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V The Impact of Pensions on the Capital Markets: Private Funds

THE IMPACT of pension fund operations on the capital markets depends upon the investment policies followed by portfolio managers. Our concern is primarily with differential effects. What difference does it make when funds flow through these financial intermediaries, rather than through other channels? This chapter provides some answers to this question in the case of pension plans for employees of business firms and nonprofit institutions. Governmental plans of all kinds are dealt with in Chapter VI.

INSURED PLANS

Growth Trends

When pension commitments are funded by premium payments to, or deposits with, a life insurance company, they are described as being insured. The form of the contract is not material to our consideration. Suffice it to say, the insurance company is seeking to provide as good a return on the fund as possible within the statutes governing investments after allowance for adequate reserves for possible losses. The actual process involves a mingling of the funds with all others available for employment in the capital markets.¹

Thus, we can think of insured pension funds as a portion of life insurance loans and investments. In general, it is valid to assume that receipts are invested across the whole range of assets, enhanc-

¹ Certain qualifications to this general statement are discussed below.

ing the companies' ability to lend and invest but not changing it in any material respect. The reserve liabilities of a life insurer under a group annuity contract are different from those created by an equivalent premium volume from, say, ordinary life insurance; but it is not clear that this fact affects the investment policies of the com-

TABLE 6

Growth in Life Insurance Assets and Pension Reserves, 1940-65

Year End	Increase in Total Assets (billions of dollars) (1)	Increase in Pension Reserves (billions of dollars) (2)	(2) ÷ (1) ^a (Per cent) (3)
1940	1.6	0.2	13
1945	3.7	0.4	09
1950	4.4	0.8	18
1955	5.9	1.3	22
1960	5.9	1.3	22
1961	7.2	1.4	19
1962	6.5	1.4	21
1963	7.8	1.7	21
1964	8.3	2.0	23
1965	9.4	2.1	22

Source: Computed from Institute of Life Insurance, *Private and Public Pension Plans in the United States and Life Insurance Fact Book*.

^a Computed before rounding.

pany. The objective of earning a high, stable rate of return is similar, if not identical, in both cases.

The growth of pension programs has added materially to the assets of life insurance companies, as indicated in Table 6. At the end of 1965, assets balancing insured pension reserves of \$27.3 billion were equal to 17 per cent of total assets of all life insurance companies in the United States and 19 per cent of invested assets (excluding cash, policy loans, home office buildings, and premiums

due). The proportions have increased over the years because assets attributable to pension plans have grown more rapidly than assets employed in other areas of the business. In 1950, both proportions were only 9 per cent. Over the period 1940–55, life insurance assets grew at a compound annual rate of 7.4 per cent, but the growth rate slowed down in the mid-1950's and was only 5.8 per cent in 1955–65. This slackening occurred in spite of a generally rising growth rate for life insurance in force. The latter rate increased from 7.8 per cent in 1940–55 to 9.0 per cent in 1955–65. The change in growth patterns is shown in Table 7.

TABLE 7

Life Insurance Growth Rates, Five-Year Periods, 1940-65
(per cent)

	Insurance in Force ^a	Total Assets	Total Assets Less Pension Reserves
1940-45	5.6	7.8	7.2
1945-50	8.7	7.4	6.7
1950-55	8.2	7.2	6.3
1955-60	9.2	5.7	5.0
1960-65	8.7	5.8	5.5

^a Excludes credit life insurance.

The reason that assets increased less than insurance in force is that the saving component in the contract mix fell. For example, the proportion of endowment policies decreased from about 15 per cent of individual life insurance in force in 1950 to 7 per cent in 1962.² Group insurance, meanwhile, increased its share of the total (exclusive of credit life insurance) from 21 per cent to 33 per cent. Another view of the same trend is visible from the flow-of-funds accounts of the Federal Reserve System. If the increase in life insurance reserves is expressed as a fraction of total financial assets acquired by households, the proportion falls rather continuously

² Institute of Life Insurance.

from 21 per cent in 1946, the first year for which data are available, to 10 per cent in 1964 and 1965.

Some loss of market share in the saving field suffered by life insurance companies has not been accepted with equanimity. To regain their former position, managements are emphasizing the sale of ordinary life contracts in intensified sales efforts. But more importantly for the particular concerns of this study, a strenuous effort is being made to regain lost ground in the pension area, as more fully treated below.

Portfolio Composition

Although the life insurance industry has participated actively in practically all segments of the capital markets, it has become the dominant institutional lender in two areas: directly placed long-term loans to business and mortgages on commercial and industrial properties. The distribution of invested assets at the end of 1965 and increase in ownership during the preceding decade provide a summary view of life insurance portfolio activity.

The data in Table 8 provide a picture of how some \$16 billion of insured pension fund accumulations have been invested during the past decade along with other life insurance assets. The striking feature of recent years has been the active financing of business firms through directly placed term loans and mortgages on commercial and industrial properties. Private pension arrangements have, then, made an important contribution to the extensive financing of the high level of business investment and, secondarily, to the expansion in the stock of housing.³

Competitive Influences

The normal competition among life insurance companies for superior earnings on investments, which has been responsible for

³ For extensive treatment of the lending and investing activities of life insurance companies, reference can be made to Life Insurance Association of America, *Life Insurance Companies as Financial Institutions*, Englewood Cliffs, N.J., 1962, and Andrew F. Brimmer, *Life Insurance Companies in the Capital Market*, East Lansing, Michigan, 1962.

TABLE 8

Invested Assets of U.S. Life Insurance Companies, 1965

Assets	Amount (billions of dollars)	Percentage of Total	Net Change Since 1955 (billions of dollars)
<i>Bonds</i>			
U.S. Government	5.1	3.5	-3.5
Foreign government	0.9	0.6	0.4
State, provincial, and local	5.5	3.8	2.8
Railroad	3.3	2.3	-0.6
Public utility	17.0	11.8	3.1
Industrial and miscellaneous	38.3	26.4	20.2
	<u>70.2</u>	<u>48.4</u>	<u>22.4</u>
<i>Stocks</i>			
Preferred	2.9	2.0	1.1
Common	6.3	4.3	4.4
	<u>9.1</u>	<u>6.3</u>	<u>5.5</u>
<i>Mortgages</i>			
Farm	4.8	3.3	2.6
One- to four-family	29.9	20.6	12.2
Multifamily and commercial	25.3	17.4	15.8
	<u>60.0</u>	<u>41.4</u>	<u>30.6</u>
<i>Other</i>			
Real estate held for investment	3.3	2.3	1.3
Other assets	2.4	1.7	1.4
	<u>5.7</u>	<u>3.9</u>	<u>2.7</u>
Total	145.0	100.0	61.2

Source: Computed from Institute of Life Insurance, *Life Insurance Fact Book*, and Federal Home Loan Bank Board, *Source Book*.

Note: Excluding cash, policy loans, home office buildings, and premiums due.

many innovations in capital market instruments, has been reinforced by competition from other managers of pension fund accumulations. In 1950, when insured pension reserves amounted to \$5.6 billion, trustee plans had amassed \$6.5 billion of assets. By the end of 1965, trustee assets of \$58 billion were more than double the \$27.3 billion of insured pension reserves.

The flexibility of trustee plans, especially in equity investment,

accounted for much of the loss in market share sustained by life insurance companies. The industry has obtained relief from taxation which formerly applied to insured pension plans and has taken a series of steps to be more competitive. The first was to promote split funding. In this arrangement, the insurance company managed the fixed-income portion of the fund, while a bank would handle the remainder committed to common stock investments. By offering a return based on the earnings on new money, instead of the average portfolio earnings rate, this type of contract has been an important competitive weapon. Since new money has been invested largely in corporate direct placements and conventional mortgages, the highest-yielding classes of assets, the rate offered in recent years has been relatively attractive.

The most recent step taken by life insurance companies to improve their competitive position has been to secure authority to manage "separate accounts" in which insured pension funds can participate. These separate accounts enable a company to offer an equity investment facility outside of the usual range of guarantee and valuation problems. This development is too recent (only \$580 million in separate accounts at the end of 1966) to determine whether it will be of major competitive assistance, but it is evidence that in the future life insurance companies will be more effectively competitive in the pension field. It is equally clear that the field of equity investment will become of greater importance to life insurance company portfolio managers.

TRUSTEED PLANS

Evolution of Investment Management

As previously indicated, trustee pension funds have been one of the most rapidly growing financial intermediaries, especially since the end of World War II. Projected growth, as discussed in Chapter II, assures them of a prominent place among major participants in the capital markets. Starting from a relatively small base prior to

World War II, these funds have passed through a complete evolutionary development of investment management policy.

Initially, the restricted size and scope of noninsured plans influenced their investment along traditional trust lines. It was customary to invest in publicly issued bonds of high quality. Indeed the largest aggregation of funds, those of the Bell System, were largely funded through the issuance of 4 per cent company notes from the start of the plan in 1913 until the late 1930's. The transition of the combined pension trusts of the American Telephone & Telegraph Company and its subsidiaries is shown in Table 9.

TABLE 9

Bell System Pension Trusts, 1935-50
(book value of assets in millions of dollars at years end)

Assets	1935	1940	1945	1950
4 per cent demand and one-year notes	125.4	103.8	5.1	—
Bonds of Bell System companies	22.5	45.9	45.7	200.9
U.S. government securities	2.1	30.7	277.5	362.0
Other corporate bonds	—	32.9	102.7	646.6
Other investments	—	—	—	10.1
Cash and accrued interest	2.0	11.9	12.4	11.7
Total	152.1	225.2	443.3	1,231.3

Source: American Telephone & Telegraph Company Annual Reports.

Prior to World War II, there was, in effect, no investment management of the Bell System trusts. They served merely as a medium for accruing and recording the estimated costs of future pension benefits.

It was a frequent practice of industrial companies to write investment restrictions into their pension trust agreements which limited the trustee to securities legal for life insurance companies or fiduciaries in New York State. As the funds grew, bank trustees urged the inclusion of modest amounts of common stocks, in the range of 10 to 25 per cent. In the late 1940's, with government bond yields

still pegged at 2½ per cent, equities were very attractive for current income. In 1947, for example, common stocks of good quality offered a current return of 5 per cent while high-grade corporate bonds provided only 2.58 per cent.

At about this time, bank trustees in states such as New York were greatly concerned about the plight of beneficiaries of personal trusts restricted to a list of bonds legal for savings banks. In 1950, they succeeded in obtaining a 35 per cent prudent-man rule, enabling them to buy common stocks up to that proportion in legal trusts. In 1951, life insurance companies were authorized to buy stocks in limited amounts in New York State, and in the following year mutual savings banks received similar authority.

The early postwar interest in equities, stimulated by their unusually favorable yield advantage, was given legislative sanction in an important state by this series of changes in the laws. It was hardly a radical step for a company to amend the trust agreement to permit investment in securities legal for life insurance companies or fiduciaries in New York. This automatically gave the trustee authority to invest up to 35 per cent of the fund in common stocks.

Thus, the breakthrough in investment policy came at the inception of the period of major growth in trustee pension fund assets. Recognition was given to the permanence, built-in growth features, and lack of liquidity requirements of the typical corporate pension fund. Also, as costs mounted, business firms were made more aware of the importance of earning the better rate of return which equities could provide. Finally, it became increasingly clear that the company was funding a distant retirement income benefit which, together with OASI benefits, would be "suitable" or "appropriate" to the standard of living which the employee would be enjoying at the time of retirement. Viewed in these terms, the commitment being funded is not determined by some precise formula devised today and effective for decades to come, but by a level of benefits which would carry out this broad objective. The better the earnings of the fund, the more fruitful would be each dollar of contributions.

The transition from a concept of meeting a known liability,

essentially the sinking-fund calculation of the payments needed at an assumed rate of interest to meet a future fixed liability, took place gradually. The dialogue between company officials and trustees continued to broaden the concept of a pension trust fund. The logical result is the conclusion that a pension trust is a bundle of assets to be employed as productively as possible on a long-range basis for the sole purpose of meeting pension commitments already made (or likely to be made in the future).

The actuary's vital role in pension planning is to provide answers to such critically important questions as the following: (1) What benefits would a fund of a particular size, fed by a certain rate of contributions, be most likely to provide for this group of employees? (2) What would be the cost of changing the pattern of benefits for this group of employees? (3) How would alternative rates of contributions affect the incidence of the costs of providing these benefits? These and other questions involve assumptions as to mortality trends, turnover among employees at various ages and after various lengths of service, and the earnings of the fund.⁴ The rate of earnings on the accumulated assets, unlike all of the other elements of cost, is something about which the trustee can take specific steps.

It is a commonplace to observe that the future cost of a pension program, over a long period such as twenty, thirty, or forty years, is conjectural. Except in retrospect, no one knows precisely what the plan costs. But the actuary could make a reliable estimate if he knew the rate of return that will be earned. This he does not know, nor does anyone else, except within fairly broad limits. Yet it is a major factor. One dollar a year accumulated and invested at 4 per cent per annum builds up to \$57.20 at the end of thirty years. But if the earnings are 5 per cent, the accumulation amounts to \$68.09 in the same period, a difference of 19 per cent.⁵

⁴ There are, of course, other factors to be considered; these are only the principal ones. A clear exposition of the whole range of problems, intelligible to a layman, is to be found in James A. Hamilton and Dorrance C. Bronson, *Pensions*, New York, 1958.

⁵ Computed from Jerome Bracken and Charles Christenson, "Amount to Which \$1 per Period Will Accumulate, Received Continuously," *Tables for the Analysis of Capital Expenditures*, Boston, 1961.

The problem of investment management, then, is not to earn any particular rate but to earn the best possible rate which investment opportunities permit. Corporate and government bonds, mortgages, real estate, equities, or whatever else that provides the best long-term net yield may be the best medium of investment. (Yield is measured, of course, in terms of income received plus or minus changes in value.)

Current thinking about the management of pension trust assets has followed this line of reasoning to its logical conclusion. The fund is not analogous to life insurance assets or to a personal trust or to an investment company or to any other financial institution. It is *sui generis*. There is simply no other type of trust fund like it.⁶

This being the case, we might expect a distinctive pattern of pension fund portfolios to emerge. This expectation cannot be either supported or denied by experience to date. Investment management in a dynamic economy like the United States is not a science, nor can one with confidence set forth an estimate of the pattern which will emerge over the next decade or more. Nevertheless, the trends of recent years are suggestive and some estimates for the future can be entertained as being plausible.

Portfolio Composition

The distribution of noninsured pension fund assets at the end of 1965 and their growth during the past decade are shown in Table 10 and Chart 1. This composite picture includes the pension plans of business firms, nonprofit organizations, unions, and groups of employers acting jointly with unions.

The preceding table and chart illustrate the trends of the past decade for which good data are available. In contrast to life insurance companies during the same period, pension fund trustees were not active in the mortgage market but were in a position to expand their common stock holdings at a rapid pace. Although it is not

⁶ Perhaps some charitable foundations have quite similar investment management objectives, but relatively few would be identical in all respects.

possible to identify dollars, it is a fair statement that these stocks were largely acquired with either incoming cash from contributions and interest earnings or from temporary investments of new money. In any event, net purchases of common stocks have not exceeded 60 per cent of net receipts.

One of the problems of obtaining good results from equity investment is, of course, the matter of timing purchases to avoid a con-

TABLE 10

Assets of Private Noninsured Pension Funds, 1965
(book value in billions of dollars)

Assets	Amount	Percentage of Total	Increase Since 1955
Cash and deposits	0.9	1.6	0.5
U.S. government securities	3.1	5.3	0.1
Corporate bonds	22.7	39.1	14.8
Preferred stocks	0.8	1.3	0.1
Common stocks	24.5	42.1 ^a	21.1
Mortgages	3.3	5.7	3.0
Other assets ^b	2.8	4.9	2.2
Total	58.1	100.0	41.9

Source: Securities and Exchange Commission

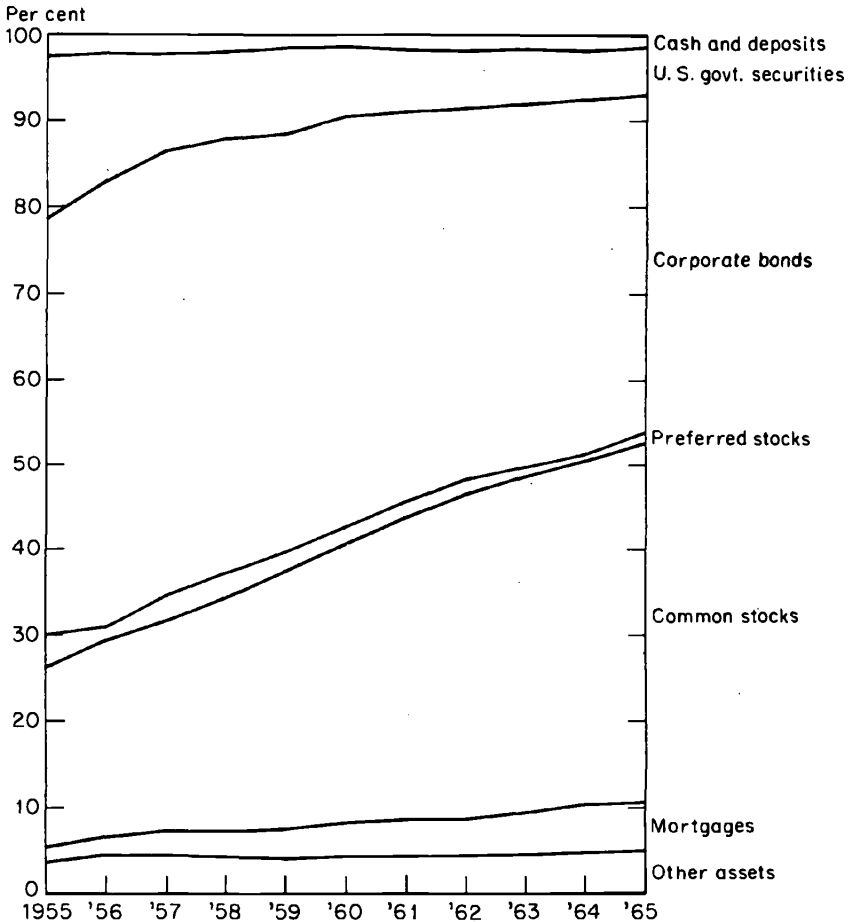
^a If assets are valued at market, the common stock proportion was just under 55 per cent.

^b Includes real estate and other assets not classified elsewhere.

centration in periods of high prices. This can be done by a strict dollar-cost-averaging program or a modification of one employing some sort of a range concept. In the early stages of programs of accumulation, the pattern appears to have been one of regularly allocating a substantial fraction of new money to equities. As funds grew in size and as initial objectives were achieved, the place of discretionary, as distinguished from programmed, purchasing has increased.

In the trends of recent years, certain possible implications for the future are evident. First, it seems clear that common stocks will

CHART 1

Portfolios of Private Noninsured Pension Funds, 1955-65

Source: Securities and Exchange Commission.

Note: Book values, end of year.

continue to be a major outlet for investment even if they do not prove to be quite as profitable as during the 1947-65 period of major upward revaluation of corporate earning power. Whether the proportion in equities eventually settles down at 40, 50, or 65 per

cent will depend upon comparative yields in all areas of the capital markets.

In any event, it appears that there will still be a substantial volume of business lending in the form of corporate debt, with a major fraction of it placed directly rather than through public offerings. Concurrently, we may expect a relatively great increase in mortgage lending and real estate investing. All of these trends are discussed in more detail below as part of an analysis of the participation of private pension programs in various sectors of the capital market.

Competitive Influences

Bank and company trustees have responded to the competitive drive of life insurance companies by seeking higher yields on fixed-income investments and by seeking to improve performance in managing stock portfolios.⁷ The evidence of a more aggressive attitude is found in the record of sales of common stocks as a percentage of the average market value of holdings in corporate pension trusts.

1957	3.8	1962	4.6
1958	4.6	1963	6.3
1959	4.7	1964	7.2
1960	4.5	1965 ^a	7.1
1961	6.1	1966 ^a	7.8

Source: Securities and Exchange Commission.

^a All private noninsured pension funds, including corporate.

Other evidence of this more aggressive attitude is to be found in a widening of the range of companies selected for equity investment,

⁷ Evidence of this intensification of interest in investment management performance is to be found in the number of studies on the subject. See, for example, Peter O. Dietz, *Pension Funds: Measuring Investment Performance*, New York, 1966.

greater concentration in directly placed corporate bonds, mortgage lending, and real estate investing. The stimulus of competition between trustees, always active, has been reinforced by competition from life insurance companies. As a result, there have been more imaginative approaches to investment management and many innovations in handling special types of assets. Special funds are established to hold mortgages and real estate, for example, in order to provide economical administration and diversification for the participating pension trusts. The use of commingled funds permits smaller accounts to share in the experience of a large and diversified portfolio.

Another technique for stimulating competition among portfolio managers is the practice of splitting among several bank trustees a large fund such as that of General Motors, Eastman Kodak, or constituent companies of the Bell System. The right to replace the trustee on short notice, normally reserved in the trust agreement, also militates against complacency. Some companies have established their own investment management organizations (General Electric, United States Steel, and Bethlehem Steel are examples) to assure the full attention of qualified personnel.

The consequences of this greater emphasis on efforts to improve realized yields have included the higher turnover in common stock portfolios noted above as well as interest in a much wider diversity of investment opportunities. Somewhat greater attention to the timing of commitments in both fixed-income securities and equities, a very difficult undertaking, has become evident with the passing of time. This trend represents a departure from the kind of dollar-cost-averaging approach which predominated during earlier years.

Flexibility

Data are not available to show the extent to which pension fund managers shift among different segments of the market for fixed-income investments, but observations of the writer suggest that flexibility is becoming increasingly required by competitive forces.

Willingness to realize gains and losses has increased with greater recognition of the fact that they are not really relevant to long-term performance. Possibly this diminished "lock-in effect" has contributed to the narrowing yield differential between discount corporate bonds and current coupon issues in the most recent period of high interest rates.

Comprehensive and detailed information about asset management policies is not available on a continuous basis, but it is possible to document the changes which have taken place in the management of common stock portfolios. From the investigation of the Fulbright Committee, completed in 1956,⁸ portions of the study made of the New York State Banking Department in 1955,⁹ and our analysis of representative portfolios in 1958 and 1959, we can piece together a general picture of how pension fund trustees managed their equity investments about a decade ago, when this problem had emerged as a major aspect of total asset management.

These studies indicate that, in these formative years of the investment management of rapidly growing common stock portfolios, the practice was to invest in a relatively stable group of well-established companies. Because the portfolios were newly selected, there were few occasions for sales. However, there was, even then, a wide range of opinions as to the most suitable industries and companies.

The Fulbright Committee staff selected twenty-five leading stocks in seventeen industries for its study of activity during the thirty-four months from January 1953 through October 1955. The concentration of buying in these "institutional favorites" was highest for corporate pension funds (Table 11).

The indicated concentration of purchases declined markedly during the next several years. The National Bureau sample of ten portfolios for the eighteen-month period from January 1958 through June 1959 showed only 16.5 per cent of purchases in the

⁸ U.S. Senate, Committee on Banking and Currency, *Institutional Investors and the Stock Market, 1953-1955*, Washington, 1956.

⁹ George A. Mooney, *Pension and Other Employee Welfare Plans*, New York State Banking Department, 1955.

same twenty-five leading companies.¹⁰ Furthermore, 327 companies were represented in these portfolios during the period. Only 42 were owned by five or more of the funds, while 228 were owned by only two or one of the funds. Similar data are not available for later years, but the writer's direct observation supports the conclusion that fund managers have continued to increase the flexibility of their operations by broadening the range of alternatives.

TABLE 11

Purchases of 25 Selected Common Stocks and Percentage of Total Common Stock Purchases by Institutional Groups, January 1953–October 1955

Groups	Purchases (millions of dollars)	Percentage
30 corporate pension funds	201.8	24.0
5 closed-end investment companies	24.0	20.6
25 life insurance companies	66.0	20.3
30 bank-administered common trust funds	20.0	17.5
60 casualty and surety insurance companies	30.0	15.4
20 open-end investment companies	265.2	15.1
40 fire insurance companies	12.2	10.0
Total	619.2	17.9

Source: Fulbright Committee Report.

The other major aspects of flexibility are, of course, in the timing of equity purchases relative to fixed-income investments and changes in the proportions of funds allocated to different types of bonds and stocks. Aggregate data for all trustee pension funds

¹⁰ The National Bureau sample was provided on a confidential basis by nine banks which are leaders in the administration of corporate pension trusts. These banks probably managed more than 50 per cent of all corporate pension funds. Each bank selected an unidentified fund which was well established, unrestricted as to investments, and under the bank's sole control. In effect, the quarterly statements furnished to us from December 31, 1957, through June 30, 1959, recorded each bank's unfettered judgment of what investment policy should be. For the analysis of common stock activity, the College Retirement Equities Fund was added to provide a tenth portfolio.

conceal a wide range of policies pursued in individual funds. Over the eighteen-month period, the banks in the National Bureau sample showed a range from less than 23 per cent to more than 45 per cent in the allocation of new funds to common stocks. In six-month periods, the range of allocation was between 7 and 69 per cent despite an apparently stable level for the group as a whole of between 34 and 42 per cent. A similar pattern was found in the analysis of purchases of stocks when classified as defensive, cyclical, cyclical-growth, and growth issues. Divergent responses to changes in the economic environment and to shifts in relative values in the market place make sweeping generalizations about how pension funds invest in equities of doubtful validity. The available evidence supports rather the existence of wide variations among the strategies and selective processes of different portfolio managers.

Little or no support is found for the view sometimes expressed that the concentration of pension fund investing in a small number of leading company shares is tending to create scarcity premiums on institutional favorites. Attempts to identify such premiums have been unproductive and there are no surprises in the results. Pension funds are only one modest factor in a market which adjusts to underlying factors of earnings, dividends, growth, and stability. While price adjustments to changing expectations may take place slowly at times, there appears to be no compartmentalization of the market for equities which can create a different valuation for a few or many pension fund favorites in the market place. The increase in competitive pressures on portfolio managers, combined with the greater flexibility in investment decisions which has developed over the years, has largely eliminated tendencies toward concentration in relatively few issues, if, indeed, they ever existed in sufficient strength to influence selected stock prices.

Multiemployer and Union Pension Funds

Results of the National Bureau study of the asset growth of multiemployer and union pension funds, 1959-64, are reported

more fully in Occasional Paper 105.¹¹ The portfolio composition of these funds, as Bartell has shown, varies in several material respects from the composite picture of trustee corporate pension funds. A comparison for the year 1964, for example, shows the corporate funds holding higher proportions of assets in common stocks (41.6 per cent vs. 23.5 per cent at book values). Mortgages and government bonds were more favored by the multiemployer and union funds. These differences are not diminishing materially over time because of the active interest of many unions in contributing to the supply of funds for housing. Some of the newer and more rapidly growing funds have, however, given increasing emphasis to common stock investment.

The future pattern of investment policy will undoubtedly be influenced by certain union positions, notably instances of preferences for mortgages and real estate over common stocks. Despite the relatively rapid growth rate anticipated for the years immediately ahead, these differences will have relatively little influence since their proportion of the total assets of trustee pension funds will increase only from 6.3 per cent to perhaps 7 or 8 per cent.

If the unions should succeed in negotiating a voice in the management of single-employer funds, more pressure might be exerted on fund managers to finance housing or other "socially desirable" projects. On the basis of developments to date, this possibility seems remote and there is some basis for questioning whether there would be any significant change in fund flows even if unions did obtain a voice in investment management decisions.¹²

Nonprofit Organizations

The smaller, but still vigorously growing, noninsured pension funds of nonprofit organizations represent less than 3 per cent of all

¹¹ See Part I of H. Robert Bartell, Jr., and Elizabeth T. Simpson, *Pension Funds of Multiemployer Industrial Groups, Unions, and Nonprofit Organizations*, New York, NBER, 1968.

¹² See the writer's "Management Interests in the Investment of Pension Funds," *Proceedings of the Eighteenth Annual Winter Meeting of the Industrial Relations Research Association*, December 1965, pp. 312-316.

private noninsured funds. As shown in the study by Simpson completed as part of the National Bureau's pension research project,¹³ the asset composition of these funds is similar to the typical multiemployer portfolio.

Again, possible changes in investment policies will not have an important influence on aggregate capital market flows. Somewhat greater emphasis on common stocks and mortgage lending is indicated by the trends of recent years, but these asset shifts are in the same direction as those evident in single-employer funds.

FUTURE CAPITAL MARKET FLOWS

Recent Trends

A comparison of net flows through the capital markets during two recent years, 1960 and 1965, will serve to illustrate the importance, as suppliers of funds, of insured and trustee pension programs covering individuals in private employment. For three major capital market sectors, the combined total of net acquisitions of financial assets by these two investor groups is expressed as a fraction of the net change in selected categories of assets. In the case of life insurance companies, the arbitrary assumption is made that assets acquired to fund pension plan reserves are distributed in the same proportions as all asset acquisitions.

The important trends to be observed from Table 12 are the shifts away from corporate bonds to corporate stocks and mortgages. Within the mortgage category, moreover, there has been a shift to multifamily and commercial property lending as contrasted with the prior concentration of lending in the one- to four-family market. Direct investment in real estate has also been growing in importance, although not of sufficient size to be separately classified in the table.

As both life insurance companies and pension fund portfolio managers have concentrated their corporate bond investments in

¹³ Bartell and Simpson, *Pension Funds*, Part II.

TABLE 12

*Net Acquisitions of Financial Assets by Insured and Trusteed Pension Plans
Covering Individuals in Private Employment, 1960 and 1965*
(billions of dollars)

Assets	1960			1965			Percentage of Total Funds Raised ^b
	Insured Plans ^a	Trusteed Plans	Total	Insured Plans ^a	Trusteed Plans	Total	
U.S. government securities	-0.1	-0.1	-0.1	-0.1	-0.3	-0.4	n.a.
State and local obligations	0.1	—	0.1	-0.1	—	-0.1	n.a.
Corporate bonds	0.4	1.6	2.0	0.7	1.5	2.2	25.6
Corporate stocks	0.1	1.9	2.0	0.2	3.1	3.3	97.1
Mortgages	0.6	0.3	0.9	1.0	0.6	1.6	6.3
Other	0.2	0.1	0.2	0.3	—	0.3	n.a.
Total	1.3	3.8	5.0	2.1	4.9	7.0	n.a.

Source: Board of Governors of the Federal Reserve System, flow-of-funds accounts; figures differ from those compiled by Securities and Exchange Commission because of differences in concepts.

Note: Individual entries may not add to totals because of rounding.

n.a. = not applicable

^a That fraction of changes in life insurance asset holdings which is determined by the year's increase in insured pension reserves divided by total net acquisitions of financial assets.

^b Total net acquisitions as percentage of net new issues. In the case of corporate stocks, new issues include those of open-end investment companies. If these are eliminated, the percentage for 1960 is 111 and for 1965 about 1,100 because net new issues from other sources amounted to only \$0.3 billion.

directly placed issues, they have relinquished leadership in the market for publicly offered bonds to state and local government retirement systems. This shift has now been largely completed to the extent that offerings and yields make directly placed issues competitively attractive.

The net purchases of corporate stocks (largely common) have run in excess of net new issues by business firms, excluding investment companies (see note b in Table 12). This fact has given rise to widespread discussion of the growth in institutionalization of stock ownership, particularly when the growth of mutual funds is also taken into account.¹⁴ The net flows in the market for equity securities show a persistent transfer of stock ownership from individuals and "all others" to professional managers. The data exaggerate, however, the impact of this trend on the market for equities.

In the first place, net new issues understate the supply of shares suitable for institutional ownership. Retirements tend to be disproportionately large for the smaller companies not widely available for public investment. That is to say, retirements are heavily concentrated in small privately owned businesses which sell their assets to large publicly owned corporations. Similarly, when a closely held company merges with one having a wide distribution of share ownership, the supply of broadly marketable shares is increased without a new issue being recorded. At least during recent years of great merger activity, this imparting of marketability to inactively traded common stocks has substantially exceeded the volume of recorded retirements. Gross new issues, therefore, better measure the quantity of new shares broadly available for pension fund investment. On average, this might add upward of \$1.5 or \$2.0 billion a year to what can be considered as the supply of new issues in the market place. Spot checks have shown that a disproportionately large fraction of the gross financing (including senior securities convertible

¹⁴ See, for example, Daniel Seligman and T. A. Wise, "New Forces in the Stock Market," *Fortune*, February 1964, pp. 92-95, 194-206.

into common stock) has been done by companies which are prominent in pension fund portfolios.

Second, we know that even gross new issues are not a true measure of the volume of equity financing. In a real sense, retained earnings represent a privileged subscription, a rights offering if you will, which has been fully taken up by existing stockholders. From 1961 through 1965, retained corporate profits averaged \$18.5 billion a year, compared with new offerings of common stocks averaging only \$2.0 billion a year. Pension funds, of course, "purchased" their proportionate share of these retained earnings.

Third, the supply of equity securities is constantly being enlarged in the market place from sales by wealthy individuals or their executors to meet federal and state taxes on the transfer of property by gift or bequest. To the extent that the proceeds of these sales are used to meet such tax payments, instead of being reinvested in other common stocks, they measure a demand for equity capital in the market place in the same way as new stock issues. In a typical year, it appears that sales for these purposes are about as large as gross new issues.

In short, the net acquisitions of common stocks for private employee pension programs appear very large only when some major components of the aggregate supply are ignored. In perspective, it is evident that these investors are still only one important factor in the market and that their operations can have only a limited influence on the behavior of share prices.

Transaction studies made by the New York Stock Exchange over the last fifteen years show that, prior to 1965, institutions and intermediaries typically accounted for less than 25 per cent of the volume on that exchange. Studies in March 1965 and October 1966, however, showed 31.4 per cent and 32.5 per cent respectively. In the year 1965, when purchases and sales on the New York Stock Exchange (twice reported sales volume) came to \$146.4 billion, the total of trustee pension funds' purchases and sales (obviously not all on the New York Stock Exchange) came to

\$8.1 billion. Possibly these funds accounted for 5 per cent of the total. This would compare with about 4 per cent in 1960 and less than 2 per cent in 1955.

Pension funds can hardly be credited with a major role in the short-run behavior of share prices despite the rapid growth in their participation in the market. They did, however, perform a stabilizing function in the 1962 market break¹⁵ and sustained their net purchases in good volume during the 1966 market decline.

Most recently, concern has been expressed over the rise in turnover rates for pension trusts and life insurance companies, presumably under the strong competitive pressure for performance. As such turnover rates are frequently computed (the average of purchases and sales divided by average holdings), a rapidly growing portfolio tends to show a relatively high figure. Nevertheless, trustee private pension funds for the decade through 1965 typically showed a turnover rate of between 11 and 12 per cent, well below the range of 12 and 16 per cent for all stocks on the New York Stock Exchange, and a 17 to 21 per cent range for open-end investment companies.

As the emphasis on performance mounted in 1966, however, turnover rates exploded to 33 per cent for open-end investment companies, the group on which the impact of this emphasis was strongest. In contrast, a rise of about two percentage points in the turnover rate for trustee pension funds and life insurance companies was no more than the rise in the New York Stock Exchange turnover rate.

While developments to date have had only a modest impact on the structure of the market for common stocks, it must be recognized that further increases in the rate of turnover in institutional portfolios could bring about major changes in the structure of markets. A rise in the volume of block transactions of 10,000

¹⁵ See New York Stock Exchange, *The Stock Market Under Stress*, New York, March 1963, and Securities and Exchange Commission, *Report of Special Study of Securities Markets*, Part 4, Chapter XIII, Washington, 1963.

shares or more from 3 per cent to 4.5 per cent of total New York Stock Exchange volume is the principal consequence to date of greater institutional activity. An inventory of institutional ownership of stocks (SEC estimates) at the end of 1965 is shown below.

	<i>Market Value</i> (billions of dollars)	<i>Percentage</i> of Total
Personal trust funds	71.9	10.7
Investment companies	41.1	6.1
Trusted private pension funds	39.7	5.9
Foundations	14.1	2.1
Property and casualty insurance companies	12.4	1.8
Life insurance companies	9.1	1.3
College endowments	6.4	0.9
Bank common trust funds	3.5	0.5
State and local government trust funds	<u>2.2</u>	<u>0.3</u>
Total for selected institutions	200.4	29.7
All others, including foreigners	<u>474.3</u>	<u>70.3</u>
Total outstanding	674.7	100.0

Source: Securities and Exchange Commission, *Public Policy Implications of Investment Company Growth*, Washington, D.C., 1966, pp. 276-277.

No doubt, much more than 30 per cent of all stocks are under some form of institutional supervision or professional management. Data on the whole range of investment advisory services are not available. However, if the turnover of outstanding shares is to increase materially in the future, many holders other than pension funds will have to participate on a broad scale.

Neither the proposition that pension funds bid up the share prices for a limited group of "institutional favorites" nor the proposition

that they are contributing to price volatility in selected shares can be supported by available evidence. On the contrary, it appears that portfolio managers are broadening their range of investment alternatives and taking advantage of the long time horizon implicit in their decisions.

A Look at the Future

The long-run future of pension fund activities in the capital market will depend upon the economic environment and the demands for capital which are created. Rather than speculate on these matters, however, it may be more useful to set forth some educated guesses about the future flow of funds to indicate the range of possibilities over the next decade and more.

For this purpose, it is not too important whether insurance companies, bank trustees, or others administer the funds. An equity investment, a directly-placed corporate obligation, a real estate mortgage loan, or a real estate purchase does not carry the label of the decision-maker into the capital market. Furthermore, life insurance companies are improving their capabilities to handle equity investments just as bank trustees are building up their facilities for mortgage and real estate investing. In the future, it will clearly make less difference to the flow of funds in the capital market whether a dollar of pension contribution goes to any particular class of institution or type of investment manager.

It is vitally important, however, whether Holland's projections of pension fund flows prove to be close to the actual events. As he correctly points out, the margin of error is likely to be modest for 1970 or 1975, but can increase materially for 1980. Essentially, he assumed that the role of social security in the years ahead would not substantially change from what it has been. A few of the other crucial assumptions relate to the pace of increases in coverage, changes in standards for vesting and funding, and the rate of return earned by the investment portfolios.

Because changes in a number of the variables can have the effect

of producing offsetting influences on the size of asset accumulations, we can have confidence in using Holland's average annual fund accumulation despite some recent surge of growth in years of high corporate earning power. His projections for the pace of annual net addition to assets follow.

<i>Year</i>	<i>Billions of Dollars</i>
1965	6.7
1970	7.5
1975	7.6
1980	7.4

Source: Holland's projections, Table 28, p. 69.

This projected leveling off in fund accumulations, whether it occurs in another decade or is delayed by current developments, is the most significant aspect of future influences on capital market flows. Given an orderly pace of economic growth, it means that pension funds for individuals in private employment will account for a diminishing fraction of total net acquisitions of financial assets.

As trustee portfolios become more seasoned—that is to say, as the average holding period of fixed-income securities lengthens—maturities and repayments will become much more important. In the 1970's, we may anticipate that gross acquisitions will continue to rise long after net acquisitions have leveled off. A projection for any year after 1970 will, therefore, be subject to a wide margin of error when expressed in terms of net acquisitions. With all of these qualifications, it may be useful to look at some possible patterns for the future (Table 13).

The division of fund flows between bond, mortgage, and real estate investments is clearly a function of relative yields and terms. Since it is impossible to determine precisely what these will be, the distribution of funds among assets other than common stocks shown in Table 13 has been arbitrarily made. Some weight has been

given, however, to the anticipated strength in housing demand around the turn of this decade.

To project a meaningful flow of funds into corporate stocks (largely common), however, it was necessary to take some account of the effects of market appreciation, reflecting the value of retained earnings. If this appreciation should average 5 per cent per annum in the years ahead—not an unreasonable assumption on the basis of past history and one consistent with the pursuit by fund managers of

TABLE 13

Possible Future Net Acquisitions of Financial Assets by Pension Funds Covering Individuals in Private Employment, 1970, 1975, and 1980
(billions of dollars)

Assets	1970	1975	1980
Government securities	^a	0.2	0.2
Corporate and other bonds	1.3	1.9	2.4
Corporate stocks	4.3	3.0	2.0
Mortgages	1.6	2.0	2.2
Other assets, including real estate	0.3	0.5	0.6
Total	7.5	7.6	7.4

^a Negligible.

an aggressive program to increase and maintain a substantial position in equities—the composition of total portfolios would be approximately as shown in Table 14.

The pattern of net financial asset acquisitions presented here is conjectural, to be sure, but it attempts to recognize several important changes which will or may occur. The striking feature is, of course, the projected decline in net acquisitions of common stocks after 1970. This possibility deserves to be recognized because of the following three factors or assumptions:

1. It is assumed that life insurance companies will greatly expand their equity investments in the next few years through the use

TABLE 14
Possible Future Assets of Pension Funds Covering Individuals in Private Employment, 1970, 1975, and 1980

Assets	1965 ^a		1970		1975		1980	
	Billions of Dollars	Per Cent	Billions of Dollars	Per Cent	Billions of Dollars	Per Cent	Billions of Dollars	Per Cent
<i>Book values</i>								
Common stocks	25.5	30.0	47.0	38.7	62.0	38.8	72.0	36.4
All other assets	59.5	70.0	74.5	61.3	98.0	61.2	126.0	63.6
Total	85.0	100.0	121.5	100.0	160.0	100.0	198.0	100.0
<i>Market values</i>								
Common stocks	40.0	40.8	75.0	50.0	113.0	53.3	155.0	54.4
All other assets	58.0	59.2	75.0	50.0	99.0	46.7	130.0	45.6
Total	98.0	100.0	150.0	100.0	212.0	100.0	285.0	100.0

Note: For purposes of this calculation, the artificial assumption is made that no gains or losses are realized, so that changes in book values reflect only net inflows. The allocations of funds to common stock investment shown in Table 13 are assumed to apply to the preceding four years as well.

^a Actual. Based on arbitrary allocation of life insurance company assets to reserves for insured pensions plus Securities and Exchange Commission data for trustee funds.

of separate accounts. Similarly, trustee funds are expected to be heavy investors in equities in order to increase the proportion in existing portfolios. The increase in the common stock component of the Bell System pension trusts is a substantial case in point. As a consequence of these factors, common stocks are assumed to increase from 30.0 per cent in 1965 to 38.7 per cent by the end of 1970 at book values, and from 40.8 per cent to 50.0 per cent at market values.

2. As the number of beneficiaries climbs in the years immediately ahead, funds accumulated under insured deposit administration contracts will be used to purchase guaranteed annuities for the pensioner. These funds, along with assets supporting existing deferred group and individual annuity contracts, will be invested largely in fixed-income securities. This is the dramatic maturing of pension promises, involving a doubling of the number of individuals drawing benefits between 1965 and 1973. It would be reasonable to suppose that at least \$30 billion of the \$130 billion in assets other than common stocks at market values projected for 1980 will be supporting insured annuity contracts on a guaranteed basis. If these are eliminated from the total, the proportion in common stocks would be close to 61 per cent instead of 54 per cent.

3. With increasing recognition of the fact that market, rather than book, values are the significant measure of assets and yields, it is assumed that portfolio decisions will be based primarily on the distribution of assets valued at average market prices. The fund, in reality, is recognizing the purchase of retained earnings with the receipts from average market appreciation. For example, for the year 1976, in terms of these projections, the pension funds will receive \$7.7 billion in net additions to assets plus \$5.65 billion in appreciation on the \$113.0 billion common stock portfolio at the assumed average rate of 5 per cent. The investment in equities is the projected \$2.0 billion in cash plus \$5.65 billion in appreciation, or a total of \$7.65 billion, which represents 57 per cent of total "net receipts" of \$13.35 billion for the year.

Obviously, this possible projection is not susceptible of proof, and the declining allocation of funds to common stocks is not essential to our conclusions. This exercise in quantifying a possible change in trend serves its purpose if it only raises a question in the minds of those who make freehand extrapolations of the rising volume of net purchases of common stocks by these groups of investors. Even a stable level of net common stock acquisitions would mean a diminution of capital market influence. Such a stable allocation at, say, 60 per cent of net additions to assets would produce the following results in 1980, using the same assumptions as in Table 14.

	<i>Book Value</i>		<i>Market Value</i>	
	<i>Billions</i>		<i>Billions</i>	
	<i>of</i>		<i>of</i>	
	<i>Dollars</i>	<i>Per Cent</i>	<i>Dollars</i>	<i>Per Cent</i>
Common stocks	93	47	182	63
All other assets	105	53	108	37
Total	198	100	290	100

The relatively modest change in assets at market value is attributable to the delay in the projected cutbacks in stock purchases until after 1970 and 1975.

The reader may well conclude that this possible future allocation of funds is more probable than that shown in Table 13. However, even this higher level of net acquisitions implies that, in a growing capital market, the role of these investors in the market for corporate stocks is already close to its peak and will be declining in the future. On the other hand, the possible pattern in Table 13 would suggest a resurgence of influence in the markets for directly placed corporate obligations, mortgages, and real estate.

But these pension fund managers will continue to be a major factor in the market for common stocks outstanding in the hands of

the public. The recent growth of block transactions on the New York Stock Exchange illustrates one of the adaptations of the market mechanism which is necessary to handle the growing volume of turnover in institutional portfolios. Given the projected volume of equity holdings by 1980, it is evident that an adjustment in the balance between fixed- and variable-income securities can create substantial swings in the amount of net acquisitions. There is little reason to expect that purchases will be made at the even pace implied by Table 13. Nor, indeed, can it be accepted as a certainty that fund managers will inevitably continue their steady accumulation of common stocks through sustained or even brief periods of adverse experience. In short, much greater variability in net acquisitions of equity securities must be expected in the years ahead.

One final qualification to all these estimates and conjectures: If variable annuity pension plans spread widely among industrial employers, it will be necessary to modify substantially the entire range of possible asset acquisition patterns. Only the future can tell whether this is a real possibility. The increasing familiarity of the public with common stocks and renewed concern over inflationary pressures in the economy are factors conducive to the adoption of variable benefit plans. However, stock purchase plans, savings plans which include equity investments, and profit-sharing plans provide outlets for this interest in owning common stocks without disturbing the stability of fixed-dollar pension programs.