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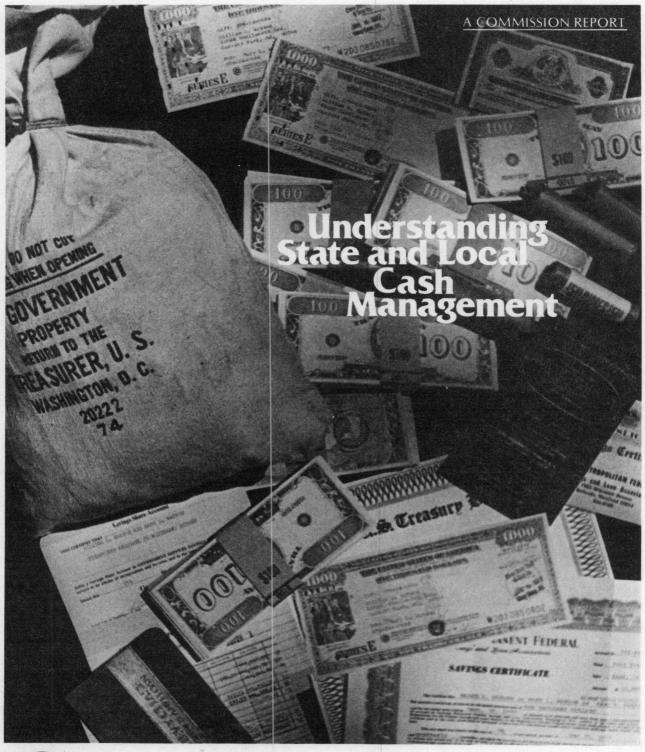
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Preface

n 1961, ACIR published its third report, titled Investment of Idle Cash Balances by State and Local Governments. Recognizing their selfinterest, state and local officials acted on their own and with prompting from this Commission to increase the returns from investment of idle cash and thereby minimize the drawdown on taxpayers.

In the intervening years, techniques for analyzing cash flow and husbanding scarce dollars have been improved. Knowledge of assets suitable as investments for public funds has spread. In short, a new specialization in treasury operations—cash management—has developed. This publication reviews the field of cash management and describes current and innovative practices with a view to helping state and local governments become more efficient cash managers—an increasingly urgent consideration now that state and local expenditures exceed one-quarter-of-a-trillion dollars annually.

Robert E. Merriam Chairman

Acknowledgments

Ronald Forbes of the State University of New York (Albany) prepared this publication. It originated with research and analysis for a larger study, The Impact of Increased Insurance on Public Deposits, which the Commission did at the request of Congress.

Professor George Hempel of Washington University, who directed the larger study, provided encouragement and counsel for this effort. Donald Beatty and John Peterson, on behalf of the Municipal Finance Officers' Association, helped design the questionnaire which enabled Forbes to describe current state and local cash management practices. Bruce Jolly of the American Bankers Association made the analysis of state laws pertaining to cash management a practical undertaking. Chanindh Homsilpakul, Peter Schmitt, and David Whitford assisted with the data compilation and analysis of survey results.

This study of cash management also benefited from the comments of individuals who attended critics sessions arranged by the Commission for its larger study.

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State and Local Government Cash Management: The Issues, Findings, and Recommendations

With total annual revenue of approximately \$250 billion flowing through state and local government coffers, cash balance management is an increasingly important and challenging function for government treasurers. Innovative techniques to improve the productivity and efficiency of cash management have been spurred by the substantial fiscal pressures of recent years. The impetus for mobilizing cash balances is clear:

Cash balances which are in excess of operating needs can either be put to work drawing interest and thereby producing additional revenue . . . or they may be allowed to lie idle. If the latter course is followed, a waste of public funds occurs, one as real and as unnecessary as an overpriced procurement contract or an uncollected tax obligation. Although considerable improvement in the management of public funds has been registered in recent years, the investment of otherwise idle balances constitutes a potential revenue source which still is sometimes overlooked completely and is frequently underutilized.1

During the normal course of fiscal year operations, the revenue and expenditure flows of a governmental unit on a day-to-day basis are rarely equal. Instead, in certain periods, cash balances accumulate in excess of near-term

operating needs. Many governments, for example, receive lump sum, scheduled payments of major revenue sources, such as income or property taxes, at the beginning of each year or at quarterly intervals. Normal operating expenditures, on the other hand, are regularly spaced throughout the year. As a result of the different patterns of cash flow, excess funds may be available for short-term investment. For some governmental units, accumulated revenues may be insufficient to meet near-term expenditures and short-term borrowings may be needed to even out the flow of funds.

Improvements in the management of idle cash balances by state and local governments have been of long-standing interest to the Advisory Commission on Intergovernmental Relations. In 1961 and 1965, the Commission noted that too many governments were retaining excessive or non-earning cash balances. Although precise measurements of the lost revenues were intrinsically difficult, the Commission suggested that as much as \$100 million per year in interest earnings was being lost.² Interest rate levels are, of course, higher today than in the early 1960s. Correspondingly, state and local governments now have more incentive to invest even temporarily available cash balances. Many governmental units have adopted innovative approaches to enhance returns from cash management, but the need for improvements and reform is still apparent.

As a byproduct of the study of deposit insurance mandated by Public Law 93-495,³ an upto-date review of developments in public sector cash management has been carried out and the principal findings are outlined below. The primary sources of information for this study included previous ACIR studies, periodic published data of the Bureau of the Census, a recent study of state cash management practices conducted by the Council of State Governments, and a special Municipal Finance Officers' Association-ACIR survey of local finance officers conducted for this study.

Summary Findings

Overall Trends in Cash Management

State and local governments held about \$100 billion in cash, time and savings deposits, and

securities in their general funds (exclusive of insurance trust funds)⁴ at the end of 1975. These holdings consisted of \$15 billion in demand deposits, \$48 billion in time deposits, and \$40 billion in credit market instruments (see Table I-1).⁵

Although sizable, non-interest-bearing demand deposits have declined as a percentage of total operating fund balances from 27% in 1960 to 15% at 1975 yearend. Chart I-1 indicates the decline has been persistent throughout the period. With the exception of 1969 and 1975, state and local holdings of credit market instruments have also declined relative to total fund balances. The big increase—in dollar amount and in proportion of total holdings—has been the surge in time deposits. Time deposits have grown more than tenfold and presently account for nearly 50% of all cash and security holdings of state and local governments, up from 15% in 1960. The shift to time deposits has meant that state and local governments have greatly overall holdings of depository increased balances. Holdings by type of depository are not regularly reported, but over 95% of all public funds are held by commercial banks.

These aggregative statistics on deposits and security holdings are indicative of overall trends in treasury management, but like all aggregative data, they conceal wide variations that characterize individual practice. These variations are partially induced by state-to-state differences in the statutes that circumscribe cash management; they stem as well from differences in the timing of fund flows. And, the size of governmental units—their resources and managerial depth—also influence cash and investment practices.

Determinants of State and Local Government Cash Management Practices

The policies and procedures used by individual managers are influenced by a multitude of factors. Moreover, cash management is a dynamic field and new technology encourages new and improved practices. The most important elements that shape the process of cash management appear to fall into three general areas: (1) legal or statutory requirements; (2) technical or operating factors; and (3) invest-

Table I-1

Selected Financial Assets Held in State and Local Government General Funds, 1960-75

(in billions)

	Demand		Oradia	
	Deposits		Credit	
	and	Time	Market	
Year	Currency	Deposits	Instruments	Total
1960	\$ 8.418	\$ 4.557	\$18.340	\$ 31.315
1961	8.830	5.465	18.959	33.254
1962	9.364	6.450	19.983	35.797
1963	10.877	8.093	20.893	39.863
1964	12.509	9.812	20.405	42.726
1965	12.127	12.186	23.254	47.567
1966	12.975	13.462	24.842	51.279
1967	14.128	15.892	24.766	54.786
1968	13.913	19.110	27.051	60.074
1969	15.326	13.220	33.936	62.482
1970	13.722	23.225	32.974	69.921
1971	12.751	30.384	30.536	73.671
1972	14.570	37.161	32.497	84.228
1973	14.258	44.385	32.936	91.579
1974	14.360	50.087	33.310	97.757
1975	14.860	47.987	39.810	102.657

Source: Board of Governors of the Federal Reserve System, Flow of Funds Accounts.

ment policy considerations. Legal requirements often prescribe the number and type of financial assets that governmental units can hold. These requirements also condition the choice and terms for dealing with depositories, and in some instances, dictate the earnings rate on temporary investments.

Interacting with this legal network are technical factors such as the size and the volatility of the funds flow through public treasuries. Smaller units in particular are often foreclosed from the rewards of active money management. As summarized in recent Congressional testimony by Texas Comptroller of Public Accounts Bob Bullock:

Our discussions with local officials lead me to believe that there are two

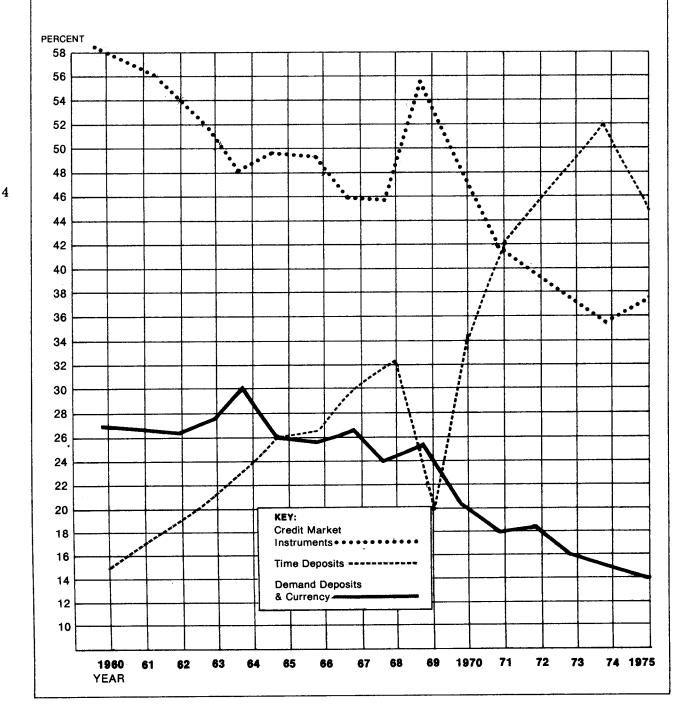
major reasons why Texas local governments have been forced to keep high demand deposits.

- Most local government cash balances are not large enough to justify short-term security purchases.
- Local government revenues are not received evenly throughout the year, causing large temporary balances which are not easily invested.⁶

Finally, treasury managers follow quite different investment policies based on their perceptions of liquidity needs, and the risks and returns on alternative investments. Recently, a

CHART I-1

Selected Financial Assets as a Percentage of **Total Financial Assets in State and Local General Funds**



somewhat revived emphasis has been placed on another goal of investment policy—to direct funds into instruments or institutions that can further local economic development.

Analysis of 1971-72 Census Data

Detailed information on cash and security holdings by level of government is reported every five years in the Census of Governments. Based on the most recent census in 1971-72, states held \$37.1 billion or 48% of total cash and securities held by all state and local units; 23% was held by municipalities; and counties, townships, school districts, and special districts shared the remainder (29%). Our study indicates wide variations in the proportion of total cash and security holdings held as cash and deposits (demand and time). For state governments in 1971-72, these balances ranged from a low of 4.8% of total holdings in Minnesota to a high of nearly 90% in Louisiana.

When holdings of governmental units are measured on a state-by-state basis, it is evident that in a number of states, a substantial proportion of public funds on deposit do not bear interest. In four states—Mississippi, Rhode Island, South Carolina, and West Virginia—demand deposit balances accounted for more than 50% of all public fund balances in commercial banks. Demand deposits accounted for 87% of public deposits in the District of Columbia. More recent surveys of states and local governments provide other details on cash management policies and practices.

Cash Balance Management Policies of State Governments

In June 1974, the Council of State Governments sponsored a survey of the cash balance and investment management practices followed by state treasury officials in 27 states. This survey revealed that a wide range of individual policies characterized state cash balance management. In particular, it was noted that investment policies were circumscribed or otherwise shaped by a variety of constitutional and statutory directives as well as by precedent and management preference.

According to this study, most states attempt to hold demand deposits to the minimum level necessary to meet transactions' needs. The study also noted the importance of certificates of deposit and time deposits as investment vehicles for state governments. For 16 of the 27 states, these deposits ranked as the principal asset; for eight others, these deposits ranked second. Treasury bills followed time deposits in terms of asset preferences and all other investment instruments ranked much lower in asset holdings.

MFOA-ACIR Survey of Local Finance Officers

As part of the study of deposit insurance and pledging, the Advisory Commission on Intergovernmental Relations, together with the Municipal Finance Officers' Association, conducted a survey of local government finance officers in May 1976. The 224 respondents to this survey, from 37 states, provided a good deal of information on the cash and investment management policies of local governments. The respondents indicated that certificates of deposit (CDs) were, by far, the most widely used vehicle for investment. Of the 224 respondents, 105 (47%) invested at least 80% of their portfolio in CDs, and 37 invested exclusively in certificates of deposit.

The MFOA-ACIR survey also revealed that, by comparison with the practices of state treasury managers, local governments generally held significantly higher proportions of their funds in checking accounts. For all survey respondents, the average ratio of demand deposits to total deposits in commercial banks and thrift institutions was 25.6%. On average, the survey respondents held 21 different demand deposit accounts in more than seven different banks. As a consequence, the average balance per account was a relatively small \$121,000 even though the average total demand deposit balances amounted to \$2.2 million.

These survey results confirm that a number of other factors besides highest available earnings rate are important in explaining investment choice, the demand deposit amounts, and depository selection for local government funds. The widespread practices of depository diversification and limitation of holdings in individual

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institutions may be reflective of an emphasis on safety. The emphasis on local depositories suggests that local banking market structure, as perhaps measured by the number of competing local institutions, may be an important determinant of the yield or cost of banking services. Finally, the fragmentation of public funds into a substantial number of deposit accounts with individually small balances means that many localities are foreclosed from achieving the economies of size that can stem from a pooled-funds approach and centralized cash management practices.

A Summary of Issues and Proposed Recommendations

As numerous examples demonstrate, it is possible to pursue vigorous programs of cash management and thereby increase revenues appreciably. Many governmental units have adopted innovations, including such advanced techniques as computerized cash forecasting, and consolidated banking; some units daily invest all excess balances. In the aggregate, state and local governments have reduced the proportion of idle cash balances substantially over the last decade, but, in spite of these improvements, the need for change and reform is still apparent.

Statutory Provisions Governing Cash Management Practices and Depository Selection

A diffuse and diverse pattern of laws govern cash management practices of every public unit. In some states, statutory guidelines are expressed only in general terms and are extremely permissive. In other states, statutory or constitutional provisions fully regiment treasury practices, leaving little room for managerial decisions. Legal requirements often prescribe the number and type of financial assets that governmental units can hold; they also condition the choice and terms for dealing with deposit institutions; and in some instances, they dictate the earnings rate on temporary investments.

Many of these mandated rules appear to

have been motivated by an overriding concern for the safety of public funds. But, the form of such regulations has had a substantial, even though unintended, adverse effect on the technical or operating conditions under which treasury managers mobilize cash flows.

Other types of statutory control appear to represent attempts to introduce a competitive balance of power between small local governments and larger, more sophisticated, financial institutions. Here, the unintended effect can be to limit competitive market forces to the disadvantage of governmental units.

Recent proposals to establish state-owned banks have reflected the concerns of some with social goals such as urban redevelopment.

In general, it has proved difficult to measure the costs and benefits of these policies, and some of the available evidence is equivocal.

One specific area where state laws play an important and sometimes commanding role is in determining the relationships between governments and depositories. One general rule, followed by virtually all states, requires that public funds be placed on deposit with institutions located within state boundaries. In many instances, however, state law goes even farther and limits local governments to deposit relationships with eligible institutions, where eligibility standards are defined by geography or other arbitrary criteria.

There are examples, for instance, where municipalities must deal only with local institutions even where it is in a monopoly position. In several cases, municipalities are required to divide deposit balances among local depositories in proportion to the depository's capital and surplus. In other cases, state law defines the minimum number of depositories that must be used.

Collectively, these allocation schemes require that deposits be prorated to each eligible institution without reference to cash management economies. Such formula approaches inhibit depository competition to provide more services or lower costs. Moreover, they require governmental units to fragment cash balances into a number of separate accounts with different depositories, and with small, average account balances. As a result, the economies that could be achieved with centralized cash management are dissipated and costs are increased.

The Commission recommends that states enact statutes designed to provide more flexibility for state and local governments in their choice of depository institutions. Such statutes should be designed to encourage governmental units to seek out the most economic deposit relationships and should provide incentives for financial institutions to develop competitive services and prices.

Specifically, such statutes should enable governmental units to select any federally insured depository—including commercial banks and trust companies, mutual savings banks, savings and loan associations, and credit unions—within state boundaries for the placement of public funds. The Commission believes that governmental units should be able to reap the greatest economic benefits by having available a broad choice of depositories.

In particular, allowing thrift institutions to compete for state and local government deposits broadens the menu of investment outlets available and should promote keener competition and higher returns on public moneys. To the extent that public funds do flow into these institutions, there may also be spillover benefits. Although the evidence is not clear, some portion of the added deposits received by these thrift intermediaries may be used to support added mortgage lending and housing construction. Of more importance in the Commission's view is that these recommendations help move the competition for funds out of the legislature and into the marketplace.

State law has traditionally recognized an explicit concern for the safety of taxpayers' resources. Generally, this concern has been reflected in the adoption of rules to enforce diversification across depositories. Common examples include the rules of many states that limit the amount of funds deposited by any one governmental unit to some proportion of the capital and surplus of a depository. Arbitrary rules of this nature can ensure diversification, but problems arise. When such rules are applied "across the board," they implicitly treat all depositories as equally risky. Moreover, while capital and surplus presumably reflect an "equity cushion" of protection for depositors/ creditors, this equity capital does not provide assurances that public units would indeed suffer no loss in the event of depository failure. The most efficient method for providing safety is not enforced diversification, but full federal insurance or other form of depositor protection. Other aspects of this discussion are covered under the recommendations associated with the study of P.L. 93-495. It is important to recognize that those alternatives for protecting the integrity of public funds would remove artificial barriers to the selection of depositories.

Technical or Operating Factors

Many state and larger local governments have implemented highly sophisticated techniques of cash management. Drawing upon advanced computer technology, adopted in part from corporate financial management. these tools provide treasury managers with better information and control over the forecast and the mobilization of cash balances. One goal of such efforts is to concentrate available balances to achieve economies of size. In some instances, however, state laws require separate and distinct accounts for different governmental activities and services. Along with other statutes governing depository relationships, these laws inhibit a centralized cash management system whereby cash flows may be pooled to a central account. Such restrictions can limit the amount of funds available for investment. They also increase costs by requiring treasurers to monitor several sets of accounts. And, they fragment overall cash flows into a series of individually smaller and more volatile separate accounts.

It is recommended that state and local legislative bodies and administrative officials take action to permit and facilitate the maximum, legal pooling of separate funds for the purposes of investment and effective cash management, provided that detailed and accurate accounting records are maintained for each fund.

This recommendation recognizes that there can be legal or other sound reasons, in some situations, that preclude the pooling of cash from trust and agency funds and special assessment funds.

As noted earlier, interest earnings on overall cash balances can often be enhanced through the process of pooling or "interfund advances."

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Moreover, it is often the case that projections of individual fund requirements will indicate a need for temporary borrowings at some time during the fiscal year. Under proper safeguards, these cash requirements could be met from the excess balances available in other funds, thus obviating the necessity of borrowing.

It is important that interfund advances of this type be guided by certain basic principles, namely that (1) the funds can be advanced for the period required; (2) the borrowing fund can repay the advance from estimated revenues when required; and (3) that all such transactions are fully recorded.

Investment Management by State and Local Governments

The culmination of the treasurer's efforts to mobilize cash balances is in the allocation of available cash balances between demand deposits, which do not now earn interest, and investable, or earning, balances. Investment strategies must pay careful attention to the fundamentals of safety and liquidity—even ahead of yield. But, within these parameters, there is a wide choice of money market offerings available to the astute investment officer. Unfortunately, many state laws continue to restrict the range of choice by imposing detailed limits on the types and maturities of eligible security investments.

Some laws confine the selection of direct market investments to cases where depository institutions are not willing to offer interest-bearing deposits. In other instances, state laws are permissive and finance officers are allowed to select among a broad range of securities. In these states, enlightened management can produce more diversified portfolios and improved investment earnings without significant added risk.

It is recommended that state legislatures take action to remove or initiate the removal of existing constitutional and statutory restrictions upon the investment of governmental funds, at least to the extent of permitting the investment of idle operating balances in:

a) obligations of the state,

- b) obligations issued by the United States.
- c) obligations fully insured or guaranteed by the United States or U.S. government agency
- d) obligations of any federally sponsored corporation.
- e) prime bankers' acceptances, and
- f) negotiable certificates of deposit.

Developing recommendations in this area is particularly difficult. On the one hand, some local government finance officers are, by education and experience, eminently capable of pursuing aggressive investment strategies within the limits of safety and liquidity. These officials should be permitted to take advantage, where possible, of the often-momentary-yield relationships that arise from the ebb and flow of supply and demand in financial markets. On the other hand, there are risks of price depreciation on any direct market investment, arising from overall changes in interest rates.

While experienced investment officers guard against the vagaries of such adverse risks, even the most careful projections of available cash balances can be subject to unexpected revisions which might require the sale of investments prior to reaching maturity at a loss. The proposed set of eligible investments removes some of the concern over risk. The list of securities presented generally contains little default risk. And, certain of the listed securities (bankers' acceptances, CDs) are sold only with relatively short maturities. For these securities, risks are also lessened.

It is clear that even where permitted, some small governmental units cannot, and should not undertake programs of direct market investment of more than very modest scope. Since many state governments regularly invest their free balances in short-term obligations, their officials possess technical expertise in this activity. As relatively recent examples demonstrate, states can extend their investment facilities to local governments that elect to pool their funds for investment.

Local government investment pools now exist in several states, including Oregon, Connecticut, Montana, Illinois, and Wisconsin. The mechanics of such plans are relatively simple and the benefits are considerable. As one example, to the extent that inflows and outflows from each participant are non-synchronous, some minimum balance will exist in the investment pool that is not needed for immediate liquidity purposes. The investment pool may invest these balances in somewhat longer maturities, with higher yields than would be possible for any one governmental unit. In this manner, the pool concept effectively separates investment strategy from the cash flow patterns of any one governmental unit.

Moreover, the substantial resources of the investment pool can attract more favorable rates since transactions can be in larger, more economic, denominations. Therefor, substantial operating economies may also be achieved by consolidating, in effect, the investment management functions of numerous local units into one investment management department staffed with full-time, experienced professionals. The concentration of management resources in this fashion permits a wider latitude in investment choice, with the opportunity for higher investment returns.

The Commission recommends that states initiate appropriate legislative actions to develop pooled investment funds for the purpose of receiving and investing moneys in the custody of state or local government officials electing to participate in such investments.

The Commission has already developed a model state law (The Investment of Idle Funds Act) to guide legislators in forming the pooled investment fund. The experience of those states which have already instituted such plans serves as an additional guide and recommendation for the early adoption of pooled funds by other states.

In addition to investment flexibility and operating economies, an investment pool can effect significant improvements in the mobilization of cash balances.

The flexibility provided by the pool in scheduling investment maturities can facilitate the closer integration of investments with cash flows. Thus, the amount of funds held in precautionary balances can be reduced, freeing up otherwise idle or non-earning balances for investment.

In spite of efforts to improve practice, many small governmental units are foreclosed from achieving the rewards of active cash management solely because of their small size. These units do not have the resources to enter the investment market even when yields on securities that are legal for investment would provide higher returns. The investment pool is an important vehicle for providing investment alternatives for these units.

The Commission also recommends that states initiate suitable programs of technical assistance to local governments with respect to cash management and the investment of idle funds.

The Commission firmly subscribes to the general principle that states have a basic responsibility in assisting and strengthening local government. Sharing their specialized knowledge of the investment process represents an effective means of providing professional assistance that would be uneconomic for some local units to provide themselves. As outlined in the model *Investment of Idle Funds Act*, such assistance should include programs and publications explaining investment opportunities, and technical assistance in developing appropriate investment programs.

FOOTNOTES

- ¹Advisory Commission on Intergovernmental Relations, ACIR State Legislative Program, Part 4, Fiscal and Personnel Management (M-95), Washington, DC, U.S. Government Printing Office, November 1975, p. 43.
- ²Advisory Commission on Intergovernmental Relations, Investments of Idle Cash Balances by State and Local Governments, Summary A-3, Washington, DC, U.S. Government Printing Office, August 1965, p. 7.
- ³Advisory Commission on Intergovernmental Relations (for U.S. Congress, Senate Committee on Banking, Housing, and Urban Affairs), *The Impact of Increased Insurance on Public Deposits*, Washington, DC, U.S. Government Printing Office, January 1977.
- ⁴These insurance trust funds—mainly employee retirement, unemployment, and workmen's compensation funds—are not discussed here. Trust funds normally accumulate long lived assets and hold small cash balances.
- ⁵Credit market holdings, as reported in the flow-of-funds data of the Federal Reserve Board, include direct obligations of the federal government, federal agency debt, state and local obligations, home mortgages, and minor amounts of other securities.
- ⁶Statement of Bob Bullock, Comptroller of Public Accounts, State of Texas, before the Committee on Banking, Housing, and Urban Affairs, U.S. Senate, July 20, 1976, p. 1.

Statutory and Constitutional Provisions Governing State and Local Government Cash Management

diffuse and diverse pattern of laws govern the cash management practices of every public unit. In some states, statutory guidelines are expressed in general terms only and are extremely permissive. In other states, statutory or constitutional provisions fully regiment treasury practices, leaving little room for managerial decisions.

More specifically, state laws can influence or determine the types of eligible securities for the placement of surplus cash and/or set rules for depository selection and the amount held by individual depositories. This chapter provides examples of the range of practice in these major areas.

> Eligibility Standards for the Investment of Surplus Cash

One generic class of legal proviso circumscribes the range of choice for the investment of idle cash balances. In an earlier study, ACIR noted that four states—Indiana, Kansas, Missouri, and Oklahoma—were precluded from any investments as recently as 1956. Today, most state and local governments can, and do follow some type of investment program, but the flexibility permitted by statute varies in unique ways.

In some cases, the authority to invest in time deposits—particularly CDs—is of very

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recent origin. Indiana, for example, first enacted legislation in 1971 to permit investments in CDs. Evidently, prior to that time, public units were precluded from even this investment opportunity.¹

As other examples of recent legislation, Nebraska, in 1972, extended the option of CD investment to cities; and Mississippi permitted school districts to invest in CDs in 1974.²

As distinguished from CDs and other depository claims, several states either expressly prohibit or otherwise limit the direct market investment of idle cash. For example, state funds in North Dakota can be held only in demand deposits or time deposits in the state-owned Bank of North Dakota.³

State funds in Kansas are allocated through a complicated formula that (1) limits the aggregate amount of demand deposits at any one time to no more than \$40 million; (2) channels funds in excess of operating needs into time deposit open accounts (TDOAs); and (3) provides that funds that cannot be invested in TDOAs for at least 30 days can be invested in repurchase agreements (of less than 30-days duration) with Kansas banks.⁴

Other examples include Georgia and Iowa. Georgia law restricts state funds to investments in time deposits (including CDs) and to repurchase agreements, the latter being limited to a maturity of no more than 15 days.⁵

Direct market investments of public funds in Iowa are restricted to those funds that cannot be deposited for at least 90 days or to those cases where:

If a governmental unit makes in writing to all qualified, approved depositories a bona fide proffer . . . to deposit public funds either in savings account, or in a time certificate of deposit, and such proffer is not then accepted, then and only then may such governmental unit invest such funds so declined in bonds or other evidences of indebtedness issued, assumed, or guaranteed by the United States of America or by any agency or instrumentality thereof.⁶

The force of this type of statutory requirement is to make direct market investments of

treasury funds conditional on the "inability" or "unwillingness" of local depositories to accept deposits. Evidently, this "conditional" proviso for direct market investment characterizes other states as well. Florida law, for example, directs the state finance committee to maintain sufficient operating balances and then to invest the excess in interest-bearing time deposits of state depositories. In determining the amount and interest rate for time deposits, the committee is further directed to consider:

- 1) the prevailing rate of U.S. Treasury bills;
- 2) the value of the services performed by the banks to the state;
- 3) the value accruing to the economy of the communities of the state as a result of the state depositing its funds in banks of the state.⁷

Following this, the committee can choose, by unanimous consent, to invest in short-term (due within one year) direct obligations of the U.S. Treasury, provided the committee determined

... that a majority of the banks of the state are unwilling to accept the interest-bearing time deposits on the terms, conditions and rates determined.⁸

Standing in marked contrast to these examples, a number of other states permit finance officers and treasurers to select from a wide range of direct market investments. California is one such example. For many years, California municipalities have been able to invest in (California) state and local bonds and notes, including revenue bonds; U.S. Treasury securities: U.S. government-sponsored guaranteed agencies; and even bankers acceptances.9 State funds can be invested in commercial paper which does not exceed 180-days maturity or more than 30% of the resources of an investment program.

Michigan also permits investments in commercial paper and recent legislation in Alaska, Nevada, Virginia, and Wyoming extended the menu of investment choices for those states to include commercial paper and/or bankers acceptances (Appendix A-1).

In most states, however, the permissible limits for public fund investments fall in the middle of the spectrum, and include time and savings deposits and direct or guaranteed U.S. government securities but exclude private corporate securities.¹⁰

Determinants of Depository Relationships

State laws also play an important and sometimes commanding role in determining the relationships between governmental units and depository institutions. One general rule followed by virtually all states requires that public funds be placed on deposit with institutions located within state boundaries. ¹¹ In many instances, however, state law goes even further and limits local governments to deposit relationships with local institutions. Iowa law offers one example:

Deposits by the treasurer of state shall be in banks located in this state, by a county officer, or state county public hospital officer or merged area hospital officer, in banks located in his county or in an adjoining county within this state; by a memorial hospital treasurer, in a bank located within this state which shall be selected by such memorial hospital treasurer and approved by the memorial hospital commission; by a city treasurer or other city financial officer in banks located in the city, but in the event there is no bank in such city then in any other bank located in this state which shall be selected as such depository by the city council.¹²

In this instance, municipalities must deal with local institutions, even if there is only one such institution. Texas law offers a slight variant to this approach. In Texas, cities can select only local depositories whenever more than one institution is doing business within the city. In the event that only one banking institution is domiciled in the city, then any state-located depository can be considered.¹³

Kansas and Kentucky provide other examples of how statutory requirements influence the choice of banking institutions. In Kansas, state demand deposits must be allocated to no less than three nor more than nine banks, and eligible banks must have a combined capital and surplus of at least \$2 million. 14 Kentucky statutes require that "not less than three solvent banks" shall be designated as depositories for state funds.

These examples define eligibility standards for institutions by geography or by other arbitrary criteria. In addition, other state laws limit the amount of public unit deposits with individual institutions. Several states require that deposits be limited to some maximum based on the banking institution's capital and surplus. California and Washington municipalities, for example, can deposit funds in any one institution in an amount no greater than the institution's capital and surplus; while in Illinois the upper limit is 75% of capital and surplus. New Jersey allows deposits in excess of 75% only if the excess is fully collateralized. 15 Ohio limits the total of public unit deposits in one institution to no more than 30% of all private deposits.

The capital and surplus rule is also used in some state laws to define how municipalities are to divide their funds among banking institutions. Collectively, these allocation schemes require that deposits be prorated to each bank in the same proportion that each bank's capital and surplus bears to the total of all eligible depositories. The Idaho statute notes the detail that this process can assume:

Except where the funds of a depositing unit are less than \$5,000 the treasurer shall not give a preference to any one or more designated depositories in the amount he may deposit under the provisions of this law, but shall keep deposited with each designated depository in the depositing unit as nearly as practicable, such proportion of the total deposits as the capital and surplus of such depository bears to the total capital and surplus of all designated depositories, but during such time that any designated depository declines to accept its full

proportion as required by this chapter, the treasurer shall deposit the excess in the other designated depositories desiring the same in such proportion as nearly as practicable as the capital and surplus of each such designated depository participating in the deposit of such excess bears to the total capital and surplus of all so participating....

Provided, however, the treasurer shall not be required to adjust, as between all designated public depositories, the proportionate share of each in demand deposits, except at the end of each month. With respect to time certificates of deposit, the treasurer shall not be required to adjust the investment in such certificates, as between all designated public depositories, the proportionate share that each is entitled to hereunder, except at the end of each six (6) month period. 16

Statutory limits on depository selection sometimes take the form of legal distinctions between commercial banks and thrift institutions—savings banks and savings and loan associations. Many state laws only recently have been amended to permit public units to hold deposits in thrift institutions and, in several instances, that authority is limited by the amount of insurance. Public units in some states—notably Michigan and New York—still are foreclosed from depository relationships with thrift institutions.

Interest Rate Regulation

Finally, some states have legislated the prices—the interest rate on time deposits—that can be struck between public units and their depositories. In Alabama, for example, state law requires that state depositories pay interest on time deposits at a rate based on the average of the four most recent weekly auction prices of 91-day Treasury bills (T-bills).¹⁷

The use of a formula pegging the rate to be paid on time deposits to a market-determined rate is followed in other states as well. Idaho follows a complicated formula that requires time deposit rates to be paid a premium over the T-bill rate and the premium escalates with the maturity of the deposit:

Every public depository shall pay interest upon time deposits made by the public depositing unit and evidenced by certificates of deposit, at the rate hereinafter provided. The rate of interest to be paid upon such time deposits shall be determined by the treasurer of the State of Idaho applying an interest rate as follows: on all maturities the rate shall not exceed the average rates bid for United States Treasury bills at the most recent auction preceding the first day of each calendar month during the year plus an additional premium as hereinafter calculated. For time deposits maturing after twenty-nine (29) days but within ninety-one (91) days, the rate shall be the Treasury bill rate for ninety-one (91) day Treasurv bills plus a premium of two and one-half percent (2.5%) of said Treasury bill rate; for time deposits maturing after ninety-one (91) days but within one hundred eighty-two (182) days, the rate shall be the Treasury bill rate for ninety-one (91) day Treasury bills plus a premium of five percent (5%) of said Treasury bill rate: for time deposits maturing after hundred eighty-two (182) days but within two hundred seventy-three (273) days, the rate shall be the Treasury bill rate for one hundred eighty-two (182) day Treasury bills plus a premium of seven and one-half percent (7.5%) of said Treasury bill rate; for time deposits maturing after two hundred seventythree (273) days but within three hundred sixty-four (364) days, the rate shall be the Treasury bill rate for one hundred eighty-two (182) day Treasury bills plus a premium of ten percent (10%) of said Treasury bill rate; for time deposits maturing after

Table II-1

Administrative Rate Schedule for Public Unit Time Deposits in Iowa

Effective July 1, 1976

		Other Publi	c Bodies
OR TIME DEPOSITS OF LESS THAN \$100,000	State	Maximum	Minimum
30-179 days	5.50%	5.50%	4.50%
180-364 days	5.75	5.75	4.75
1 year-2.5 years	6.00	6.00	5.00
Funds Held Under Chapter 453.9 and 453.10, Code of Iowa, 1975			
30 days or more but less than 90 days	5.25%	5.25%	4.25%
90 days or more but less than 1 year	5.75	5.75	4.75
1 year or more but less than 2.5 years	6.00	6.00	6.00
2.5 years or more but less than 4 years	6.50	6.50	5.50
4 years or more but less than 6 years	7.25	7.25	6.25
6 years or more	7.50	7.50	6.50
OR TIME DEPOSITS OF \$100,000 OR MORE:			
30-89 days	5.50%	5.50%	4.50%
90-179 days	5.75	5.75	4.75
180-364 days	6.25	6.25	5.25
1 year or more	6.50	6.50	5.50
Funds Held Under Chapter 453.9 and 453.10, Code of Iowa, 1975			
1 year or more	7.75%	7.75%	6.75%

three hundred sixty-four (364) days but within three hundred seventy (370) days, the rate shall be the Treasury bill rate for one hundred eighty-two (182) day Treasury bills plus a premium of fifteen percent (15%) of said Treasury bill rate. Such rates of interest to be paid will be publicly announced by the treasurer of the State of Idaho on the first business day of each calendar month of the year and will apply until the following month when the new rates are determined and announced; provided, however, that such rates of

interest shall in no event exceed the maximum permissible rates authorized by state or federal regulation. 18

Iowa statutes provide for administrative rate-setting by committee; this committee establishes a monthly rate schedule for all state deposits; and by law, the rates on all other public deposits must be not greater than, nor more than 1 percentage point less than, this official state deposit schedule. An example of the rates set for July 1976 is provided in Table II-1.

The examples provided here highlight the fact that state regulation of cash management

activities is often pervasive. The major forms govern the types of investments, and often the amount or the maturity of the investments. The legislation also prescribes the choice of depository, the amounts that can be deposited, and, sometimes, the rate to be earned on (time) deposits.

These mandated rules can, and do have a substantial, and perhaps unintended effect on the technical and operating conditions under which treasury managers mobilize and manage cash flows.

FOOTNOTES

³Merlin Hackbart and Robert Johnson, State Cash Balance Management Policy, Lexington, KY, The Council of State Governments, November 1975, p. 14, Table 10.

⁴The statute enacted in Kansas in 1975 contains the following definition:

Time deposit, open account means a state bank account which is a deposit, other than a time certificate of deposit, with respect to which there is in force a written contract which provides that neither the whole nor any part of such deposit may be withdrawn, by check or otherwise, prior to (A) the date of maturity, which shall be not less than thirty (30) days after the date of the deposit, or (B) the expiration of the period of notice which must be

given by the board in writing, not less than thirty (30) days in advance of withdrawal.

- ⁵Hackbart and Johnson, op. cit., p. 3.
- 6 Iowa Code, Chap. 453, Deposit of Public Funds, § 453.5.
- ⁷Florida State Laws, § 18.10.
- 8Ibid.
- ⁹California Government Code, Title 5, Chap. 4, Art. 2, acceptances cannot exceed 15% of the unit's surplus funds and maturities cannot exceed 270 days.
- 10 Most states also permit investments in municipal securities from issuers within the state, but the lower (tax exempt) yield that typifies these securities generally limits their appeal as investments.
- 11 There are some exceptions to this general rule. In New Hampshire, for example, public funds can be deposited in out-of-state institutions if such deposits are fully collateralized by U.S. Treasury securities (Appendix A-1).
- ¹²Iowa State Code, § 453.4, Location of Depositories.
- 13 Texas Statutes, Title 47, Chap. 3, City Depositories, Article 2559.
- ¹⁴Kansas Code, § 75-4295.
- 15 California Government Code, § 53638; Washington Public Deposit Protection Commission Manual; Illinois Code, Title 36, § 20; New Jersey, § 17:9-44(b). In New Jersey, deposits less than the 75% limit are subject to only a 5% collateral requirement.
- ¹⁶Idaho State Code, § 57-128.
- 17The interest rate so determined cannot exceed the maximum permissible rate under applicable (including federal) regulations (Appendix A-1).
- ¹⁸Idaho State Code. § 57-133.

 $^{^{1}}Appendix A-1.$

²Ibid.

Technical and Operating Factors in Cash Management

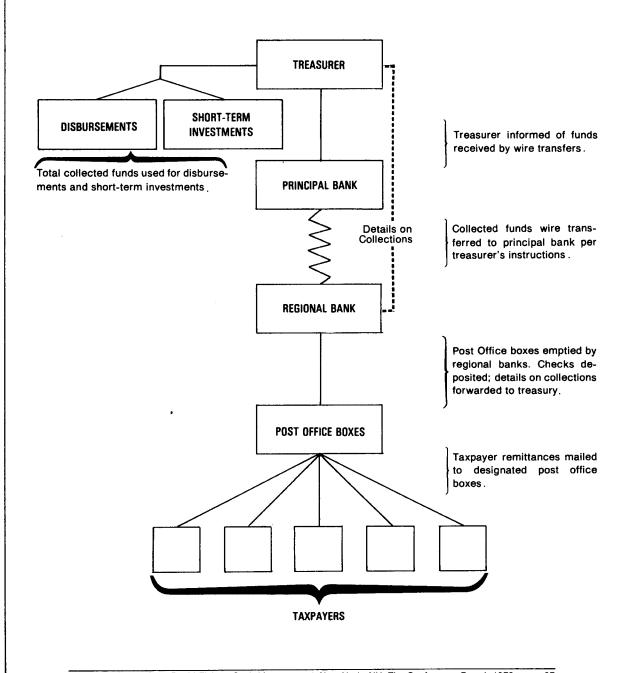
The tools and techniques supporting effective and efficient cash management have evolved into a sophisticated arsenal drawing on advanced computer technology and the complex quantitative methodologies of operations research.¹

These tools have been developed to provide treasury managers with improved information and better control over the four basic elements of a complete program of cash management: (1) cash forecasting, (2) cash mobilization, (3) the management of banking relationships, and (4) surplus cash (or idle funds) investment.

Cash Forecasting

Cash forecasting is perhaps the linchpin in an effective cash management program. The forecast provides the essential information on how much cash will be available or needed and when; it provides the basis for determining how much cash can be invested and for how long; and it forewarns of the need to arrange for short-term loans. The information from a cash forecast can then be used to guide treasury managers toward maximizing interest earnings on invested funds and to provide a basis for rescheduling receipts or expenditures to avoid interest costs on borrowed funds.

CHART III-1 Diagram of Lock Box System



Source: Adapted from David Fisher, Cash Management, New York, NY: The Conference Board, 1973, page 27

Cash Mobilization

Forecasts can also supply information important to the mobilization of cash balances which may be defined as the technical or managerial actions taken to improve the availability or "usability" of cash flows. One goal of such efforts is to concentrate available cash balances to achieve economies of size-for example, to receive more favorable bids on larger time deposits. Increasing the size of an investment can also reduce overall transaction costs. Many of these transactions or bookkeeping costs are "fixed," that is, the costs are the same regardless of size. But, the total cost over a period—to the investment or banking institution or to the governmental unit—depends upon the number of transactions. Fewer transactions with the same total dollar volume can lead to lower costs. The interest rates that banks will pay on time deposits, where allowed, will reflect these factors. Large denomination CDs (over \$100,000) typically carry higher interest rates than smaller CDs or time deposits of like maturity.

Mobilizing cash balances to achieve the benefits of more economical size requires a comprehensive and coordinated internal information system. Generally, this information system is facilitated through centralization of cash management and by pooling cash flows to a central account. Larger governmental units have, where permitted, implemented a number of techniques designed to speed up cash availability.

Lock-Box Systems

One technique is the use of a lock-box system. Under a lock-box system, taxpayers mail payments to designated post office boxes that are emptied daily (or more often) by a regional bank. These receipts are deposited immediately to the governmental unit's account, and deposit listings may be forwarded to the public treasurer. In some cases, where the regional bank is only one member of a banking network, these deposits may be transferred by wire to the governmental unit's central bank.

The concept of a lock-box system is easily diagramed (Chart III-1). The system has

several advantages, two of which are especially important.

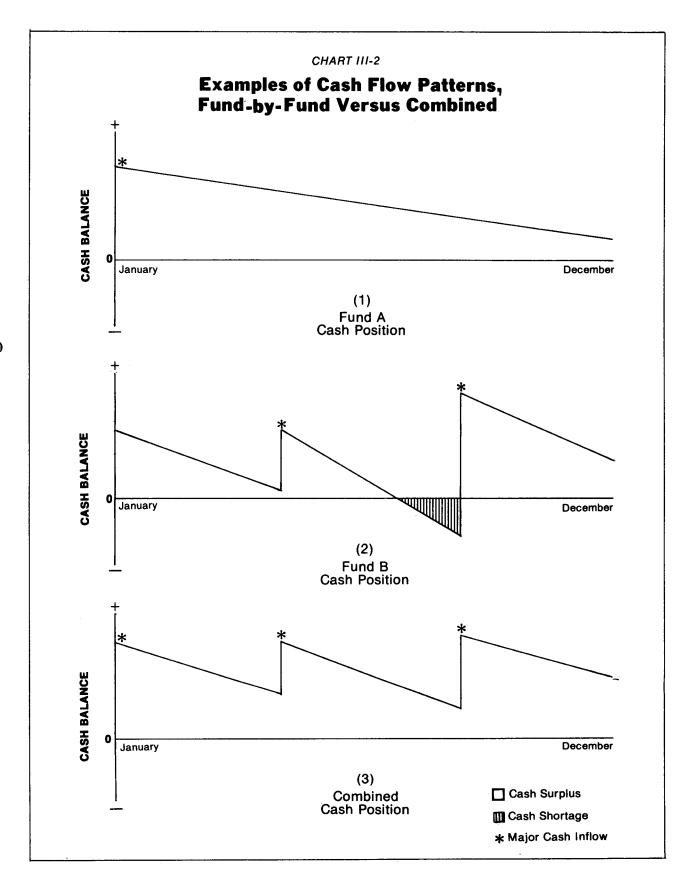
First, they are extremely efficient in cutting down, often by as much as two days, the time of converting customer checks into collected funds. Second, they permit (governmental units) to turn over to their banks much of the clerical load of handling receivables.²

Zero-Balance Accounts

Some governmental units have instituted the use of zero-balance accounts. Here, a single general account is maintained for the governmental unit along with separate clearing accounts for different departments or divisions of the unit. These clearing accounts are always maintained at zero balances. As checks are presented for payment, the bank transfers funds from the general account to cover the necessary balance. In this way, the public treasurer can avoid the necessity of maintaining and monitoring the balances of a number (often large) of separate accounts.

State Laws and the Economics of Cash Management

Unfortunately, many state laws and administrative practices decentralize the treasury function. For example, several states' laws require the dispersal of balances, by formula. to a number of depositories. Other laws and practices prohibit the commingling of funds from different sources. The effect of these laws and practices is to fractionalize the overall cash flows into a series of individually smaller and more volatile separate cash accounts. The results are depicted in Chart III-2, where the cash flows of two hypothetical funds are presented separately and then on a pooled basis. Fund A receives its revenues at the beginning of the fiscal year in January and this balance is progressively drawn down throughout the rest of the year. Fund B receives revenues semiannually, but the major inflow occurs late in the fiscal year. This fund has to borrow midway in the accounting cycle to meet the cash



deficiency. Panel 3 indicates the advantages of pooling these funds. Through consolidation, the need for short-term borrowing is eliminated and the average daily balance of available funds has increased.

The potential benefits from consolidated cash management were highlighted in March 1976, for the City of Buffalo. At that time, Buffalo faced a seasonal cash deficit in its general fund, and was unable to sell short-term revenue anticipation notes because of the general market wariness over the entire New York credit picture. Buffalo did have a \$30 million surplus in its capital accounts, but by law this surplus could not be used for interfund transfers. However, a special and complicated, last-minute effort channeled the surplus capital funds through the state treasury and back into the city's general fund, and thereby averted a serious liquidity crisis.³

Allocating Cash Balances

The culmination of the treasurer's efforts to monitor and mobilize the cash management function is the allocation of available cash balances between demand deposits, which earn no interest, and investable or earning balances. Because demand deposits earn no interest, the goal is to minimize the amount of these balances. The size of demand deposits should be determined by operating needs and by the amount of "compensating balance" required to reimburse banks for services rendered.

One very simple technique to minimize the amount of idle balances is to request notification by depositories, daily, of the amount of collected balances in the unit's accounts.

This permits close control over daily cash balances and investments. A second technique, used by some governmental units, is to closely monitor and invest the daily "float." This technique was described in a report on the cash management system in the State of Wisconsin.

... enabling legislation recently authorized the State of Wisconsin Investment Board to invest bank balances upon which the treasurer has written a check, but which from experience the treasurer knows will not

actually be paid out by the bank for several days. In other words, Wisconsin invests its "float" in a manner similar to large corporations. In Wisconsin, the check float averages about \$3.5 million per day. If the present 7.44% rate of return on short-term investments prevails, the check float would return \$264,000 to the state—a sum equal to about 45% of the investment board's budget.4

Bank Relationships

Commercial banks provide a wide range of financial services to governmental units. These services include payroll accounting, account reconciliation, tax billing, lock-box systems, and many others in addition to conventional depository services.

Generally, municipalities compensate banks for their services by agreeing to maintain certain, minimum level, demand deposit balances, rather than by paying explicit fees. Commercial banks have encouraged these rather novel arrangements largely because they are prohibited from paying interest on demand deposits. Not being allowed to compete by price, banks have developed highly innovative methods of "non-price" competition to attract demand balances.

The deposit competition even extends to providing short-term credit (lines of credit), often at preferential interest rates. The costs and benefits from this "banking relationship" are difficult to measure. The range of services offered is not uniform and the basis for evaluating the tradeoff between the value of services rendered and the opportunity costs of "idle" balances is difficult to determine. However, the close correlation existing between the level of deposit balances and the availability and costs of other services is of major importance to finance officers and is being demonstrated in several ways. Some communities, for example, having become particularly aggressive in drawing down idle balances for money market investments have noticed that shortterm credit accommodation is less easy and more expensive. Other governments, aware of this "banking relationship," have instituted

competitive bidding procedures for the full package of bank services.⁶

Competitive bidding is commonly followed in placing time deposits, but its use in selecting a bank for other services has not been fully explored. Methods and procedures for measuring costs and benefits of alternative "packages" of financial services remain in an early stage of development.⁷

Yet, the impending changes in the financial markets will hasten the need for more knowledge of the costs and value of financial services and the integration with cash management practices. The U.S. Senate has already passed the Financial Institutions Act, which will permit interest rate competition for demand deposits by 1980. Senator Proxmire has introduced legislation that would move this date forward, to 1977, for public unit demand deposits. Regardless of when price competition begins, no doubt exists that bankers and finance officers will be facing a complete overhaul of the pricing mechanism for all financial services.

FOOTNOTES

The M.I.T. Press, 1968; Daniel Orr, Cash Management and the Demand for Money, NY, Frederick A. Praeger, Inc., 1970; Bernall K. Stone, "Allocating Credit Lines, Planned Borrowing, and Tangible Services Over a Company's Banking System," Financial Management, Vol. 4, 2 (Summer 1975), pp. 65-78.

For an example of a practitioner approach designed for municipal finance officers, see John Jones and Kenneth Howard, Investment of Idle Funds by Local Governments: A Primer, Chicago, IL, Municipal Finance Officers' Association, 1973.

- ²David I. Fisher, Cash Management, New York, NY, The Conference Board, 1973, p. 28.
- 3Cash Management Reform for New York State, prepared by the Fiscal Staff, Ways and Means Committee, New York State Assembly, June 1976, Appendix E7, pp. 3.4
- ⁴Dick Howard and James Jarrett, Investing State Funds: The Wisconsin Investment Board, Lexington, KY, The Council of State Governments, May 1976, p. 5.
- ⁵Donald Hodgman, Commercial Bank Loan and Investment Policy, Urbana, IL, University of Illinois, 1963, Chap. 9-12; also, Neil B. Murphy, "A Test of the Deposit Relationship Hypothesis," Journal of Financial and Quantitative Analysis, March 1967, pp. 103-112.
- ⁶Harold I. Steinberg, "Cash Management for Local Governments," Governmental Finance, November 1975, pp. 5-10. For an example of the procedure used in Wisconsin, see Dick Howard and James Jarrett, op. cit. pp. 29-31.
- ⁷Robert E. Knight, "Customer Profitability Analysis," Federal Reserve Bank of Kansas City, *Monthly Review*, April 1975, pp. 11-20.

¹For examples of the types and range of advanced techniques, see Robert F. Calman, *Linear Programming and Cash Management/CASH ALPHA*, Cambridge, MA,

Investment Portfolio Management by State and Local Governments

he investment of temporarily "idle" funds by state and local governments must be formulated with careful attention to three fundamentals: safety, liquidity, and yield. Even more important than earnings potential, treasury management must always maintain the integrity of the taxpayers' funds. In practice, achieving safety of principal dictates that only the highest quality securities should be considered for investments.

Regardless of the level and detail of advance financial planning, some residual of uncertainty regarding the precise time of receipts and disbursements always remains. On occasion, investments may have to be sold prior to maturity in order to raise cash. Since this risk is ever present, investments need to be selected with an eye toward liquidity—that is, the ability to be converted into cash without significant risk of loss.

With assurance that the twin goals of safety and liquidity have been met, the treasury manager can select from a broad menu of money market offerings those investments that promise the highest return.

Investment returns are available for the general operation of the government unit. Higher returns can effectively substitute for higher taxes. Therefore, every treasury manager must evaluate whether not investing or investing in lower yielding instruments is

No Secondary Market Active Secondary Active Secondary Active Secondary Active Secondary Market Potential Has Secondary Marketability Market Market Market Market Yields generally below tractual agreements. Not legal obligations Not legal obligations Requires administra-Not legal obligations Not legal obligations of, or guaranteed by of, or guaranteed by of, or guaranteed by of, or guaranteed by the federal governthe federal governthe federal governthe federal governtive burden of conprevailing interest Restrictions ment. ment. ment. rates. ment. Summary of Investment Instruments \$5,000 Minimum \$5,000 Minimum \$5,000 Minimum \$1,000 Minimum with some banks) Minimum (varies Denominations No Minimum Figure IV-1 \$100,000 Issued monthly, usually **Issues and Maturities** selected by purchaser. for 30 to 365 days, as eight to ten maturities Issued irregularly with ssued upon demand for one to seven days for 180 days. Mature Issued upon demand of less than one year. ssued most months Issued irregularly for on first working day months to ten years. for a nine-month periods of a few circumstances. under normal of month. duration. ⁴Banks for Cooperatives ¹ Inactive Public Deposit ⁴Federal Intermediate ⁴Federal Home Loan ⁴Federal Land Banks Agreements ²Repurchase **Credit Bank** Debentures Debentures **Bank Notes** FEDERAL AGENCY SSUES Type

⁴ FNMA and GNMA	Issued about four times a year for periods of a few months to eight years.	\$1,000 Minimum	Not legal obligations of, or guaranteed by the federal government.	Active Secondary Market
³ FNMA Short-Term Notes	Issued daily for 30 to 270 days, as selected by purchaser.	\$5,000 Minimum	Not legal obligations of, or guaranteed by the federal government.	Active Secondary Market
³ Tennessee Valley Authority Notes	Issued monthly for about 120 days.	\$5,000 Minimum	Not legal obligations of, or guaranteed by the federal government.	Active Secondary Market
U.S. TREASURY SECURITIES				
³ Treasury Bills	Issued weekly with maturities up to one year.	\$10,000 Minimum	Short Issues not always available.	Broadest Secondary Market of any Instrument
⁵ Treasury Notes	Issued with maturities ranging from one to seven years.	\$1,000 Minimum	Short issues not always available.	Active Secondary Market
⁵ Treasury Bonds	Issued with maturities ranging from five to 30 years.	\$500 Minimum	Statutory limit of 4.5% on coupon rate.	Active Secondary Market

TERM-BASIS

¹Interest is generally computed on a 365-day basis. Depositories may negotiate to use a 360-day basis.

2Interest is computed on a 360-day basis.

3Interest is computed on a 360-day discount basis.

4Interest is computed on a 360-day, 30-day month basis. Care should be taken to recompute on a basis of actual number of days invested to find true yield.

5Interest is computed on a 365-day basis.

Taken from League of California Cities, *Treasury Cash Investment Management*, 1970, p. 14.

SOURCE: Reproduced from John Jones and S. Kenneth Howard,
Investment of Idle Funds by Local Governments: A Primer,

Municipal Finance Officers' Association, Chicago, IL. 1973.

worth the foregone interest earnings. That these earnings can be substantial is noted by a recent study in North Carolina, where, in 1974, one municipality achieved yearly investment earnings equivalent to a tax rate of 84¢ per \$100 assessed valuation.¹

Investment Alternatives

The principal offerings that meet the goals of safety, liquidity, and high yield are U.S. Treasury obligations, obligations of federal agencies or government-sponsored enterprises, repurchase agreements (Repos), bankers acceptances, certificates of deposit and time deposits, and high-grade commercial paper.

The important characteristics of these investment instruments are summarized in Figure IV-1. From the standpoint of safety, direct and fully guaranteed obligations of the U.S. Treasury rank first. Investments in time and savings deposits, including CDs, that are insured by federal agencies (presently up to \$100,000) are virtually as riskless as federal obligations in terms of principal safety.

Although most agency securities are not guaranteed by the federal government, a strong supervisory role is played by the Treasury and the safety of principal invested in these securities is unquestioned. Bankers' acceptances are general obligations of strong banks with impeccable credit standing. Similarly, the highest-quality commercial paper, although an unsecured general obligation, is issued only by the most creditworthy corporations.

For practical purposes, the most significant differences among these investment instruments lie in the ease of transacting, the marketability, and in the pattern of yields and yield movements. Ease of transacting refers to the ability to select denominations and maturities that best fit the needs of the treasury manager. CDs and time deposits generally offer the most flexibility on this count, primarily because the public unit retains the initiative to select the exact amount and day of maturity of the deposit.

Until November 1974, governmental units

were somewhat restricted in their choice of savings instruments to time deposits which require a 30-day notice for withdrawal and to certificates of deposit which mature in 30 or more days. However, in November 1974, the Board of Governors of the Federal Reserve System permitted governmental units to hold day-of-deposit to day-of-withdrawal savings accounts.

For smaller governmental units, the availability of a savings account does offer a method for improving interest income. For example, some units regularly deposit funds in a savings account on Friday and redeposit these funds in a checking account on Monday, thereby earning interest for three days every week.²

Treasury bills, by virtue of weekly auctions, offer nearly as much flexibility as time and savings deposits. Moreover, "T-bills" have the broadest secondary market of any money market instrument. While many of the investments listed in *Figure IV-1* have active secondary markets, systematic differences exist in transaction costs, or the spread between bid and asked prices.³

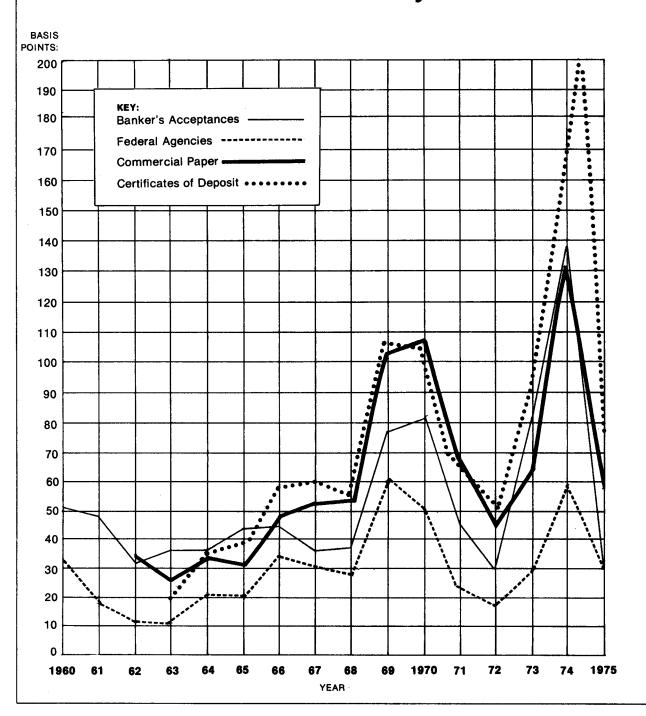
Spreads are lowest on T-bills, as low as \$20 per million par value, and typically increase to \$1,250 or more per million on short-term agency securities. Spreads also increase on securities of longer maturity, reaching as much as 1 point or \$10,000 per million dollars par value.

State and local governments generally purchase CDs planning to hold the certificates until maturity. Emergency liquidation of CDs prior to maturity can be accommodated by banks, but such early redemption does require a forfeiture of a maximum of three months interest.

Chart IV-1 compares the yields on selected money market instruments maturing in three months with the yield on Treasury bills of similar maturity. Reflecting their preeminence as short-term investment securities, T-bills carry the lowest returns and are somewhat less volatile than other instruments. The chart demonstrates quite conclusively that yield movements on other investments are subject to considerably wider swings than Treasury bills, particularly during periods of tight credit and restrictive monetary policies. The most volatile and, often, the highest yielding is the

CHART IV-1

Yield Spreads on Selected Securities with Six-Month Maturities Relative to U.S. Treasury Bills



certificate of deposit. The extraordinary yield levels for CDs in 1974 reflect banks' demands for funds which are in turn derived from the demand for business and other loans from commercial banks. These yield comparisons demonstrate that significant opportunities exist for increasing interest earnings through active and aggressive cash management.

Alternatives to Direct Market Investment: Local Investment

A number of public officials and others advance a strong argument for retaining public funds in local deposit institutions. The heart of this argument is that public funds should, as a policy matter, be directed toward local economic development. Placing available funds in local depositories is one and perhaps the preferred method for promoting this goal since these depositories can use their specialized knowledge to channel funds into the most deserving projects. As a justification, proponents hold that the total return to governments from "keeping the money at home" is the sum of the direct yield on the (time) deposit and the indirect yield that comes from the added tax revenues generated by the local economic growth.4

In recent years, a more pointed goal has emerged and this has stimulated some states to consider developing state-owned banks. These banks would rely largely on public funds for deposits but they would channel funds to projects considered socially desirable or necessary. Most often, these proposals concern urban development.⁵

In general, it has proved difficult to measure the costs and benefits of these policies and the evidence that is available is equivocal. One difficulty, of course, is that private financial institutions that receive public funds can allocate those funds to many different assets. In short, bank credit is mobile and can be directed to regions and uses that meet the institution's asset preferences.

The treasurer of Wisconsin recognized this in the following remarks:

Up to this time (although I admit

there is considerable pressure to the contrary) the State of Wisconsin, the Investment Board specifically . . . subscribes to the philosophy that money is a free-flowing object of trade that ignores political boundaries, and that attempts to promote local or regional business through bank deposits is to little avail. We tend to feel that generally such deposits are merely invested by the receiving bank in that form of investment which will realize to that bank the greatest income.⁷

Verbrugge has pointed out that pledging laws required by many states may lead to perverse effects on bank lending. At present, 20 states require depositories to pledge assets as collateral for public unit deposits, 14 states require some collateral for state deposits to be secured with pledged assets. In most instances. eligible assets include state and local securities or U.S. Treasury or federal agency securities. Only six states—Alaska, Hawaii, Kansas, Minnesota, Oklahoma and South Dakotapermit mortgage loans to be used as collateral. As Verbrugge has shown, in states with comprehensive pledging requirements, banks generally have a lower proportion of their assets in loans and relatively more in "pledgeable" securities.8

State Financial Intermediaries

Ralph Kimball has pointed out other problems that confront states when they act directly as financial intermediaries:

... the operation of (state) financial intermediaries has exposed and involved states in problems common to all financial institutions. Among these problems are those of maintaining adequate capital and liquidity, and controlling risk exposure. The more extensive the involvement of the state in the intermediary process, the more serious these problems become.

In the future, states with intermedi-

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aries will find their financial policies increasingly influenced by the necessity to maintain confidence in their intermediaries. Thus state intermediaries, while generating substantial benefits, can also result in the imposition of a new set of constraints on state financial policies.⁹

FOOTNOTES

- ¹Harlan Boyles, "Memorandum to Municipal Officials on Cash, Investments, and Tax Collections, June 30, 1974," Raleigh, NC, Local Government Commission.
- ²The federal banking authorities have permitted the rate paid on these public unit savings accounts to be more flexible than other deposit rates on private savings accounts. For public accounts, the rate ceiling is as high as the maximum rate permitted on savings accounts at any federally insured depository institution.
- ³The bid price indicates the price that the dealer will pay and the ask price indicates the price at which the dealer will sell securities. Prices are quoted in terms of 32nds—

- that is, a price of 100.16/32 or \$100.50 per \$100 par value.
- ⁴L. Wayne Dobson, "A Note on the Alternative Uses and Yields of Idle Public Funds," *National Tax Journal*, September 1968, pp. 304-313; Jerry Hollenhorst, "Alternative Uses and Yields on Idle Public Funds: Comment," *National Tax Journal*, December 1969, pp. 557-558.
- ⁵Assembly Bills 6531 and 6532 were introduced in New York in 1976 to allow the state or municipalities with a population of one million or more to apply for bank charters.
- ⁶S. Kerry Cooper, "The Economics of Idle Funds Policies: A Reconsideration," National Tax Journal, March 1972, pp. 97-99; Clifford E. Wheeler, "The Investment of Idle Public Funds," Nebraska Journal of Economics and Business, Winter 1972, pp. 25-35; J. Richard Aronson, "The Idle Cash Balances of State and Local Governments; An Economic Problem of National Concern," Journal of Finance, June 1968, pp. 499-508.
- ⁷Quoted in Howard and Jarrett, op. cit., p. 21.
- ⁸James A. Verbrugge, "Idle Public Funds Policies: Some Additional Evidence," *Nebraska Journal of Economics* and Business, Spring 1973, pp. 9-19.
- ⁹Ralph C. Kimball, "States as Financial Intermediaries," New England Economic Review, Federal Reserve Bank of Boston, January/February 1976, p. 29.

A Detailed Analysis of Government Portfolios: Recent Survey Evidence

number of underlying factors that condition the cash and investment policies of state and local governments have now been identified. These factors interact in complex ways to shape and mold the decisions of individual treasury managers. Trend data based on the flow-of-funds tables of the Federal Reserve Board indicated that public units had shifted relatively more funds into time deposits, primarily at commercial banks. Other data confirm the shift to time deposits, but demonstrate the remarkable variety of policies followed by different governmental units. Three recent surveys of finance officers provide the basis for a more detailed analysis of the cash management and investment activities of public units.

> Information from the 1971-72 Census of Governments

Detailed information on cash and security holdings by level of government is reported every five years in the Census of Governments. Based on the most recent census in 1971-72, states held \$37.1 billion or 48% of all cash and securities held by state and local units; 23% was held by municipalities; and counties, townships, school districts, and special districts shared the remainder. State-by-state infor-

mation is reported in Appendix Table A-3. This data is condensed and summarized in Table V-1, which also compares the proportion of total operating fund balances held in cash and deposits, including time and savings deposits, by level of government in 1972 and 1962. While the importance of depository balances varies by type of government, little change has occurred in these proportions over the decade. States continue to place a far smaller proportion (32%) of their operating balances in depository institutions than other governmental units, while counties continue to rely almost exclusively on commercial banks for the placement of their balances.

There are wide variations in the proportion of funds held as cash and deposits between states (Appendix Table A-4). For state governments, these balances range from 4.8% of total holdings in Minnesota to a high of nearly 90% in Louisiana. The range is much less pronounced for other levels of government. In only two states, for example, do counties hold less than 50% of their liquid operating funds in cash and deposits.

By comparison with 1962, all state and local governments combined held most of their depository balances in the form of interest-bearing time and savings accounts, including certificates of deposit. However, when holdings of governmental units are viewed on a state-by-state basis, as in *Appendix Table A-5*, it becomes evident that in a number of states a substantial proportion of public funds on de-

posit does not bear interest. In four states—Mississippi, Rhode Island, South Carolina, and West Virginia—demand deposit balances account for more than 50% of all public funds in commercial banks. Demand deposits accounted for 87% of public deposits in the District of Columbia. More recent surveys of states and local governments provide other details on cash management policies.

Cash Balance Management Policies of State Governments

In June 1974, the Council of State Governments (CSG) sponsored a survey of the cash balance and investment management practices followed by state treasury officials.² This survey revealed that a wide range of individual policies characterized state cash balance management. In particular, it showed that investment policies were circumscribed or otherwise shaped by a variety of constitutional and statutory directives as well as by precedent and management preference. Most states, according to this study, attempt to hold demand deposits to the minimum level necessary to meet needs or, as expressed by one survey respondent, to invest "everything we can get our hands on."3

Certificates of deposit and time deposits rank highest in importance as investment vehicles for state governments (*Table V-2*). For 16 of the 27 states that responded to the

Table V-1

Summary Data on Percent of Holdings in Cash and Deposits, by Type of Government, 1972 and 1962

Percent of Total Holdings in Cash and Deposits	States	Counties	Municipalities	School Districts	Special Districts	Total State and Local
1972	32.0%	81.2%	50.6%	80. 3 %	50.7%	48.4%
1962	28.3	80.5	46.6	—5	57.8—	43.4

Table V-2

State Portfolio Composition

(Expressed as a percentage*)

•	Demand	U.S. Treasury Securities Savings					Com-	Federal Agency	Negotiable				
	Deposits and Cash	and Loan Shares	Treasury Bills	U.S. Notes	Repurchase Agreements	Total	mercial Paper	Securi- ties (a)	Certificates of Deposit	Corporate Stock	Others (b)		
Alaska	2.1	0.02	3.4	0.008	0.3	24.3	4.1	28.7	2.5	23.8	32.4	2.9	7.7
Arizona	74.0	_	3.0	0.2			20.2	20.2		_		_	_
California	61.8		3.1		3.7	14.1		17.7	_	5.0	_		2.2
Colorado	29.1	_	4.4	0.3	3.1	10.1	1.5	14.8	16.3	31.0	_	_	2.6
Delaware	86.1	_			12.7	0.4		13.1			_	8.0	_
Florida	61.0	_	6.0	_	33.0	_		33.0	_	_	_		
Georgia	81.1	8.9	8.8	_	_	_	1.1	1.1			_		
Hawaii	93.9		0.5		5.6	_		5.6	_				_
Idaho	46.2	_	7.2	0.3	21.9	3.3	15.0	40.3			_	_	6.0
Illinois (c)		69.4	4.8	0.5	0.01	0.03	25.3	25.3				_	
Kansas	71.9	16.1	8.9	_	3.01			3.0					_
Louisiana	81.0	_	0.8				18.5	18.5					_
Maine (c,d)	25.4	3.0	4.5	1.1	58.2	0.04	_	58.3	7.7			_	_
Maryland (e)	11.0	_	_			_		89.0	_	_		_	_
Michigan (c)	35.9	_	1.9		2.4	_		2.4	59.8	_	_	_	_
Minnesota (c)		_	_		12.8	_	33.0	45.8	28.6	25.6	· —		
Missouri		39.9	14.1		46.1	_		46.1					_
Nevada	73.8				7.5		16.4	23.9	2.3		-	_	_
New Hampshire			18.8	11.2	64.3			64.3				_	_
New Jersey (c)	8.2	_		_	22.8	5.9		28.7	26.8	26.2	9.6	0.1	0.4
New Mexico	74.2	_	13.6	0.5	_	_	11.8	11.8				_	
North Carolina	25.9	_	5.7		19.0	15.3	5.4	39.7		28.9			_
North Dakota	45.7	_	54.5			_	-		_	_	_		_
Oregon (f)	7.2	_	0.4	_	0.2	1.2		1.4	19.2	1.3	_	15.1	54.0
Vermont (c)	6.2	-	2.5	_		_		_	91.3	_	_		_
Wisconsin				_		9.0	60.0	69.0	_	31.0		_	
Virgin Islands	54.0	29.0	12.0	5.0		_	_	_	-				

*Total may not add to 100% due to rounding or: (1) the disparity in total values received and those computed, or (2) minor assets not listed.

⁽a) Federal agency securities include Federal Land Bank, Bank for Co-ops, Federal Intermediate Credit Bank, Federal Home Loan Bank, Federal National Mortgage Association, EXIM.

⁽b) Others include securities from Farmers Home Administration, TVAs, Export-Import Banks, Farmers Home Administration notes, fixed income.

⁽c) Data taken from a period different from January 1, 1973, to December 1, 1973.

⁽d) Data is for only three periods.

⁽e) Data was not available for specific assets under U.S. Treasury securities.

⁽f) Others include fixed income which was not specified.

SOURCE: M. Hackbart and R. Johnson, "State Investment Portfolio: The Case for Certificates of Deposit," State Government, Autumn 1975, p. 227.

CSG survey, these deposits ranked as the principal asset; for eight others, these deposits ranked second. Treasury bills followed time deposits in terms of asset preferences and all other investment instruments ranked much lower.

The overall emphasis on CDs and time deposits is not universal and notable instances exist where other assets predominate. Wisconsin, for example, emphasized repurchase agreements in its investment program, and Michigan placed more than half of its funds in commercial paper. Alaska placed more than 50% of its balances in federal agencies and negotiable CDs, while Oregon emphasized other fixed income securities. With the exception of North Dakota, however, none of the reporting states maintained more than 20% of balances in demand deposits and only five states held more than 10% of their funds in these non-interest-bearing assets.

The council's survey also developed information on the methods by which funds are allocated to time deposits and demand deposits and on how depository institutions are selected by state treasurers. In regard to time deposits and CDs, the authors noted that:

Twenty of 29 states utilize specific or moderately specific rules for selecting the banks which hold state TDs/CDs. However, considerable variance exists among the procedures used to allocate funds in these states. For instance, Connecticut places funds in the 50 largest banks in the state while North Dakota places all CDs in one state-owned and operated bank.

Other states use a criterion of need and county size to allocate TDs/CDs. New Mexico evaluates the growth potential of the bank's loan area, as well as other financially related considerations, before selecting its banks. Florida, likewise, uses a system of evaluating the economic conditions of the county by considering the amount of sales tax collected before making its CD allocation choice. Some states use a bid method. Vermont, for exam-

ple, uses a bid procedure related to the size of the bank.⁴

In their discussion of criteria affecting the allocation of demand deposits, the authors noted that:

Twenty out of 33 states (61%) have specific guidelines for distributing treasury balances in demand deposits' form. The DD allocations often are intended to compensate banks for state banking activities performed by the receiving bank. However, the majority of states establish the DD amounts by analyzing their daily cash needs.

The method used in selecting banks as depositories for demand deposits also varies. Some states stipulate that their choices of banks are made on the basis of convenience and efficiency. Maryland, for instance, considers the location of its state agencies before deciding where to invest its demand deposits. Similarly, Colorado has only four banks holding DDs and they cite convenience as the primary reason for doing so.

Another criterion cited for choice of banks is the specific needs of the state. Minnesota is one of five states that falls into this category, where the choice is dependent on the location of colleges, hospitals, etc.

In addition to those states, some leave the choice to the prerogative of the treasurer or some board; statutes in a few states dictate the choice; and some states use a bid or a priority method based on capital requirement in determining which banks will be chosen.⁵

Local Government Cash Management and Investment Practices

As part of a larger study, ACIR together

Summary Data on the Composition of Investment Portfolios of Local Governments

Table V-3

Percent of Total Portfolio Invested in Selected Assets

	Certificates of Deposit	Re- purchase Agreements	U.S. Treasury Bills	U.S. Agency Securities	Savings Accounts	Other Investments	Number of Responses
Average, All Respondents	68.5%	7.8%	9.9%	5.8%	3.4%	4.6%	224
Average, California Municipalities	65.5	9.9	3.1	15.1	1.1	5.3	38
Average, Florida Municipalities	61.9	5.8	26.1	2.0	0.1	4.1	16
Average, Illinois Municipalities	71.6	1.7	19.7	2.5	1.9	2.6	15
Average, Michigan Municipalities	79.1	9.5	3.1	0.2	7.9	0.2	13
Average, Texas Municipalities	85.1	0.4	5.9	1.0	0.6	7.0	27

SOURCE: ACIR-MFOA survey of finance officers.

with the Municipal Finance Officer's Association conducted a survey of local government finance officers in May 1976. The 224 respondents to this survey, from 37 states, provided a good deal of information on the cash and investment management policies of local governments.

Table V-3 summarizes the information on investment portfolio composition from the 224 respondents. The "average" portfolio was comprised of CDs (69%), T-bills (10%), repurchase agreements (8%), and smaller holdings of U.S. agency securities, savings and time deposits, and other securities which were primarily bankers acceptances. Again, however, this "average" portfolio conceals a significant amount of variation. Of the 224 respondents, 105 (47%) invested at least 80% of their portfolio in CDs, and 37 invested exclusively in certificates of deposit. At the other extreme, 41 local governments reported that CDs accounted for 20% or less of their investment portfolio.

Table V-3 also shows the average investment portfolio composition for respondents from five states—California, Florida, Illinois, Michigan

and Texas. (These states had ten or more respondents to the ACIR-MFOA survey.) In general, California and Florida municipalities invested less in CDs and relatively more in direct market instruments. Florida municipalities, largely as a result of statutory requirements, concentrated their direct market purchase in Treasury bills, while California municipalities held relatively more U.S. agency securities. Local governments in the other states, particularly Texas, placed somewhat more emphasis on investments in certificates of deposit.

By comparison with the practices of state treasury managers, local governments generally held significantly more funds on deposit in checking accounts (Table V-4). For all survey respondents, the average ratio of demand deposits to total deposits in commercial banks and thrift institutions was 25.6%. California municipalities generally held much lower demand balances, but more than 30% of the Texas municipalities held more than 50% of their total deposits in checking accounts.

The relatively higher proportion of funds maintained in non-earning demand deposit

Table V-4
Demand Deposits as a Percent of Total Deposits for Selected Local Governments, 1975-76

Ratio of Demand to Total Deposits		Percent of Respondents Reporting								
(in Percent)	All	California	Florida	Illinois	Michigan	Texas				
0-10%	40.5%	86.1%	28.6%	26.7%	30.8%	20.0%				
11-20	19.5	5.6	28.6	20.0	7.7	24.0				
21-30	8.3	2.8	7.1		30.8	12.0				
31-40	10.7		21.4	13.3	15.4	8.0				
41-50	4.9	2.8	7.1	13.3	_	4.0				
over 50	16.1	2.8	7.1	26.7	15.4	32.0				
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%				
Average Ratio of										
Demand to Total										
Deposits	25.96%	7.67%	25.57%	38.20%	29.38%	33.529				

Table V-5

Number of Banks, Number of Accounts, Average Balance Per Account, and Total Balances For Demand Deposits of Local Governments, 1975-76

	Average of All Respondents	California	Florida	Illinois	Michigan	Texas
Number of Banks Used for Demand Deposit Accounts	7.5	3.8	10.0	3.5	4.6	8.7
Number of Demand Deposit Accounts Per Municipality	20.8	10.3	26.5	24.7	19.8	36.9
Average Balance Per Account (\$000)	\$121.8	\$141.8	\$106.2	\$49.6	\$149.9	\$107.3
Total Demand Deposit Balances Per Municipality (\$000)	\$2,188.3	\$1,433.4	\$1,978.6	\$1,033.3	\$1,434.6	\$3,959.4

SOURCE: ACIR-MFOA survey of finance officers.

balances may be a consequence of administrative or statutory policies that require funds to be dispersed among a number of accounts and depositories. The ACIR-MFOA survey provides some indication of these policies at work (Table V-5). Survey respondents held demand deposit accounts in more than seven different banks, on average, and they maintained 21 different checking accounts. As a consequence, the average account balance was a relatively small \$121,000 even though the average total demand deposit balance amounted to \$2.2 million.

Again, some striking differences appear in the responses from municipalities in different states. California municipalities generally dealt with fewer banks and had far fewer accounts than did, say, Texas municipalities. While part of this may reflect the larger average size of the reporting Texas municipalities, the average account balance is relatively low (\$107,000) for these municipalities when com-

pared to the total amount (nearly \$4 million) held in checking accounts.

Time deposit and CD holdings of the survey respondents again demonstrate that prevailing practice is to distribute these investments across a large number of institutions (Table V-6). On average, ten different depositories were used for 24 time deposit accounts, each with an average deposit of \$390,000. In this instance, the variety of accounts may be influenced by maturity timing. Additional information supplied by some respondents indicated that CD maturities were spaced throughout the fiscal year.

Local units surveyed held only a small fraction of their time deposits in thrift institutions (savings banks or savings and loan associations) (Table V-7). In some states—California, New York, Michigan, and Iowa—the reporting localities indicated that deposit relationships with thrift institutions were not allowed.⁶ In other states, either statutory provisions or local

Table V-6

Number of Depositories, Number of Accounts, Average Balance Per Account, and Total Balances For Time and Savings Deposits of Local Governments, 1975-76

	Average of All Respondents	California	Florida	Illinois	Michigan	Texas
Number of	•					_
Depositories* Used for Time Deposits/CD	s 9.9	10.3	14.1	8.4	6.6	11.9
Number of Time						
Deposits/CDs Per	22.7	21.2	20.2	27.0	00.0	22.7
Municipality	23.7	31.3	26.3	27.9	22.9	28.7
Average Balance Per Time Deposit/ CD (\$000)	390.1	\$515.3	\$451.2	\$170.0	\$582.0	\$318.8
Total Amount Held in Time						
	\$9,245.8	\$14,874.9	\$12,193.4	\$5,103.0	\$13,328.8	\$9,152.8

^{*} Depositories include savings and loan associations, mutual savings banks, and commercial banks.

SOURCE: ACIR-MFOA survey of finance officers.

Table V-7

Percent of Total Time Deposits Held in Savings Institutions by Survey Respondents, 1975-76

Percent of Time Deposits Held in Savings Institutions*	Percent of All Respondents
O	62.9%
1-5%	11.7
6-10	3.4
11-25	7.4
26-50	2.9
51-75	1.0
Not Reporting	_10.7
	100%

^{*}Savings banks and savings and loan associations.

SOURCE: ACIR-MFOA survey of finance officers.

practice limits the amount of deposits in thrift institutions to the federally insured limit (presently \$100,000).

Methods Used in the Choice of Depository Relationships

More than 50% of the respondents to the ACIR-MFOA survey indicated that limits were placed on the amount of funds on deposit in any one institution (Table V-8). In some instances, deposits were limited to the FDIC-insured amount. More frequently, the limitation was expressed as a ratio of the bank's capital and surplus, i.e., its equity position, and in many instances, e.g., California, the limitation is embedded in state law.

Aside from state or local legal requirements, many local units superimpose additional administrative criteria on the eligibility of financial intermediaries to deposits. One Illinois city, for example, requires the following conditions to be met by commercial banks:

- 1. Cash and deposits must equal at least 25% of deposits.
- 2. Capital must be at least 5% of total deposits; 7.5% of loans; and at least 5.5% of total assets.
- 3. Deposits must be 130% of loans.

In this instance, banks not meeting all criteria can still hold city deposits if the banks pledge collateral equal to 100% of the deposit, without an exemption for FDIC insurance.

A number of local governments follow an administrative decision rule that divides deposits equally among all financial institutions (Tables V-9 and V-10). Time and savings deposits are often awarded on the basis of competitive bids for the highest interest rate

(Table V-9). Competitive bids are used much less frequently as the criteria for selecting depositories for demand deposit accounts (Table V-10). Rather, the ability of the bank(s) to provide a range of services is an important and frequent basis for selection. However, the range of services that are deemed "necessary" can be quite large and can vary from community to community. As one finance officer expressed it:

... factors which are considered in designating a depository are: type of services provided, branch locations within the county, number of individuals employed within the county; and does the financial institution clear the county's payroll, give mortgages to county residents, participate in check cashing services for welfare clients.

Table V-8

Local Government Limits on the Volume of Deposits in Any One Financial Institution

Number of Reporting Governments

Basis for	All					
Limitation	Respondents	California	Florida	Illinois	Michigan	Texas
Divide Equally Among All Banks	16	2	_	1	2	
Limited to a Percent of Bank Capital and Surplus	54	10	_	4	1	2
Limited to FDIC Insurance	4		_	1	_	
Limited to a Percent of Bank Assets	5			1	1	
Limited on Basis of Size of Bank	9		2	_		1
All Other Factors	25	4	4	1	2	2
No Limits	111	18	9_	7	7_	20
Total	224	34	15	15	13	25

SOURCE: ACIR-MFOA survey of finance officers.

Table V-9

Criteria Used in Selection of Depositories for CDs and Time Deposits

Number of Reporting Governments

Criteria	All Respondents	California	Florida	Illinois	Michigan	Texas
Statutory	24	1		6		3
Competitive Bid (Best Rate)	95	19	12	2	4	12
Divide Equally	15	5		1	1	_
On Basis of Services Provided	16	3		1	_	2
Annual Rotation Among Local Banks	3	_		_	_	_
All Other Factors	50	5	1	3	8	5
No Response	_21_	_1_	_2_	_2_		_3_
Total	224	34	15	15	13	25

Table V-10

Criteria Used in Selecting Depositories For Demand Deposit Accounts

Number of Reporting Governments

	All	Oalifamia	El a viado		Michigan	Tau-
Criteria	Respondents	California	Florida	Illinois	Michigan	Texas
Statute	⁴⁶ .		1	6	1	3
Competitive Bid	26	7	1	_		11
Divide Equally	13	1	1	1	2	1
On Basis of Services Provided	32	11	2	1	_	2
Annual Rotation Among Local Banks	13	2	2		1	1
All Other Factors	57	5	6	5	7	7
No Response	_37_	_3_	2	_2_		
Total	224	29	15	15	13	25

SOURCE: ACIR-MFOA survey of finance officers.

SOURCE: ACIR-MFOA survey of finance officers.

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participate in both county and local municipal bond and note issues and also bid competitively on negotiable certificates of deposit and investment.

Summary

These survey results confirm that a number of other factors besides the highest earnings rate available are important in explaining the investment choice, the amount held in demand deposits, and the selection of the depositories. Several results are implied by these practices. The widespread diversification of depositories and policy or legal limits on holdings in individual institutions may be reflective of an emphasis on safety. The emphasis on local depositories suggests that local banking market structure, as perhaps measured by the number of competing local insti-

tutions, may be an important determinant of the yield or cost of banking services. Finally, fragmentation into a substantial number of deposit accounts with individually small balances means that many localities are foreclosed from achieving the economies of size that can stem from a pooled-funds approach and centralized cash management practices.

FOOTNOTES

¹These proportions have not changed substantially since the 1962 Census of Governments. See ACIR, Investment of Idle Cash Balances, op. cit.

²M. Hackbart and R. Johnson, op. cit.

³*Ibid.*, Table 2, p. 4.

⁴*Ibid.*, p. 8.

⁵*Ibid.*, p. 11.

⁶Subsequently, California voters passed a constitutional amendment allowing public deposits in savings and loan associations.



State-Sponsored Investment Pools for Local Governments: A Promising Innovation

One relatively recent innovation—the state-sponsored local government investment pool—is designed to improve the return on idle balances of local governments and to reduce dependence on local banking markets. The first, local government, investment pools were established in Connecticut, Oregon, and Montana. Since that time, similar agencies have been established in Illinois, Massachusetts, Utah, and Wisconsin, and authorizing legislation has been introduced in New York.

The concept and the mechanics of the investment pool are relatively simple. Local governments can transfer deposits or withdraw funds from the investment pool on a daily basis with very few restrictions on the amount or the maturity of the participation in the pool. The flow of funds for the Oregon pool is charted in Appendix A-6. All income is generally computed and accrued on a daily basis and credited to each participating unit in proportion to its daily investment.

Pooling the idle balances of a number of local units with the state's own funds in this manner has several advantages for all units.

First, to the extent that inflows and outflows from each participant are non-synchronous, some minimum balance will exist in the investment pool that is not needed for immediate liquidity purposes. The investment pool may invest this balance in somewhat larger maturi-

ties, with higher yields than would be possible for any one governmental unit. In this manner, the pool concept effectively separates investment strategy from the cash flow patterns of any one governmental unit.

Second, the substantial resources of the investment pool can attract more favorable rates since transactions can be in larger, more economic, denominations. Moreover, substantial operating economies may also be achieved by consolidating, in effect, the investment management functions of numerous local units into one investment management department staffed with full-time, experienced professionals. The concentrating of management resources in this fashion permits a wider latitude

in investment choice, with the opportunity for higher returns.

In Wisconsin, administrative expenses are limited to 0.25% of the pool's earnings. In Oregon, the pool may deduct, if necessary, up to 1% of the earnings from pooled investments. The Illinois statute provides only for "administration expenses of the pool to be paid from its earnings." The state treasurer has set the charge for administrative cost at 0.4% per annum of the value of the pool.

As a result of a 1975 enabling statute in Massachusetts the treasurer of the commonwealth, with the advice of the state's investment advisory council, has established an investment pool. The statute specifically makes

Table VI-1

Comparison of Returns: Oregon Investment Pool Versus Selected Money-Market Instruments

Money Market Instruments: Six-Month Maturities

(Oregon Investment Pool: Average Daily Earnings	Prime Commercial Paper	Treasury Bills Rate on New Issue	Federal Agencies	CDs
December 1974	9.58%	8.98%	7.09%	8.00%	9.30%
January 1975	9.00	7.30	6.53	6.88	9.35
February	7.91	6.33	5.67		
March	7.88	6.06	5.64	5.79	6.20
April	7.17	6.15	6.01	6.36	6.80
May	6.60	5.82	5.65	5.74	6.15
June	7.02	5.79	5.46	5.66	6.55
July	7.00	6.44	6.49	6.92	7.20
August	6.76	6.70	6.94	7.28	7.70
September	6.91	6.86	6.87	7.32	7.90
October	7.87	6.48	6.39	6.05	7.00
November	6.52	5.91	5.75	6.20	6.90
December	6.67	5.97	5.93	5.80	6.05
January 1976	6.71	5.27	5.24	5.10	5.40
February	6.19	5.23	5.14	5.70	5.90
March	5.93	5.37	5.49	5.45	5.60
April	6.45	5.23	5.20	5.40	5.70

SOURCES: Oregon, Appendix A-6; prime commercial paper, Treasury bills, Federal Reserve Bulletin; federal agencies and CDs, Solomon Brothers, Bond Market Roundup; these yields are based on monthly closing prices.

units of participation in it a legal investment for all moneys under the custody of cities, towns, agencies, authorities, commissions, boards, and other political subdivisions within the commonwealth, even though the pool is authorized to invest in certain obligations which cities and towns could not invest in directly. Under contract with an investment adviser firm the pool is charged one all-inclusive fee for investment management, administration, custodianship, and services to participants by the Massachusetts League of Cities and Towns. As the pool's assets increase, this all-inclusive fee rate decreases to 0.25% of the average daily net assets of the pool.

In addition to investment flexibility and operating economies, an investment pool can effect significant improvements in the mobilization of cash balances.

The flexibility provided by scheduling investment maturities can facilitate the closer integration of investments with cash flows. Thus, the amount of funds held in precautionary balances can be reduced, freeing up otherwise idle or non-earning balances for investment.

Although the concept of the investment pool is relatively new, the earnings experience appears to be highly favorable. Table VI-1 compares the average daily earnings of the Oregon Investment Pool with the yields available on selected money-market instruments. These securities are characteristic of the types of direct market investments that local gov-

ernments can purchase. In Oregon, for example, local units can invest only in U.S. Treasury and agency instruments, and collateralized CDs of Oregon banks. As the data in Table VI-1 indicates, the earnings on the pool have generally exceeded the yields on the selected securities, sometimes by more than 2 percentage points. Although details are not available, the higher returns of the pool can be explained by a combination of factors. First, the pool can select from a broader array of assets. Under the guidelines in effect in early 1976, the pool follows a "Prudent Man Rule" in its investment policy. For example, not more than 20% of the pool assets can be invested in A-2 rated commercial paper, and no more than 5% can be held in any single company rated A-2. In addition, the pool purchases negotiable CDs, banker's acceptances, corporate bonds with shorter term maturities, and some longer term investments.

With this flexibility, the pool can also generate income from trading operations; by contrast, most smaller governmental units hold investments to maturity. The pool, through judicious buying and selling of securities, can take advantage of price appreciation when it occurs, thereby generating capital gains income.

Thus, the evidence available from the Oregon experience supports the view that statesponsored investment pools for local governments are effective vehicles for improving the returns on temporarily available cash balances.

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Appendix A-1

A Summary of Recent State Legislation Affecting State and Local

Cash Management and Depository Relationships	Cash	Management	and	Depository	Relationships
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Year and		
State	Statute	Summary
1970		
Alaska	S.B. 402	Authorized the revenue commissioner to deposit state funds in financial institutions, and he may require collateral to secure the deposits. The banks in which state funds are deposited under a time deposit agreement shall pay a minimum interest rate to be fixed by the revenue department. The department may deposit funds in solvent banks outside the state.
Idaho	S.B. 1424	Provided that if a state depository refuses to accept its allocated share of time deposits, it shall not be entitled to its proportionate share of demand deposits. State depositories holding demand deposits and clearing state warrants directly with state treasurer shall be entitled to a compensating balance of \$1 per warrant.
1971		
Ala.	Chap. 62	Provided that the annual rate of interest on state time deposits, open account, shall be the average for the most recent four weeks of the prices of the 91-day U.S. Treasury bill auction, but shall not be less than 4% nor greater than 6%; the rate, however, shall not exceed the maximum permitted by applicable banking regulations.
Alaska	Chap. 94	Authorized investment of surplus state funds in bankers acceptances drawn on banks with combined capital and surplus of at least \$200 million.
Colo.	H.B. 1225	Authorized the state treasurer to deposit state moneys with national or state banks in the state for not more than two years, at such rate of interest as may be negotiated. All such time deposits shall be evidenced by certificates of deposit. The state treasurer is also authorized to deposit state moneys with any savings and loan association in the state for not more than three years, at such rate of interest as may be negotiated; in no event shall any deposit be in excess of the insured amount.
Idaho	Chap. 134	Provided that the interest to be paid on time deposits of public funds shall be fixed by the state treasurer applying a rate not to exceed 1% of the average rates bid for U.S. Treasury bills at the most recent auction preceding the first day of each calendar month; in no event shall such rates exceed the maximum authorized by state or federal regulation.
Indiana	P.L. 24	Provided that the state board of finance may authorize the state treasurer to deposit excess funds in CDs issued by state banks, mutual savings banks, or national banks having their principal offices within the

	Indiana	(Cont.)	state. The certificates shall bear interest at rates determined from time to time by the board, but not in excess of the rates permitted to be paid by banks on CDs under applicable federal law and regulations. The limit on deposits in any one bank is 50% of the bank's capital, surplus, and undivided profits.
		P.L. 396	Authorized any officer of the state or any political subdivision thereof to invest surplus funds in CDs issued by banks and mutual savings banks.
	Minn.	Chap. 21	Authorized the deposit of municipal funds in time deposits of any state or national bank.
	Nevada	Chap. 283	Authorized the public employees' retirement board to invest its funds in CDs issued by banks in the state.
	N.H.	Chap. 158	Authorized town treasurers to deposit funds in insured savings accounts in the state. The funds may be deposited in banks outside the state if the depositories pledge, as collateral security for such deposits, U.S. government obligations equal in value to the amount of the deposit.
	Texas	H.B. 1582	Authorized private banks doing business in the state to act as depositories for state funds.
48		S.B. 475	Prohibited local governmental units to designate a financial institution located outside the state as a depository for their funds.
		H.B. 1397	Authorized local governmental units to receive applications for the custody of funds from any bank. However, if a city has two or more banks doing business within the city, it shall consider bids from only those institutions.
	Virginia	Chap. 139	Provided that no state deposit shall be made for a period in excess of one year (formerly six months).
	1972		
	Idaho	S.B. 1546	Provided that public treasurers need apportion demand deposits among designated state depositories only at the end of each month and idle funds in CDs every six months.
		S.B. 1389	Added certificates of deposit of public depositories as authorized investments for municipal treasurers.
	Illinois	P.A. 77-2290	Requires county treasurers, in counties of 150,000 or more, to invest idle funds in certain obligations, including bank CDs.
	Indiana	S.B. 343	Provided that investments in CDs shall be considered public funds, covered by the public deposits insurance fund.
	Miss.	Chap. 469	Increased from 75% to 90% the amount of the state's general and special funds which may be placed in demand deposits in qualified state depositories.
	Neb.	L.B. 1213	Provided that any surplus city funds may be invested in CDs of FDIC-insured banks.
	1973		
	Ark.	Act 121	Provided broader investment authority for the state board of finance

with respect to funds available for a term of 180 days or longer. Such

funds shall be prorated between banks as a group and savings and loan associations as a group, in proportion to the aggregate capital structure of all banks compared to the aggregate capital structure of all savings and loans. The maximum amount of state treasury funds which are held in time deposits, open account, and/or CDs of any bank depository shall not exceed the capital structure of such depositories.

Idaho Chap. 272 & 273

Authorized the state treasurer to invest surplus funds in CDs maturing in not less than 30 days (formerly 60), and provided that interest be paid on time deposits maturing between 30 and 59 days at the quoted bond equivalent rate for U.S. Treasury bills of like maturity, and that on all other maturities a premium of 2.5-15% of the average U.S. Treasury bill rate be paid on a graduated basis for the varying maturities of CDs.

Kansas S.B. 213

Provides for uniformity of rates on all public funds, state and local. The rate payable has been fixed at 100% of the past three-month average of 91-day U.S. Treasury bills. The pledging requirement on all such funds is fixed at 70% (formerly 100%) of the deposit less the FDIC-insured portion.

H.B. 1578

Established a federal revenue sharing fund and authorized the treasurer to invest funds not immediately needed in time accounts or CDs in commercial banks located in the state, provided that the deposit is for a period of not more than six months.

Mont. Chap. 499

Provided that county, city, and town treasurers must require depository banks to pay the same rate of interest on public funds as they do on private savings. Failure to offer such rates shall constitute a waiver of the bank's right to participate in a ratable distribution of public funds.

Chap. 298

Provided for a unified investment program for public funds under the direction of the board of investments.

Neb. L.B. 47

Authorized power and irrigation districts to invest in time certificates of deposit.

Nevada Chap. 270

Authorized investment of state funds in prime commercial paper not to exceed 28-days' maturity and issued by a U.S. corporation with net worth in excess of \$50 million.

N.M. Chap. 78

Deleted the requirement that time deposits of public funds be limited to a period of 12 months.

N.D. S.B. 2289

Deleted the requirement that in its bid for public deposits, the bank must state the rate of interest to be paid on time deposits.

Virginia Chap. 232

Authorized the state treasury board to invest all funds other than sinking funds in "prime" commercial paper, with a maturity of nine months or less, including paper issued by certain banks and bank holding companies. Not more than 35% of the funds available for investment may be placed in commercial paper and not more than 5% in any one corporation.

Wash. Chap. 140-X

Expanded the list of eligible investments for surplus county funds to include the obligations of any corporation wholly owned or sponsored by the U.S. government.

Wyo. Chap. 172

Expanded the state investment authority to permit investment of an ad-

ditional 25% in certain corporate obligations provided that not more than 1% of total state funds are invested in any one corporation.

1974		
Ariz.	Chap. 153	Permits any depository institution eligible to receive state funds to receive municipal funds. Requires local board to seek maximum return available but not less than current U.S. Treasury bill rate for a deposit for a like term. Requires collateralization for amount not covered by public deposit insurance. Eliminates requirement that financial depository be located within the subdivision.
Idaho	S.B. 1290	Authorizes any governmental unit to invest funds not presently required for use in the CDs of authorized public depositories.
	S.B. 1307 & 1308	Authorize the state treasurer and other treasurers holding public funds to deposit securities held by such treasurers in state, federal reserve, and national banks for safekeeping. Eliminates the requirement that state demand accounts in a depository not vary more than 20% from statutorily authorized amounts, and permits the state treasurer to designate monthly date for equalizing deposits (formerly month-end).
	S.B. 1313	Establishes a new formula for interest rates on state and public funds invested in time deposits by predicating such interest upon the U.S. Treasury bill rate, plus a graduated premium of from 2.5-15% of the bill rate depending upon the length of the certificates of deposit.
	S.B. 1414	Authorizes the state treasurer to invest surplus funds in CDs and pass- book accounts of state or federal savings and loan associations located in Idaho.
Indiana	S.B. 211	Permits the proceeds of refunding bonds to be placed in CDs or any other similar arrangement in any financial institution eligible to hold public funds (formerly banks only) provided that the director of the Indiana Department of Financial Institutions has given prior written approval.
Miss.	Chap. 503	Allows school district funds to be invested in interest bearing CDs of an authorized state depository.
Mont.	H.B. 298	Requires banks to pay interest on public deposits at a rate no less than that which is paid on private deposits (formerly required same rate).
Neb.	L.B. 925	Requires the Nebraska Investment Council to approve fiscal agents and financial institutions for holding public funds (previous state treasurer's discretion). Defines a cash deposit of state funds as an investment under the direction of the state investment officer.
Ohio	S.B. 460	Requires county boards of education to comply with state laws governing selection of depositories of public funds and allows each board to designate financial institutions to serve as the public depository for county board funds and to determine the amount that must be held as a cash reserve.
Okla.	H.B. 1223	Extends the authority of the county treasurer to invest public funds by permitting him to invest in bank savings accounts insured by FDIC (previously only FSLIC-insured accounts).

Wash. Chap. 50-XXX Requires time deposits of public funds available for investment to bear interest at the maximum rate permitted by applicable government regulations.

1975

Ark.

Calif.

Illinois P.A. 79-105

Indiana H.B. 1027

Kansas S.B. 53

Ala. Chap. 1 Requires state depositories to pay interest on time deposits, open account, at an annual rate of the average of the four most recent weekly auction prices of 91-day treasury bill prices, not to exceed the maximum permitted by applicable banking regulations (was a rate not greater than 6% nor less than 4%). Eliminates the requirement that the minimum balance needed to meet state upcoming obligations be maintained in time deposit, open accounts.

Ariz. Chap. 123

Requires banks and other depositories of public funds held in inactive accounts to pay interest on those funds that is at least equal to the yield of U.S. bonds of like term. Requires bids for deposits of \$100,000 or more with the award going to the institution bidding the highest. Deposits of less than \$100,000 may be awarded to any eligible depository. Applies to funds of the state or its subdivisions. Charter cities are exempt from the act but may require public depositories to furnish bonds or other safekeeping evidence. Also permits the board of deposit to order the treasurer to invest funds in Treasury bills of less than 12-month

Act 5 Permits institutions of higher learning to select depositories and determine the nature of investment of cash funds but requires the institutions to seek the highest rate of return possible on cash funds.

maturity when no bid equals the U.S. Treasury bill rate.

Chap. 1214 Authorizes the state treasurer and the public employees retirement system board to enter into "security loan agreements" with broker-dealers and with state or national banks for the purpose of prudently supplementing the income normally received from securities which, by law, they are authorized to invest in. Requires the borrower to provide collateral in the form of cash, bonds, other interest-bearing notes and obligations of the United States or federal instrumentalities eligible for investment by the agency lending security. The collateral shall be in an amount equal to at least 102% of the market value of the loaned securities.

Chap. 523 Requires the depository to compute the interest on the average daily balances on deposit using a 360-day basis (basis presently not specified).

Requires banks and savings and loans seeking public deposits to pledge not to reject residential mortgage loans arbitrarily by reason of the part of the community in which the property is located and to pledge to make loans available on low and moderate income housing.

Permits the state board of finance to deposit excess funds in CDs, eliminating the requirement that the CDs be at least 90-day notes.

Amends various state money investment policies. Removes present requirement that active account banks be located in cities with a population more than 100,000. Increases required capital and surplus of active account banks from \$300,000 to \$2 million. Authorizes deposits in time deposit, open accounts, in active account banks anytime the money is not

needed in active accounts, in proportion to 200% of the active award. Limits aggregate TDOA accounts to 200% of the total active account award. Excess time deposit, open account, moneys are to be withdrawn in 60 days and deposited in eligible inactive account banks. Authorizes investment in TDOAs or repurchase agreements with Kansas banks of money available for deposit for not more than 60 days. Authorizes shortterm deposits in repurchase agreements with Kansas banks. If the board is unable to deposit all moneys available in inactive accounts then it may deposit in TDOAs in any Kansas bank or repurchase agreements. Eliminates present authority for direct purchase of U.S. Treasury bills. Banks having active accounts must accept TDOAs according to formula provided. Limits aggregate of custodial accounts to 10% of total deposits. Board to determine if custodial accounts are to be demand or interest bearing. Authorizes telephone assurance of forthcoming joint custody receipts. Requires fee agency accounts to be secured the same as inactive accounts. Requires security for CD or TDOA deposit of federal revenue sharing funds at 70%, less the insured amount. Authorizes borrowing upon security of TDOA or inactive accounts when active account balances are insufficient for current needs, interest on such borrowing is to be set off against the interest obligation to the state. Shortens the interest period from six to three months.

S.B. 54 Authorizes investment by the Kansas Pooled Money Investment Board in interest-bearing time deposits in Kansas banks of the debt service reserve fund of the department of health and environment, self insurance reserve fund, etc. Authorizes the board to retain one or more financial advisors.

Prohibits a municipal treasurer from depositing public funds in any bank which employed the treasurer during the three prior years.

Prohibits county officials from depositing public money in depositories with which such official is associated or has been associated with within three years.

Permits municipalities to invest excess funds in interest-bearing time certificates of deposit at a rate of interest which is negotiated but not less than 1% greater than the rate paid to the general public on passbook savings. Permits purchase from either municipal or state depositories located in the municipality.

Permits county magistrate clerks to invest all funds placed in the court registry in FDIC-insured savings deposits or Treasury bills, the income derived to be applied to the expense of running the magistrate court, balance, if any, to the county general revenue fund.

Permits local public bodies, in lieu of ratably distributing idle deposits among banks and building and loan associations, to solicit bids (without advertising) from any institution in a county having at least two such financial institutions for handling the funds. May solicit bids outside the county where only one institution exists and may place deposits there unless the in-county institution agrees to pay the same rate.

Requires county officers maintaining deposits of county funds in depository banks, to withdraw such funds and transfer them to the county treasurer whenever the amount exceeds \$100.

Mass. Chap. 248

Chap. 27

Miss. Chap. 421

Mo. Act 5

Mont. Chap. 539

Nevada Chap. 755

Nevada (Cont.) Chap. 759 Permits the state of Nevada, local governments, or agencies of either to deposit public funds in any insured state or national bank or in any stock savings and loan association—not mutual savings and loan (was limited to banks in, or outside of Nevada). Permits incorporated cities or other local governments to deposit any money in the control of its treasurer in an insured state or national bank, or in a stock savings and loan with an office in Nevada—not mutual savings and loan (was limited to banks in. or outside of Nevada). Permits the deposit of state-owned securities in depository banks, insured mutual savings and loan (was limited to banks). Requires savings and loans to pledge collateral to secure state deposits (banks already required to pledge collateral). Permits the state controller-treasurer to draw warrants—checks or orders—to be paid by a depository bank or savings and loan. Requires county treasurers to deposit funds in banks or insured stock savings and loans in the county unless no bank or insured stock savings and loans exist in the county. In the event that a suitable bank or insured stock savings and loan does not exist in the county, the county treasurer may deposit funds in any bank or insured savings and loan in the state. Requires county money in insured depository bank or stock savings and loan time accounts to receive the equivalent rate of interest as is paid on state time deposits as such rate is established by the state treasurer and the state board of finance. Permits the county treasurer or auditor to issue checks or orders to be paid by the depository for withdrawal of funds held by banks or insured stock savings and loans (adds orders). Prohibits surety company from furnishing a depository bond for a bank or insured stock savings and loan if any director or stockholder of the surety company is also stockholder or director of the bank or savings and loan (was limited to banks). Permits the state insurance fund to deposit funds in insured stock savings and loan associations—not mutuals (was limited to banks).

N.M. Chap. 211

Eliminates the requirement that the state treasurer deposit state retirement fund, educational fund, or the state investment securities with a "local" bank for servicing and safekeeping.

1976

Kansas S.B. 614

Authorizes the Kansas Pooled Money Investment Board to administer the self insurance reserve fund (was board of treasury examiners). Authorizes the board to invest idle funds from the sale of state agency or authority bonds in U.S. obligations, bank time deposits, repurchase agreements of less than 30 days, or savings and loan obligations to the extent of insurance. Requires that agency collection depositories (banks) for accounts with a \$10,000-average daily balance be selected by the board. Bank deposits are to be secured as state accounts are secured.

S.B. 922

Requires the board to apportion inactive state fund accounts to qualifying depositories on the basis of the proportion each banks' undivided profits (new) as well as capital and surplus bear to the undivided profits (new), capital and surplus of all eligible depositories.

S.B. 851

Permits local units to invest funds (in addition to local temporary notes) in (1) local 30-day time deposits or TDOAs; or (2) if not locally, then in surrounding/adjacent towns or counties; or (3) if no local bank will pay within 2% of T-bill rate, any Kansas bank; or (4) if no bank will pay with-

in 2% of T-bill rate, the state may invest directly in T-bills. Permits the investment in savings and loan-insured deposits to \$100,000.

S.D. S.B. 39 Permits county treasurers to deposit money in their possession in branch banks (previously specified only banks) outside the depositing county under certain conditions.

Wisc. Chap. 164

Creates a local government pooled investment fund and a local government trust investment fund. Permits the governor and state treasurer to require state agencies to deposit funds directly into banks designated as depositories. Pooled investment fund may, with the consent of local governing body, be designated depository for local funds. State treasurer may designate rules for deposits and withdrawals and local government officials may designate the period for which deposits will remain with the state. Fees for fund investment shall not exceed 0.25% of the earnings income. Creates a local government trust investment fund.

SOURCE: State Banking, Credit Union, and Savings and Loan Association Legislation, Office of the State Legislative Council, American Bankers Association, Washington, DC, annual.

Summary of Recent State Legislation Regarding Public Deposits in Savings and Loan Associations and Mutual Savings Banks

Year and		
State	Statute	Summary
1970		
N.J.	Chap. 236	Requires security for deposits of counties, municipalities, school districts, and like units. Every depository shall pledge collateral having a market value equal to at least 5% of the average daily balance of collected public funds on deposit during the six-month period ending on the next preceding valuation date; if a depository has not held public funds for the six-month period, the bank commissioner shall prescribe the amount of collateral. When the aggregate of such deposits exceeds, for more than 15 days, 75% of the depository's capital funds, the excess must be secured by collateral having a market value equal to 100% of the excess.
1971		
Colo.	H.B. 1225	Authorized the deposit of state funds with any federal or state association in the state for not exceeding three years, at such rate as may be negotiated; deposits shall not exceed the amount insured by the FSLIC.
Kansas	S.B. 76	Permits municipalities to invest in insured shares or savings deposits of any savings and loan located in the investing municipality.
Oregon	Chap. 104	Provided that public funds may be deposited in any savings and loan doing business in the county in which the depositing entity is located or, if there is no association within the county, then in the nearest county within the state in which there is an association. Deposits of any one fund shall not exceed the amount insured by the FSLIC.
Wyo.	Chap. 269	Authorized the deposit of public funds to the extent that they are fully insured by the FSLIC or secured by a pledge of assets.
1972		
Ariz.	Chap. 129	Authorized savings and loans to act as public depositories. Deposits in excess of the insured amount must be secured by a surety bond in a sum not less than the deposit or with eligible securities.
Florida	S.B. 1261	Provided that insured savings accounts are acceptable securities for public funds.
Illinois	P.A. 77-2290	Permits treasurers of counties with a population of 150,000 or more to invest excess funds in shares or other forms of securities of savings and loans.
Miss.	Chap. 443	Provides that any association with net assets in excess of \$1 million and insured by any company approved by the board of savings and loan associations is eligible to receive excess state funds up to \$20,000. Federally insured associations had previously been authorized to do so.

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Penn.

Act 168

Chap. 517

Virginia Chap. 288

10.0		
Ark.	Act 121	Provides broader investment authority for the state board of finance with respect to funds available for a term of 180 days or longer. Such funds shall be prorated between banks as a group and savings and loan associations as a group in proportion to the aggregate capital structure of all banks compared to the aggregate capital structure of all savings and loans. The maximum amount of state treasury funds which are held in time deposits, open account, and/or certificates of deposit of any bank depository shall not exceed its capital structure.
Georgia	Chap. 72	Provided that at such time as banks and savings and loans are taxed in the same manner as other corporations, the state depository board may appoint as depositories of state funds any FSLIC-insured savings and loan association.
Kansas	S.B. 113	Authorized township treasurers to deposit public funds in savings and loans.
N.J.	Chap. 98	Provided that no collateral is required to the extent that deposits are insured by a federal agency.
N.C.	Chap. 85	Permits local ABC boards to make short-term investments in share accounts of savings and loans located in the state up to the insured amount, and above that amount if adequate security is furnished.
1974		
Idaho	S.B. 1414	Extends the types of investments in which the state treasurer may invest surplus funds to include time certificates of deposit and passbook accounts of state or federal savings and loan associations located in Idaho.
Indiana	S.B. 211	Permits proceeds of refunding bonds to be placed in certificates of deposit or other arrangements with any eligible financial institution (formerly banks only) with prior written approval of the director of the Indiana Department of Financial Institutions.
Mont.	Chap. 14	Permits the state treasurer to deposit public funds in building or savings and loan associations. All amounts in excess of insurance must be secured.
	H.B. 298	Requires banks and building or savings and loan associations to pay at least the same rate of interest on public deposits as is paid on private deposits (formerly required same rate). Permits a county, city, or town trea-

tutions.

tion.

vestments for public sinking funds.

surer to deposit public money in accounts with building or savings and loan associations in that jurisdiction as well as in banks. The deposits are to be allocated in proportion to the property taxes paid by eligible insti-

Provides for deferred compensation plans for the employees of state and

local governments and permits the investment of a plan's funds in savings accounts in institutions authorized to accept public deposits.

Makes savings and loan association accounts and time deposits legal in-

Permits deposit of state funds in a savings and loan association up to the amount insured by the Federal Savings and Loan Insurance Corpora-

1975		
Ala.	Act 1120	Authorizes savings and loan associations to be appointed "depositories" of Alabama municipal or county investments.
	Act 1121	Authorizes savings and loan associations to receive county funds as public depositories.
Calif.	Chap. 639	Makes negotiable certificates of deposit purchased from a national or state-chartered savings and loan association eligible securities for the investment of surplus state moneys. Negotiable certificates of deposit are not subject to the requirements for collateralization of public deposits.
Colo.	S.B. 289	Exempts state and municipal funds deposited in public depositories from required collateralization to the extent of FDIC or FSLIC insurance.
	H.B. 1695	Authorizes the state governmental units to deposit, and savings and loan associations to receive public deposits. Provides for securing public deposits held by savings and loan associations in the same manner as for banks as established by H.B. 1659, Laws of 1975.
Conn.	P.A. 75-77	Authorizes savings and loans to accept up to \$100,000 in public deposits (was \$75,000).
	P.A. 75-256	Permits mutual savings banks to accept public deposits up to 75% of the bank's capital, general loss reserve, surplus, and undivided profits. Fixes \$100,000 maximum from any public depositor.
Georgia	Act 589	Permits savings and loan associations to receive state deposits secured by FSLIC insurance as well as bonds and other approved securities.
	Act 478	Permits federally and state-chartered building/savings and loan associations to be designated as depositories of county moneys and county school funds.
Illinois	P.A. 79-105	Requires savings and loans seeking public deposits to pledge not to reject residential mortgage loans arbitrarily by reason of the part of the community in which the property is located and to pledge to make loans available on low and moderate income housing.
	P.A. 79-983	Permits local mutual district, county, and township insurance companies to invest funds in FSLIC-insured savings and loan accounts, to the extent such deposits are insured.
Md.	Chap. 634	Permits the treasurer of the State of Maryland to deposit state funds in savings and loan associations.
Mass.	Chap. 784	Requires the state treasurer to deposit those public funds in savings and loans and mutual savings banks only in insured state-chartered cooperative banks, savings banks and federally chartered savings and loans domiciled in Massachusetts (was in any insured savings and loan).
N.C.	Chap. 482	Permits the governor and the state treasurer, with approval of the council of state to invest idle funds in savings certificates, shares, or deposits of savings and loans located in North Carolina to the extent the shares, deposits, or certificates are fully insured and have a yield not less than Treasury bonds, notes, etc., of comparable maturity.

		public moneys an Ohio building and loan association may accept (still limited to accepting public deposits not in excess of 10% of assets).
	H.B. 49	Authorizes all municipal, common pleas, and county courts to deposit money collected by the clerk in a domestic building and loan association to the extent of deposit insurance and pledging of securities for excess deposits.
Penn.	Act 36	Authorizes savings and loan associations to receive funds from industrial and commercial development authorities and to pledge security for the deposits (was limited to banks and trust companies).
	Act 55	Authorizes savings and loan associations to pledge assets for public fund deposits to the extent not insured.
Virginia	Chap. 20	Permits county treasurers to deposit funds in accounts in savings and loan associations which are authorized public depositories.
Wash.	Chap. 77-X	Authorizes the deposit of state funds in mutual savings bank accounts to the limit of FDIC or FSLIC insurance (law states no public funds shall be deposited in any institution other than a qualified public depository).
1976		
Calif.	Con. Amend. 31	Permits county and municipal funds to be deposited in savings and loan associations.
Kansas	S.B. 851	Permits governmental units to invest up to \$100,000 in insured savings and loan deposits.
Wisc.	Chap. 180	Authorizes the deposit of public funds in savings and loans by the state treasurer and other public depositors. Permits the purchase of savings and loan certificates of deposit of less than one-year maturity if the savings and loan has capital and surplus in excess of \$50 million. Permits savings and loans to accept public deposits.

Ohio

58

H.B. 45

Eliminates \$100,000 limit on smallest deposit of inactive and interim

SOURCE: State Banking, Credit Union, and Savings and Loan Association Legislation, Office of the State Legislative Council, American Bankers Association, Washington, DC, annual.

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Appendix A-3

Cash and Security Holdings of State and Local Governments, Exclusive of Insurance Trust Holdings, by Type of Government, by States,

1971-72

(in thousands)

	Total State			Special		
State	and Local	County	Municipality	District	School	State
Alabama	\$ 856,092	\$ 87,478	\$ 261,669	\$ 51,050	\$ 63,824	\$ 392,071
Alaska	1,069,733	79,904	538,850	_		450,979
Arizona	718,864	39,315	203,378	78,132	124,050	273,989
Arkansas	364,486	26,076	73,550	20,126	45,734	199,000
California	9,187,915	1,044,800	2,058,004	1,242,321	1,135,065	3,707,785
Colorado	958,902	42,398	278,514	49,292	269,824	318,874
Connecticut	1,049,489		216,256	31,465	6,148	795,620
Delaware	279,821	10,143	45,261	18,783	21,344	184,290
District of Columbia	284,586	_	96,399	188,187		
Florida	2,627,012	401,473	780,401	105,432	298,373	1,041,333
Georgia	1,374,031	136,340	311,373	91,531	122,144	712,643
Hawaii	368,652	55,116	87,697	_		225,838
Idaho	247,434	31,332	15,353	7,885	23,553	169,311
Illinois	3,889,556	342,638	885,522	365,660	736,092	1,559,644
Indiana	1,470,063	132,454	340,010	138,572	223,627	635,400
lowa	733,375	90,281	192,897	1,744	120,268	328,185
Kansas	731,401	37,914	191,150	49,040	178,945	274,352
Kentucky	1,293,045	35,438	303,975	9,324	88,332	855,976
Louisiana	1,247,703	127,919	332,480	46,792	157,434	583,078
Maine	199,989	3,843	16,018	12,506	6,912	160,710
Maryland	1,078,018	298,753	114,844	74,919		589,502
Massachusetts	1,294,459	40,369	316,969	162,107	15,899	759,115

United States	\$77,591,934	\$6,984,137	\$17,852,500	\$6,303,279	\$8,356,437	\$37,095,581
Wyoming	281,702	16,801	27,845	4,574	14,373	218,109
Wisconsin	1,282,338	109,187	438,903	14,961	182,780	536,307
West Virginia	373,358	14,093	40,337	14,938	50,908	253,082
Washington	1,671,858	114,549	302,939	403,276	224,475	626,619
Virginia	1,453,145	305,201	369,912	34,895		743,137
Vermont	211,034	297	8,485	3,290	14,091	184,871
Utah	280,062	18,417	46,035	16,151	38,695	160,764
Texas	6,030,471	283,159	994,682	584,270	1,010,425	3,157,935
Tennessee	1,116,988	180,149	377,151	108,002	3,342	448,343
South Dakota	257,264	40,807	32,581	998	50,990	131,888
South Carolina	600,828	75,967	67,888	37,021	50.519	369,433
Rhode Island	216,102	_	74,921	8.955	49	132,177
Pennsylvania	3,335,437	106,464	455,505	833.260	315,645	1,624,563
Oregon	1,471,913	63,121	215,028	109,407	102,788	981,569
Oklahoma	1,187,531	62,845	306,404	14,444	148,556	655,282
Ohio	2,854,271	291,247	918.848	70.658	336,616	1,236,902
North Dakota	320,052	24,235	60,445	7.132	32.422	195,818
North Carolina	1,483,031	236,521	261,309	35,655		949,546
New York	9,866,233	783,018	3,280,432	486,148	497,455	4,819,180
New Mexico	791,687	20,936	80,262	8,351	31,695	650,443
New Jersey	3,017,072	211,169	404.841	279,851	234,766	1,886,445
New Hampshire	124,406	1,341	30,432	15,191	6,684	70,758
Nevada	262,571	64,416	57,223	11,704	35,499	93,729
Nebraska	728,391	64,203	130,660	252,253	71,944	209,331
Montana	228,863	33,085	27,030	3.500	41,873	123,375
Missouri	1,241,967	145,497	420,225	66.902	291,426	317,917
Mississippi	490,020	86,433	83,934	15.013	40,155	264,485
Minnesota	1,927,879	166,941	408,274	101,899	261,963	988,802
Michigan	3,158,777	400,001	754,401	15,714	628,527	1,360,134

SOURCE: U.S. Bureau of the Census, Compendium of Government Finances, 1972 Census of Governments, Vol. IV, No. 5, Washington, DC, U.S. Government Printing Office.

Appendix A-4

Cash and Deposits of State and Local Governments, Exclusive of Insurance Trust Holdings, as a Percent of Total Non-Insurance Trust Holdings of State and Local Governments, by Type of Government, by State, 1972

	Total State			Special		
State	and Local	County	Municipality	Districts	School	State
Alabama	63.7%	77.0%	54.4%	30.4%	66.6%	70.4%
Alaska	36.4	99.9	77.4		_	59.5
Arizona	67.9	87.2	57.6	57.7	86.0	67.2
Arkansas	67.8	96.1	64.8	50.1	91.1	61.0
California	51.3	85.5	65.6	69.1	84.1	17.8
Colorado	37.3	98.8	37.8	53.1	33.4	28.9
Connecticut	26.2	-	46.3	74.2	44.8	18.8
Delaware	43.4	100.0	71.1	3.3	100.0	30.8
District of Columbia	24.3		83.2	.3		
Florida	52.0	74.3	40.0	67.6	89.4	40.0
Georgia	49.2	44.9	3 6.7	58.3	62.2	52.3
Hawaii	86.4	100.0	90.8	100.0	_	81.4
lda ho	43.5	98.5	80.0	74.1	97.4	21.1
Illinois	62.7	86.3	58.3	40.8	67.4	63.1
Indiana	68.0	81.8	76.4	31.2	76.9	63.5
lowa	46.0	98.1	6 5.1	55.3	83.9	6.8
Kansas	69.6	99.4	61.0	16.7	79.8	74.8
Kentučky	52.7	48.8	23.4	78.9	89.5	59.3
Louisiana	83.6	75.6	74.4	89.1	86.6	89.5
Maine	53.7	100.0	56.3	47.7	89.8	50.1
Maryland	26.7	48.3	3 7.7	75.7		7.6
Massachusetts	56.8	99.8	57.9	22.2	66.6	61.1

	=	07.0	•			
Wyoming	21.7	67.9	51.9	51.9	95.8	8.9
Wisconsin	41.3	73.0	56.6	81.1	78.0	9.1
West Virginia	46.6	92.8	63.4	68.5	97.4	29.6
Washington	26.5	62.8	35.8	21.3	50.4	10.0
Virginia	50.1	79.6	70.2	72.1		28.7
Vermont	41.2	100.0	71.4	99.1	96.4	34.9
Utah	71.4	98.9	80.4	46.7	81.5	66.9
Texas	56.1	97.5	73.3	87.4	97.0	28.1
Tennessee	79.3	97.7	85.6	23.9	91.4	80.1
South Dakota	48.2	87.5	81.3	85.8	93.5	11.1
South Carolina	35.7	88.7	50.7	61.6	93.4	11.8
Rhode Island	35.2		35.1	81.0	100.0	32.5
Pennsylvania	41.7	83.0	43.0	48.9	72 .7	28.9
Oregon	23.8	95.3	45.1	62.3	88.1	3.6
Oklahoma	59.7	99.7	55.9	93.9	89.0	50.3
Ohio	47.5	82.1	34.5	31.4	78.5	41.5
North Dakota	55.3	99.9	55.0	67.6	87.4	44.4
North Carolina	50.1	93.2	80.8	64.0	_	30.6
New York	36.4	89.6	17.4	43.3	97.1	33.7
New Mexico	27.2	90.0	37.5	54.2	92.8	20.5
New Jersey	43.3	86.3	79.7	45.9	78.6	25.8
New Hampshire	62.9	100.0	80.1	11.3	97.6	61.8
Nevada	72.5	99.8	57.9	72.7	56.5	69.6
Nebraska	30.5	79.7	46.9	11.1	75.9	13.1
Montana	57.9	99.9	85.2	70.1	91.9	28.6
Missouri	57.0	58.6	59.5	81.2	71.0	34.8
Mississippi	74.5	62.7	72.3	56 .6	78.7	79.7
Minnesota	25.9	54.2	53.9	13.9	48.6	4.8
Michigan	56.0	66.0	61.5	81.3	92 .1	33.1

SOURCE: U.S. Bureau of the Census, Compendium of Government Finances, 1972 Census of Governments, Vol. IV, No. 5, Washington, DC, U.S. Government Printing Office.

Appendix A-5

Demand and Time Deposits of State and Local Governments In Insured Commercial Banks, by States, June 30, 1972 (in millions)

State	All Deposits	Total Time and Demand Deposits	Total Public as Percent of All Bank Deposits	Public Time	Public Demand	Demand as Percent Total
Alabama	\$ 8,598,897	\$1,057,475	12.3%	\$ 674,502	\$ 382.973	36.2%
Alaska	1,164,738	277,344	23.8	232,736	44,608	16.1
Arizona	6,049,870	505,942	8.4	393,334	112,608	22.3
Arkansas	5,581,101	611,232	10.9	389,392	221.840	36.3
California	80,804,020	6,177,740	7.6	5,522,193	665,547	10.6
Colorado	7,148,694	826,441	11.6	649,904	176.537	21.4
Connecticut	7,025,126	540,235	7.7	355,753	184,482	34.1
Delaware	1,843,464	155,113	8.4	119,599	35,514	22.9
District of Columbia	3,510,970	1,118	.03	149	969	86.7
Florida	23,834,333	2,949,344	12.4	2,320,565	628,779	21.3
Georgia	11,916,955	1,324,659	11.1	872,901	451,758	34.1
Hawaii	2,529,345	470,197	18.5	442,131	28,066	6.0
Idaho	2,446,661	260,560	10.6	172,350	88,210	33.9
Illinois	57,719,669	4,576,332	7.9	3,554,647	1,021,685	22.3
Indiana	16,895,957	2,255,937	13.4	1,361,067	894,870	39.7
lowa	10,923,256	734,432	6.7	493,560	240,872	32.8
Kansas	8,229,266	1,373,619	16.7	926,280	447,339	32.6
Kentucky	9,213,512	894,500	9.7	493,247	401,253	44.9
Louisiana	11,028,799	1,796,153	16.3	1,406,131	390,022	21.7
Maine	1,914,699	188,724	9.9	137,615	51,109	27.1
Maryland	8,602,798	549,472	6.4	333,206	216,266	39.4
Massachusetts	14,098,997	1,398,958	9.9	741,065	657,893	46.9

Michigan	29,017,811	3,137,870	10.8	2,491,454	646,416	20.6
Minnesota	13,797,974	1,138,023	8.2	773,853	364,170	32.0
Mississippi	5,293,166	754,047	14.2	350,437	403,610	53.4
Missouri	16,143,201	1,470,710	9.1	1,076,002	394,708	26.8
Montana	2,720,775	286,248	10.5	180,564	105,684	36.7
Nebraska	5,760,973	407,873	7.1	236,594	171,279	42.0
Nevada	1,853,170	308,146	16.6	246,068	62,078	20.1
New Hampshire	1,542,520	132,393	8.6	67,093	65,300	49.3
New Jersey	20,926,094	1,784,084	8.5	1,033,542	750,542	42.1
New Mexico	2,798,396	539,832	19.3	391,237	148,595	27.5
New York	130,146,946	5,737,261	4.4	3,550,555	2,186,706	38.1
North Carolina	11,709,120	1,162,563	9.9	856,934	305,629	26.2
North Dakota	2,406,128	154,714	6.4	96,313	58,401	37.7
Ohio	29,521,831	2,679,398	9.1	1,799,892	879,506	32.8
Oklahoma	9,488,068	1,304,283	13.7	1,025,417	278,866	21.3
Oregon	5,617,083	552,381	9.8	378,585	173,796	31.3
Pennsylvania	42,993,981	3,016,101	7.0	2,368,901	647,200	21.4
Rhode Island	3,175,350	215,651	6.8	92,286	123,365	57.2
South Carolina	3,941,270	333,771	8.5	157,627	176,144	52.8
South Dakota	2,711,038	261,861	9.7	195,765	66,096	25.3
Tennessee	12,617,053	1,582,704	12.5	1,198,902	383,802	24.2
Texas	43,374,246	5,717,695	13.2	4,553,813	1,163,882	20.3
Utah	2,884,838	365,300	12.7	298,528	66,772	18.1
Vermont	1,275,343	82,429	6.5	51,866	30,563	36.6
Virginia	13,204,587	1,163,418	8.8	836,687	326,731	28.0
Washington	9,126,446	1,061,122	11.6	846,541	214,581	20.2
West Virginia	5,309,220	409,213	7.7	183,292	225,292	55.0
Wisconsin	17,426,012	1,256,140	8.7	992,146	263,994	20.9
Wyoming	1,485,054	194,529	13.1	132,749	61,780	31.4

SOURCE: Federal Deposit Insurance Corporation, Summary of Accounts and Deposits in All Commercial Banks, June 30, 1972.

The Oregon Local Government Investment Pool*

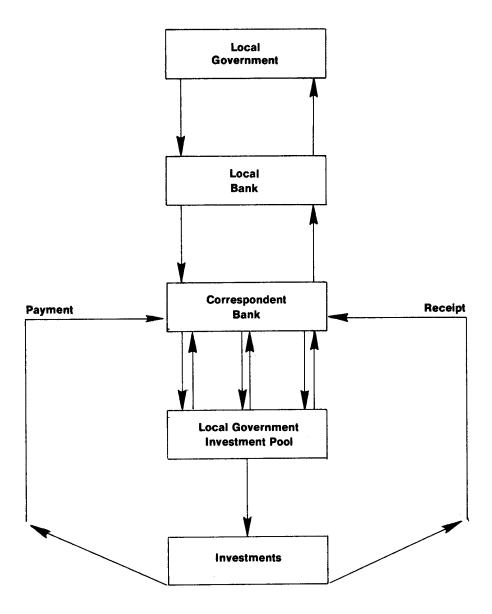
Pregon's Local Government Investment Pool was conceived at a meeting of county treasurers in the fall of 1972, when someone asked State Treasurer Jim Redden; "How can we invest in the same things your office does?" That question was answered in the 1973 legislative session with the passage of enabling legislation (O.R.S. 294.805) which was sponsored by the state treasurer.

Briefly, the act directs the state treasurer, as chief investment officer for the state, to invest moneys of local government units who choose to pool their moneys for the purpose of investment. In addition, the treasurer may make long-term investments on behalf of municipalities or municipal corporations separately from the pool. The act also authorized the formation of a local government investment board which advises the state treasurer and the Oregon Investment Council regarding management of the investment pool. The board consists of five members: the state treasurer, one public member, and three finance officers of local government units. The public member is appointed by the treasurer and the three other members are appointed by the governor upon recommendation by the

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^{*}Prepared by James A. Redden, State Treasurer, September 1, 1975, with updates to May 1976.

CHART A6-I Transmittal of Funds



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Association of Oregon Counties, the League of Oregon Cities, and the Oregon School Board Association, respectively. Members serve four-year terms.

In late 1973, an ad hoc committee was appointed by State Treasurer Jim Redden to determine exactly what services the pool should provide and how, within the law, the pool would operate. This committee was composed of bankers and local government finance officials.

Following their discussions and completion of computerization of investment accounting in the state treasury, the pool became operative in November 1974. The pool has grown steadily and now has over 150 participants. The pool exceeded \$100 million in its sixth month and currently is about \$130 million in size.

As soon as arrangements are completed to directly deposit to the pool funds which are distributed to local governments from the state (such as local shares of cigarette and liquor taxes), it is expected that the pool will enter a new phase of expansion.

This procedure will cut down on the "float" created by warrants being mailed to local governments and essentially give local governments their funds and the return on those funds as soon as a wire transfer of funds from the state to the pool can be accomplished.

There are in excess of 1,600 local government units within the State of Oregon. The amount of funds available for investment on a daily basis by the aggregate of these units is staggering, as is the amount that is not efficiently invested.

Although we do not have exact figures on average daily balances held in demand accounts or in very low yield investments, we can guess that these balances were very large prior to the availability of the pool. One guesstimate indicates that there was in excess of \$100 million in idle cash that could have been invested by local governments.

The pool is a readily available investment for any amount of funds for any length of time. The only requirement is that the amount of money invested and the length of the investment in the pool should simply be economic. For instance, a \$5,000 investment for three days will cost the pool more to process than

the return would be, however, \$5,000 to be invested for 60 days would be more reasonable, as would be a \$1 million overnight investment.

The transfer of funds to the pool involves almost no loss of time. We can make all transfers from any bank in the state by correspondent bank transfer. If the local government unit directs its bank to transfer funds to U.S. National Bank of Oregon, First National Bank of Oregon, the Oregon Bank, or the Bank of California, all in Portland, we can invest the funds the same day. Transfers or withdrawals should be made as early as possible in the morning and must be made by 10:30 a.m.

Later deposits or withdrawals may be refused, but local governments are encouraged to call as late as noon. If the pool's investments have not been completed, the deposit or withdrawal will still be accepted.

The withdrawal of funds is simply a reverse transfer to the local government unit's account and is effected on a same-day basis, if needed, however, advance notice to the pool for sizable withdrawals is very much appreciated and one day's notice for withdrawals of \$1 million or more is required.

Accounting and Reporting

The accounting system is twofold. One system deals with transactions within the pool and the other deals with transactions to and from the pool with local governments. Within the pool, a daily accrual method of accounting for earnings is used. The earnings are then set aside in an accrued earnings account for monthly credit to the local governments' principal accounts. At the same time, the pool deducts up to 1% of the earnings as a fee to recover expenses. If expenses are less than 1% of the earnings, a correspondingly less amount is deducted.

Each month, local governments receive a statement that specifies deposits, withdrawals, and earnings distributed to each individual account. If distributed earnings are not withdrawn from the principal account, then a compounding of interest and other income on a monthly basis results.

Portfolio gains and losses are distributed

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over the life of the investment within the accounting period. Since each month is a new accounting period, the ability to spread gains and losses is quite limited. Accordingly, the pool takes very little interest rate risk and maintains a high degree of liquidity.

Investments

In order that a high degree of liquidity and proper diversification can be maintained, certain guidelines are observed. The pool cannot invest in common stocks but does invest in a variety of instruments which offer a high return with the lowest risk factors, in keeping with prudent judgment. It is this "Prudent Man Rule" that gives the pool a 15-25% higher return than local governments can earn investing their own funds. Local governments in Oregon may only invest in U.S. government and U.S. government agency issues and collateralized certificates of deposit in Oregon banks. The pool purchases commercial paper, negotiable CDs, bankers' acceptances, corporate bonds with near maturities, U.S. government and U.S. government agency debt, and some longer term investments.

The Oregon Local Government Investment Board and the Oregon Investment Council set the guidelines as to which of these items, and how much of them, is prudent. Presently, the pool may not invest more than 10% of the assets in any given A-1 rated commercial paper name; no more than 5% of the assets in any given A-2 rated commercial paper name; and no more than 20% of the pool assets may be invested in A-2 commercial paper collec-

tively. The Oregon Investment Council is considering a proposal which would create an even more diversified portfolio.

The performance of the pool (daily average for each month) has been:

Average Daily Earnings

December	1974	9.5846%
January	1975	9.0014
February	1310	7.9120
March		7.8834
April		7.1744
May		6.5976
June		7.0204
July		6.9979
August		6.7565
September		6.9070
October		7.8655
November		6.5187
December		6.6672
January	1976	6.7121
February		6.1944
March		5.9271
April		6.4502
May		5.8544

Long-Term Investments

In addition to the above investments within the pool, the enabling legislation made provision for accounts separate from the pool for local governments that have long-term funds to invest. This effectively allows local governments to work with the treasurer's office in planning suitable long-term investments in such instruments as corporate bonds.

SELECTED ACIR PUBLIC FINANCE REPORTS

- Financing Schools and Property Tax Relief—A State Responsibility, A Commission Report A-40, Washington, D.C.: U.S. Government Printing Office, January 1973, 261 pp.
- City Financial Emergencies: The Intergovernmental Dimension, A Commission Report A-42, Washington, D.C.: U.S. Government Printing Office, July 1973, 186 pp.
- The Value-Added Tax and Alternative Sources of Federal Revenue, An Information Report M-78, Washington, D.C.: U.S. Government Printing Office, August 1973, 86 pp.
- The Expenditure Tax: Concept, Administration and Possible Applications, An Information Report M-84, Washington, D.C.: U.S. Government Printing Office, March 1974, 56 pp.
- The Property Tax in a Changing Environment, An Information Report M-83, Washington, D.C.: U.S. Government Printing Office, March 1974, 297 pp.
- Local Revenue Diversification: Income, Sales Taxes & User Charges, A Commission Report A-47, Washington, D.C.: U.S. Government Printing Office, October 1974, 85 pp.
- General Revenue Sharing: An ACIR Re-evaluation, A Commission Report A-48, Washington, D.C.: U.S. Government Printing Office, October 1974, 65 pp.
- Property Tax Circuit-Breakers: Current Status and Policy Issues, An Information Report M-87, Washington, D.C.: U.S. Government Printing Office, February 1975, 40 pp.
- ACIR State Legislative Program. Part 3, State and Local Revenue (M-94) and Part 4, Fiscal and Personnel Management (M-95), Washington, D.C.: U.S. Government Printing Office, November 1975.
- The Role of the States in Strengthening the Property Tax, A Commission Report A-17, Washington, D.C.: U.S. Government Printing Office, Revised 1976, Vol. I, 187 pp.
- Understanding the Market for State and Local Debt, An Information Report M-104, Washington, D.C.: U.S. Government Printing Office, May 1976, 56 pp.
- State Taxation of Military Income and Store Sales, A Commission Report A-50, Washington, D.C.: U.S. Government Printing Office, July 1976, 128 pp.
- Changing Public Attitudes on Governments and Taxes 1976 Edition, An ACIR Survey Report S-5, Washington, D.C.: U.S. Government Printing Office, July 1976, 26 pp.
- Inflation and Federal and State Income Taxes, A Commission Report A-63, Washington, D.C.: U.S. Government Printing Office, November 1976, 88 pp.
- Significant Features of Fiscal Federalism-1976 Edition-1. Trends, An Information Report M-106, Washington, D.C.: U.S. Government Printing Office, November 1976, 67 pp.
- Trends in Metropolitan America, An Information Report M-108, Washington, D.C.: U.S. Government Printing Office, February 1977, 79 pp.
- State Limitations on Local Taxes & Expenditures, A Commission Report A-64, Washington, D.C.: U.S. Government Printing Office, March 1977, 30 pp.
- Measuring the Fiscal "Blood Pressure" of the States, An Information Report M-111, Washington, D.C.: U.S. Government Printing Office, March 1977, 322 pp.
- Cigarette Bootlegging: A State AND Federal Responsibility, A Commission Report A-65, Washington, D.C.: U.S. Government Printing Office, May 1977, 128 pp.
- Understanding State and Local Cash Management, An Information Report M-112, Washington, D.C.: U.S. Government Printing Office, May 1977, 80 pp.

