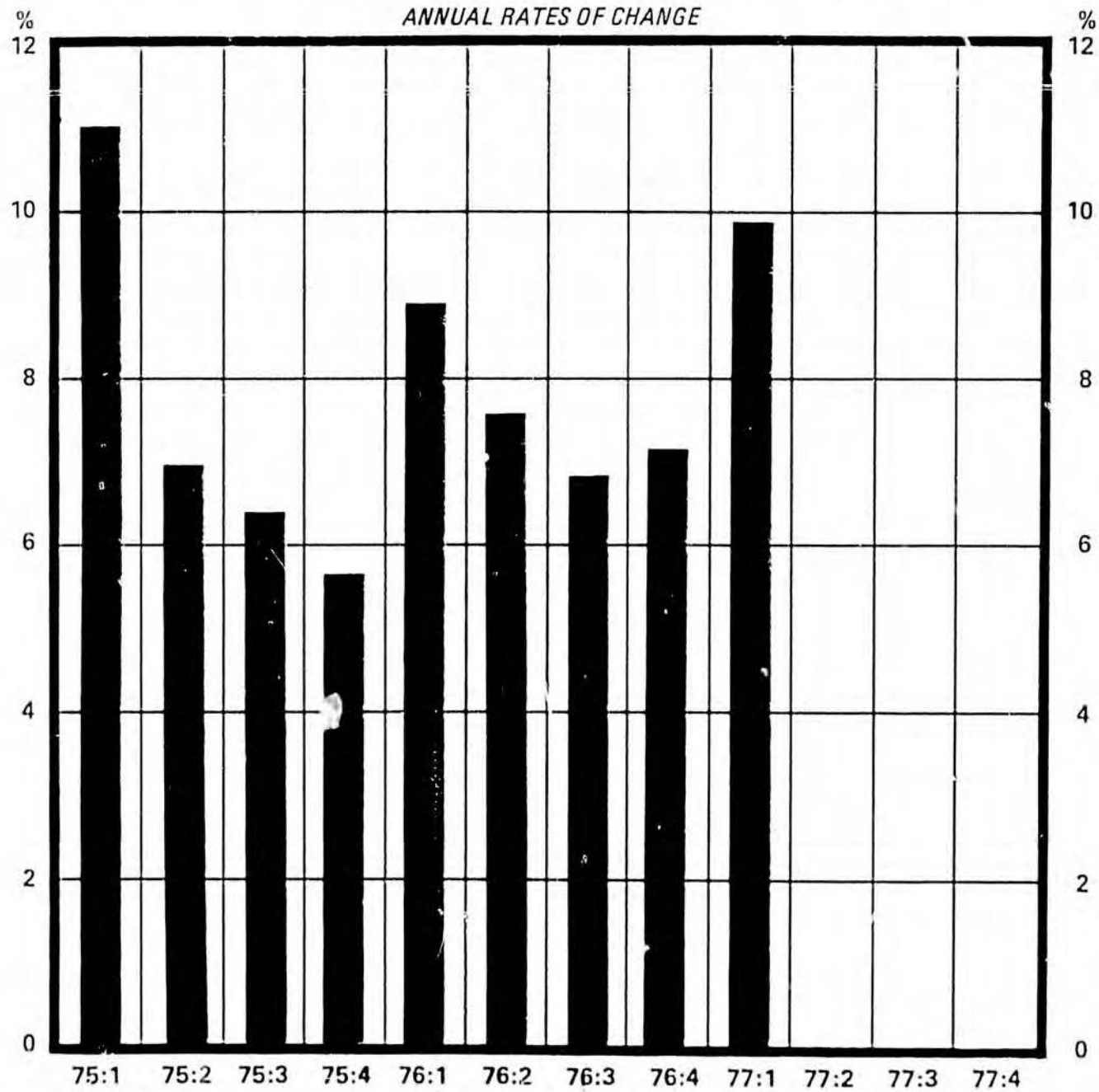


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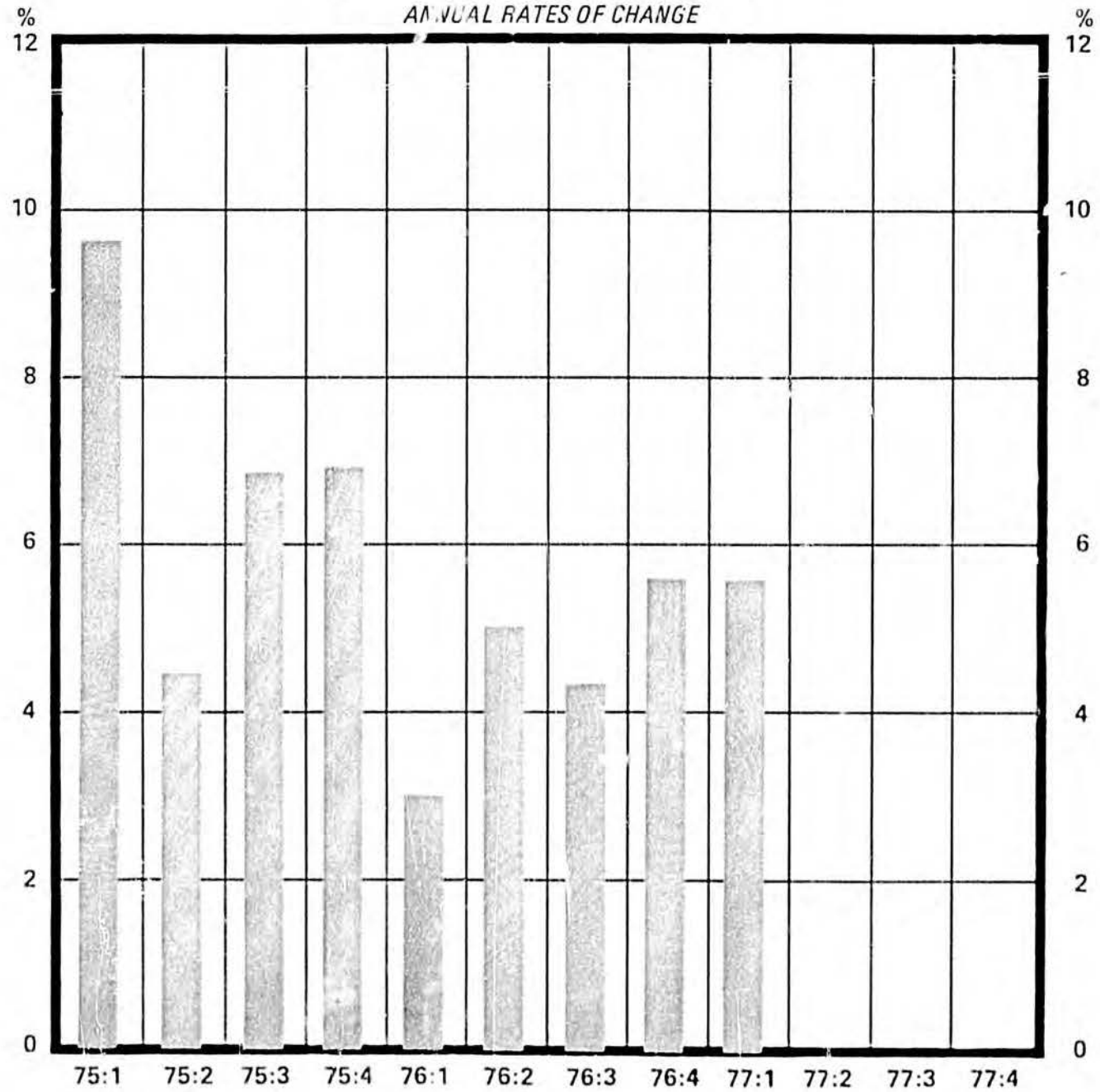
APPENDIX A

COMPENSATION PER MANHOUR

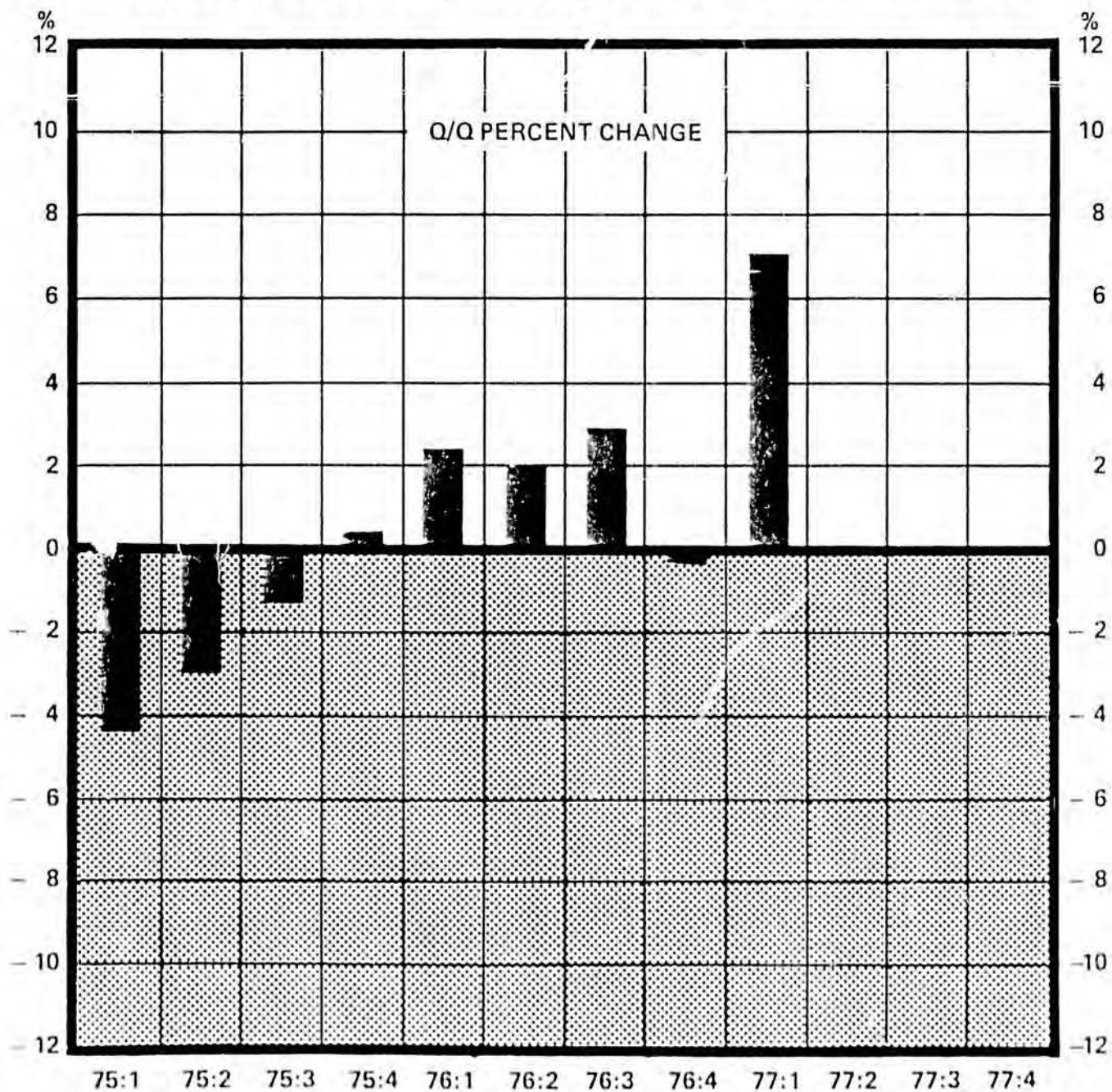


GNP DEFLATOR

ANNUAL RATES OF CHANGE

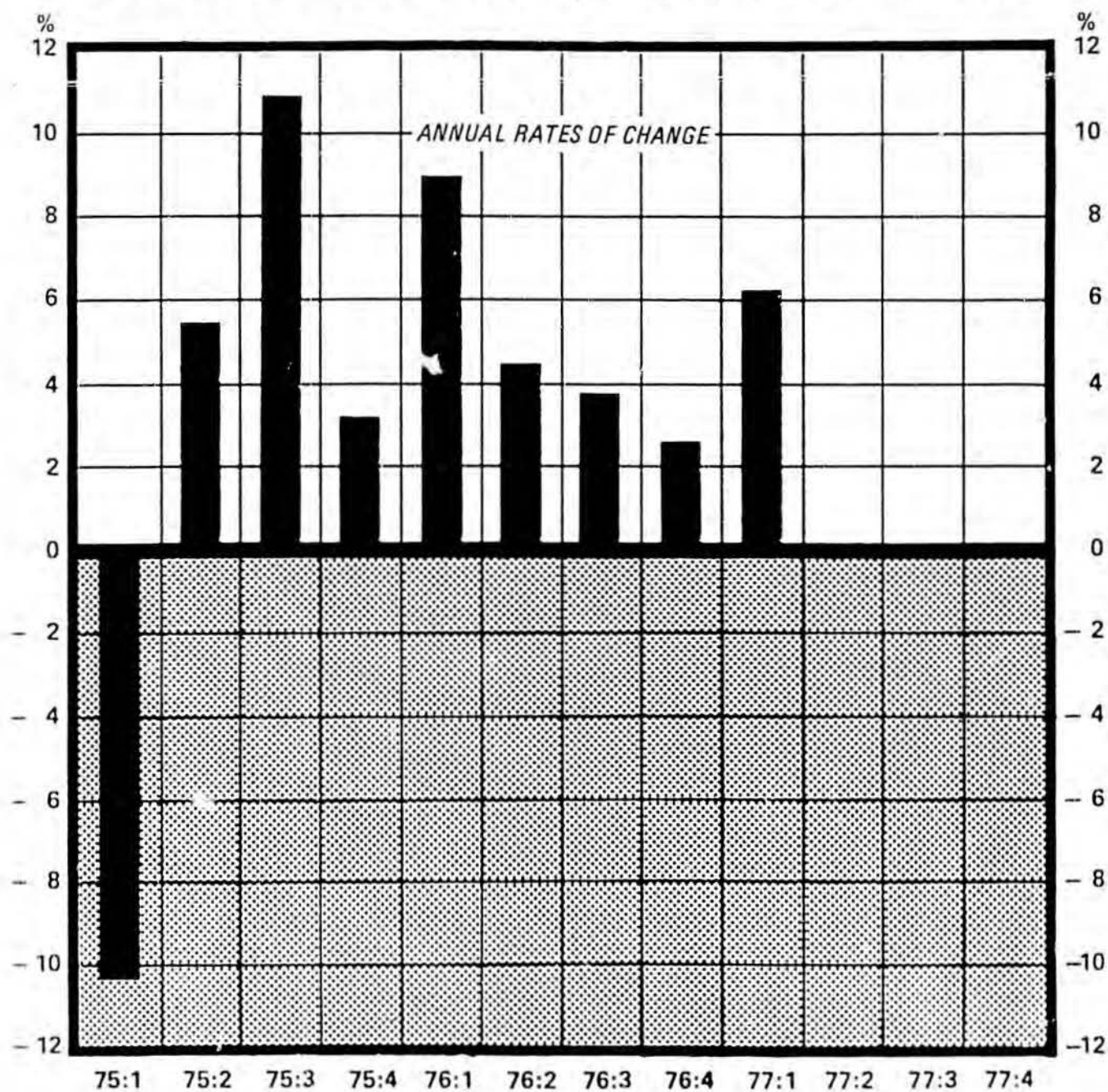


PRODUCERS' DURABLE EQUIPMENT CONSTANT (1972) DOLLAR BASIS



GNP

CONSTANT (1972) DOLLAR BASIS



Manufacturers Hanover Trust Company
Presentation To
The Special Legislative Committee
of
The Alaska Permanent Fund

Anchorage, Alaska

November 18, 1977

Participants:

Victor J. Melone, Jr., Senior Vice President
Willard L. Wheeler, Jr. Senior Vice President
Dimitri N. Balatsos, Vice President
Harald S. deRopp, Vice President
Joey L. McCandless, Vice President

TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION	1
II. HISTORY AND DEVELOPMENT OF FUNDS EXEMPT FROM TAXATION	3
III. IMPACT OF ERISA	11
IV. OTHER SERVICES AVAILAELE TO A LARGE PUBLIC FUND	13
V. INVESTMENT STRATEGY	14
VI. APPENDIX I	55
BIOGRAPHIES	60

I. INTRODUCTION

Manufacturers Hanover Trust, a subsidiary of the Manufacturers Hanover Corporation, a publicly-held company traded on the New York Stock Exchange, is one of the world's largest banking groups with assets of more than \$30 billion. With over 700 employees at its Rockefeller Center location in New York City, the Trust Division, the nation's sixth largest trust entity, manages a total of \$11.5 billion of assets. Of this total \$7.5 billion represent accounts managed in the Pension Department and over \$4 billion represent endowment, foundation, personal trust, and insurance company accounts in the Personal Trust Department.

A more detailed accounting of the assets under management as of December 31, 1976 is outlined below and appears on page 2.

	<u>Number of Accounts</u>	<u>Market Value</u>
Tax Exempt Funds		
Employee Benefit - Separate Accounts	373	\$ 7.3 billion
Employee Benefit - Commingled Accounts	475	201.4 million
Total Employee Benefit	<u>848</u>	<u>\$ 7.5 billion</u>
Other	471	\$ 1.1 billion
Total Tax Exempt	<u>1319</u>	<u>\$ 8.6 billion</u>
Taxable Accounts (Personal Trust & Estate)	<u>7134</u>	<u>\$ 2.9 billion</u>
Total Accounts & Assets	8453	\$ 11.5 billion

The distribution of separately managed Employee Benefit (Pension Funds) is as follows:

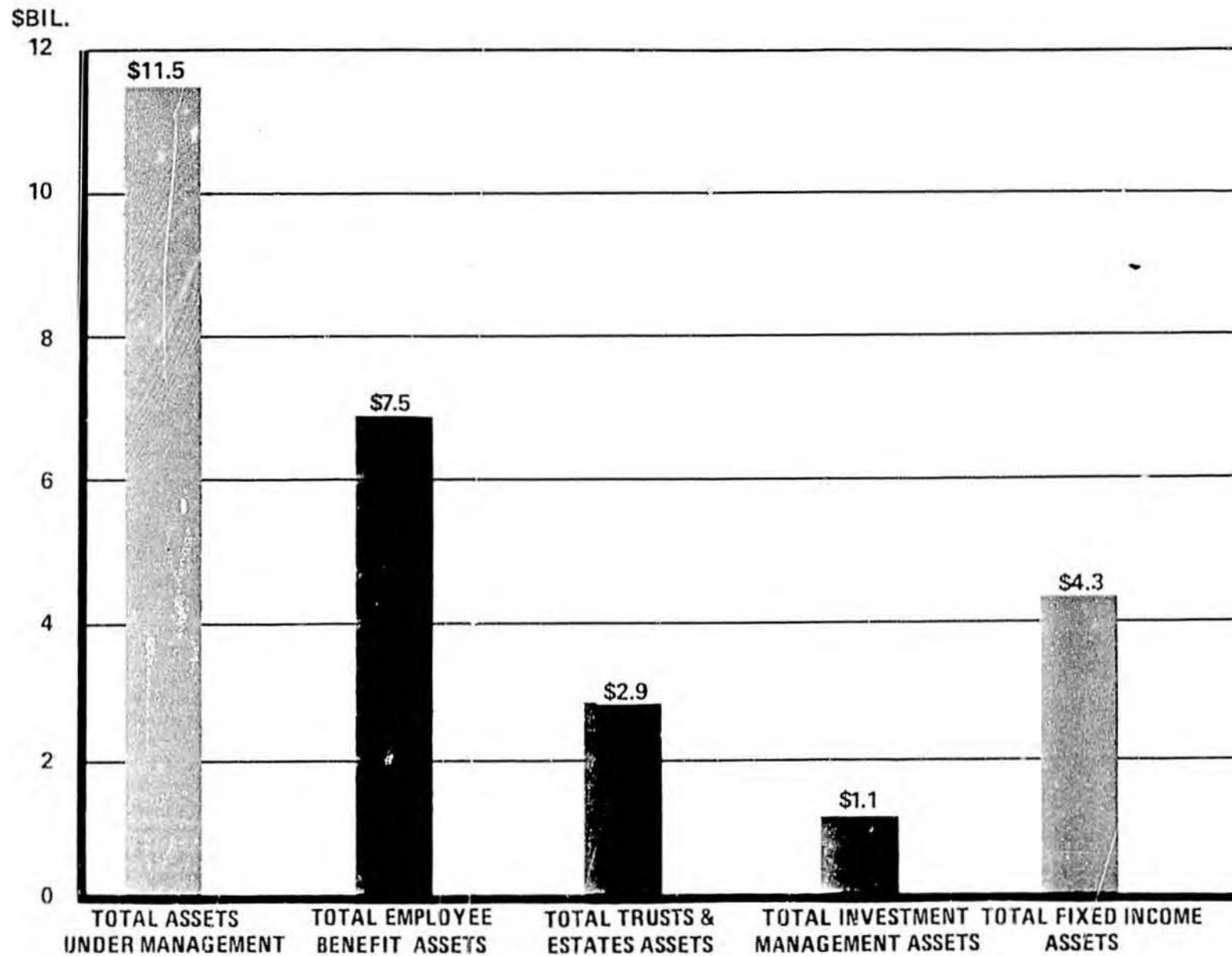
<u>Portfolio size</u>	<u>Number of accounts</u>
Under \$1 million	104
\$ 1- 5 million	117
\$ 5- 10 million	41
\$10- 25 million	50
\$25- 50 million	24
\$50- 100 million	22
Over \$100 million	15

Joseph L. McElroy, Executive Vice President and head of the Trust Division has the ultimate responsibility for all assets assigned to the Bank for management. Victor J. Melone, Senior Vice President and Senior Investment Officer directs basic investment strategy for the Division. The administration and supervision of Alaska Permanent Fund assets that could be assigned in the future would be managed in the Employee Benefit Trust Department which is under the direction of Willard L. Wheeler, Jr.,

SUMMARY OF ASSETS UNDER MANAGEMENT



MANUFACTURERS HANOVER TRUST



Senior Vice President. Mr. Wheeler's staff of ten portfolio managers includes Harald deRopp Vice President, who heads the Fixed Income Management Team at Manufacturers Hanover. Detailed organization charts appear on pages 4 and 5.

There are currently twenty-three analysts in the Research Department including three who devote full-time to the analysis of fixed-income investments. By virtue of the substantial value of assets under our management, we have access to major investment banking, bond and brokerage research firms which provide the Bank with a constant flow of information on world economic conditions and interest rates, as well as on specific issues and companies.

The Alaska Permanent Fund represents a unique investment challenge since the assets are public monies held in trust. Although public monies have different objectives than private pension funds, their fiduciary character as well as their size and tax-exempt feature make them comparable. Therefore, we will outline our investment alternatives for the Permanent Fund based on our long and detailed experience with public and private pension trusts. Before discussing the investment alternatives available to the State of Alaska, we will summarize the history of funds exempt from taxation.

II. HISTORY AND DEVELOPMENT OF FUNDS EXEMPT FROM TAXATION

The earliest pension plans in the United States were established almost a century ago on a pay-as-you-go basis with or without reserves which appeared as liabilities on the balance sheet. At that time, employers had the attitude that pensions were completely discretionary on their part, and therefore, they should have the ability to reduce benefits or discontinue plans at their will.

In the mid-1920's, insurance companies started issuing deferred group annuity contracts which involved the annual purchase of guaranteed benefits for employees covered by the plan. Subsequent variations of this are the deposit administration (DA) contract and the immediate participation guarantee (IPG) contract where amounts are deposited periodically into a single fund which is not allocated among the employees until they retire and annuities are purchased out of the fund on their behalf. IPG plans permit participation in gains or losses as they occur rather than being spread over the life of the contract as in DA plans.

In the 1920's, there were several trustee funds in existence, and there was minimal interest in common stocks. In fact, it was common for trustee plans to be restricted, by provision in the trust agreement or in practice, to investments permitted for life insurance companies. Insurance company guarantees were more acceptable mainly because supervision by the state insurance departments offered a feeling of security. In addition, insurance companies already had an accessible product and experienced personnel. Moreover, guaranteed rates of return available from these companies were more attractive as compared to market rates of return.

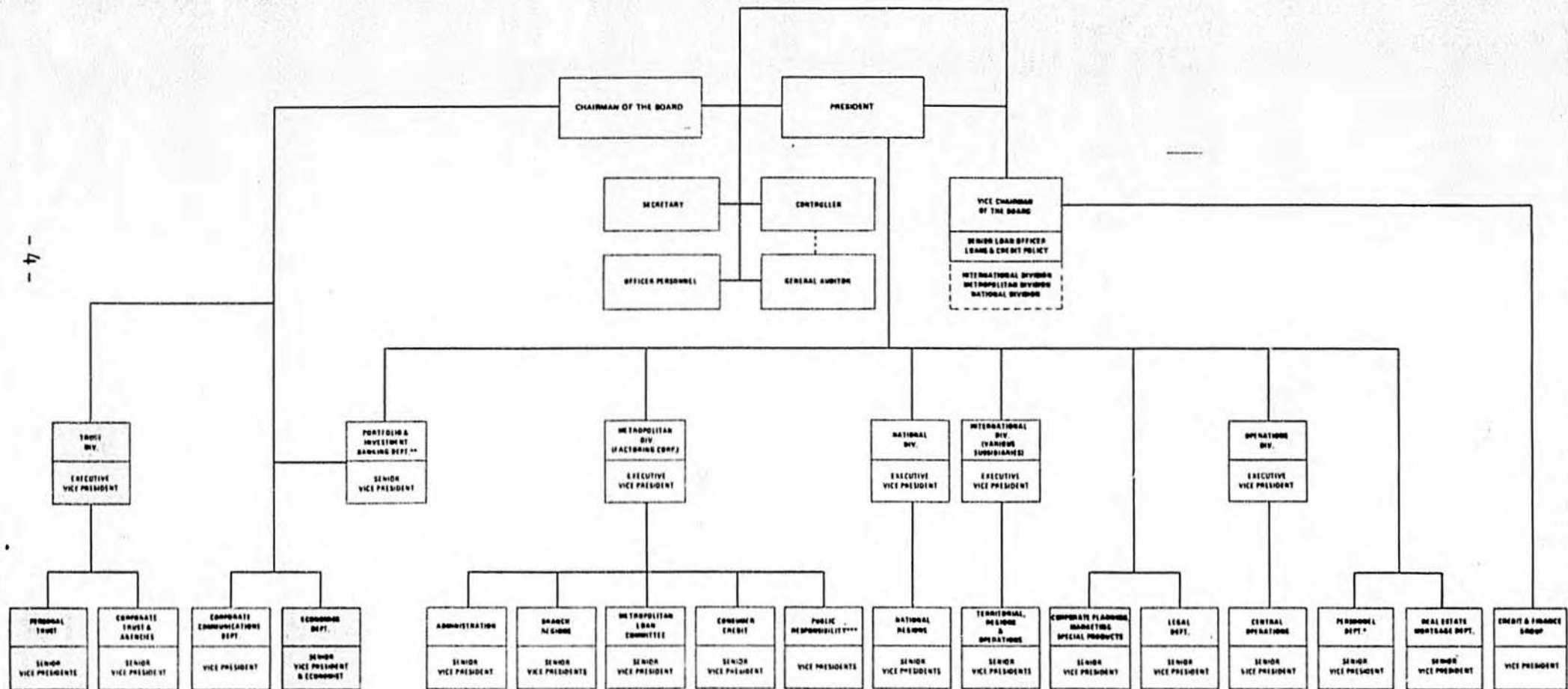
The chart on page 6 demonstrates the tremendous growth in private pension assets from \$40.8 billion in 1958 to \$240.5 billion in 1976 or a 489% increase in 18 years. The chart also shows a more rapid growth in non-insured pension funds (537%) as compared to insured pension funds (413%). As the terms imply, insured pension funds are those underwritten by insurance companies while non-insured funds are those

MANUFACTURERS HANOVER TRUST CO. ORGANIZATION CHART



MANUFACTURERS HANOVER TRUST

MANUFACTURERS HANOVER TRUST COMPANY BOARD OF DIRECTORS



JOSEPH L. McELROY
EXECUTIVE VICE PRESIDENT

TRUST DIVISION—INVESTMENTS
V. J. Melone, SVP

EMPLOYEE BENEFIT TRUST DEPARTMENT
W. L. Wheeler, Jr., SVP

Development
J. S. Ward, VP

Research
R. Abel, VP

Investments
H. M. Jervey, VP

Administration
T. F. Seifert, VP

**Industry-wide
& Public**

J. L. McCandless, VP

**Corporate
(Metropolitan)**

J. A. Spiezia, AVP
P. Borzuku, AVP

**Corporate
(National)**

H. W. Spring, AVP

Fixed Income

H. S. deRopp, VP
B. Bloom
J. D. Clark

Trading

J. Sullivan, ATD
F. Lally, ATO
R. Elliott

Common Stock

P. R. Doyle, VP
R. C. Ferrara, VP
L. H. Gerhard, VP
D. R. Larr, VP
D. F. Price, VP
J. Tarnoff, VP
R. H. Dent, AVP
P. F. Loughman, AVP
C. Sullivan

Trading

N. Martin, AVP
J. Carpenter, ATO
C. Harney
R. Jackson
W. Lyons
A. Scala

**Directed Accounts,
Master Trusts,
H. R. 10 & Agency**

V. J. Conlan, VP
B. Barless, ATO
H. H. Sandholm, ATO
M. Marcus, AM

**Pension, Profit Sharing,
Savings, S. U. B., Trasops,
IRA's, Index Fund, 501(c) (9)**

H. K. Bell, Jr., VP
V. Finamore, VP
R. J. Smith, VP
S. Malmid, AM
A. Juhasz

**Pension, Profit Sharing,
Commingled Funds**

F. Hoffman, AVP
M. V. Horan, ATO
G. J. O'Leary, ATO
E. C. Works, ATO
H. Gluesing, AM
M. Petrish

Industry-wide

R. Mackey, VP
L. Koller, ATO
R. Mell

Technical

E. V. Bader, AVP

Fixed Income

A. D. Segars, VP
T. Goepfert, AM
M. J. Tuttle

PIR/C

W. C. Petty, VP
C. Stevenson

Common Stock

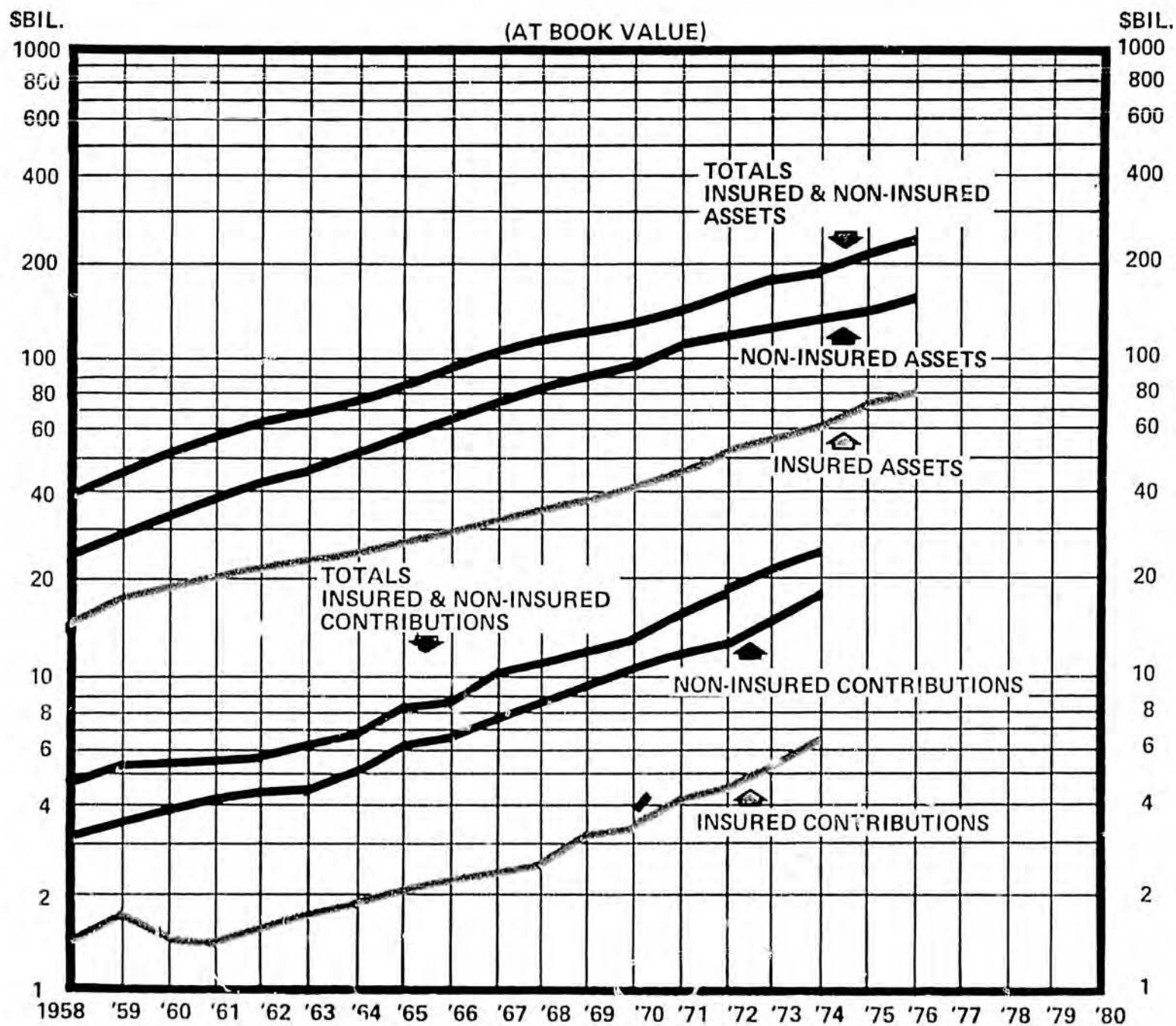
J. D. Adler, VP*
J. D. Gold, VP
J. Klein, AVP
C. W. Beal, VP*
R. L. Held, VP*
L. C. Winterfeldt, VP*
B. D. Bottomley, AVP
J. H. Lane, VP*
D. Rozanski, AVP
S. Farnham
K. Gamble
A. Schager
G. Balamaci, AVP
R. E. Manning, ATO
A. J. Stainman

*group head

INSURED & NON-INSURED PRIVATE PENSION PLANS CONTRIBUTIONS & ASSETS



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invested and administered without the use of insurance companies. Contributions to both insured and non-insured pension funds also increased rapidly during the same period.

The assets of state and local government retirement funds and annual contributions to those funds have also grown dramatically between 1958 and 1976. As the chart on page 8 shows, these assets grew from \$14.6 billion to \$111.5 billion or a 664% increase during the period.

The faster growth of non-insured pension plans could be attributed to several factors. One factor is the Federal income tax on the investment income of insurance companies which reduced such income by 1/4% or more. In contrast, non-insured funds had tax-exempt investment returns. Another factor is the inability of insurance companies to invest pension fund assets in equities, therefore crediting these assets with lower total portfolio returns. Banks also started strengthening their staff of trained sales, investment and administrative personnel. And most importantly, banks modified their investment practices of the pre-World War II period and wrote trust agreements with more flexible investment provisions.

By the middle 1960's, a sizable number of non-insured trust funds were invested 50% or more in common stocks. As shown by the chart on page 9 the investment by non-insured pension funds in common stocks reached an average of about 65% of total assets in 1972 and 1973 from 31% in 1959. The chart on page 10 also shows a marked increase in corporate stock and bond investments of state and local government retirement funds. A very distinct line is that of investments in Federal and state-local securities which showed a steep decline from 59% in 1959 to 6.4% in 1963, moving up to 11% in 1976.

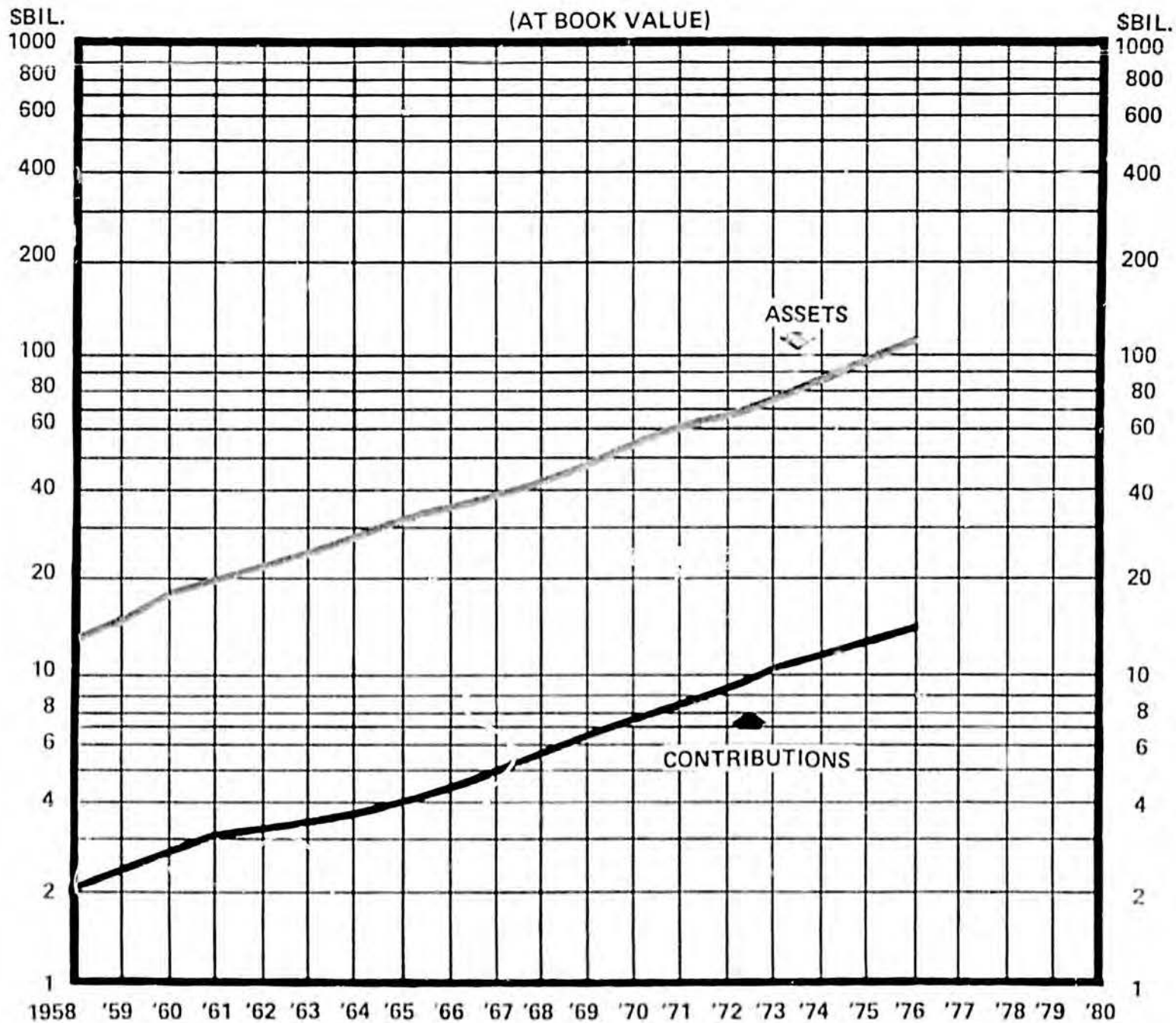
The shift to common stocks was caused by a desire to take advantage of the substantial rise in the value of corporate stocks in the 1960's and early 1970's, and an attempt to hedge the real value of investment portfolios against the effects of inflation which became serious in the late 1960's. This was important because of the rising costs of pension benefits, the base of which was shifting to three to five years' final salary as against career average salary to counter inflation. As pension liabilities and assets grew, performance became critical to the plan sponsors who increasingly felt the impact of fund contributions on their earnings.

The late 1950's and early 1960's saw some developments which inured to the benefit of insurance companies. The Federal Income Tax Law was amended to exempt the investment income on insurance company reserves held for qualified pension plans, thus removing a portion of the competitive disadvantage of insurance companies. Many insurance companies also started adopting the "new money" method of allocating investment income to pension funds. Under this method, the results of each year's investments rather than total portfolio rates were allocated to the contract holders which provided money for these investments. Also, legislation permitting "separate accounts" or "segregated accounts" was passed in several states. These accounts are entirely independent of an insurer's general investment account, and therefore, do not offer any guarantees; actual investment results are shared by the participants.

STATE & LOCAL GOVT. RETIREMENT FUNDS CONTRIBUTIONS & ASSETS



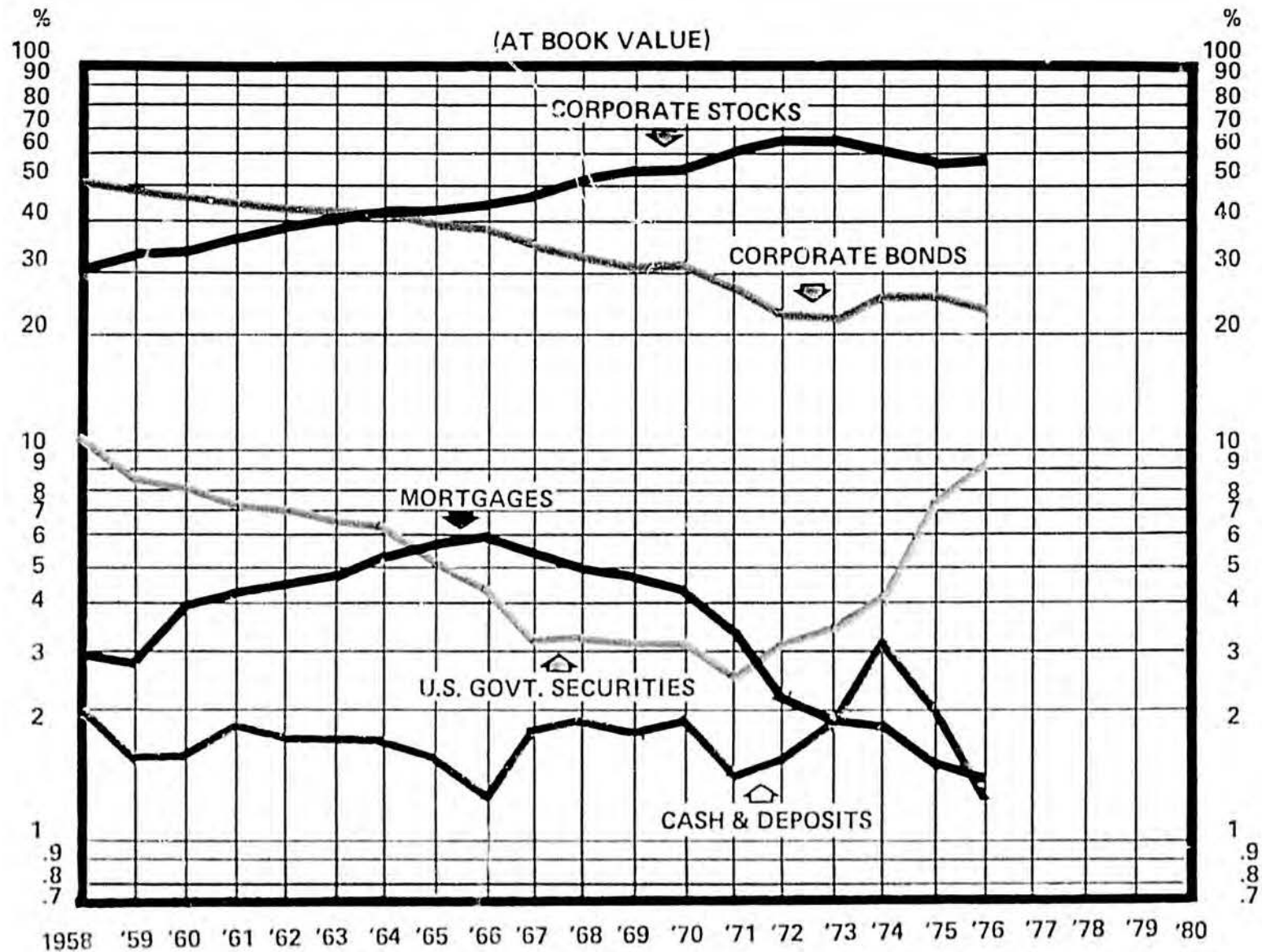
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NON-INSURED PENSION PLANS PERCENTAGE DISTRIBUTION OF ASSETS



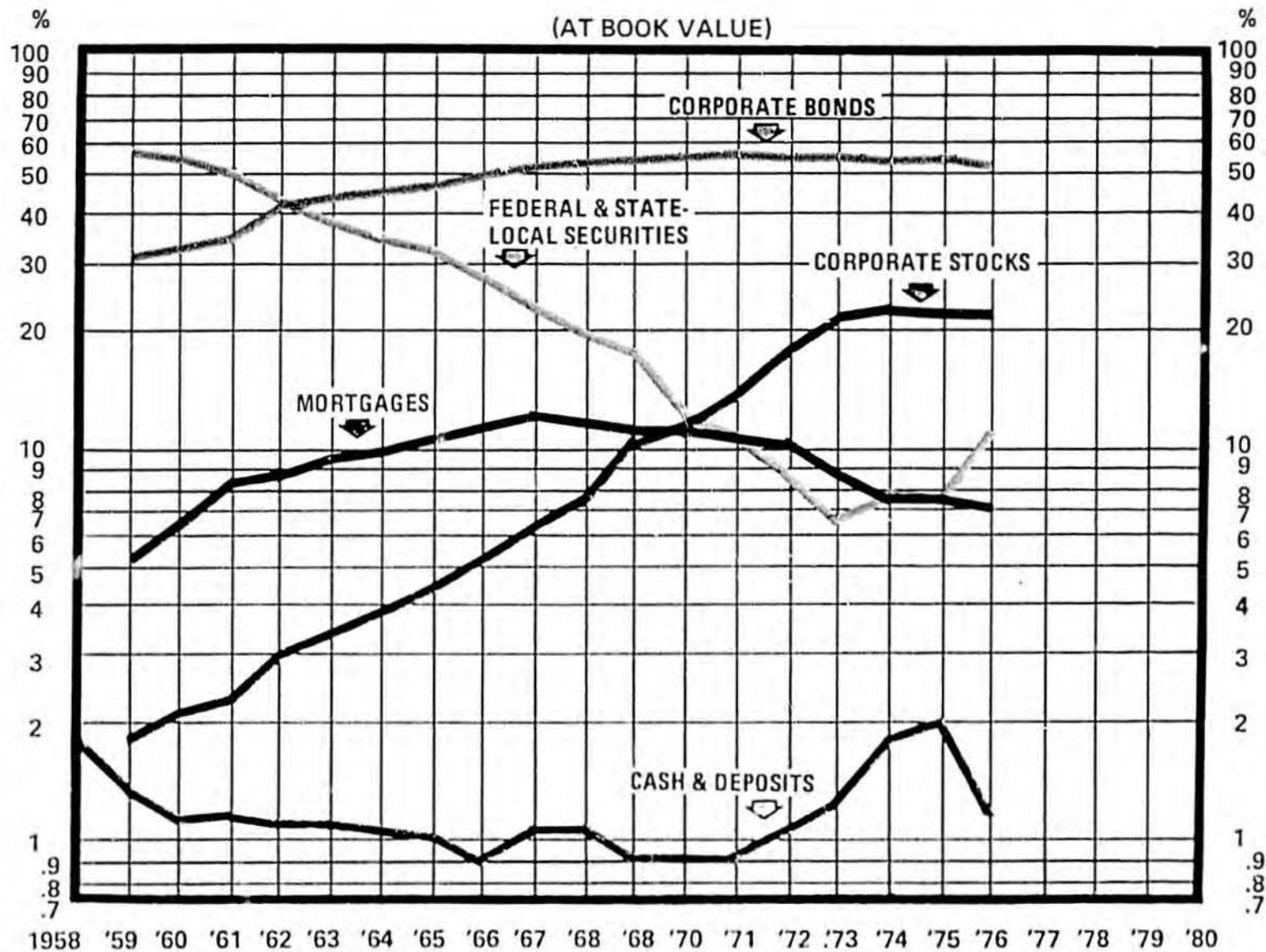
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STATE & LOCAL GOVT. RETIREMENT FUNDS PERCENTAGE DISTRIBUTION OF ASSETS



MANUFACTURERS HANOVER TRUST



Because of the magnitude of pension assets for management, other institutions such as brokerage firms and mutual funds started competing with banks and insurance companies. Lately, there seems to be a trend among private pension funds towards multiple investment managers for the purpose of spreading risks. Presently more than 80% of the 346 largest corporations use more than one investment manager. A 1977 survey of public pension funds by Greenwich Research Associates however shows that only 20% of 120 public funds responding use three or more managers. 25% use two managers, and the balance of 55% still employ one manager. The survey also shows that 11% of 137 responding funds are managed internally and the balance of 89% are managed by banks, insurance companies, brokerage firms and investment counseling firms.

A continuous growth in contributions and pension fund assets is projected for the future. These assets are the fastest growing source of savings in our economy and are expected to provide much of the debt and equity capital of American corporations. The sheer size of these funds will inevitably attract more competition and lead to increased product innovations among banks, insurance companies, and other investment managers. At the same time, as the next section will demonstrate, there has been an increased awareness of the importance of integrity, financial responsibility and experience in the funds' choice of investment managers.

III. IMPACT OF ERISA

The Employee Retirement Income Security Act (ERISA) was enacted in 1974 to protect the rights of pension plan beneficiaries. Protection is provided against such things as: overly restrictive requirements for participation in pension plans, failure to provide pension plan benefits to participants who leave before retirement, mishandling of assets, inadequate rate of build-up of pension assets, and termination of plans with assets insufficient to pay participants. As a result, ERISA has imposed a number of procedures and guidelines for pension funds to follow. This discussion will not attempt to cover all aspects of the Act, but will present the areas that may be of interest to the administrators and managers of the Alaska Permanent Fund.

ERISA does not presently apply to certain plans such as governmental plans, church plans, and plans maintained outside the United States for the benefit of non resident aliens. However, bills such as the Public Employees' Retirement Income Security Act have been introduced to extend ERISA'S standards to public plans. Full extension is not expected for constitutional reasons, but the fiduciary standards of ERISA may be used as guidelines in cases involving fiduciary money such as public pension funds and other public monies.

A fiduciary, according to ERISA, is "any person who exercises any discretionary authority or discretionary control respecting management of such plan or exercises any authority or control respecting management or disposition of its assets, or renders investment advice for a fee or other compensation, direct or indirect, with respect to any monies or other property of such plan, or has any authority or responsibility to do so, or has any discretionary authority or discretionary responsibility in the administration of such plan." Under this definition, the members of the plan's investment committee are fiduciaries, and so are the investment advisors, and other consultants.

The basic duties of a fiduciary under ERISA are the following:

1. To act in accordance with the prudent man rule;
2. To operate the plan for the exclusive benefit of the participants;
3. To diversify the investments of the plan to minimize the risk of large losses; and
4. To prevent the plan from engaging in certain prohibited transactions.

The prudent man rule enunciated in ERISA states that each fiduciary must act "with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent man acting in a like capacity and familiar with such matters would use in conducting an enterprise of like character and with like aims". The original prudent man rule which was formulated in 1830 dealt mainly with a trustee's conduct in the investments of funds. ERISA's prudent man standard is applied to all actions of a fiduciary regardless of whether or not they involve investments. Furthermore, ERISA's specific requirement that a trustee be familiar with the matters he acts on is not contained in the original rule. The courts are expected to interpret the prudent man rule in conjunction with the special nature and purpose of employee benefit plans.

A plan fiduciary is expected to act for the exclusive benefit of the plan's participants and beneficiaries. This requires, among others, that the plan assets are never to be returned to the employer except under certain limited conditions.

Another mandate for a fiduciary is that he diversify the plan assets to minimize the risk of large losses, unless under the circumstances it is clearly not prudent to do so. In determining the degree of diversification, the facts and circumstances of each case must be considered. The factors to be studied are the plan's purpose, the size of the plan's assets, and financial and industrial conditions. The portfolio should reflect diversification by type of investment, geographical location, industrial classification and dates of maturity.

ERISA also prohibits fiduciaries and parties-in-interest from engaging in a number of so-called prohibited transactions. A party-in-interest includes (1) a plan administrator, officer, fiduciary, trustee, custodian, counsel or employee; (2) a person providing services to the plan; (3) an employer, any of whose employees are covered by the plan; (4) employee organizations with members covered by the plan; and (5) certain relatives and partners of parties-in-interest. Plan fiduciaries and parties-in-interest are prohibited from engaging, for their own account, in a number of specific transactions which involve the plan's assets or income. Certain transactions are exempt from these provisions especially when they are made according to established business practices, and when adequate safeguards are provided to the plan and its beneficiaries.

A fiduciary who breaches the fiduciary requirements of ERISA is penalized under the labor and/or tax provisions of the Act. The labor provisions make a fiduciary personally liable to the plan for losses resulting from the breach. Profit made through improper use of assets should be turned over to the plan, and the courts may order removal of the fiduciary under appropriate civil actions. Insurance may be purchased by a fiduciary or by the employer to cover the fiduciary's liability, but it cannot be paid for with plan funds.

Under the tax provisions of ERISA, civil penalties are in the form of a two-level excise tax. The first level is at the rate of 5% per year of the amount involved in the breach. The second level is at the rate of 100% per year of the amount involved, imposed if the transaction is not corrected within 90 days after the Internal Revenue Service mails a notice that the 5% tax is due.

IV. OTHER SERVICES AVAILABLE TO A LARGE PUBLIC FUND

Before discussing the details of our investment approach, members of the Committee should be aware that there are other ancillary services available from financial institutions to aid in the management of large public funds.

A. Custodial Service

Most public pension funds prefer to place their securities in safekeeping with a bank, preferably one located in a money center where custody of assets will provide efficient handling of security transactions, the collection and disbursement of principal and income, accurate record-keeping and timely reports. These advantages can be realized while the fund sponsor or appointed investment manager retains complete control of the management of the assets.

B. Performance Measurement

Investors increasingly look to performance reports for measurements that reflect differences in the skill of fund managers. Both sponsors and investment managers use performance reporting to develop and communicate investment objectives which are well conceived, practical, and clearly stated. Performance reports support a constructive dialogue between the manager and client to understand the sources of past performance and the possibilities for improvement in future performance.

C. Master Custodial Reporting Service

Should a fund employ several investment advisors, uniform reporting treatment of the assets is needed. A Master Custodial Reporting Service can be provided by a number of larger banks whether or not a Bank acts as trustee. Providing the assets are in its custody, a bank can provide through this Service, an overview of the total funds' results by reporting on each investment advisor and the total fund. Under such an arrangement, advisors are selected by the fund administrators and the advisors in turn direct the transactions of their respective portions. Each advisor is treated as an account of the total fund.

D. Index Fund

Many banks and a number of non-banking institutions have Index Fund capability. It is estimated that over \$3 billion of pension assets or 1% of the approximate \$320 billion in Public and Corporate non-insured retirement assets at the close of 1976, are currently invested in Index Funds. Many of the larger pension funds, especially those already employing more than several advisors, have invested a portion of their equity funds in Index Funds primarily to provide further diversification of investment strategy.

E. Short-Term Investment Management

Many pension funds utilize short-term investment funds to provide more efficient management of their assets. Short-term (fixed income) funds are used primarily to relieve investment advisors of the burden of maintaining temporary investments for market timing purposes; to invest new monies temporarily for the plan administrator before distribution to investment advisors; and to insure that all funds are earning a return at all times.

V. INVESTMENT STRATEGY

The following brief sketch of historical rates of return on various asset classes suggests that successful investing cannot be undertaken lightly.

Below is a table which shows the nominal and inflation adjusted total annual returns (including interest, dividends and capital gains or losses) for four asset classes during the periods 1926-76 and 1966-76.

TABLE I

TOTAL RATE OF RETURN
(Percent Per Annum Compounded Annually)

	1926-76	Standard Deviation	1966-76
Common Stocks	9.2%	22.4%	5.0%
Long-Term Corporate Bonds	4.1	5.6	4.9
Long-Term Government Bonds	3.4	5.8	4.2
U.S. Treasury Bills	2.4	2.1	5.6
Consumer Price Index	2.3	4.7	5.6
Common Stocks, inflation adjusted	6.7	22.6	-0.7
Long-Term Corp. bonds, inflation adjusted	1.7	7.8	-0.8
Long-Term Govt. bonds, inflation adjusted	1.0	8.1	-1.3
U.S. Treas. Bills, inflation adjusted	0.0	4.6	-0.1

Several observations can be made from the above table for the period 1926-76.

1. U.S. Treasury bills, considered a riskless investment, failed to earn a real return.
2. Common stocks had the highest real return but experienced appreciable volatility. Further examination of the data indicates that there were long periods of time when the return was negative.
3. Long bonds had a positive real return and the returns were considerably less volatile than those of common stocks.
4. Inflation and volatility have impacted significantly the annual returns on various classes of assets.

U.S. Treasury bills, did no better than the 2.3% inflation rate over the period, from 1926 to 1976. While common stocks did appreciably better than the other assets, their returns were decidedly more volatile. Common stocks returned 9.2% per year compounded annually and the inflation-adjusted return was 6.7% per annum. The standard deviation of the annual nominal returns was 22.4%. That is, in 34 of the 51 years, the annual return ranged from plus 31.6% to minus 13.2%. During the entire period the common stock annual return ranged from plus 54.0% to minus 43.3%. Stock returns were positive in 34 of the 51 years. The longest period an investor would have earned a negative return in real terms covered the 15 year and 2 month period from mid-1959 through 1974.

In contrast to U.S. Treasury bills, long-term bonds earned a positive real return over the period 1926-76 and, as you would expect, the annual returns were significantly less volatile than those of common stocks, (Refer to the Charts on pages 16 to 18.)

Long-term corporate bonds returned 4.1% per year compounded annually while the inflation-adjusted annual return was 1.7%, again with significantly less volatility than that for stocks. (See Charts on pages 16 to 18.) The standard deviation was 5.6% or similar to that of long government bonds. Long-term corporate bonds had positive returns in 41 of the 51 years of the period and their returns ranged from 18.7% in 1976 to -8.1% in 1969. Although the real return from long corporate bonds was less than from stocks, it was appreciably less risky.

The return from long-term U.S. government bonds more closely approximated that of corporate bonds. Over the period 1926-76 they returned 3.4% per year compounded annually. The standard deviation was 5.8%. The inflation-adjusted or real return was 1.0% per annum. Long-term government bond returns were positive 38 out of the 51 years. And although the annual returns ranged from 16.8% to -9.2%, in two-thirds of the 51 years they ranged from 9.2% to -2.4%. Therefore, these annual returns were much less volatile than those of common stocks. (See charts on pages 16 to 18.)

Over the period 1926-76 U.S. Treasury bills returned 2.4% per year compounded annually. The return approximated the 2.3% inflation rate as measured by the Consumer Price Index. The standard deviation was 2.1%. In two-thirds of the 51 years of the survey, the annual return ranged from 4.5% to 0.3%. So although this asset had the lowest volatility and therefore the least risk, its real return (inflation-adjusted) was 0.0%.

In the most recent ten year period, 1966-76, a time when the annual rate of inflation was a high 5.6%, all of these classes of assets had a negative real return ranging from -0.1% for U.S. Treasury bills to -1.3% for long-term government bonds.

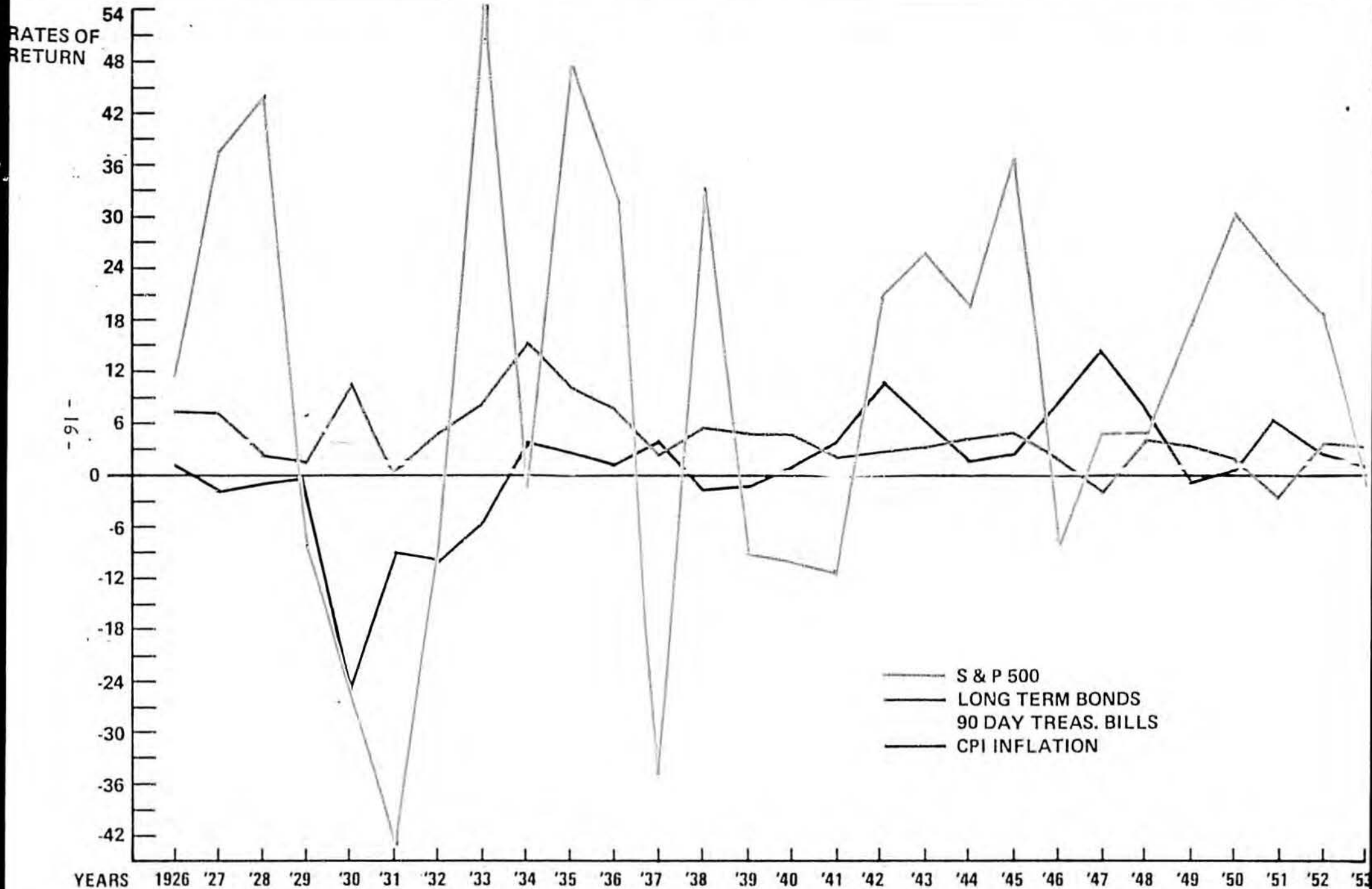
As these results demonstrate, successful investing is a complex task that requires a multitude of specialized skills and resources. As a large commercial bank, Manufacturers Hanover is able to make the commitment to those resources, and in particular to those specialized skills necessary to accomplish the client's investment objectives.

In our case the commitment begins with senior management who are experienced investment professionals supported by a large and specialized staff. This senior management comprises the Senior Investment Committee which formulates

VARIOUS RATES OF RETURN



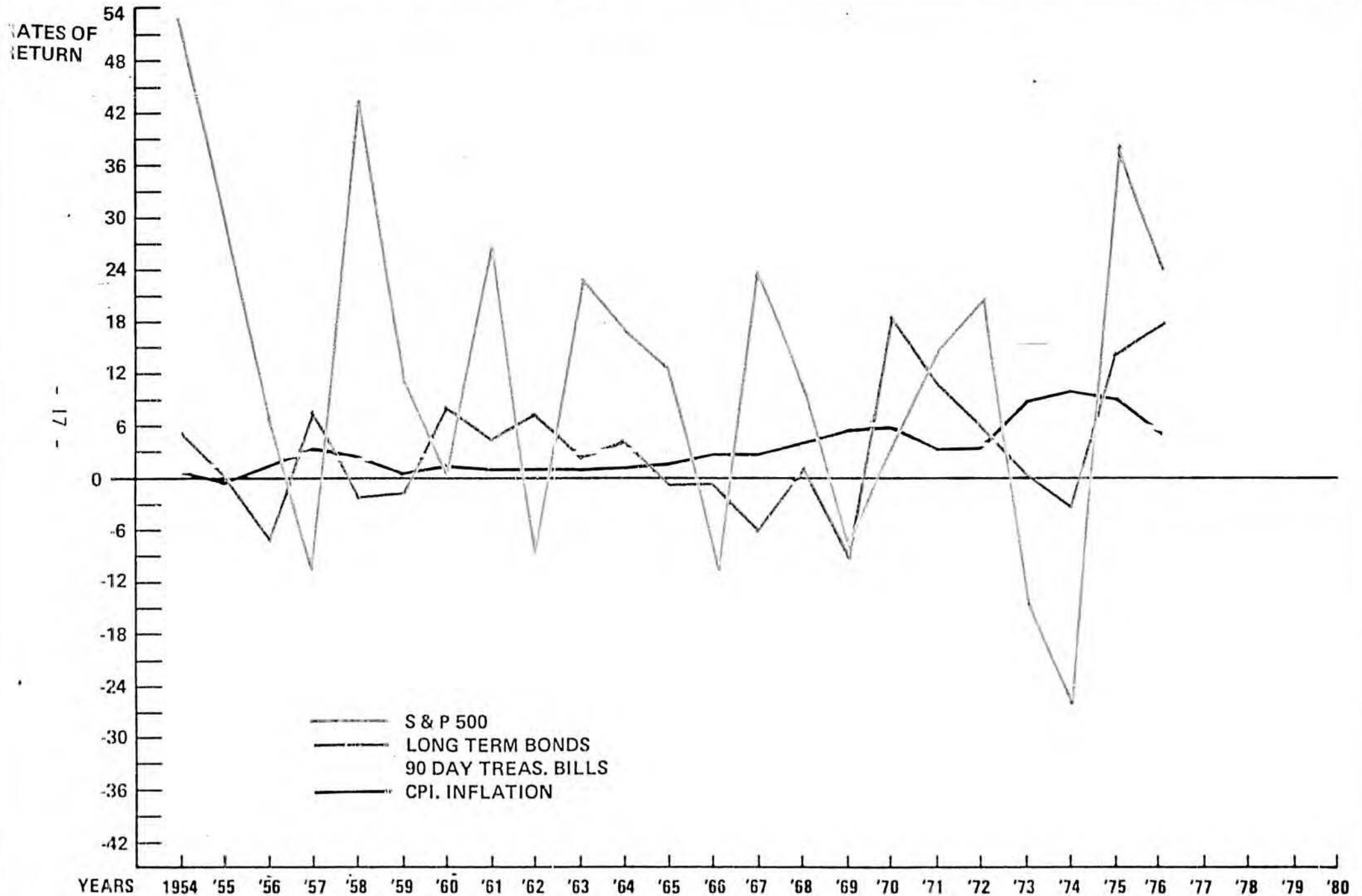
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VARIOUS RATES OF RETURN



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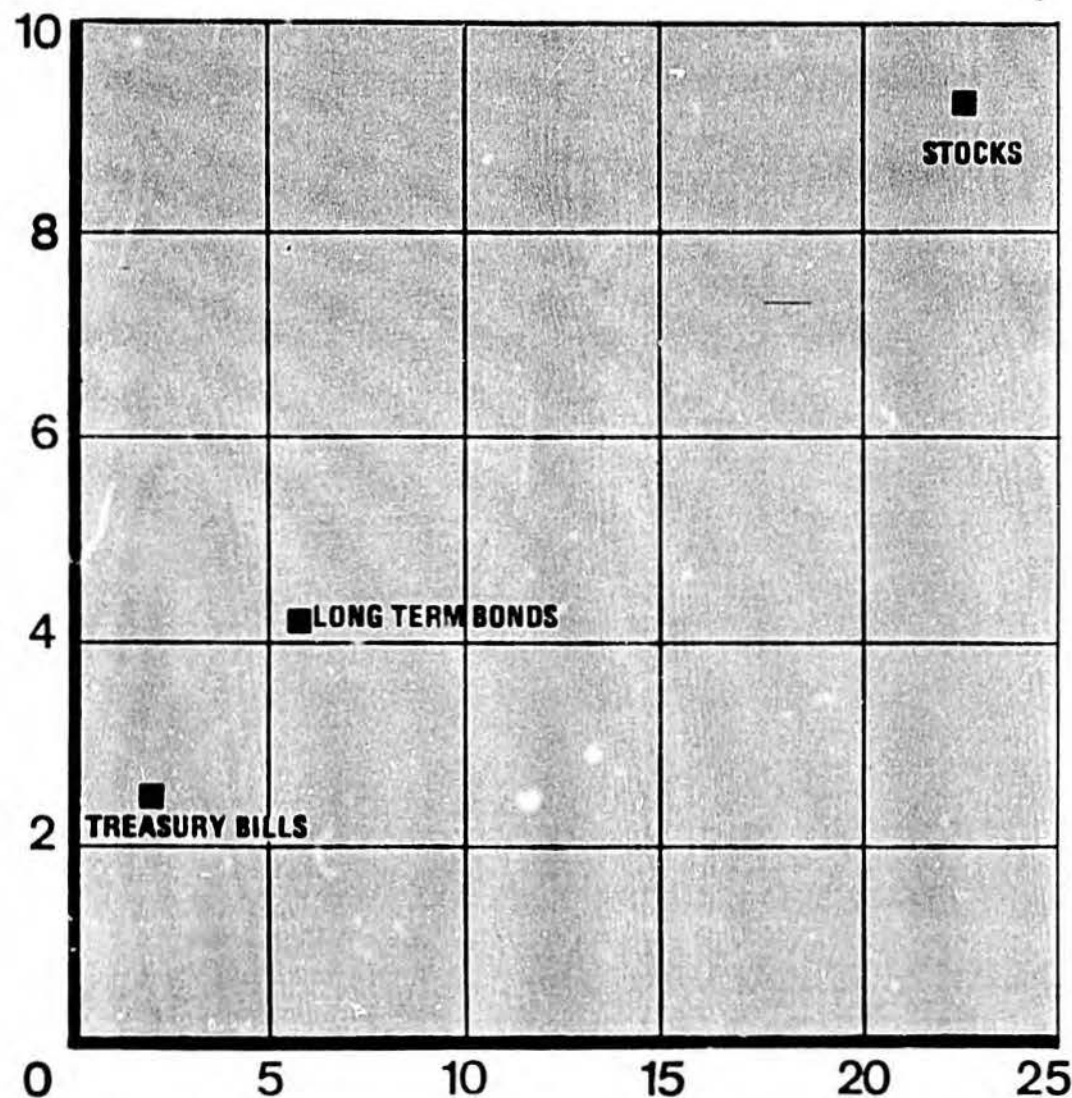


COMPOUND ANNUAL RATE OF TOTAL RETURN 1926-1976 [%]



MANUFACTURERS HANOVER TRUST

COMPOUND
ANNUAL RATE
OF TOTAL RETURN
1926-1976 (%)



STANDARD DEVIATION IN RATE OF NOMINAL TOTAL RETURN (%)

investment policy for the Trust Division with the Senior Investment Officer as Chairman of this Committee. The other members are the head of the Trust Division along with the heads of the Employee Benefit Trust Department and Personal Trust Department, the Director of Investment Research, the heads of the three Portfolio Management Departments, and the group leader in charge of fixed income research.

The primary task of this Committee is to develop an economic overview and to forecast the money and capital markets with particular focus on the direction of short and long-term interest rates and stock prices. It also establishes diversification policy, approves the Recommended List of securities and forecasts the relative attractiveness of sectors of both the equity and fixed income markets. In these tasks it is supported by the Economic, Equity and Fixed Income Research Departments.

Manufacturers Hanover Trust has its own Economics Department consisting of five economists and a supporting staff. The Department is headed by Dr. Tilford C. Gaines, Senior Vice President. Dr. Irwin Kellner, Vice President, is our domestic Economist; Dimitri Balatsos, Vice President, specializes in the financial and capital markets and William Schwarz, Vice President, specializes in the foreign economies. These economists are among the most respected experts on the United States as well as the European economies and contribute to the management process by participating actively in the Senior Investment Committee meetings.

The Economics Department, together with input from respected economists of leading investment firms, provides the strategic economic data needed by the Senior Investment Committee to make its economic and money and capital market forecasts in order to formulate a dynamic investment strategy.

In the case of Manufacturers Hanover, the equity management staff in the Pension Department consists of three separate groups working under the direction of the Senior Investment Committee:

First, is a group of ten portfolio managers each of whom manage equity accounts. One manager devotes his entire time to managing a portfolio of small capitalization companies and a second portfolio manager specializes in companies of intermediate-sized capitalization. The primary responsibility of the other eight portfolio managers is to construct a portfolio consistent with the investment policy and strategy established by the Senior Investment Committee and consistent with the unique objectives of the client. The manager is responsible to both the client and the Committee for the investment performance of each account.

Second, an equity research group of sixteen Security Analysts and a supporting staff whose function is to prepare and maintain a Representative Stock List from which portfolio managers select individual securities. Each analyst is a specialist on one or more industries and one analyst is a specialist on smaller companies. The group maintains current investment appraisals of over 25 major industries and more than 300 U.S. corporations. The equity research staff prepares monthly a proprietary Earnings Ranking report which ranks those securities in the Representative List in order of expected earnings per share change for each of the next two consecutive years. In addition, to identifying potential valuation risk or opportunity relative to all equity issues in our universe and to the S&P 400, the staff prepares a monthly

Valuation Screen report. This decision-making tool ranks issues in our Representative List to determine value, utilizing four series of data which focus on the expected or future performance of a security rather than only historical data.

The third part of our equity staff is a Specialized Support Group--a team of ten specialists, reporting to the head of Investment Research, Rudolph Abel, Vice President. Each is responsible for an important function necessary to actively and effectively manage equity portfolios. One individual, a specialist in modern portfolio theory and practice, evaluates investment decision-making techniques and systems. Another evaluates econometric models and analyzes and synthesizes the various economic forecasts available to us. In addition this individual provides sector analysis, identifying those segments of the economy that can be expected to show unusual strength or weakness. We have one individual who coordinates and synthesizes the research product available from the leading investment banks and consultants. One individual investigates and recommends specialized equity securities, such as convertible preferred stock and private placements. Lastly, this Specialized Support Group has within its structure six equity traders--five of whom trade blocks; one who specializes in over-the-counter issues; one who trades options; one who specializes in new issues; and one who specializes in arbitrage.

Our fixed income management staff also consists of three groups:

First, in the group of ten portfolio managers, three manage fixed income securities for pure fixed income accounts only.

Second, a Specialized Support Group - a team of six fixed income specialists providing analytical and trading capabilities and headed by Harald S. deRopp, Vice President. Each individual under his supervision is responsible for an important function necessary to actively manage fixed income portfolios. One individual devotes his entire time to developing swap situations and evaluating arbitrage possibilities. Another is responsible for cash management and short-term investments. We have one individual who investigates and recommends the use of specialized fixed income securities, such as primary and secondary private placements, convertibles selling on an investment value basis and Euro-dollar bonds. Lastly, this Specialized Support Group has within its structure three bond traders--one who specializes in Treasury issues and two who trade Agency, Corporate and Special types of debt issues.

The third part of our fixed income staff is a group of three Credit Analysts whose function is to prepare and maintain a Representative Bond List from which portfolio managers can make individual security selections. Each security listed in this Representative List is ranked by quality through our own Ratio Ranking System, a method of evaluating an issue's credit standing relative to all issues in our universe and relative to all issues within its particular industry.

Finally, in addition to our own staff, a bank of our size commands the attention of all leading investment bankers giving us easy access to their resources and investment information, preferential treatment in purchasing new issues and generally, first call on large blocks of debt and equity issues in the secondary markets.

To evaluate alternative investments effectively requires the systematic analysis of a broad range of economic opportunities and risks which could affect the valuation (and yields) of those alternatives. Our approach defines those opportunities and risks in

the form of four alternative economic and capital market forecasts which are judged as to their relative likelihood (probability) by the Senior Investment Committee. The use of probabilities in this approach is an indicator of the degree of uncertainty associated with the future. To the extent that one forecast is considered overwhelmingly more likely than the rest, the future is more certain than if in the extreme, all possible forecasts were considered equally likely. In our opinion, the level of uncertainty, in the current investor environment as measured by this set of probabilities directly affects the general level of stock prices, and, to a lesser extent, bond prices.

Specifically, we develop an economic forecast which appears to be the most likely path of economic events over the next 2 to 3 years, in the current case through 1979. It is this outlook, for example, which the Investment Research Department uses as an economic framework for earnings judgments for individual companies. It is also this "most probable" forecast which provides the basis for determining relative sector/industry performance and for estimating the demand for funds in credit markets, an important component of interest rate forecasts.

The possibility that economic events will not unfold as expected, is considered explicitly by developing other economic forecasts. Taken together, the set of economic forecasts is an attempt to define a full range of economic outcomes which have either favorable or unfavorable implications for U.S. credit markets. These forecasts are based both on objective economic analysis and subjective judgments about the future and do not contain forecasts which, while possible, represent catastrophic and essentially unpredictable events, such as drought, war, oil embargos and the like.

After the set of relevant forecasts has been defined and probabilities assigned, a capital market forecast is developed for each economic scenario. These capital market forecasts include forecasts of short, intermediate and long-term interest rates and stock prices. Specifically, forecasts are developed for 90 day Treasury bills, 12 AA Medium-Term Industrials, and Long-Term AA Corporate Bonds. The S&P 400 Index is used as a proxy for the general level of stock prices.

At present, our investment strategy is based on the following four economic forecasts for the period 1977 through 1979: (1) Extended Expansion; (2) Delayed Expansion; (3) Stagnation; and (4) Recession. Notably, while detailed forecasts have been developed for the entire three year period, the emphasis is intended to be on the years 1977 and 1978. The forecast for 1979 is more indicative of the trend of events at the end of 1978 than precise projections for 1979.

Among these four forecasts, the Extended Expansion forecast is considered the most likely, and is assigned a 49% probability. This forecast, however is considered more likely than the Recession forecast alternative which is accorded a 34% probability. The remaining two forecasts, Delayed Expansion and Stagnation, are assigned probabilities of 9% and 8%, respectively. Similarly, regarding capital markets, those forecasts which imply a generally favorable outlook for stock and bond markets are considered more likely (a combined probability of 58%) than those which favor short-term investments (42%). The following discussion includes: (A) our economic outlook; (B) specific risks to the forecast which are included in the alternative forecasts; and (C) the outlook for capital markets.

A. ECONOMIC OUTLOOK

The economy is expected to grow at average annual rates of 4-5% through 1979. These above trend rates of real growth, further, are expected to be accompanied by stable or only moderately rising inflation rates. This forecast is based on the view that, despite considerable near-term uncertainty, this economic cycle will not differ substantially from previous cycles and, specifically, that the capital investment required to sustain the momentum of the expansion will be forthcoming.

While this forecast may appear optimistic, there are several important trends which tend to support this view. First personal and corporate income has continued to grow rapidly through the first three quarters of 1977 despite concerns that cyclical forces would slow growth considerably. Second, while growth in consumption has outpaced growth in income resulting in a rise in the indebtedness of the consumer sector, confidence levels remain high and the consumer is more likely to continue to spend, though at lower rates, than to retrench. Finally, cyclical indicators of capital spending are showing strength. For example, the Conference Board Survey of Capital Appropriations estimates that new plant and equipment appropriations during the second quarter, 1977, were 24% above the second quarter, 1976, and that the number of industries reporting rising capital appropriations also had increased. In addition, the Commerce Department's series, contracts and orders for plant and equipment (a leading indicator of investment spending), has risen at about a 20% annual rate for the six months ending September, 1977. With production rising and corporate liquidity and interest rate conditions favorable, capital spending should begin to increase--though possibly less robustly than in past cycles.

Specifically this forecast shows business investment (in constant dollar terms) rising at a 9% annual rate in the fourth quarter, 1977, and continuing at similar rates each quarter throughout 1978. The continued delay of capital spending to the fourth quarter 1977 is due to a slowing in the growth of production which is expected during the second half of 1977. On an annual basis, this forecast shows real business investment rising 7% in 1977 and 7% in 1978 and 8 1/2% in 1979.

While capital spending is key to the continuation of the economic recovery, the consumer also is important--providing about 60% of total income and demand. This forecast indicates that the momentum of consumer spending is likely to slow slightly during the second half of 1977 and to begin to grow more in line with real personal disposable income. In real terms, total consumption is expected to grow 4.2% in 1977, 4.0% in 1978, and 3.3% in 1979. Consumer durable spending is expected to remain relatively strong throughout the period, increasing more than 10% in real terms in 1977, 3% in 1978 and 5 1/2% in 1979. Durable spending which was concentrated in autos during the first half of 1977, shifted to housing related and other durables in the third quarter and is expected to continue to favor housing-related products throughout 1978.

The rate of inflation is expected to remain relatively stable through 1978 and then rise in response to normal cyclical pressures on unit capacity. In part, the stability of prices during this period is due to an expected moderation in compensation increases. This forecast shows compensation per man-hour rising to an 8% annual rate during 1977 and then declining in subsequent years to about a 7 1/2% annual rate. Wage increases are expected to moderate because of the close relationship between the

trend in wages and the trend in prices in previous periods which has become apparent since 1970. Prior to 1979, wage changes tended to precede price changes, but, since that time, wage changes have lagged price changes. Since inflation rates generally have declined or remained stable for the past two and one half years and are expected to remain stable except to the extent they are affected by commodity-based price shocks, the pressure on compensation for "inflation catch-up" should lessen. Moreover, recent data for average hourly earnings, which are considered by the Bureau of Labor Statistics as the single most reliable measure of wage change, increased at a 6.3% annual rate during the March through September quarter and a 7.8% annual rate since December, 1976. The declining trend in this series suggests that the 9% increase in compensation per man-hour for the first half of 1977, also is likely to decline. Based on this wage outlook, unit labor cost increases are expected to average 5 1/2% through 1979.

While volatility in food and other commodity prices could contribute additional percentage points to the inflation rate, pressure on inflation from these sources appears to have lessened at least in the near term. On a trendline basis, for example, the rise in both raw material and food prices which began in October, 1976, has peaked and has declined to the trough levels of 1975 and 1976. On a September to September basis, raw materials prices are about the same as they were two years ago. While unit labor costs are the ultimate determinant of prices, a decline in commodity price inflation usually is followed by a subsequent slowing in the rise of other inflation measures like the Wholesale Price Index for Industrial Commodities and the Consumer Price Index. Correspondingly, the rate of increase in the Wholesale Price Index of Industrial Commodities has slowed consistently since March while the rate of increase in the Consumer Price Index began to subside in August. Despite the fact that rising meat prices are expected to boost food prices at year end, the inflation rate during the second half of 1977 is expected to average 5%, which is considerably less than the 9% average inflation rate during the first half of the year.

Based on the preceding economic forecast, corporate profits are expected to rise 11.8% in 1977, 10.9% in 1978, and 9% in 1979. This gross corporate profits forecast implies earnings for the S&P 400 of \$11.94 for 1977, \$13.24 for 1978 and \$14.43 for 1979. This favorable but less than ebullient forecast is based on the perception that, although sales growth should average about 10% per year through 1979, corporations will experience periodic margin pressure which will limit profitability. The experience of the past two years suggests that, as long as the business environment is cautious, especially with respect to inventories, a sustained acceleration in demand is not likely to occur. A persistent rise in demand, in contrast to the halting pattern of the past two years, appears to be necessary in order to create the favorable environment for price increases required (under conditions of stable costs) for margin improvement.

Corporate dividend payments are expected to grow at generally slower rates than earnings - 15% in 1977, 6% in 1978, and 7% in 1979. Corporate payout ratios are expected to decline slightly in 1978 and 1979 as competing uses of corporate funds (investment in inventories and capacity) take precedence over dividend payments. The above dividend forecasts indicate a \$4.90 dividend for the S&P 400 in 1977, \$5.19 in 1978 and \$5.55 in 1979.

B. FORECAST RISKS

The preceding forecast contains a number of risks which could alter the outcome considerably. These risks are considered explicitly in the alternative forecasts and figure importantly, according to their relative probability, in the final calculation of expected asset returns. These risks include:

- (1) that consumer spending is nearing a peak turning point which will lead the economy into recession;
- (2) that wage rates will rise more rapidly than forecast;
- (3) that inflation, especially in energy costs, has altered incentives to invest;
- (4) that effective capacity in the economy is lower than generally believed.

Credit data from the first eight months of 1977 indicate that the net change in consumer installment debt is at a record level. Moreover, the ratio of credit outstanding to personal disposable income is rising to levels which, since 1965, have indicated that a contraction in consumer spending was imminent. While it does not appear from an analysis of the consumer sector's balance sheet that these trends indicate financial weakness and could induce the consumer to cut spending sharply, it is possible that these data are misinterpreted. In this case, the last half of 1977 could represent the turning point in this cycle and, in the absence of capital spending, the economy could slip into recession in 1978. This event is described by Alternative Forecast 3, Stagnation.

A rapidly rising wage rate represents a second risk to the forecast. Generally, as a business cycle progresses and labor market conditions become tighter (e.g., the unemployment rate falls), the union-nonunion wage differential narrows favoring the union or high wage sectors of the economy. The decline in compensation increases forecast for 1978 and 1979 runs contrary to this demonstrated tendency of wages to rise as the cycle progresses. Clearly, the bias in the forecast implies that wages are more sensitive to past and current changes in prices than to labor market conditions.

In addition to the possible rise in wage rates, nonwage-based costs have become an increasingly important supplement to hourly compensation in recent years. These costs include cost of living escalators (which currently pass through about 70% of the increase in the CPI directly to wages) and increases in employer social security contributions and unemployment compensation insurance. These costs can raise the Index of Hourly Compensation by 0.5 to 1.0%. The bias in wage rates clearly is upward and the direction of compensation-based costs should be monitored closely.

Finally, inflation affects capital investment decisions in several ways and its net effect on the level of capital spending in coming months is a crucial determinant of the duration of this economic cycle. For example, inflation affects corporations' ability to finance capital projects by increasing the replacement cost of existing plant above the contributions of depreciation allowances to cashflow. The Department of Commerce estimates the extent of "underdepreciation" for nonfinancial corporate business of about \$15.5 billion in 1976 or about 15% of total depreciation. Because of the higher cost of investment, inflation also implies that higher rates of return are required to make new investment profitable. Finally, rising energy costs appear to

have altered the relative cost of labor vs. capital—especially in capital intensive industries. Rising energy costs also may have reduced the effective capacity of existing plant, exacerbating the need for new investment at a time when cost projections are a deterrent.

To some extent, the Extended Expansion forecast incorporates the expectation that the current environment for capital spending is not as favorable as it has been during past cycles. The average rate of growth in real business investment forecast through 1979 is about 7 1/2%, which is less than the 8% plus rates which typically characterize a capital spending cycle, and far below the 10% average growth in investment during the mid-1960's. However, the delay in capital spending and its weakness relative to past cycles, especially after the absence of investment in recent years, lend credibility to those who believe that incentives for capital investment have been altered. The effects of weak capital spending and capacity limitations on real growth and prices are shown in Alternative Forecast 4, Recession.

An alternative to the above "risks" that could provide a particularly attractive opportunity for investors is a distinct weakening in demand during the second half of 1977, which could reduce inflationary pressures much like 1976 and set the stage for a recovery in 1978—but at lower inflation rates. This combination of rising rates of real growth combined with productivity-supported reductions in the inflation rate provides the most favorable outlook for capital markets and is included as Alternative Forecast 2, Delayed Expansion. Table II outlined on page 26 summarizes each of these four economic forecasts and Appendix I provides a detailed description. The charts on pages 27 and 28 show the extent to which these forecasts (colored lines) conform to the range of forecasts that currently are available from government, Wall Street, and academic economists.

C. CAPITAL MARKET OUTLOOK

The outlook for capital markets described below is based on a weighted composite of the capital market forecasts associated with each of the economic forecasts which have been described previously. The use of a weighted forecast for capital markets, rather than a single forecast, enables portfolio managers to incorporate uncertainty explicitly into the range of valuations expected in bond and stock markets. The rationale for including uncertainty into the valuation process is based on the observation that capital market prices, especially stock prices, frequently diverge from what might have been expected given the economic fundamentals. In our investment decision making process, then, uncertainty, as measured by the distribution of probabilities among the forecasts, can affect stock and bond prices as the probabilities become more diffused among more or less favorable economic outcomes. The behavior of the stock market in recent months is clearly a reflection of the effect of uncertainty about a possible recession (as well as public policy decisions and other concerns) on stock prices. Analyzing the expected relative rates of return of stocks, bonds, and cash-equivalents, using this probabilistic approach provides our portfolio strategy effort with an indication of the extent to which our expectations for stock and bond prices based not only on our single most probable forecast but, more importantly, on the full range of possible outcomes are fully discounted by current credit market prices.

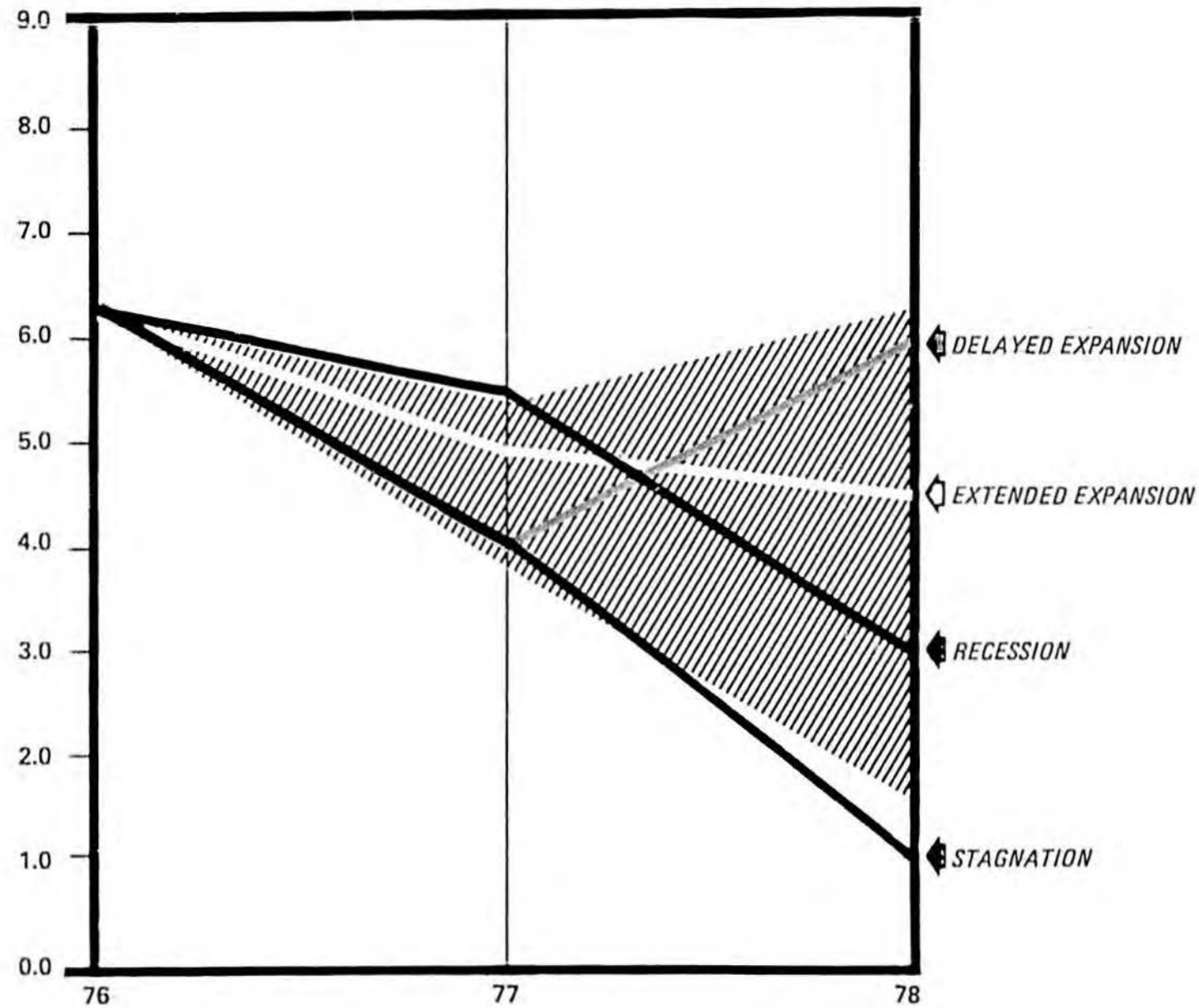
For example under the "most probable" forecast, Extended Expansion, stock prices are expected to reach a high of about 130 through 1978. However, there is a small chance (9%) that the economic expansion will be more prolonged and that the

TABLE II
ECONOMIC FORECASTS

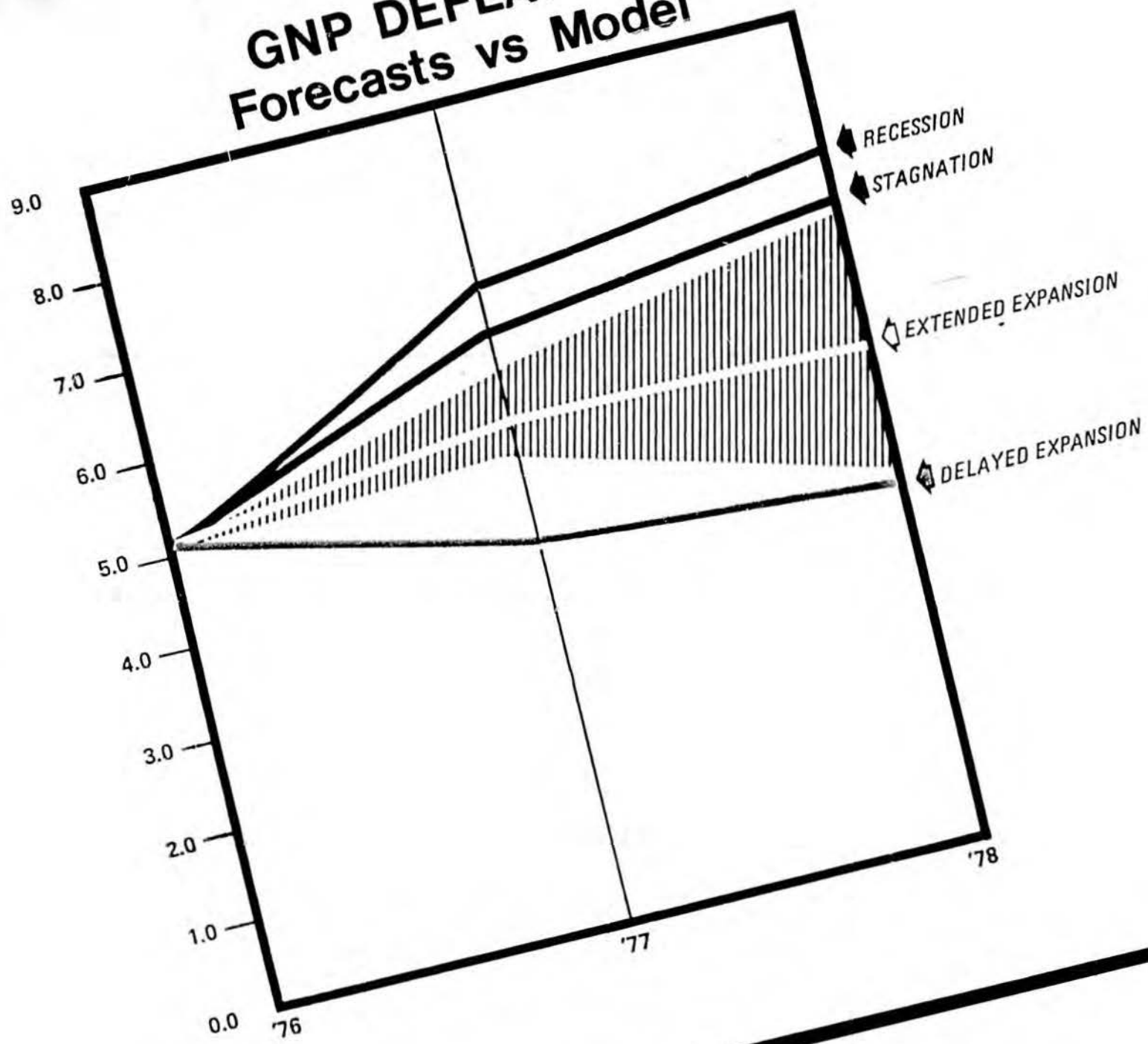
	#1 Extended Expansion				#2 Delayed Expansion				#3 Stagnation/Recession				#4 Recession			
	Actual 1976	1977	1978	1979	Actual 1976	1977	1978	1979	Actual 1976	1977	1978	1979	Actual 1976	1977	1978	1979
GNP	11.3	10.5	10.0	10.0	11.3	8.5	10.0	8.5	11.3	10.5	8.0	5.5	11.3	12.5	10.5	6.0
GNP 72 Deflator	6.1 5.1	5.0 5.5	4.5 5.5	4.0 6.0	6.1 5.1	4.0 4.5	6.0 4.0	5.0 3.5	6.1 5.1	4.0 6.5	1.0 7.0	-0.5 6	6.1 5.1	5.5 7.0	3.0 7.5	-0.5 6.5
Corp. Profits	28	12.4	11.7	9	28	7.8	17.4	5.0	28	10.2	-3.4	-10.0	28	20.5	7.3	-10
Unit Labor Costs	3.6	6.2	5.5	5.5	3.6	4.5	3.0	3.5	3.6	6.0	8.5	8.0	3.6	5.0	7.5	9
Compensation	7.4	8.75	8.75	7.5	7.5	7.4	7.0	6.5	7.4	8.0	8.5	7.0	7.4	8.0	8.5	7
Productivity	3.6	2.3	2.0	2.0	3.6	2.5	3.5	3.0	3.6	2.0	0	-1.0	3.6	3.0	1.0	-2
Interest Rates																
T-Bills	5.02	5.16	5.73	5.98	5.02	4.64	4.75	4.50	5.02	5.32	6.42	6.50	5.02	5.32	6.43	6.25
Intermediate AA	7.89	7.58	7.98	7.91	7.89	7.56	7.39	6.74	7.89	7.94	8.52	8.62	7.89	7.97	8.56	8.55
Long AA	8.30	7.96	8.44	8.52	8.30	7.87	7.40	7.52	8.30	8.22	9.05	9.42	8.30	8.23	8.98	9.21
Dividends (S&P)	12.4	15	6	7	12.4	8	14	3	12.4	9	1	0	12.4	14	5	2
Return on Capital	9.2	9.8	10.4	10.6	9.2	9.4	10.5	10.5	9.2	9.5	8.6	7.3	9.2	10.4	10.4	8.9
S&P EPS	10.68	11.94	13.29	14.43	10.68	11.46	13.42	14.09	10.68	11.73	11.31	10.18	10.68	12.82	13.73	12.36
S&P DPS	4.25	4.90	5.19	5.55	4.25	4.59	5.23	5.65	4.25	4.68	4.73	4.73	4.25	4.84	5.09	5.19
S&P Index	101-121	103-133	102-132	104-134	101-121	105-135	118-152	145-187	101-121	95-123	85-106	80-100	101-121	95-119	86-110	100-125
Probability		<u>49</u>					<u>9</u>				<u>8</u>				<u>34</u>	



REAL GNP GROWTH: Forecasts vs Model



GNP DEFLATOR: Forecasts vs Model



inflation rate will decline. This forecast (Delayed Expansion) estimates that stock prices could reach a high of 152 by the end of 1978. Similarly, there are two forecasts (Stagnation/Recession and Recession) with a combined probability of 42% which predict that stock prices may decline from current levels to 85-86 in 1978. The effect of including these less favorable forecasts in the calculation of expected stock prices is to reduce the range of expected stock prices over the next 18 months to 97 to 125. Similarly the use of a weighted interest rate forecast raises the projected level of long-term AA corporate bond rates from an average level of 8.34 during 1978 to 8.53. Table III shows the weighted forecasts for key money market instruments and stock prices. The charts on pages 30 and 31 show schematically the relationship between the individual bond and stock market forecasts associated with each economic forecast (colored lines) and the weighted price range (shaded area) for bonds and stocks, respectively.

TABLE III
SUMMARY OF WEIGHTED CAPITAL MARKET FORECASTS

	<u>1977</u>	<u>1978</u>	<u>1979</u>
Money Market Rates			
90 day T-bills	5.19	5.94	5.99
Intermediate AA Industrial	7.74	8.16	8.08
Long AA Industrial	8.05	8.57	8.73
Stock Market (S&P 400)	100-128	97-125	104-134

Outlined on the following pages is Manufacturers Hanover Trust's approach to equity and fixed income management.

A. EQUITY MANAGEMENT

The ultimate purpose of this complex organization and disciplined investigative process leads inevitably to what is best known as stock and bond selection. This final step in the investment process carries with it a number of other highly specialized and demanding skills that result in the final appearance of the portfolios themselves.

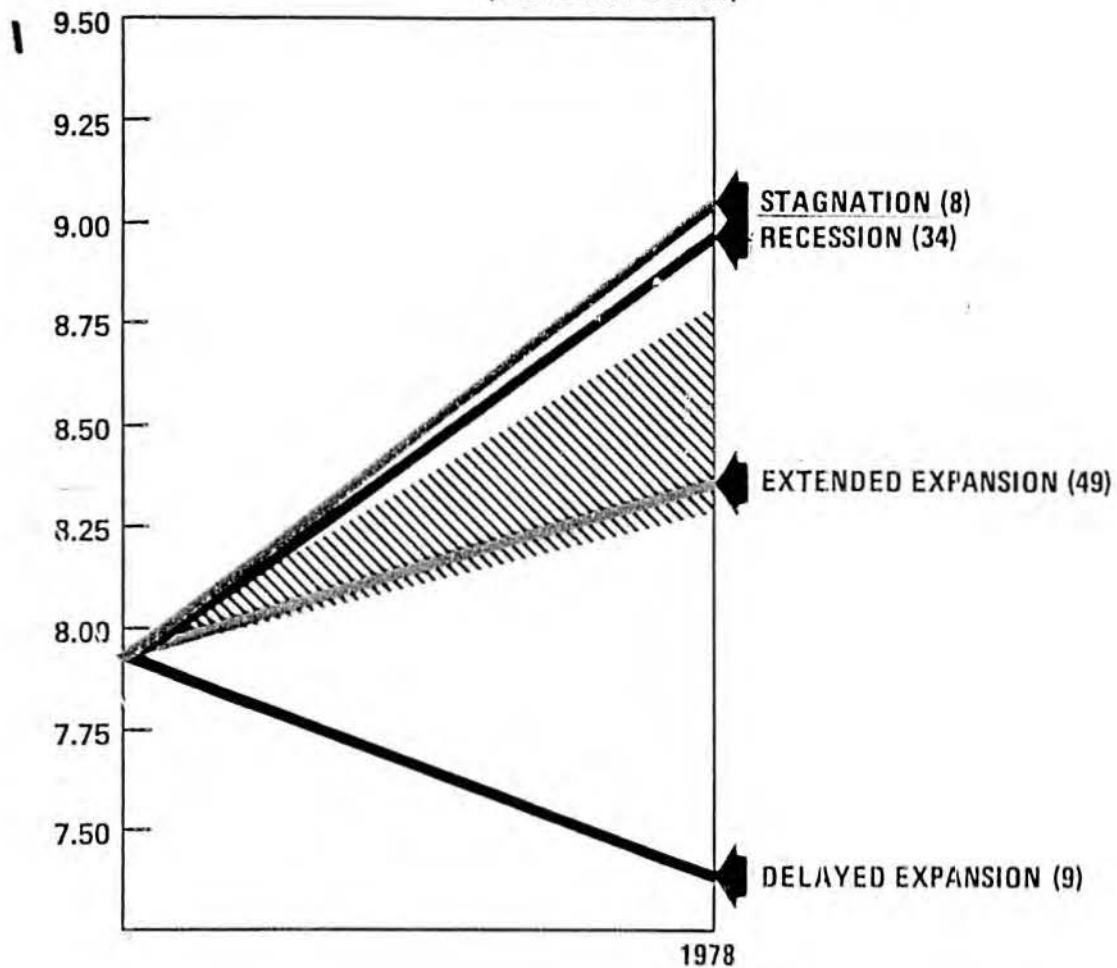
At Manufacturers Hanover Trust, our approach to professional investment in common stocks is based on an analysis of fundamental factors while preserving the flexibility to react to rapid and unexpected change. Such changes can be purely economic, some inexplicable and others political, both international and in the United States.

Our fundamental basis for equity investments, described earlier in this section, begins with a careful evaluation of the current and future economic environment as presented and analyzed by the Senior Investment Committee. This process consists of a systematic consideration of supply and demand relationships, interest rates and profit margins, and their impact on the capital markets. The development and selection of a most probable economic forecast was discussed in detail.



MANUFACTURERS HANOVER TRUST

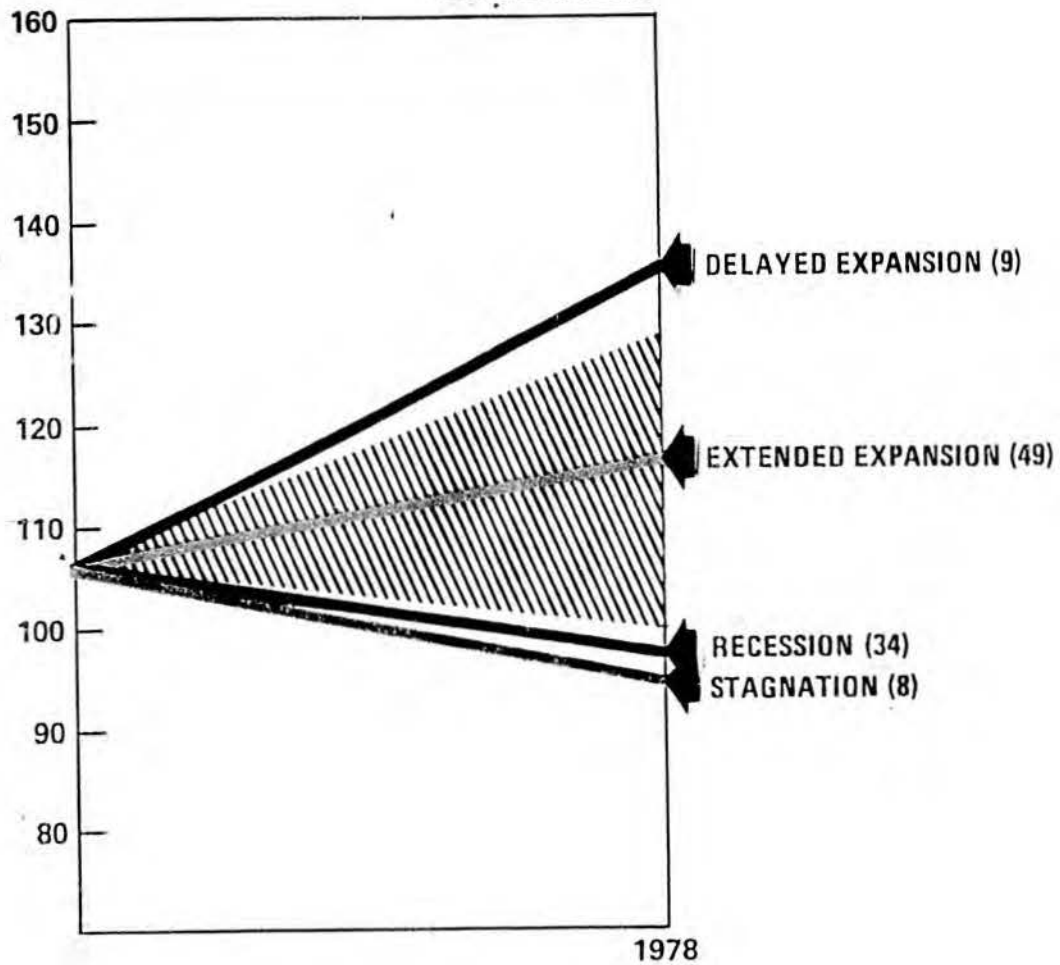
BOND MARKET FORECASTS
(LONG AA CORP.)





MANUFACTURERS HANOVER TRUST

STOCK MARKET FORECASTS
S&P 400 INDEX



Industry specialists on the research staff then consider the impact of major macro-economic factors on their various industries and make considered judgments using all of the analytical tools at their disposal. Primarily, they estimate units, prices and profits. The techniques used are several including balance sheet and income statement analysis and interviews with the top management of the companies for which they are responsible. Outside experts in specific industries are also consulted.

This systematic approach is designed to produce the best estimate of the future paths of corporate earnings and dividends. Studies have shown, and our own experience confirms, that a careful and accurate analysis of corporate earnings and dividends that can be projected over a period of time, is the best determinant of future stock prices. The three exhibits on pages 33 to 35 will illustrate the inter-relationship between earnings, dividends and stock prices for the fifty year period 1926 through 1976. These relationships and our ability to anticipate them are the heart of our investment approach.

Exhibit 1 (Page 33) shows that a strong positive relationship has existed over the last 50 years between the growth of earnings per share and the growth of dividends per share as measured by the experience of the S&P 500 Index. During this period earnings grew at about a 4.4 percent compound rate while dividends grew at about 4.0 percent compound rate. In other words, if an investor can identify an increase in earnings, there is a high probability that he will receive a similar increase in return through dividends at some point in the future.

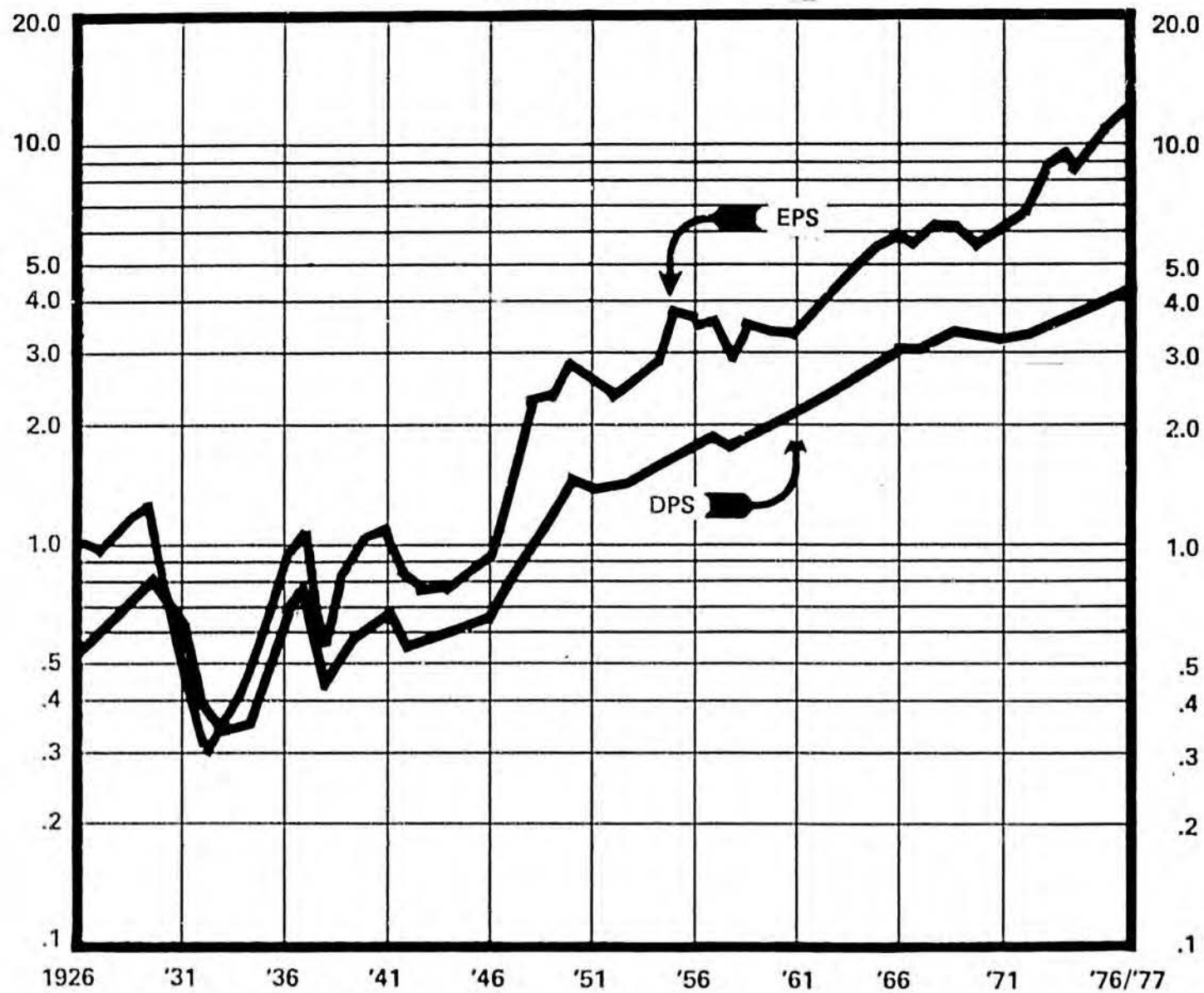
Exhibit 2 (Page 34) presents the fifty year historical relationship between nominal dividends and stock prices. As you can see in this exhibit, the post World War II rise in the stock market corresponds with a fourfold increase in dividends. The only apparent exception to this relationship seems to have occurred in the period 1971-1976 when dividends continued to increase in nominal terms but stock prices fell.

Exhibit 3 (Page 35) explains this paradox by comparing the growth of real dividends with stock prices. Real dividends are dividends that have been adjusted for the effects of inflation. As the exhibit shows, real dividends have been declining since 1966 with the result that investors have been receiving lower real returns from their investments in common stocks. It is not surprising, therefore, that stock prices have made little progress in the past ten years since investors were not receiving an adequate (in their minds) real return for investing in common stocks.

To further aid our equity selection process, we rank each of the industries we follow according to their expected profit gain over the forecasted period. Using various valuation techniques, we attempt to determine whether such gains are likely to produce stock price increases; and we then concentrate our portfolio heavily in those industries with the greatest potential gain. The expected earnings gains by company in turn produces a ranking within each industry to further aid in the selection process.

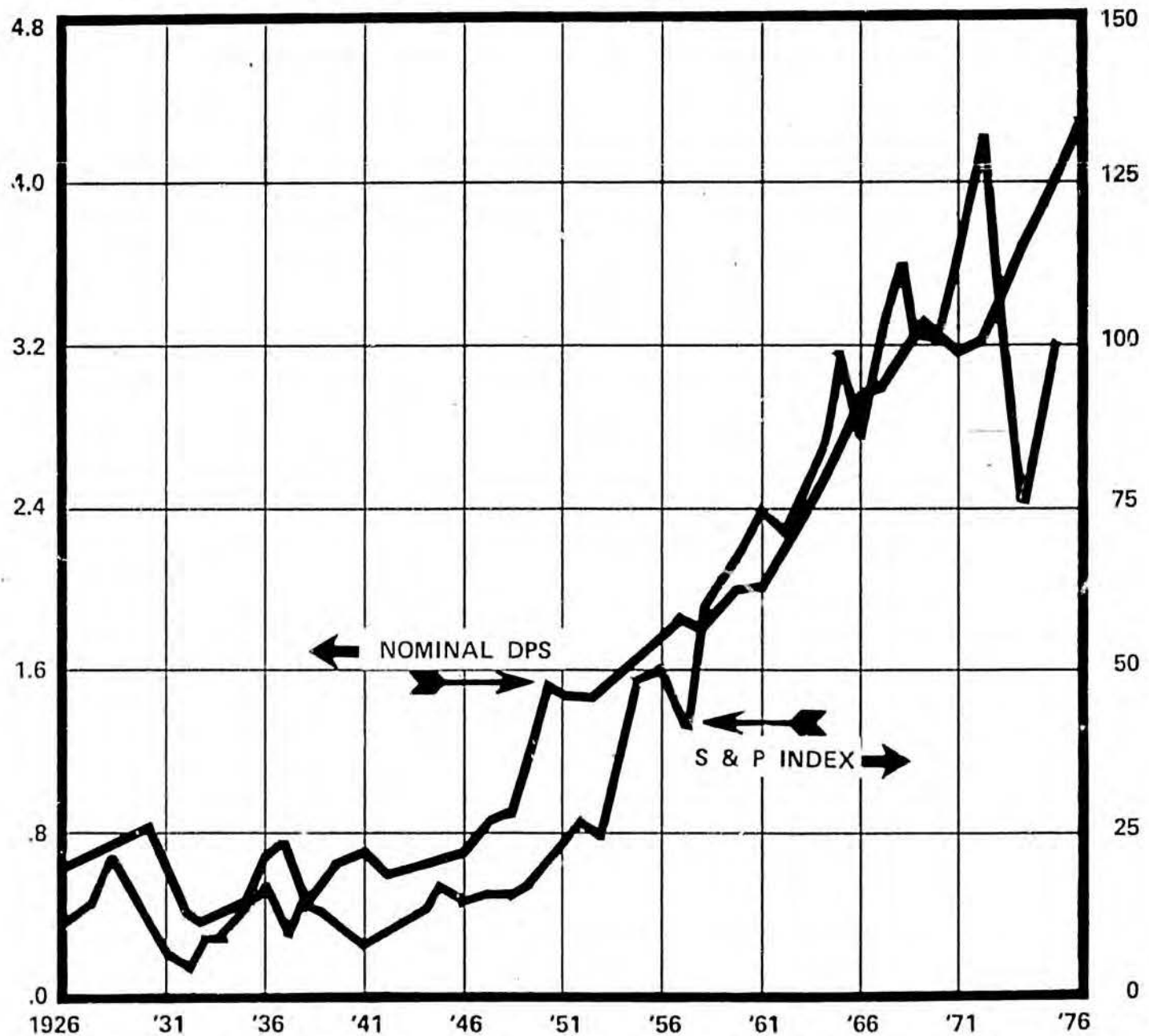
An important benefit of this system is that it introduces a selling discipline to the process of equity investment. We have found it is systematically logical to concentrate our holdings in those companies and industries ranked in the upper one-third of our list. We also question our continued ownership of those stocks in industries in the bottom one-third. Unless the analyst or portfolio manager can provide a strong argument to continue to hold such issues, the Senior Investment Committee will take action to reduce or eliminate these holdings from the portfolio.

Dividends Per Share (DPS) & Earnings Per Share (EPS) 1926 - 1976



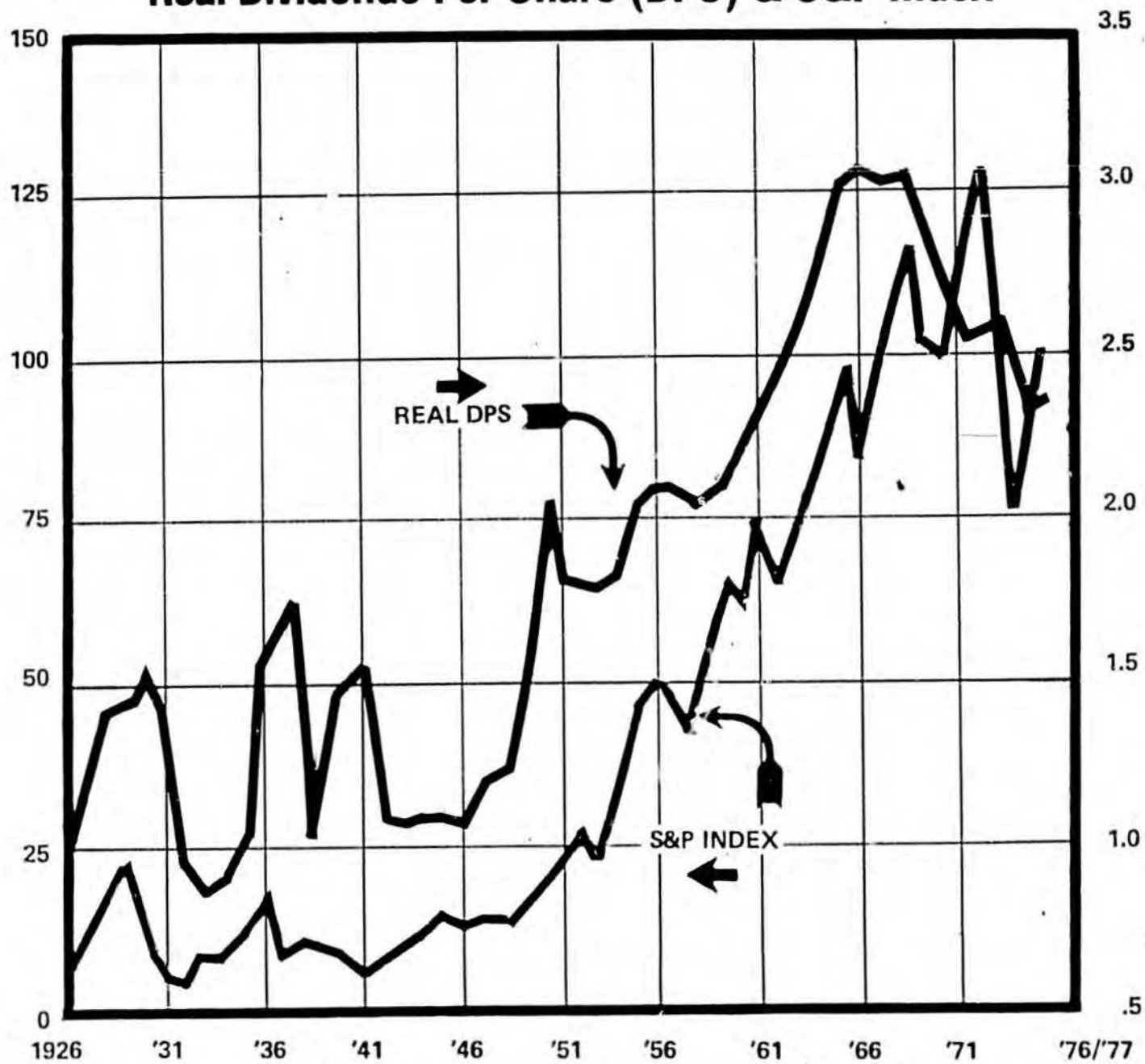
SOURCE: S & P INDEX

Relationship Between Nominal Dividends Per Share (DPS) & S&P Index



SOURCE: STANDARD & POOR'S

Relationship Between Real Dividends Per Share (DPS) & S&P Index



SOURCE: STANDARD & POOR'S & MHTCO

In addition to the fundamental approach to investing which can produce well-founded estimates of where equities should sell, the marketplace determines where equities will sell. Deviations do occur but ordinarily do not exist for long periods.

Our organization is sensitive to market trends and has the flexibility to act decisively when warranted. In order to anticipate these factors and to minimize their impact or to take advantage of the opportunities they present, we ask a lot of "What If" questions. We simulate econometric models to predict the potential impact of a tax cut, a sharp increase in the price of oil, an increase in taxes, an incomes policy, or other forms of government intervention. Through our frequent contact with the investment community and in discussions within our own offices, we attempt to analyze the specific factors that seem to be affecting investments at the moment, whether it be ERISA legislation, index funds, the trend towards growth stocks or away from growth stocks, or the desire for high dividend income.

It is only through such extensive analysis of all factors, both fundamental and external, that might have an impact on the future course of prices that we can hope to use equity investments as an effective hedge against inflation and at the same time reduce the volatility that has characterized equity investments.

Given a well-founded investment philosophy, the security selection decision becomes a straightforward activity. An illustration of what we try to accomplish with a common stock portfolio at Manufacturers Hanover Trust is shown on page 37. This exhibit describes the characteristics of a portfolio as of September 30, 1977 in comparison with the characteristics of the S&P 400 Index. As you can see in the exhibit, the Manufacturers Hanover portfolio is superior to the S&P 400 Index in historical and estimated earnings and dividend growth. In addition, we show two measures of comparative quality with our analyses of Return on Capital and Debt as a Percent of Total Capital. Finally, the exhibit shows that the portfolio has managed to acquire these characteristics at a price that is not much higher than the price of the S&P 400 as shown by the P/E (price-earnings) ratio.

B. FIXED INCOME MANAGEMENT

The investment philosophy is just as important to fixed income management as it is to equity management. Our investment philosophy calls for the preservation of capital and purchasing power through the use of active management techniques that help us to maximize returns.

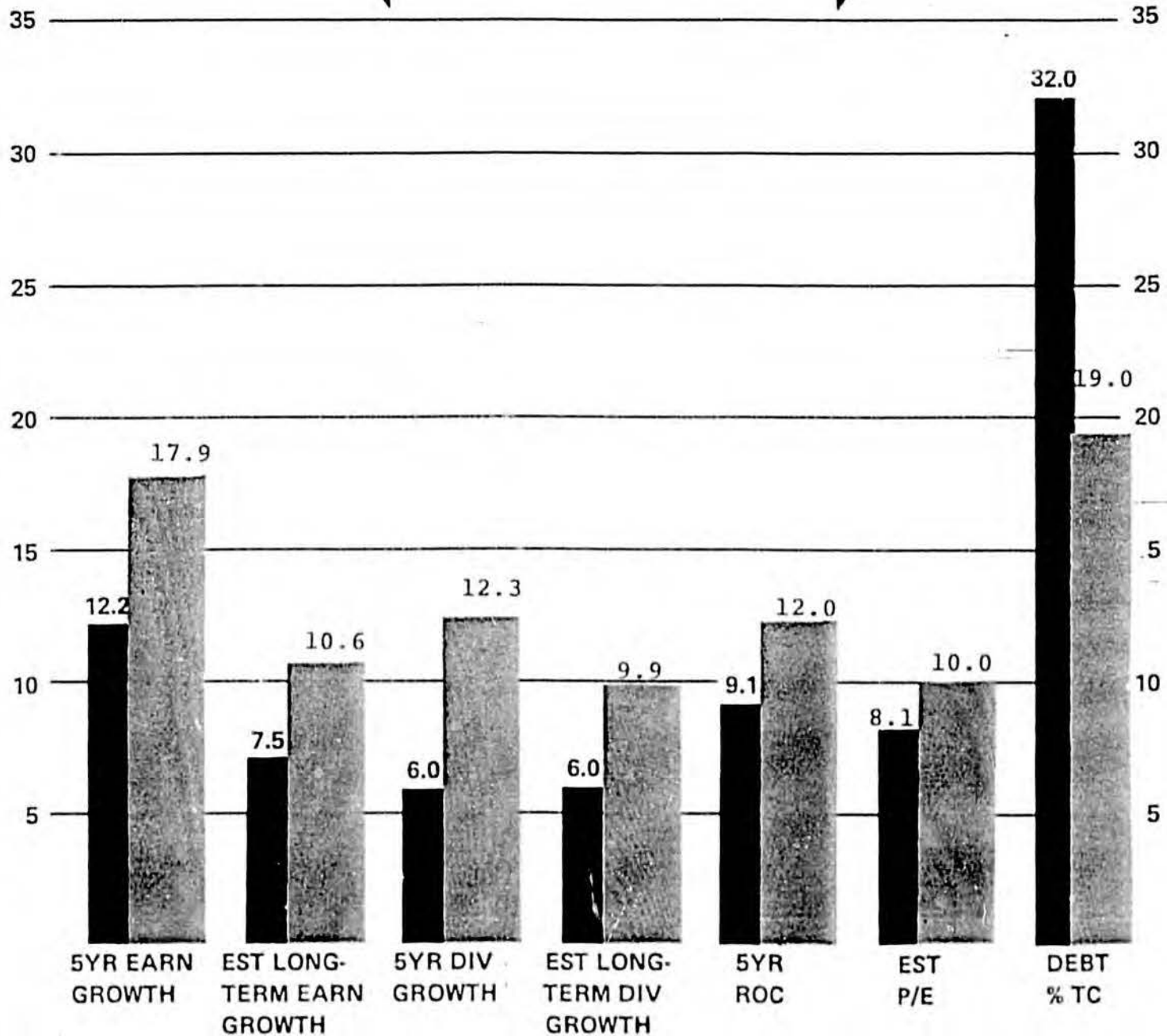
To give a perspective on fixed income management, let us review two realities of the marketplace that affect all fixed income managers.

The chart on page 38 shows the fluctuation of interest rates as measured by the experience of newly-issued AA Industrials for the period 1969 through 1976. As you can see, interest rates have fluctuated 1 per cent or more in nearly every year since 1969. These interest rate fluctuations have a strong impact on the total return of a fixed income portfolio depending upon its maturity structure. The successful fixed income manager will try to anticipate changes in interest rates in order to take advantage of positive movements and to avoid negative movements.

COMPARATIVE ANALYSIS

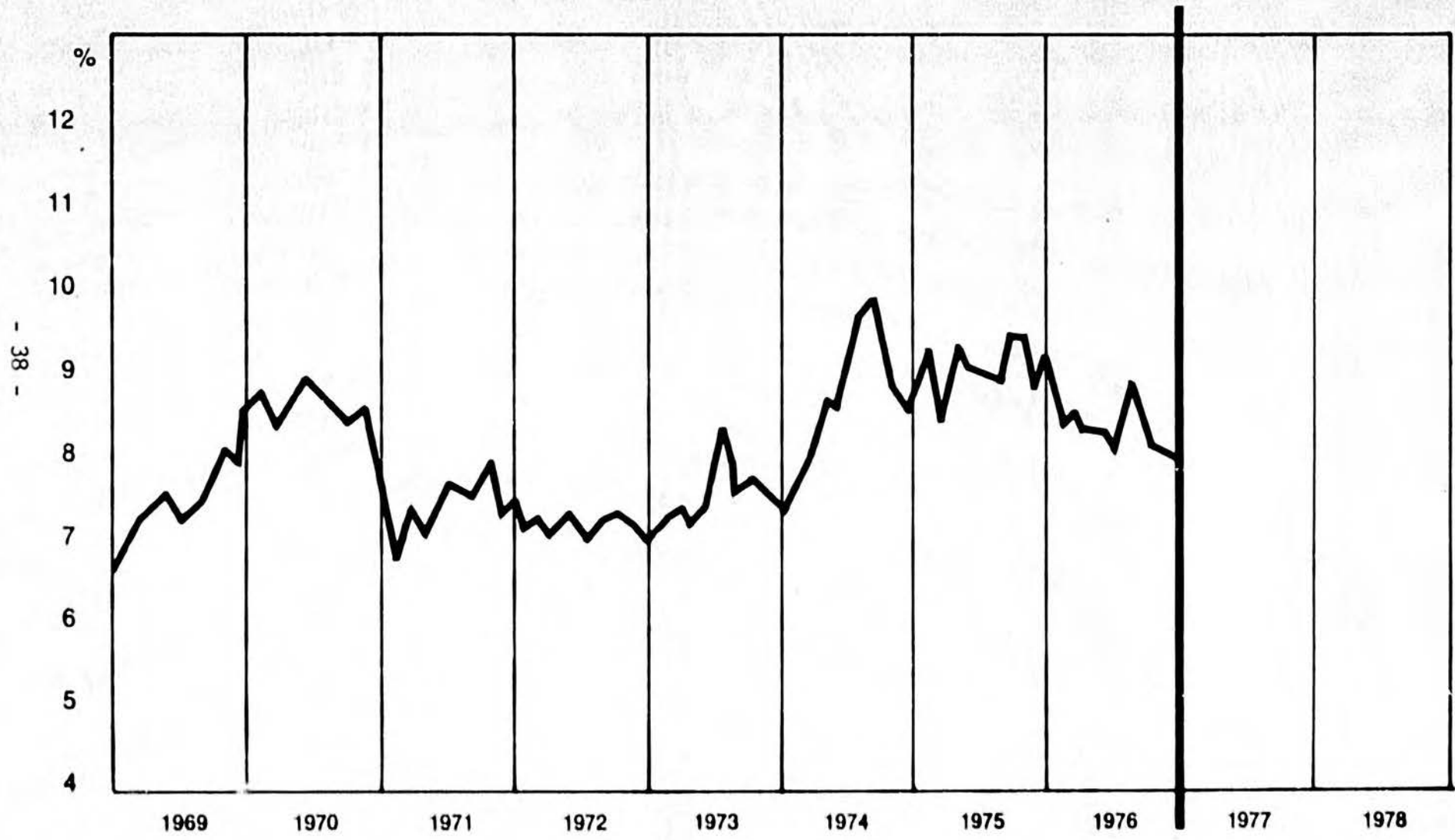
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YIELDS OF NEW AA INDUSTRIALS* 1969 through 1976

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- 38 -

* call protected

The second reality of fixed income management concerns the changes in quality ratings for individual companies issuing debt. As you can see in the chart on page 40, the number of changes in quality ratings has been substantial. The fixed income manager who can anticipate rating changes through a detailed analysis of a company's financial position will be in an excellent position to take advantage of improving returns resulting from rating upgrades and to avoid deteriorating returns resulting from rating downgrades.

Given the realities of fixed income management described above, the fixed income manager tries to take actions that help him maximize returns and, at the same time, minimize the negative realities of the marketplace. To accomplish this objective the fixed income manager has to use active management techniques.

The three principal active management techniques available to the fixed income manager are: 1) positioning in anticipation of interest rates by varying maturity, quality and sector; 2) swapping to improve quality or add incremental returns; and 3) avoiding losses resulting from credit deterioration.

The chart on page 41 shows the relationship between long, intermediate and short-term fixed income investments. The fixed income manager wants to shorten maturities in anticipation of rising interest rates and to lengthen maturities in anticipation of falling interest rates. Any success the fixed income manager has in making these judgments will improve the total return of his portfolio.

The chart on page 42 shows the relationship between issues of differing quality. In this exhibit long government securities indicated by the solid line at the zero level of the chart are compared with the premiums an investor receives for issues of lesser quality. As you can see in the exhibit, an investor generally receives a return inversely proportional to the quality of the issue. Nevertheless, there are times when the spread between issues of differing qualities becomes particularly narrow or wide. These instances give the fixed income manager an opportunity to maximize returns by positioning and swapping securities according to the existing and anticipated spread relationship.

The chart on page 43 shows the same type of relationship but in this instance using differences among sectors, as illustrated by government issues, AA industrials and AAA utilities. Again, by effective positioning and swapping the fixed income manager can maximize the returns of his bond portfolio.

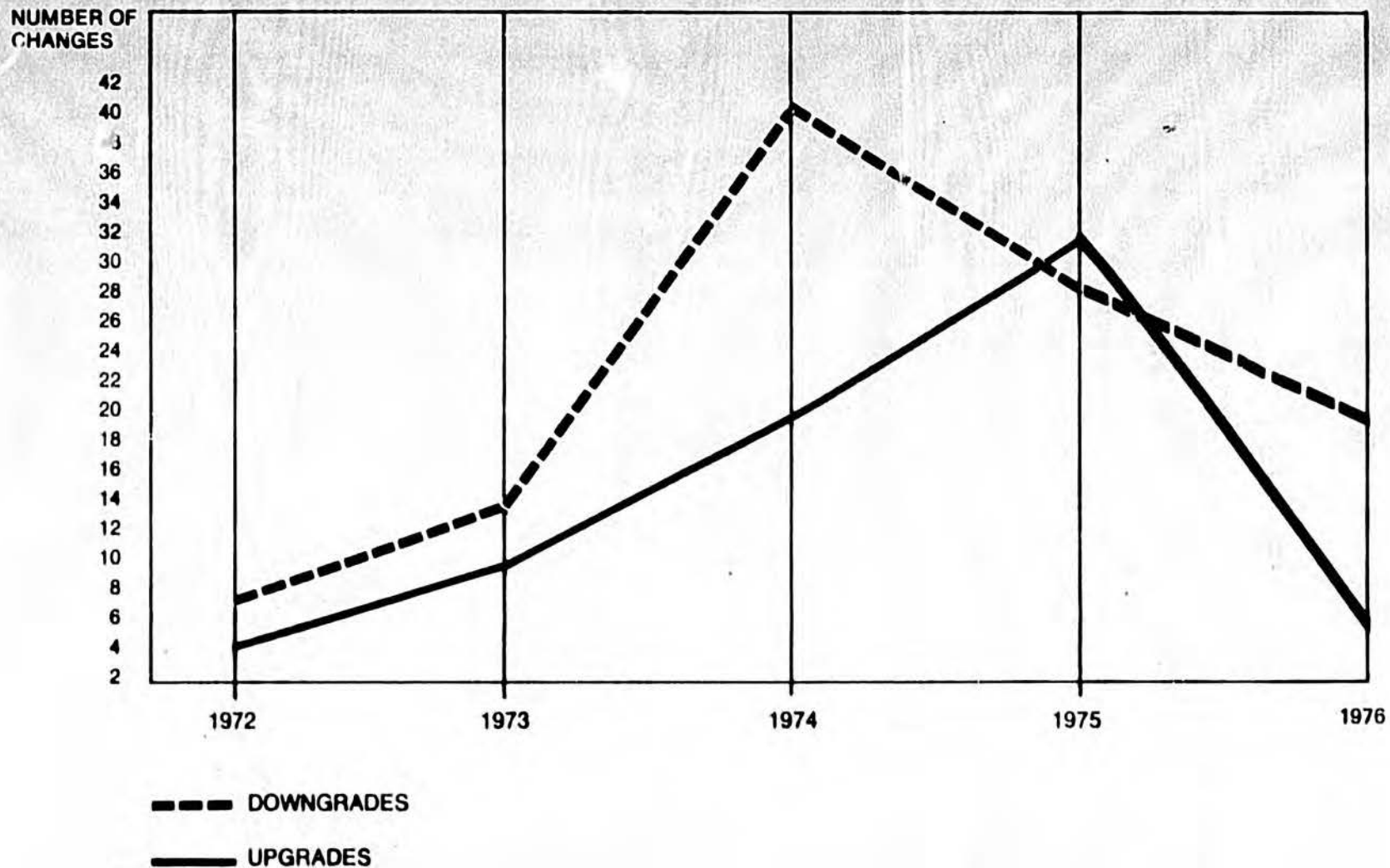
To illustrate the second active management technique -- swapping to improve quality or add incremental returns -- let us return to an earlier exhibit which shows the relationship between long government securities, AAA, AA, and A industrials. Just as the spreads among these securities are used to make positioning decisions, within each category (for instance, AA industrials) there are short-term opportunities to improve quality or add incremental returns by swapping one security for another. These opportunities arise because of aberrations in historical yield spreads that result from sinking fund operations, supply-demand imbalances, and temporary emotional outbursts. An active bond manager is generally able to recognize these opportunities and capitalize on them.

ISSUER CREDITS IMPROVE AND DETERIORATE

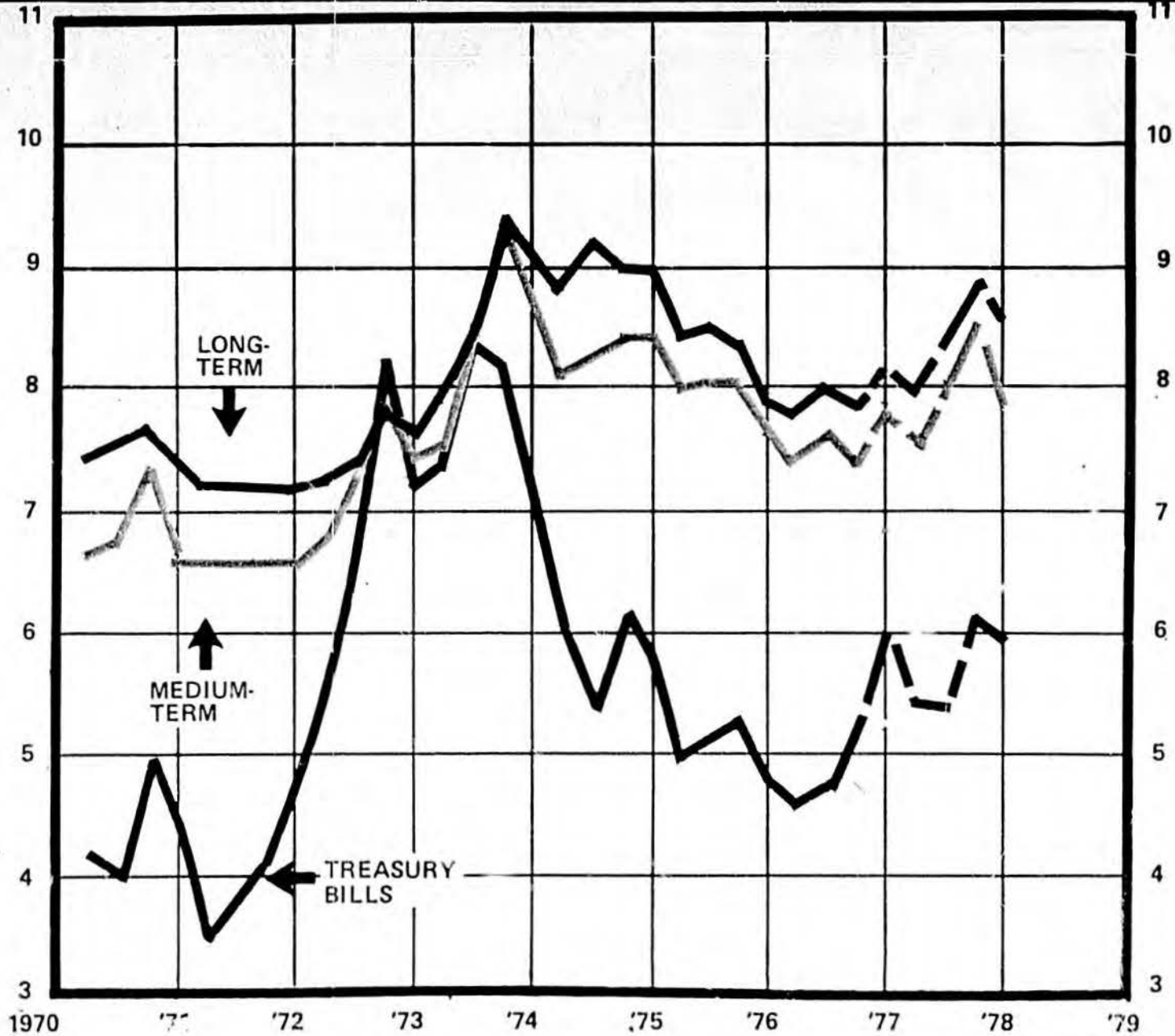


MANUFACTURERS HANOVER TRUST

Number of rating revisions by Moody's for industrials and utilities



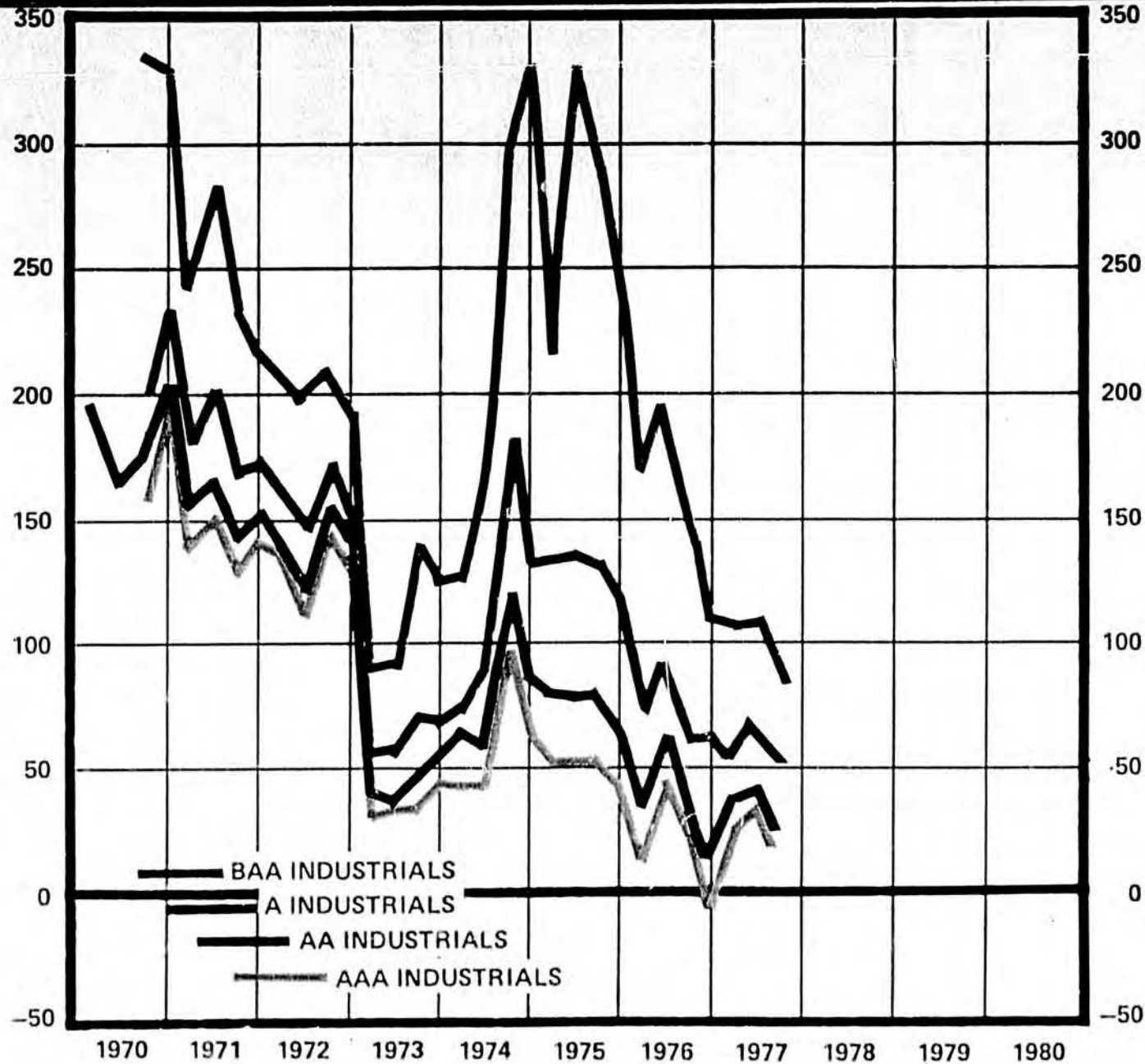
Yield of 90 Day Treasury Bills, AA Medium-Term Industrials and AA Long-Term Industrials



- 41 -

QUALITY DECISIONS

Long Govts vs AAA, AA, A, & BAA Industrials

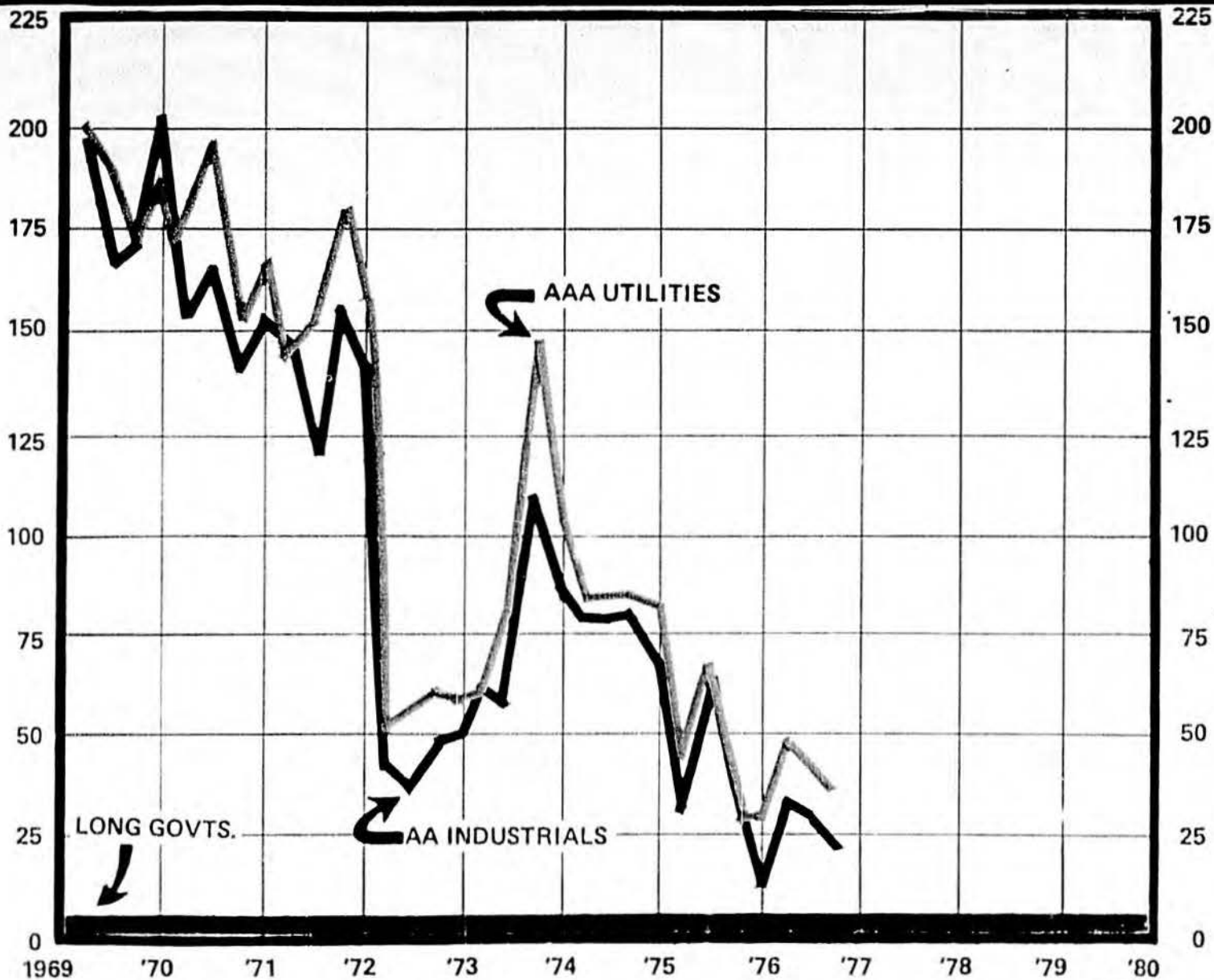


- 42 -



SECTOR DECISIONS

Yield Spreads - Long Govts. vs "A.A" Industrials & "AAA" Utilities



- 43 -

The third active management technique concerns avoiding losses from issuer credit deterioration. As soon as the credit worthiness of a debt issuer is downgraded, the price of the security will also decline. At Manufacturers Hanover Trust we try to anticipate these instances of credit deterioration (which you saw earlier to be quite numerous) through a proprietary analysis of the financial health of all issuers. This Ratio Ranking System is shown in the next exhibit (page 45) and is designed to monitor eight important financial ratios which describe the credit worthiness of a company and its industry.

As you can see in the exhibit, we examine a company's financial health from a historical and future perspective and then assign our own rating to the company's credit worthiness. In this manner, our bond portfolio managers have advance warning about which companies may have poor future returns from credit deterioration.

The capital markets of the United States are the largest and most liquid in the world with a wide range of instruments available to investors. We have outlined below the various direct obligations of the U.S. Treasury, Federal Agency and corporate obligations. The data is based on the latest Treasury Survey of Ownership (July 31) made available in October 1977.

TREASURY OBLIGATIONS

The total public debt of the Treasury outstanding is about \$671 billion of which about \$430 billion is marketable debt. The discussion to follow will treat only marketable issues.

Treasury Bills

The largest and most liquid investment market is the Treasury Bill market. The latest Treasury Survey of Ownership showed that there were 40 different issues outstanding amounting to about \$154 billion of which \$40 billion was held by the Federal Reserve Banks, U.S. Government Agencies and Trust Funds (such as the Social Security Trust Fund). Thus about \$114 billion were publicly held by various classes of investors.

Every Monday there are auctions for 13 week (91 day) and 26 week (182 day) Treasury Bills. There are, in addition, monthly auctions of one year Bills and occasionally special auctions of various other maturities depending upon the Treasury's short-term cash needs.

The daily average volume of gross dealer transactions in the secondary Bill market reported to the Federal Reserve was \$8.1 billion in a recent week.

Other Treasury Issues Maturing Within One Year

As of the latest survey, there were 19 issues of Bonds and Notes outstanding maturing within one year for a total \$61 billion of which \$13 billion were held in Federal Reserve, government agency and Trust Fund accounts.

The daily average volume of gross dealer transactions in the secondary market for such Treasury issues was recently \$242 million.

Table IV on page 46 presents comparable data on other outstanding Treasury issues.

ILLUSTRATION OF REPRESENTATIVE BOND LIST ANALYSIS

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ISSUE	HISTORICAL DATA								TOTAL RANKING	THREE-YEAR AVERAGE	FUTURE TREND	MHT RATING (b)	
	FINANCIAL RATIO RANKINGS (a)											PROJECTED RATIO	QUALITY
	1	2	3	4	5	6	7	8					
AUTOMOTIVE													
FORD	4	3	4	7	6	5	2	10	41	46	IMPROVING	-	-
GENERAL MOTORS	2	2	2	3	1	4	1	7	22	27	IMPROVING	+	
INDUSTRY AVERAGE									40	47			
OIL													
AMERADA HESS	5	8	4	7	3	8	8	9	52	51	IMPROVING	0	
EXXON	3	3	3	5	1	5	8	9	37	34	DECLINING	0	+
INDUSTRY AVERAGE									44	41			
CHEMICALS													
ALLIED CHEMICAL	5	8	7	7	8	8	9	7	59	51	DECLINING	-	
MONSANTO	4	6	4	3	3	7	9	2	38	31	DECLINING	+	+
INDUSTRY AVERAGE									45	43			

a) Financial Ratios Analyzed Are:

- 1) Cash Flow/Fixed Charges
- 2) Debt/Equity
- 3) Pretax Fixed Charge Coverage
- 4) Total Assets/Total Stockholder's Equity
- 5) Earnings Before Interest and Taxes/Total Assets
- 6) Cash Flow—Dividends/Capital Expenditures + Changes in Inventories and Receivables
- 7) Cash Flow/Capital Expenditures
- 8) Current Assets/Current Liabilities

b) Rating System

- ++ = Above Average in rating category and industry group
- + = Above Average in rating category
- 0 = Neutral relative to rating category
- = Below Average in rating category
- = Below Average in rating category and industry group

TABLE IV

<u>Maturity Range</u>	<u>No. of Issues</u>	<u>Amount Outstanding</u>	<u>Held by U.S. Government Accounts & Fed. Reserve Banks</u>	<u>Publicly Held</u>	<u>Recent Daily Average Gross Dealer Transactions Secondary Market</u>
0 to 1 year	59	\$215 bil.	\$ 53 bil.	\$162 bil.	\$ 8,342 million
Treasury Bills	40	154	40	114	8,100
Other Treasurys	19	61	13	48	242
1 to 5 Years	47	142	36	106	2,589
5 to 10 Years	11	43	13	30	1,470
Beyond 10 Years	17	30	12	18	363
	<u>134</u>	<u>\$430 bil.</u>	<u>\$114 bil.</u>	<u>\$316 bil.</u>	<u>\$12,764 million</u>

General Comments

The liquidity of three month, six month and one year Bills is generally higher than that for other maturities. Under normal conditions, it is possible to purchase or sell \$100 million or more of the very actively traded Bills in a single day compared to \$25-50 million of the less active issues.

Factors affecting the marketability of Treasury issues include general economic activity, government fiscal and monetary policy (especially open market operations), the level and direction of interest rates, and the cost to dealers of financing their inventories. An additional factor affecting the marketability of specific issues is the proportion of the issue held by the Federal Reserve Banks, U.S. Government Agencies and Trust Funds.

Another device that contributes to the liquidity of the Treasury market is the Repurchase Agreement whereby an investor may commit substantial sums by lending funds to a government dealer at negotiated terms for a specified term (usually short) and, as collateral, the investor receives Treasury securities for the full amount of the repurchase agreement or "repo". At the end of the term, the dealer repurchases the securities on the agreed terms and the collateral is surrendered to the dealer. The "repo" makes it possible to invest substantial sums of money readily for short periods of time, such as two or three days, which could otherwise involve risk or difficulties.

There is also the Reverse Repurchase Agreement where instead of selling a Treasury holding on the open market, an investor may enter into an agreement with a dealer whereby the dealer purchases the securities from the investor and makes a concurrent commitment to sell the securities back to the investor at agreed upon terms at a later date. The essence of repurchase agreements and "reverse repos" is to adjust the original maturity of a particular instrument to better accommodate the needs of buyers and sellers.

Depending upon the state of dealer inventories and the condition of the market, it is usually possible to negotiate "repos" in volumes of \$100 million to \$200 million without difficulty. This summer, however, dealer inventories were very tight and even the monetary authorities were somewhat constrained at times in pursuing open market operations.

FEDERAL AGENCY OBLIGATIONS

Federally sponsored agencies largely created to benefit the agricultural and housing sectors of the U.S. economy have long been an important factor in the money and capital markets of the United States. In recent years, however, the volume of obligations issued by Federal Agencies has increased substantially.

Some agency issues are backed by the full faith and credit of the United States, others are guaranteed by the Treasury or are supported by the issuing agency's right to borrow from the Treasury, while a few lack any formal government backing. The latter are, nevertheless, generally regarded by professionals as very high quality investments.

Issues Backed by the Full Faith and Credit of the United States, Guaranteed by the Treasury or Supported by Borrowing Rights Against the Treasury

Federal Home Loan Mortgage Corp.

The Federal Home Loan Mortgage Corporation was created in 1970 for the purpose of strengthening the existing secondary market in government insured residential mortgages and to assist in the development of secondary markets in non-insured or conventional residential mortgages. These objectives are to be achieved by purchasing such mortgages from various financial institutions including members of the Federal Home Loan Bank System. To finance these secondary mortgage market operations, the Federal Home Loan Mortgage Corp. may issue mortgage-backed bonds which are supported by the full faith and credit of the United States. There are three such issues outstanding with maturities ranging from 1995 to 1997 aggregating \$433 million. In addition, this Agency has \$1.3 billion in six issues maturing 1999 to 2007 which are not backed by the full faith and credit of the United States.

All of the stock of the Federal Home Loan Mortgage Corp. is owned by the twelve Federal Home Loan Banks, another Federal Agency.

Government National Mortgage Association

The Government National Mortgage Association (GNMA) is a wholly owned government corporation established to provide special assistance for financing certain types of residential mortgages. GNMA purchases mortgages or mortgage commitments from private lenders in the mortgage market at higher than prevailing prices and then sells those mortgages or commitments at lower prices to investors, thus providing a form of subsidy. Frequently, the mortgages are sold at auction with the individual mortgages combined into pools which in turn are then sold to the major investment banking houses for resale to the institutional investment market. The mortgage pools are guaranteed by GNMA which in turn is backed by the full faith and credit of the U.S. The pools are of the "pass-through" type whereby monthly interest and amortization of the mortgages in the pool are distributed to investors.

Over \$40 billion of GNMA pass-through mortgage backed securities have been issued with final maturities of from 12 to 40 years and average lives (because of mortgage amortization) of from 5 to 40 years. These securities are actively traded.

GNMA has also sold participations in its mortgage portfolio. The participation certificates which do not have principal prepayments before maturity are also backed by the full faith and credit of the U.S. There are 21 issues outstanding aggregating \$3.8 billion with maturities ranging from 1977 to 1990. Only a few of these issues are large enough to offer a reasonable degree of marketability.

Export-Import Bank

The Eximbank was founded in 1934 and has broad powers for assisting exports by extending loans, guarantees and credit insurance. One issue of \$300 million falls within the money market maturity range, and five others aggregating \$1.4 billion mature in 1978, 1979, and 1982.

The Eximbank has also guaranteed the Notes of Private Export Funding Corporation (PEFCO), a corporation established in 1970 with the support of the U.S. Treasury Department and Eximbank to assist in the financing of exports by mobilizing private capital. PEFCO is owned by 54 commercial banks, seven manufacturing companies involved in export markets and one investment banking firm. PEFCO has six issues outstanding amounting to \$750 million with maturities from 1981 to 1987 which are backed by the full faith and credit of the U.S.

Farmers Home Administration

The Farmers Home Administration in the Department of Agriculture extends loans in rural areas for homes, farms and community facilities. To finance its activities, the Farmers Home Administration sells insured notes and certificates of beneficial ownership which are secured by the full faith and credit of the U.S. government. This agency has 18 issues outstanding aggregating \$4.7 billion with maturities ranging from 1977 to 1989.

Federal Housing Administration

The Federal Housing Administration insures mortgage loans for a wide variety of purposes but mostly related to residential housing. Holders of FHA insured mortgages that have defaulted are paid in cash or FHA debentures at the FHA's option. Although the debentures are unconditionally guaranteed by the U.S., the maturities are long and there are a large number of issues. As a result, secondary markets are quite inactive.

Federal Agency Issues Not Formally Guaranteed or Backed by the United States

Banks for Cooperatives

The Banks for Cooperatives were organized in 1933 to make loans to cooperatives owned and controlled by farmers engaged in marketing farm products, purchasing farm supplies or providing farm business services. There are 12 district Banks and the Central Bank for Cooperatives. The Central Banks' primary lending function is that of acquiring loan participations of the district Banks. To finance these activities, the 13 Banks for Cooperatives issue consolidated bonds which are joint and several obligations of the 13 Banks and are secured by notes and other obligations of borrowers, obligations of the U.S. and its agencies, cash and other readily marketable securities approved by the Farm Credit Administration.

Although the Federal Government provides no formal guarantees direct or indirect for the bonds of this agency, the obligations are secured as described above and the Banks operate under Federal charter with government supervision. The Banks for Cooperatives typically sell 6 month bond issues monthly although longer term issues are sometimes brought to market. There are ten issues outstanding aggregating \$4.3 billion, three of which mature in 1979 or later.

Federal Intermediate Credit Banks

The Federal Intermediate Credit Banks established in 1923, discount and purchase notes originating from loans extended to farmers by agricultural credit corporations, commercial banks, livestock loan companies and similar financial institutions. The consolidated bonds this agency issues are joint and several obligations of the 12

Federal Intermediate Credit Banks and are secured by collateral consisting of notes or other obligations of borrowers and other readily marketable securities approved by the Farm Credit Administration. Although obligations of the Banks are not guaranteed either directly or indirectly by the Federal government, they represent secured obligations of banks operating under Federal Charter and under government supervision.

The Banks issue bonds monthly with maturities of nine months but occasionally, issues of intermediate term will be brought to market.

There are 16 issues outstanding aggregating \$11.6 billion, six of which mature in 1979 or later.

Federal Land Banks

Organized in 1917, the Federal Land Banks provide funds to local Federal Land Bank Associations which, in turn make long-term real estate loans secured by first mortgages to farmers.

Consolidated Federal Land Bank Bonds are joint and several obligations of the Twelve Federal Land Banks and are fully collateralized by notes and obligations of borrowers and other readily marketable securities approved by the Farm Credit Administration.

The obligations of the Banks, while not guaranteed directly or indirectly by the Government, are nonetheless secured obligations of banks operating under Federal charter supervised by the Government. There are 45 issues outstanding aggregating \$18.7 billion with maturities ranging from 1977 to 1997.

Farm Credit System

The Farm Credit Administration is an independent agency of the U.S. Government and is responsible for supervising, auditing and examining the federally sponsored lending agencies providing credit and closely related services to the farming and farm related businesses. Each of the 12 Farm Credit districts into which the country is divided contains a Federal Land Bank, Federal Intermediate Credit Bank and a Bank for Cooperatives. In addition, there is a Central Bank for Cooperatives that is part of the system.

The Farm Credit Banks issue Consolidated Systemwide Discount Notes which are secured joint and several obligations of the 37 Farm Credit Banks comprising the system described above. The Federal Farm Credit Banks had \$1.3 billion in discount notes outstanding with maturities out to 270 days and in August raised \$962 million in 5 and 12 year bonds.

Federal Home Loan Banks

The Federal Home Loan Banks were organized in 1932. The 11 regional Home Loan Banks lend funds to thrift institutions, largely savings and loan associations that are members of the Federal Home Loan Bank System. The loans are used to accommodate unusual credit demands arising from seasonal factors as well as cyclical developments such as heavy deposit withdrawals due to "disintermediation".

Obligations issued by the Federal Home Loan Banks although not guaranteed by the United States are joint and several obligations of banks operating under Federal Charter with governmental supervision. There are 38 issues outstanding aggregating \$16.8 billion with maturities ranging from 1977 to 1997 in addition to \$472 million in discount notes.

As indicated previously, the Federal Home Loan Banks own all of the stock of the Federal Home Loan Mortgage Corp. This Corporation has Federally guaranteed debt outstanding in addition to six issues amounting to \$1.3 billion in mortgage backed securities guaranteed only by Federal Home Loan Mortgage Corp. Such securities represent an undivided interest in pools of conventional mortgages. Interest is paid semi-annually to note holders and mortgage amortization is passed through also and paid annually. Holders may "put" the securities back to the Federal Home Loan Mortgage Corp. in 15, 20, or 25 years depending upon the issue.

Federal National Mortgage Association

Federal National Mortgage Association is a Federally sponsored corporation but owned entirely by private stockholders. It was originally chartered by the Federal Government in 1938 to provide a degree of liquidity to the mortgage market by purchasing government insured and guaranteed mortgages when investment funds are in short supply. There are 70 issues outstanding aggregating \$28.2 billion with maturities ranging from 1977 to 1997. In addition, FNMA has 4 issues of Capital debentures outstanding amounting to \$1.0 billion with maturities from 1980 to 2002 and \$1.4 billion of discounts notes.

Tennessee Valley Authority

The TVA was established in 1933 for the purpose of developing the Tennessee River and adjacent areas. Obligations are secured by a first charge upon net proceeds from power generation. Principal and interest on TVA's obligations rank ahead of annual payments to the Treasury. There are 17 issues outstanding aggregating \$1.8 billion with maturities ranging from 1977 to 1999. This agency has not been actively financing in the public markets.

United States Postal Service

The U.S. Postal Service was created as successor to the Post Office Department which was responsible for operating the postal system in the United States. Obligations of the Postal Service may be fully guaranteed by the U.S. Government if the Postal Service requests the guarantee and if the Treasury Department determines the guarantee is in the public interest. There is one issue of the U.S. Postal Service outstanding in the amount of \$250 million due in 1997 which is not guaranteed by the U.S. Government.

OTHER MONEY MARKET INSTRUMENTS

There are a number of money market instruments available in the United States with acceptable marketability that offer higher returns than Treasury or Federal Agency obligations.

Bankers Acceptances

In terms of quality, Bankers Acceptances, representing senior debt of the accepting bank, rank just below Treasury Bills. Maximum maturities run to 270 days. There are about \$23 billion in Acceptances outstanding. During a recent week, the principal dealers in Bankers Acceptances reported a total weekly volume of \$2.2 billion and daily average inventories of \$1.3 billion.

Certificates of Deposit

Bearer certificates of deposit of major banks provide excellent portfolio liquidity. There exists a large active secondary market in the CDs. There are about \$67 billion of CD's for large reporting banks outstanding. During a recent week, government securities dealers reported an average daily turnover of \$1.1 billion in certificates of deposit.

Dealer Placed Commercial Paper

Dealer placed commercial paper enjoys an active market with a good quantity of high quality issuers currently having paper placed for them. Dealer placed paper is somewhat less liquid than certificates of deposit, since only the originating dealer is willing to repurchase the paper. Depending upon conditions, it is possible to place \$30 million or more without difficulty. There is about \$25 billion of such paper outstanding.

Direct Issue Commercial Paper

With outstandings in the amount of about \$36 billion, this market tends to be less liquid with some issuers reluctant at times to take back their own paper prior to maturity. There is no secondary market for this paper, as with other instruments. Unlike the dealer market currently, it is possible to purchase longer-term paper out to the maximum of 270 days.

CORPORATE BOND MARKET WITH MATURITIES BEYOND ONE YEAR

The long-term public corporate bond market is larger than the Treasury market. Excluding Treasury Bills, the aggregate amount of outstanding publicly held corporate issues was about \$214 billion at year end 1976. Excluding Treasury Bills, the amount of marketable Treasury Bonds and Notes held by various classes of public investors was \$186 billion at the end of 1976.

The gross volumes of publicly offered corporate bonds, privately placed corporate debt, new issues to the public by the US Government and new issues made by State and Local governments are shown below in Table V.

TABLE V

	<u>Corporate Bonds</u>		<u>U.S. Gov't. Public Debt</u>	<u>State & Local Gov't.</u>
	<u>Public</u>	<u>Private</u>		
1974	\$24.9 billion	\$ 6.2 billion	\$11.2 billion	\$24.3 billion
1975	32.6	10.2	85.8	30.6
1976	26.5	15.8	69.1	35.3

At the end of 1975, the amount of outstanding publicly held corporate debt issues was \$196.6 billion. Of this amount, 53% was debt of public utilities (probably 40% of which was Telephone Company debt), 29% Industrials, 12% Finance Company and 4% Transportation Company debt. About 23% of such corporate debt was rated AAA or better, 26% AA rated and 33% was rated A. About 49% of the debt outstanding had maturities of 1991 or longer and another 26% had maturities between 1981 and 1990.

On page 54 we have constructed a profile of a recommended portfolio based on the assumption that the Alaska Fund will have a substantial cash inflow from natural resource based revenues to take advantage of the higher yield opportunities expected to be available and to provide considerable flexibility in case conditions and value relationships change enough to dictate utilizing alternate investment strategies. Accordingly, the portfolio profile is quite different from one which would not have major new infusions of cash.

Assuming a 12 year average life for the Government National Mortgage Association Pass Throughs, the portfolio's weighted maturity is about 22 years, (a little more than the corporate bond market's 18.7 years and somewhat longer than we would normally recommend at this time.) The 50% position in GNMA 8% Pass Throughs is in recognition of the superior cash flow such investments provide. This adds flexibility for reinvestment in a rising interest rate environment.

Quality is another predominant characteristic of this portfolio as 50% is represented by Government guaranteed obligations and another 40% is invested in AAA securities. Normally, the riskier an investment, the more an investor should expect to be compensated in the form of higher yield or return. At times, however, it is possible to sacrifice very little yield or return in order to switch into less riskier or high quality investments. We have thus recognized the compression that has occurred in the yield spreads during this economic recovery between the various quality sectors of the bond market. When interest rates rise, the yield spread between issuers of different quality tends to widen as investors become more sensitive to gradations of risk.

Representation in the particular corporate sectors of the bond market was made largely on the basis of the attractiveness on a relative yield basis. The yield relationship of these sectors to each other, and other sectors is studied and a sense of value can be developed about these sector relationships when fundamental or technical data affecting individual issuers or industries are taken into consideration.

ALASKA FUND

PROFILE OF RECOMMENDED PORTFOLIO

		<u>Market Price</u>	<u>Maturity Yield</u>
50%	Government National Mortgage Association Mortgage Backed Pass Thru Securities 8% (Average Life 12 Years)	98 3/8	8.32%*
20%	AAA American Tel. & Tel. and Subsidiary Companies 8 1/4% 40 Year Bonds	100 1/4	8.23%
10%	AAA Oil Company (Various) 8 1/2% 25 Year Bonds	103 1/4	8.20%
10%	AA Industrial Companies (Various) 8 1/2% 27 Year Bonds	103	8.22%
10%	AAA Financial Companies (Various) 8 7/8% 25 Year Bonds	105 1/4	8.35%
	Weighted Average Yield to Maturity		8.28%

*Corporate equivalent yield to average life

APPENDIX I

ALTERNATIVE ECONOMIC FORECASTS

(I) Extended Expansion

The period 1976 through 1979 is one of above-trend rates of real economic growth and moderate inflation rates. The suspension of the \$11 billion Carter rebate in April, 1977 only slightly diminishes the rate of economic growth and enhances substantially the prospect for continued stable rates of inflation. Moderate inflation rates (e.g., 5-6%) and increasing employment spur real income growth (e.g., 4-5% per year) and the consumer continues to spend at above-trend rates (3-4% rate of growth in personal consumption expenditures) during the entire forecast period. Recent consumption patterns, which have emphasized auto purchases, do not indicate a peak in the thrust of consumer spending. The current high levels in consumer credit extensions relative to income decline as the composition of consumption shifts to other durables and nondurables which involve less extensive use of credit.

Business spending on plant and equipment begins to increase markedly during the second half of 1977 as operating rates rise. Real capital spending increases about 7-8% both in 1978 and 1979, which, while modest in comparison to prior capital spending cycles, is sufficient to maintain capacity utilization rates below an inflationary threshold of 86%.

The increase in capital spending by business is a response to a favorable outlook for sales growth financed by considerably improved internal cashflow. Corporate profits (which increase at a 12% rate through 1978) benefit from moderate rates of productivity growth which suppress cost increases. This increase in profitability is sufficient to finance both inventory and capital investment as well as increased dividend payments to shareholders.

Throughout the expansion, the Federal Reserve follows a policy of mild accommodation. The recent rise in the Federal Funds rate of 100 basis points is a successful attempt by the Fed to choke excessive money supply growth while credit demands are relatively weak. A combination of business caution regarding long-term investment (despite record increases in profitability) and a decline in the Federal government's net demand for funds moderates upward pressure on interest rates.

In addition, the flow of funds from commercial bank time deposits to open market credit instruments, as open market rates rise above bank deposit rates, reduces the rate of growth in M2 to the middle of the Federal Reserve's target range (about 10%). In summary, the Fed is able to control the rates of growth in the various monetary aggregates without inviting a political confrontation over rising interest rates.

Finally, the international outlook improves. Inflation rates, especially in the weaker European countries, France, England and Italy begin to decline in response to domestic austerity programs and internally imposed limits on money supply growth.

The U.S., Japan, and Germany, as a result of their relatively high rates of economic growth, provide needed export markets for weaker countries, and the OECD countries, excluding the United States, achieve a 4% average rate of real growth during 1977, 1978 and 1979.

Summary of Extended Expansion
(percent change - annual rate)

	Actual 1976	Forecast		
		1977	1978	1978
GNP	11.3	10.5	10.5	10.0
GNP 72 Deflator	6.1 5.1	5.0 5.5	5.0 5.5	4.0 6.0
Corp. Profits	28			9.0
Unit Labor Costs	3.6	5.0	5.5	5.5
Compensation	7.4	8.75	7.5	7.5
Productivity	3.6	2.3	2.0	2.0

Source MHTCo. Trust Division and Data Resources, Inc.

(2) Delayed Expansion

The economy slows in 1977 as a result of weak final demand. The rate of growth in final demand has averaged only 4.1% since the beginning of the year and has suggested an unsustainable dependence on abnormally high levels of automobile and truck demand during most of the year. In fact, recently released Gross National Product data for the third quarter indicates a sharp shift in durable spending away from autos. Thus, growth in the consumer durable sector, which has contributed a substantial portion of the increase in economic growth during the current expansion, is forecast to decline to rates of growth more in line with other consumer sectors (4%) during the remainder of 1977.

Business investment also is weaker than expected and the capital spending cycle that was expected to provide a substantial impetus to real growth in 1977 does not materialize until 1978. Moreover, inventories are considered excessive in light of the short-term weakness in demand, and some liquidation takes place in 1977.

The result of weaker demand is to dampen the inflation rate, boosting real personal income and prolonging stable or slightly declining interest rates through 1978. The pattern of the business cycle is altered considerably, showing an intermediate term reduction in the growth rate in 1977--and a recovery in real growth (accompanied by lower inflation rates) in 1978.

In general, 1978 and 1979 are years of above-trend growth in both the consumer and investment sectors. Business, encouraged by a continued stable pattern of unit labor costs and an exceptionally favorable outlook for sales, begins to invest heavily. Nonresidential fixed investment increases more than 10% in both 1978 and 1979 which extends the availability of capacity and contributes to price stability.

Corporate profits increase slowly in 1977 and then accelerate in 1978 providing substantial internal liquidity from which to finance investment. Because of the relatively modest credit demands and declining inflation rates in late 1978 and 1979, the Federal Reserve is able to pursue a policy of mild accommodation throughout the period.

Summary of Delayed Expansion Forecast
(percent change - annual rate)

	Actual	Forecast		
	1976	1977	1978	1979
GNP	11.3	8.5	10.0	8.5
GNP 72 Deflator	6.1 5.1	4.0 4.5	6.0 4.0	5.0 3.5
Corp. Profits	28	7.8	17.4	5.0
Unit Labor Costs	3.6	4.5	3.0	3.5
Compensation	7.4	7.0	6.5	6.5
Productivity	3.6	2.5	3.5	3.0

Source: Donaldson, Lufkin, & Jenrette and MHTCo Trust Division estimates.

(3) Stagnation/Recession

After a moderate recovery in 1976, the economy settles into a period of high but not accelerating inflation (7-7 1/2%) and moderate to slow rates of economic growth. Food and fuel prices (which together comprise about 30% of the CPI) continue to rise throughout 1977 and 1978. Drought conditions in the United States reduce crop yields which affect meat, grain and fruit and vegetable supplies. Moreover, a combination of natural gas deregulation and OPEC oil price increases put upward pressure on fuel prices adding about .5 to 1.0% to the CPI over the period. Real personal income growth declines from 5% in 1976 to 2.5 to 3.0% through the end of 1978 so the growth consumption is no more than about 2%. The unemployment rate fluctuates around 7% and the Federal government expands job programs in an attempt to reduce the rate further.

This forecast describes a generally stagnant economy in which there is no significant addition to productive capacity. Unit labor cost increases absorb most of the profit advantage of increased prices and productivity remains below average. The Federal government is confronted by a policy dilemma: either to increase spending substantially in the hope of encouraging private investment, or to attempt to reduce inflation with another recession. Weaker foreign economies also experience relatively slow rates of real growth but at higher inflation rates. By the end of 1978, the level of unemployment is high in most industrialized countries and prospects indicate that the rate of real growth is likely to continue to deteriorate still further without any noticeable effect on the inflation rate.

Summary of Stagnation Forecast
(percent change - annual rate)

	Actual	1977	Forecast	
	1976		1978	1979
GNP	11.3	10.5	8.0	5.5
GNP 72 Deflator	6.1 5.1	4.0 6.5	1.0 7.0	-0.5 6.0
Corp. Profits	28	10.2	-3.4	-10.0
Unit Labor Costs	3.6	6.0	8.5	8
Compensation	7.9	8.0	8.5	7
Productivity	3.6	2.0	0	-1

Source: Data Resources and MHTCo Trust Division estimates.

(4) Recession

The expansion continues at above-trend rates of growth through the first half of 1978 accompanied by a decided cyclical rise in the inflation rate. The sources and pattern of growth under this scenario are very similar to the Extended Expansion forecast except that the rate of inflation begins to rise earlier and more sharply. In fact, this scenario describes the normal cyclical pattern of inflation where, despite productivity gains, costs begin to rise as the supply of resources (labor and capacity) becomes more limited and both wages and prices begin to drift upward. The problems of capacity limitations are particularly pronounced as a result of the delay in capacity additions in certain basic industries, such as aluminum and paper, and the adverse effect of rising energy costs on the effective utilization of existing capacity in other capital intensive industries.

The consumer becomes less confident as inflation rises and real income gains are pared. Consumer purchases of durables which have continued at relatively high levels throughout most of the expansion begin to deteriorate late in 1977 and nondurable purchases begin to decline in 1978.

In this forecast, corporate profits begin to diminish sharply during the second half of 1978 and capital projects are withdrawn. Capital spending by corporations deteriorates due both to the strain placed on internal funds as a result of declining profitability and to the relative unattractiveness of external funds as both long and short-term interest rates rise to peak levels. The effect of the deterioration in capital spending growth which is less than 10% of real GNP is not evident in the economy until 1979.

During 1979, real growth in the U.S. declines. Foreign countries that have depended on the economic leadership of the U.S. to spur their own internal economies begin also to contract. A decline in world-wide production reduces the level of oil imports of industrialized countries and consequently the marginal increase in their combined

balance of payments deficit with the OPEC countries. The decline in growth and income, however, strain the ability of industrialized countries to finance the existing deficit and the perception at the end of 1979 is one of both economic and financial crisis.

Summary of Recession Forecast
(percent change - annual rate)

	Actual	Forecast		
	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>
GNP	11.3	12.5	10.5	6.0
GNP 72	6.1	5.5	3.0	-0.5
Deflator	5.1	7.0	7.5	6.5
Corp. Profits	28	20.5	7.3	-10.0
Unit Labor Costs	3.6	5.0	7.5	9
Compensation	7.4	8.0	8.5	7
Productivity	3.6	3.0	1.0	-2

Source: Data Resources, Inc. and MHTCo. Trust Division estimates.

JOSEPH L. McELROY, EXECUTIVE VICE PRESIDENT

Birth Date: May, 1929

Education: LL.B, New York Law School
BS, Georgetown University
Stonier Graduate School of Banking at Rutgers University
Advanced Management Program - Harvard University Business School

Business Experience: Manufacturers Hanover Trust Company

1977: Executive Vice President in charge of the Trust Division

1971-1977: The Bank of New York, Executive Vice President in charge of the Trust Division

1954-1971: The Bank of New York, Trust Division

1951-1954: First Lieutenant, U.S. Army

Organizations: President, Corporate Fiduciaries Association of New York City
Education Committee of the Trust Division the American Bankers Association

MHT Co. Boards and Committees: General Administrative Board
Personnel Policy Committee
Chairman, Corporate Trust Committee
Senior Investment Committee
Chairman, Board of Trustees of the MHT Co.
Quarter Century Club Scholarship Fund
Public Responsibility Committee
Chairman, Directors Trust Committee

VICTOR J. MELONE, SENIOR VICE PRESIDENT

Birth Date: November, 1933

Education: MBA, New York University Graduate School of Business
BA, Saint Peter's College

Business Experiences: Manufacturers Hanover Trust Company

1977: Senior Investment Officer - Trust Division

1974-1977: Vice President and Director of Research, Prudential Insurance Company

1972-1974: Senior Vice President and Director of National Research, Dean Witter & Company

1968-1972: Vice President and Director of Research, Blyth & Company, Inc.

1959-1968 Investment counseling, portfolio manager and research

Organizations: New York Society of Security Analysts
Chartered Financial Analyst

MHT Co. Committees: Chairman, Senior Investment Committee
Chairman, Investment Officers' Committee
Directors Trust Committee

WILLARD L. WHEELER, JR., SENIOR VICE PRESIDENT

Birth Date: October, 1932

Education: MBA, University of Chicago
BA, Cornell University
National Trust School
Investment Management Program - Stanford University

Business Experience: Manufacturers Hanover Trust Company

1973 to date: Officer in Charge, Employee Benefit Trust Department

1971-1973: Senior Officer, Employee Benefit Trust Investment Department

1968-1970: Investment Officer, Employee Benefit Trust

1957-1968: Portfolio Officer, Northern Trust Co., Chicago

Organizations: Investment Analysts Society of Chicago
National Foundation of Health, Welfare and Pension Plans, Inc.
American Pension Conference
Cornell Alumni Society
Advisory Committee-Stanford University Graduate School of Business
Past Member, New York State Bankers Association
Employee Benefit Committee

MHT Co. Committees: Senior Investment Committee
Portfolio Management Committee (Ad Hoc Member)
Trust Investment Committee
Directors Trust Committee

DIMITRI N. BALATSOS, VICE PRESIDENT

Birth Date: 1941

Education: MA, University of California - Berkeley
BA, Knox College (top of class)

Business Experience: Manufacturers Hanover Trust Company

1973 to date: Vice President and Economist

1971-1973 Assistant Vice President

1965-1971 Life Insurance Association,
Associate Economist

Organizations: Various Economic Associations

MHT Co. Committees: Author of quarterly Financial Report
Co-author Weekly Financial Digest

HARALD S. deROPP, VICE PRESIDENT

Birth Dates: January, 1936

Education: MBA, Wharton Graduate School of Business
BA, University of Delaware

Business Experience: Manufacturers Hanover Trust Company

1962 to date Portfolio Manager, Employee
Benefit Trust Investment Department

1961-1962: Security Analyst, Investment
Research Department

Organizations: Bond Portfolio Managers Association

MHT Co. Committees: Portfolio Management Committee
Trust Investment Committee

JOEY L. McCANDLESS, VICE PRESIDENT

Birth Date: December, 1929

Educations: AB, Princeton University 1951
Princeton Graduate School of Psychology 1952
New York Trust School

Business Experience: 1973 to date: Manufacturers Hanover Trust
Company Trust Division

1958-72: Football Coach, Princeton University

1955-58: Teacher - Coach, The Kent School,
Kent, Connecticut

1952-55: Teacher - Coach, St. Mark's School,
Southboro, Massachusetts

Organizations: International Foundation of Employee Benefit Plans
Association of Private Pension & Welfare Plans,
Regional Chairman
National Association of State Retirement Administrators
National Council on Teacher Retirement
National Conference on Public Employee Retirement
Systems
American Pension Conference
National Football Foundation and Hall of Fame