of Analysis - Per Table I-13 ^a			
Operations	Use	Source				
		\$73,633	Services and materials, n.e.c.	\$6,291	Interest	\$200,277
			Payroll	22,502	Rentals	27,335
			Interest or dividends	95,940	Fees and commissions	154
			Insurance	4,801	Other	2,169
			Rent	580		
			Taxes	5,092		
			Service fees	4,115		
			Other payments for services and materials the benefit of which was generally derived this period	33,790		
				<u>\$173,111</u>		<u>\$229,935</u>
Deposit liabilities		599,080	Note: For detail of each item above see Table I-13, Schedules S-6 and U-3.			
			Withdrawals	\$1,269,730	New Deposits	\$1,772,870
				<u>\$1,269,730</u>	Dividends credited	95,940
						<u>\$1,868,810</u>
Mortgages		45,607	New loans and additions	\$101,555	Foreclosures and trans- fers ro real estate owned	\$73,053
			Purchase money mortgages	71,023	Payments and/or refi- nancing	145,784
			Other	1,056	Recoveries and unidenti- fied items	404
				<u>\$173,634</u>		<u>\$219,241</u>
Real estate		18,385	Real estate acquisitions (including foreclosures)	\$73,624	Real estate sold on contract	\$1,175
				<u>\$73,624</u>	Real estate owned - sales	90,379
					Unidentified items	850
						<u>\$92,404</u>

Note: Profits, recoveries and losses are included in the sources of funds from real estate sales

(concluded on next page)

Table I-14 (Concl.)

I - 53

Adjusted Net Change Method of Analysis - Per Table I-2		
	Use	Source
Banking house	\$520	
Mutual savings banks fund		\$38,633
Promissory notes		242
Institutional securities corporation stock and savings banks trust company stock and debentures		46
Advances for taxes	188	
Cash and due from banks	106,125	
Accrued interest receivable	357	
Other assets	3,340	
Other liabilities (including accrued taxes, expenses, dividends)		1,582
Bond investments	666,678	

Gross Flow Method of Analysis - Per Table I-13.			
	Use		Source
Included under operations above in classification services and materials, n.e.c.			
		Mutual savings banks fund	\$38,633
		Promissory notes	242
		Institutional securities corporation stock and savings banks trust company stock and debentures	46
Advances for taxes	\$188		
Changes in this group of accounts were viewed as neither sources or uses of defined funds inasmuch as they represent the unit termed the fund which is given in exchange for services, materials and securities of different nature. These are found in Table I-13. The amounts per the adjusted net change method to the left, and per Table I-13 differ in respect to accrued interest receiva- ble and other assets. For explanation of this difference see the general foot- note to this Table.			
Bond investments	\$2,901,716	Bond sales and redemptions	\$2,234,631
		Premium amortization	407
	<u>\$2,901,716</u>		<u>\$2,235,038</u>

Note: Profits, recoveries and losses are included in the sources of funds from bond sales and redemptions.

a

The purpose of this exhibit is to indicate the nature of the difference in presentation under one form of net change method and one form of gross flow method and to indicate the manner in which each item in the adjusted net change statement of Table I-2 appears in the gross flow figures of Table I-13. Therefore, a close review will find that while all the adjusted net change items are present as per Table I-2 only those items of Table I-13 are utilized which aid to explain how the adjusted net change information has been utilized or converted. The complete gross flow statement is found in Table I-13.

Source: Same as Table I-1.

Notes to Table I-14

The relationship between the gross method and net method can be seen to be that the net method report is generally elaborated upon by gross method detail. Thus the net increase in deposit liabilities of \$599,080 is detailed by gross additions of \$1,868,810 and gross deductions of \$1,269,730. However, certain exceptions to this generalization must be noted.

1. Where additional detail is not available so as to permit a showing of the full activity in the account the net figures were employed in the gross flow presentation. This is true of promissory notes and advances for taxes.
2. Reclassification and redefinition in certain cases results in gross sources and gross uses which upon subtraction do not reduce to the net change figure as in the deposit liability illustration above. This is true of the following:

Real Estate			
Gross source		\$92,404	
Gross use		<u>73,624</u>	
Difference		18,780	
Net change- source per Table I-2		<u>18,385</u>	
To be explained			<u>\$395</u>
Explanation:			
Capitalized improvements reflected by adjusted net change method in real estate account, but reflected in gross flow method in operations under services and materials, n.e.c.			<u>\$395</u>
Accrued interest Receivable			
Per defined fund area - Section II of Table I-3		-255	
Net change - Use per Table I-3		<u>357</u>	
To be explained			<u>\$-612</u>
Explanation:			
Direct charge-offs and current provisions for losses treated as losses of funds in gross flow method		819	
Return of reserve found unnecessary treated as a recovery of funds in gross flow method		<u>207</u>	<u>\$-612</u>
Other Assets			
Per defined fund area		-19	
Net change - Use - per Table I-2		<u>3,340</u>	
To be explained			<u>\$3,359</u>

Notes to Table I-14 (Cont.)

Explanation:

Direct charge-offs and current provisions for losses treated as losses of funds in gross flow method		4,199	
Return of reserve found unnecessary treated as a recovery of funds in gross flow method	\$839		
Rounding difference	<u>1</u>	<u>840</u>	<u>\$3,359</u>
Operations			
Gross sources		\$229,935	
Gross uses		<u>173,111</u>	
Difference		<u>56,824</u>	
Net change - Source per Table I-2 To be explained		<u>73,633</u>	<u>\$-16,809</u>
Explanation:			
Sources from operations per net method			73,633
<u>Add:</u> Unidentified charges to income under net method transferred to losses and other uses under gross method		103	
<u>Deduct:</u> Payments for materials under gross method not charged to income under net method			
Banking House	\$520		
Real estate improvements	395		
Unidentified extraordinary income included in income under net method but classified in recoveries and other sources under gross method		<u>16,912</u>	
		<u>15,997</u>	
Net deduction from net method operations figure to arrive at gross method operations figure			<u>16,809</u>
Sources from "Operations" per gross method			<u>\$56,824</u>

Table I-15
Flow of Funds Through New York State Mutual Savings Banks - 1943, Adjustment
of Gross Flow Data to Funds Available for Investment Basis (\$ 000)

	Gross Flow Data (from Table I-3) (1)	Deposits Off- set by Withdrawals (2)	Foreclo- sures (3)	Purchase Money Mortgages (4)	Payments for Goods Deducted From Receipts for Goods (5)	Losses and Other Uses Offset by Recoveries and other Sources (6)	Adjusted to Funds Avail- able for Investment Basis (7)	
Sources of Funds From:								
Deposits	\$1,868,810	\$-1,269,730					\$599,080	Deposits net of withdrawals
Bond sales and redemptions	2,235,038						2,235,038	Bonds
Reduction of mortgage loan account	219,241		\$-73,624				145,617	Mortgage repayments
Other repayments and security liquidations	38,921						38,921	Other repayments
Real estate sales	92,404			\$-71,023			21,381	Real estate sales
Receipts for goods and services	229,935				\$-173,111		56,824	Net receipts less payments for goods and services
Recoveries and other sources	17,044					\$5,121	11,923	Net of recoveries and other sources less losses and other uses
Total	<u>\$4,701,393</u>						<u>\$3,108,784</u>	
Uses of Funds Due To:								
Withdrawals by depositors	1,269,730	1,269,730						
Bonds investments	2,901,716						2,901,716	Bonds
Mortgage loans	173,634			71,023			102,611	Mortgage investments
Other loans and security acquisitions	188						188	Other loans
Real estate acquisitions	73,624		73,624					
Payments for goods and services	173,111				173,111			
Losses and other uses	5,121					5,121		
Total	<u>\$4,597,124</u>						<u>\$3,004,515</u>	
Net Source of Funds	<u>\$104,269</u>						<u>\$104,269</u>	

Note: For interpretation of the adjustment columns it is necessary to understand that an adjustment amount preceded by a minus sign (-) represents an item with the same effect as a use of funds, while the lack of a sign before an adjustment amount represents an item with the same effect as a source of funds.

Source: Same as Table I-1.

Table I-16

Flow of Funds Available for Investment by the New York State Mutual Savings Banks - January 1, 1943 - December 31, 1943, Comparison of Statistics Furnished by the Adjusted Net Change and Gross Flow Methods

	Adjusted Net Change		Gross Flow	
	(\$000)	(%)	(\$000)	(%)
Sources of New Funds Available for Investment				
Operations	\$73,633	10.9%	\$73,633	10.9%
Deposit liabilities	599,080	88.8	599,080	88.8
Other liabilities	1,582	0.2	1,582	0.2
Total sources of new funds available for investment	<u>\$674,295</u>	<u>100.0%</u>	<u>\$674,295</u>	<u>100.0%</u>
				21.6%
Conversion of Existing Assets Furnishing Funds Available for Investment:				
Mortgages	\$45,607	44.3%	\$145,617	6.0%
Real estate	18,385	17.9	20,986	0.9
Mutual savings banks fund	38,633	37.5	38,633	1.6
Promissory notes	242	0.2	242	a/
Institutional securities corporations stock and savings banks trust company stock and debentures	46	a/	46	a/
Bonds	-	-	2,235,038	91.6
Total sources of funds gained from asset conversions now available for investment	<u>\$102,913</u>	<u>100.0%</u>	<u>\$2,440,562</u>	<u>100.0%</u>
				78.4
Total Funds Available for Investment	<u>\$777,208</u>	<u>XXX</u>	<u>\$3,114,857</u>	<u>XXX</u>
				100.0%
Uses of Funds Available for Investment				
Bonds	\$666,678	85.8%	\$2,901,716	93.2
Mortgages	--	--	102,611	3.3
Cash on hand and due from banks	106,125	13.7	106,125	3.4
Advances for taxes	188	a/	188	a/
Accrued interest receivable	357	a/	357	a/
Other assets	3,340	0.4	3,340	0.1
Banking house	520	0.1	520	a/
Total Uses of Funds Available for Investment	<u>\$777,208</u>	<u>100.0%</u>	<u>\$3,114,857</u>	<u>100.0%</u>

a Less than .05 percent.

Source: Same as Table I-1.