State Centralized Investment Process-Structure, Controls, and Operations

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PREFACE

The purpose of this study was to examine the unique character of the state centralized investment process adopted by a few states to secure a maximum efficiency in their investment programs.

Investment of state funds has become increasingly important in recent years. Cash and security holdings of all states in 1963 exceeded $35 billion and had nearly tripled since 1951. Even more significant was the $30 billion of security holdings representing 86 per cent of total funds and more than three times the 1951 level.

A state has a number of alternatives in the face of rising balances in its treasury. At the one extreme, the funds can be allowed to accumulate with no attempt to make any investments. On the other hand, a sound, businesslike investment program can be devised to make the greatest possible use of these funds. Proper handling of state funds in this modern day demands such an investment program.

The author is indebted to many individuals and groups for assistance in completing this study. Professor Clifford M. Hicks, Chairman, Department of Business Organization and Management, University of Nebraska, was particularly helpful with his creative guidance and valuable suggestions throughout the study. Many state organizations, state treasurers, and others furnished data and background material. There were many friends who forwarded bits and pieces of information which were very important because of the lack of published material on this topic.

Finally, such a study would have been impossible without the generous cooperation and assistance of specific state officials in the three special-study states. These include The Honorable Val Björnson, Treasurer, State of Minnesota, who was especially helpful as he shared his interest, knowledge, and understanding of this field; Mr. Robert E. Blixt, Executive Secretary, Minnesota State Board of Investment; Mr. Harold S. Wood, Assistant Director, and the late William F. Voorhees, Jr., Director, Division of Investment, State of New Jersey; and Mr. Charles F. Jacobson, Jr., Financial Vice President and Treasurer, Bankers Life Nebraska, formerly Executive Director, State of Wisconsin Investment Board.

Responsibility for the contents of the manuscript is, of course, my own.

Miles Tommeraasen

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PURPOSE OF THIS RESEARCH

There are many sources of funds for a government. Taxes, licenses, and fees of various kinds constitute the major portion of this inflow of funds.

When it has been considered necessary as a part of the flow that these funds be invested, this usually has been done by the local officer, possibly with the assistance of an advisory group, and within a very limited choice of investment forms.

A New Element

The new dimension is an increasing recognition that many funds, such as permanent or trust funds, flow to a government solely to be invested; other funds, such as pension and retirement funds, require investment because of inherent characteristics; and still other funds, such as current operating balances, can be utilized in a more fully developed program. The indication is that the larger cash flows are not frequently employed. They require professional attention and a widening of the area of permitted investments.

A few states have pioneered with the idea of a state centralized investment process encompassing controls on all cash flows and

wide investment discretion in the hands of professionally trained investment personnel. The basic purpose of this research is a close examination of trends and a presentation of the distinctive structure, controls, and operations of these more sophisticated state investment programs.

A Topic of Wide Interest

The mere investment of state funds is of general interest as evidenced by the newspaper items noted in the first paragraph. Taxpayers can appreciate the appearance of any non-tax source of greater state revenue. They are aware of the increasing tax burden in which they have shared in recent years. They are generally aware that government expenditures increased considerably during World War II and have continued at high levels in the postwar period. However, they are less aware that the depression of the 1930's and the war effort of the 1940's left a huge backlog of deferred construction, repairs, and maintenance that still looms large in the planning at every governmental level.[1] These factors, the "cold" war, and a widely publicized population explosion, give every indication of a continuing high level of government expenditures in the future.

Teachers and state employees covered by the pension and retirement funds have a special interest, beyond their concern as taxpayers, in an investment process that can provide more adequate pensions for them in the future.

Finally, a more efficient and businesslike approach to state investment problems, represented by the basic features of a state centralized investment process, is of considerable interest to government officials who must cope with them on a daily basis. A number of requests for information and inquiries as to results were received during this research.

In short, this topic is in an area of wide, general interest as well as specific interest to students of investments and finance and to those working in the field of government finance.

More Information Needed

Few taxpayers have any knowledge of the type of funds which may be available for investment by a state government, the wide

[1] See, for example, O. H. Brownlee and Edward D. Allen, *Economics of Public Finance*, (Prentice-Hall, Inc., Englewood Cliffs, N. J., Second Edition, 1954), Chapter 2.

range of investment possibilities for such funds, or the mechanics of such a program. Fewer have any concept of a state centralized investment process designed to implement such a program, especially the more advanced programs that exist in a few states.

The significance of the investing of certain state funds needs to be better understood by the general public, by those who represent that public in the state legislatures, and by state officials who are charged with the responsibility of administering the affairs of the states to secure the greatest benefits for the citizens of that state. In some states the opportunity to invest state funds has been almost completely ignored. In these cases, probably few of its citizens are aware of the real financial advantages being realized by other states and these few are blocked by legal restrictions and political pressures from instituting the necessary changes.

In other states a beginning has been made but many problems remain unsolved preventing a more complete development of the principle of investing state funds. Only a few states have removed legal restrictions and enacted the necessary legislation to provide the framework and organization required for a more effective centralized program of investment. The key factor in the more fully developed program of a few states appears to be the state centralized investment board with adequate powers and staff to really function.

More information in the proper hands is a general prerequisite to obtaining the necessary understanding and support to begin such a program or improve one which needs to be more fully developed. The insufficiency of published information on this subject is a very real barrier to significant progress.

Boundaries of This Presentation

While a general trend toward greater investment of idle cash balances can be observed, this presentation is limited to the investment of state funds, especially to the funds managed by a state centralized investment board.

It must be recognized that states have had cash balances which have been invested and other assets which may be considered to be investments for almost as long as the various states have existed. No attempt will be made to explore and describe all the many forms taken by such investments in the past. Furthermore, the source of such funds has varied over the years and from state to state. The boundaries of this discussion are set, however, by that which comes

within the sphere of the state centralized investment board and not by type of investment or source of funds.

BASIC BACKGROUND CONSIDERATIONS

There are basic background considerations which need to be included in an introduction to establish a frame of reference for the discussion to follow.

State Financial Problems

At the state government level the problem of financing needed expenditures has been particularly acute in recent years. Since World War II, state governments have been squeezed between increasing expenditures and inadequate revenues; the latter the result, in part, of the heavy tax burden imposed by the federal government and by local governments on the same taxpayers who must also pay any new or increased taxes levied by a state government.[2]

In these circumstances, both state officials and taxpayers can be expected to welcome any suitable non-tax source of state revenue. While it would hardly be considered a major source of revenue, the development of a full-fledged state centralized investment process with adequate powers to invest state funds can result in significant additional revenue for an alert state government.

Expansion of a Trend

Maximizing investment returns is a financial development which is not limited to the area of state government. There are other groups in our economy that are attempting to make earning assets out of cash balances which have been "idle" in prior years.

Cities, for example, have been investing the proceeds of bond issues until such time as completion of a project or until bills are presented for payment. In some cases there are current tax collections which will not be expended for several months and these are invested until needed.

Business corporations also are employing this principle of converting idle cash balances into earning assets to a greater degree than in the past. This is in addition to the past practice of many corporations of investing excess cash balances in government securi-

[2] Advisory Commission on Intergovernmental Relations, *Investment of Idle Cash Balances By State and Local Governments.* (Washington 25, D. C., January, 1961), p. 1.

ties or some other temporary investment. These corporations are now substituting drafts for the checks they were writing to suppliers and employees and even to make dividend payments.[3] The funds which would have been required to be on deposit if checks were used are temporarily available for investment. When the potential earnings of $1 million invested for one day are approximately $100, a large payroll or dividend payment in drafts which will not be presented for payment at the bank for days can earn a company more than $1,000 per week.

The federal government also has been examining its idle cash balances. The balances in question are those in the Treasury Tax and Loan accounts in thousands of banks across the country. These accounts consist of deposits of federal taxes and proceeds from the sale of government securities which have not been withdrawn by the treasury. They are earning assets for the banks on which they pay no interest because they are demand deposits on which interest payments are prohibited by law. In a May, 1962, report to the Congress of the United States, the Comptroller General recommended, in part:

> We are recommending that the Congress consider the desirability of enacting legislation establishing a general policy requiring that the banks pay to the Government amounts approximating the excess of the earnings value to them of the tax and loan accounts over the cost of services rendered to the Government.[4]

The treasury had opposed this position in a prior report in 1960.[5] The American Bankers Association agrees with the treasury that such a proposal is not practicable and would discriminate among banks according to their size.[6] While there are opposing positions, this item is significant as another indication of widening interest in investing cash balances.

The final example is quite unusual and concerns yet another level of government. An officer of a large city bank recently advised the author that it is the regular practice of a Public Housing Authority of that city to "sell" its balances to his bank at the close

[3] Peter Vanderwicken, "Money at Work," *The Wall Street Journal*, August 29, 1961, p. 1.

[4] The Comptroller General of the United States, *Review of Treasury Department Study of Treasury Tax and Loan Accounts, Services Rendered By Banks For The Federal Government, and Other Related Matters*, May, 1962, p. 7.

[5] *Ibid.*, p. 39.

[6] "Tax and Loan Accounts," *Banking*, Vol. LVI., No. 1, (July, 1962) p. 42.

of business on Friday and "buy" them back on Monday morning. The Housing Authority thus receives two days interest on its "idle" balances.

It is apparent from these examples that more efficient financial management as represented by the investment of idle cash balances is something of a general trend and is not simply an experiment by state governments, nor is it only a government practice or technique.

Concept of Proper Handling

There is a concept of "proper handling" of state funds which is a factor in the modern state centralized investment process. The problem of proper handling for government cash balances is not a new one but the present day problem differs from the problem of 30, or 50, or 100 years ago.

There are some very interesting historical accounts of the custody and even the investment of public funds. Prior to the development of the banking system and, in some cases, because of the lack of adequate banking facilities public funds were simply locked in a vault until needed. Protecting the tax collections was largely a matter of guarding them against loss by theft. Although it deals with federal funds and is somewhat extreme, the following example is an excellent illustration of this point:

> In remote parts of the country, however, the problem of safe custody was unsolved. In 1854 a Treasury agent declared that in the whole Ohio Valley the government had no building or vault in which to deposit a dollar. He described the situation in Jeffersonville, Indiana, just across the Ohio river from Louisville. A room adjoining the bar in the chief tavern in the town was judged to afford the greatest available security. Inside it were wooden boxes holding the silver and an iron safe for the gold. Around the room was a low gallery from which the receiver of public money could throw down upon any intruder stone bottles, of which an ample supply was kept in stock. The agent slept in this room with guns, pistols, and pikes. "In this fantastical fortification was kept, for years in succession, hundreds of thousands of dollars of the United States money. . . ."[7]

Proper handling of the funds in this case was solely a problem of custody and protection against theft. As the banking system developed, this facet of the problem decreased in importance.

[7] Leonard D. White, *Introduction to the Study of Public Administration*, (Fourth Edition, The Macmillian Company, New York, 1955), p. 236.

Public funds could be deposited in banks and the primitive practice of holding them out of circulation in a vault had been generally abandoned by 1925.[8] Proper handling, at this point, involved decisions as to which banks should receive deposits and what earnings, if any, might be received on such deposits.

Earning Assets

With the funds in the hands of the banks, not only was the difficult and expensive problem of custody thus solved, or at least reduced, and the funds returned to circulation for the benefit of the economy, but it was possible for them to become earning assets providing additional revenue for the state.

Two problems arose at this point. In the first place, the banks did not always pay interest on state deposits. Whether it was a matter of bank policy, a matter of considering that the interest was retained to cover charges for the bank's services, or a matter of an "understanding" with the elected state officials responsible for placing the deposits, the fact is that the states did not automatically receive interest on such deposits.

The second problem was that any interest which was paid did not necessarily accrue to the benefit of the state. While the "understandings" mentioned above may have involved bank loans, cash payments, and other considerations to, or on behalf of, the same elected state officials,[9] one should not infer that all such instances were fraudulent.

There was considerable support, especially prior to 1900, for the notion that the treasurer was entitled to any earnings he might receive from the use of public funds. It was reasoned that since the treasurer was personally responsible for the safety of the funds and was required to furnish bond, the funds were his until needed by the state or until he left office. Therefore, any earnings on such funds were also his and should be of no concern to the state.

An indication of the general acceptance of the notion that the treasurer was expected to retain the earnings from public funds is found in a discussion of local government published forty years ago. The author reviews the complex problems which had developed around the simple duty of having custody of public funds, the

[8] Martin L. Faust, *The Custody of State Funds,* (National Institute of Public Administration, 261 Broadway, New York City, 1925), pp. 6–7.

[9] *Ibid.,* pp. 52–54.

absence of legal direction as to policies or procedures, and the payment of interest on such funds:

> If the law does not forbid, the treasurer may retain for himself the interest that is paid on the funds deposited. In case the law does forbid him to retain the interest thus earned it is still possible for him to make arrangements with bankers whereby a low rate of interest will be paid over to the county treasury, but substantial gifts may be made to the treasurer on the side. These so-called gifts may take a variety of forms and are exceedingly difficult to discover.[10]

Removing state funds from the vaults and depositing them with the banks was, therefore, not a guarantee that state revenues would be increased. On the contrary, the states could, and often did, have problems with failing banks and manipulation of deposits by state officials and banks which resulted in greater losses than the mere loss of interest earnings.

Centralized Investment Board Antecedents

In an effort to meet the problems already noted, many states formed committees or boards to select the banks which would be eligible to receive state deposits.[11] These boards might be considered to be primitive forerunners of today's state centralized investment boards since they invested the state's idle cash balances at least to the extent of designating the banks to receive deposits and sometimes received income for the state from these deposits.

Perhaps state centralized investment boards would have developed some years ago if it had not been for the revision of the federal banking laws in 1933 and 1935. Interest earnings for the states were virtually eliminated by the prohibition on the payment of interest on demand deposits. Most states had both "active" and "inactive" accounts with the banks but both types were generally considered to be demand deposits on which no interest could be paid.[12] The vantage point of the future may make it possible to judge whether a trend toward more efficient financial management of growing state cash balances in the first 30 years of the 20th century was interrupted by this ban on interest payments and resumed a few years later as balances mushroomed and other sources of income were found to be proper. At this point, it seems that the

[10] Kirk H. Porter, *County and Township Government in the United States,* (The Macmillan Company, New York, 1922), p. 219.

[11] Faust, *op. cit.,* p. 60.

[12] White, *op. cit.,* p. 237

stage was thereby set for the later appearance of various boards and the more fully developed state centralized investment process to seek earnings on such funds.

It is safe to say that all states have incurred losses resulting from missed earnings on their funds totaling millions of dollars in recent decades. The losses, have resulted, in part, from failure to invest available funds. Additional losses resulted from the difference between the earnings which were received on minimal investments and those that might have been secured with a co-ordinatd program of the type recently developed in several states.

Such a criticism based on hindsight is extremely unfair to the devoted public servants who have struggled to do an adequate job with public funds within the boundaries of existing legal restrictions formulated in an earlier era under different circumstances. A fairer appraisal would recognize the many pressures and view the past as somewhat logical stages of development leading to the present pattern as discussed in the following chapters.

ORGANIZATION OF PRESENTATION

The organization of the data for this study presents: (1) the purpose of this research and general background material (Chapter I); (2) the types of funds available for investment and alternatives for investing such funds (Chapter II); (3) the unique character of a state centralized investment process (Chapter III); (4) the general structure, organization, and powers of a state centralized investment process with special study of three states selected because of size, experience, and unusual characteristics of their programs (Chapter IV); (5) the controls exercised over funds, policies and administration of the investment process (Chapter V); (6) the investment policies followed in investing state funds with specific attention to the policies of the three special-study states (Chapter VI); (7) the investment results obtained with the processes already described (Chapter VII); and (8) a statement of conclusions and recommendations (Chapter VIII).

This particular organization of the presentation has been selected because the structure, controls, policies, and results are best understood when reviewed within the frame of reference of the types of funds that are invested or may be invested. The nature of these state funds, their requirements, the problems resulting from the growth of certain funds, and investment alternatives are, therefore, presented in Chapter II.

II / State Funds Available: Investment Alternatives

THE BALANCES which remain in the hands of state governments from the total flow of funds have been reaching a new record every year of the past fifteen years. A particularly sharp increase was recorded in only the last five year period. Among fifty states, there is a wide variety in these balances as to size, origin, nature, and names or designation but the material segments have common characteristics that permit classification for study. The purpose of Chapter II is to examine these balances and indicate possible alternative courses of investment action.

STATE INVESTMENTS ACQUIRING GREATER IMPACT

The impact of the idea of investing state funds and the development of a state centralized investment process with broad powers is much greater today than at nearly any time in the past. States find themselves with funds of various types ranging from several million dollars to hundreds of millions or even over the billion dollar mark. As recently as ten or twenty years ago the nature of the funds and the size of the balances were so different as to render the significance of a state centralized investment process much less important.

Table I presents nation-wide figures for total cash and security holdings and indicates the amount and percentage held in the form of securities for every year since 1950. The total holdings are net of unemployment compensation fund balances with the U. S. Treasury. The latter balances vary with circumstances from state to state, are not within the control of state officials, and distort percentage computations, especially in the state by state presentations of subsequent tables.

All dollar amounts in Table I are stated in billions of dollars.

TABLE I. TOTAL CASH AND SECURITY HOLDINGS OF ALL STATES AS OF JUNE 30

(in billions of dollars)

Year	Total Cash and Security Holdings*	Securities	Per cent Securities to Total
1963	$35.4	$30.4	86%
1962	32.9	28.3	86
1961	29.8	25.5	86
1960	27.3	23.2	85
1959	24.3	20.3	84
1958	23.1	18.8	81
1957	21.9	17.9	82
1956	20.8	16.6	80
1955	18.6	14.6	78
1954	17.1	13.3	78
1953	15.3	11.6	76
1952	13.7	10.2	74
1951	12.5	9.1	73

*Exclusive of unemployment compensation balances in U. S. Treasury.

Source: Bureau of the Census, *Compendium of State Government Finances in 1963*, (U. S. Government Printing Office, Washington, D. C., 1964), p. 41, and similar reports for prior years.

A similar rounding process has been followed for other tables. This rounding results in clearer and more concise presentations of large figures. However, it also obscures the tremendous size of the dollar amounts involved in any discussion of this area of state investments which can be observed from the data in Table I where the total cash and security holdings for 1963 would be read in full as $35,378,016,000.00.

Two significant facts concerning the increased impact of the idea of investing state funds are underscored in Table I. First, the absolute size of the total cash and security holdings is not only large but has nearly tripled in the short space of 12 years. In the simplest, absolute terms, this fact should make the proper handling of these balances at least three times as important as it was only 12 years ago. Furthermore, the increase in the 4 years since 1959 was approximately equal to the 8 year increase between 1951 and 1959. There is a similar pattern of increase in the dollar amounts of security holdings.

A second significant fact is the relative change in the figures in Table I. While the total cash and security holdings did not quite triple in 12 years, the dollar amount of securities more than tripled. The percentage of the total held in the form of securities increased steadily from 73 per cent to 86 per cent during this short period of time.

The idea of a co-ordinated program in the form of a state cen-

TABLE II. SUMMARY OF TOTAL CASH AND SECURITY HOLDINGS OF INDIVIDUAL STATES—BY SIZE OF HOLDINGS AS OF JUNE 30, 1963
(in millions of dollars)

Size of Holdings	Number of States
Over $1,000	7
$700 to $1,000	5
$500 to $ 700	9
$300 to $ 500	9
$100 to $ 300	15
$ 50 to $ 100	5
Total	50

Source: Derived from Bureau of Census, *Compendium of State Government Finances in 1963*, (U. S. Government Printing Office, Washington, D.C., 1964), p. 41.

tralized investment process acquires greater significance when total balances are increasing at this rate. The increase in the invested proportion of these balances adds to this importance as well as indicating the acceptance of investment in securities as a modern "proper handling" of state funds.

The $35.4 billion total cash and security holdings are not distributed equally, of course, among the 50 states. Table II summarizes the actual distribution of total holdings in 1963 by general size.

This summary discloses that almost every state has total holdings in excess of $100 million. Of the five states below that level, none are less than $50 million and, based on the underlying data, all appear likely to exceed $100 million in a few years. While there is a concentration of total holdings in the 12 states exceeding $700 million, 30 states exceeded the $300 million level.

It would appear that holdings of this magnitude are large enough to encourage, if not require, every state to review its investment process in an effort to ascertain whether all important elements employed by other states have been included. The loss of potential earnings on total holdings at these levels can easily reach several million dollars per year. Assuming only the lower limit of $300 million for 30 states, a failure to invest 20 per cent of this balance at an average yield of 4.00 per cent would result in a loss because of missed earnings of $2.4 million. If the average yield on invested holdings were only 3.00 per cent, there is an additional loss of another $2.4 million. The total loss of potential earnings is, thus, nearly $5 million at the lower limit of $300 million. A closer examination of these factors is included in Chapter VII.

There have been many changes in our economy that also increase

the present impact of the idea of investing state funds as compared to the day when it was sufficient to guard them against theft. Changes in such factors as the types of securities available, regulation of securities and security markets, the attitude of the taxpaying public, legislators, and public officials, might also have resulted in greater investment of state funds in recent years. Probably none of these factors would have resulted in much action, however, if it were not for the pressure of the rapid increase in the dollar amounts involved.

STATE FUNDS AVAILABLE

There is a wide variety of funds included in the increasing balances already described. The characteristics of the funds vary from state to state and they are recorded by each state under a variety of titles. However, there are common elements to nearly all of these balances that make it possible to classify them for further study.

While other groupings are possible, the balances which are commonly invested within a state centralized investment process were categorized for the purposes of this research into the following three groups: (1) permanent funds, (2) retirement funds, and (3) operating funds. These categories will be retained in subsequent chapters.

Permanent Funds

Permanent funds (or trust funds) are not new to state finances. They are balances acquired many years ago or amounts which have been accumulating and have been invested for some years. Typical examples of such permanent funds are: State Historical Society Trust Fund, State Building Trust Fund, Permanent School Fund, Permanent University Fund, Swamp Land Fund, and an Internal Improvement Land Fund.

These funds, accumulated through taxes, royalties, grants, and gifts, are held as permanent funds with only the earnings from them to be used for the designated purposes. This is their common characteristic. The principal of the funds may not be expended or such expenditure is restricted to specific circumstances not likely to occur. For all practical considerations the funds are permanent balances of the state and the only way to accomplish the designated purposes is to invest the funds to earn income which may be expended.

One exception to these statements needs to be noted. Other funds were included in this category at different points in this research because an individual state included them or because it was a logical category for a small fund which could not be omitted from the totals. In either case, it was determined that such inclusion did not materially alter results.

These permanent funds flow to the state solely to be invested. The question raised here is whether such investments may be better handled within a state centralized investment process with professional personnel devoting full time to supervising the investing of these and other funds.

Retirement Funds

Retirement funds are a different type of fund but have similar investment requirements. These funds are created by the state for a specific purpose and grow through periodic payments into them by the state, political sub-divisions of the state, and by individuals. Both the principal and the earnings are to be expended for future retirement payments.

The balances of these funds consist almost entirely of State Teachers Retirement Funds and State Employee Retirement Funds. Some have been in existence for longer periods than others but all have experienced a major growth in the past twenty-five years. The rapid increase is the natural result of three major factors: (1) increases in the number of covered persons whether by expanded coverage or by additions to the work force; (2) increasing salaries, applicable ceilings, and rates, or some combination of the three; and (3) the disproportionately few persons drawing benefits from such funds in these early years of their development. There is little question that the pressure of these factors will result in further increases in these balances for many years to come.[1]

Other small funds were included in this category when individual states included them in totals. These funds had similar characteristics and did not alter results because they were immaterial when compared with the larger retirement funds.

Table III shows the size and growth of these funds for the past decade.

This table reveals that while total cash and security holdings

[1] Paul L. Howell, *Investment of Public Pension Funds*, a paper presented before the 55th Annual Conference, Municipal Finance Officers Association of United States and Canada, Seattle, Washington, May 25, 1961. Mr. Howell is a member of a firm of financial and pension consultants.

TABLE III. EMPLOYEE RETIREMENT FUNDS INCLUDED IN TOTAL CASH AND SECURITY HOLDINGS OF ALL STATES AS OF JUNE 30

(in billions of dollars)

Year	Total Cash and Security Holdings*	Employee Retirement Funds	Per cent Employee Retirement to Total
1963	$35.4	$17.5	49%
1962	32.9	15.5	47
1961	29.8	13.8	46
1960	27.3	12.1	44
1959	24.3	10.5	43
1958	23.1	9.2	40
1957	21.9	8.1	37
1956	20.8	7.1	34
1955	18.6	6.2	33
1954	17.1	5.4	32

*Exclusive of unemployment compensation balances in U. S. Treasury.

Source: Bureau of the Census, *Compendium of State Government Finances in 1963*, (U. S. Government Printing Office, Washington, D. C., 1964), p. 7, and similar reports for prior years.

of all states doubled between 1954 and 1963, the portion represented by employee retirement funds more than tripled. Moreover, the increase of $12.1 billion in the employee retirement funds between 1954 and 1963 accounted for 66 per cent of the increase of $18.3 billion in the total cash and security holdings.

These facts serve to emphasize the significance of retirement funds in any discussion of investing state funds. Their growth may even be considered the springboard for the development of more advanced investment programs in recent years.

All states have already recognized that retirement funds cannot be permitted to remain idle in a vault or in non-interest bearing accounts.[2] Failure to invest these funds can only result in more inadequate pensions, paying pensions from amounts paid in by others to the unending detriment of the future of the plan, future appropriations from taxes to supplement payments, or other financial loss to the state that might be avoided or reduced by proper handling of the amounts paid in.

The size of these pension funds in 1963 ranged from a little less than $5 million in South Dakota (a new fund with investments begun in 1960) to more than $3 billion in New York. The total for all states in 1963 was more than $17 billion, an increase of almost 70 per cent from the 1959 total of a little more than $10 billion.

[2] Investment Bankers Association of America, *State Pension Funds—Digest of Authorized Investments and Actual Investments*, (425 13th St. N.W., Washington 4, D. C., 1964).

TABLE IV. STATE PENSION FUNDS AT END OF FISCAL YEAR
(in millions of dollars)

State	1963	1961	1959
Alabama	$ 188.3	$ 153.5	$ 119.3
Alaska	12.2	5.1	3.2
Arizona	109.8	76.3	51.9
Arkansas	57.0	45.3	33.3
California	2,525.7	2,002.7	1,484.0
Colorado	143.6	101.9	70.2
Connecticut	261.6	213.0	169.5
Delaware	None	None	None
Florida	156.7	120.1	84.0
Georgia	264.5	196.0	159.8
Hawaii	184.7	146.6	129.7
Idaho	17.9	18.0	17.0
Illinois	330.8	249.6	182.2
Indiana	189.2	163.8	150.7
Iowa	157.7	119.6	91.7
Kansas	43.8	27.0	21.7
Kentucky	137.9	95.3	67.5
Louisiana	393.1	313.4	239.2
Maine	76.9	56.8	44.5
Maryland	326.7	260.3	200.0
Massachusetts	261.7	215.6	183.1
Michigan	337.6	286.0	210.5
Minnesota	233.1	174.2	139.6
Mississippi	54.4	38.0	25.0
Missouri	148.1	102.2	69.5
Montana	58.5	46.8	36.6
Nebraska	27.8	23.4	18.9
Nevada	36.2	26.1	18.0
New Hampshire	54.8	43.5	34.9
New Jersey	899.5	733.1	587.5
New Mexico	66.0	43.8	28.9
New York	3,136.3	2,399.3	1,838.0
North Carolina	390.3	287.3	240.7
North Dakota	19.0	15.9	12.7
Ohio	1,618.2	1,163.8	876.8
Oklahoma	71.5	57.2	45.5
Oregon	155.1	117.8	90.3
Pennsylvania	1,499.3	1,221.8	953.6
Rhode Island	58.4	46.1	35.0
South Carolina	171.5	138.6	113.3
South Dakota	4.9	1.9	None
Tennessee	163.8	126.3	99.9
Texas	801.5	616.3	462.4
Utah	45.0	30.5	22.7
Vermont	42.1	33.1	25.8
Virginia	202.9	155.1	115.9
Washington	301.5	231.6	177.8
West Virginia	108.9	82.3	74.2
Wisconsin	506.4	400.7	333.0
Wyoming	16.9	12.3	9.7
Total	$17,069.5	$13,234.8	$10,199.4

Note: Totals may not add because of rounding.

Source: Investment Bankers Association of America, *State Pension Funds—Digest of Authorized Investments and Actual Investments,* (425 13th St. N. W., Washington 4, D. C. 1964, 1962, and 1960).

TABLE V. TOTAL STATE GOVERNMENT EXPENDITURES FOR SELECTED YEARS

(in billions of dollars)

Year	Amount
1963	$39.6
1962	36.4
1961	34.7
1960	31.6
1959	31.1
1955	20.4
1950	15.1
1942	5.3
1938	4.6
1932	2.8

Source: Bureau of the Census, *Compendium of State Government Finances in 1963*, (U. S. Government Printing Office, Washington, D. C., 1964), p. 44, and other similar reports for prior years.

Table IV presents a state by state comparison of these funds in three recent years. The present rate of growth indicates that these funds will have doubled between 1959 and 1965.

It seems obvious that funds of this magnitude require a planned investment program tailored to the future requirements of the various retirement plans. The sources quoted above do disclose varying programs for these balances. The question raised in this study is whether such investments may be handled better within a state centralized investment process with professional investment personnel devoting full time to supervising the investing of these and other funds.

Operating Funds

Permanent funds and retirement funds have a common characteristic not shared by this third category. The former retain their balances or tend to show a net growth while this third group consists of current balances which will be disbursed in a relatively short time.

The balances in this category result from the collection of taxes or other revenues in large amounts at certain penalty dates or other specific intervals which do not match disbursement patterns.

These balances may fluctuate during the year but have tended toward higher levels in recent years. Public safety, public welfare, education, highways, health and hospitals, and other state expenditures have increased rapidly, driving total state expenditures to unprecedented highs. They have doubled and tripled and then doubled again in just the past three decades as indicated in Table V.

The revenue necessary to meet these expenditures has increased

over the same period in the same manner. In other words, the sheer volume of operating funds flowing through the treasuries of the states has increased tremendously in the past three decades and probably will continue to increase. The significance of this increasing flow is that any resulting current balances caused by differences in receipt and disbursement patterns will tend to be greater. Thus, the number of dollars which might come under an investment program from this source would appear to emphasize again the current significance to a state of a carefully planned investment process.

Some critics of state investments and state cash balances maintain that the taxpayer should be allowed to retain his money until the state actually needs it to meet expenditures rather than turn it over to the state and have the state invest it until needed. This particular argument is strictly one of the timing of collections versus disbursements. While there may be a great deal of merit to the theory, it would seem that no practicable amount of adjustment of collections will prevent rather substantial cash balances because of the inherently sporadic nature of collections and even of many disbursements.

Operating funds lack one characteristic of the other two categories. They lack the investment requirement inherent in the permanent and retirement funds. Therefore, these balances are more likely to remain uninvested or only partially invested unless direct action is taken to include them in an investment program. A state centralized investment process provides a framework for more effective investment of these current balances.

Examples of State Invested Funds

The total investment of state funds on a nation-wide basis was summarized in Table I. The underlying data permit summary of the holdings for retirement funds, Table III, but do not provide a basis for deriving nation-wide totals for permanent or operating funds. The lack of nation-wide data for the latter two categories prevents a more complete analysis of all funds.

It is possible, however, to obtain a grasp of the total available funds that can be invested in a centralized process by examining specific states. Details regarding the blend of the three categories included in total invested funds can be determined from various reports and other documents for that state. No other sources of this data were located.

Considerable data concerning the state centralized investment process of three states, Minnesota, New Jersey, and Wisconsin were collected and analyzed for this study. The reasons for selecting these states are noted in Chapter III and the data are utilized throughout subsequent chapters. However, three summary tables are included on the following pages in advance of any discussion of their investment processes because they provide examples of the use of all three categories of funds in an investment program.

An examination of these tables discloses that all three states utilize sizeable balances of operating funds, rapidly growing retirement funds, and permanent funds to the extent that they have such balances. It should be stated that Minnesota is the only one of these three states with large permanent funds as defined in this chapter. The New Jersey balances included in this category are largely trust funds with an indeterminate demand. Neither New Jersey nor Wisconsin has permanent fund balances of any significance relative to total funds invested.

INVESTMENT ALTERNATIVES

The extensive investment of state funds indicated by the data already presented demonstrates that the concept of proper handling has evolved from a problem of custody to a consideration of investment alternatives for such funds. Data underlying the tables disclose every state with some balances in one or more of the categories defined in this chapter.[3] Investment decisions regarding these balances have been required and have been made on one basis or another. The question is how a state may best discharge its responsibility for these decisions.

There are a number of investment alternatives which may be considered as possible choices by a state. For the purpose of orderly review, the following alternatives have been assumed:

1. Do nothing.
2. Separate investment by each fund.
3. Use of an advisory group.
4. Investment by state officials.
5. Investment of all funds in a state centralized investment process.

The division of various factors among these investment alterna-

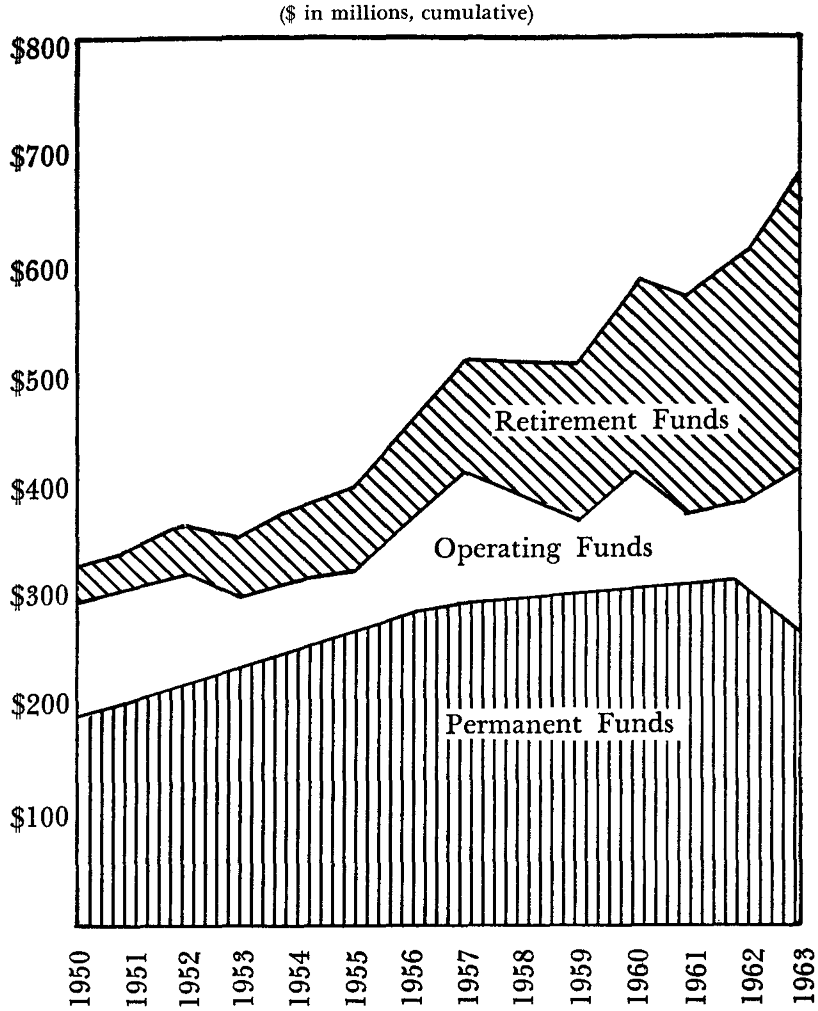
[3] Bureau of the Census, *Compendium of State Government Finances in 1963*, (U. S. Government Printing Office, Washington, D. C., 1964), p. 41.

TABLE VI. STATE OF MINNESOTA—SOURCE OF INVESTED FUNDS AS OF DECEMBER 31
(in thousands of dollars)

Year	Permanent Funds		Retirement Funds		Operating Funds		Total Funds	
	Amount	%	Amount	%	Amount	%	Amount	%
1963	$264,128	39.2%	$253,772	37.7%	$155,148	23.1%	$673,048	100.0%
1962	311,474	51.5	219,487	36.3	73,951	12.2	604,912	100.0
1961	308,683	54.6	189,755	33.5	67,332	11.9	565,770	100.0
1960	305,611	52.9	161,579	28.0	110,356	19.1	577,546	100.0
1959	301,305	59.4	139,678	27.5	66,608	13.1	507,591	100.0
1958	297,684	58.7	114,944	22.7	94,603	18.6	507,231	100.0
1957	293,592	57.4	96,639	18.9	121,154	23.7	511,385	100.0
1956	287,380	62.7	84,988	18.5	86,055	18.8	458,423	100.0
1955	267,261	67.3	74,170	18.7	55,846	14.0	397,277	100.0
1954	253,952	67.2	63,066	16.7	60,683	16.0	377,701	100.0
1953	236,341	66.8	53,460	15.1	63,874	18.1	353,675	100.0
1952	221,718	61.5	42,159	11.7	96,552	26.8	360,429	100.0
1951	205,874	60.7	34,524	10.2	98,900	29.1	339,298	100.0
1950	191,905	59.7	29,735	9.3	99,800	31.0	321,440	100.0

Source: Summarized from *General Report on State Finances,* issued semi-annually by the Treasurer's Office, State of Minnesota.

CHART 1
STATE OF MINNESOTA
SOURCE OF INVESTED FUNDS AS OF DECEMBER 31
($ in millions, cumulative)



Source: Table VI.

tives is purely arbitrary. They are not intended to describe particular state programs or to imply that other combinations of factors are not possible.

Do Nothing

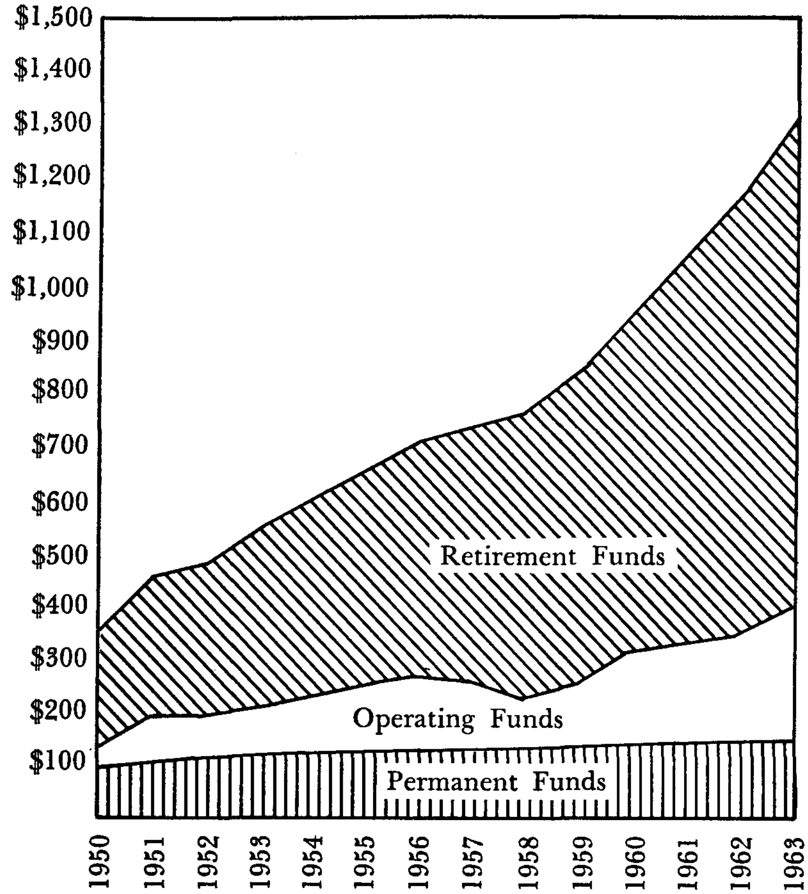
Under the first assumption, a state would take no direct action to invest idle funds. Permanent funds would remain in whatever original form they were acquired (which may be the legal require-

TABLE VII. STATE OF NEW JERSEY—SOURCE OF INVESTED FUNDS AS OF JUNE 30
(in thousands of dollars)

Year	Permanent Funds		Retirement Funds		Operating Funds		Total Funds	
	Amount	%	Amount	%	Amount	%	Amount	%
1963	$139,082	10.7%	$899,495	69.4%	$257,289	19.9%	$1,295,866	100.0%
1962	141,447	12.3	811,315	70.3	200,813	17.4	1,153,575	100.0
1961	141,387	13.4	733,065	69.4	181,903	17.2	1,056,355	100.0
1960	138,699	14.3	660,287	68.2	169,907	17.5	968,893	100.0
1959	133,242	16.0	587,479	70.8	109,595	13.2	830,316	100.0
1958	134,533	18.1	524,159	70.7	83,084	11.2	741,776	100.0
1957	131,599	18.3	472,211	65.6	116,260	16.1	720,070	100.0
1956	130,210	18.7	435,346	62.5	130,822	18.8	696,378	100.0
1955	127,159	19.6	397,697	61.2	124,978	19.2	649,834	100.0
1954	119,936	20.2	362,614	61.1	110,611	18.7	593,161	100.0
1953*	114,265	20.9	339,581	62.2	92,215	16.9	546,061	100.0
1952	109,227	22.9	282,614	59.2	85,592	17.9	477,433	100.0
1951	104,723	23.2	259,809	57.5	87,287	19.3	451,819	100.0
1950	97,005	27.7	227,808	65.2	24,824	7.1	349,637	100.0

*Year ended November 30, 1953. A brief change to this reporting year in 1952 and 1953, results in no figures for June 30, 1953.
Source: Summarized from *Thirteenth Annual Report*, State Investment Council, State of New Jersey, for the Fiscal Year ending June 30, 1963, and from similar reports for prior years.

CHART 2
STATE OF NEW JERSEY
SOURCE OF INVESTED FUNDS AS OF JUNE 30
($ in millions, cumulative)



Source: Table VII.

ment anyway) and earn only whatever accrues to them in that form. Retirement funds would remain idle except for existing legal requirements which might force minimal action. Operating funds would remain idle with no attempt to secure earnings from their balance.

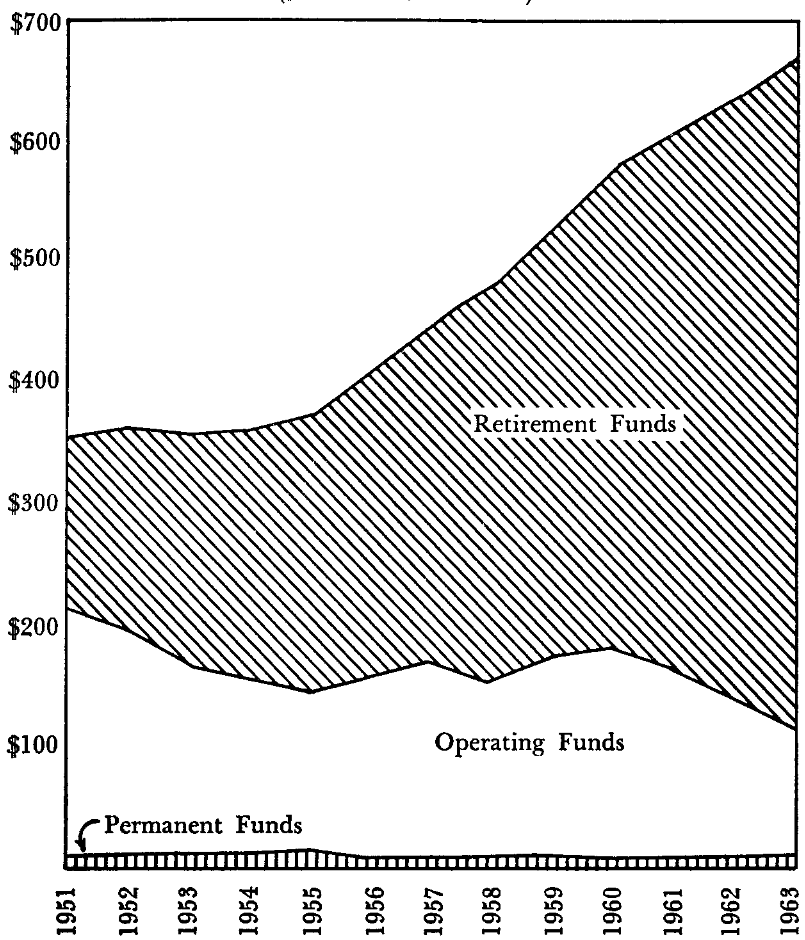
The emphasis is on existing legal requirements with no attempt to broaden powers or revise outdated laws that prohibit or restrict a more aggressive investment program. This may seem an extreme assumption but such an alternative is always a possibility when considering any decision.

TABLE VIII. STATE OF WISCONSIN—SOURCE OF INVESTED FUNDS AS OF JUNE 30
(in thousands of dollars)

Year	Permanent Funds		Retirement Funds		Operating Funds		Total Funds	
	Amount	%	Amount	%	Amount	%	Amount	%
1963	$12,000	1.8%	$544,000	82.1%	$107,000	16.1%	$663,000	100.0%
1962	11,000	1.7	495,000	77.8	130,000	20.5	636,000	100.0
1961	10,000	1.6	443,000	72.7	156,000	25.7	609,000	100.0
1960	9,000	1.6	399,000	68.8	172,000	29.6	580,000	100.0
1959	10,000	1.9	357,000	67.2	164,000	30.9	531,000	100.0
1958	9,000	1.9	327,000	67.8	146,000	30.3	482,000	100.0
1957	8,000	1.8	279,000	61.9	164,000	36.3	451,000	100.0
1956	8,000	1.9	253,000	61.3	152,000	36.8	413,000	100.0
1955	12,000	3.2	229,000	61.2	133,000	35.6	374,000	100.0
1954	11,000	3.0	206,000	56.9	145,000	40.1	362,000	100.0
1953	11,000	3.1	191,000	53.2	157,000	43.7	359,000	100.0
1952	10,000	2.7	168,000	45.9	188,000	51.4	366,000	100.0
1951	9,000	2.5	144,000	40.4	203,000	57.1	356,000	100.0

Source: Summarized from *Annual Report*, State of Wisconsin Investment Board, for the Fiscal Year ending June 30, 1963, and from similar reports for prior years.

CHART 3
STATE OF WISCONSIN
SOURCE OF INVESTED FUNDS AS OF JUNE 30
($ in millions, cumulative)



Source: Table VIII.

Separate Investment by Each Fund

The second alternative assumes a more active but fragmented program in which various balances would be invested by officers or boards responsible for different funds or by controlling state officials.

It should be noted that there are states in which this could not occur because all balances are in the custody and control of the state treasurer. To the extent that no other state official, agency,

or separate board of trustees retains any investment function, there would be no fragmenting of the program. However, the majority of states have not centralized the investment process in this manner. A review of the most recent survey by the Investment Bankers Association reveals 37 states which appear to have separate boards for various pension funds.[4] While this inference is not based on precise information, it was substantially confirmed by the survey conducted by the author in which 31 state treasurers reported retirement funds or other categories invested by authority of separate boards.[5]

A fragmented program is not unworkable but performance is likely to be extremely uneven. In the absence of any professional investment assistance, separately controlled funds would follow only their own investment notions or probably those of dominant members of the separate board. It is logical to expect the investment process to be advanced for certain funds, especially the larger ones, with possibly no investment or minimal investment of others.

This alternative assumes for most funds part-time attention by fund representatives or state officials who are unlikely to be classed as professional investment personnel. It lacks the framework apparently necessary to greater utilization of the larger cash flows in a more fully developed program.

Use of an Advisory Group

The third alternative is an extension of the basic plan of the second. It assumes those responsible for various funds recognize their own limitations and the need for specialized assistance and seek to secure help with the investment function by organizing an advisory group.

The professional assistance available with an advisory group adds a factor to the framework of the previous alternatives. However, it is only advisory and the investment program remains on a fragmented, part-time basis. On the other hand, advances may result as the advisory group might press for broadened investment powers or improvements in the investment process to permit earnings more in keeping with requirements.

Investment by State Officials

The fourth stated alternative assumes a type of unified, co-ordi-

[4] Investment Bankers Association of America, *op. cit.*
[5] See Chapter III.

nated program. State officials, such as the treasurer, comptroller, and attorney general, would be responsible for investing all funds. A fragmented program may be avoided although there would be a tendency, noted above in the second alternative, for the larger funds to develop a separate program. This leaves the smaller funds of a varied nature and with diverse requirements to be invested by state officials with many other duties on an already crowded daily schedule.

State officials in such a situation may be willing and able to handle this responsibility and even branch into the area of seeking a broader program which would permit them to obtain better results. A logical development would be to organize an advisory group to work with them and thus secure broader professional investment experience on a par with an expanded program. At this point, the combination of possible elements or factors begins to approach that of the fifth alternative.

Investment of All Funds in a State Centralized Investment Process

This fifth alternative combines factors to secure a state centralized investment process as it has been termed in this study. It is a logical result of efforts to improve existing programs by utilizing the larger cash flows of all funds in a centralized process directed by professional investment personnel on a full-time basis. A more complete examination of this state centralized investment process is the purpose of the following chapters.

III / The Unique Character of a Centralized Investment Process

THE UNIQUE CHARACTER of the investment programs of a few states is the state centralized investment process. A review of the elements which are a part of this process, its advantages, some problems, and the extent of the development of this centralized concept is the objective of this chapter.

A CENTRALIZED INVESTMENT PROCESS

This term embraces more than merely an investment board or committee acting in an advisory capacity to various state officials or state-related groups with funds which may be invested. It is not just a centralized board to help with investment decisions for various funds. The concept is rather one of a centralized process including several very important elements.

Permanent, retirement, and operating funds have been invested for varying periods of time in many states and still require investment decisions. It is not a question of whether the investment function is to be continued but one of how it shall be managed.

The concept of a centralized investment process which combines all three categories of funds in a specially structured investment program is quite unique and has been applied only very recently. The exact birthdate of such a concept is always very difficult to ascertain but there is little question that all significant applications have been made in the short period of time since World War II. While other states have investment programs including certain of the elements, the first state centralized investment process including all of the elements discussed here appears to be the one established by New Jersey in 1950.[1]

[1] In addition to other data, several persons working in the field referred to the New Jersey Division of Investment in interviews as the "grandfather" of centralized investment boards.

Additional data regarding the growth of this concept is presented in the last section of this chapter in the review of a recent survey conducted by the author. It will be noted there that a more fully centralized investment process has been adopted by only a few states.

Only Investment Function Centralized

It should be emphasized here that only the investment function is to be centralized. It is not necessary or desirable to centralize the complete administration of the various permanent, retirement, and operating funds; nor would such a procedure be accepted by most state officials, trustees, and others responsible for carrying out the activities financed by the different funds.

Basic Elements

Based on details already presented and data included in subsequent sections, there are three basic elements of a state centralized investment process: (1) a centralized board, (2) control of funds, and (3) utilization of professional investment personnel.

A centralized board is the first element in the structure of a state centralized investment process. Investment powers for all three types of funds are an important part of the specifications. Such a board is a separate entity, a part of the state government but not directly attached to any of the groups with funds to invest. The line of authority and responsibility may run to different points in the state government but the important thing is that it does not run to any single source of funds to invest. A manageable exception to this is a close relationship with the office of the state treasurer coupled with a responsibility to invest the treasurer's cash balance.

The membership of a centralized investment board is also an important matter. Professional investment assistance can be included in the process at this point as will be noted in the case studies and comparisons of Chapter IV.

Control of the funds which may be invested is the second stated element in the structure of a state centralized investment process. This element is an operating characteristic rather than a physical characteristic.

Control is essential to efficient investment both from the standpoint of managing invested funds and to secure maximum utilization of available balances. These aspects of control will be discussed in Chapters IV, V, and VII. At this point, it is sufficient to observe

that the degree of specified control vested in the centralized board and the investment office will vary but the absence of operating control would act to reduce the effectiveness of a state centralized investment process.

Utilization of professional investment personnel is the third important element in the structure of a state centralized investment process.

The two primary methods of securing the necessary investment training and experience are: (1) direct employment by the state of an individual or staff with professional investment training and experience, and (2) contracting with an outside agency to provide this service as needed.

The significance of this element is well expressed in the following paragraph from the Introduction to a Model Investment of State Funds Law:

> First, it is elementary that a state will get expert investment management only by employing qualified talent. In this age of specialization, it is no longer rational to leave the investment of state funds to ex officio committees or bodies, made up of state officials already overburdened with their major jobs and who have insufficient spare time to become expert in a "sideline" function. It is even more disastrous to delegate the responsibility for actual investments to well-meaning but definite amateurs in a field where technical skill is required.[2]

It is true that a completely centralized process is not a prerequisite for employing competent professional investment personnel in the program. It is entirely possible for individual funds or groups of funds to secure such assistance for themselves. An example of this would be a large retirement fund that might establish its own investment office and employ trained investment personnel to handle only their investments. This can be done and has been done.[3]

On the other hand, a centralized investment process seems more likely to lead to this logical step of employing an expert. The very planning inherent in centralizing the process, the analysis of the investment problems of the various funds, and the general reorgani-

[2] National Municipal League, *Model Investment of State Funds Law*, (47 East 68 Street, New York 21, New York, 1954), pp. vii–viii.

[3] Interviews and a recent survey by the author, discussed in the last section of this chapter, disclosed 11 such arrangements other than those reported as centralized boards.

zation of the investment function tend to re-emphasize the need for utilizing competent investment personnel in the process. The fact that it is primarily the states which have centralized the investment process which have established an investment office with professional investment personnel was confirmed in the survey already mentioned.

In summary, these three basic elements, a centralized board as a separate entity, control of funds or cash flow, and utilization of professional investment personnel are common characteristics of a state centralized investment process. The degree of their development will vary among states as will be noted in this and subsequent chapters.

ADVANTAGES OF A CENTRALIZED PROCESS

Some of the advantages which can accrue to a state adopting a state centralized investment process are suggested in the preceding paragraphs but they should be specifically stated.

Combines Small Balances

A centralized process combines many smaller balances which might otherwise appear too small to bother with investing. In the case of operating funds the balances of many funds also may appear to be too short lived as well as not too large.

The following comment by a state research council stresses the significance of combining small balances:

> The consolidation of all cash in the state treasury is an important requirement for any sound program for investing the state's idle funds. At present, all agencies have their own bank accounts which diffuse the state's cash to such an extent that an investment program would be far less fruitful if this is permitted to continue. Through central management of cash in the treasurer's office, the over-all cash needs of the state at any one time would be reduced, thereby allowing more cash to be invested.[4]

The Model Law also recognizes the importance of this step:

> Having provided for efficient management of its funds, the state may then increase its earnings by the pooling of moneys available for investment purposes....
>
> With these funds under various control bodies no mechanism exists in many states for consolidating the $5,300 here,

[4] Public Affairs Research Council of Louisiana, Inc., Legislative Bulletin, *Investment of Idle State Funds*, (Vol. 11 No. 2, May 28, 1963), p. 3.

> $8,450 there and $3,625 in another fund. Each fund holds idle its odd cash or small sums until larger, round sums can be accumulated for investment purposes. A mechanism for pooling these idle sums weekly or monthly and buying blocks of securities in which two or more funds have an interest (a manageable problem with adequate accounting) would reduce to a minimum the amount of state funds uninvested and losing interest.[5]

On the other hand, many balances are already in the hands of the state treasurer[6] but the investment function is not centralized. Combining balances in these cases refers only to consolidating this fragmented condition.

California, for example, found it more efficient to consolidate the investment function.

> The efficiency of the pooled money procedure over the former methods lies in the fact that prompt action can be taken to invest temporary cash receipts when received by the Treasurer. In addition, the ability to manage cash for payment and liquidation of securities has proved to be more efficient than under the former methods when it was necessary for agencies to advise the Treasurer of their plans for purchase or sale of securities.[7]

Another state advised the author that they also consolidated a previously fragmented investment power in recent years:

> In 1957 a law was passed, placing in the constitutional State Board of . . . all investment powers previously authorized by law in any of the several State Boards, Agencies, Commissions and Authorities.[8]

The relative small size of fragmented balances, whether they result from failure to combine the cash itself or from failure to consolidate the investment powers, under the control of many officials operates against the development of the investment function in another way. The careful planning and consideration of a wider range of investment possibilities that could be expected for a larger balance is more likely to be passed by. It may be that more detailed analysis would indicate that a substantial portion of the balance will not be needed for expenditures for a sufficient time to permit

[5] National Municipal League, *op. cit.*, pp. ix–x.

[6] White, *op. cit.*, pp. 234–235.

[7] The Pooled Money Investment Board of the State of California, *Third Annual Report*, June 30, 1959, p. 4.

[8] From a personal letter to the author by a Southern state official, March, 1964.

an investment yielding a greater return. The larger the balance the more likely that such steps will result.

Permits Specialization

Centralizing the investment function applies the ancient advantage of specialization to the handling of state investments.

There are many kinds of funds within the three categories of permanent, retirement, and operating funds. The elected state officials, appointees, trustees, and civil servants responsible for administering these activities are educators, attorneys, engineers, physicians, and other individuals with a wealth of training and experience that qualifies them to administer those many areas of specialization. Their primary interest and responsibility is, however, education, state history, construction, pensions, or anything else but investments.

One reference by the Model Law to the need for specialization was included in a previous citation. Another reference also appears in their Introduction:

> ... centralization of the investment function does not impair any of the other powers of the various boards, commissions or agencies administering state funds. Relieved of this function, which is separable, these bodies can then concentrate on their many other important duties and responsibilities, whether they relate to administering a workmen's compensation insurance system, to preserving state archives and property of historical interest, or to passing upon employee retirement applications. Most board members would welcome the opportunity to concentrate upon their major substantive responsibilities.[9]

The previous citation from the Public Affairs Research Council of Louisiana continued with a comment that also centers on the advantage of specialization:

> Centralization of cash would also permit a more effective program for investing idle cash through use of professional skills which could be provided in a central investment agency.[10]

While White generally assumes the custody and investment of funds by the treasurer and was referring to both state and local

[9] National Municipal League, *op. cit.*, pp. xiv–xv.

[10] Public Affairs Research Council of Louisiana, Inc., Legislative Bulletin, *op. cit.*, p. 3.

funds, the following paragraph applies to both this and the next section:

> Effective management of public funds cannot generally be expected from underpaid, politically elected officials who enjoy terms of office of two or not more than four years. Much reconstruction is needed at this point, especially in the smaller jurisdictions, which might involve statewide investment agencies. Better integration of treasury management with other fiscal operations, professionally competent persons in treasury offices, and improvement of statutory and constitutional provisions controlling treasury operations are essential parts of a needed comprehensive program.[11]

Centralizing the investment process permits creation of a specialized entity whose primary function is investment. The investment function is thus advanced from that of a secondary activity of a group with other primary interests.

This matter of specialization also applies to the make-up of the boards. It is reasonable to assume, for example, that the board of a state historical society attracts individuals who have an interest in state history rather than an interest in investments. In the same manner a state centralized investment board could be expected to attract individuals who have an interest in investments rather than state history. The two interests can overlap, of course, but it seems apparent that specialization of the functions would be more certain of securing individuals with specialized talents which would be of greater advantage to both boards.

Avoids Part-time Investments

Centralizing the investment process also substitutes constant supervision for part-time investment activity. The distinguishing feature here is the time which may be devoted to the investment program, whereas the prior section emphasized the relative importance which would attach to the investment function.

The work hours of the staff and officials administering the various activities are already crowded with routine, paperwork, official duties, and policy decisions. If they are also to make investments, they will reluctantly make adjustments to allow some time for this function or relegate it to such time as might become available. They are nearly certain to feel that time taken for the investment program detracts from the important objectives of their primary

[11] White, *op. cit.*, p. 238.

activity unless it happens to be an inherent part of the activity as with retirement funds.

To a great extent, the citations of the previous section also apply to the matter of avoiding part-time investment. Although he was discussing only one type of funds, Faust also pointed out the inexpediency of this arrangement 40 years ago:

> State management has been defective mainly because the majority of the states have failed to provide a single officer, whose sole duty should be to care for and invest the state permanent school fund. The result has been that the majority of states have entrusted the care of millions of acres of school lands, and the investment of the proceeds of the sales of the same to officers or to a board composed of several officers, all overburdened with other duties. As a consequence they are unable to give the attention which is both desirable and necessary to the investment and care of the permanent school fund.[12]

The individuals associated with the various funds can hardly be criticized for devoting the major part of their time to the principal objectives of their activity. The fact remains, however, that any investment program for many funds is limited to a part-time activity in this organizational structure.

Another consequence of part-time supervision by individuals not versed in the field is a strong tendency toward a non-critical choice of investments regardless of the nature of the funds or the range legally permitted. U. S. Government obligations are a quick and easy solution but this ignores the fact that other investments may be more appropriate and would yield a greater return.

Centralizing the investment process transfers the investment responsibility to a position where it is a full-time activity of a specially selected board and professional investment personnel they may employ.

Eliminates Duplication

Centralizing the investment function also will reduce or eliminate duplication of effort and duplication of record keeping for the investment program.

A decentralized, scattered pattern of investment by many different funds duplicates effort in several ways. Three points of extra effort are: (1) extra meeting time required to dispose of investment affairs in addition to regular activities of the group; (2) extra effort to interpret laws and regulations, analyze financial data, and arrive

[12] Faust, *op. cit.*, p. 51.

at financial decisions; and (3) any extra effort which may be required to actually make the investment transactions. These efforts are multiplied nearly as many times as there are various funds with balances to invest and could be increased if additional investment is encouraged without first centralizing the process.

The extra effort involved in the decentralized framework is likely further multiplied by the fact that much of the effort is by individuals who would be classified as amateurs. Their lack of training and experience in investments would lengthen the time taken to reach decisions made more difficult by the same lack and extend to complicate the transactions themselves.

Duplication of records would multiply in the same manner. In a completely decentralized framework, each board would keep similar records involving smaller amounts. This adds again to the problem since paper and paperwork are the bane of organizations.

This matter of duplicate records was also considered in framing the Model Law:

> Another positive step, although of lesser financial importance, would result in some administrative economies. The Model Law contemplates centralization of all investment records, in a division of investment, and concentration in the state treasurer's office of the physical custody of all securities. This step would permit mechanization of record-keeping on investments, with economies in personnel and, through full use of machines, the advantages of specialization, and possible economies in contracts with safe-deposit companies and fiscal agents.[13]

It should be noted that decentralized records can lead to additional problems since records and the level of efficiency in record keeping tends to vary greatly between groups and individuals charged with that responsibility. Where the balances are relatively small, the objective secondary, and time limited, the resulting records can be expected to vary a great deal and to tend to be less than satisfactory for many requirements.

Reduce Investment Expense

Centralizing the investment process also would reduce the relative cost to the state for record keeping and other items of expense in connection with an investment program. Each duplicate record and duplication of effort noted above increases the total expense and reduces the net benefit to the state.

[13] National Municipal League, *op. cit.*, p. x.

The term "relative expense," is used because there is always a possibility that centralizing the investment process will result in such increased investment activity and improved records for that higher level of activity that the total actual expense to the state might not be reduced. The relative expense in terms of the volume of investment and activity would be much less, however.

Broader Investment Powers

Centralizing the investment process increases potential yields for the state because a broadening of investment powers is more feasible in these circumstances. The advantages already stated in this section are more obvious than this one, but broadening the investment powers of the states can be the most significant advantage of centralizing the investment process.

Broadening the investment powers of the state means to permit or require that the funds be placed in a wider range of debt and/or equity instruments. For example, some states limit the investment of state funds to U. S. government bonds; others broaden this narrow range to include municipals of that state, and perhaps other states; still others include corporate bonds; finally, there are those which have established broad discretionary powers extending through a wide range of investments, including corporate stock, mortgages, commercial paper, and real estate.[14]

There are good reasons for limiting the range of investments for state funds. There can be no speculation with public funds. In past years, within the organizational structure of some states, the authority to invest state funds has been scattered among many individuals and many funds. Such a scattered authority would be difficult to control in the best of circumstances. As outlined in previous sections of this chapter, this can result in the investment of small balances as a part-time activity of amateurs. The logical control for this situation has been to restrict the range of permitted investments. The concept has been one of preventing loss of principal without considering any other losses which might result from such a policy. Greater consideration needs to be given to the concept of adequacy of income.

The Introduction to the Model Law recognized that the range of permitted investments can be broadened when the proper structure is provided:

[14] See Chapter VI.

> Finally, accomplishment of certain structural changes in the state government in order to centralize the investment function, is, in some measure, an essential prerequisite for the preceding steps. Budget-wise, the employment of highly qualified investment talent is feasible only if a centralized investment job is created. Admittedly, the widening of the securities investment list could be accomplished even if the investment of state funds remained in decentralized hands; but this is not recommended because the results might be disastrous. Centralization of the investment function in experienced investment hands, under competent supervision, and within a proper organization is thus a condition precedent even for widening the range of investments. The Committee also considered carefully whether investment policy determination could be centralized while at the same time investment execution was left with the respective boards and agencies. This wide separation of policy-making and execution was not deemed workable.[15]

Broader investment powers thus appear closely related to the elements of the state centralized investment process.

Greater Earnings

As has already been noted, proper handling of state funds has evolved from a stage of protection from theft to a stage of securing the maximum return for the state from such funds.

> The consensus of expert opinion is that most states could, by positive legislative action, and without sacrificing safety, so improve their investment management as to enlarge materially the earning power of their investment funds.[16]

Potential earnings need to be considered when average yields on U. S. Government obligations exceed 3.5 per cent while corporate obligations and mortgages are more nearly 4.5 percent and 5.5 per cent, respectively.[17] As will be noted in Chapter VI and VIII, a few states have accomplished considerable progress in developing an investment process which has resulted in greater earnings.

Each of the stated advantages of centralizing the investment process increases earnings or reduces the expense of the program. The combination of all these factors suggests that centralizing the process offers great potential to the state which adopts this investment structure.

[15] National Municipal League, *op. cit.*, p. xii.
[16] *Ibid.*, p. vii.
[17] See Table XXVI.

SURVEY OF STATE TREASURERS

How many states have centralized the investment process? How many states are moving in the direction of a more centralized investment process? How many states employ expert help in their investment program? These are three logical questions growing out of the discussion to this point. A fourth question for further development is: Are there states showing leadership which can be selected for detailed study?

Survey Coverage

In an effort to supplement all other available data, a brief questionnaire was prepared and mailed with an explanatory cover letter addressed to the state treasurer of each of the fifty states. Considerable interest in this project is evidenced by the fact that prompt replies were received from 42 of the 49 states which finally submitted replies. These replies included 26 instances of extra time and effort taken to write letters or include reports or other helpful material.

The Questionnaire

The questionnaire was intentionally limited to brief and specific questions to encourage replies and ensure wide coverage. In addition, this procedure was aimed at obtaining meaningful answers to supplement other data.

The questions were designed to bring out the following points (numbered here to match the questionnaire. See page 40): (1) whether a state has a centralized board in the opinion of the treasurer of that state; (2) if a centralized board does not exist, whether there are any plans for establishing one; (3.1) the types of funds invested by the board (this question also verifies the first one); (3.2) whether trained investment personnel are employed in the program or if such a development is contemplated; (4) how the three categories of funds are invested if no centralized board exists (this question also verifies #3.1 and #1); and (5) a brief summary of legal barriers serving to limit investment authority.

It was the intention to focus on the concept of a centralized investment process for all funds as opposed to a board investing only certain types of funds. Thus, question #4 and #3.1 were aimed at securing additional information and ascertaining, at the same time,

that the answer to question #1 could be properly interpreted within the concept of a centralized investment process.

Question #3.2 was intended to obtain the facts as stated but, more than that, it bears upon the degree of centralization within the concept of a centralized investment process as discussed in this study.

Question #5 was intended to secure some additional data as to restrictions and limitations. It was worded in broad terms to encourage answers that would indicate areas of difficulty in the opinion of a state official who works closely with the investment program.

STATE INVESTMENT PROGRAMS
March, 1964

State: ______________

	Answers	
	Yes	No
1. Does your state have a *centralized board* responsible for investing state funds?	______	______
2. *If not,* is such a board contemplated?	______	______
3. If answer to #1 is "yes":		
3.1 Does this *centralized board* invest:		
Permanent funds (trust funds)	______	______
Retirement funds	______	______
Currrent funds (such as cash balances, highway funds, etc.)	______	______
3.2 Has Investment Office with trained investment personnel and perhaps a staff been established to manage the investment program?	______	______
If "yes", what year was it established? ______		
If "no", is such an office contemplated?	______	______

4. If there is no centralized board at present, how are investments handled in each of the three categories in 3.1 above?
5. Are there any legal barriers that prevent expansion of activities in this area or serve to limit present investment authority?

Survey Results

As noted, 49 state treasurers responded to the survey. A summary of their replies is presented in the following paragraphs.

The answers to the first question may be summarized as follows:

	Yes	No
1. Does your state have a centralized board responsible for investing state funds?	18	31

Of the 31 who answered "no" to the first question, 25 supplied answers to the second question.

	Yes	No
2. If not, is such a board contemplated?	2	23

The two "yes" answers to this question are of a somewhat tentative nature.

Although 18 state treasurers answered "yes" to the first question, the following figures do not total 18 in every case because two states did not answer part one of question #3.1 and one state did not answer part two.

	Yes	No
3.1 Does this centralized board invest:		
Permanent funds	14	2
Retirement funds	14	3
Current funds	14	4

The relationship between these answers and the concept of a centralized process is discussed in the next section.

The answers to question #3.2 reveal that some states do employ trained investment personnel:

	Yes	No
3.2 Has Investment Office with trained investment personnel and perhaps a staff been established to manage the investment program?	13	8

Ten states employing trained investment personnel supplied a date of establishing this feature: 1914, 1936, 1939, 1950, 1951, 1954, 1956, 1957, 1959, and 1960. One other state indicated such an office is being contemplated and another thought it a possibility. Six states replied that they are not contemplating such an office.

An interesting point revealed in answers to this question is the use of external investment advice and management instead of establishing an office and hiring personnel. Two states with centralized boards indicated they employ a bank in this capacity. Three states without centralized boards replied that they employ a bank trust department or otherwise contract for investment advice.

The answers to question #4 were quite varied and overlap other questions as intended. Twenty-nine of the states without centralized boards indicated that state officials and individual boards or separate groups invest one or more of the three categories of funds. The treasurer and other state officials such as the governor and comptroller are responsible for investing certain of the funds, typically current funds, while a board or boards invest other funds, typically retirement funds and sometimes permanent funds.

Evaluation of Answers

The answers to the questionnaires need to be assessed for their relevance to the development of this study.

The notion of a centralized board responsible for investing state funds is not an isolated phenomenon. When 18 of 49 state officials, nearly 40 per cent, indicate they have a centralized board, the idea is established. On the other hand, there is also a great deal of room for expansion and development.

All states but Delaware have funds for investment and are investing these funds in some way. In the 31 states indicating they do not have a centralized board, there are state officials, committees, and separate boards responsible for investment of the individual funds. The investment of state funds as "proper handling" is an established and accepted fact. The less common element is the unique character of the centralized process for the investment program.

Only two of the 31 states without a centralized board gave any indication that such a step is contemplated. Twenty-two states gave negative answers and seven others did not answer the question. This pattern is more likely the result of a reluctance to predict legislative action in their state than it is an indication of a lack of interest in a more specialized investment program. This would be an interesting question for additional study, but the present focus is on the structure and controls of a centralized investment process and on the states which have developed this concept.

Not all of the 18 states indicating they have a centralized board have a fully centralized investment process as discussed in this study. Seven of these states indicated that separate boards invest certain of the funds while 11 of the 18 centralize the investment of all three categories of funds. Within the former group of seven, four omit current funds, four omit retirement funds, and four omit permanent funds. Question #3.1 was intended, in part, to verify the answers to question #1. These answers confirm that there are only 11 states with a centralized investment process with the criterion of combining all three categories of funds for investment.

Other criteria, such as the use of trained and experienced investment personnel, also indicate that the number of states with a fully centralized investment process is something less than the 18 reporting a centralized board in question #1.

There is a definite concentration of this element in the 18

states reporting centralized boards. In all, 19 of the 49 states indicate they employ trained investment personnel in their investment program. Thirteen states report that they have their own investment office and six others contract for such a service with an outside agency. Eleven of the 13 reported investment offices with professional personnel were found in the 18 states with a centralized board. Two other states in this group employ an outside agency. Only six of the 31 states without a centralized board report any use of professional personnel and four of these are instances of employing an outside agency. Of the 13 reported investment offices, three appear to be offices established for another purpose in the past that have since assumed the investment function and one other is limited to investment of retirement funds.

Based on these reported facts, there are 13 states that regard their own program as combining a centralized board with employing professional investment personnel. Two of these thirteen do not maintain an investment office but contract with an outside agency, a bank, "to secure the services of a fiscal advisor for the purchases of common stock, corporate bonds, and government bonds at a fee that was determined to be considerably less than the wages of a State Investment Officer."[18]

Seven states can be said to have a fairly complete centralized investment process when the analysis is narrowed to the criteria of: (1) a centralized board investing funds in all three categories, and (2) utilization of professional investment personnel in the program.

SUMMARY AND DIRECTION

This chapter reviewed the unique character of a centralized investment process for a state as a development of the idea of investing state funds.

It was noted that state funds have been invested in the past but the concept of the state centralized investment process is new. The centralized investment process contemplates centralizing only the investment function in a state investment board making use of professional investment personnel. The objective is to secure the advantages of specialization for the larger combined balances and eliminate the inefficiency of part-time investment by non-professionals who have other primary concerns and duties.

[18] From a letter from an official of one of these two states. He is also a member of the state investment board. Correspondence with the treasurer of the other state disclosed similar circumstances.

The survey of state treasurers disclosed that 18 states consider that they have a centralized board. Seven of these states were found to have a centralized investment process when measured by the more complete criteria of utilization of professional investment personnel to invest balances in all three categories.

There are many questions which need to be explored in defining the unique character of a centralized investment process. For example: How centralized are some of these states? What is the structure of a specific centralized board? How completely do they utilize professional investment personnel in their program? What is the range of investment powers and investments? What are the results? These and other questions are the basis for the discussion of the next four chapters.

Special Study of Three States

Three states, Minnesota, New Jersey, and Wisconsin were selected for special examination. Their selection is not intended to imply that they are the only leaders among the 18 states reporting a centralized board or among the seven states determined to have a more complete centralized investment process.

The selection of these three states was based on the factors of size of total holdings, experience with the state centralized investment process, the unique character of their particular programs including utilization of the larger cash flows by professional investment personnel working with a distinct agency, and access to information and records other than general published material and reports from the boards. The significance of each of these factors will be more apparent from the details concerning their investment processes presented in subsequent chapters.

In addition to the information obtained from reports and correspondence, the author was able to discuss many aspects of these programs during several interviews with various officials of these three states. They supplied background material, explanations of details and procedures, and suggested sources of related information.

Special attention to these three states will illustrate many of the specific elements which are a significant part of the state centralized investment process.

Chapter IV examines the structure of the state centralized investment process with special reference to those established in Minnesota, New Jersey, and Wisconsin.

IV / Structure of State Centralized Investment Process

THE PURPOSE of this chapter is to examine in more detail the state centralized investment process. Particular attention will be given to details of structure within the process by examining three states with advanced programs. In addition, a suggested "model" program will be reviewed. The intent is to clarify key elements by reference to details of such programs and to reduce misunderstandings which may have arisen in the more general discussion of the first three chapters.

CASE STUDIES OF THE CENTRALIZED PROCESS

The legal framework surrounding the boards or other groups, whatever their name or designation, charged with the responsibility for investing state funds varies with the stage of development of the investment program in a given state and from state to state. As with other state agencies, some official action or legal provision necessarily preceded formation of any state investment board.

State constitutions generally do not provide specifically for such an entity. This is to be expected because a constitution is by definition a basic law delineating the fundamental principles of government of a state or other organized group in society. Even if it were desirable and state constitutions had originally specified state investment functions and offices in great detail, they would be of little value to the present concept of a state investment board. The present concept is too new to have been foreseen with any worthwhile degree of accuracy in the years when state constitutions were being shaped. Therefore, it is largely to the laws of a state and not to the constitution that one must look to ascertain the present basis for investing state funds within the framework of a state investment board.

It is informative to consider specific examples of the laws and practices which have resulted in the structure of the centralized process of the three special-study states. These states have established investment boards often cited in interviews with persons having considerable knowledge in this field. The analysis is presented state by state rather than element by element to permit a clearer understanding of the complete program of a state. The order of presentation is strictly a matter of simplifying later discussion and comparisons.

Minnesota

While present laws relating to state investment programs can be traced to constitutional provisions or permissive sections, some of these are more direct than others. For example, the Minnesota Constitution created permanent funds or trust funds and stated the investment policy to be followed.[1] The two main provisions are:

> 1. That the funds can be invested only in state, municipal, or U. S. Government bonds.
> 2. That the funds must remain "forever inviolate," which has been interpreted to mean losses cannot be taken by way of sale.[2]

These provisions, which were restrictive and later became a real problem for the state and the state investment board, demonstrate that a state in its basic law may recognize the necessity of and assume the right to provide for investing its cash balances even to the extent of stipulating how they shall be invested. Most of the framework or structure is provided, however, by subsequent legislation rather than by the constitution.

Minnesota has a *State Board of Investment* also based in the constitution:

> Minnesota has a state board of investment, made up of governor, attorney general, state auditor, state treasurer and a representative of the university's board of regents. The original body is based in the constitution itself, which named the governor, the state auditor and the state treasurer as a board, empowered, under certain restrictions, to grant direct loans to municipal units from the permanent trust funds. There has been a statutory broadening of the board's membership since, as indicated above.[3]

[1] Constitution of the State of Minnesota, Article VIII.

[2] Report of the Committee on Investment of State Trust Funds, State of Minnesota, December 23, 1960.

[3] From a letter from the State of Minnesota Treasurer, January 28, 1960.

Following a constitutional amendment which became effective in November, 1962, the university regent was replaced by the secretary of state. Thus, the Minnesota board has a history reaching back to statehood and is an entity separate from the groups for which it invests funds.

This centralized board is responsible for investing all three categories of funds. The balances are certified to the board for investment by the separate entities which provides a degree of control over them as the board coordinates investment operations with the stated need for the balances.

A special feature which is a part of both this element and the next one is an *Advisory Committee on Common Stock Investments* which was appointed in May, 1961. This committee consists of "ten of the leading investment managers in the State of Minnesota, who contribute their time and advice on a voluntary, uncompensated basis."[4] Thus, the Minnesota board broadened its own competence by adding professional, experienced investment personnel in at least one area of its operations to what was otherwise a board consisting entirely of state officials.

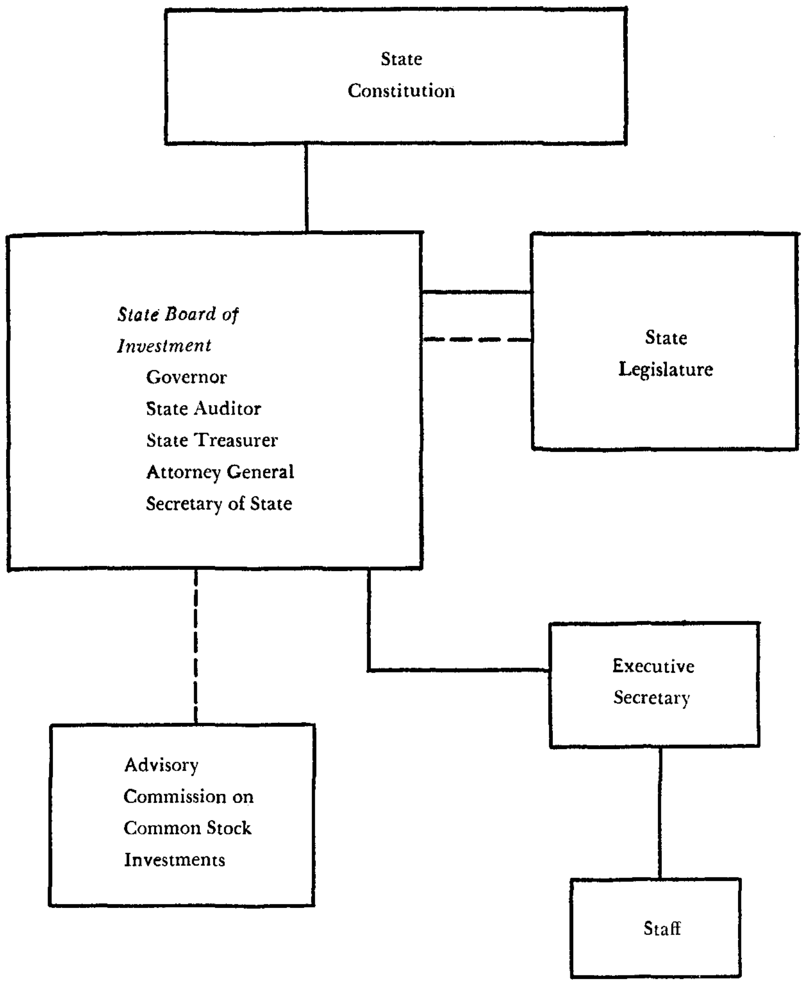
Moreover, legislation already had been enacted in 1959 to add full-time, professional investment supervision for their investment program. This legislation provided, "for the establishment of a department to advise the State Board of Investment in determining the investment policies to be adopted for the various state funds and in implementing these policies through the actual purchase and sale of securities."[5] The board established the office of Executive Secretary with a staff to aid in securities analysis, accounting, and secretarial work. This department is directly responsible to the State Board of Investment and has been in operation since April 1, 1960.

Minnesota, thus, provided trained and experienced investment personnel for their program at two points in the structure. The results of the next general election may change the individual membership of the Minnesota State Board of Investment; the board members have other duties and many other demands on their time; the elected officials taking places on the board may have little previous investment experience; but the office of the Executive Secretary tends to offset these disadvantages and gives continuity

[4] State of Minnesota, State Board of Investment, *1961 Report of The Executive Secretary*, (115 State Capitol, Saint Paul 1, Minnesota, March 15, 1962), p. 6.

[5] State of Minnesota, State Board of Investment, *1960 Report of The Executive Secretary*, p. 1 (Based on Chapter 693, Laws of Minnesota, 1959).

STATE OF MINNESOTA
ORGANIZATION FOR INVESTMENT



and investment experience to their program as does the Advisory Committee in its special area.

The entire structure is summarized in chart form above.

New Jersey

New Jersey centralized its investment process by establishing a *Division of Investment* in the Department of the Treasury. Legis-

lation enacted in 1950 abolished the investment powers of certain other boards and established the Division of Investment:

> There is hereby established in the Department of the Treasury a Division of Investment.[6]
>
> The Board of Trustees of the State Employees' Retirement System, the Prison Officers' Pension Commission, the Board of Trustees of the Teachers' Pension and Annuity Fund, the Board of Trustees of the Police and Firemen's Retirement System of New Jersey, the Board of Trustees of the State Disability Benefits Fund, and the Trustees for the Support of Public Schools, and all of their respective functions, powers, duties, records and property are hereby transferred to the Division of Investment established hereunder in the Department of the Treasury.[7]

Only the investment function was transferred to the Division of Investment. All other powers and duties of the agencies enumerated in the section quoted above were specifically reserved to the separate agencies.[8]

The same legislation established a *State Investment Council* of ten members within the Division of Investment. Five of these members were selected for one year terms by certain of the replaced boards listed above from their respective membership. The other five members were appointed by the governor for ultimate terms of five years after the first appointees served terms of 1, 2, 3, 4, and 5 years, respectively. At least three of the latter five members are required to be qualified by training and experience in the field of investment and finance.[9]

The law provides that members of the council shall serve without compensation but shall be reimbursed for necessary expenses incurred in the performance of their duties as approved by the chairman of the council. It also prohibits a member of the Investment Council from holding any office or position in a political party and from receiving any direct or indirect benefit from any transaction made by the Division of Investment.[10] Thus, no member could enter into financial transactions with the Division or be associated with any underwriters or securities dealers who do engage in such transactions.

[6] Revised Statutes of New Jersey (1963), 52:18A–79.
[7] *Ibid.*, 52:18A–80.
[8] *Ibid.*, 52:18A–8a.
[9] *Ibid.*, 52:18A–83.
[10] *Ibid.*

The New Jersey Law provides, as does Minnesota, for a trained individual to direct the program on a full-time basis:

> The Division of Investment established hereunder shall be under the immediate supervision and direction of a director, who shall be a person qualified by training and experience to direct the work of such division. The director of such division shall be appointed by the State Treasurer from a list of one or more persons qualified for such office and submitted to the State Treasurer by the State Investment Council; provided, that the State Treasurer may require the submission of an additional list or lists. Each list so submitted by the council shall also contain the qualifications of each person whose name appears thereon who shall be certified by the council to the State Treasurer as qualified for the office of director of such division. The detailed qualifications of each person so named by the council shall be contained in such certification.
>
> Any director so appointed shall serve without term but may be removed from office (a) by the State Treasurer, for cause, upon notice and opportunity to be heard at a public hearing, or (b) by the State Investment Council, if seven or more members thereof shall vote for such director's removal from office.
>
> Any vacancy occurring in the office of the Director of the Division of Investment shall be filled in the same manner as the original appointment.
>
> The director of said division shall devote his entire time and attention to the duties of his office and shall not be engaged in any other occupation or profession. He shall receive such salary as shall be provided by law.[11]

Working control of the flow of funds for investment purposes is vested in the Director of the Division of Investment in other sections of the law:

> The functions, powers and duties vested by law in the following enumerated agencies: the Board of Trustees of the State Employees' Retirement System; the Prison Officers' Pension commission; the Board of Trustees of the Teachers' Pension and Annuity Fund; the Board of Trustees of the Police and Firemen's Retirement System of New Jersey; and the Consolidated Police and Firemen's Pension Fund Commission; of, or relating to, investment or reinvestment of moneys of, and purchase, sale or exchange of any investments or securities of or for any funds or accounts under the control and management of such agencies, are hereby transferred to and shall be exercised and performed for such agencies

[11] *Ibid.*, 52:18A–84.

> by the Director of the Division of Investment established hereunder; provided, however, that before any such investment, reinvestment, purchase, sale or exchange may be made by said director for or on behalf of any such agency, he shall submit the details thereof to such agency, which shall, within forty-eight hours, exclusive of Sundays and public holidays, after such submission to it, file with the director its written acceptance or rejection of such proposed investment, reinvestment, purchase, sale or exchange; and the director shall have authority to make such investment, reinvestment, purchase, sale or exchange for or on behalf of such agency unless there shall have been filed with him a written rejection thereof by such agency as herein provided.[12]

This section pertains to investment control of only certain retirement funds; there are similar sections for other funds with the notice of proposed investment actions going to the state treasurer, for example.

There are many common characteristics in the structure of the centralized investment process in Minnesota and New Jersey. Both states have established a centralized board as a separate entity to invest all three types of funds. Both states employ trained and experienced investment personnel in the program. Both states transfer a degree of control of the funds to the centralized process.

The major difference between these two structures is the composition of the centralized board. New Jersey required three members of the centralized board to be qualified in the field of investment and finance while Minnesota has a centralized board consisting entirely of state officials who may or may not have had any training or experience in the field of investment and finance. On the other hand, Minnesota has moved to include this element to a degree by creating an Advisory Committee on Common Stock Investments, a committee of 10 leading investment managers in the state. Having noted this, it can be said that both states include trained investment personnel at two points in their centralized process, at the policy-making level and at the operating level.

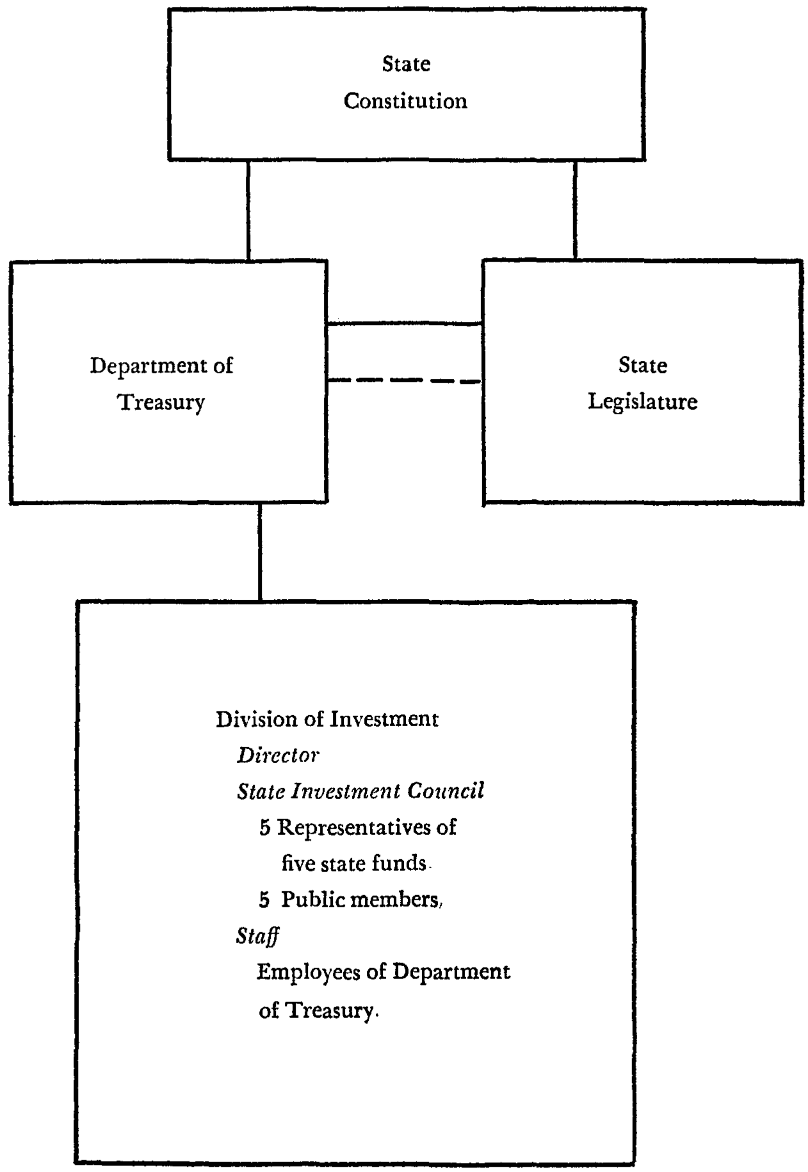
The structure of the New Jersey centralized process is summarized in chart form on the following page.

Wisconsin

Wisconsin has an *Investment Board* which is older than the Minnesota State Board of Investment as presently constituted, but newer than the New Jersey *Division of Investment* and *State Invest-*

[12] *Ibid.*, 52:18A–85.

STATE OF NEW JERSEY
ORGANIZATION FOR INVESTMENT



ment Council. The author was referred many times to the Wisconsin board and to its Executive Director by state officials as well as local government officials and other persons having knowledge of this field whether they were associated with a somewhat similar operation or were far removed from any such activities. This comment is not intended to imply that Wisconsin has the most outstanding or only leading board in the United States, but simply to note a considerable interest in what they are doing.

The Wisconsin board is officially known as the *State of Wisconsin Investment Board.* It was established as a distinct state agency:

> There is created a state of Wisconsin investment board. Notwithstanding any other provisions of the statutes or special laws, the board shall be provided with suitable offices in the state capitol and shall be supplied with necessary furniture, supplies, postage, stationery, equipment and printing on the same basis as other state departments.[13]

The following citation gives a brief history of the board and its full-time investment personnel:

> The Investment Board was created in 1951, to succeed to the investment functions of the former Annuity and Investment Board and to the administrative functions of the former Board of Deposits. At that time the board's executive and administrative functions were vested in a three man State Investment Commission. Much earlier in the state's history, various groups of officials had been responsible for the investment of the different funds of the state. By chapter 657, Laws of 1959, the full-time commission was replaced by a single full-time administrative head of the agency known as the executive director.
>
> The Investment Board is charged with 3 principal functions.
>
> 1. To invest and manage funds of various retirement systems, state operating and building funds and other permanent reserve funds.
> 2. To direct bank deposits of the State Treasurer.
> 3. To administer laws relating to public deposits.[14]

The membership of the investment board is specified in the statutes:

> One trustee shall be the commissioner of administration, who may designate a representative to act in his absence.

[13] Revised Statutes of Wisconsin (1961), 25.15.

[14] *The Wisconsin Blue Book,* 1960, (Published biennially by the State of Wisconsin), p. 388.

> Four trustees shall be appointed by the governor with the advice and consent of the senate. Such 4 trustees shall be persons who have had at least 10 years of experience in making investments; . . . Two trustees shall be appointed by the governor from a list of nominees submitted to him as hereinafter provided. One such trustee shall be a member of the state teachers retirement system. . . . One such trustee shall be a participant in the Wisconsin retirement fund. . . .[15]

Thus, the membership of the Wisconsin Board includes one representative of state government, four public members with special investment qualifications for such a position, and two members representing two large retirement funds. The assets of these two funds presently approximate two-thirds of the total investments managed by the board.[16]

The actual operation of the investment program is a responsibility assigned to a specific office as is the case in Minnesota and New Jersey. In Wisconsin the office is that of Executive Director with provision for assistants to specialize in certain investment areas:

> The trustees shall employ an executive director, who shall serve outside the classified service, at the pleasure of the trustees. Such director shall be qualified by training and prior experience to manage, administer and direct the investment of funds.[17]

> The executive and administrative functions of the state of Wisconsin investment board shall be vested in an executive director, who shall perform his functions in conformity with the requirements of the trustees and in accordance with policies, principles and directives determined by the trustees.[18]

> The executive director shall appoint the employees necessary to perform the duties of the board under the classified service. These shall include investment directors. The trustees shall participate in the selection of such directors. . . . Such investment directors, other than those who were commissioners on March 1, 1960, shall serve a probationary period of not less than 6 months nor more than 2 years as determined by the trustees. Neither the executive director, an investment director nor any employee shall have any financial interest, either directly or indirectly, in any firm engaged in the sale or marketing of real estate or investments of any

[15] Revised Statutes of Wisconsin (1961), 25.155.
[16] See Table VIII for relative size of retirement funds.
[17] Revised Statutes of Wisconsin (1961), 25.156(2).
[18] *Ibid.*, 25.16.

kind, nor shall any of them render investment advice to others for remuneration.[19]

Control of the funds for investment purposes is centered in the Investment Board by legal provisions such as:

> . . . The board shall have power and authority and it shall be its duty:
>
> (1) To have exclusive control of the investment and collection of the principal and interest of all moneys loaned or invested from any of the following funds: . . .[20]

Working control of the maximum amount of the funds of separate entities is secured within the framework of these provisions as those groups seek maximum earnings for their own operations or for the treasury.

The structure of the centralized investment process in Wisconsin, therefore, includes a centralized board which is a separate entity responsible for investing all three types of funds. Trained and experienced investment personnel are required at the policy-making level in the board and at the operating level in the investment office directed by the Executive Director. Also, the centralized process includes a strong degree of working control over the funds to be invested.

The structure of this centralized process in Wisconsin is summarized in chart form on the following page.

Summary

The structure of the state centralized investment process is well summarized in the composite picture which can be grasped from the structure existing in these three states. The three structures have common characteristics that form a pattern for a centralized process and differences that adapt the process to the circumstances found in each state.

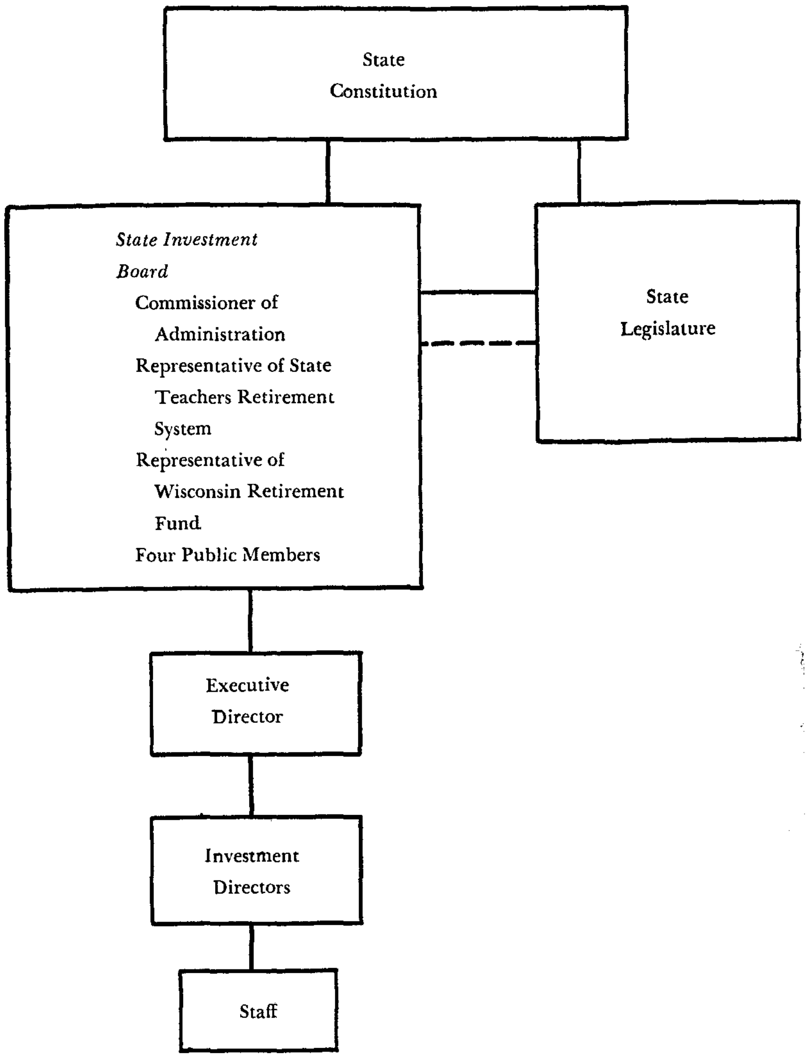
All three states have established a centralized board as a basic element of the centralized process. The composition of the board varies and its position within the organizational structure of the state is not identical, but each has an active centralized board.

An important feature of these three boards is that they are separate entities. They are not investment boards attached to a special fund or group of funds of a certain type, but separate entities created for the purpose of investing state funds to which

[19] *Ibid.*

[20] *Ibid.*, 25.17.

STATE OF WISCONSIN
ORGANIZATION FOR INVESTMENT



the investment function has been transferred from other existing entities. The investment function is their primary responsibility.

Another important feature of these three boards is their responsibility for investing all three types of funds, permanent, retirement, and operating funds. The centralized process, therefore, includes a variety of funds to secure the maximum benefit from the advantages which have been cited.

The employment of professional investment personnel is another basic element which is a common characteristic of these three centralized processes. All three states have approached this matter in two ways: (1) at the policy-making level they have included qualified investment personnel in the structure of the centralized board, and (2) they have required qualified investment personnel on a full-time basis at the operating level. This dual approach applies the attention of specialists at the most critical points in the investment process.

Control of the funds to be invested is a third basic element in the centralized investment process. Complete and final control of all balances could hardly be the pattern because there are separate entities with responsibilities for carrying out the purposes for which the funds were created. However, working control can be achieved within this pattern as these funds become a part of the state centralized investment process.

There are variations in the structure of these three centralized processes which have been noted on prior pages. The emphasis of this comparison, however, is to pinpoint the common characteristics in the structure of the centralized investment process as it actually operates in three states which have adopted this concept.

THE MODEL LAW

A type of "ideal" measuring stick is available in the form of a Model Investment of State Funds Law published in 1954 by the National Municipal League.[21]

The League has studied problems of state and local fiscal administration for 70 years. Their experience in this field and their work with public officials and private specialists has resulted in a series of model laws dealing with local finance. This model law, prepared by the Committee on a Program of Model Fiscal Legislation, was their first venture into the field of state fiscal problems, but there is every reason to consider it a valuable addition for comparison purposes.

Article I of the Model Law establishes a state investment council in the state department of finance. It recommends six voting council members; three public members, appointed by the governor, qualified by training and experience in the field of investment or finance; two representatives of state funds which own the largest

[21] National Municipal League, *op. cit.*

total investment assets; and the state treasurer who shall, however, vote only in case of a tie. The state treasurer would be the chairman and presiding officer of the council. No member would receive any compensation for serving on the council but would be reimbursed for necessary expenses.

At the operating level, the Model Law provides for a Division of Investment within the Department of Finance under the immediate supervision of a full-time state investment officer. The state investment officer is to be appointed by the state director of finance with approval of the governor. He is to be a full-time investment officer and must be qualified, by training and investment experience, to direct the work of the division.[22]

Article I and II, thus, establish a State Investment Council and a Division of Investment and secure qualified investment personnel for the investment program at both the policy and operating levels. There are other sections in these first two articles, but the important thing is the establishing of these two basic elements of the centralized investment process.

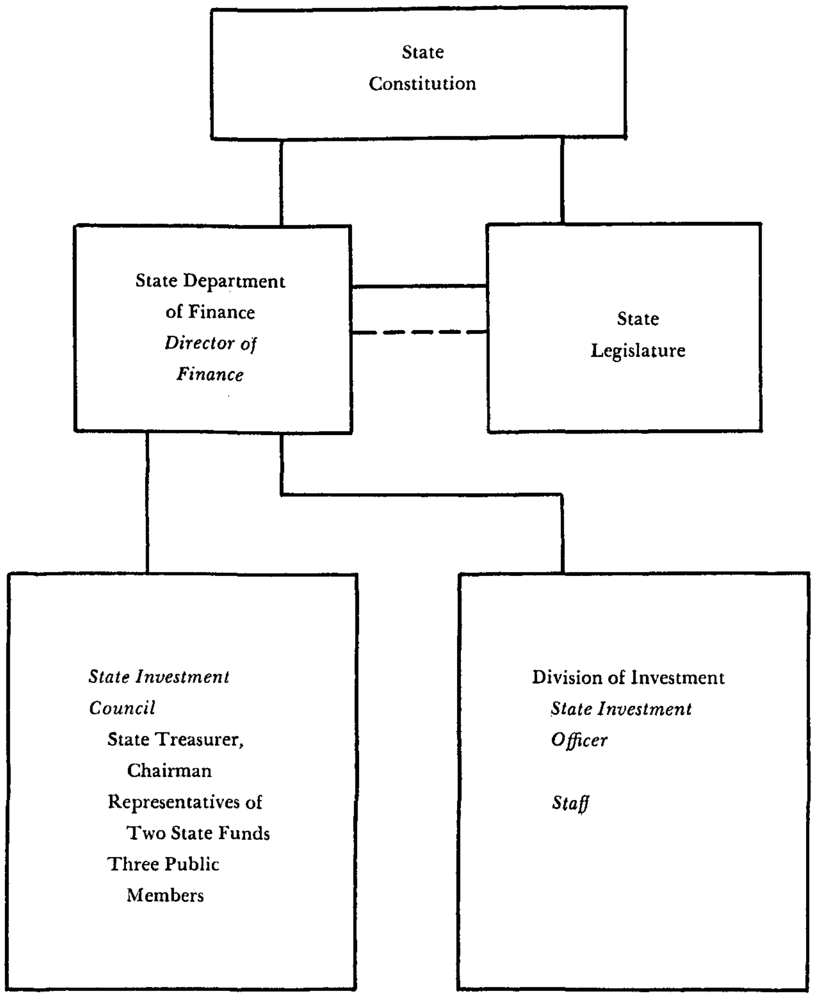
Article III, Centralization of the Investment Function, and Article IV, Investment Powers and Duties, also deal, in part, with matters of structure of the centralized investment process. These are the articles that centralize the investment function for all three types of funds, as discussed in this study, and transfer control of the funds to the centralized process.

Another section of Article III specifies that the separate agencies are to retain all of their former powers and responsibilities with only the investment function transferred to the centralized process. However, control by the state investment officer of the funds to be invested is specified also in Article III and IV. It should be noted that this control is only working control of the funds to be invested. It does not extend to the internal decisions of the separate agencies as to what funds are available for investment. This point is discussed in two separate sections.[23]

As had been noted previously, this division of control is to be expected since the separate entities have a primary responsibility for the specific activity of their agency and require funds for those purposes. What is needed is a co-ordinated plan to maximize the amounts invested and their earnings. Maximum earnings for a

[22] *Ibid.*
[23] *Ibid.*, Article VI, Sec. 1, and Sec. 2.

MODEL INVESTMENT OF STATE FUNDS LAW
ORGANIZATION FOR INVESTMENT



given agency or the state treasury both benefit the taxpayers in the final anlysis.

The structure proposed by the Model Law is presented in chart form above.

Comparisons

The structure and organization of the investment boards of Minnesota, New Jersey, and Wisconsin correspond to the recom-

mendations of the Model Law in many respects. This is not surprising since it is not unreasonable to expect that any such Model Law or other general recommendation would be based, in part, upon the satisfactory experience of existing examples as tempered by the application of what is considered sound theory in the particular field. Likewise, those established at a later date would tend to draw upon such a Model Law as their provisions were framed. On the other hand, there are also expected differences.

It would not be accurate to state that any one of these three states more nearly resembles the structure recommended in the Model Law than the other two. New Jersey is the only one of the three with a Division of Investment, but it is in the Department of the Treasury rather than a Department of Finance as such. New Jersey has a State Investment Council by name, but Minnesota and Wisconsin both have similar groups with slightly different names.

The membership of the Wisconsin Investment Board more nearly resembles the recommended State Investment Council although the New Jersey Council is essentially an expansion of the basic recommendation. The membership of the Minnesota Board differs somewhat from the recommendations, but it is the only one of three to include the state treasurer. Both Minnesota and Wisconsin include the governor and one or more other state officials while New Jersey and the Model Law omit them. All three states have established the recommended position of a full-time state investment officer.

There are other points of similarity and distinction in the structures of these three boards and between them and the Model Law. Perhaps it is well to re-emphasize at this point that one should not assume that all such boards ought to have the same structure or that they should all match the structure of some model. It is more important for each board to be so organized within the framework of its state constitution and legislation as to be able to function in the over-all program of a particular state. It appears that this has been accomplished in these three states.

If one were to generalize on the structure of a state centralized investment process by speculating as to its probable final structure in a state about to embark on a legislative program to form such a process, it is quite likely that: (1) a separate entity will be established with the words State, Investment, and Board or Council appearing in its title in some combination; (2) the membership will

number from five to ten and include the governor, state treasurer, representatives of larger funds, and approximately three public members with previous financial or investment experience; (3) there will be created a position of a full-time investment officer with the title of Executive Director or Executive Secretary and requiring previous financial or investment experience; and (4) working investment control of funds in all three categories will be centered in this separate entity through the structure of the centralized process.

V / Control of Cash Flow and Investment Operations

CONTROL of cash flow and investment operations is a key factor in the successful operation of a state centralized investment process. The word "control" needs to be applied in two ways. First, there must be control in an accounting sense so that cash balances of the various funds are available when required for their stated purposes. Second, there must be control over investment operations so that maximum investment returns may be obtained consistent with normal flow of the funds.

Cash flow refers simply to the flow of cash into some form of investment and its subsequent return to the form of cash to meet the various expenditures for which it was originally intended.

IMPORTANCE OF CASH FLOW CONTROL

It is extremely important for a state centralized investment process to devise a carefully considered plan or program to so regulate cash flow that cash balances may be maintained at a point which is as close as possible to the actual requirements of the various types of funds. Variations in either direction from this point tend to destroy the effectiveness of the centralized process.

There is a certain feeling of safety, of course, when cash balances are allowed to exceed actual requirements by comfortable margins. The difficulty is that such a margin or excess is an idle cash balance and serves to negate the purpose of the state centralized investment process.

Faust commented on excessive balances, 40 years ago:

> Maintaining large balances in the depositories is an uneconomical treasury practice. At this point there is great need for more scientific handling of the state's cash. Frequently these large balances represent in addition to the revenue receipts large sums of borrowed funds which are

costing the state double the amount of interest received on the deposits. Private concerns that are efficiently managed do not carry in their deposit accounts supplies of cash in excess of their current needs.[1]

It is a question of degree, but the greater the margin permitted the greater the negation of the basic purpose. There are many other advantages to the various funds resulting from the centralization of the investment process but they may be overlooked or at least appear unimportant when the question is raised as to why the balances are not more fully invested.

Even more serious are the problems created if the cash is not available when required by the various funds. The many departments and agencies within a state government require cash for varying expenditures and at varying times. There are payrolls, pension payments, and operating expenses which follow a somewhat regular schedule. There are equipment purchases, construction contracts, and other commitments which may follow quite an irregular schedule. A failure to have the cash available to meet such obligations could necessitate temporary borrowing by the state which may be expensive and could undermine the entire program of investing state funds.

This is the kind of failure which would discredit the idea of a state centralized investment process more than other failures. The potential losses to a state from failure to invest or failure to invest efficiently are greater but they are hidden. Little imagination is required to visualize the furor which could result if it became known that a state could not pay its bills because the centralized investment board could not produce the cash when it was needed.

At the same time, this "necessity for control" needs to be placed in proper perspective as it applies to actual operating conditions. A practical solution to this problem is not too difficult to achieve because of the nature of the funds and their investment requirements. This fact becomes more evident from a brief review of each of the types of funds as they were categorized in Chapter II. Attention should be directed toward the availability factor.

Permanent Funds

Control of cash flow is actually of negligible importance as it pertains to the investment of the principal amount of permanent funds because the balances are not designated for expenditure. Generally, only the income earned by such balances is to be expended.

[1] Faust, *op cit.*, p. 39.

The income must be available when it is required and there may be some desired movement of the permanent balance but availability or liquidity of the principal itself is not of primary concern.

Retirement Funds

Liquidity of retirement fund balances can be of somewhat greater importance. Unlike the permanent funds, the principal of retirement funds must be available for retirement payments at some future date. On the other hand, the amounts required at various future dates can be determined with considerable accuracy so that no great amount of difficulty should be encountered in selecting proper investment maturities. The calculations could become more difficult but it is doubtful that they will be very complicated for most such funds for many years. The reason for this is, as previously noted, that retirement funds are relatively new; they are growing and expanding; the number of persons paying-in exceeds the number of persons drawing benefits and the amounts paid-in exceed the benefits paid each year.[2]

In the opinion of every state official interviewed, this inflow of funds from contributions and earnings will exceed the outflow by a substantial margin for the foreseeable future. Unforeseen developments are quite unlikely since people do not suddenly grow old and need their retirement funds all at once. Retirements and retirement outflow can be forecast with reasonable accuracy many years in advance.

In these circumstances, the present balances and, for all practical purposes, a large proportion of the present yearly receipts can be safely handled as nearly permanent funds for years and even decades. One state investment officer commented to the author that they invest them as semi-permanent funds at the present time.

Operating Funds

Current operating funds are another matter. Many balances included in this category will be expended in varying amounts at different times within weeks or within months. Receipts will fluctuate with the passing of various tax collection dates, the sale of bonds, and with other irregular sources of revenue.[3] Many expendi-

[2] Note, for example, the nearly 70% net increase from $10 billion to $17 billion in four recent years 1959–1963, Table IV.

[3] For a discussion of why idle cash balances accumulate in a given state, see P. A. R. Analysis, *Investment of State Funds* (Public Affairs Research Council of Louisiana, Inc., 505 Commerce Building, Baton Rouge, Louisiana, April, 1961), pp. 2–4.

tures will follow regular patterns but others will not. In short, it is these funds which make the determination of cash flow appear to be a larger over-all problem than it is for the state centralized investment process.

Even in this category, however, there are continual receipts which will match expenditures to some extent and result in a basic balance which will persist from year to year. For this reason, there is a certain element of permanency in even these operating funds.

The apparent requirement is for procedures which will provide sufficiently reliable information on a regular basis about the demand for these funds. Armed with this information, the state investment officer can match the indicated demand with the range of available investments.

Summary

The careful control of cash flow is important to the state centralized investment process. At the edge of the problem it is a critical matter of making certain that cash balances are available when they are needed, but at the core the balances are primarily for long-term investment.

The variety of funds for which the centralized process is responsible appears to make control a difficult problem. However, from a practical standpoint, cash flow is of negligible importance if they are permanent funds, of some importance if they are retirement funds, and of critical importance only for a part of the operating funds.

CALCULATING CASH FLOW CONTROL

While control of cash flow is important to the state centralized investment process to secure effective investment and the necessary availability of balances, there exists in theory and current practice a general approach which regards cash flow control as an easily managed matter not requiring extensive accounting procedures or complicated analysis.

This general approach appears to result from two basic factors: (1) the element of permanency in the funds, already noted, concentrates required control in a relatively small area; and (2) an accepted position that the centralized investment board involves only the centralization of the investment function with all other functions and duties retained by the separate agencies or officials, including the matter of certifying balances to the centralized investment board for investment.

The latter factor needs additional explanation. The Model Law is the only general discussion dealing with this area of state investments which was located in this research. It centralizes the investment function, as was noted in Chapter IV, but clearly places the responsibility for determination of cash flow on the individual agencies or officials with balances to be invested. This duty is stated in Article VI, section 1 and 2. It is also implied in Article V, section 1 and 2, which has the effect of requiring the individual agencies or officials to specify any time limit on balances made available for investment. The Model Law, therefore, presents no examples or illustrations of how cash flow is to be controlled because this duty was placed outside the centralized investment board.

The emphasis on centralizing only the investment function can be appreciated, but it appears to the author that a fully centralized process must give consideration to cash flow control to secure effective investment through proper utilization of balances, even if the element of permanency nearly eliminates the problem of availability.

However, current practice tends toward the general approach. The author contacted several state investment boards, including the three special-study states, with a request for copies of schedules, charts, or other data which would illustrate their procedure for cash flow control. In every instance, the reply indicated that such detail was not necessary and not used by the board. One state investment officer commented, in an interview, "I know what you are after—I've used such schedules elsewhere—but, frankly, the majority of our invested funds are so permanent that availability is critical for less than 5 per cent of the total. We get together with the state treasurer on this."[4]

Another state investment officer forwarded a schedule indicating only maturities and estimated interest receipts for one month in advance. He indicated that monthly cash meetings are held with representatives of various funds and state officials to decide what funds shall be invested or reinvested in the next month. He commented on these meetings as follows, "With reference to the monthly cash meetings, no other forms are used. Decisions to invest available cash and future cash receipts to be received from maturities and interest are made by those knowledgeable in this area and are based upon past experience and projected requirements."[5] The same

[4] From a private interview. This is one of the larger state investment operations where 5 per cent would be in excess of $25 million.

[5] From a letter, June 3, 1964.

officer had stressed the significance of being "knowledgeable in this area" in a previous interview.

Other interviews disclosed the same general approach. Control to secure availability is not considered to be a difficult problem because of the element of permanency in the invested balances and the knowledge of their own requirements possessed by the representatives of the funds who confer with the state investment officer.

For these reasons, no schedules illustrating cash flow control for an existing centralized investment process are presented in this discussion. Procedures which can be used if balances demand a more technical analysis are available. The method and details will vary between persons, types of funds, and funds of the same type depending upon circumstances. One example of such procedures are those established by the League of California Cities.[6]

The fact that nearly all investments of operating funds are in short maturities is a key matter. There is ample opportunity to arrange the spacing of maturities in such a way that, after the first short period has passed, there is a regular schedule of maturing amounts stretching off into the future. This device can be utilized to keep any persistent basic balance invested while current receipts are matching current expenditures. If receipts do not match expenditures, a deficit may be made up from any cash balance which is maintained or from investments maturing within a few days and a surplus may be invested or become a temporary part of the cash balance.

A state investment officer and a city finance director both advised the author[7] that "it couldn't happen," but if an unexpected expenditure were to appear, they could have the cash available from investments before the expenditure could be approved for payment. Their comments also underscore the advance knowledge of government expenditures which is already available because of budgets, appropriations, and other required routine.

In summary, cash flow control is not an unmanageable problem for the state centralized investment process. The general approach is to distribute the responsibility throughout the process rather than place it with the centralized investment board. Thus, a knowledge of the requirements for the various kinds of balances can be joined

[6] League of California Cities, *Treasury Cash Management and the Investment of Idle Funds* (Hotel Claremont Building, Berkeley, California, April, 1956).

[7] A large state investment operation with more than $50 million of current operating funds invested. The city is small but with an aggressive program for keeping cash balances invested.

with investment know-how to achieve the necessary control. There is considerable reliance on the professional skill of the investment personnel and co-ordination within the centralized process rather than upon complicated accounting procedures which one might expect to encounter for funds of this general magnitude.

The important point is that cash flow control procedures have been developed within the state centralized investment process which recognize the peculiarities of each type of funds and appear to be generally satisfactory.

CONTROL OF INVESTMENT OPERATIONS

Control of investment operations is a function of the control of cash flow. It may be said that control of investment operations can exist without control of cash flow, but effective control begins with the development of cash flow control.

This facet of the control of cash flow and investment operations in the state centralized investment process is discussed in two parts: (1) Effective Investment; and (2) The Decision to Invest.

Effective Investment

More effective investment is one of the basic purposes of the state centralized investment process. The process is centralized and the structure designed to gain the advantages of more effective investment such as combining small balances, maintaining fuller investment of idle balances, and employing specialized investment personnel. Control of investment operations to make effective investment a reality is, therefore, an important part of the process.

The emphasis of this chapter thus far has been on the control of cash flow for the various types of funds so that the necessary balances will be available to meet the purposes for which the funds were established. Attention was focused on the desired degree of liquidity for each category of funds. There is another side to this matter; cash flow control is at least equally important to effective investment.

Effective investment of funds requires knowledge of balances which are available for investment. When balances are large or otherwise attract attention, they will not be overlooked in the flow of funds into investments. However, there may be other balances which have escaped attention because of small size or traditional handling. More effective investment of these latter balances can

result from the attention focused on them by the procedures for cash flow control.

There is other knowledge of the balances which is also essential to effective investment. It is necessary to have reliable information concerning the length of time balances can be held and knowledge of expected future plans which may require liquidation of certain investments. The type of investment and spacing of maturities are two factors which depend on this knowledge.

This knowledge of cash balances for effective investment does not require separate control and analysis. It derives from control of cash flow and is really "the other side of that coin." Thus, control of cash flow is important to availability and has the added advantage of providing better control of investment operations at the same time.

The Decision to Invest

The location of the power to decide what balances are available for investment is extremely important to control of investment operations and efficient investment. Control of investment operations requires control of this power of decision within the state centralized investment process.

The authority to release funds to be invested, or to refuse to release them may rest in different places, for example, with the individual fund, with the state treasurer, or with the centralized investment board. The effect of the location of this power needs to be considered as it concerns control of investment operations.

The individual fund may control its own cash balances in some circumstances. There is some merit to this arrangement because the trustees or other officials are in the best position to know the requirements of the fund. They are most aware of their own future plans and are also in the best position to make accurate forecasts of their own cash flow.

There are also difficulties to be faced when the individual funds are in complete control of their own balances. For example, the officials will know the requirements of the fund only if they have been adequately studied and if the results are understood. Moreover, the officials are likely to maintain a proprietary interest in their cash balance and be hesitant to release funds for investment. If not hesitant for this reason, it may be that they lack a broader view of state finances and fail to appreciate fully what can be accomplished when many such balances are combined for investment purposes. Although they are in a better position to forecast their

own cash flow, they may not do so unless they become aware of the greater earnings which can accrue to their balances.

The state treasurer is in a position to have a broader view of state finances. Also, he is either working closely with or is actually a member of the centralized investment board and can be more aware of the advantages of the proper control of cash flow in connection with the investment program. If the state treasurer is in control of the power of decision, however, then that power is already out of the hands of the other individual funds and it could as well be placed with the centralized investment board where the closest coordination with the investment program can be achieved.

The Model Law, as has been noted in previous paragraphs, centralized the investment function but leaves the ultimate power or decision to invest with the separate agencies or state officials. That is the effect of sections requiring the state treasurer and other officials of various funds to certify funds for investment to the state investment officer when they are deemed unnecessary for other purposes.

In practice, the procedure tends to conform to the same pattern. There are, of course, no sources of nation-wide information which present a typical pattern. Determination of current practice must be by reference to such states as the three special-study states which have centralized the investment program.

As was noted in Chapter IV, Minnesota has placed all investment powers with the State Board of Investment. Balances to be invested are certified to this centralized board by the separate agencies or state officials responsible for various funds. In theory, this procedure reserves the power over the decision to invest to the separate agencies or officials who could refuse to certify any balances. In actual practice, however, the centralized board works closely with the representatives of all funds and has no difficulty with this arrangement. One state official advised the author that, "in theory, they can refuse to invest, but everyone wants the earnings and each week they give the go-ahead signal which puts the board in control.[8]

A similar situation exists in New Jersey. The investment function was transferred to the State Investment Council but a veto power is reserved to the separate agencies. In theory, they can block action by the centralized board. In practice, however, they cooperate with the centralized board to secure maximum earnings for them-

[8] From a personal interview with a state official.

selves. In fact, the director of the Division of Investment advised the author that, "the Governor's Committee on Efficiency and Economy in State Government has recommended that the veto power of each board over the investment council's decision be removed, in view of the council's qualifications, experience, and excellent record in the investment of State funds."[9]

On the other hand, greater power is centered in the State of Wisconsin Investment Board. It appears that their powers to invest balances of various funds are broader than those of other states. At the same time, decisions to invest balances must consider the requirements and future plans of the separate funds which tends to make effective control of decisions a part of the total investment process.

In each of these cases, there are provisions for control of the power of investment within the centralized investment process with working control passing, in practice, to the centralized investment board and its professional investment personnel.

A high degree of teamwork and cooperation between the individual funds, the state treasurer and the centralized investment board is essential for control of investment operations. It will not be satisfactorily replaced by legislation or regulations. The state treasurer is charged with the responsibiltiy of receiving and disbursing most state funds. The individual funds are most aware of their own requirements and the centralized investment board is most familiar with the requirements relative to a control of cash flow which will permit the most effective investment program.

A typical state interested in developing a state centralized investment process must consider how much control over balances should be delegated to the centralized board. In the interest of more effective control of total cash flow and investment operations, the centralized board should be provided with sufficient power to require at least a review of all balances. In most cases, however, it seems likely that the ultimate decision will remain with the individual funds. The three special-study states demonstrate that this arrangement is practicable.

[9] From a personal interview.

VI / Investment Policies

A STATEMENT of investment policy for a state is a summary of legal powers and authorized investments for funds of that state. These policies vary from state to state because constitutional and statutory provisions for investing state funds originated at different points in history and under different circumstances. Some states have acted to broaden their investment policy in recent years to provide legal powers for a range of investments more appropriate to current requirements of available funds.

COMPENSATING BANK BALANCES

In its broadest sense, investment policy includes every legal holding of available balances of the various funds. A decision to provide for certain cash balances is a decision not to withdraw and invest that part of the total balances.

An Old Problem

As was noted in Chapter I, the deposit boards established three or four decades ago might be considered primitive forerunners of the state centralized investment boards of today. The problem of proper handling of state bank balances of that day made it necessary to establish committees or boards to determine the deposits to be made and the balances to be allowed to remain in various banks selected from those which qualified to receive state deposits. The following comment was written forty years ago at a time when there had been a number of scandals involving state officials and state funds:

> The factors determining the actual designation of the depositories and the distribution of the state funds among those designated present the most intricate phase of depository administration. Public deposits have always been a poisonous element in our practical politics. The distribution of the state funds has always been and still is a vital link in the patronage

> systems and machine politics of our state governments. Inquiry reveals that the considerations prevailing in the allocation of the funds are predominantly political. One must assume, therefore, the general prevalence of the patronage system and examine in the light of this assumption the regulations laid down by the states looking toward the disintegration of the spoils factor and the establishment of methods of distribution that will insure security, economy, and equity in the handling of the public deposits.[1]

The investment policy problems concerning state bank balances would appear to be somewhat the same today insofar as they are concerned with the size of balances to be allocated to each depository. However, the approach to the problem by a state centralized investment board is quite different from those earlier boards. It is no longer only a matter of protecting the balances and preventing manipulation of state funds for personal gain. It is more a matter of determining the balances which will be sufficient to care for state disbursements and, at the same time, recognize the value of services performed for the state by the banks. To the extent that these balances are intended to recognize the value of banking services, they can be regarded as true "compensating balances" although this designation is sometimes loosely applied to other accounts.

One study described these balances as follows:

> Fiscal agents or depositories must cash state checks without charge and receive on deposit at par all checks written by or in favor of the state or its agencies. In short, fiscal agent banks do not charge the state for services rendered, nor generally for state checks cashed by individuals.
>
> The fact that banks do not make direct charges does not mean that such services are provided without compensation. Recognizing that banks are entitled to consideration for services, the state rewards banks indirectly through compensating cash balances. Banks are able to earn money from these cash balances which remain in checking accounts. For example, commercial and private checking accounts are usually given monthly credit against checking charges for each $100 which remains in accounts in excess of checks drawn. Compensating balances, then, are inactive balances left in active accounts on which banks can earn income. Such earnings offset the lack of direct charges for bank service provided the state.[2]

Compensating bank balances become a part of this discussion

[1] Faust, *op. cit.*, p. 9.

[2] Public Affairs Research Council of Louisiana, *Investment of Idle State Funds* (Baton Rouge, Louisiana, November, 1956), p. 16. A similar comment is included in their 1961 publication, *op. cit.*, pp. 4–5.

because they are an important part of the planning of the investment program and are given considerable attention within a centralized investment process.

Planned Balances

Compensating bank balances are, therefore, balances which are deliberately left on deposit and not withdrawn and invested. They are planned idle cash balances rather than balances which have been overlooked in the investment program. At the same time, they are not really "idle" balances; they are "working" balances because they may be said to be earning bank services which would otherwise have to be paid for in some way. Planning for these balances must be equitable to both the banks and the state.

> Obviously, the disposition of cash balances of State and local governments is of intimate interest to commercial banks. While State and local funds do not constitute a major segment of total bank deposits . . . . neither can these funds be termed insignificant. Legislative provisions and administrative policies governing the handling of cash balances must be fair to the banks as well as to the taxpayers at large. On the other hand the governmental units should expect treatment equally favorable to that extended to private customers.[3]

The banking services performed for the state may include special services not typically furnished for other depositors. Acts such as handling bonds for the state, taking custody of securities purchased, treating the state as a preferred depositor by pledging securities to cover its deposits, and other services, increase the cost of operations for the bank beyond the usual cost of entering deposits and withdrawals in the account.

Discussions with various state investment officers and other officials, including the three special-study states, indicate that they are fully aware of the necessity for planning compensating bank balances which will permit earnings by the banks to compensate them for the services they render to the state. Their immediate problem is just how large these balances should be.

Size of Balances

While this is a problem which requires some attention, it is not a particularly difficult one because there are somewhat standard methods available for such computations. Commercial banks regularly analyze their checking accounts to determine the net profit or

[3] Advisory Commission on Intergovernmental Relations, *op. cit.*, pp. 21–22.

loss on the account. Such an analysis typically involves a determination of the average loanable balance to which an earnings rate can be applied to ascertain the income from the account. The next step is to determine the cost of handling the account by assigning predetermined cost figures to such services as the number of bookkeeping entries in the account, local and out-of-town checks cleared, cash handled, collections, and other items. The difference between the total assigned costs and the calculated income figure is the net profit or loss on the account.

Several sources make reference to the League of California Cities report, cited in Chapter V, which also includes a discussion of proper compensating balances for a governmental unit and a summary of procedures sometimes used in arriving at the cost of banking services. As noted earlier, this report was written with local governments in mind, but much of it is equally applicable to the same problems at the state level.

INVESTMENT PRINCIPLES

Basic investment principles form a foundation for investment policies. A survey of the reports and documents collected in this research[4] and discussions with state investment officers and others working in this field indicate four basic principles which are particularly applicable to investment policies for state funds: (1) Proper handling of public funds, (2) Safety, (3) Availability of the funds, and (4) Maximum earnings. Each of these four principles needs some elaboration and defining within the particular frame of reference of this study.

Proper Handling of State Funds

Proper handling of state funds could be interpreted in a general way to cover the entire matter of investing state funds but is not intended to be so all-inclusive. As was noted in previous chapters, the concept of proper handling has undergone considerable change over the years. It was once a problem of custody; a problem of protecting public funds from loss by theft. With the development of the Treasury System and our commercial banking system, custody and protection of the funds have become relatively insignificant problems. "Proper handling" has acquired a new meaning.

[4] See, for example, League of California Cities, *op. cit.*, p. 11, Advisory Commission on Intergovernmental Relations, *op. cit.*, p. 23; and Public Affairs Research Council of Louisiana, Inc. (1961), p. 13.

Taxpayers have a right to expect that the state will make maximum use of their money. There can be little disagreement with the idea that a state should take from the taxpayers only the funds required to finance its programs. In spite of this, balances accumulate in current operating funds and the total balances of other funds continue to increase. As it seeks a maximum use, a state comes face to face with an obligation to invest some or all of these balances.

This is the new meaning of proper handling of state funds. Proper handling today requires an investment program and modernized investment policies to guide that program.

Safety

Safety is the second listed principle and it should be the first consideration in any program of investing state funds. In this context, protecting state funds from loss is still a significant problem. No other objective can be more important and, as stated by the League of California Cities, "No reasoning to the contrary can justify any speculation with the principal amount of the funds to be invested."[5]

This is not to say that no losses of state funds can be tolerated under any circumstances. Safety is one thing and a prohibition against realizing any losses from investments is quite another. Such a provision is short-sighted and will only serve to "lock-in" the state when better opportunities are available and an unfortunate investment should be scrapped. The resulting losses of potential earnings from other investments are often greater than the actual loss to be taken in the present investment. Such a short-sighted policy may have had more merit when investment of state funds was a secondary, part-time activity of a state official with many other pressing duties. It has little merit when investment of the funds is the primary, full-time responsibility of professional investment personnel. This is a matter worthy of close attention as some state governments have experienced losses and frustration because of legal restrictions concerning taking of any losses on investments.

The State of Minnesota, for example, had constitutional restrictions pertaining to its permanent funds which were based on a concept of safety but were found by a special study committee in 1960 to be a barrier to proper investment of the funds in recent years:

[5] League of California Cities, *op. cit.*, p. 11.

The State constitution not only created the trust funds, but stated the investment policy to be followed. The two main provisions are:

1. That the funds can be invested only in state, municipal, or U. S. government bonds.
2. That the funds must remain "forever inviolate," which has been interpreted to mean losses cannot be taken by way of sale.

The restriction of investments to State, municipal, or U. S. government bonds has, of course, prevented the State Investment Board, which has been charged with responsibility for managing the funds, from channelling any of the assets into such investments as mortgages, corporate bonds, or stocks, regardless of the fact that within these latter categories there are available a wide selection of investments having a high degree of safety and stability, while at the same time affording a much higher rate of return.

The provision that the funds must remain "forever inviolate" together with the constitutionally required dedication of income has prevented the Investment Board from selling any investments at a loss, in spite of the fact that fluctuations in long term investment rates and resulting swings in bond prices have presented numerous opportunities to shift funds from low-yielding investments into higher-yielding bonds.

Circumstances prevailing at the time of the drafting of these constitutional provisions are no longer present today. Now there are greater needs for revenue due to increased costs of public services, education being one striking example. For the trust funds to meet the demands of the present, it is apparent that a more adequate rate of return becomes important along with preserving the principal. The objective therefore becomes one of striving for higher income with fully adequate degree of safety. These are not opposites and a workable solution is readily attainable.[6]

Following the work of this committee, and other studies, an amendment to the constitution was proposed which liberalized the investment policies for these funds and adjusted the "forever inviolate" provision so that losses may be taken. It is interesting to note that this amendment, which also included other provisions for the permanent funds, received wide support throughout Minnesota and was approved in the general election of 1962 by a wider margin than any other amendment.

Safety is a relative term. A given investment may provide a high degree of safety for one type of funds but expose another type of funds to other more serious risks. The funds may be relatively safe

[6] *Report of the Committee on Investment of State Trust Funds,* State of Minnesota, December, 1960, p. 1.

from risk of loss by theft or by failure of the security issue; but there are other risks such as the risk of loss because of changing market interest rates, or loss in value because of inflation. Safety of principal can be defined to mean no speculation with any of the funds but its application as a principle will necessarily vary with circumstances and the type of funds being invested.

Safety should be the guiding objective but it cannot be specifically prescribed by law or regulation. Legislation can establish the framework for an investment program, the structure of the investment process, specify the funds to be invested, and indicate general investment principles; but legislation to require investment in certain securities or to prohibit taking of any losses soon becomes outdated and a positive hindrance to an effective program. A state centralized investment process with centralized responsibility, professional investment personnel, fund and public representation, and other control features provides the greatest degree of safety from all potential risks which can be obtained.

Availability of Funds

The third listed principle is availability of the funds. Simply stated this means that the funds must be available when they are needed to meet expenditures. No amount of explanation of the obligation to invest balances and the complexities of obtaining safety of the principal can offset the damage which could result from failure to have the funds available when they are needed.

Availability is, of course, primarily a problem related to investing idle balances of operating funds and is of little or no consequence to permanent funds or the highly predictable retirement funds. As was noted in Chapter V, both the permanent funds and retirement funds have virtually no requirement as to availability of the principal amount at the present time or for many years to come. Fortunately, the wide range of maturities which can be obtained in suitable investments for operating funds permits a spacing consistent with planning for availability.

Availability of the funds is, thus, not an impossible hurdle but a factor to be considered as investment policies are formulated to guide a state centralized investment board.

Maximum Earnings

The fourth and last principle stated above is maximum earnings. Perhaps this principle is self-evident because the purpose of

establishing an investment program is to maximize earning opportunities, but it needs to be stated to complete the circle which begins with the first principle and the obligation of the state to make maximum use of its funds.

It can be said that uninvested funds or funds placed in minimum investments possess certain elements of safety and are available, but they are not securing maximum earnings. They possess safety from loss of principal through unfortunate investment but they are exposed to loss of principal because of a decline in the value of the dollar and loss through relatively reduced ability to meet obligations because their accumulated earnings are less than they might have been.

Longer term investments will generally return larger earnings if availability of the funds is not a problem and there are larger earnings obtainable if investments involving a greater risk are undertaken. One should not infer from this, however, that a state can increase its investment earnings only by taking great risks and committing its funds to long term investments where they may not be available when they are needed.

Maximum earnings should be stressed in a balanced investment policy which recognizes this principle as more nearly equal to safety and availability in importance.

TYPES OF INVESTMENTS

There is a great variety of investment opportunity available in our economy where private enterprise and several layers of government are both endeavoring to secure financing for current operations as well as fixed capital requirements. The result is a wide variety of instruments which channel the operating balances and savings of the economy into productive use.

A complete and comprehensive listing of all such investment opportunities would fill many pages, if presented in any detail, and would not add proportionately to this discussion. An excellent summary of typical investments for state funds is presented by the Public Affairs Research Council of Louisiana, Inc., in their 1961 publication.[7]

The range of these investment opportunities includes short-term and long-term investments, those requiring little specialized investment knowledge, and those requiring expert investment knowledge.

[7] Public Affairs Research Council of Louisiana, Inc. (1961), *op. cit.*, p. 13.

Within this range, unlimited combinations can be devised to meet investment requirements of state investment programs of all degrees of specialization.

PARTICULAR POLICIES

No general statement of investment policies would be adequate for the requirements of all state funds. Before proceeding to an examination of existing policies, however, it is informative to review one such measuring stick with due regard for the broad general purposes for which it was designed.

The Model Law

The *Model Investment of State Funds Law,* already cited in Chapter IV as it pertained to the structure of the state centralized investment process, vested the power to make investments in the state investment officer subject to investment policy regulations established by the state investment council and approved by the state director of finance.[8]

Other sections cover such points as a requirement that securities or investments must not be sold or exchanged at less than their market price, provision for obtaining legal opinions concerning certain bond purchases, a monthly consulting and reviewing session of the state investment council, and authorizations for handling defaults and compromises.[9]

The range of authorized investments for available funds is carefully stipulated in the details presented in Article V, Eligibility of Securities and Other Assets for Investments.[10] Authorized investments are divided into several classes within two general categories: (1) investment for a period in excess of one year, which includes a wide range of federal government obligations and others guaranteed by the federal government, Canadian governments, municipals, obligations of the Port of New York Authority and public housing authorities, the International Bank for Reconstruction and Development, mortgages, corporate securities, and legal investments for insurance companies; and (2) investment for short-term periods, which includes federal government obligations, corporate obligations, and obligations in which savings banks may legally invest. There are, of course, restrictions and qualifications attached to most of these classes of securities.

[8] *Op. cit.,* Article IV.
[9] *Ibid.*
[10] *Ibid.,* Article V.

The Model Law is restrictive in that it lists classes of securities and begins each category listing by stating that moneys, "may be invested in the following classes of securities, and not otherwise."[11] On the other hand, the classes are broadened by inclusion of legal investments for insurance companies in the first category and obligations legal for savings banks in the second. These two broad classes reduce the possibility that a listing of specific classes will prove to be too restrictive in future years.

The final section of Article V adds a "prudent man"[12] rule as a reminder of the wide range of authorized investments and makes it applicable to all classes of investments.

Investment policy is also one of the major topics discussed in the introduction to the Model Law. The following comments are particularly applicable to this chapter:

> A further positive, although controversial step is deemed necessary. The Model Law provides for a substantive change in state investment policy by widening the classes of securities and other assets in which state funds may be invested. The Committee believes strongly: (a) that, the principle of *adequate income* should be placed on a parity with the principle of *security of capital*; and (b) that, in application of this parity, the investment portfolio should be enlarged in order to increase earning power without at the same time sacrificing essential safety.
>
> In the past, legislatures have tried to provide sound investment management by restricting state investments within very narrow limits. The result has been an overemphasis on security of capital with resultant serious losses in earnings.
>
> Under the proposed Model Law up to 25 per cent of the moneys of any one fund could be invested in the securities of private corporations organized and operating within the United States, provided such companies each have assets of $10 million and their securities are listed on one or more national stock exchanges. To specify different portfolio ratios for different types of funds seemed unnecessary.
>
> Diversification of investments and less emphasis upon tax-exempt securities are thus contemplated. State funds which do not derive benefit from the tax-exempt feature should not have to pay for this feature in lower earnings. The Model Law also recognizes that long-term investment portfolios should include equity securities in order to have a more adequate protection against a possible depreciation in the purchasing power of fixed-obligation repayments.[13]

[11] *Ibid.*, sec. 1 and sec. 2.
[12] *Ibid.*, sec. 3.
[13] Model Investment of State Funds Law, *op. cit.*, pp. x–xi.

In summary, the Model Law is quite specific in the area of investment policy. The line of authority for investment policy is through the state investment council to the state director of finance, who "approves," to the state investment officer. This "approval" implies a check-and-balance with the actions of the state investment council.

A very important item is the recognition of the necessity for the principle of adequate income to have parity with the principle of security of capital. To this end, the Model Law cautions against narrow limits on investment policy established by legislation. They recommend instead a diversification of investments to include corporate securities and a reduction in the use of municipals. The latter yield a lower return coupled with the tax-exempt feature which is of no consequence to the tax-free state funds.

Finally, the Model Law specifies in detail the classes of investments which are suitable for short-term use (one year or less) and long-term use (a period in excess of one year). The provisions are quite broad rather than restrictive and include a "prudent man" rule applicable to all investments.

No suggestions were made as to any desired over-all percentage distribution of funds among various types of investments. It appears that this is another considered effort to permit great flexibility to the professional investment personnel and obtain full advantage of the specialized features of a state centralized investment process. Such statistics are of significance to this study, however, and will be presented in later sections.

Nation-wide Investment Policies

Complete information concerning state investment policies on a nation-wide basis would be useful for comparison with the provisions of the Model Law and individual state policies. However, no source of information for all funds was located.

Nation-wide information is available for retirement funds. This appears to be the only area of state investments with enough common factors from state to state to allow any summary and comparison to be meaningful. However, these comparisons are significant because retirement funds represent about 50 per cent of total state investments and are growing rapidly, as has been noted at several points in previous chapters.

The survey of State Pension Funds[14] included a summary by

[14] Investment Bankers Association, *op. cit.*

TABLE IX. AUTHORIZED INVESTMENTS, PENSION FUNDS OF ALL STATES, JUNE 30, 1963

	Number of States*
*General Authorization:***	
State may use investments legal for:	
Insurance companies	14
Savings banks	11
Fiduciaries	1
*Specific Authorization:****	
State may invest in:	
Federal obligations	49
Municipals	49
Corporate obligations	44
Corporate stocks	32
Mortgages	33
Real Estate	4

*Maximum total would be 49. Delaware has no pension funds for investment.
**Only 23 states indicated such a provision. Three indicated more than one category.
***Subject to numerous limitations.
Source: Investment Bankers Association of America, *State Pension Funds, Digest of Authorized Investments and Actual Investments* (425 13th St. N.W., Washington, D. C., 1964). This is the primary source, however, materials available in state reports and from other sources have been used to qualify the data.

each state of authorized investments. However, no general summary for all states was published in the survey. Varying features and missing details make such a summary difficult and results uncertain. The totals in Table IX were obtained by cross-checking missing details and apparent inconsistencies in the survey data with state reports of various kinds and other published information available for 1963.

Twenty-three states indicated a general authorization to invest state funds in investments legal for insurance companies, savings banks or fiduciaries of their states.

As to specific authorization, Table IX indicates broad legal powers to invest state funds in federal obligations, municipals, and corporate obligations. Approximately one-third lack legal power to invest in corporate stocks and mortgages. Only four states indicated legal power to invest in real estate although one other state indicated a limited power to hold real estate acquired as a result of other investments.

The sources used for Table IX also disclosed six states with a "prudent man" rule and three other states which permit, within certain percentage limitations, investments outside the specified authorizations at the discretion of the investment officer.

Against this background of basic principles underlying the investment of state funds, types of possible investments, a Model Law, and limited nation-wide information, it is more informative to next review specific examples rather than continue with additional summaries.

Minnesota Investment Policies

The Minnesota State Board of Investment determines all investment policies for permanent, retirement, and operating funds within the framework of the provisions of the constitution and applicable legislation. The State Board of Investment has been aided in this task in recent years by the establishing of the office of Executive Secretary in 1960, and the Advisory Committee on Common Stock Investments in 1961. These additions to the Minnesota centralized process were described in Chapter IV.

Minnesota offers a good illustration of changing investment policy in recent years. They have been studying their cash balances, the nature of various funds, their investment returns, the investment process itself, and have been very active in developing a realistic program more in keeping with present day requirements for proper handling of state funds. In addition to the physical centralizing of the process and its development, a concerted effort has been made to amend the Minnesota Constitution and revise laws pertaining to investments to permit broader investment policies. Each of the three general types of funds needs to be reviewed to examine the separate investment policies established for different funds.

As has been noted, the Minnesota permanent funds were created by the state constitution. As permanent funds the principal must be retained with only the income to be expended for the designated purposes. The past difficulty was that the constitution not only created the trust funds, but also specified the investment policy to be followed for such funds. The stated policy was quite restrictive in view of the present need for earnings and the wide range of investments available today.

> The Constitution limits the investments in these funds to U. S. Treasury securities, full faith and credit obligations of state governments, and obligations of certain Minnesota subdivisions which conform to high credit standards.[15]

These legal restrictions meant that present day state officials were barred from seeking higher earnings from corporate securities or other investments and were forced to hold federal obligations or large amounts of what are now lower yielding tax-free securities. Since Minnesota's permanent funds are somewhat stabilized at a level of $260 million, a difference of one percentage point in yield

[15] State of Minnesota, State Board of Investment, *1960 Report of the Executive Secretary*, p. 1.

meant approximately $2.6 million of potential annual earnings.

In an effort to secure needed changes, the governor appointed a Committee on Investment of State Trust Funds to study the permanent fund investment problems and make recommendations as to how their rate of return might be improved. This committee was appointed late in 1959 and reported on December 23, 1960.

The committee studied the investment position of the funds and made comparisons with the investment policies of three other types of institutions: life insurance companies, mutual savings banks, and endowment funds of educational institutions. They found that the rate of return on the state trust funds was at least 31 per cent below what it could have been and was costing the taxpayers of Minnesota at least $3,750,000 annually in lost revenues.[16]

The committee concluded that the laws relating to the investing of the state trust funds should be redrafted to accomplish at least the following:

> 1. Greater freedom and flexibility for the managers of the funds, while still outlining within broad limitations the types, qualities, and amounts of investments which may be made within the funds. Specifically the funds should be permitted to invest in corporate bonds, mortgages, and both common and preferred stocks as well as government bonds and state and municipal bonds,
> 2. Authority for the fund managers to take losses on investments when, in their judgment, such losses could be more than recouped by transferring funds to some other and more attractive investment. Specifically, this authority should encompass the right to make up such losses of principal by transferring funds out of income, and
> 3. Restoration of the management of the Permanent University Trust Fund to the Board of Regents.[17]

The committee also emphasized that the tax-exempt feature of certain bonds is of no value to the tax-exempt state trust funds and tends to lower their yield.

> Many sources feel as a fundamental principle that there is no basis in investment logic for the ownership of state and municipal bonds by the state trust funds.[18]

As previously noted, the legislature acted on this report in 1961 and passed the proposed constitutional amendment which was sub-

[16] *Report of the Committee on Investment of State Trust Funds*, State of Minnesota, *op. cit.*, p. 8.

[17] *Ibid.*

[18] *Ibid.*, p. 7.

sequently approved at the general election on November 6, 1962. The amendment applies to the major portion of the permanent funds, allowing 40 per cent of the funds to be invested in high quality bonds, a maximum of 20 per cent in common stocks, with the remaining 40 per cent to be invested in state, municipal, and U. S. government bonds including U. S. government agencies and those guaranteed by the federal government. A few general rules regarding security purchases were also specified:

> . . . within limitations prescribed by law, to secure the maximum return thereon consistent with the maintenance of the perpetuity of the fund, such fund may be invested in: (1) interest bearing fixed income securities of the United States and of its agencies, fixed income securities guaranteed in full as to payment of principal and interest by the United States, bonds of the state of Minnesota, or its political subdivisions or agencies, or of other states, but not more than 50 per cent of any issue by a political subdivision, shall be purchased; (2) stocks of corporations on which cash dividends have been paid from earnings for five consecutive years or longer immediately prior to purchase, but not more than 20 per cent of said fund shall be invested therein at any given time, nor more than one per cent in stock of any one corporation, nor shall more than five per cent of the voting stock of any one corporation be owned; (3) bonds of corporations whose earnings have been at least three times the interest requirements on outstanding bonds for five consecutive years or longer immediately prior to purchase, but not more than 40 per cent of said fund shall be invested in corporate bonds at any given time. The percentages referred to above shall be computed using the cost price of the stocks or bonds.[19]

The State Board of Investment has been proceeding in an orderly fashion to rearrange the permanent fund investments as permitted by this amendment. The process of adjusting the portfolio will take some time but the changing pattern may be seen in the tables in Chapter VII.

Significant changes in investment policies for the retirement funds also have been taking place in these recent years. This list of seven funds totaled $254 million at December 31, 1963. Two of the funds, totaling slightly more than $1.2 million are State College and Welfare Funds rather than retirement funds. Their inclusion with the retirement funds has little effect on summaries or statistical computations of this research, however, because three major

[19] State of Minnesota Legislature, S. F. No. 14, 1961, subsequently approved as an amendment to the constitution, November, 1962.

retirement funds constitute more than 98 per cent of this category: the State Employee Retirement Association, the Teachers Retirement Association, and the Public Employees Retirement Association and Police and Fire Fund.

Investment policies for these funds are not based in the constitution, thus, changes did not require the amendment process. Here, again, a study commission, the Public Retirement Study Commission of the Minnesota Legislature, was activated and made recommendations which were subsequently enacted in the form of Chapter 380, Laws of 1961, which defined and broadened lawful investments for the five retirement funds.

In addition to specifying investments, the law includes a "prudent man" rule:

> . . . The state board of investment shall thereupon invest the sum so certified in such securities as are duly authorized legal investments as defined in this section, provided, however, that any investments shall be made with the exercise of that degree of judgment and care, under circumstances then prevailing, which men of prudence, discretion, and intelligence exercise in the management of their own affairs, not for speculation but for investment, considering the probable safety of their capital as well as the probable income to be derived . . .[20]

Legal investments were defined to include: U. S. government bonds or notes, and agency insured obligations; bonds of Minnesota or other states; obligations of Canada; municipal obligations of Minnesota, other states, and Canada; obligations insured by the International Bank for Reconstruction and Development; public housing obligations; obligations of any state, municipal, or public authority; corporate obligations; corporate stocks; bank certificates of deposit and savings accounts; and commercial paper.[21]

It has not been necessary for the investment policies for Minnesota operating funds to undergo the same extensive revisions in recent years. The nature of the operating funds is such that investment policies specified for them in the past have required little change.

The operating funds consist primarily of an invested treasurer's fund and highway department funds. The State Board of Investment is empowered to invest the treasurer's cash balance in U. S. governments maturing in not more than three years and, by special

[20] State of Minnesota Legislature, H. F. No. 229, 1961.
[21] *Ibid.*

statutes, in Minnesota obligations. This balance fluctuates considerably so that, in practice, most investments are held to maturities of not more than six months. The average level of investment was reduced by the institution of the withholding method of collection of state income tax, in late 1961. This acted to reduce the significance of earnings from this source.[22]

Highway department funds may be invested in U. S. government obligations and Minnesota obligations. While highway funds also fluctuate, the Minnesota board has observed an element of permanency which is currently being studied for the possibility of some shifting of balances to higher-yielding corporate obligations.

In summary, Minnesota's investment policies have been undergoing extensive changes during the past five year period. The State Board of Investment has employed professional investment personnel, reinforced the resulting structure with a special Advisory Committee on Common Stock Investments, and broadened investment policies by seeking a constitutional amendment and several pieces of legislation.

Minnesota's investment policies have been presented at some length, along with details concerning their development, because they provide a good example of a current broadening of policies within the framework of the state centralized investment process.

The discussion of New Jersey and Wisconsin investment policies does not include similar details because they developed elements of the centralized investment process, including broadened investment policies, in earlier years.

New Jersey Investment Policies

The statutes of New Jersey outline broad investment policies to be followed by the State Investment Council and the Director of the Division of Investment. Within this framework, the State Investment Council is directed to issue regulations for the guidance of the Division of Investment.

> The State Investment Council . . . shall formulate and establish, and may from time to time amend, modify or repeal, such policies as it may deem necessary or proper, which shall govern the methods, practices, or procedures for investment, reinvestment, purchase, sale or exchange transactions to be followed by the Director of the Division of Investment established hereunder . . .[23]

[22] State of Minnesota, State Board of Investment, *1962 Report of the Executive Secretary*, pp. 3–4.

[23] Revised Statutes of New Jersey, 1963, 52:18A–91.

The statutes specifically authorize the Director of the Division of Investment to invest any funds in bonds and other evidences of indebtedness of the U. S. government. Investments in any other form must be, with one exception, as authorized or approved by the State Investment Council within three broad categories of debt instruments. The exception will be discussed in a later paragraph. The following section of the statutes details this basic policy and the authority vested in the State Investment Council.

> Limitations, conditions and restrictions contained in any law concerning the kind or nature of investment of any of the moneys of any of the funds or accounts referred to herein shall continue in full force and effect; provided, however, that subject to any acceptance required, or limitation or restriction contained herein: the Director of the Division of Investment shall at all times have authority to invest and reinvest any such moneys in, and to acquire for or on behalf of any such funds or accounts, bonds and other evidences of indebtedness of the United States of America, and such bonds, and other evidences of indebtedness, which may be authorized or approved for investment by regulation of the State Investment Council, in which (1) savings banks in this State may legally invest; or (2) which are evidences of indebtedness issued by a company incorporated within and transacting business within the United States, which are not in default as to either principal or interest when acquired, and which have a maturity of not more than twelve months from the date of purchase; or (3) which are the direct obligations of or unconditionally guaranteed as to principal and interest by the government of Canada, payable as to both principal and interest in United States dollars, or which are the direct obligations of or unconditionally guaranteed as to principal and interest by any of the provinces thereof, payable as to both principal and interest in United States dollars; and, for or on behalf of any such fund or account, to sell or exchange any investments or securities thereof.[24]

The author reviewed the provisions of this section with the Director of the Division of Investment and determined: (1) that this section states the basic investment policy which is broadened rather than restricted by other sections, and (2) that municipal obligations were the only investments added by the inclusion of investments legal for savings banks. In his opinion, the latter provision was included to permit broader powers in the future if legal investments for savings banks are extended.

The range of authorized investments for any New Jersey fund,

[24] *Ibid.*, 52:18A-29.

thus, includes: U. S. government bonds and other evidences of indebtedness of the federal government, municipals, Canadian governments, and evidences of indebtedness of U. S. corporations.

The range is further broadened for six retirement and pension funds by another section of the statutes. This section specifies that, in addition to other investments authorized by law, these funds may be invested in:

> . . . such bonds or other evidences of indebtedness or capital stock or other securities issued by any company incorporated within the United States or within the Dominion of Canada, which shall be authorized or approved for investment by regulation of the State Investment Council and in which life insurance companies organized under the laws of this State may legally invest, provided that the book value of the total investment in common and preferred stock for any one such fund does not exceed 15% of the book value of such fund, except that not more than 10% of the book value of any such fund shall be invested in common stock . . .[25]

The author also reviewed this section with the Director and determined that investments legal for life insurance companies added only two investment possibilities to the list of authorized investments: (1) capital stock of U. S. corporations and (2) a limit of two per cent of assets in investments not otherwise authorized. The latter seems a wise provision, particularly within the framework of a state centralized investment process.

The exception noted in a previous paragraph arose in connection with a further broadening of authorized investments for two of the pension and retirement funds to include a limited amount of New Jersey real estate. These sections of the statutes bypass the usual authorization and approval of the State Investment Council and authorize direct action by the Director and the trustees of the fund. One of two similar sections is stated as follows:

> The Director of the Division of Investment in the Department of the Treasury, in addition to other investments authorized by law, shall have authority, subject to the approval and acceptance by the board of trustees of the Public Employees' Retirement System to invest in and acquire real property in the State of New Jersey on behalf of and in the name of the Public Employees' Retirement System, and to erect buildings and structures and make other improvements thereon, and to rent, lease, sell and dispose of the same, said lands, buildings, structures and improvements to be initially

[25] *Ibid.*, 52:18A-88.1.

rented to the State of New Jersey for its use in accordance with the provisions of this act.[26]

The State Investment Council objected to the prescribed procedures in this and other proposed legislation, "the effect of which divorces the council from supervising and regulating the Director and the Division of Investments in special areas."[27] No other exceptions to the regular procedure appear in the statutes.

In summary, New Jersey's investment policies are broad in nature with final approval or authorization delegated to the State Investment Council, except for investments in U. S. government bonds for any fund and real estate investments for two retirement funds. The State Investment Council has authorized a wide range of investments but exercises discretion in issuing approvals. For example, they have been reluctant to purchase equities as will be noted in Chapter VII. However, the over-all policies are broad rather than specific and utilize the skills of professional investment personnel within a framework which includes both legal investments for savings banks and legal investments for life insurance companies.

Wisconsin Investment Policies

The statutes of the State of Wisconsin provide an extremely wide range of authorized investments for the State of Wisconsin Investment Board which reflects the varying requirements of the twenty-three separate funds for which it was responsible as of June 30, 1963.

The State of Wisconsin has recognized the necessity for more than minimal investments since the creation of its Investment Board as may be noted in this review of its first ten years:

> The over-all policy of the board has remained relatively unchanged over the 10 years, namely to obtain as high an income rate as is compatible with the safety of the principal on fixed income investments and the highest possible combination of future value and income from equity investments. To effect this policy greater emphasis has been directed toward investing in privately and directly placed loans in recent years.[28]

[26] *Ibid.*, 43:15A–33.1.

[27] State Investment Council, State of New Jersey, *Eleventh Annual Report*, June 30, 1961, p. 4.

[28] State of Wisconsin Investment Board, *Annual Report of Investments*, June 30, 1961, p. 1.

A general statement of broad investment policies is also a part of the statement of purpose which prefaces the Annual Report for the year ended June 30, 1963:

> Since the liquidity needs of the various funds vary widely, the investment activities of the State of Wisconsin Investment Board cover a broad spectrum of investment situations. These range from repurchase agreements and call loans to the fee simple ownership of real estate.
>
> The Board holds common and preferred stocks; bonds, notes and other evidences of indebtedness issued by the federal government and its agencies, as well as that of corporations organized for profit and operating in almost every major industry classification. *The Board is active in the field of private placements*, specializing in long term loans which are negotiated directly with corporations possessing strong credit and a history of sound financial and operating management.
>
> In the field of real estate, the Board owns property in fee. It also holds mortgages on real estate. It is active in the field of purchase-leasebacks.
>
> The investment powers of the Board are relatively broad and its organization permits it to act with speed and decisiveness.[29]

The statutes provide for loans, subject to mortgage and income restrictions, from certain of the funds for the purpose of financing public buildings for the state.[30] However, the major authorizations concern two general categories of funds, the state investment fund and the pension and retirement funds.

The state investment fund consists primarily of operating funds to which temporary cash balances of other funds are added with the total fund operated as an investment trust.[31] The Investment Board is authorized to invest the state investment fund in bonds or other evidences of indebtedness of the United States and agencies thereof and in high quality commercial paper.[32]

The Investment Board has the power, authority, and duty to invest the pension and retirement funds in loans, securities and any other investments authorized for life insurance companies organized under the laws of Wisconsin, and in bonds or other evidences of indebtedness or preferred stock of finance companies, provided

[29] State of Wisconsin Investment Board, *Annual Report*, June 30, 1963, p. iii.
[30] Wisconsin Statutes, 1961, sec. 25.17(2).
[31] *Ibid.*, sec. 25.14.
[32] *Ibid.*, sec. 25.17(3)(b).

such investments meet all other requirements for life insurance companies.[33]

Eligible investments for Wisconsin life insurance companies include: U. S. government bonds; Canadian governments; U. S. and Canadian municipals; debt instruments issued or guaranteed by the International Bank for Reconstruction and Development; corporate bonds and other evidences of indebtedness issued by companies and others; equipment trust certificates; mortgages; preferred stock; up to five per cent of assets in common stock; real estate; and five per cent of assets in securities not otherwise authorized.[34] This summary includes most of the general classes but not all investments specifically authorized. It does indicate the very broad range available for these funds. It should be noted that there are many conditions which must be met in selecting individual instruments within these general classes.

Another section further broadens authorized investments for certain retirement funds.[35] This section adds loans, securities or investments in addition to those permitted by any other section of the statutes, not to exceed 15 per cent of the assets of each fund. Common or preferred stocks so acquired must qualify as legal investments under certain subsections of the statutes authorizing investments for Wisconsin insurance companies other than life insurance companies. The latter subsections provide for investments in bonds, other evidences of indebtedness, or stocks of United States and Canadian corporations and defines conditions which must be met.[36]

There are other relatively small funds not included in these two categories. Authorized investments for these funds follow the same pattern and refer to certain parts of the section, already noted above, stating legal investments for Wisconsin insurance companies other than life insurance companies or to special sections.

In summary, Wisconsin's investment policies are quite specific as to details but are very broad in scope. Extensive use is made of the device of authorizing investments legal for insurance companies. The range of investments is wide including provision for a percentage of assets to be placed in investments not otherwise authorized, but consistent with utilization of professional investment personnel in the state centralized investment process.

[33] *Ibid.*, sec. 25.17(3)(a).
[34] *Ibid.*, sec. 206.34.
[35] *Ibid.*, sec. 25.17(4).
[36] *Ibid.*, sec. 201.25.

SUMMARY

Investment policies for a state define legal powers and authorized investments for state funds. Compensating bank balances are a very important accompanying matter of policy.

The first section of this chapter reviewed some of the background relating to compensating bank balances and stressed planning for equitable balances. The variety of "extra" banking services provided and the significance of the banks to a state needs to be fully recognized.

Investment policies are based on investment principles. Investment principles for state funds include present day "proper handling," safety, availability, and maximum earnings. State funds demand continued attention to the principles of safety and availability but special attention needs to be directed to obtaining more adequate earnings consistent with present day proper handling of these funds. Greater equality among these principles is the apparent modern requirement.

A few states have established investment policies suitable to the diverse characteristics of the varied funds which can be invested by a state. They are broad rather than restrictive policies and may include previously formulated authorizations such as investments legal for insurance companies or savings banks.

The investment policies of Minnesota, New Jersey, and Wisconsin illustrate the wide range of legal powers which are feasible within the state centralized investment process where the investment function has been centralized for control and the policies are administered by professional investment personnel on a full-time basis.

VII / Investment Results

THE PURPOSE of this chapter is to examine some of the investment results of the application of the policies, controls, and structures already discussed in the first six chapters. The discussion is divided into three major sections, Investment Patterns, Investment Yields, and Utilization of Balances.

INVESTMENT PATTERNS

Investment patterns indicate what a state is actually doing with its investment program as opposed to what it is permitted to do according to the provisions of the investment policies of Chapter VI which specify legal powers and limits for those investments. An examination of some overall investment patterns for the United States, individual states, and certain specific types of funds indicates some very definite trends in actual investments.

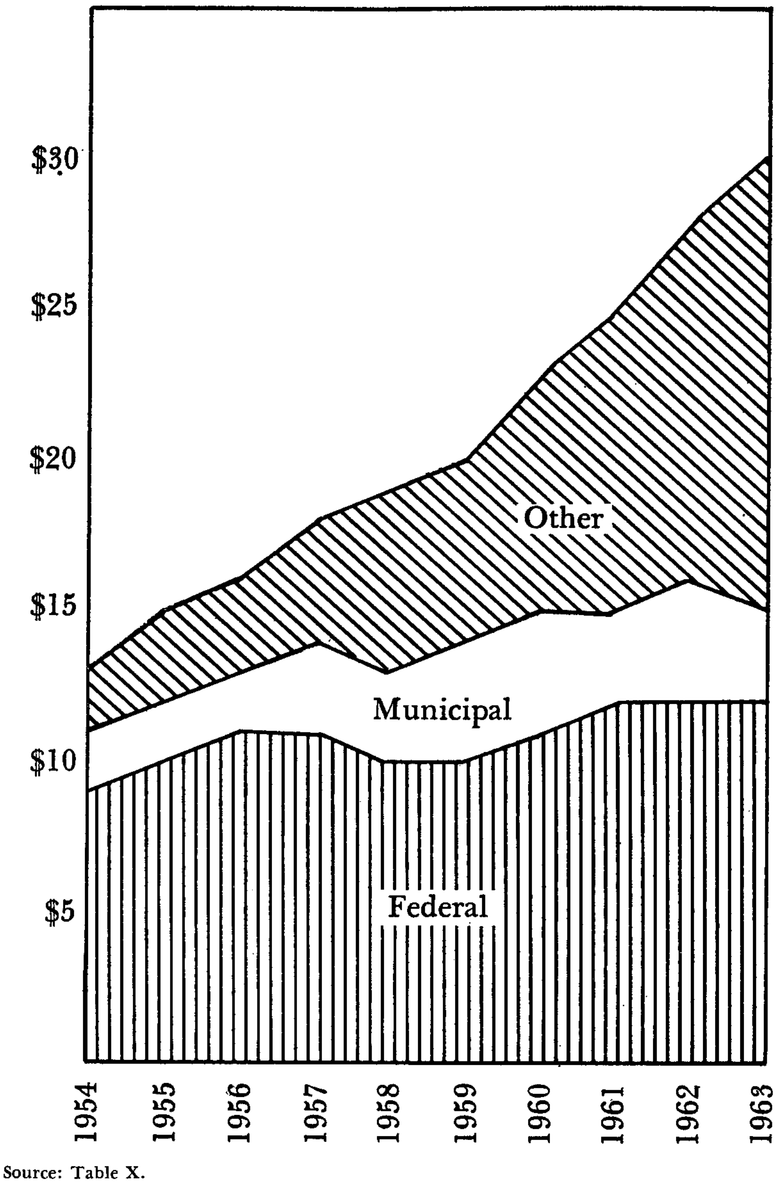
Nation-wide Investment Patterns

An examination of nation-wide investment patterns provides an over-all concept of how states have been investing the large amounts which have been accumulating and completes the inquiry which began in Chapter II where the source of the funds was reviewed. As was noted in Table I, total cash and security holdings nearly tripled between 1951 and 1963. Even more significant was the increase in the past four years which equaled that of the previous eight years; while the increase in total security holdings was greater in the past four years than in the previous eight.

Table X and Chart 4 present the combined security holdings of all states for funds of all types and in terms of only the simplest classification of investments.

Table X indicates that total security holdings have more than doubled, from $13 billion to $30 billion, in the short period of nine years. At the same time, the amount of federal securities

CHART 4
TOTAL SECURITY HOLDINGS
OF ALL STATES AS OF JUNE 30
($ in billions, cumulative)



Source: Table X.

TABLE X. TOTAL SECURITY HOLDINGS OF ALL STATES AS OF JUNE 30
(in millions of dollars)

Year	Type of Securities			Total
	Federal	Municipal	Other	
1963	$12,362	$2,987	$15,013	$30,362
1962	12,194	3,421	12,675	28,290
1961	11,564	3,620	10,302	25,486
1960	11,361	3,560	8,246	23,168
1959	10,222	3,438	6,601	20,260
1958	10,128	3,212	5,424	18,763
1957	10,887	2,800	4,164	17,851
1956	10,655	2,487	3,418	16,558
1955	9,555	2,142	2,909	14,605
1954	8,993	1,952	2,343	13,287

Source: Bureau of the Census, *Compendium of State Government Finances in 1963* (U. S. Government Printing Office, Washington, D. C., 1964), p. 7, and similar reports for prior years.

increased only about one-third and the municipals about three-fourths of their amount in 1954. This indicates a shift to other investments which, of course, is confirmed in the "other" column where the increase was almost six times in the same nine year period.

The apparent shift to other investments is even clearer when the data in Table X are expressed in percentages as in Table XI.

There has been a net downward trend in the proportion of total funds invested in municipals over the eight year period. From an over-all standpoint, the shift is very slight until 1961 but future statistics may show a steady decline from the 17 per cent level of 1958 and 1959 because of the trend toward broadening investment powers and the definite effort to avoid the generally lower yielding municipals which offer no advantage to the already tax-exempt state funds.

Another significant shift emphasized in Table XI is the steady

TABLE XI. TOTAL SECURITY HOLDINGS OF ALL STATES—PERCENTAGE DISTRIBUTION OF INVESTMENTS AS OF JUNE 30

Year	Type of Securities			Total
	Federal	Municipal	Other	
1963	40.7%	9.8%	49.5%	100%
1962	43.1	12.1	44.8	100
1961	45.4	14.2	40.4	100
1960	49.0	15.4	35.6	100
1959	50.5	17.0	32.5	100
1958	54.0	17.1	28.9	100
1957	61.0	15.7	23.3	100
1956	64.4	15.0	20.6	100
1955	65.4	14.7	19.9	100
1954	67.7	14.7	17.6	100

Source: Computed from Table X.

TABLE XII. SECURITY HOLDINGS FOR RETIREMENT FUNDS OF ALL STATES AS OF JUNE 30

(in millions of dollars)

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	$ 4,471	$ 4,149	$ 4,142	$ 4,162	$ 3,846
Municipal Obligations	1,407	1,720	1,909	1,920	1,853
Corporate Obligations	7,945	6,700	5,226	4,311	3,483
Corporate Stocks	683	512	359	281	209
Mortgages	2,227	1,893	1,597	1,084	775
Other	574	420	420	255	212
Totals	$17,307	$15,394	$13,653	$12,013	$10,378

Source: Bureau of the Census, *Compendium of State Government Finances in 1963* (U. S. Government Printing Office, Washington, D. C., 1964), p. 7 and similar reports for prior years.

TABLE XIII. SECURITY HOLDINGS FOR RETIREMENT FUNDS OF ALL STATES—PERCENTAGE DISTRIBUTION OF INVESTMENTS AS OF JUNE 30

PERCENTAGE DISTRIBUTION OF INVESTMENTS

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	25.8%	27.0%	30.3%	34.7%	37.1%
Municipal Obligations	8.1	11.2	14.0	16.0	17.9
Corporate Obligations	45.9	43.5	38.3	35.9	33.5
Corporate Stocks	3.9	3.3	2.6	2.3	2.0
Mortgages	12.9	12.3	11.7	9.0	7.5
Other	3.4	2.7	3.1	2.1	2.0

Source: Computed from Table XII.

decline in total holdings of federal obligations. The increase in "Other" securities matches the decline in the first two, of course, point by point.

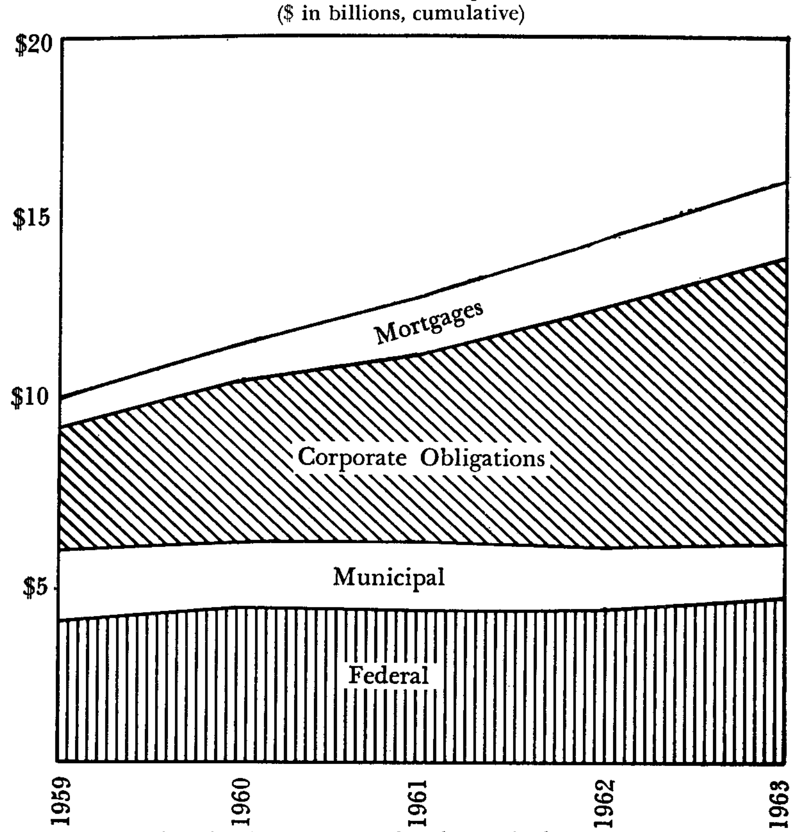
A complete analysis of the exact types of "Other" securities is impossible from these data. However, the nature of the shift is quite evident from an analysis of that portion of the total holdings which is represented by the retirement funds.

In considering the significance of any shifts in the holdings of retirement funds, two basic points should be kept in mind. First, these funds are significant because they represent the greatest single part of total cash and security holdings of all states[1] and are increasing the fastest. Secondly, the remaining portion of total invested state funds which represents current operating balances is largely placed in federal obligations because of the nature of the demand requirements for current operating balances. Thus, analysis of the composition of the retirement funds presents a good indication of the nature of the shift on a nation-wide basis and omits only the influence of the smaller trust funds.

Table XII and Chart 5 present a five-year analysis of the composition of the retirement funds for all states. The expansion of

[1] Nearly 50 per cent in 1963 and increasing steadily. See Table III.

CHART 5
SECURITY HOLDINGS FOR RETIREMENT FUNDS[1]
OF ALL STATES AS OF JUNE 30
($ in billions, cumulative)



[1] Corporate stocks and "other" investments have been omitted.
Source: Table XII.

detail is not too great but is sufficient to show trends in significant categories.

Table XII indicates that the big shift, $4.5 billion, was to corporate obligations. More than 60 per cent of the increase in total funds of approximately $7 billion was placed in corporate obligations and the primary shift in the percentage distribution was to that category from federal obligations.

Investments in corporate stocks and mortgages also have been increasing at a rapid pace although the total dollars involved are much less than the corporate obligation category. From an over-all standpoint, the shift is very slight but future statistics may show a steady increase, as with the decline in municipals, resulting from the use of the broadened investment powers already discussed.

TABLE XIV. STATE OF MINNESOTA—SECURITY HOLDINGS FOR ALL FUNDS AS OF DECEMBER 31
(in thousands of dollars)

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	$419,987	$369,815	$356,070	$398,634	$350,700
Municipal Obligations	83,327	136,830	148,349	156,295	155,020
Corporate Obligations	133,140	76,627	50,800	20,717	42
Corporate Stocks	36,172	20,831	4,882	....	....
Other	422	810	5,669	1,901	1,829
Totals	$673,048	$604,913	$565,770	$577,547	$507,591

PERCENTAGE DISTRIBUTION OF INVESTMENTS

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	62.4%	61.2%	62.9%	69.0%	69.1%
Municipal Obligations	12.4	22.6	26.2	27.1	30.5
Corporate Obligations	19.8	12.7	9.0	3.6	Nil.
Corporate Stocks	5.4	3.4	.9	....	....
Other	Nil.	.1	1.0	.3	.4

Note: See classification of securities below.
Source: Compiled from General Report on State Finances, issued semi-annually by the Treasurer's Office, State of Minnesota; the *Report of The Executive Secretary*, State of Minnesota, State Board of Investment, for 1960, 1961, and 1962; and interview notes and correspondence.

The decline in the percentage of municipals is greater than in Table XI which indicates more of an effort by retirement funds to reduce holdings in municipals than by state funds as a whole.

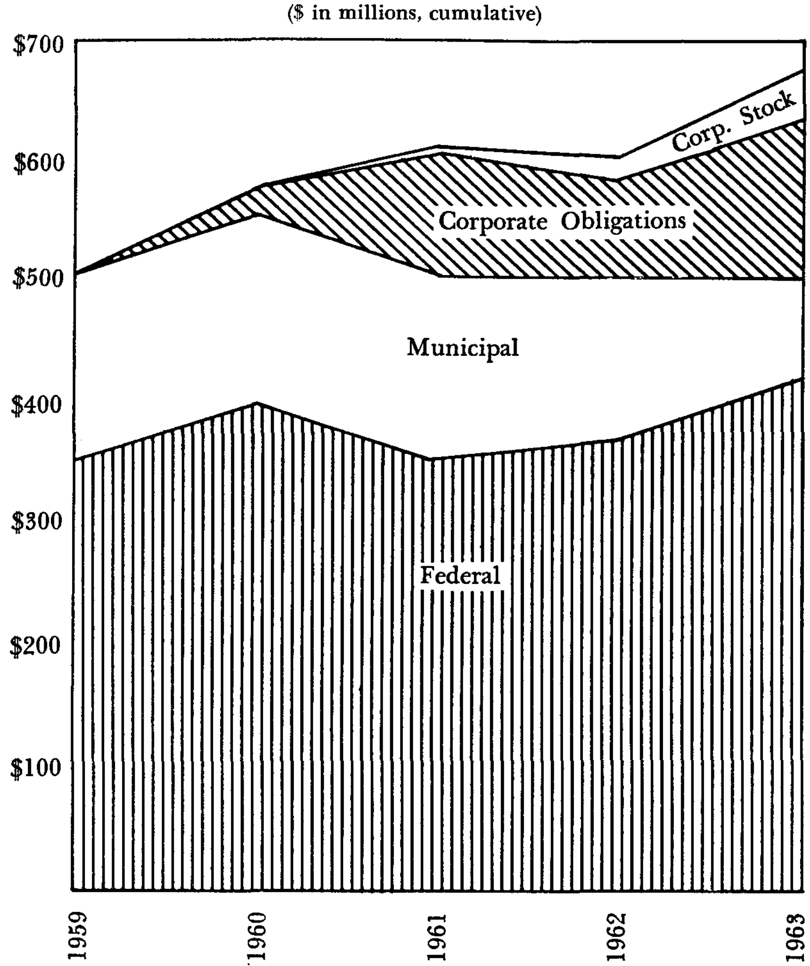
Nation-wide investment patterns are helpful as they indicate general trends and are useful for comparisons with the patterns of individual states. The three special-study states, Minnesota, New Jersey and Wisconsin, are next reviewed to continue the analysis of previous chapters.

Minnesota Investment Patterns

Table XIV and Chart 6 present the combined security holdings for all categories of Minnesota funds. A standard classification has been adopted to facilitate comparisons with other similar tables in this study. Differences in terminology and classification in the reporting procedure were settled in favor of a uniform presentation and resulted in no material alteration of results. Individual items of the classification are omitted where no security holdings of that type were reported or where they were immaterial and were otherwise classified. The classification of Minnesota security holdings is as follows:

Federal obligations: U. S. government bonds and bonds guaranteed by the federal government.

CHART 6
STATE OF MINNESOTA
SECURITY HOLDINGS FOR ALL FUNDS[1] AS OF DECEMBER 31
($ in millions, cumulative)



[1] "Other" investments have been omitted.
Source: Table XIV.

Municipal Obligations: Bonds issued by Minnesota or any other state or any subdivision thereof.

Corporate Obligations: Debt instruments of U. S. corporations, primarily public utility, industrial, railroad debt and railroad equipment obligations.

Corporate Stocks: Equity instruments issued by U. S. corporations, primarily common stock.

Other: Miscellaneous investments, small cash balances and any statistical error included in balancing to proper totals.

The five years covered in Table XIV were significant years for the Minnesota State Board of Investment. The changes in investment policy and the establishing of the office of Executive Secretary can be seen in the shifting of the portfolio.

Corporate obligations show a sharp increase in 1960 when the Executive Secretary was employed. Purchase of some corporate obligations was within the legal power of the investment board prior to that date but was considered to be impracticable in most circumstances until professional investment personnel could be employed. After that date, and with additional broadening of the investment policies for retirement funds, the flow of funds was concentrated into this category.

Corporate stock shows the same development. When the investment policy for retirement funds was broadened to include this category, funds were promptly committed to additional purchases. The growth in this category is more significant than it first appears because of the percentage of funds limitation, to be acquired not faster than 5 per cent per year over a five-year period.

The increase in the proportion of total funds represented by corporate obligations and corporate stock is generally matched by the decrease in municipal obligations with a small decrease in the proportion of federal obligations.

As with many over-all figures, these totals do not reveal some significant facts. While they do not distort underlying data, a

TABLE XV. STATE OF MINNESOTA—SECURITY HOLDINGS FOR RETIREMENT FUNDS AS OF DECEMBER 31
(in thousands of dollars)

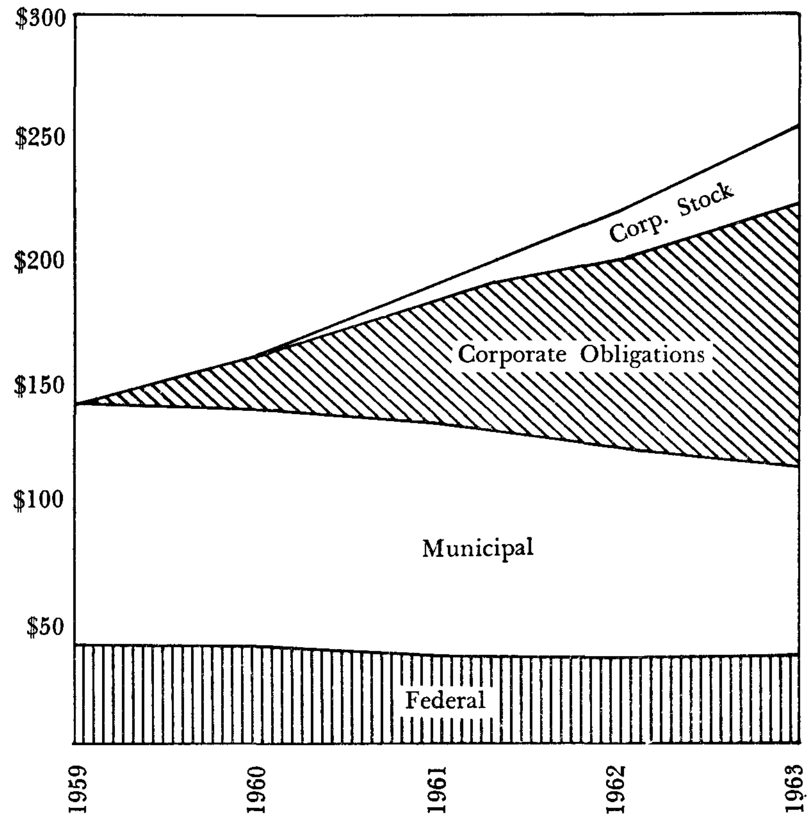
Type of Security	1963	1962	1961	1960	1959
Federal Obligations	$ 34,611	$ 34,460	$ 35,700	$ 38,869	$ 40,194
Municipal Obligations	78,249	86,781	97,213	100,334	99,389
Corporate Obligations	109,540	76,627	50,800	20,717	42
Corporate Stocks	30,959	20,831	4,882	....	....
Other	413	788	1,160	1,659	53
Totals	$253,772	$219,487	$189,755	$161,579	$139,678

PERCENTAGE DISTRIBUTION OF INVESTMENTS

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	13.7%	15.8%	18.9%	24.3%	28.8%
Municipal Obligations	30.9	39.7	51.5	62.7	71.2
Corporate Obligations	43.2	35.0	26.9	13.0	Nil.
Corporate Stocks	12.2	9.5	2.7	....	....
Other	Nil.	Nil.	Nil.	Nil.	Nil.

Note: See classification of securities, page 100.
Source: *Ibid.*

CHART 7
STATE OF MINNESOTA
SECURITY HOLDINGS FOR RETIREMENT FUNDS[1] AS OF DECEMBER 31
($ in millions, cumulative)



[1] "Other" investments have been omitted.
Source: Table XV.

more informed view of the Minnesota investment pattern is obtained by examining Security Holdings for Retirement Funds, Table XV, and Security Holdings for Permanent Funds, Table XVI, along with the totals in Table XIV.

Table XV and Chart 7 confirm the previous findings and emphasize the switch to corporate securities. It also reveals a sizeable amount of municipals remaining in the retirement funds. The investment board has followed a deliberate and careful program aimed at reducing these holdings without unduly disturbing the local municipal bond market. They have succeeded in reducing the total dollar amount and have greatly diversified the portfolio for the retirement funds but feel that much remains to be done. It may be

TABLE XVI. STATE OF MINNESOTA—SECURITY HOLDINGS FOR PERMANENT FUNDS AS OF DECEMBER 31
(in thousands of dollars)

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	$230,228	$261,403	$253,038	$249,408	$243,898
Municipal Obligations	5,078	50,049	51,136	55,961	55,631
Corporate Obligations	23,600	....	....	....	....
Corporate Stocks	5,213	....	....	....	....
Other	9	22	4,509	242	1,776
Totals	$264,128	$311,474	$308,683	$305,611	$301,305

PERCENTAGE DISTRIBUTION OF INVESTMENTS

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	87.2%	83.9%	82.0%	81.6%	80.9%
Municipal Obligations	1.9	16.1	16.6	18.3	18.5
Corporate Obligations	8.9	....	....	....	....
Corporate Stocks	2.0	....	....	....	....
Other	Nil.	Nil.	1.4	.1	.6

Note: See classification of securities, page 100.
Source: *Ibid.*

a number of years before the remaining $78 million can be switched to other investments because many of these bonds are debts of Minnesota subdivisions which, in the circumstances, will have to be held until maturity.

Table XVI also confirms the previous findings with the abrupt change coming after approval of the amendment to the Minnesota Constitution. The change in investment policy appears to have been applied promptly to the permanent funds. The decrease in the total amount from $311 million to $264 million, in 1963, and the reason for part of the increase in the corporate securities percentages, resulted from the return of the Permanent University Fund of more than $47 million to the University of Minnesota for its investment management.

No table is presented for the operating funds because they are invested almost entirely in federal obligations in each of these years. This fact and the possibility of a fluctuating total dollar amount in this category of funds should be kept in mind in reviewing the totals of Table XIV.

Minnesota is an excellent selection for study of the investment process of an individual state, as was noted in Chapter VI, because of the current nature of changes in investment policies, structure of the process, and resulting investment patterns. They have been most active in developing their state centralized investment process.

TABLE XVII. STATE OF NEW JERSEY—SECURITY HOLDINGS FOR ALL FUNDS AS OF JUNE 30
(in thousands of dollars)

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	$ 400,299	$ 372,137	$ 351,839	$ 343,588	$ 319,625
Municipal Obligations	39,275	70,205	69,525	73,111	76,310
Corporate Obligations	735,960	615,046	545,215	495,059	392,442
Corporate Stocks	3,573	1,324	1,317	....	....
Mortgages	85,070	65,005	59,153	29,904	25,060
Other	31,689	29,858	29,306	27,231	16,879
Totals	$1,295,866	$1,153,575	$1,056,355	$ 968,893	$ 830,316

PERCENTAGE DISTRIBUTION OF INVESTMENTS

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	30.9%	32.3%	33.4%	35.7%	38.5%
Municipal Obligations	3.0	6.0	6.5	7.4	9.2
Corporate Obligations	56.7	53.2	51.5	51.0	47.2
Corporate Stocks	.3	.1	.1	....	....
Mortgages	6.6	5.7	5.7	3.1	3.0
Other	2.5	2.7	2.8	2.8	2.1

Note: See classification of securities below.
Source: Compiled from *Thirteenth Annual Report*, State Investment Council, State of New Jersey, for the Fiscal Year Ending June 30, 1963, and other similar reports.

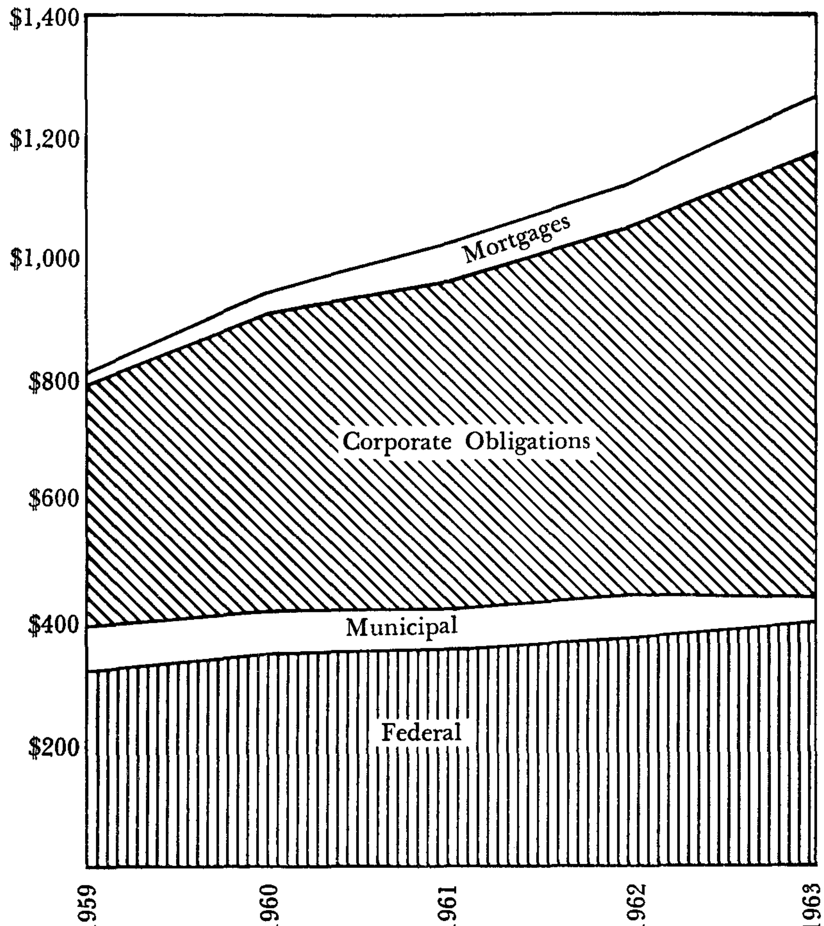
New Jersey Investment Patterns

The investment pattern resulting from the state centralized investment process in New Jersey exhibits the trends observed for Minnesota but at a mature stage of development. The New Jersey process has been in operation on a basis comparable to that of Minnesota since 1950. Therefore, the investment pattern reflects ten additional years of shifting the portfolio in accordance with an investment policy similar to that recently adopted in Minnesota.

Table XVII and Chart 8 present the combined security holdings for all categories of New Jersey funds. The standard classification by type of security is the same one used for the Minnesota data with the addition of the "Mortgages" classification:

> Federal obligations: U. S. government bonds and U. S. government agency bonds guaranteed by the federal government.
>
> Municipal Obligations: Municipal general obligation and municipal revenue bonds issued by New Jersey and other states and subdivisions thereof.
>
> Corporate Obligations: Debt instruments issued by U. S. corporations, including senior debt of finance companies, industrials, public utilities, railroads, railroad equipment trust certificates, and commercial paper.

CHART 8
STATE OF NEW JERSEY
SECURITY HOLDINGS FOR ALL FUNDS[1] AS OF JUNE 30
($ in millions, cumulative)



[1] Corporate stock and "other" investments have been omitted.
Source: Table XVII.

Corporate Stocks: Equity instruments issued by U. S. corporations, primarily common stock.

Mortgages: Capehart mortgages guaranteed by the federal government.

Other: Securities issued by the Dominion of Canada, provinces of Canada, guaranteed Canadian Provincials, Merchant Marine (U. S. government insured), International Bank, Inter-American Development Bank, other small miscellaneous items, and any statistical error included in balancing to proper totals.

TABLE XVIII. STATE OF NEW JERSEY—SECURITY HOLDINGS FOR RETIREMENT FUNDS AS OF JUNE 30
(in thousands of dollars)

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	$146,508	$142,888	$136,045	$150,093	$148,217
Municipal Obligations	26,955	49,047	46,841	48,872	50,532
Corporate Obligations	608,406	525,919	463,125	406,911	349,149
Corporate Stocks	3,230	981	974	....	....
Mortgages	85,071	65,005	59,153	29,905	25,060
Other	29,325	27,475	26,927	24,506	14,520
Totals	$899,495	$811,315	$733,065	$660,287	$587,478

PERCENTAGE DISTRIBUTION OF INVESTMENTS

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	16.3%	17.6%	18.6%	22.8%	25.2%
Municipal Obligations	3.0	6.0	6.4	7.4	8.6
Corporate Obligations	67.6	64.8	63.2	61.6	59.4
Corporate Stocks	.4	.1	.1	....	....
Mortgages	9.5	8.0	8.1	4.5	4.3
Other	3.2	3.5	3.6	3.7	2.5

Note: See classification of securities, page 105.
Source: *Ibid.*

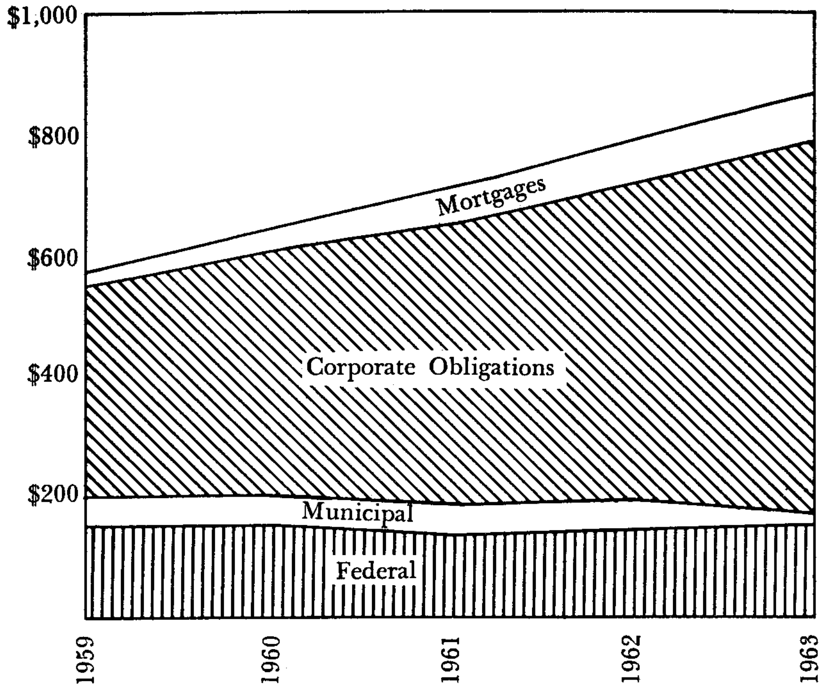
Table XVII indicates that municipal obligations have been virtually eliminated from the New Jersey security holdings. This is in keeping with the trend already observed and is evidence that the New Jersey State Investment Council and the Director of the Division of Investment have followed through on their policy of avoiding tax-exempt bonds because, as a tax-free entity, they derive no benefit from the tax-exempt feature. As noted above, they have had time to accomplish this; whereas, Minnesota has had only a short time to begin shifting their portfolio.

Table XVIII and Chart 9 present the security holdings for the New Jersey retirement funds which represent the major portion of the total funds, approximately 70 per cent in 1963. This table and Tables XIX and XX should be reviewed with Table XVII for a more complete grasp of the New Jersey investment pattern.

The same trends noted in the total funds are apparent for the retirement funds with an expected greater shift to non-government securities for these highly predictable, semi-permanent funds.

Table XIX presents the security holdings for the New Jersey permanent funds. It should be observed that these are termed "Trust" funds in many cases because they are not all strictly permanent funds as this term has been used in this study. They have

CHART 9
STATE OF NEW JERSEY
SECURITY HOLDINGS FOR RETIREMENT FUNDS[1] AS OF JUNE 30
($ in millions, cumulative)



[1] Corporate stock and "other" investments have been omitted.
Source: Table XVIII.

been so grouped and presented because they are the other funds which would not be classified as retirement funds or current operating funds. New Jersey officials consider some of these funds to have an "indeterminate demand" which means that the investment pattern is diversified with caution.[2] This factor explains the relatively higher concentration in federal obligations than would be expected for permanent funds.

No different categorization of these funds was presented because of their small and decreasing relative size, approximately 10 per cent in 1963, and in the interest of maintaining the established categories with reasonable uniformity.

Table XX presents the security holdings for the New Jersey operating funds. The major point of difference between this distribution and that of Minnesota is the placing of an increasing amount

[2] From a personal interview.

TABLE XIX. STATE OF NEW JERSEY—SECURITY HOLDINGS FOR PERMANENT FUNDS AS OF JUNE 30
(in thousands of dollars)

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	$ 96,350	$ 91,655	$ 90,298	$ 84,119	$ 77,814
Municipal Obligations	9,698	17,148	19,069	21,700	22,996
Corporate Obligations	30,328	29,918	29,298	30,157	30,073
Corporate Stocks	343	343	343	343	343
Other	2,363	2,383	2,379	2,381	2,016
Totals	$139,082	$141,447	$141,387	$138,700	$133,242

PERCENTAGE DISTRIBUTION OF INVESTMENTS

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	69.3%	64.8%	63.8%	60.7%	58.4%
Municipal Obligations	7.0	12.1	13.5	15.6	17.3
Corporate Obligations	21.8	21.2	20.7	21.7	22.6
Corporate Stocks	.2	.2	.2	.2	.3
Other	1.7	1.7	1.8	1.8	1.4

Note: See classification of securities, page 105.
Source: *Ibid.*

in corporate obligations. Minnesota is currently working out administrative details to apply existing authority in this same way.

The New Jersey investment pattern indicates that they have not diversified their portfolio as fully as would be permitted by existing investment policy. Two investment classifications, corporate stocks and real estate, have not been much used as of the present time. As to investments in corporate stocks, New Jersey officials advised the author that they are reluctant to make addi-

TABLE XX. STATE OF NEW JERSEY—SECURITY HOLDINGS FOR OPERATING FUNDS AS OF JUNE 30
(in thousands of dollars)

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	$157,439	$137,594	$125,495	$109,374	$ 93,593
Municipal Obligations	2,622	4,008	3,614	2,541	2,781
Corporate Obligations*	97,227	59,211	52,794	57,992	13,221
Totals	$257,288	$200,813	$181,903	$169,907	$109,595

PERCENTAGE DISTRIBUTION OF INVESTMENTS

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	61.2%	68.5%	69.0%	64.4%	85.4%
Municipal Obligations	1.0	2.0	2.0	1.5	2.5
Corporate Obligations	37.8	29.5	29.0	34.1	12.1

Note: See classification of securities, page 105.
*Includes Commercial Paper.
Source: *Ibid.*

tional purchases and are not fully convinced of its ultimate advantages when they are presently compounding at rates in excess of 4 per cent in high grade debt instruments. There is no known real estate in the data presented although the author discussed some probable real estate investments with New Jersey officials.

The New Jersey investment patterns reflect a diversified investment policy which has been in effect for more years than others. Their experience and constant effort to revise and improve the entire investment process produce a mature result which would take some time to achieve in other states.

Wisconsin Investment Patterns

The investment patterns resulting from the state centralized investment process in Wisconsin exhibit the general trends observed for Minnesota and New Jersey, but with other unique features. The Wisconsin centralized investment process has been in operation since 1951 as a centralized investment board and is, thus, older than Minnesota but younger than New Jersey. The Wisconsin investment patterns, therefore, reflect the additional years of shifting the portfolio in accordance with a broadened investment policy.

Table XXI and Chart 10 present the combined security holdings

TABLE XXI. STATE OF WISCONSIN—SECURITY HOLDINGS FOR ALL FUNDS AS OF JUNE 30
(in thousands of dollars)

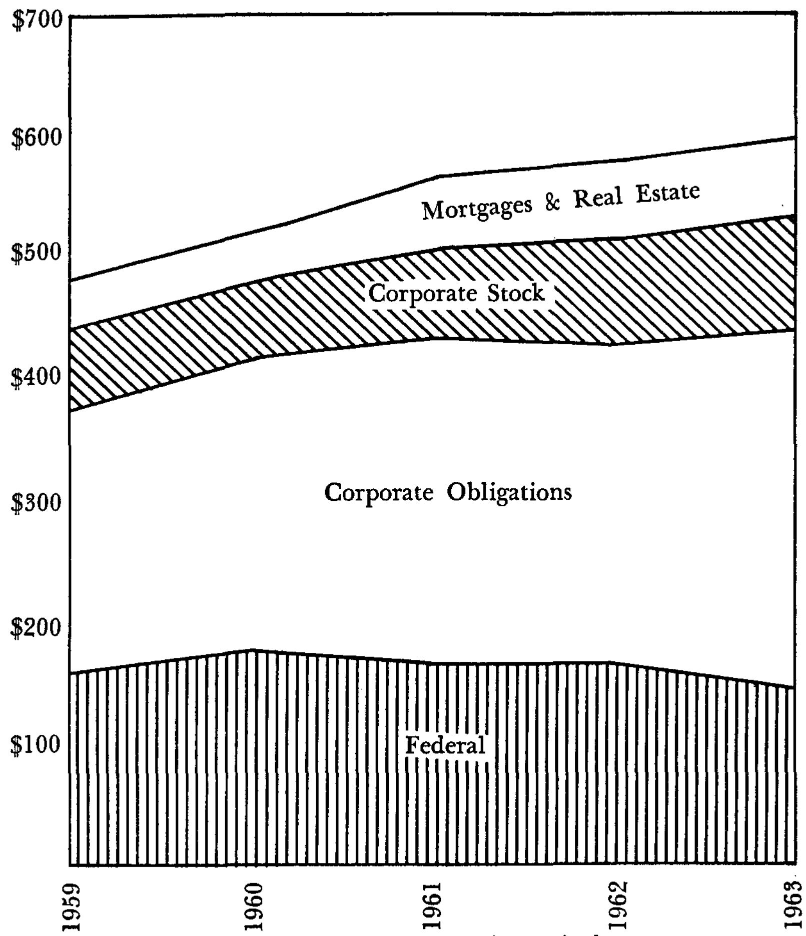
Type of Security	1963	1962	1961	1960	1959
Federal Obligations	$ 91,622	$113,985	$166,676	$173,862	$158,930
Municipal Obligations	2,817	3,670	5,255	4,422	3,095
Corporate Obligations	346,623	309,509	265,136	240,153	216,405
Corporate Stocks	96,881	87,554	72,497	64,542	64,402
Mortgages and Real Estate	63,309	66,559	59,096	39,529	39,529
Other	61,417	54,728	40,438	48,738	48,479
Totals	$662,669	$636,005	$609,098	$580,417	$530,840

PERCENTAGE DISTRIBUTION OF INVESTMENTS

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	13.8%	17.9%	27.4%	30.0%	29.9%
Municipal Obligations	.4	.6	.9	.8	.6
Corporate Obligations	52.3	48.7	43.5	41.4	40.8
Corporate Stocks	14.6	13.8	11.9	11.1	12.1
Mortgages and Real Estate	9.6	10.5	9.7	8.4	7.4
Other	9.3	8.5	6.6	8.3	9.2

Note: See classification of securities, page 111.
Source: Summarized and computed from *Annual Report*, State of Wisconsin Investment Board, for the Fiscal Year ending June 30, 1963, and from similar reports for prior years.

CHART 10
STATE OF WISCONSIN
SECURITY HOLDINGS FOR ALL FUNDS[1] AS OF JUNE 30
($ in millions, cumulative)



[1] Municipal obligations and "other" investments have been omitted.
Source: Table XXI.

for all categories of Wisconsin funds. The standard classification by type of security is the same as for Minnesota and New Jersey except for the addition of Real Estate to the Mortgages classification:

Federal Obligations: U. S. government bonds and U. S. government agency bonds.

Municipal Obligations: Bonds issued by Wisconsin and other states or any subdivision thereof.

Corporate Obligations: Debt instruments issued by U. S. or Canadian corporations, including public utilities, indus-

TABLE XXII. STATE OF WISCONSIN—SECURITY HOLDINGS FOR RETIREMENT FUNDS AS OF JUNE 30
(in thousands of dollars)

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	$ 3,809	$ 3,504	$ 10,098	$ 12,819	$ 10,576
Municipal Obligations	2,792	3,645	5,205	4,382	3,080
Corporate Obligations	314,254	283,597	259,547	234,544	210,674
Corporate Stocks	96,292	86,941	71,793	63,920	63,462
Mortgages and Real Estate	63,231	65,335	58,583	48,688	39,522
Other	41,675	37,326	37,924	35,087	29,301
Totals	$522,053	$480,348	$443,150	$399,440	$356,615

PERCENTAGE DISTRIBUTION OF INVESTMENTS

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	.7%	.7%	2.3%	3.2%	3.0%
Municipal Obligations	.5	.8	1.2	1.1	.9
Corporate Obligations	60.2	59.0	58.6	58.7	59.1
Corporate Stocks	18.4	18.1	16.2	16.0	17.8
Mortgages and Real Estate	12.1	13.6	13.2	12.2	11.0
Other	8.1	7.8	8.5	8.8	8.2

Note: See classification of securities, page 111.
Source: *Ibid.*

trials, transportation, railroad equipment, financial, institutional, and commercial paper.

Corporate Stocks: Equity instruments issued by U. S. or Canadian corporations, primarily common stock.

Mortgages and Real Estate: Real estate owned and leased and both conventional and government insured mortgage loans on real estate.

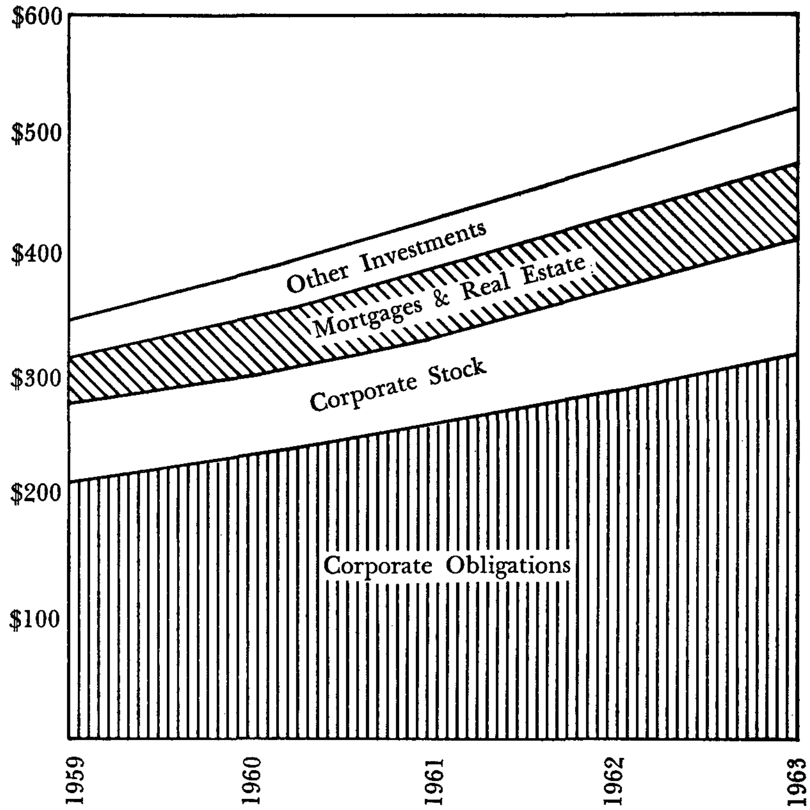
Other: Securities issued by the Dominion of Canada, guaranteed Canadian Provincials, Canadian municipals, World Bank participations, repurchase agreements, other small miscellaneous items, and any statistical error included in balancing to proper totals.

Table XXI indicates that Wisconsin has virtually eliminated municipal obligations from their security holdings. This corresponds to the New Jersey pattern and the trend in Minnesota. As with New Jersey, Wisconsin has had the necessary time to accomplish this reduction.

The same over-all shifting of the portfolio to non-government securities is the dominant trend. However, there are particular points of similarity and difference which should be observed.

Wisconsin has shifted away from federal obligations to a greater extent than the other two states. In fact, they have been nearly eliminated from the retirement funds, Table XXII and Chart 11, with an additional small amount carried in the permanent funds, Table XXIII. The great majority of federal obligations, $86 mil-

CHART 11
STATE OF WISCONSIN
SECURITY HOLDINGS FOR RETIREMENT FUNDS[1] AS OF JUNE 30
($ in millions, cumulative)



[1] Federal and municipal obligations have been omitted.
Source: Table XXII.

lion of a total of $91.6 million, are held for the current operating funds, Table XXIV. This is to be expected in view of the shifting noted above and the successful efforts of the investment board to keep current funds fully invested and cash balances at an absolute minimum. Wisconsin officials have stated to the author on several occasions that they are carrying cash balances at zero.

The Wisconsin investment patterns agree with those of Minnesota, and differ from those of New Jersey, in the shift into corporate stocks. Wisconsin has a much greater investment in this classification, of course, because Minnesota only began its purchases in 1961 at which time Wisconsin already was holding more than $70 million in corporate stock.

TABLE XXIII. STATE OF WISCONSIN—SECURITY HOLDINGS FOR PERMANENT FUNDS AS OF JUNE 30
(in thousands of dollars)

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	$ 1,788	$ 1,196	$ 1,638	$ 1,572	$ 1,517
Municipal Obligations	25	25	50	40	15
Corporate Obligations	6,714	5,912	5,589	5,609	5,731
Corporate Stocks	589	613	704	622	940
Mortgages and Real Estate	78	1,224	513	12	7
Other	956	651	644	640	609
Totals	$ 10,150	$ 9,621	$ 9,138	$ 8,495	$ 8,819

PERCENTAGE DISTRIBUTION OF INVESTMENTS

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	17.6%	12.4%	17.9%	18.5%	17.2%
Municipal Obligations	.2	.3	.5	.5	.2
Corporate Obligations	66.1	61.4	61.2	66.0	65.0
Corporate Stocks	5.8	6.4	7.7	7.3	10.7
Mortgages and Real Estate	.8	12.7	5.6	.2	.1
Other	9.5	6.8	7.1	7.5	6.8

Note: See classification of securities, page 111.
Source: *Ibid.*

An obvious difference in the three investment patterns is the real estate owned by Wisconsin. At June 30, 1963, approximately $16 million of the $63 million in this classification on Table XXI was invested in Real Estate Owned and Leased. With the exception of one small amount, it was all held for the retirement funds. While this $16 million is less than 3 per cent of total holdings, it is a significant and uncommon diversification.

TABLE XXIV. STATE OF WISCONSIN—SECURITY HOLDINGS FOR OPERATING FUNDS AS OF JUNE 30
(in thousands of dollars)

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	$ 86,025	$109,285	$154,940	$159,471	$146,837
Corporate Obligations*	25,655	20,000	....	....	....
Repurchase Agreements	17,900	15,400	1,005	11,863	16,600
Other	....	....	....	....	200
Totals	$129,580	$144,685	$155,945	$171,334	$163,637

PERCENTAGE DISTRIBUTION OF INVESTMENTS

Type of Security	1963	1962	1961	1960	1959
Federal Obligations	66.4%	75.5%	99.4%	93.1%	89.7%
Corporate Obligations	19.8	13.8	....	....	....
Repurchase Agreements	13.8	10.7	.6	6.9	10.2
Other	....	....	....	....	.1

*Includes Commercial Paper.
Note: See classification of securities, page 111.
Source: *Ibid.*

The operating funds, Table XXIV, include another uncommon item, "Repurchase Agreements." These agreements cover securities which otherwise would have been included in the federal obligations classification and are a form of "instant money" for the investment board. They are a further evidence of an intense effort to have every dollar earning income every day even while awaiting more permanent investment.

Summary

The predominant trend indicated by the data presented in this section is a definite shift of state security holdings from government to non-government securities. The shift into corporate obligations is noticeable with more than 60 per cent of the large increase in retirement funds during the past five years placed in this classification. Mortgages and corporate stock holdings are increasing but total investments in these classifications remain relatively small.

A closer examination of the three special-study states discloses that they have pressed the advantages of shifting their holdings. Comparisons with available nation-wide data are limited to retirement funds but indicate that these states have achieved more than average diversification. Minnesota and Wisconsin, for example, hold only 4 per cent of total retirement funds but 18 per cent of total corporate stock holdings. Minnesota, New Jersey, and Wisconsin hold 10 per cent of total retirement funds but 13 per cent of total holdings of corporate obligations. They also have diversified with other investments such as mortgages and real estate which are more difficult to compare with available nation-wide information.

Decisions within the centralized investment process influence the degree of diversification. Minnesota has diversified rapidly but has reduced holdings of municipal obligations with careful regard for internal considerations. New Jersey has diversified into higher-yielding investments but has felt it prudent to hold little corporate stock or real estate. In practice, therefore, broader investment policies are not simply applied without due regard for other important objectives.

These investment patterns demonstrate the ability of the state centralized investment process to achieve results for a state by diversifying investments of various types of funds. The effect of these results is discussed in the next section on investment yields.

INVESTMENT YIELDS

Investment yields are another indication of what a state is actually doing with its investment program. Information as to yields or as to level of earnings, from which yields may be computed, is limited both in availability and in scope. However, yields have been computed for this section to permit an examination of over-all levels and patterns as well as review of specific results attained by Minnesota, New Jersey, and Wisconsin.

While it is of interest and value to observe the progress in this area, it is also necessary to exercise caution and restraint in arriving at conclusions based on quoted effective rates or even computed rates of return. The apparent rate of return, or yield, is not the most significant aspect of the state centralized investment process. Some of the reasons underlying this point are discussed first in this section not by way of apology or disclaimer of current results but to establish the necessary frame of reference for examination of the yield patterns which follow.

The meaning of "yield" and "rate of return" is important to this discussion. Yield typically refers to the percentage derived by dividing actual earnings on an investment by the principal amount invested. This procedure was followed for all computed yields used in this study. However, this is not the basis of all quoted yields or rates of return which are often stated as the "effective rate of return." The latter has been defined as an average of current earning rates on invested funds.[3] A comparison of such rates is not meaningful in the absence of complete information regarding the method of computing the "average" and the extent to which funds are actually invested. For these reasons, it is important to note the use of the separate terms in the following paragraphs.

Significance of Yield

It is reasonable to expect at least normal or typical yields and some element of improvement to result from the state centralized investment process but it is an error to assume that they are the ultimate measure of current performance. There are several reasons why quoted effective yields or even computed average yields are not always a sound basis for comparisons between states or necessarily a good basis for judging the effectiveness of an individual program unless other factors are examined simultaneously: (1) total

[3] From a personal interview with a state investment officer.

dollar income is more important than a good record for a high effective rate of return; (2) present rates of return depend heavily on past transactions beyond the control of the present investment board; (3) present rates of return can be greatly influenced by the rate of growth of invested balances which is also largely beyond the control of the present investment board; and (4) varying objectives between types of funds and the differing "blend" of funds among states affect yields without indicating the degree of efficiency on the part of the individual investment board. The following paragraphs elaborate briefly on these four points.

Total dollars of income to the funds is of more importance to each fund and to a state over a period of time than an outstanding record for having a high effective rate of return. One investment board official observed to the author that their intent is to keep every dollar working every day at the highest rate which is compatible with other objectives of the fund. They strive for the greatest number of dollars although they are aware that they might improve the record of effective rate of return by waiting for a better yield. They feel that waiting involves trying to outguess the market which is actually a form of speculating with public funds. A slightly higher rate of return obtained at a later date involves a loss of earnings during the waiting period and a double loss if the rate finally obtained is lower.

The second stated reason, closely related to the first, was that present average rates of return for invested funds depend heavily on when purchases were made in the past. A new board with available funds will show an average yield more comparable with current rates than an older board with investments made at varying dates perhaps 10, 20, and 30 years ago at higher or lower rates. These older rates serve as an anchor to the older board causing current average yield to move toward current rates at a slower pace. In a period of rising rates of return, the result is an unwarranted appearance of poor performance for the efficient investment board which has kept its funds fully invested for a number of years.

One of the factors adding to this problem is the fact that any given fund with investments made several years ago has an excellent chance of being locked-in with some undesirable investments which will be scrapped at the earliest opportunity but are hampering any improvement in the over-all rate of return at the present time. The municipal bonds held by many funds are a good example of such investments. As has been noted previously, their disadvan-

tages to a tax-exempt entity are generally recognized but potential losses from their sale are too great or there are other financial and non-financial reasons for a given state to dispose of them carefully even though they are lowering the present average rate of return.

The third stated reason reducing the significance of any comparisons of yields is the effect of widely varying rates of growth for funds of different types. A static fund has only maturing investments to provide most of the balances which can be placed in more desirable investments. On the other hand, a rapidly growing fund, such as most present retirement funds, has large amounts of new money to invest which can cause considerable shifting in the portfolio and result in changing the over-all yield. Since the rate of growth is not subject to control by the investment board, resulting changes in over-all yield hardly measure the efficiency of the investment process.

Finally, varying objectives for different funds will result in different yields. Funds with liquidity requirements must stay short and roll-over at lower rates than can be secured for a permanent fund which can reach out for a higher rate. This factor also affects over-all yield comparisons between states. A state with a higher proportion of permanent funds and semi-permanent retirement funds can attain a higher over-all yield than a state with a comparable investment process but with a smaller proportion of the latter funds. This factor actually works against the state with an aggressive program for investing operating funds because it can result in a higher yield on invested funds for a state with a less developed process involving only more permanent funds.

These are some of the factors bearing on yields which have been brought to the attention of the author by more than one state official. They do not nullify a presentation of yields as an indication of investment results but need to receive careful consideration in arriving at any conclusions based on such yields.

Nation-wide Investment Yields

An examination of nation-wide investment yields provides some useful measurement of over-all investment results for comparison purposes. Various nation-wide data already have been used to provide other details, such as total investments, nature of the funds, and the distribution of investments. While there has been some development in the reporting of these aspects of state investments,

TABLE XXV. AVERAGE YIELD—RETIREMENT FUNDS OF ALL STATES AS OF JUNE 30

(dollars in millions)

Year	Total Holdings	Earnings	Yield
1963	$17,465	$642	3.68%
1962	15,547	558	3.59
1961	13,798	482	3.49
1960	12,127	398	3.29
1959	10,499	324	3.08

Source: Bureau of the Census, *Compendium of State Government Finances in 1963* (U. S. Government Printing Office, Washington, D. C., 1964), p. 44, and similar reports for prior years.

little information is available concerning earnings or yields for all funds.

As with the investment patterns of the previous section, the available data as to earnings on a nation-wide basis relate only to the retirement funds. Table XXV presents an average yield comparison for retirement funds of all states for the five-year period.

Total earnings of the retirement funds have almost doubled in this five-year period while total holdings increased slightly less than 70 per cent. If the average yield had not increased also from 3.08 per cent to 3.68 per cent, the total missed earnings would have exceeded $260 million in this one 5-year period. This amount represents more than 10 per cent of period earnings and more than 2 per cent of total holdings at the beginning of the period. There have been losses because of additional missed earnings, of course, to the extent that these average yields are less than they might have been. Failure to earn these extra amounts will result in smaller pensions than would have been possible in the future or in an added burden for the taxpayers, if pensions are subsequently supplemented by legislative appropriations.

The increase in average yield is the result of a combination of two variables: (1) changing investment patterns already examined in this chapter, and (2) changing average rates of return on various types of investments. The effect of these changes in the general market level of yields needs to be examined briefly. Table XXVI summarizes some commonly recognized average rates of return for each of the standard categories used in the tables already presented. Sufficient detail is included for each category to indicate the range of possibilities available for funds with differing requirements.

Table XXVI indicates movements in both directions for these average rates of return with a central tendency toward a general decline followed by some recovery during the period. In every category the average rate was lower at the end of the period than at

TABLE XXVI. SELECTED AVERAGE RATES OF RETURN
(per cent per annum)

Type of Security	1963	1962	1961	1960	1959
Federal Obligations:					
3-month bills	3.16	2.77	2.36	2.87	3.37
6-month bills	3.25	2.90	2.59	3.20	3.79
9 to 12 month issues*	3.28	3.02	2.91	3.55	4.11
3 to 5 year issues	3.72	3.57	3.60	3.99	4.33
Long-term bonds	4.00	3.95	3.90	4.01	4.07
Municipal Obligations	3.28	3.30	3.60	3.69	3.74
Corporate Obligations:					
Commercial paper (4 to 6 months)	3.55	3.26	2.97	3.85	3.97
Finance Co. paper (3 to 6 months)	3.40	3.07	2.68	3.54	3.82
Corporate bonds	4.50	4.61	4.66	4.73	4.65
Corporate Stocks (common)	3.17	3.37	2.97	3.46	3.23
FHA Mortgages (new home)	5.45	5.62	5.81	6.18	5.71

*Certificates of indebtedness and selected note and bond issues.
Source: Federal Reserve Bulletin, May, 1964, and December, 1962, and Economic Indicators, April, 1964.

the beginning. In spite of this, the average yield for the retirement funds, Table XXV, shows a steady increase in every year of the period.

The gains in nation-wide investment yields and total earnings for the retirement funds thus appear to be the result of the shifting investment pattern already noted rather than the result of a general rise in average rates of return. Since the shifting pattern is the result of decisions within the investment process, the general conclusion is that total returns to the state have been increased by improvements in the investment process.

Selected State Yields

An examination of nation-wide investment yields leads logically to the yields for the retirement funds of individual states. Data for this single phase of possible state investment activity are available from the same sources. Table XXVII summarizes average rates of return, based on reported earnings and total cash and security holdings, for the retirement funds of every state for three years of the five-year period.

This table has been arranged in descending order from the highest 1963 rate of return to the lowest. The years 1961 and 1959 were added for reference purposes. Total cash and security holdings at June 30, 1963, were added to relate widely varying rates of return to the size of the funds invested. Where these totals for any state do not agree with those presented in other tables, the differences are caused by different reporting years or are otherwise reconcilable. In order to preserve the element of comparability which existed in

TABLE XXVII. AVERAGE YIELDS—STATE RETIREMENT FUNDS AS OF JUNE 30

(dollars in millions)

State	1963	1961	1959	Total Holdings*
1. Wisconsin	4.64%	4.71%	4.14%	$ 478
2. Arizona	4.63	3.50	3.39	113
3. North Dakota	4.23	5.52	3.05	19
4. Kentucky	4.18	3.80	2.84	140
5. Georgia	4.08	3.98	3.95	275
6. Missouri	3.99	3.73	3.39	163
7. Nevada	3.99	4.06	2.84	37
8. Pennsylvania	3.97	3.39	2.93	1,493
9. Montana	3.94	3.88	3.31	59
10. Maine	3.91	3.75	3.30	75
11. New Mexico	3.90	3.25	2.63	64
12. Oregon	3.85	3.27	2.79	140
13. Vermont	3.80	3.45	3.17	42
14. Washington	3.79	3.36	2.84	307
15. Virginia	3.78	3.74	3.09	203
16. Connecticut	3.76	3.42	3.08	229
17. Hawaii	3.76	4.02	3.30	186
18. Utah	3.75	3.11	2.71	43
19. New Jersey	3.74	3.41	3.06	908
20. Alabama	3.73	3.59	3.36	192
21. New York	3.70	3.46	3.28	2,885
All States	3.68	3.49	3.08	17,465
22. Arkansas	3.68	2.98	2.78	68
23. California	3.66	3.50	3.17	2,649
24. Iowa	3.64	3.35	2.97	155
25. Maryland	3.62	3.30	2.73	337
26. Ohio	3.62	3.31	2.93	1,562
27. Tennessee	3.61	3.55	3.06	168
28. Colorado	3.53	2.89	2.71	148
29. Oklahoma	3.49	3.17	2.72	75
30. South Carolina	3.47	3.20	2.80	175
31. Florida	3.46	3.78	2.70	326
32. New Hampshire	3.46	3.47	3.08	55
33. Indiana	3.45	3.21	2.56	193
34. Minnesota	3.45	3.17	3.15	233
35. Texas	3.45	4.15	3.04	795
36. Rhode Island	3.44	3.39	3.32	60
37. Illinois	3.43	3.24	2.99	557
38. North Carolina	3.37	3.28	2.87	420
39. Michigan	3.27	3.55	2.61	451
40. Massachusetts	3.22	3.16	2.88	255
41. Nebraska	3.20	2.47	2.25	29
42. Mississippi	3.18	3.05	2.76	56
43. Louisiana	3.15	3.40	3.09	426
44. Idaho	3.14	2.89	2.75	20
45. Wyoming	3.04	2.69	2.27	16
46. West Virginia	3.03	2.85	2.56	119
47. South Dakota	2.84	2.32	3.18	5
48. Kansas	2.80	2.68	2.68	44
49. Alaska	2.70	2.45	1.92	12
50. Delaware	......	......	......	......

*Total Cash and Security Holdings at June 30, 1963.

Source: Derived from Bureau of the Census, *Compendium of State Government Finances in 1963* (U. S. Government Printing Office, Washington, D. C., 1964), p. 44, and similar reports for prior years.

the original data, no adjustments were made to any of these reported totals.

Table XXVII indicates that the larger state retirement funds tend to record the higher average yields. The four state holdings which exceed $1 billion all rank in the upper 50 per cent. Nearly 75 per cent of the total holdings are held by the top 26 states. Five states of the top 26, Pennsylvania, New Jersey, New York, California, and Ohio, hold almost 55 percent of total holdings. These large state holdings have a strong influence on the All States average yield which accounts for its position above the mid-point of the list.

These facts suggest that the growth and size of the larger state holdings have attracted investment attention in the past and resulted in their higher average yields and improving position in the face of generally lower rates of return noted in Table XXVI.

The impact of the state centralized investment process may be noted from Table XXVII. Special-study state, Wisconsin, heads the list and has maintained its leading position with some consistency and little competition from any of the larger funds. Wisconsin's extra earnings in one year at present levels are nearly $5 million; New York could have earned $27 million more at the Wisconsin rate of return.

New Jersey also ranks above the All States average yield and has improved this relative position during the period. Its position nearer the All States average yield reflects the tendency of the larger funds to cluster around the average rather than scatter throughout the scale. It appears that the state centralized investment process in New Jersey, although shifting the investment pattern for retirement funds with good effect, has encountered a problem of inherent sluggishness in an older and larger fund which restricts a more rapid improvement. It seems likely its position will slowly improve. Of the 18 states preceding New Jersey in Table XXVII, 16 are less than 35 per cent as large. A listing of only the 12 states exceeding one-third of $1 billion was considered for Table XXVII but discarded in favor of a more complete presentation. Such a listing of 12 would have placed New Jersey in third position.

Minnesota is the only special-study state which ranked below the All States average in Table XXVII. Its position on the 1963 listing and relatively slow increase from the 1959 level requires closer examination. In Chapter VI it was observed that Minnesota did not move to diversify retirement fund holdings to any great degree until they secured full-time, professional investment per-

sonnel in 1960 and subsequently enacted legislation in 1961 to broaden their investment policies. In this chapter, Table XV clearly reflects their recent diversification away from lower yielding government obligations during this five-year period. Thus, Minnesota has had only about one-half of this period to accomplish any diversification. Their average yield, Table XXVII, remained almost constant from 1959 to 1961 and made almost all of its 30 point increase for the period within the last two years.

The circumstances in Minnesota are, thus, quite different than they appear in Table XXVII. Based on their recent accomplishments and the quality of their state centralized investment process, it appears that an updating of Table XXVII in a few years will find Minnesota in a much improved position. This result already is indicated by data taken directly from Minnesota reports and included in the following sub-section of this chapter, Minnesota Investment Yields. The average yield is comparable for 1959 but increases much faster to 3.56 in 1961 and 3.86 in 1963.[4] If all other data in Table XXVII were unchanged, Minnesota would move to the top 12, on this basis.

It should be noted also, before leaving the direct discussion of Table XXVII, that nearly every state has at least some of the basic elements of the state centralized investment process in force in this single phase of state investments. A review of the most recent booklet, State Pension Funds, published by the Investment Bankers Association,[5] reveals that the information was submitted by a Director, Executive Director, Secretary, Executive Secretary, or other similar title, for a State Employees' Retirement System, a State Teachers' Retirement System, a Department of Public Investments, or other similar group. It appears that these officials sometimes have training and experience in the field of investments and that the related investment advisory groups often include such individuals. In addition to these factors, the indication is that control of the various pension funds in a state has been centralized and a degree of diversification of investment has been achieved.

The difference is that a few states have developed the state centralized investment process combining the basic elements and including other funds as well as retirement funds. Aside from all other advantages of the centralized process, the result has been

[4] *Report of The Executive Secretary*, State of Minnesota, State Board of Investment, for 1961 and 1963.

[5] Investment Bankers Association, *op. cit.*

an improvement in investment yields for retirement funds with Wisconsin heading the list.

It is unfortunate that the analysis of preceding paragraphs cannot be expanded to include permanent and operating funds. The problem, as already indicated, is a lack of general information about these other funds.

One probable reason is that the demand for data has not overcome the reporting problems for these more varied funds. Retirement funds have more common characteristics from state to state which permit a somewhat standard reporting system which has developed as it became useful. There is also a more universal pressure for an expanded investment program for these rapidly growing funds which increases interest in what other states are doing. These pressures are apparently not as great for permanent and operating funds where some states lack significant balances and others consider traditional handling to be sufficient for such funds.

Whatever the reasons, the resulting incomplete data prevent general comparisons of investment yields for any but the retirement funds. On the other hand, some notion of the level of these yields can be secured from the reports of states with more complete programs. The three special-study states provide valuable data in this area of little reporting.

Minnesota Investment Yields

The Minnesota state centralized investment process has provided the various funds with constantly rising yields in spite of generally lower average market rates of return.

Table XXVIII summarizes available data as to average investment yields for all three types of funds. An over-all yield for total Minnesota funds has not been included because they do not present a figure and there is no reliable basis for such a computation.

Comparison of the yields in Table XXVIII with average rates of return, Table XXVI, indicates that yields for the operating funds appear, from very limited data, to follow average rates. This is to be expected since these funds are presently invested entirely in relatively short-term federal obligations. As they roll-over, they add new rates relatively often and push the average yield in that direction. Considerable study of the Minnesota investment process by the author also indicates, however, that consistent, daily supervision of these balances by full-time, professional investment personnel has been generating greater total earnings from operating funds

TABLE XXVIII. MINNESOTA AVERAGE INVESTMENT YIELDS FOR THE YEAR ENDED JUNE 30

Year	Permanent*	Retirement**	Operating***
1963	3.90%	3.86%	3.50%
1962	3.11	3.73	3.40
1961	3.07	3.56	......
1960	2.80	3.34	......
1959	2.78	3.17	......

*Rates for 1959–1962 computed from earnings and fund balances. The 1963 figure is an effective rate for newly combined funds and may average out at a slightly lower level.

**Computed from original data for three largest funds constituting 98 per cent of total retirement funds in 1963.

***Current effective rates determined by State Board of Investment. Prior years not available.

Source: *Report of The Executive Secretary*, State of Minnesota, State Board of Investment, for 1960, 1961, 1962, and 1963, and interview notes and correspondence.

than are apparent from a single comparison of effective rates at different dates.

Permanent funds and retirement funds, on the other hand, exhibit a steady increase in average yields in spite of fluctuating but generally lower market rates. Current data project these average yields in excess of 4 per cent for both categories of funds for the current year.

The conclusion is, therefore, that the aggressive Minnesota program has resulted in increased yields and greater earnings because of the diversification which has already been accomplished in a short period of time. A computation of total dollar benefits resulting from increased yields is based on too many assumptions to retain any great degree of accuracy. However, it is reasonable to estimate, based on the indicated increases in Table XXVIII and average balances in Tables XV and XVI, that the increased earnings for only the permanent and retirement funds have exceeded $8 million in this one five-year period. Estimates of current excess earnings should run at a higher rate because most of the five-year increase was in the latter part of the period.

New Jersey Investment Yields

The New Jersey centralized investment process also has provided the various funds with constantly rising over-all yields in spite of fluctuating but generally lower average market rates of return.

New Jersey reports provide more complete information about state investments than most other sources. Table XXIX, thus, includes an over-all average yield on total funds as well as averages for each category.

TABLE XXIX. NEW JERSEY AVERAGE INVESTMENT YIELDS* FOR THE YEAR ENDED JUNE 30

Year	Type of Funds			Total
	Permanent**	Retirement	Operating	
1963	3.08%	3.93%	3.24%	3.70%
1962	3.08	3.86	3.37	3.68
1961	3.06	3.68	3.39	3.55
1960	2.97	3.52	4.27	3.57
1959	2.78	3.30	3.26	3.21

*Weighted average effective rates.

**Computed on a consistent basis for funds categorized as non-retirement and non-operating in 1963.

Source: Annual Reports of the State of New Jersey State Investment Council and interview notes.

The average yields for New Jersey retirement funds, as with those of Minnesota, exceed those included in the nation-wide data of Table XXVII. The data in Table XXVII were presented as reported to preserve comparability within the original data but studies of individual states should be based on their annual reports as in Table XXIX.

The general pattern of New Jersey investment yields is similar to that of Minnesota. One major cause of differences in rate of change is the more mature phase of the New Jersey centralized investment process. The diversification noted in Tables XVII–XX has been taking place for about 10 years longer than that of Minnesota. Current changes in Minnesota rates, thus, tend to be more marked than those of New Jersey.

Another major cause of differences is the nature of the New Jersey "permanent" funds which are really trust funds with an indeterminate demand. These funds require a greater proportion of more liquid investments than Minnesota is now seeking for its larger funds which are more permanent and can reach out for higher yields. New Jersey can show improvement at current average market rates but should fall behind Minnesota in this category as Minnesota broadens its investment pattern for these funds.

On the basis of investment yields alone, New Jersey also is benefiting from extra earnings through its centralized investment process. Their investment yields have followed an increasing pattern largely independent of average market rates of return. The five-year increase in the over-all average yield on total funds, to select one method of several possible calculations, has resulted in increased earnings in excess of $18 million, based on the data of Table XXIX and Table XVII.

TABLE XXX. WISCONSIN AVERAGE INVESTMENT YIELDS FOR THE YEAR ENDED JUNE 30

Year	Retirement and Trust Funds*	Operating Funds**
1963	4.40%	3.32%
1962	4.36	3.12
1961	4.32	2.99
1960	4.18	3.89
1959	4.08	......

*These yields include both Permanent or Trust Funds and Retirement Funds. The Retirement Funds constitute about 97 per cent of the balances and thus dominate the yield.
**Yield at cost of holdings at end of year for the State Investment Fund which includes operating funds and Participating Interest of Other Funds.
Source: Annual Reports, State of Wisconsin Investment Board, 1959–1963.

Wisconsin Investment Yields

The Wisconsin centralized investment process has provided the various funds with constantly rising yields in addition to the fact that they were already far above any other comparable yields at the beginning of the five-year period. Few states have achieved in 1963 the level of Wisconsin retirement fund yields recorded in 1959.

Table XXX summarizes in two categories the available data regarding average investment yields for the various Wisconsin funds. The classification of funds is slightly different from other tables but does not materially alter comparisons of yields.

The general pattern of Wisconsin investment yields is similar to those of Minnesota and New Jersey. The rate of return for operating funds tends to swing with the average market rates for commercial paper and short-term federal obligations but has been maintained at a relatively high level. The average rate on the more permanent funds has increased steadily in spite of average market rate fluctuations and the relatively high level it already had reached at the beginning of the period.

By a measurement of investment yields alone, the state of Wisconsin also has benefited from extra earnings that can be attributed to its centralized investment process. The increase in the average yield on retirement and permanent trust funds has resulted in increased earnings in excess of $4 million in this one 5-year period based on the data of Table XXX and Tables XXII and XXIII. This estimate is less than those for Minnesota and New Jersey, of course, because the latter had lower yields at the beginning of the period that could, and did, increase faster. Assuming equal skills and comparable circumstances, greater improvement is always possible when starting from a lower base point.

A more significant measure in the case of Wisconsin is the higher level of earnings throughout the period. The difference between this level of yields and the All States average yields of Table XXVII returned Wisconsin in excess of $17 million of extra earnings in this one five-year period as compared to what a typical state would have earned on the same balances. A similar estimate for Minnesota and New Jersey was not made because they only now are reaching this level of advantage over a "typical" state.

Summary

There is a general pattern of increasing yields for state investments which is not accounted for in the pattern of average rates of return. This general pattern divides between that for operating funds and that for other more permanent funds. The yields on operating funds, based on available data, appear to swing with average rates of return. This can be expected of funds with high liquidity requirements which permit only limited diversification. On the other hand, the yields on other funds, especially retirement funds, have increased steadily during the past five years while average market yields fluctuated and generally declined.

Better investment processes are the apparent reason most states are benefiting from extra earnings on their retirement funds. Only a few states have developed the state centralized investment process for all types of funds but other states have some elements of such a process in operation as a result of their efforts to meet investment problems of the rapidly growing retirement funds. Generally improved processes are already apparent in the increasing yields.

UTILIZATION OF BALANCES

The extent of utilization of available balances is another factor which should be considered in examining investment results. The purpose of this section is to examine available data to determine whether there is any indication that the state centralized investment process results in greater utilization of available balances.

Significance of Utilization

Investment patterns provide a measurement of results as they disclose the extent of diversification within the stated investment policies. Investment yields also provide a measurement of results

as they disclose the return on invested funds and may be used to compute estimated losses of potential earnings if the rate of return is less than reported "typical" yields. However, both of these factors generally consider performance with invested funds and overlook additional balances which are not invested.

For example, a given state might report a well diversified portfolio which takes full advantage of stated investment policies. The same state also might have an outstanding record of high yields on its invested funds. Based on only these two factors, the investment program of that state would be considered quite efficient. Further investigation may reveal, however, that reported results include only one-half or two-thirds of available funds as typically invested and reported by other states.

A more complete measurement of investment results must include some measurement of the utilization of available balances.

Extent of Cash Balances

Information regarding the nature and extent of state cash balances on a nation-wide basis is quite limited. The problem of incomplete data is complicated by the practice of combining many state and local statistics. On the other hand, available data can be summarized to provide an indication of the relative utilization of available balances.

Table XXXI presents the percentage relationship between cash holdings and total cash and security holdings for three years of the five-year period. The table is arranged in ascending order, from the lowest percentage of cash holdings at June 30, 1963, to the highest, with 1961 and 1959 added for comparison purposes. The total dollar amounts of cash and security holdings were added to make it possible to relate results to the size of total funds.

Before reviewing Table XXXI, it should be noted that a degree of inaccuracy results from the use of "cash and other deposits" in computing these percentages. To the extent that these balances represent time deposits earning interest, they may be considered to be invested and not idle cash balances. This may explain some of the high percentages obtained. The exact proportion of these deposits which may be "invested" in time deposits could not be determined from any source which was located because state and local deposits are combined in reports of time and demand deposits for all banks. These reports of combined state and local balances indicate that time deposits have approximated one-fifth to one-third

TABLE XXXI. PER CENT OF CASH AND OTHER DEPOSITS TO TOTAL CASH AND SECURITY HOLDINGS* AS OF JUNE 30
(in millions of dollars)

State	1963	1961	1959	Total 1963 Holdings
1. Wisconsin	.8%	.6%	.3%	$ 728
2. Minnesota	4.1	5.0	4.6	820
3. Oregon	4.4	6.5	5.7	663
4. Connecticut	5.3	4.7	13.9	587
5. Vermont	5.3	6.0	10.3	57
6. California	5.6	5.2	6.6	5,511
7. New Jersey	6.5	5.9	5.5	1,527
8. Washington	6.6	6.5	7.5	748
9. Michigan	8.5	8.8	15.2	869
10. Maryland	8.8	9.8	12.3	590
11. New York	8.9	8.3	8.3	4,766
12. Ohio	9.2	11.4	12.4	2,372
13. Iowa	10.6	9.5	13.6	340
14. Nebraska	10.6	18.3	28.3	113
15. Montana	11.0	8.9	8.1	155
16. New Mexico	12.4	20.4	22.9	348
17. Pennsylvania	12.4	7.8	9.2	1,993
18. Wyoming	13.3	14.7	14.0	158
19. Virginia	14.1	16.4	33.7	510
All States	14.2	14.5	16.4	35,378
20. Texas	14.5	10.3	13.2	2,309
21. Maine	14.6	13.9	19.8	130
22. Massachusetts	15.5	22.4	28.1	606
23. West Virginia	17.5	20.2	17.0	285
24. Missouri	16.7	30.0	42.6	342
25. Florida	17.7	22.9	20.7	661
26. Idaho	19.3	22.6	21.4	114
27. North Carolina	19.5	19.6	18.0	804
28. Kentucky	20.1	21.3	28.7	338
29. South Carolina	20.7	20.2	21.4	300
30. Colorado	21.0	21.5	20.2	353
31. New Hampshire	22.5	25.4	20.5	71
32. Rhode Island	26.2	23.1	10.7	141
33. South Dakota	26.5	30.0	38.5	102
34. Louisiana	26.8	32.0	40.1	661
35. Alabama	27.9	20.5	35.8	312
36. Nevada	28.7	36.6	40.3	94
37. Delaware	28.9	27.1	39.1	90
38. Arizona	29.0	33.9	30.0	297
39. Georgia	29.0	39.5	36.4	676
40. Hawaii	30.4	38.6	30.8	296
41. Arkansas	31.5	38.2	29.6	162
42. Illinois	34.5	38.9	39.9	1,332
43. Oklahoma	35.4	33.7	32.7	458
44. North Dakota	37.7	38.5	46.6	167
45. Indiana	39.0	45.1	45.7	505
46. Utah	39.9	45.2	50.5	138
47. Alaska	50.0	42.2	55.2	96
48. Tennessee	51.2	49.6	51.4	324
49. Mississippi	51.6	64.1	72.2	155
50. Kansas	64.9	69.5	62.7	205

*Exclusive of unemployment compensation balances in the U. S. Treasury.
Source: Derived from Bureau of the Census, *Compendium of State Government Finances in 1963* (U. S. Government Printing Office, Washington, D. C., 1964), p. 41, and similar reports for prior years.

of total deposits during the five-year period, 1959–1963.[6] If this relationship is assumed to apply to state deposits, the effect on individual state percentages of including time deposits would be relatively small and it appears that its effect on the over-all pattern of Table XXXI would be immaterial.

A greater utilization of balances in investments is indicated in Table XXXI by the decline in the percentage of state cash holdings as compared to total cash and security holdings. While the pattern from year to year is somewhat consistent, 30 of the 50 states recorded a decline in the percentage between 1959 and 1963. A few states show sharp changes that suggest a change in investment policies during this period.

The All States percentages are, of course, the complements of the securities percentages presented in Table I. The change in these "average" figures appears to be rather small but even this small decrease, from 16.4 per cent to 14.2 per cent, releases many dollars for investment. For example, if the All States percentage had remained at its 1959 level for the years through 1963, the resulting decrease in total security holdings would have totaled more than $2 billion for the four years. At a nominal 3 per cent yield, total earnings for this period would have been $60 million less than they were. Other similar calculations and comparisons can be made, but the general pattern of Table XXXI is of more significance to this topic.

Greater Utilization of Balances

There is a high correlation between the position of a state in Table XXXI and the degree of development of the state centralized investment process in that state, especially as to the element of employing professional investment personnel.

The three special-study states, Wisconsin, Minnesota, and New Jersey, ranked first, second, and seventh in 1963; first, third, and fifth in 1961; and first, second, and third in 1959. All three states have

[6] Federal Deposit Insurance Corporation, *Report of Call No. 63 and Call No. 64—Assets, Liabilities, and Capital Accounts, Commercial and Mutual Savings Banks—March 18, and June 29, 1963* (Washington, D. C., 20429); United States Treasury, *100th Annual Report of the Comptroller of the Currency—1962* (U. S. Government Printing Office, Washington, D. C., 20402); United States Treasury, *Ninety-Ninth Annual Report of the Comptroller of the Currency—1961* (U. S. Government Printing Office, Washington 25, D. C.); and Federal Deposit Insurance Corporation, *Report No. 52, Assets, Liabilities, and Capital Accounts—Commercial and Mutual Savings Banks,* December 31, 1959 (Washington, D. C.).

consistently maintained low balances of cash and other deposits and consequent high levels of security holdings. Wisconsin stands out as a leader, with balances approaching zero, although all three states are far below the All States average.

Two very significant facts which are underscored by Table XXXI should be noted. As was reported in Chapter III, a total of 18 states indicated they have a centralized investment board. Twelve of these 18 rank higher than 26th on this table. In other words, two-thirds of states with centralized boards are in the upper one-half of the list. A closer examination reveals that 10 of these states are concentrated in the first 16 listed on the table. Therefore, although centralized board states are scattered throughout the table, there is a high correlation between this factor and greater utilization of balances as indicated by relative position in Table XXXI.

Another even more important element of the state centralized investment process is employment of professional investment personnel in the program. A total of 13 states were reported in Chapter III as indicating they have an investment office with their own trained investment personnel. All but one of these states rank in the upper one-half of Table XXXI. In fact, 11 of the 13 are concentrated among the first 16 states on the table. Adding to this concentration in the first 16, are 3 of the states that contract with an outside agency for professional assistance. Thus, 14 of the first 16 employ professional assistance in their investment program whereas only 5 of the other 34 states indicated any such activity. There is, therefore, a higher correlation between this factor and greater utilization of balances than was noted in the preceding paragraph for a centralized board.

There are other interesting and significant facts which can be inferred from Table XXXI and related data. The first 12 states held $19 billion (54 per cent) of total holdings at June 30, 1963; all 12 indicated that they employ professional investment personnel, nine in their own investment office, three by contracting with an outside agency; and seven of these 12 states indicated they have a centralized investment board.

The first eight states held $10 billion (30 per cent) of total holdings; seven of these eight states indicated they have an investment office with trained investment personnel, the other contracts with an outside agency; and six indicated they have a centralized investment board. In other words, narrowing the area of examination toward the top of Table XXXI increases the probability that the

states included will have both of these elements of the centralized investment process.

Finally, the first eight states listed on Table XXXI include five of the seven states with a more centralized investment process as it was discussed in Chapter III.[7] Only two of those states ranked outside the first eight on the table.

Compensating Bank Balances

The topic of compensating bank balances has been discussed in some detail. It is included here only as a reminder that any planning to secure greater utilization of available balances in the investment program must include equitable reimbursement to many banks for the services they provide for the state.

State officials working with existing centralized investment boards have advised the author that they do not overlook this important matter and discussions in other states usually include it.[8]

Summary

The data presented in this section indicate that the state centralized investment process results in greater utilization of available balances. Most states have a high percentage of security holdings and consequent low percentage of cash and other deposits. However, any listing of those states exhibiting a much greater than average utilization of balances would be dominated by states with the centralized investment process and would include, without exception, only states which employ professional investment personnel in their program.

The three special-study states, Minnesota, New Jersey, and Wisconsin, have maintained a high level of efficiency in utilizing available balances with Wisconsin a consistent leader of all other states.

SUMMARY

The three major sections of this chapter have examined investment results as they are indicated by investment patterns, investment yields, and utilization of available balances.

State investment patterns disclose a distinct shifting from government to non-government securities during the five years, 1959–

[7] Assuming the inclusion of all three categories of funds and professional investment personnel.

[8] See, for example, P. A. R. Analysis, *Investment of State Funds*, 1961, *op. cit.*, and the later Legislative Bulletin, May 28, 1963, *op. cit.*

1963. As this shifting has taken place, many states have attempted to diversify their portfolios beyond the classification of corporate obligations with such investments as corporate stock, mortgages, and real estate. This shifting pattern and increased attention to growing state balances has resulted in increased returns in spite of average market yields which have fluctuated and generally declined. The total return to many states also has been increased by greater utilization of available balances in the state investment program.

The state centralized investment process is designed to combine these factors and concentrate on results for the state. While most states appear to have achieved some degree of diversification of their portfolios and higher returns on invested funds, those achieved by states with the state centralized investment process are distinct. The three special-study states, Minnesota, New Jersey, and Wisconsin, have demonstrated a flexibility and efficiency that are extraordinary in securing a wider diversification and higher returns[9] while utilizing a greater amount of total available funds.

[9] There would be some expense, of course, in operating a full-time investment office as a separate agency. While existing data do not permit exact computation of the relationship between higher returns and operating expenses, it seems clear that the expenses of investment offices currently operating in the three special-study states are only a small fraction of the higher returns already noted. For example, with a $400 million fund a gain of 1 per cent in the rate of return means $4 million to the state. At a level of $150,000 per year for the centralized investment function, the gain is obvious. Moreover, a direct cost comparison would be confused by any effort to allocate existing expenses and the salary of the state treasurer and other persons.

VIII / Summary and Conclusions; Recommendations

It is the purpose of this final chapter to present a brief summary, conclusions reached in this research, and recommendations based on these conclusions. While summaries were included with certain sections and chapters, they were necessarily more restricted in scope.

SUMMARY

The development of a sound, businesslike investment program is not an isolated experiment of a few state governments. It is an expansion of a trend toward more alert financial management in both business and government. Most states have invested certain types of funds for many years but only a few states have adopted the state centralized investment process with its specialized structure and controls aimed at securing maximum returns for the state.

State Investments Acquiring Greater Impact

The impact of the idea of a comprehensive program for investing state funds is much greater today than in past years. Total cash and security holdings of all states exceeded $35 billion in 1963 compared to $12 billion as recently as 1951. Moreover, the present rate of increase indicates total holdings should exceed $50 billion by 1970. Individual state totals are already attaining tremendous size with 21 states reporting total holdings exceeding $500 million and seven of these exceeding $1 billion in 1963. No state was found to have less than $50 million. Only five states held less than $100 million and it appears most of them will exceed that mark in a few years.

It seems obvious that holdings of this magnitude are large

enough to cause every state to review its investment process and compare its structure and results with other states in an effort to improve its operations.

State Funds Available

Total holdings include permanent funds such as a Permanent School Land Fund or a State Historical Society Fund, retirement funds such as a State Employees Retirement Fund or a Teachers Retirement Fund, and operating funds in the form of a Treasurer's Cash Balance or Highway Funds awaiting demand. These three categories include the major funds which are also the ones typically invested by existing state investment boards.

It was noted that the most significant balances are the retirement funds which have been increasing relative to total holdings and now account for approximately one-half of the total. In fact, two-thirds of the $18 billion increase in total holdings in the past decade was accounted for by the increase of $12 billion in retirement funds. This is the primary factor which appears certain to push total holdings to much higher levels in a very few years.

The other one-half of total holdings, approximately $18 billion of non-retirement funds, has not been increasing as rapidly although the increase of $6 billion in the past decade is hardly insignificant.

Investment Alternatives

A state has a number of alternatives in the face of these rising balances in its treasury. At the one extreme, the balances can be allowed to accumulate with no attempt to make any investments. Other alternatives include investment by fund officials, utilization of an advisory group, investment by state officials, and a centralized investment process. A sound, businesslike investment program can be devised to make the greatest possible use of these funds to provide increased earnings for the state. Proper handling of funds in this modern day demands such an investment program.

The Unique Character of the Centralized Investment Process

The unique character of the investment programs of a few states is the state centralized investment process. This concept embraces more than merely an investment board or committee acting in an advisory capacity to various state officials or agencies with funds to invest.

The state centralized investment process includes centralization of the investment function, a state centralized investment board as a distinct agency, control of funds, and utilization of professional investment personnel in a unique process in which state investments are the single primary responsibility. While the idea of investing state funds is hardly new, this concept of a centralized process has been developed by only a few states in the past 15 years.

An integral part of this centralized process, and the primary advantage, is the broader discretionary investment powers which are feasible within such a framework. Other specific advantages vary with circumstances in a given state, but the following were noted as among those generally realized: combining of small balances for more efficient investment, specialization of the investment function, avoidance of part-time investment by busy officials with other primary responsibilities, and economies resulting from reduced investment expenses and duplication of time and effort.

No specific disadvantages were noted although short-range problems may result from subordination of a part of the rights of separate funds and because of additional planning which may be required. However, the solutions to these problems ultimately strengthen the investment process.

A survey of state treasurers disclosed 18 states which regard their investment program as including a centralized board. Three of these states, Minnesota, New Jersey, and Wisconsin, were selected for special study based upon the factors of size of holdings, experience with the state centralized investment process, the unique character of their particular programs including utilization of the larger cash flows by professional investment personnel working with broader discretionary investment powers, and access to adequate data. Special attention to these three states illustrates specific elements which are a significant part of the state centralized investment process.

Structure of State Centralized Investment Process

The structure of the state centralized investment process was studied by examining the three special-study states and an "ideal" structure as specified in a model law.

Common elements were found to exist which made it possible to generalize about the structure of the state centralized investment process although it was observed that each state has adapted the structure to fit present requirements and circumstances.

Control of Cash Flow and Investment Operations

Control of cash flow and investment operations is important to the state centralized investment process to assure availability of balances and effective investment. The experience of the three special-study states reveals that this control is not an unmanageable problem.

It must be recognized that the various agencies and state officials responsible for funds in many states are understandably reluctant to relinquish all control of their balances. The state centralized investment process reduces problems in this area as the agencies and officials are drawn into the centralized investment process to plan proper balances with the centralized board which is responsible for the investment function.

It was noted that calculating cash flow control may appear, on the surface, to be a difficult problem for a state investment program. However, in actual practice, the element of permanency in a large proportion of the balances has resulted in a simple, non-technical approach which the special-study states have found to be satisfactory at the present time.

Investment Policies

Investment policies for state funds define legal powers and authorized investments, including the very important matter of compensating bank balances. These policies have been necessarily restrictive in the past, stressing safety of principal as a common theme. One reason for continuing restrictive policies has been the lack of a proper investment framework within which broader discretionary policies become feasible.

The state centralized investment process provides the controls and full-time supervision by professional investment personnel which make it possible to give greater recognition to the need for more adequate income. The review of investment policies indicated that the three special-study states have broadened their policies beyond nation-wide patterns, matching this broadening with the development of their centralized investment process.

Real estate, common stock, mortgages, purchase-leasebacks, repurchase agreements, and call loans are some of the broader diversifications by states which are aggressively seeking to secure greater parity between the principles of safety and adequacy of income.

Investment Results

Three measurements of investment results were examined: investment patterns, investment yields, and utilization of balances. The predominant trend disclosed by investment patterns is a definite shift of state holdings from government to non-government securities. More than 60 per cent of the increases in retirement funds was placed in corporate obligations. Mortgages, common stock, and other holdings also increased but were concentrated among a smaller number of states. A close examination of the three special-study states indicated that they have pressed the advantage of diversification more than other states.

Another indication of improving state investment processes is the fact that investment yields have increased while average market rates of return fluctuated and declined during the five-year period. By this measurement, also, the three special-study states rank consistently high in any comparison with other states.

In the review of the extent of utilization of balances, it was noted that most states have a high percentage of security holdings relative to total cash and security holdings. However, any listing of states exhibiting a much greater than average utilization of balances would be dominated by states with a centralized investment process. The three special-study states have maintained a high level of efficiency and have been consistent leaders in any ranking based on this measurement of investment results.

CONCLUSIONS

It is concluded that the pressures of size of funds and required sophistication in investments go beyond nominal limits and require the elements of the state centralized investment process for proper handling of the many funds which flow to a modern state government.

As was noted in the Introduction, more alert financial management of total cash flow is a general trend in both business and government. Moreover, the impact of a carefully planned state investment program is much greater today because of rapidly growing balances and the opportunity for greater earnings which can result from diversification as portfolios are shifted from government to non-government securities or investment holdings.

Diversification of security holdings for a variety of funds with different objectives, cash flow patterns, and growth rates, however, requires a process which can result in efficient investment. This process should include centralization of the investment function, a state centralized investment board, as a separate agency, professional investment personnel, and the broadened discretionary investment policy which is practical within this framework.

State officials already have busy schedules, may lack specialized skills required for proper use of broader investment powers, and have other duties as their first responsibility. The state centralized investment process places the investment of state funds as the first responsibility of full-time, professional investment personnel.

The state centralized investment process has demonstrated its ability to secure maximum efficiency and better results for a state. Those states which have acted to provide the necessary framework are realizing larger total earnings because of higher yields from a diversified portfolio and a position of consistent leadership in utilizing available balances.

RECOMMENDATIONS

The first recommendation to a state seeking to improve its investment process is a thorough study of total cash flow and balances. The study should stress determination of the extent of utilization of available balances in the present investment program with careful consideration of proper compensating bank balances. The results can be compared with available nation-wide data to ascertain the present degree of efficiency including an estimate of apparent current losses because of missed earnings.

The second recommendation is related to the first, but is applicable to all state investment programs regardless of the stage of development of the present process. It is recommended that attention be given to improved, formalized cash flow procedures. While non-technical procedures have been determined to be satisfactory by states with advanced processes, it appears that a more technical, formalized procedure offers both current and future advantages.

Current advantages include additional assurance that balances, especially operating funds, will be available when required and that more efficient investment of available balances will be realized. Future advantages include the same two factors with the added element of providing the more precise analysis which may be required by changing circumstances.

The third and final specific recommendation concerns the need for broader discretionary investment policies which enable a state to achieve a proper diversification and greater earnings from available balances. The traditional emphasis on safety and availability should not be abandoned, but the principle of adequate income should receive greater recognition.

A prerequisite for broader discretionary investment powers is an investment framework within which such powers are more feasible. As a more sophisticated investment program demands attention by professional investment personnel and other elements are added, a state acquires the state centralized investment process which has produced results for other states.

A NOTE ABOUT THE AUTHOR

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Before coming to Nebraska, Dr. Tommeraasen, a certified public accountant, engaged in private accounting as a corporate controller, spent four years on the staff of the Arthur Andersen public accounting firm, seven as Dean of Men at Morningside College, and four as Executive Vice President of the College. He has had wide experience with programs in adult education and with executive development for corporations. His academic duties have included research and teaching in accounting and financial management.