The Effect of the Prudent Person Rule on State-Run Local Government Investment Pools

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(ABSTRACT)

The purpose of this dissertation is to be an introductory examination of whether the use of the Prudent Person Rule in place of legal list investment restrictions could have a significant difference upon the return on investment that a state or local government may receive through its cash management practices. The dissertation will examine this issue by studying the effect of the Prudent Person Rule and legal list limitations on state-run local government investment pools in the United States. The specific question to be asked in this study will be: “Is there a difference in the return on investment yield performance of state-run local government investment pools among those operating under the Prudent Person Rule fiduciary standard, those operating under a legal list fiduciary standard, and those operating under a combination legal list/Prudent Person Rule fiduciary standard, for the five-year period beginning with Fiscal Year 1992 and ending with Fiscal Year 1996?”

It appears from this brief examination that there may be a difference in return among state-run pools operating under different fiduciary standards. However, because of various factors that might affect the results, the author believes that this is just a preliminary study, and that further research must be done on this important topic in public cash management.
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Chapter I: Introduction

Introduction

Over the past twenty years, cash management in the public sector has increasingly become more important. Much of this importance is due to the success many governmental units have had in using sophisticated, shrewd, or aggressive cash management strategies in order to produce additional revenue for that unit. During this period, however, there have been a number of financial disasters attributed to these aggressive strategies, triggering a debate on how to meet a government’s fiduciary responsibility while at the same time making sufficient revenue from investments through the cash management process.

Part of this debate centers on the investment authority that state legislatures should give to state and local treasurers. One popular form of authority is the “legal list,” in which the legislature passes a list of investments that are either authorized or prohibited for use by all treasurers in that jurisdiction. Recently, however, there has been a movement in cash management circles to shift to a Prudent Person Rule-based authority, in which a treasurer is authorized to make any investment, provided that such investment is made in a manner in “which persons of prudence, discretion and intelligence exercise in the management of their own affairs” (Harrell, 1996, p. 66). Many believe this authority not only can result in more care being given to the investment strategies formed in treasuries, but also result in returns on investments exceeding those made under a legal list.

The express purpose of this dissertation is to study whether there is any significant difference in the returns on investments among government investment funds using a Prudent Person Rule fiduciary standard, a legal list fiduciary standard, and a combination legal list/Prudent Person Rule fiduciary standard. The dissertation will eventually focus upon the acceptance/rejection of the null and alternative hypotheses. The null hypothesis will be as follows:

Ho: There is no difference in the return on investment yield performance of local government investment pools among those operating under the Prudent Person Rule fiduciary standard, those operating under a legal list fiduciary standard, and those operating under a combination legal list/Prudent Person Rule fiduciary standard, for the five-year period beginning with Fiscal Year 1992 and ending with Fiscal Year 1996.

The alternative hypothesis for this study will be:

Ha: There is a difference in the return on investment yield performance of local government investment pools among those operating under the Prudent Person Rule fiduciary standard, those operating under a legal list fiduciary standard, and those operating under a combination legal list/Prudent Person Rule fiduciary standard, for the five-year period beginning with Fiscal Year 1992 and ending with Fiscal Year 1996.
Population to be studied

The population on which this dissertation will eventually focus is state-run local government investment pools. These pools have been selected by the author as the population based upon the size of the group, which numbers thirty. In comparison, the National Association of State Treasurers estimates that there are at least 35,316 local governmental entities eligible to participate in these thirty local government investment pools (NAST, 1995, 12). In Virginia, in fact, there are 430 entities eligible, with 155 actually participating in the state’s local government investment pool. Therefore, rather than attempt to select a sample that would be representative of a particular population group (state governments, municipalities, county governments, school districts), this dissertation will focus upon the one group in which the entire population can be approached for participation in this project: the thirty state-run local government investment pools.

Summary of the literature gap to be filled by dissertation

Three streams of literature are pertinent to this dissertation: (a) literature on cash management, and state treasurers’ offices; (b) literature on state-run local government investment funds; and (c) literature on the Prudent Person Rule. In many ways, the three streams may be seen as divergent, but eventually funneling into one stream which leads to a particular question at hand. Such a convergence could be seen to resemble the Mississippi River, in which several rivers, such as the Missouri, Illinois, and Ohio, eventually combine to form a massive body of water leading to a central point, the mouth of the river at the Gulf of Mexico. This dissertation will operate on the assumption that these three streams of literature eventually converge and lead to a central point, that point being whether there is a difference in performance between pools operating under Prudent Person Rule authority and legal list authority. It is this single point—the effect of the Prudent Person Rule fiduciary standard on state-run local government investment pools on public cash management—upon which the dissertation focuses.

While it may appear that these three streams converge and travel to a central point of academic interest, it appears that no literature exists regarding this particular point. In fact, when conversing with James Koval, director of legislative affairs for the Pennsylvania Treasury Department, during the summer of 1997, I indicated an inability to find any pertinent literature on yield returns for Prudent Person Rule and legal list funds. He mentioned the same problem, and stated that the Treasury Department staff had attempted such research, but eventually abandoned the effort as too complicated, especially based upon the reluctance of other state treasuries to cooperate with their effort. Therefore, I believe this dissertation will fill an important gap at the central point at which these three streams of literature converge, and will provide state treasuries with some knowledge of potential differences, or lack of differences, between funds operating under the Prudent Person Rule and those using legal lists.

Significance of the dissertation topic

The issue of whether there is a significant difference in the return on investment yields between government investment funds utilizing the Prudent Person Rule and those using a legal list has important financial and political ramifications. First, with $750 billion in cash assets (Doyne, 1996, p. 6) between state and local governments, a change in
investment authority from legal lists to the Prudent Person Rule could result in literally billions of dollars worth of additional revenue for states and localities, while at the same time possibly putting these dollars at greater risk of loss.

Second, before treasury officials use valuable time and resources trying to switch from legal list to Prudent Person Rule authority, based upon a belief that Prudent Person Rule authority will result in higher returns on investment, such a premise needs investigation. If a difference exists, then it might be worth using political capital in order to switch one’s investment authority. If, however, there is no real difference, then it would be useless to expend capital over an issue that will, eventually, have no bearing upon the yield performance of the fund (unless it can be shown that such a move would still produce positive political returns).

Third, as seen in the debate over House Bill 439 in Pennsylvania, some believe that Prudent Person Rule authority will always increase the return on investment gained over what could be earned by a fund under legal list authority. This not only can inflate performance expectations by officials, thereby forcing a treasury to take increasingly risky investment decisions, in trying to meet those expectations; it can also result in overly-optimistic estimates in future revenues. Such optimistic projections could lead a governmental entity to spend money based upon expectations of increased revenue that cannot be reasonably be achieved by the investment managers, leading to political and financial crises such as the investment catastrophe (and subsequent bankruptcy) of Orange County, California. Therefore, if there is no difference in the return on investment yield performance between funds operating under Prudent Person Rule and legal list authority, then the misplaced assumption of increased returns should be dismissed.

Methods

This dissertation will attempt to identify any possible difference in return on investment between local government investment pools operating under the Prudent Person Rule or under “legal list” authority. In addition, the dissertation will attempt to discover whether any potential difference conforms to, or challenges, the prevailing “conventional wisdom” regarding whether such a difference should exist, and the results of such a difference.

In order to determine any possible differences in return on investment, a survey instrument was used to collect data from all states operating local government investment pools. The collection and analysis of research in this dissertation is concerned with: (a) finding out whether current operating local government investment pools operate under the Prudent Person Rule (or a variation), or under a legal list; and (b) what the return on investment was for all local government investment pools for a five-year period, ranging from Fiscal Year 1992 to Fiscal Year 1996.

In the process of analysis, this dissertation uses two benchmarks. The benchmarks used are (a) the IBC/Donoghue First Tier Institutions-Only Rated Money Fund Report Index (“IBC Index”), and (b) Federal Reserve Three-Month T-Bills, the benchmarks used by the Treasurer’s Cash Management Division of the State of Connecticut’s Treasurer’s
All data collected is presented in table form for easy analysis and comparison. For example, the returns from all states are in a table that not only includes the performance measures of the benchmark to be utilized in the study, but also other states within its classification, and then graphs of the different classifications. In short, first the individual states within a specific classification (no PPR, combination PPR/legal list, only PPR) are compared, and then the classifications themselves are compared.

In addition, analysis of variance tests are conducted to determine if statistical significance exists regarding any differences between the classifications of state-run local government investment pools. An analysis of variance (or ANOVA) is a statistical bivariate technique “for analyzing differences among means” (Fox, 1995, p. 241), in order “to test the null hypothesis that several population means are equal” (Norusis, 1988, p. 263). This technique is utilized when studying “a categorized independent variable measured at any level and an uncategorized interval/ratio dependent variable” (Fox, 1995, p. 241).

Moreover, a case study of the West Virginia Consolidated Investment Fund is presented in Chapter Five. The purpose of this case study is to demonstrate (a) the dangers inherent in any investment program established by state or local governmental units, and (b) why it is important to examine and analyze the cash management statutes and practices of governmental units, in order to avoid past mistakes that led to fiscal crises. For the preparation of this case study, several figures of the incident were contacted by written correspondence, and were kind enough to supply written responses to the author’s inquiries. Besides examining the Consolidated Investment Fund scandal, the chapter briefly lookw at the statutes and investment practices of two states with state-run local government investment pools—West Virginia and New Jersey.

In addition, the dissertation examines differences within the Prudent Person Rule concept itself, especially the difference between the utilization of the Prudent Person Rule, and the Prudent Investor Rule. While there only appears to be a minor change of wording between the two rules, there is the potential for a vastly different view of the fiduciary responsibilities of an investment fund manager, and the dissertation will attempt to examine these differences.

In overview, it is clear that the cash management practices of state and local governments have become increasingly important both in terms of return on investment, and the safety of revenue invested through these practices. While it may not provide the perfect solution being sought by those debating the role of treasurers in the investment process, this dissertation will be able to shed a brief light upon the topic, and examine at least one component of the debate currently surrounding how treasurers should take care of the peoples’ money.

This dissertation undertakes, at its conclusion, to conduct a brief discussion

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1 A benchmark is “the performance of a predetermined set of securities, for comparison purposes” (Washington Post, 1998, online). The benchmark(s) “may be based on published indexes or may be customized to suit an investment strategy” (Ibid, online)
regarding the lessons and/or effects of the dissertation’s findings upon public administration and its practitioners. In this way, not only can this dissertation provide information on ways of investing the public’s money, but also discuss the ramifications of these differences upon those who must make fiduciary decisions every day while exercising investment power over local government investment pools.
The concept behind cash management, sometimes referred to as “the neglected profit” (Stout and Haase, 1994, p. 19), is rather simple. In both the private and public sectors, there may be a period of time between the collection of revenue, and the spending of that revenue. For example, while most state and local governmental units receive their yearly revenues during one or two relatively short periods of time, they tend to spend the funds more evenly throughout the fiscal year (Steinberg and Tashner, 1983, p. 151; Schwartz, 1997, p. 396). Cash management is concerned with how a governmental unit manages these funds between their receipt and expenditure, and “getting the most out of the time value of money the government collects, holds, and spends” (Cohen, 1979, p. 54).

Since the mid 1970s, cash management has become an important component of budgeting within state and local governments (Kiley, 1981, p. 3). This importance can be traced to two major pressures on governmental units. First, during the high inflationary years of the 1970s and early 1980s, inflation outpaced returns on safe investments such as Treasury bonds, meaning that governments would lose the value of their money through traditional cash management strategies (Steinberg and Tashner, 1983; Williams, 1992). Second, governments discovered cash management as a way to pay for increased spending demands during periods in which many entities found it impossible to raise taxes due to “taxpayer revolts” during the same period (Cohen, 1979, p. 54; Stolz, 1982, p. 45; Steinberg and Tashner, 1983; Williams, 1992).²

According to Cohen, the federal government, for example, was able to realize significant savings and revenue enhancements by improving cash management policies. After President Carter ordered all executive departments to review their cash management practices, improvements “have resulted in some $300 million per year interest savings since the initiation of efforts on November 14, 1977” (Cohen, 1979, p. 54).

There are three interrelated components of cash management: cash mobilization, bank relationships,³ and cash investment (Bland, 1986, p. 20; Forbes, 1980, p. 53).⁴

Cash mobilization. This component focuses on (a) determining cash needs for bill payment; (b) determining how much cash is left over after bill payment for investment; and (c) deciding how to maximize the amount of cash available for investment (Cohen, 1979; Kiley, 1981, pp. 3-4; Bland, 1986, pp. 20-21; Schwartz, 1997, pp. 396-97). Ways to maximize cash mobilization include the prompt deposit of revenues (Bland, 1986, p. 21);

² This will be more closely examined in another chapter, “The conflict between government’s fiduciary responsibility, and economy, efficiency, and effectiveness in public cash management.”
³ According to Bland, “Bank relationships are only indirectly associated with interest income from cash investment” (Bland, 1986, p. 20).
⁴ Kiley (1981) argues that there is a fourth component: cash forecasting (p. 3). However, in his analysis, Bland (1986) combines cash forecasting into what he terms as cash mobilization (pp. 20-21).
paying bills as close to the due date as possible, without accruing late fees (Cohen, 1979, p. 55); aggressive collection of delinquent tax and utility payments (Bland, 1986, p. 21); distribution of payroll checks on Friday, in order to make money on the over-the-weekend float (Cohen, 1979, p. 55); and implementation of a comprehensive, state-of-the-art cash budget for forecasting purposes, allowing the treasurer to accurately gauge the cash position of the governmental unit over the course of the fiscal year (Cohen, 1979, p. 55; Kiley, 1981, p. 3; Schwartz, 1997, pp. 396-97).

Bank relationships. Most banks provide services for local and state governments, “for which they expect compensation, either in the form of imputed return on the deposits held with them, or in the form of explicit fees” (Schwartz, 1997, p. 397). Often, surplus government revenue earned no interest while on deposit with the bank, in exchange for free banking services. At other times, services were contingent upon maintaining a certain balance, instead of paying a flat fee (Kiley, 1981, p. 6). Treasurers need to realize that “banks are simply vendors, providing services at competitive prices” (Kiley, 1981, p. 6), and “shop around for the best net return for a given level of activity” by the community (Schwartz, 1997, p. 397).

Cash investment. This component of cash management, the major focus of this dissertation, centers on the actual act of investing government revenues, once one has determined through cash mobilization how much one has to invest (Cohen, 1979, p. 56; Kiley, 1981, p. 6; Bland, 1986, pp. 21-25; Schwartz, 1997, pp. 403-410).

The portfolio objectives for most states in the Union appear to be “safety, liquidity, and yield,” in that order (NAST, 1997, pp. 45-46; Kiley, 1981, p. 6). Most financial experts believe that, in the area of cash management, “[s]afety is not only the first consideration, it’s also the second and third” (Harrell, 1996, p. 65).

There is, however, no investment instrument that is “risk free” (Harrell, 1996, p. 65). The key is to devise an investment strategy for one’s governmental unit which defines the level of risk that is acceptable in the pursuit of returns (Kiley, 1981, p. 6; Miller, 1991, p. 25; Harrell, 1996, p. 65; Doyne, 1996). In order to determine the overall acceptable level of risk, treasurers must examine the three types of cash management risk: credit risk, market risk, and liquidity risk (Harrell, 1996, p. 65).

Credit risk. Credit risk is concerned with the willingness and the ability of a security’s issuer to repay investors on time and in full (Miller, 1981, p. 25; Petersen, 1995a, p. 80; Harrell, 1996, p. 65). For example, with the “full faith and credit of the U.S. government behind them, Treasury bills, notes and bonds are a sure thing” as far as credit risk is concerned, while “securities that entail the most credit risk include bank certificates of deposit, commercial paper, bankers’ acceptances and corporate debt and equity securities” (Harrell, 1996, p. 65).

Market risk. Market risk deals with “potential adverse future market changes” (Miller, 1981, p. 25) that may happen between the time an investment is purchased and sold which “may adversely impact an investment if it’s sold prior to maturity” (Harrell, 1996, p. 66; Petersen, 1995a, p. 80; Schwartz, 1997, p. 406). In short, market risk deals with the uncertainty of whether an investment can be sold for at least what the state or local government treasurer paid for the security, or “the ease with which a security can be
converted to cash” (Schwartz, 1997, p. 406).

**Liquidity risk.** Liquidity risk centers upon the ability of a treasurer to sell an investment, if needed for the governmental unit’s liquidity requirements, at an acceptable price (Harrell, 1996, p. 66). If, at the time a treasurer needs to sell an investment for cash, the market “is too thin to allow for an immediate sale at an acceptable market price,” the treasurer may have to sell the security at a loss (Harrell, 1996, p. 66). In short, liquidity risk is concerned with whether there will be enough buyers in the market to actually pay an acceptable price for a security, at the time a treasurer finds it necessary to sell that security for the cash needs of the governmental unit.3

Historically, most treasurers have concentrated on credit risk, ignoring or minimizing the potential problems of market and liquidity risk (Miller, 1981, p. 25; Petersen, 1995a, p. 80; GFOA, 1997). “Risk, it seems, has meant only the possibility of default or the possibility of large losses in unbalanced, unauthorized speculative portfolios” (Miller, 1981, p. 25). It is important for treasurers to understand all three types of risk, and determine the overall acceptable level of risk a treasury is willing to tolerate.

In “Reckoning with Risk” (1996), Harrell, a certified public accountant and cash management consultant, categorized several investment instruments into three classifications of overall risk for public investment, based upon credit, market, and liquidity risks (Harrell, 1996, p. 66):

- **Low risk:** (a) Treasury bills; (b) Treasury notes (2-year maturity); (c) state investment pool; and (d) repurchase agreements (Harrell, 1996, p. 66).

- **Moderate risk:** (a) Treasury notes (maturity more than 2 years); (b) Government National Mortgage Association; (c) Federal Home Loan Bank; (d) Farm Credit Agency securities; (e) certificates of deposit; (f) commercial paper rated A-1, P-1, or F-1 (any two of the three); and (g) bankers’ acceptances (Harrell, 1996, p. 66).

- **High risk:** (a) Treasury bonds and other government securities, including all derivative products; (b) commercial paper--all other; and (c) corporate debt and equity securities (Harrell, 1996, p. 66).

One of the best ways to protect a governmental unit against risk is to diversify one’s investment portfolio (Miller, 1981, p. 25; Harrell, 1996, p. 66). By investing in different types of securities, or “diversifying,” a treasurer reduces the risk that the failure of one particular investment can jeopardize the entire investment portfolio. However, diversification can be difficult for “governments with liquid assets under $10 million,” since many instruments bear a minimum $100,000 denomination (Miller, 1981, p. 25).

In order to achieve diversification, and reduce portfolio risk, many local treasurers have begun pooling arrangements with others, in order to increase the amount of money

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3 Some could argue that liquidity risk is the same as market risk, since it concerns the ability of the treasurer to convert the security to cash if necessary.
available for diversification (Miller, 1981, p. 25). Many of these pooling arrangements center on state-run local government investment pools, which generally “do not have any credit risk and little market risk, but... may have a slight liquidity risk” (Harrell, 1996, p. 66). As previously mentioned by Harrell, these pools are considered to be low risk investment options for local governments (1996, p. 66).

During the past two decades, many local government officials have used these state-run local government investment pools for their cash management needs (Stolz, 1982, p. 43; NAST, 1997, p. 62). Under this cash management option, which is totally voluntary (NAST, 1995, p. 5), a local government deposits its surplus funds with the state; the state combines all such deposits into a single consolidated investment pool; and then manages the investment of the pool (Stolz, 1982; NAST, 1995). In short, these pools “operate on the same principle as money market mutual funds, and generally offer the same features— including check-writing privileges and floating rates” (Stolz, 1982, p. 43). Thirty states operate local government investment pools (NAST, 1995, p. 12), with at least 16,114 local governments participating in the pools (NAST, 1997, p. 62). Assets in these pools exceeded $70 billion (NAST, 1997, p. 62), or nearly one-tenth of the more than $750 billion in assets under state and local management in 1996 (Doyne, 1996, p. 6).

Specific characteristics of local government investment pools vary from state to state. Some pools are comprised of strictly local government money, while other pools combine state and local funds (NAST, 1997, p. 64; NAST, 1995, p. 12). Finally, while the state treasurer’s office operates twenty-three of the local government investment pools, other sources operate the pools in eight other states (NAST, 1995, p. 12; NAST, 1997, p. 64).

Proponents of local government investment pools support the use of these state-run funds based upon three primary objectives: safety, liquidity, and yield (NAST, 1995, p. 3).

Safety. Theoretically, a locality’s money should be safer in a local government investment pool, since the pool has a greater ability to diversify its investment portfolio than a locality may have with its own small individual accounts (NAST, 1995, p. 4; Maynard, 1989). Since a pool has more money to invest than a small individual account, it

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8 States in which pools are not operated by treasurers include Florida, Kansas, Louisiana, Montana, New Hampshire, North Carolina, South Dakota, and West Virginia (NAST, 1995, p. 12; NAST, 1997, p. 64).
has the ability to purchase a greater mix of investments in order to protect the principal deposited by the local governments. As stated by Stan Hughes, treasurer of Gallatin County, Montana, “[Montana’s pool] is safe in that it provides more diversity than we could obtain on our own and it is managed by professional portfolio managers” (Hughes, 1996, p. 1). At least twenty states have diversification requirements built into the operation of their local government investment pool (NAST, 1997, p. 71).

Another factor contributing to the safety of the pool is its management by professionals. According to Paulette DeHart, the treasurer of Lewis and Clark County in Montana, “Currently there are approximately fifteen investment professionals on staff at the [Montana] State Short Term Investment Pool. This expertise is not always available in local governments” (DeHart, 1996, p. 2). Often these professionals have direct access to financial information, economies of scale, and technological advances that localities might lack (Rehfuss, 1989). “The money for which I am responsible are invested in legal instruments by highly qualified employees of the Oregon Local Government Investment Pool,” states Trudi Sthen, treasurer of Curry County, Oregon. “They search for values daily and act accordingly” (Sthen, 1996).

Liquidity. Another benefit to localities is the ability to make an investment with the knowledge that the money is available when needed (Stolz, 1982, p. 43). If a locality invested its fund individually, it might be forced to make a choice between a lower-return investment instrument that provides necessary liquidity, or a higher-return instrument that restricts the liquidity of the governmental unit (Thompson, 1988, p. 353).

This choice, however, need not be confronted when dealing with a local government investment pool. Out of thirty states with pools, two have minimum investment periods of one day, while the other twenty-eight have no minimum investment periods at all (NAST, 1997, p. 66). Therefore, a locality could invest its money with a local government investment pool on a Monday, withdraw the money on Tuesday, and collect interest for the time the money was invested with the pool. This can be seen in Montana, where Gallatin County Treasurer Hughes states that the Montana pool “is liquid in that we can get any or all of our money out with a 24 hour notice” (Hughes, 1996, p. 1).

Yield. Conventional wisdom holds that, by pooling together investment funds, localities may realize greater yields through economies of scale, in which the “purchasing power needed to create a diverse portfolio that is usually not available to local governments as individual accounts” is obtained through the use of one, larger account (NAST, 1995, pp. 4-5). Others supporting this point of view include Maynard (1989), Stolz (1982), and Thompson (1988).

Some local treasurers, however, dispute this notion. DeHart of Lewis and Clark County, for example, argued that “interest earnings could not be as high as it would if you were doing the investing [yourself]” (DeHart, 1996, p. 2):

A few years back Lewis and Clark County did the majority of its own investing. The yields increased over the [local government investment pool] returns, however, instruments were purchased that had a longer maturity than that what was expected (DeHart, 1996, p. 2).

Therefore, while a locality might be able to achieve a higher rate of return if investing on its own, it would have to sacrifice liquidity to do so. This negative aspect is considered “relatively minor” (Hughes, 1996, p. 1):

“[The Montana pool’s] yield will lag behind the yields on other appropriate investment by up to 1 or 1-1/2 percent. In my experience, however, in order to get the same or higher yield as [the pool] provides, we would usually have to commit to one year or longer maturities. Again, safety and liquidity are higher priorities for us than yield” (Hughes, 1996, p. 1).

It is clear that advantages exist for communities that utilize state-run local government investment pools (even if these advantages may be overstated at times). However, what, if any, disadvantages are there to participation in a pool by a local governmental unit?

Any loss borne by all. Just as all gains are shared among pool participants, all losses are also shared (NAST, 1995, p. 5; Maynard, 1989). Therefore, if a state makes a mistake, the localities will suffer the financial consequences. In an article criticizing the aggressive use of equity investments for local government investment pools, Maynard pointed out the dangers had pools been heavily invested in equities during the October 1987 stock market crash. “It’s not clear whether it would have been worse to face one’s creditors or one’s citizens in the aftermath of Black Monday’s historic losses in equity values” (Maynard, 1989, p. 102).

“Run” on the pool. If too many localities suddenly withdraw funds from the pool, a “run” on the pool may occur, forcing pool managers to possibly sell securities at a loss in order to cover the liquidity needs of the localities (NAST, 1995, p. 5). To date, runs have occurred in pools operated by Kansas, Texas, and West Virginia (NAST, 1995, p. 38).

Removal of money from local economies. Perhaps the greatest criticism of local government investment pools comes from local banks, arguing that the placement of local funds into state pools removes money from the local economy needed for loans and economic growth (NAST, 1995, p. 5; Thompson, 1988, p. 355; Maynard, 1989, p. 101). If local governments invest their funds in state pools, instead of local banks, to some banks “it may mean the difference between making home loans and not making them” (“Local units lag on W.V. pool,” 1980). However, the National Association of State Treasurers argue that studies conducted on the problem have “shown the impact of removal of money from local economies to be minimal” (NAST, 1995, p. 5).

In order to make sure that local government investment pools are operated safely, and that all risks are made clear to participating governmental units, the National Association of State Treasurers has established Guidelines for Local Government Investment Pools (NAST, 1995, pp. 8-10). These guidelines are centered around two
major areas:

• **Statement of LGIP objectives and practices**: Each LGIP should prepare a statement for all prospective and active participants of pool objectives and practices. The statement “should contain, at a minimum,” (a) an introduction; (b) investment objectives; (c) yield calculations, earnings, and disclosure requirements; (d) advisory board composition and activities; (e) disclosure of custodian of securities; (f) the administration of the LGIP account; (g) LGIP expenses; (h) methods of communication with pool participants; (i) listing of any funds not guaranteed, and risks involved; (j) compliance regulations; (k) arbitrage disclosure; and (l) all other pertinent information (NAST, 1995, pp. 8-9).

• **Statement of investment policies**: A statement regarding the investment policies of the LGIP should be written for all prospective and active pool participants. This statement should include (a) investment objectives; (b) list of authorized investments; (c) investment parameters; (d) valuation methods; (e) standards of care utilized in managing the pool; and (f) any and all other information regarding the investment policies of the LGIP (NAST, 1995, pp. 9-10).

The objective of these recommendations is to make sure that local government officials, when determining whether to utilize a local government investment pool, have all necessary information to “make informed investment decisions on behalf of the local governments” (NAST, 1995, p. 8).

**Conclusion**

Cash management has become an important facet of government budgeting, especially in times of financial constraints and booming economic markets (Stolz, 1982; Thompson, 1988). It is, in addition, clear that local government investment pools are an important tool for local treasurers in need of cash management options “at minimal risk and utmost efficiency” (NAST, 1995, p. 5). It must also be remembered that, despite their generally good record over the past three decades, there still are risks to investing in such pools (Maynard, 1989; NAST, 1995). The key to avoiding investment pool disaster is to make sure that responsible and professional individuals operate the pool (“Avoiding investment pool disaster,” 1995, p. 10); conservative management practices are adopted (Maynard, 1989, 103); and the pool is designed “with articulated objectives and policies [that] will consistently maintain the integrity of local funds within a diversified and safe portfolio” (NAST, 1995, p. 5).

Public officials charged with investments, moreover, must remember that there is more to cash management programs in the public sector than just finding the best rate of return on investment. At times, politics plays a role in investment functions, such as (a) the transfer of funds from local banks to state-run local government investment pools, and (b) the possible link between the deposit of funds for investment, and political connections between government officers and banking officials (including campaign contributions). In addition, the concepts of safety and liquidity must always be factored in, lest the governmental unit be placed in a position of potentially losing its money, or being unable to
obtain that money when needed.

Towards these goals, the Government Finance Officers Association (GFOA) has issued “recommended practices” for state and local treasurers to follow. Cash management recommendations from the organization include the following:

- Qualified securities dealers should be selected through competitive procedures, including banking services (GFOA, 1997, “Governmental Relationships with Securities Dealers”).

- Public officials “should not engage in investment practices” such as purchasing securities on margin, selling securities short, purchasing long-term bonds with short-term fund, and trading futures contracts “without an exact offsetting cash market position” (GFOA, 1997, “Repurchase Agreements, Reverse Repurchase Agreements, Leveraging, and Prudent Investment Practices for Cash Management”).

- Derivatives should only be used with “extreme caution” and only when fully understood by public officials (GFOA, 1997, “Use of Derivatives by State and Local Governments”).

- State and local governments, while previously focusing on credit risk, should carefully examine “market, interest rate, and liquidity risks,” and factor in these risks when determining which investments instruments to purchase (GFOA, 1997, “Market Risk [Volatility] Ratings”).


It is also necessary, however, for both state and local treasurers to recognize the conflicts that are posed between one’s fiduciary responsibility to protect the public’s money, while attempting to subscribe to public administration’s reliance on the “orthodox dogma” of economy, efficiency, and effectiveness (Seidman and Gilmour, 1986, p. 3-15). In the next chapter, this dissertation will examine the history of this conflict within public cash management, and its impact upon how state and local treasurers view the duties and responsibilities of their jobs.
Chapter III: The Conflict Between Government’s Fiduciary Responsibility, and Economy, Efficiency, and Effectiveness in Public Cash Management

Introduction

During much of the twentieth century, public administration embraced two recurring themes in public financial management: (a) a commitment to economy, efficiency and effectiveness, and (b) government's fiduciary responsibility. The emphasis on "the three E's" of economy, efficiency, and effectiveness can be traced back to the first fifty years of public administration, when the concepts, born out of economic rationality, became the "orthodox dogma" of public administration (Seidman and Gilmour, 1986, p. 3-15). Concern with fiduciary responsibility dates back to the painful experiences of the early 1930s when bank failures deprived many local governments of their capacity to provide basic services, and financial scandals jeopardized what little public trust remained in government.

Most jurisdictions rely on four basic tools for ensuring government's fiduciary responsibilities. Some hold treasurers directly accountable through elections; others rely upon administrative reporting relationships to the unit's chief executive; and all depend at some point upon the traditional checks and balances between the legislative and executive branches. In addition, most restrict the investment discretion of treasury officials through legislation, establishing "legal lists" of permissible investments (Kiley, 1981, p. 6; Miller, 1981, p. 22). For example, some states like Texas restrict investments to a certain type of security (Texas, 1995), while others impose restrictions on the percentage of an investment fund that could be put into one particular form of security, or institute investment maturity limitations. The primary objective of this legislation is the safety and protection of the taxpayers' money (Kiley, 1981, p. 6), because when put to the test, fiduciary responsibilities should override economy, efficiency, and effectiveness.

Until the 1970s, cash management was a minor component of public budgeting (Kiley, 1981, p. 3). Basically, it entailed cash mobilization, or the scheduling and prompt receipt of revenues, and the timely payment of bills (Cohen, 1979; Kiley, 1981, pp. 3-4; Bland, 1986, pp. 20-21; Schwartz, 1997, pp. 396-97); and bank relationships, or the selection of efficient banking services (Kiley, 1981, p. 6; Schwartz, 1997, p. 397). In other words, efforts were made to calendarize the collection of taxes, and collect them...
when due to keep short-term borrowing and outstanding revenues to a minimum; to pay bills on time and avoid late payment fees, but not so promptly that agencies would be prevented from reaping interest income from bank deposits; and to deposit funds in financially sound banks whose services were affordable. The basic concern was that taxpayer money should hold its value through responsible financial management.

Most cash available to state and local governments for investment was deposited in local banks, which often urged governments to keep their money in the area for local economic development (NAST, 1995, p. 5; Thompson, 1988, p. 355; Maynard, 1989, p. 101). In this way, government itself was a source of liquidity and economic growth. In addition, most funds were deposited in demand accounts, which under federal law paid no interest; instead, deposits were made in exchange for banking services (Kiley, 1981, p. 6). Public funds, moreover, were separated by account, so that each fund had only the revenues legally associated with it—usually a limited amount. The bills associated with each account were then paid from those funds. While this made tabulation easy, it also meant that economies of scale could not be realized. While violating the long-held principles of economy, efficiency, and effectiveness, neither the governments themselves nor the localities which they served had any strong incentive to change these investment strategies, since the main goal of a treasurer was to be a "stalwart steward" of the public purse (Harrell, 1996, p. 65).

Change in the financial environment: Inflation

Economic upheaval during the Nixon, Ford, and Carter administrations, however, finally provided the incentive necessary for change. During the 1970s, inflation became the greatest single problem facing the American economy. Originally fueled during the 1960s by increased military spending on the Vietnam conflict (BOG, 1974, p. 3), inflation exploded in 1973. Several factors were primarily responsible for the increase (BOG, 1973): (a) poor agricultural production in 1972, in areas such as grain and livestock, created worldwide food shortages throughout 1973, leading to higher food prices (p. 29); (b) cutbacks in Middle East oil production led to a severe deficiency in energy supplies which, in turn, drove up worldwide energy prices (p. 3); (c) unit labor costs increased significantly, while labor productivity only slightly increased above 1972 levels (pp. 29-30); and (d) the value of the dollar declined relative to other developed nations' currencies (p. 29).

Inflation continued to rise in 1974, although it declined during the next three years

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14 This view is still commonly held by local banks. According to Christopher Walkup, president of the West Virginia Bankers Association, "If the local bank doesn't get the local investments, it may be the difference between making home loans and not making them" ("Local Units Lag," 1980). However, some independent studies indicate that "the impact of removal of money from local economies to be minimal." (NAST, 1995, p. 5.)

15 Previously, the value of the dollar was grounded upon an international exchange system, based partly upon a gold standard, created under the 1944 Bretton Woods agreement. In 1971, however, President Richard Nixon was forced to abandon the agreement when an international run on American gold reserves threatened the solvency of the United States Treasury. Thereafter, the value of the dollar was determined in international monetary exchanges. (White, The Making of the President 1972, 1973.)
(BOG, 1977, p. 29). In 1978, however, it again rose sharply over previous levels in response to the same forces that had precipitated inflation in 1973 (BOG, 1978, p. 7). By 1980, it was out of control, reaching a post-World War II high of over 12 percent per annum (BOG, 1980, p. 11).

Besides brutalizing the national economy, inflation wreaked havoc with state and local finances. Throughout the 1960s, interest on 20-year Treasury bonds had outpaced inflation by approximately 2 percent per year. This meant that state and local treasurers could expect that the value of their principal would not decline as long as inflation remained constant, and tax revenues were invested in Treasury bonds. These bonds are attractive because they represent the most secure investment possible, and frequently set the standard against which other investment securities are measured. While their yield is not as high as that of other financial instruments, this was not a serious consideration for most treasurers during the 1960s and early 1970s.

During the next seven years, however, inflation outpaced Treasury bonds by approximately 1.25 percent per year. Suddenly, treasurers were faced with the prospect of actually losing the value of their communities’ tax money should they choose to invest in secure Treasury instruments (Steinberg and Tashner, 1983; Williams, 1992). This was particularly problematic with the anti-tax movement gaining ground throughout the nation and threatening the ability of governments to raise additional tax revenues (BOG, 1978, p. 11; Cohen, 1989, p. 54; Stolz, 1982, p. 45; Steinberg and Tashner, 1983; Williams, 1992). 16

State and local treasuries responded in several ways. First, they embraced the previously mentioned USACIR recommendations, calculating cash flow patterns more carefully, pooling their accounts, and investing idle funds more judiciously. Since double digit inflation meant that money deposited in a bank lost value over time and undermined public treasurers' fiduciary commitments, strong motivation was provided to invest idle funds where they would earn the greatest return. Inflation thus became a factor that compelled state and local finance officers to place much greater weight on economy, efficiency, and effectiveness, in order to preserve the value of their limited financial resources.

Treasurers also sought alternative investment instruments. Unfortunately, many were locked into United States government issues by fiduciary laws, mentioned earlier, designed to protect governments against investment losses. Some state and local governments, therefore, turned to borrowing to meet their needs, as inflation had the reverse effect on debt. A $100,000 bond issue, for example, could be worth ten percent less the following year with double digit inflation, so borrowing made economic sense. The net effect was to cause many state and local governments to end 1979 with operational deficits for the first time in four years (BOG, 1979, p. 10). Still, the historic pattern of public investment in local banks had been broken; treasurers realized they had to become more efficient and attentive to market forces if they were to preserve the value of taxpayer

16 The anti-tax effort began in mid-1978 with the approval by California voters of Proposition 13, which sharply reduced the property tax rates. By November, similar measures were put before the voters in nineteen other states.

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An era of low inflation and high rates of return (1981-86)

By the first quarter of 1980, it was evident that inflation had to be curtailed. President Carter turned to the Credit Control Act of 1969 (BOG, 1979, p. 4) which had included special provisions for managing the economy. By activating these provisions, the Federal Reserve was allowed to exercise special powers and restrict credit through an extremely tight monetary policy. This eventually brought inflation under control, with prices rising only 3.24 percent in 1983. The country, however, paid for the policy shift through a recession, often attributed to "the difficult transition from inflation to price stability" (BOG, 1982, p. 3). As credit tightened, interest rates rose and returns on Treasury bonds increased. Between 1981 and 1988, 30-year Treasury bond rates again outpaced inflation, this time by as much as 6.23 percent per year. State and local treasurers found themselves earning more money on investments than they had ever before imagined.

This increase in investment revenue could not have come at a more propitious time. After decades of increasing both expenditures and debt (BOG, 1982, p. 10), state and local governments had been forced to cut back in the 1970s as growth in revenues slowed or even decreased.\(^\text{17}\) By the early 1980s, increased state and local spending on social programs (to compensate for declining federal expenditures in this area), coupled with other deferred spending from the 1970s (such as investments in infrastructure), put spending pressure upon state and local units.

In order to meet these multiple demands, many governmental units increased tax rates and cut costs during the early 1980s (BOG, 1983, p. 9). Just as these strategies were beginning to take effect, treasurers found that they were reaping the unanticipated benefit of unforeseen tax revenues as a result of the sudden, rapid expansion of the American economy by 1983 (BOG, 1983, p. 9). When added to the increased revenue from investments, it was natural for state and local governments to meet increased public demands with additional spending.\(^\text{18}\) Their spending increased dramatically in the mid-1980s until the growth in both expenditures and accumulation of public debt again slowed in 1987.

Much of this increase was predicated upon an assumption by treasurers, legislators, and executives that the extensive spread between Treasury bond yields and inflation would continue indefinitely. Previously, investment income had simply been seen as an unexpected benefit from wise cash management practices, and rarely did government

\(^{17}\) This reduction in growth of public debt was ironic considering the conventional wisdom of economics. In most cases, accumulating debt during high inflationary periods makes sense, as the cost of borrowing money is offset by the loss of value in money itself. However, because of the anti-tax and anti-spending moods of the public, and the need for many governmental units to obtain voter approval for debt instruments, state and local governments found it impossible to borrow money when, economically, it made the most sense.

\(^{18}\) This was evident with the increase in state and local government public debt, which increased more than 46 percent per capita between 1981 and 1986.
budgeters consider these returns when making future expenditure plans. At this point, however, financial planners began to regard investment income as a reliable source of revenue and develop budgets based upon this income. This strategy was successful as long as treasurers were able to continue to receive the level of investment income recorded in the early 1980s. In short, because of their successes, treasurers faced increasing pressure from governments to "bring home the bacon--go for higher returns, increase yield, make up for the political inability of governments to increase revenue through tax hikes" (Harrell, 1996, p. 65).

Continued success, however, was not to be. During the 1980s, other forces were at work which would affect state and local investments. First, the Reagan administration pursued its commitment to deregulation in banking as in other areas of the economy. This meant that financial services were no longer restricted to specific institutions and that banks, savings and loans, and security brokerage houses could offer similar investment services. It also meant that financial institutions could provide advice that might be beneficial to the interests of the firm, raising the possibility of conflict of interest. Working against this, however, was the market. Yet to avoid this potential pathology of financial firms, state and local governments needed to guard against and understand this potential for conflict of interest, and act accordingly--even by threatening to take their business elsewhere.

Deregulation also made it possible for American companies and financial institutions to compete more openly in the world economy. Global markets opened avenues for profit, but they also increased risk. To hedge against this risk, new financial instruments were created called derivatives. As previously discussed, a derivative is a financial instrument whose returns are derived from some underlying stock, bond, commodity or other asset. Derivatives may be linked to stock or commodity prices, the value of a country's foreign exchange, or a formula based, for example, on the difference between short and long-term interest rates. This is appealing to investors who want to hedge against a downward change in the exchange rate or an institution that wants to avoid high interest rates.

Interest in derivative investments grew significantly during the 1980s. While it is impossible to get a precise sense of the size of the derivatives market because not all transactions are recorded, the Bank for International Settlements (BIS) reported the notional value (or amount of principal in underlying assets) at a little over $1 trillion in 1986, and at almost $8 trillion in 1991. In 1994, this notional value was estimated at $12 trillion, although all of these figures exclude exotic mortgage and other debt issues that are either too complex to categorize, or outside the reporting requirements of a market or exchange. (In comparison, the total value of the New York Stock Exchange in 1997 was a little over $10 trillion.)

Deregulation and these new financial instruments combined to make the market a far

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19 A derivative is "a financial security, such as an option, or future, whose value is derived in part from the value and characteristics of another security, the underlying security" (Washington Post, 1998, online). For example, "futures contracts are derivatives of physical commodities, options on futures are derivatives of futures contracts" (New York Mercantile Exchange, 1998, at www.nymex.com/new/glossary.html).
more complex and risky enterprise for investors. By deregulating financial investments, the federal government not only abandoned its role as protector against extremes in market forces, but it made it possible for more institutions to participate in the game. With less regulation, these institutions assumed new roles and, in effect, changed the rules by which the financial investment games were played.

Deregulation of the banking industry in the early 1980s also accelerated the search for alternate sources of profit. As mentioned, deregulation made it possible for different kinds of financial institutions to offer traditional banking services and for banks to offer investment services. Deregulation also expanded the range of financial instruments generally available. Greater flexibility, coupled with an increasingly global economy and a growing acceptance of both public and private debt, hastened the already-growing move towards alternate financing. The net result for state and local government finance officers was at once greater flexibility and increased risk.

As noted, the tracking of receipts and expenditures comprises only a minor component of cash management in the public sector. More important are the investments that state and local finance officers make with the cash at hand. Clearly, the two are related. Careful tracking can release more funds for investment. And, if these funds are invested wisely, it may even make sense occasionally for government entities to borrow money in the short term so that their cash can continue to produce interest income.

The financial environment changes once more (1987-present)

The first narrowing of the spread between Treasury bond rates and inflation was in 1987, when it shrunk from the 1986 level of 5.98 percent to 4.47 percent. While the spread increased in 1988, by the following year it had declined to 3.39 percent, and then dwindled to 2.52 percent in 1990. To appreciate the magnitude of this decrease, it is helpful to calculate lost revenues for all state and local governments. Based on over $954 billion revenues in 1989 (Commerce, 1992), the difference in the spread between 1986 and 1990 levels is approximately $16.5 billion.

There were two effects of this sudden decrease in investment income from Treasury bonds. First, state and local governments began to curb spending increases, realizing that they might not be able to cover additional expenditures from investment income. Second, treasurers began looking for other forms of investment that would still offer security on the principal, while providing the larger returns that governmental units had become accustomed to in the early part of the decade.

The ability of state and local governments to pursue other investment strategies differed throughout the nation. Some state and local governmental units had no minimum federal securities requirements, while other officials were forced to place most, if not all, of their funds into these investment instruments, based upon "legal list" requirements of the

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20 The growth rate of state and local government expenditures decreased from 6.49 percent in 1986 to 2.24 percent in 1990, while the growth rate in public debt plunged from 12.48 percent in 1986 to 0.70 percent in 1990.
legislature. Therefore, the ability of treasurers to find other, high-return investments was often limited by state law.\textsuperscript{21}

Faced with these restrictions, treasurers began to turn toward other federal securities: United States government agency bonds and government-sponsored corporation or enterprise bonds, otherwise called instrumentalities. These securities are generally believed to be backed by the "full faith and credit" of the United States government, although their actual risk varies. Federal agency bonds are issued by government departments specifically authorized by Congress to prepare debt instruments. These bonds are backed by the full faith and credit of the government, although perhaps not by the Treasury Department.\textsuperscript{22}

Government-sponsored corporations or instrumentalities are authorized by Congress to issue debt but the corporate advisory board takes responsibility for guaranteeing the debt, not the federal government. Further, these corporations lie outside the purview of the Securities and Exchange Commission for regulatory purposes. While these bonds do not have the same level of security as those issued by the United States Treasury, there is an implied guarantee associated with them and most are included among the securities authorized by many states.\textsuperscript{23} Their bonds are tied to lending programs sponsored by the U.S. government, often involving home mortgages and student loans. Their increased investment risk means that these bonds pay moderately higher interest rates and have therefore been more attractive to state and local governments. Their creditworthiness has begun to be questioned in recent months, however, and the reasons for this deserve some attention.

First, these instrumentalities operate under the same market conditions as other debt issuers and have the same range of financial instruments available to them. As new financial instruments became available in the 1980s, government-sponsored corporations also took advantage of them. In the first instance, they are competing with other governments for bond investments. They have been able to offer decent rates of return and still make a profit by issuing derivatives whose payments were tied to spreads other than interest rates. They have also offered structured notes. These are another form of derivative created by splitting the interest bearing portion of a bond from the principal. The two segments are then sold separately with the returns for each based on independent calculations.

By 1989 the Federal Home Loan Bank System had amassed capital reserves of $2.8 billion, but Congress soon depleted them in order to help remedy the savings and loan

\begin{itemize}
  \item \textsuperscript{21} States and municipalities may also issue tax exempt bonds which other governments may purchase, but these bonds carry lower interest rates than their federal counterparts, and since governments pay no tax anyway, these securities offer no countervailing incentive.
  \item \textsuperscript{22} These agencies include the Government National Mortgage Association (GNMA), Export-Import Bank (EXIMBANK), Small Business Administration (SBA), Tennessee Valley Authority (TVA), Farmers Home Administration (FmHA), General Services Administration (GSA), and the Maritime Administration.
  \item \textsuperscript{23} Examples of government-sponsored corporations include the Federal National Mortgage Association (FNMA or Fannie Mae), Federal Home Loan Bank (FHLB), Federal Home Loan Mortgage Association (FHLMA or Freddie Mac), and the Student Loan Marketing Association (SLMA or Sallie Mae).
\end{itemize}
disaster. At that time, Congress also informed the system it would be expected to continue paying $300 million each year for the next 40 years to the Resolution Trust Corporation to support S&Ls. When interest rates declined in 1993, the system's profitability was threatened, as was the profitability of other bond issuers whose debt was tied to formula spreads other than interest rates. While Congress is now reexamining its entire mortgage system, proposals appear heading toward greater privatization, with the accompanying increased risk, rather than less.

Until 1987, most state and local government investment strategies had relied more upon Treasury bonds than government agency or corporate bonds. In 1987, however, there was a dramatic shift in sales, with agency or corporate bond sales increasing, and Treasury bonds sales actually declining. In 1988, overall sales of both instruments were nearly equal, but by 1990, holdings of government agency or corporate vehicles exceeded holdings of Treasury notes by over $125 billion.\(^\text{24}\) By 1993, Treasury securities only accounted for 24.89 percent of all money invested by state treasurers (NAST, 1994, pp. 68-69).\(^\text{25}\)

When interest rates declined in 1993, derivative holders who had anticipated steady or rising interest rates lost money. Orange County, California was one victim. It had purchased several million dollars worth of the interest bearing portion of these mortgage bonds where the returns were calculated on the spread between short and long term interest rates. They were unable to sustain the losses, and were forced into bankruptcy.\(^\text{26}\) This is only one example, albeit a powerful one, of the fact that the technical financial instruments now available are more sophisticated than most finance officers have appreciated, most legislators have understood, or most of the public has realized.

What do these changes mean to public cash management?

With the publicity surrounding the cash management practices surrounding the bankruptcy of Orange County, California, and the publicized losses of Gallia County, Ohio, and the West Virginia Consolidated Investment Fund, some are beginning to examine the changes affecting cash management practices of state and local governments. Petersen (1995), for example, has written about the different concepts of risk in Governing. There, he distinguished between credit risk and market risk: "Many investors were misled into thinking that investments in high-rated government bond funds or in securities backed by insured mortgages were inherently safe. They were in terms of credit risk, but offered no assurances on market risk." (Petersen, 1995, p. 80) Credit risk has to do with the willingness and ability of a security issuing entity to pay what it owes investors on time and in full; market risk, on the other hand, deals with how a particular security's price will be affected by changes in market conditions, such as interest rate movements.

\(^\text{24}\) An example of this trend is the State of Texas. In 1993, $2.28 billion was invested in United States Treasury securities, while $3.04 billion was invested in government agency obligations (NAST, 1994, pp. 68-69).

\(^\text{25}\) Investment figures for California, Kentucky, New Mexico, Rhode Island, and West Virginia were unavailable for computation of this figure.

\(^\text{26}\) The Federal Home Loan Bank System eventually made these investments whole by transferring to them the principal portion of the bond. But this was not required by law.
The conventional wisdom still holds that the longer the maturity, the greater the risk because the less certainty there will be that the interest rate offered will be a good value throughout the payment period. Yet state laws don’t protect treasurers from this form of risk. Paradoxically, short term cash funds that require liquidity can be the most exposed if market conditions (i.e. interest rates) change because they afford less time for adjustment.

At the same time, the changing role of the federal government is also being examined. Heretofore, it has been assumed that the federal government shared the fiduciary interests of state and local governments. However, that appears to be true only so long as the principles of economy, efficiency and effectiveness reinforced fiduciary responsibilities. As the financial market was deregulated and the three E’s became more reflective of private norms, in which stewardship shifted to entrepreneurship, these principles could be found in greater tension. Congress recognized this possibility in oversight hearings on the derivatives market, but concluded that its primary responsibility lay in ensuring the safety of the banking system. Investors who "gambled" with the banks in the derivatives market were urged to secure support for these risks from their boards of directors. By implication, state and local governments that purchase derivatives from government-sponsored corporations should take these decisions to the public equivalent of a board of directors.

Public perceptions and the financial realities of cash management will remain--at least in many instances--at odds for the foreseeable future. Thus we see that:

• The public wants more (or at least the same) from government, but for less tax money.

• Tax cuts are not met with a commensurate decrease in services; rather, pressures to economize persist but often produce false economies.

• There is only limited dialogue about the public sector’s capacity and ability to meet existing needs.

Because of these conflicting notions, there is increasing pressure on financial managers to bridge the gap between public expectations (and representatives’ promises) and the ability of government to deliver on these promises. In order to realize higher returns on their investments, financial officers may contract out some investment activity, implicitly accepting private sector principles while simultaneously accepting more risk. Yet, some critics are beginning to point out that as financial services are deregulated, the brokers' roles in general become increasingly subject to challenge due to conflict of interest. The Government Finance Officers Association states that "[The] GFOA believes brokers and dealers should have an affirmative duty to know their customers' policies, to know their customer's constraints and affinity for risk, and to determine the suitability of a particular instrument for their customer" (GFOA, 1995, p. 37). Similarly, Girard Miller notes:

27 In 1993, twenty-one states utilized outside managers in the investment of public funds (NAST, 1994, p. 34).
Unfortunately, the limited expertise of pubic administrators operating in a deregulated world of increasing sophistication has made it possible for some individuals and firms to 'cash in' on unknowledgeable public officials. Particularly at the local government level, institutional constraints on individual portfolio managers are considered necessary in order to assure the integrity of the investment process. Likewise, political intervention by elected officials has been seen as an area of inefficiency. Shrewd marketers have sometimes convinced pubic decision makers to purchase investment products and services that were unnecessary or inappropriate. Many local government financial managers believe that continuous education will be the only way to control such abuses in the future (Miller, 1987, p. 52).

In this environment, then, public administrators must determine how best to bring economy, efficiency, and effectiveness to public cash management practices, in order to make more money for governmental units, while maintaining government's fiduciary responsibility to protect invested revenues. Some manage to balance these concepts, while others have failed miserably at the task. Who are these people, however, that must attempt to balance these conflicting values? Are they the best individuals available for the job, or are they simply the victors of a political horserace? In the next chapter, this dissertation will briefly examine those in charge of state treasuries, and their qualifications to make investment decisions regarding surplus funds under the conditions described in this chapter.
Chapter IV: State Officials Practicing Cash Management

Introduction

In 1993, at least $159 billion in surplus revenue was invested by state treasuries through cash management policies (NAST, 1997, pp. 56-57). In the fifty states, the function of investing these revenues rests with one of two possible authorities: Investment boards established by statute, or treasurers in charge of financial departments within their state governments. In some cases, both are jointly responsible for determining investment policy. Considering the amount of public money invested, and the always-present risk inherent in investing, the qualifications of investment officials, and the composition of investment boards, can determine the quality of investments and the risks taken with public revenues. This chapter will examine these various boards or treasurers’ offices; determine common traits; and find those characteristics that make the various investment practices unique.

States with policies determined by investment boards

Thirty-one states have established a state investment board, committee, or council, out of which twenty-five\(^{28}\) directly participate in the determination of policy regarding the investment of state funds (NAST, 1997, p. 32).\(^{29}\) Out of these twenty-five states, ten\(^{30}\) share the responsibility of determining investment policy with the state treasurer, while the responsibility is solely vested in fifteen boards\(^{31}\).

From the setting of portfolio objectives to the restrictions placed on certain investment practices, the main objective of the investment board is to use the most efficient methods available to earn the highest possible return, and to prevent financial disasters, such as those which occurred in West Virginia during the 1980s.\(^{32}\)

When examining the composition of investment boards, it is useful to examine three

\(^{28}\) The twenty-five states are Alaska, Arkansas, California, Delaware, Georgia, Illinois, Kansas, Kentucky, Massachusetts, Minnesota, Montana, Nebraska, Nevada, New Jersey, New Mexico, North Dakota, Oregon, Rhode Island, South Dakota, Tennessee, Utah, Virginia, West Virginia, Wisconsin, and Wyoming (NAST, 1997, p. 33).

\(^{29}\) According to NAST, the six states with investment boards (NAST, 1997, p. 33) which do not directly determine investment policy are Arizona, Colorado, Connecticut, Iowa, Maine, and Michigan (NAST, 1997, p. 32).

\(^{30}\) The ten states that share investment policy determination with the state treasurer are Alaska, Arkansas, California, Georgia, Massachusetts, Nevada, New Mexico, Rhode Island, Utah, and Wyoming (NAST, 1997, p. 32).

\(^{31}\) The fifteen states in which the determination of investment policy is solely vested with the investment board are Delaware, Illinois, Kansas, Kentucky, Minnesota, Montana, Nebraska, New Jersey, North Dakota, Oregon, South Dakota, Tennessee, Virginia, West Virginia, and Wisconsin (NAST, 1997, p. 32).

\(^{32}\) This particular financial crisis will be discussed in Chapter V, entitled “A brief examination of the investment practices of two American states.”
different types: Investment boards without Public Administration members; investment boards with Public Administration members; and investment boards which utilize outside professional managers.\(^{33}\)

**Boards without Public Administration members.**

The composition of some investment boards illustrates the often partisan nature of these financial decisions. In at least eight states,\(^ {34}\) no public administrators are investment board members, and in Minnesota and Wyoming, all investment board members are elected officials (NAST, 1997, p. 33).\(^ {35}\)

In some cases, the lack of public administrators on a board is offset by other non-political members involved in the process. For example, in Colorado, “local investment experts” are part of the state’s Investment Advisory Committee (IAC),\(^ {36}\) while pension boards have the prerogative to select their own representatives to decision-making bodies in Oregon (NAST, 1994, p. 33).

The membership of the remaining six states, however, can be considered nothing more than purely political in nature. All members are elected public officials, direct gubernatorial or treasurer appointees,\(^ {37}\) or a combination of the two. Some states, like West Virginia,\(^ {38}\) have statutory qualifications for those who are appointed to investment boards. Such requirements are usually legislative attempts to insure that qualified and knowledgeable people are involved in the investment process, thereby providing some form of security for the state’s tax money.

Other states, however, may have no legal requirements for investment board membership. Minnesota, with no professional qualifications required to serve on the State Board of Investment (MSBI),\(^ {39}\) uses a combination of outside professional financial managers and an executive director to “execute the policies of the Board” (McGrath, 1996). Under this system, the MSBI is in charge of regular cash and trust accounts, while the outside managers are responsible for the investment of public employees’ pension funds.

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\(^{33}\) The author operates under a normative assumption that having people with professional expertise in financial matters involved in the investment process is beneficial, and is preferred over not having such individuals involved within the investment decision-making process.

\(^{34}\) The eight states are Colorado, Massachusetts, Minnesota, Nevada, New Mexico, Oregon, West Virginia, and Wyoming (NAST, 1997, p. 33).

\(^{35}\) The author could not determine the makeup of investment boards in Illinois and Utah, based upon NAST information (NAST, 1997, p. 33).

\(^{36}\) A member of the Colorado Compensation Insurance Authority Fund also serves on the IAC. Membership is voluntary, and the IAC does not have any decision-making authority (nor fiduciary responsibility) regarding state investment money (Owens and Solin, 1995).

\(^{37}\) Most states require legislative confirmation of gubernatorial appointments to investment boards.

\(^{38}\) “Of the members appointed by the Governor, two shall be members of the financial community, one shall be a certified public accountant and one shall be an attorney with experience in finance and investment matters” (Holmes, 1993).

\(^{39}\) The MSBI is constitutionally comprised of the governor, treasurer, secretary of state, attorney general, and auditor (McGrath, 1996).
The qualifications for MSBI staff members and outside managers are determined through Board policy.

Generally, investment boards with no public administration members take measures to assure that knowledgeable financial people are involved in the investment process of the state, whether statutory requirements exist or not. Without these statutory requirements, however, there is always the risk that unqualified people will be allowed to invest public money without the knowledge necessary to protect the state from financial losses. This will be demonstrated in a later chapter of this dissertation, which will examine losses incurred by the West Virginia Consolidated Investment Fund during the 1980s.

**Boards with Public Administration members.**

Twenty states have investment boards containing members who are part of the state’s Public Administration. These administrators are often auditors, comptrollers, and commissioners or directors of Finance departments (NAST, 1994, pp. 32-33). In many cases, these officials are nominated by the governor, and confirmed by the legislature; in other instances, they are directly appointed to their positions by either the governor or the state treasurer. By incorporating into the investment process views from all three governmental branches in their roles as a “balance wheel” between the branches, and bringing the institutional perspective of the bureaucracy to the investment process, these full-time government officials play a role vastly different from traditional part-time nominees and/or appointees who serve on boards, while lacking any full-time administrative role in the governmental unit in question.

The inclusion of public administrators on investment boards brings certain distinctive characteristics to the investment process. Once again, these administrators are often nominated by the governor, and confirmed by the legislature. Common sense usually, but not always, dictates that nominees have some form of background or

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40 The MSBI staff has “oversight” responsibilities regarding the outside money managers (McGrath, 1996).
41 Other public administration officers include the Superintendent of Banking in Arizona; the State Bank Commissioner in Arkansas; the Banking Commissioner, Insurance Commissioner, and Revenue Commissioner in Georgia; the Director of Administration in Rhode Island; the School and Public Lands Commissioner in South Dakota; the Tax Commissioner in Virginia; and the Secretary of Administration in Wisconsin (NAST, 1994; NAST, 1997, pp. 33-34).
42 The twenty states are Alaska, Arizona, Arkansas, California, Connecticut, Delaware, Georgia, Iowa, Kansas, Kentucky, Maine, Michigan, Montana, Nebraska, New Jersey, North Dakota, Rhode Island, South Dakota, Tennessee, Virginia, and Wisconsin (NAST, 1997, p. 33).
43 The treasurers of Alaska, Michigan, Montana, New Jersey, and Virginia are appointed by the Governor, while the treasurers of Maine and Tennessee are elected by the state legislature (NAST, 1997, p. 2). The treasurer of Georgia is appointed by the State Depository Board (NAST, 1997, p. 2). All are considered public administrators on investment boards for the purposes of this paper.
44 The author acknowledges that some may not consider appointed or nominated officials as public administrators, by virtue of their being politically selected for their position. However, the author instead accepts the concept of “Agential Leadership” within Public Administration, as proposed by Wamsley in the “Agency Perspective” (Refounding Public Administration, Wamsley et al., 1990), which can be exercised by either “career civil servants or political appointees” (p. 152), for descriptive purposes.
experience in the subject area of the agency before being nominated and confirmed (Seidman and Gilmour, 1986, p. 170), and in this case, some knowledge of financial matters and investments.45

Once in office, the administrator finds he or she is subservient not only to the executive, but to all three branches of government (Rohr, 1986).46 The American form of republican government, passed down to the states,47 is one of “separated functions but shared powers” (Wamsley, et al., 1990, p. 137), and the department or agency head “exercises all three powers in a subordinate capacity” (Rohr, 1986). By being in the middle of a “‘free fire zone’... in the never-ending battle between the chief executive, the legislature, and the courts” (Wamsley, et al., 1990), the administrator must be responsive to the needs and desires of all three branches of government, and at times find a way to reconcile differences between these varying forces, if for no other reason than for the administrator to protect his job. This means the administrator is more likely to bring to the investment board the opinions of all three branches, instead of the singular view of the executive that might be found with elected officials or gubernatorial appointments to the investment board.

Moreover, the public administrator is more likely to bring to the board the perspective of the bureaucracy. Usually chief executives “attempt to find individuals who are simpatico and subscribe to the basic institutional outlook, goals, and values” of the departments they are appointed to lead (Seidman and Gilmour, 1986, p. 170). In short, the administrator should be compatible with the organizational culture existing within his department or agency. By realizing their positions as “temporary custodians and spokespersons for organizations with distinct and multidimensional personalities and deeply ingrained cultures and subcultures” (Seidman and Gilmour, 1986, p. 166), the administrator will adapt to these cultural forces, and bring this “unique perspective to the councils of government” (Seidman and Gilmour, 1986), or in this case, the investment board.

The public administrator, then, potentially brings to the state investment board three distinctive features: experience in the field, a view from all three governmental branches, and the institutional perspective of the bureaucracy. The value of these traits may be debated, but they certainly can flavor the debate within the investment board on financial policy for the state.

45 This idea can best be seen in the nomination of federal cabinet officers by the president. “The restraints applicable to cabinet [nominations] are of two kinds. Custom still requires that the secretary of the interior be from the west and that the secretary of agriculture, if not a ‘dirt farmer,’ be from an agricultural state and have a farm background. The secretaries of commerce, labor, and treasury must be individuals who have the confidence of their respective constituencies---organized business, organized labor, and the financial community” (Seidman and Gilmour, 1986).

46 “The Public Administration neither constitutes nor heads any branch of government, but is subordinate to all three of them.” Furthermore, “The link between subordination to constitutional masters and freedom to choose among them preserves both the instrumental character of Public Administration and the autonomy necessary for professionalism” (Rohr, 1986).

47 “The United States shall guarantee to every State in this Union a Republican Form of Government....” Article IV, Section 4, The Constitution of the United States.
Boards which utilize outside financial market professionals.

One tool utilized by investment boards is the outside professional manager or counselor. The use of outside investment counselors or managers in investment boards states is statutory in six states,\(^{48}\) and voluntary in sixteen other states (NAST, 1997, p. 35).\(^ {49}\) Outside counselors or managers are often selected through a competitive bidding process, with fees usually being either percentages or a combination of flat rates and percentages (NAST, 1994, p. 34).

There are several benefits to outside counselors or managers. First, the outside professional, usually a member of a large financial institution,\(^ {50}\) often has direct access to financial information or investment contacts that the investment board, by itself, would lack. In addition, these financial institutions often have the latest technology, and can utilize economies of scale that may be out of reach for many governmental units (Rehfuss, 1989). Not only can this reduce the cost of investing, but can help provide an investment board with prudent information that can prevent an investment loss.

Second, outside management personnel are usually required to be licensed by appropriate financial authorities, such as the Securities and Exchange Commission. Such licensing helps to insure that qualified people are making investment decisions for the state. This can be especially important for boards lacking public administrators or other non-political members.

Third, the contracting of outside professional financial advisors can eliminate much of the managerial and personnel problems that often occur within an office, especially if a large investments program requires the formation of a large in-house staff (Rehfuss, 1989). Not only is the investment board spared from increased levels of daily personnel management, but if it decides to suspend or eliminate a certain investment plan, it does not have to contend with the various civil service and political complications often associated with downsizing or ending government programs and employment positions (Rehfuss, 1989).

It appears the hiring of outside professional managers can be a sound practice, especially if exercised for the right reasons. It is critical, however, that boards constantly monitor these managers to insure the security and performance of investments, because even if the service is contracted out to a private firm, the ultimate responsibility for investment losses still rests with the state investment board.

\(^{48}\) Investment board states statutorily requiring outside counselors or managers are California, Kansas, Maine, Michigan, Minnesota, and Wyoming (NAST, 1997, p. 35).
\(^{49}\) Board states voluntarily using outside counselors or managers are Alaska, Colorado, Connecticut, Delaware, Georgia, Illinois, Massachusetts, Montana, Nebraska, Oregon, Rhode Island, South Dakota, Utah, Virginia, West Virginia, and Wisconsin (NAST, 1997, p. 35).
\(^{50}\) Delaware, for example, uses seven managers: Mellon Bank, PNC Bank, Morgan Guaranty Trust Co., Delaware Trust Co., Wilmington Trust Co., Morgan Grenfell, and State Street Bank (Newton, 1996).
States with policies determined by the treasurer

Twenty-five states in the Union give their state treasurers the discretion to establish and execute investment policy regarding state funds (NAST, 1997, p. 32). As with state investment boards, the main objective is “utilizing all dollars to increase capital” within acceptable limits of risk (NAST, 1994, p. 78). There are two types of American treasurers who have the power to invest state funds: Treasurers who are elected, and treasurers who are public administrators.

Treasurers who are elected.

Nineteen states put their investment decisions in the hands of elected treasurers.\(^{51}\) Elected to four-year terms of office (NAST, 1994, p. 2),\(^{52}\) no professional requirements are stipulated to run or hold the office of treasurer in any of these states. As one treasurer put it, he was “elected--any fool will do” (Butler, 1996).

In eleven states,\(^ {53}\) outside professional counselors or managers are used on investment portfolios, with their use statutorily required in five states.\(^{54}\) Without an investment board to provide investment advice or assume fiduciary responsibility, the outside manager becomes an important safeguard against investment loss, helping the treasurer make sure that state money is safe while being invested wisely. In addition, the benefits of outside managers previously mentioned--economies of scale and advanced technology, licensing and investment knowledge, and the elimination of many management or personnel problems--can also be found by these two states.

The other eight states rely solely upon the treasurer, and often the deputy treasurer or director of investments, to make investment decisions for state money. These assistants to the treasurers are usually selected, and serve at the pleasure, of the treasurer.\(^ {55}\) Since there are no professional qualifications for state treasurers, and there is no investment board to help the treasurer, the advice of the treasurer’s assistant becomes even more important to the process of investment management.

In some states, no legal or professional qualifications exist for those who work on investments for treasurers. In seven states responding to informal informational requests by the author, only two--North Dakota and Alabama--had any formal requirements for\(^ {56}\)


\(^{52}\) Vermont is the sole exception to this rule, where treasurers are elected to two-year terms (Douglas, 1996).

\(^{53}\) The eleven states with elected treasurers utilizing outside professional counselors or managers are Alabama, Florida, Louisiana, Mississippi, North Dakota, Ohio, Oklahoma, Pennsylvania, South Carolina, Texas, and Vermont (NAST, 1997, p. 35).

\(^{54}\) The use of outside professionals is statutorily mandated in Alabama, Louisiana, Mississippi, and North Dakota (NAST, 1997, p. 35).

\(^{55}\) In Alabama, the Assistant Treasurer in charge of investments is a civil service position (Baxley, 1996).
those who invest public money.\textsuperscript{56} In the other five states--Idaho, Mississippi, Missouri, North Carolina, and Vermont--there are no statutory qualifications or requirements necessary to hold the position of assistant or deputy to the state treasurer.

The potential danger this presents to the public treasury is immediately evident, even to the casual observer. In Missouri,\textsuperscript{57} for example, $1.584 billion--including $50 million from the state’s local investment pool, which invests funds for over 20 Missouri local governmental units--was invested in 1993 (NAST, 1994, p. 68). The Director of Investments, who is responsible for investing these funds, is appointed by and serves at the pleasure of the state treasurer. Moreover, there are no statutory qualifications for the position of director (Holden, 1996), just as there are no statutory qualifications to hold the elected position of treasurer. In short, over $1.5 billion of Missouri tax money is invested by two public officials who, theoretically, might have absolutely no experience in either finance or investment matters.

The obvious way to rectify the potential disaster lurking in state treasuries would be to institute statutory requirements either for elected treasurers (such as those which exist in many states for attorney generals or judges), or statutory qualifications for those who assist these treasurers in their investment duties. This, however, is a matter for both the treasurers and the various state legislatures, and cannot be resolved here.

Treasurers who are public administrators.

Six states have treasurers who not only are in charge of investment practices for their states, but have the unique distinction of being public administrators by virtue of how they came to hold their office. The treasurers of Maine, Maryland, and New Hampshire are selected by the state legislature; the treasurers of Hawaii and Michigan are appointed by the governor (and confirmed by the legislature); and the treasurer of New York is appointed by, and serves at the pleasure of, the Commissioner of Taxation and Finance (NAST, 1997, p. 2).

In some ways, these treasurers bring to their positions as investment officers the same attributes that other public administrators bring to investment boards. The appointee usually has experience or education in the field of finance and investment, and may reflect the institutional values of the bureaucracy which he will lead. There is, however, a significant difference: While public administrators who serve on investment boards bring a view based on subordination to the three branches of government to the investment process, the investment process itself become subservient to the three branches, through the subordination of the state treasurer.

\textsuperscript{56} In North Dakota, the controller is hired by the treasurer, and must “posses a Bachelors Degree with a major in accounting and four years of professional accounting experience” (Gilmore, 1996). For the assistant treasurer in Alabama, a civil servant, “a bachelor’s degree in finance or related field, with several years of state work experience, is required” (Baxley, 1996).

\textsuperscript{57} The author believes it is appropriate to inform the reader that he served as a gubernatorial campaign consultant for nine months to the previous treasurer of Missouri, R. Wendell Bailey, during Bailey’s second term as treasurer.
Thus, as a consequence of the confirmation process, the treasurer, in order to execute the duties of his office, must find a way to be “subordinate, autonomous, agential, responsive, and responsible” to the executive, the legislature, the courts, and the people of the state (Wamsley, et al., 1990). If he is able to effectively do this, then he will be able to fulfill the “statutory mandate” and “fiduciary responsibilit[ies]” he is entrusted with, provided they are “consistent with the Constitution” (Wamsley, et al., 1990). If he fails, however, the battles the treasurer will be subjected to by the various branches will effectively prohibit him from doing the job for which he was selected, and the effectiveness of his department could also suffer.

The Public Administration treasurer, then, not only brings to the investment process the discretion and power of an elected treasurer, but also potentially the characteristics accredited to public administration (as previously discussed). Whether this is a hindrance or help to the administrator could be debated; it is not, however, a necessary component to this dissertation.

States with local government investment pools

Table One compares all states and states with local government investment pools in regards to the determination of investment policies of the respective states. From a brief examination of the table, it appears that there is little or no significant difference regarding the percentage of investment boards allowed to determine investment policy, the composition of investment boards, or their use of outside professional counselors or managers. In addition, it appears from the same examination that there is little or no significant different regarding the percentage of treasurers who determine investment policy, or the elected/professional status of said treasurers.

Conclusion

Upon analysis, most states have entrusted their investment policies to people or organizations knowledgeable in financial matters, and determined to protect the revenues obtained from the taxpayers of the state. The notable exceptions are states where investment decisions are placed in the hands of treasurers and/or assistants who are not required to have any financial education or experience relating to investment policy. This is a problem that should be addressed, but is outside the scope of this dissertation.

To date, there have been relatively few disasters involving the investment of surplus state revenues. Many states have implemented cash management systems in which the legislature and/or the public believe it is nearly impossible to lose money, and put the state’s finances in jeopardy. Occasionally, however, a state will discover that its investment policies are not enough to protect itself against disaster, and must face the consequences of bad investment decisions. In the next chapter, this dissertation will briefly examine the cash management practices of two states--New Jersey and West Virginia--and how the previous practices of one, West Virginia, led to one of the largest cash management scandals in recent memory.
Table One
Comparison between all states and states with local government investment pools regarding authority to determine investment policy

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<th>Group</th>
<th>All states</th>
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<th>LGIP states</th>
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<td>States with investment boards</td>
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<td>Boards determining policy</td>
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<td>62</td>
<td>20</td>
<td>67</td>
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<tr>
<td>Share power with treasurer</td>
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<td>20</td>
<td>7</td>
<td>24</td>
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<td>Sole power</td>
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<td>Without public administrators</td>
<td>8</td>
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<td>6</td>
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<tr>
<td>With public administrators</td>
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<td>42</td>
<td>12</td>
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<tr>
<td>Utilizing outside counsel/manager</td>
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<td>44</td>
<td>15</td>
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<td>Statutory use</td>
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<td>Voluntary use</td>
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<td>Policies determined by treasurer</td>
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<td>Treasurer elected</td>
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<td>Utilize outside counsel/mgr</td>
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<tr>
<td>Treasurer public administrator</td>
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Chapter V: A Brief Examination of the Investment Practices of Two American States, and a Case Study of the West Virginia Consolidated Investment Fund Scandal

Introduction

When examining the cash management practices of various states, it might be useful to explore the actual operating procedures of individual states, especially regarding the operation of their local government investment pools. Such an examination might provide not only a mental picture of how the investment practices of an actual pool are developed, but also lessons regarding past cash management failures, so that such failures might be averted in the future.

This chapter will briefly investigate the cash management statutes and practices of two states: New Jersey and West Virginia. West Virginia was selected because, in the late 1980s, it suffered the worst cash management crisis of any state-run local government investment pool in the nation. New Jersey, on the other hand, was selected because it has never reported a serious cash management crisis in its history, and therefore would provide an interesting comparison with West Virginia. Among the other differences between the two states are:

• **Length of operation.** The New Jersey Division of Investment, which runs the state’s cash management programs (including the state-run local government pool) has been operating since 1950, when created by the state legislature. In contrast, the West Virginia Investment Management Board (formerly known as the Board of Investments) has only been in charge of the state’s cash management programs (including the state-run local government investment pool) since 1990, when control was transferred from the Treasurer’s Office to the board by the legislature, in the aftermath of the Consolidated Investment Fund disaster.

• **Presence of elected officials.** No elected officials serve on the New Jersey State Investment Council, which determines investment policy for the state’s cash management efforts. In contrast, three of the seven members of the West Virginia Investment Management Board are elected state officials, and at the time of the Consolidated Investment Fund crisis, all three members of the board were elected officials.

• **Fiduciary standard.** The New Jersey Cash Management Fund is an example of a fund operating only under a Prudent Person Rule fiduciary standard, while the West Virginia Consolidated Investment Fund is an example of a fund that operates under a combination of legal list and Prudent Person Rule fiduciary standards.

New Jersey and West Virginia were also selected for more fine-grained analysis for other reasons. West Virginia was selected because of the author’s involvement in West
Virginia politics, which not only provided previous knowledge of the West Virginia Investment Consolidated Fund disaster, but also allowed for access to, and the gathering of information from, various figures in the case study presented later in this chapter. Meanwhile, Roland Machold, director of the New Jersey Division of Investments, was kind enough to spend time talking with the author about his office.

After briefly examining the statutes and practices used by New Jersey and West Virginia, this chapter will present a short case study of the West Virginia Consolidated Investment Fund disaster of the late 1980s, when the state lost over $280 million through its cash management practices. The purpose of this case study is to demonstrate the potential dangers of any investment program established by state and/or local governmental units, and why it is important to examine the cash management statutes and practices of these governmental units before another jurisdiction faces a similar fiscal crisis due to its own cash management efforts.

New Jersey

In November 1977, the New Jersey state legislature passed legislation authorizing counties, municipalities, school districts, and their agencies or authorities to voluntarily participate in the State of New Jersey Cash Management Fund (State Investment Council, 1997, p. 1; N.J. Stat. Section 52:18A-90.4, 1997). In effect, this turned the Cash Management Fund into a local government investment pool. This Cash Management Fund had been formed by the Division of Investments within the state treasurer’s office in May 1977 as a cash management tool for the short-term investment needs of the state (State Management Council, 1996, p. 9).

The legislature had earlier created the Division of Investment (N.J. Stat. Section 52:18A-79, 1997) in 1950, with the goal of centralizing “all functions related to purchases, sales or exchanges of securities for the States’s diverse funds under experienced and professional management” (State Investment Council, 1997, p. 1). When the Cash Management Fund was created in 1977, the investment authority for it was vested in the division’s director (N.J. Stat. Section 52:18A-89, 1997; State Investment Council, 1997, p. 1). The director is appointed by the treasurer from a list of qualified persons, submitted to the treasurer by the State Investment Council, and serves “without term” (N.J. Stat. Section 52:18A-84, 1997; State Investment Council, 1996, p. 10). The director can only be removed for cause by the state treasurer, or for any reason by a majority vote of the State Investment Council.

The director makes investment decisions based upon the recommendations of the State Investment Council:

“It shall formulate and establish, and may from time to time amend, modify or repeal, such policies as it may deem necessary or proper, which shall govern the methods, practices or procedures for investment, reinvestment, purchase, sale or exchange transactions to be followed by the Director of the Division of Investment established hereunder” (N.J. Stat. Section 52:18A-91, 1997).

It also performs oversight function of the Division of Investment, reviewing the work of
the director and the division as a whole.


1. One member is appointed by the leadership of each of the following five agencies: the Public Employees’ Retirement System; the State Police Retirement System; the Teachers’ Pension and Annuity Fund; the Police and Firemen’s Retirement System of New Jersey; and the Consolidated Police and Firemen’s Pension Fund Commission. Terms are for one year.

2. Five members are appointed by the governor, with the “advice and consent of the Senate,” for five-year terms.

3. One member is appointed by the governor from a list of three persons nominated jointly by the Senate President and Speaker of the General Assembly, for a five-year term.

No Council member can hold “any office, position or employment in any political party,” and cannot benefit either directly or indirectly from any state investment decision (State Investment Council, 1997, p. 1; N.J. Stat. Section 52:18A-83, 1997).

Statutorily, investments are allowed in “property of every nature, real, person and mixed, tangible and intangible” (N.J. Stat. Section 52:18A-89[c], 1997; State Investment Council, 1996, p. 11). The only statutory limitation is that all investments are to be made within the scope of a form of the Prudent Investor Rule, which in New Jersey states that “the Director of the Division of Investment shall exercise the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and like aims” (N.J. Stat. 52:18A-89[b], 1997; State Investment Council, 1996, p. 11).

Despite this broad investment authority, the State Investment Council has the legal authority to promulgate investment practices and procedures for the director of the Division of Investment to follow, including limitations and authorization regarding certain investment instruments (N.J. Stat. Section 52:18A-91, 1997; State Investment Council, 1997, p. 1). These regulations are to be formally adopted by the State Investment Council, and then filed with the Secretary of State and published in the New Jersey Register (State Investment Council, 1997, p. 1; State Investment Council, 1996, p. 10).

Current State Investment Council policy allows the director to invest funds of the Cash Management Fund in the following instruments:


2. Corporate obligations, rated Baa/BBB or better (N.J.A.C. 17:16-12).
3. Senior debt securities of finance companies, rated at least A/A (N.J.A.C. 17:16-14).

4. Commercial paper\textsuperscript{58} issued by domestic corporations, with only the “highest” rating (N.J.A.C. 17:16-31).


6. Repurchase agreements, in which the agreements involve obligations of the United States Treasury and other specified agencies of the federal government (N.J.A.C. 17:16-33).


In addition, all investments are limited to those of a maturity of one year or less, except twenty-five percent of the fund, which can be invested in instruments with maturities of up to two years (N.J.A.C. 17:16-61).

In Fiscal Year 1997, 995 local governments participated voluntarily in the Cash Management Fund. Their portion of the Cash Management Fund was $2,953,116 on 30 June 1997, while the book value of the entire Cash Management Fund was valued on the same day at $12,463,423,185 (State Investment Council, 1997, p. 5). Total investment income for Fiscal Year 1997 was $496,547,875 (State Investment Council, 1997, p. 5).

During the twenty years of its existence, the Cash Management Fund has not experienced a financial crisis, nor an investment scandal in which the state lost money. This record is in marked contrast with another state, West Virginia, and its operation of a local government investment pool. In the next section of this chapter, this dissertation will briefly examine how this state’s local government pool is operated, and the scandal that brought national attention to the state’s cash management practices.

West Virginia

In West Virginia, the state and many of its localities utilize the West Virginia Consolidated Investment Fund for its cash management needs. The Consolidated Investment Fund, along with the Consolidated Pension Fund and several single account pools, were created by the West Virginia Legislature in a bill designed to revise the operations of the West Virginia State Board of Investments, and now known as the West Virginia Investment Management Board (W. Va. Code Section 12-6-3; West Virginia State Board of Investments, 1996, p. ii).

\textsuperscript{58} “As used in this subchapter, ‘commercial paper’ shall mean secured or unsecured promissory notes” (N.J.A.C. 17:16-31.1, 1997).
The Board was established by the Legislature under Chapter 162, Acts of the Legislature, Regular Session 1967 (Holmes, 1993, p. 273; W. Va. Code Section 12-6-3, 1997). It is an independent agency, “charged with developing, implementing, and maintaining an efficient and modern system for the collection, disbursement, investment, and management of the State’s money” (West Virginia State Board of Investments, 1996, p. ii). The Board was originally comprised of three members: the governor, state treasurer, and state auditor. In 1990, however, the legislature restructured the Investment Management Board, adding four new members (Holmes, 1996, p. 276). The four are appointed by the governor, with certain restrictions regarding their qualifications (W. Va. Code Section 12-6-3, 1997).59 Most investment functions, in addition, were transferred from the state treasurer’s office, which previously made all investment decisions, to the Investment Management Board, which was to be staffed by an executive director and other responsible financial managers (West Virginia State Board of Investments, 1996, p. ii).

The purpose of this restructuring was to “provide a stable and continuous source of professional financial management, which would be immune to the changing political climate” (West Virginia State Board of Investments, 1996, p. ii). In its revision legislation, the legislature found that “an independent public body corporate with appropriate governance shall be the best means of assuring prudent financial management of these funds under rapidly changing market conditions and regulations” (W. Va. Code Section 12-6-1a, 1997).

The Board administratively determines the investment policy for the operation of the Consolidated Investment Fund, within statutory guidelines established by the legislature (NAST, 1997, p. 32). The Board operates under the state’s Uniform Prudent Investor Act (Section 12-6C-1), and moreover is charged with, among other things, making sure that:

1. Trustees discharge their duties “for the exclusive purpose of providing benefits to participants and their beneficiaries” of the Consolidated Investment Fund (Section 12-6-11[a]).

2. The Board diversifies investments “so as to minimize the risk of large losses unless, under the circumstances, it is clearly prudent not to do so” (Section 12-6-11[b]).

3. Reasonable investment and operating expenses are defrayed (Section 12-6-11[c]).

In addition to these “prudent investor” responsibilities, the Investment Management Board is given certain statutory limitations on the range of investment options permissible.

59 “Four members to be appointed by the Governor, no more than three from the same political party. Members appointed by Governor shall be from a list of twelve persons submitted jointly by the Governor, Treasurer, and Auditor. No more than two names submitted by the Governor may be appointed as members to the board. Of the members appointed by the Governor, two shall be members of the financial community, one shall be a certified public accountant and one shall be an attorney with experience in finance and investment matters. Appointments shall be made by the Governor, with the advice and consent of the Senate” (Holmes, 1993, p. 273). Also see W. Va. Code Section 12-6-3.
The Board, for example, under Section 12-6-12 of the West Virginia Code, may not hold more than:

1. Sixty percent of the Consolidated Investment Fund in equity investments (i.e., stocks), and no more than five percent of the Consolidated Investment Fund in the equity investments of any single company or association.\(^\text{60}\)

2. Twenty percent of the Consolidated Investment Fund in international securities.

3. Twenty percent of the Consolidated Investment Fund in commercial paper, which must be in “one of the two highest rating categories by an agency nationally known for rating commercial paper” (W. Va. Code Section 12-6-12[b][1], 1997).

4. Seventy-five percent of the Consolidated Investment Fund in corporate debt, which must “be rated in one of the four highest rating categories by a nationally recognized rating agency” (W. Va. Code Section 12-6-12[b][2], 1997).

Within these limitations, the Investment Management Board is then charged with developing a list of acceptable investments, and only these investment instruments may be used in the management of the Consolidated Investment Fund (W. Va. Code Section 12-6-12[b][3], 1997).

The legislature also has placed the following restrictions upon the investment authority of the Investment Management Board:

1. No more than seventy-five percent of the Consolidated Investment Fund many be investment “in any bond, note, debenture, commercial paper or other evidence of indebtedness of any private corporation or association” (W. Va. Code Section 12-6-10[1], 1997).

2. No more than five percent of the Consolidated Investment Fund shall be investment “in securities issued by a single private corporation or association” (W. Va. Code Section 12-6-10[2], 1997).

3. At no time “shall less than fifteen percent of [the Consolidated Investment Fund] be invested in any direct obligation or of obligation guaranteed as to the payment of both principal and interest by the United States of America” (W. Va. Code Section 12-6-10[3], 1997).

Many of the provisions for the operations of the Investment Management Board and the Consolidated Investment Fund are as a direct result of a financial scandal involving the

\(^{60}\) This sixty percent will be effective three years after the voters repealed the state’s prohibition on the investment of state funds in equity investments, including the stock of any company or corporation (W. Va. Code Section 12-6-12[a]).
Consolidated Investment Fund over a three-year period beginning in April 1987. In the following section, this dissertation shall examine that scandal, and the impact that it had on the financial picture of West Virginia and its localities.

The West Virginia Consolidated Investment Fund Scandal

In 1948, a West Virginia University political science student named Antonio James Manchin was elected to the West Virginia House of Delegates. At 21 years of age, Manchin, a Democrat, was the youngest person ever elected to either house of the state legislature. Defeated for reelection in 1950 after an attempt to pass a bill integrating West Virginia’s public schools, Manchin would become one of the state’s most popular political figures. After teaching for seven years, Manchin became the state director of the Farmers’ Home Administration under President John Kennedy, and later the administrator of the Rehabilitation Environmental Action Program under Republican Governor Arch A. Moore, Jr. (Icenhower, 1990, p. 26).

Manchin ran for West Virginia Secretary of State in 1972, losing his primary election by only 6,508 votes. In 1976, Manchin ran again, and won the first of two terms as secretary of state. After his tenure as secretary, Manchin, a Democrat, considered running for governor in 1984, but decided against it when his friend Moore, a Republican, announced his campaign for an unprecedented third four-year term as governor. Instead, he announced his candidacy for state treasurer (Icenhower, p. 26).

Local government participation in the Consolidated Investment Fund

In 1978, the treasurer’s office underwent a change that would drastically alter both the political and financial landscape of the state a decade later. At the urging of first-term treasurer Larrie Bailey, the state legislature passed a measure that allowed local governments to pool their investment money with the state, in the Consolidated Investment Fund, so that local governments could reap larger returns under the bigger consolidated investment fund (“Local Units,” 1980).

By 1980, only 207 out of over 1,200 local governmental units participated in the Consolidated Investment Fund. Their $30 million comprised nearly ten percent of the fund’s $312 million in assets. Since the state fund was making approximately three to four percent more money on its fund than local governments were managing on their own, Bailey encouraged local governments to invest (“Local units,” 1980).

By 1989, that amount had increased to $500 million, out of a total Fund of over $1.8 billion (Touche Ross, 1989, p. 15). But by then, Larrie Bailey was no longer West Virginia’s treasurer. Manchin defeated Bailey in the June 1984 primary, with Manchin

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61 In this section, the author relies heavily on Greg Icenhower’s A. James Manchin: A Biography of Controversy. This reliance is based on two factors: (a) Icenhower’s book is the only major work on the West Virginia Consolidated Investment Fund scandal written to date, and (b) Icenhower was a member of Manchin’s staff at the time of the scandal, and thus is able to provide “inside” information, especially regarding conversations between various figures, that is important to the formulation of the case study.
receiving nearly sixty percent of the vote (Adams, 1984) In November, Manchin won the
general election, and in January, he was sworn in as West Virginia’s state treasurer.

Manchin takes control of the treasurer’s office

After Manchin’s election, the state Board of Investments held their final 1984
meeting. Governor John D. Rockefeller IV, Auditor Glen Gainer, and Treasurer Bailey
decided to impose new regulations on state investment funds. These strict guidelines were
proposed by Gainer, who was concerned about Manchin’s ability to function as treasurer.
The fund was suddenly limited to investing money for a period no longer than ninety days,
in order to protect the fund against drastic market changes (Icenhower, p. 112).

Meanwhile, Manchin was setting up his office staff for the next four years. Upon
the recommendation of Rockefeller, the new treasurer hired Arnold Margolin as deputy
treasurer. Considered by many to be a financial whiz kid, he had worked his way through
the state’s tax department, until he was tapped by Rockefeller to become the state’s
Commissioner of Finance and Administration at the age of 32 (Icenhower, pp. 110-11). When Manchin hired Margolin, many in the state were relieved, and even Moore and
Gainer wholeheartedly approved of the choice.

Upon taking office, Manchin and Margolin began taking charge of the state’s
investment policy. Margolin named Kathy Lester as Investments Director, with the
responsibility of handling the day-to-day trades necessary to execute the state’s investment
strategy. Lester, lacking any college education, was able to help lead West Virginia’s
investment fund to the top of all fifty state investment funds by 1986, in terms of return on
investment (Icenhower, p. 113).

The only thing prohibiting Margolin and Lester from aggressively investing the
state’s Fund pool was the ninety-day limit imposed by the Board of Investments in
December. At the urging of Margolin, Manchin asked the new Board (comprised of
Moore, Gainer, and Manchin) to extend the investment limitation to a period of up to ten
years. Moore, convinced that Margolin (who, at one time, served as assistant state tax
commissioner under Moore) could handle the fund, supported Manchin, and the investment
policy was altered to reflect the new treasurer’s wishes, with Gainer dissenting
(Icenhower, p. 112). Margolin and Lester were now able to implement their own
aggressive investment policy for Manchin, outside of the purview of the Board of
Investments.

The investment policy of the state treasurer’s office was simple. Rather than invest
in short-term certificates of deposit, Margolin and Lester decided to put the investment pool
funds into heavy-volume, short-term Treasury securities trading (Touche Ross, p. 6; Troy,
1989). Most of the securities purchased and sold by the state were 7- to 10-year Treasury notes (Touche Ross, p. 6).

62 Under this investment strategy, the state would purchase and sell Treasury
securities on the same day, or within a short amount of time; profits would result from
interest rate decreases (and corresponding bond price increases) occurring after the
purchase, but before the sale, of these Treasury securities (Touche Ross, p. 6). Even

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though the interest rate fluctuations might be minimal, the heavy volume involved would
generate increased profits. On one day alone, for example, $2.7 billion of purchases and
sales were settled by the Consolidated Investment Fund (Touche Ross, p. 7).

In addition, the state also bought and sold “when issued” Treasury securities, a
form of futures contracts (Touche Ross, 1989; Troy, 1989; Kabler, 1997). In short, the
state was “betting on short-term fluctuations in prices” of bonds (Kabler, 1997), by
anticipating the price at which a bond will be offered, and then agreeing to purchase the
bond at that price, regardless of its value on the market when it is actually issued
(Slaughter, 1997, p. 4; Touche Ross, 1989, p. 8).\textsuperscript{63} Even though the Board of
Investments had limited the use of futures contracts “solely as a defensive hedge against
interest rate or market risk” (Touche Ross, p. 8), the treasurer’s office eventually engaged
in the active speculation of these instruments.

At first, the strategy paid off handsomely for West Virginia (Wallace, 1989). In
1985, the fund earned 12.58 percent, and in 1986 the fund earned 13.7 percent, and in
both cases, West Virginia led all fifty states in return on investment (Icenhower, p. 113).
In fact, in the period between 30 June 1985 and 30 June 1986, the total Fund increased
from $1.8 billion in assets to over $2.4 billion in assets (Touche Ross, p. 15).

On 27 March 1987, the investment strategy suddenly turned sour when, spurred by
an economic trade embargo initiated by President Ronald Reagan against Japan, the bond
market suddenly began a rapid decline (Icenhower, p. 113; Farkas, 1989c; Wallace, 1989).
Realizing the risk to the state’s investment fund, Lester allegedly went to Margolin, notified
him of the situation, and told him she wanted to sell all bond-related securities held by the
fund, to cut the state’s losses (Icenhower, p. 113; Farkas, 1989c).

Margolin supposedly told Lester that she was overreacting, and that he believed the
market would recover. After fighting with each other throughout the day, Margolin finally
authorized Lester to close out approximately one-third of the state’s bond position
(Icenhower, p. 114). By the time Lester executed the order, the fund lost $26 million
(Icenhower, p. 114).\textsuperscript{64} Margolin, moreover, was wrong in assuming recovery. The
market continued to fall for months (Farkas, 1989c). By the time the state finally left the
bond market, the investment fund had lost at least $184 million (Touche Ross, p. 7).

During the fund’s collapse, Margolin and Lester raised the capital necessary to
cover the bond collapse by entering into the reverse repurchase agreement market (Touche
Ross, p. 8; Icenhower, pp. 114-15; Kabler, 1997).\textsuperscript{65} Under a “reverse repo,” the state sold
securities to brokerage firms at a specified cash price. The state then agreed to repurchase
these same securities at a fixed price on a fixed date in the future (Hindle, pp. 153-54).

\textsuperscript{63} In short, the state was agreeing to purchase bonds at a future time at a specific price, in the hopes that the
actual market price of the bonds at that time would be greater than the price at which the state agreed to
purchase the bonds.

\textsuperscript{64} At this point, the value of the fund was thought to be between $1.3 billion and $2.5 billion (Troy, 1989;

\textsuperscript{65} Governor Moore believes this action on the part of Margolin and Lester was “outside their authority”
(Moore, 1998).
Margolin and Lester then used this money to finance their investments in the bond markets (Touche Ross, p. 8; Slaughter, p. 4). However, this strategy also failed, and only served to magnify their losses (Kabler, 1997).

To compound the problem, Margolin decided to continue paying local governments interest payments on the money they had put into the fund, despite the fact that the fund was no longer generating any interest income (Farkas, 1989a; Icenhower, p. 115). The “fraudulent” overpayments (Farkas, 1989b) equaled $48 million over three months (Icenhower, p. 115).

Somehow, the news about the losses did not spread beyond the state treasurer’s office. Part of this can be explained by the order Data Processing Division chief Dorothy Gillespie issued to employees, telling them, “[M]y advice to you is to keep quiet. Don’t discuss this outside the office” (Icenhower, p. 116). Later, “employees testified that documents were altered and that they were told not to discuss the losses” (Wallace, 1989).

In the beginning of 1988, it was time for the treasurer’s office to send the state auditor quarterly earnings reports for the investment fund. Realizing that an accurate report would reveal the losses, Gillespie asked Margolin how the reports should be calculated (Icenhower, p. 118). Margolin, trying to protect himself and Manchin, decided to “intentionally [mislead] legislative auditors” (Farkas, 1989b), and also the Board of Investments (Moore, 1998). He told her to simply report the amounts paid out to investor communities, and not the actual earnings (or losses). Gillespie complied with Margolin’s order, and the state auditor’s office did not find the investment fund loss (Icenhower, p. 118).

The losses are discovered

After careful consideration, Manchin decided in January of 1988 to run for a second term as state treasurer. In November, he won reelection without opposition (Holmes, 1989), and for the third time in eight years, he led the Democratic ticket in the number of votes received by a candidate. Rejoicing in the elections of his son Mark and nephew Joseph II to the State Senate, Manchin prepared for his fourth swearing-in ceremony on 14 January 1989.

Manchin’s joy, however, was to be short-lived. During the election, the accounting firm of Touche Ross and Company, at the direction of Governor Moore, began an audit of the state’s books (Moore, 1998). Initiated by Governor Moore so that the state could comply with the Single Audit Act (Moore, 1997, p. 1), a federal requirement that mandates a single audit system for governmental units, the firm assigned two young auditors, Jeffrey Potts and Dorothy Vojvodich, to conduct the inquiry.

In the fall of 1988, the two outside auditors discovered a $160 million imbalance in the state’s books. While questioning several employees about the problem, one finally recommended that the pair talk to Margolin about the problem (Icenhower, p. 125). They first talked to Margolin about the problem on 2 November 1988, and met once again with him on 14 November. During this period, they referred to the actual transaction journals, and discovered the nature and magnitude of the investment fund losses. When they confronted Margolin several days later in a third meeting, the deputy state treasurer could
For Margolin, the revelation by the auditors came at a particularly bad time. Margolin had already agreed to leave Manchin’s office in order to become chief-of-staff to newly-elected Governor W. Gaston Caperton, and was scheduled to submit his resignation just days after his meeting with the Touche Ross people (Simpson, 1988). When the story became public, it would ruin his career, and force him to leave the Governor’s Office (Icenhower, pp. 126-27).

Manchin, after reading in a newspaper that fund losses had occurred, called a meeting of his top staff on 30 November 1988. Picking up the paper, he asked Margolin if he had seen the story, and then asked, “Well, is the goddamn thing true?” Margolin at first did not answer. When pressed by Manchin, he admitted that the reserve surplus account was gone (Icenhower, p. 128).

The treasurer blew up. “I thought I had an expert. I thought I had the goddamn money man working for me! The goddamn Wall Street wizard!” Upon regaining his composure, Manchin looked at Margolin and said, “Arnie, if this is true, so help me God, I’m going to lay this at your goddamn feet” (Icenhower, p. 130).

As the story broke across the pages of state newspapers, Manchin formed an internal task force to determine the exact extent of the loss. Local governments were beginning to withdraw their money, and the treasurer needed to know the full impact of the problem on the state’s financial state. On 13 December 1988, after $67 million of local money had been withdrawn, the task force reported back to Manchin. The loss, they said, might “be in the neighborhood of $160 to $200 million” (Icenhower, p. 131).

Manchin was stunned. Even at this point, he had only thought the losses would be in the $10 to $20 million dollar range. Finally, he decided to break the story himself, and called reporters with the shocking news (“Manchin says state may be out $150 million,” 1988). Within a week, over $250 million had been withdrawn from the fund by worried local governments (Farkas, 1988; Wallace, 1989).

After weeks of competing press conferences by Manchin and Margolin, and countless news articles, Governor Arch A. Moore Jr., with only two days left in office, held a press conference in which he released the Touche Ross audit, which he had commissioned. The independent audit pegged the losses in the investment fund at $279 million (“West Virginia Treasurer’s Office,” 1989).

On 14 January 1989, Manchin was sworn into office for his second term as state treasurer. However, by this time, there were already calls for Manchin’s impeachment. Eventually, on 17 February 1989, Delegate Marc Harmon (R-Grant County) and sixteen co-sponsors introduced an impeachment resolution in the state House of Delegates, after Manchin refused to resign, with impeachment hearings set to begin on 7 March 1989 (Farkas, 1989d).

66 “Margolin, who already has resigned his associate state treasurer’s post, was formally appointed as an aide to [Governor Gaston] Caperton on Tuesday [22 November 1988]” (Simpson, 1988).
Manchin finally testified before the House Judiciary Committee on 17 March 1989. Holding to the story that he never knew the extent of the losses, Manchin begged the House not to impeach him over the scandal:

“Voting to impeach is stripping away the dignity of a person who has served well. Do not sentence us to death and destruction. Give us an opportunity to serve again” (Farkas, 1989a).

Manchin testified that he had “heard about losses” in 1987, but was assured by Margolin that no problems existed. Moreover, since Auditor Glen Gainer and former Governor Moore were also members of the Board of Investments, Manchin claimed that he should not be held solely accountable (Farkas, 1989a).

Perhaps the most revealing part of the treasurer’s testimony was when delegates quizzed Manchin on standard accounting and financial procedures. At one point, Manchin was shown a balance sheet, and admitted that he was unaware of the fact that the figures on the sheet surrounded by parentheses denoted a loss (Troy, 1989). Manchin later underscored the point when he admitted that “I’m not a lightweight, but I’m not a financial genius” (New York Times, 1989).

On 29 March 1989, the state House of Delegates voted 65-34 to impeach Manchin (Icenhower, p. 163). The 17 approved charges against the treasurer were then sent to the Senate, which set a date of 10 July to begin the conviction trial (Farkas, 1989b). At this point, Manchin began to give serious consideration to resigning. If he was convicted by the Senate, he would be barred from future office, and would have to forfeit his state pension, valued at approximately $2,100 per month (Troy, 1989). Furthermore, he realized that the trial would put his son and nephew in the middle of the crisis, and possibly ruin their chances for reelection or future higher office (Icenhower, 164).

As West Virginia celebrated its 126th birthday on 20 June, Manchin announced he would resign as treasurer, effective 9 July 1989 (Farkas, 1989b; Icenhower, p. 165). By leaving office a day before his trial was to begin, Manchin spared his family the ordeal of a public trial, and was able to retain his pension. With the sun setting behind the state capitol dome, Manchin left his office for the last time on the evening of 7 July 1989, surrounded by family and friends (Icenhower, 165). Forty years after arriving as the youngest member ever elected to the state House of Delegates, A. James Manchin was finally leaving the public service career he thrived on during his entire adult life.

Aftermath of a disaster

On 11 July 1989, special counsel James Lees presented a 124-page report on the fund scandal to the House Judiciary Committee. Lees claimed that “realized and unrealized losses” from the entire episode would probably approach the $340 million mark (Farkas, 1989b). In the end, this estimate was significantly greater than the actual $280 million in losses suffered by the state (Loehr, 1997, p. 2). It does, however, demonstrate the difficulty faced by the state in determining actual losses. This difficulty “developed, in part, because the accounting records of the Treasurer and the State Auditor were in too big of a mess. They each had their own set of books, and their methods of dealing with
discrepancies was less than clear or ideal” (Slaughter, p. 1).

The Lees report also said that Manchin “conspired to cover up the losses... violate state investment laws and pay ‘fraudulent’ earnings to local governments” to avoid “the political consequences” of the fund’s mismanagement, and Manchin’s maladministration:

“My conviction is Mr. Manchin would have been blind, deaf and dumb not to have been aware in April 1987 of precisely what was transpiring with the consolidated fund” (Lees, 1989).

This contradicts the opinion of Governor Moore, who believes Manchin might not have been aware of the losses:

“I have a feeling that Margolin kept all of this from the Treasurer, and that the Treasurer, perhaps, was not the last to know of the losses, but his dependence upon Margolin was misplaced and proved tragic” (Moore, 1997, p. 3).

Lees’ report also said he believed Margolin was aware of the fund losses in 1987, and recommended that the House of Delegates consider perjury charges against the former deputy treasurer.

On 6 September 1990, former deputy state treasurer Arnold Margolin pleaded guilty to two charges of fraud and perjury. The plea allowed him to avoid prosecution on twenty-four other fund-related charges (“Regional News,” 1990). United States Attorney Mike Carey was surprised by the plea, saying, “I think it’s significant that this one [was plea bargained] in regard to the previous denials by Mr. Margolin and now he has decided to accept responsibility for this.”

After Manchin resigned, the state filed suit against nine Wall Street brokerage firms, claiming the brokerage firms “enticed” the state to make risky, speculative ventures (Kabler, 1997). The state asked for $155 million in damages from the firms (Campbell, 1989). The lawsuit was filed despite the advice of special counsel Lees. In his report to the House Judiciary Committee, Lees said:

“I do not find any evidence of kickbacks. . . between the brokerage firms and the West Virginia Treasurer’s Office. I do not find evidence of churning in the traditional sense” (Lees, 1989).

Moreover, Lees opposed the suit because “the predicate, . . would be that West Virginia is so ignorant and unsophisticated in investment matters that the Wall Street firms should not have abided by our directives” (Farkas, 1989b).

The state, however, went ahead with the suit, and at times faced problems. First, Chemical Bank of New York immediately rescinded the state’s overdraft privileges, but reinstated them when it learned they were not a target of the investigation (Farkas, 1989b). Second, the firms being sued moved to have the cases heard in New York, and a New York judge asked the state to submit legal briefs so he could make a mid-December ruling. The state, however, immediately went to a West Virginia court, and obtained an order
prohibiting the firms from forcing West Virginia to try the cases outside of the state (Campbell, 1989). After the New York judge reluctantly ruled that West Virginia was the proper venue, the firms tried to move the case to the federal courts. This attempt also failed (Coyle, 1990).

Initially, two firms settled out of court for $4.5 million in damages (Coyle, 1990). By the time Chase Securities settled for $6.65 million in 1997, the nine firms had settled with the state for nearly $55 million (Slaughter, p. 5; Kabler, 1997).

After Manchin’s resignation, Governor Caperton appointed state Senator Thomas Loehr as treasurer. Loehr immediately set about to reform the treasurer’s office, and implemented a restructuring plan that included the addition of an assistant treasurer for auditing and control, and assistant treasurer for asset management. He also eliminated ten other positions (“Loehr,” 1989). Finally, believing that “it was important that the office be depoliticized as quickly as possible,” Loehr looked outside of state government, and in the private sector, for members of his senior staff (Loehr, 1997, p. 2).

In order to make up the lost revenue, Loehr recommended that the state dedicate “a stream of revenue to purchase zero coupon bonds which would mature in stages” (Loehr, p. 3). Purchased in a number sufficient to cover the fund’s losses, and segregated from other state funds, the losses would “theoretically be made up” as the bonds matured (Loehr, p. 3). For example, out of the $55 million settlement with the Wall Street brokerage firms, $12.85 million was dedicated to the purchase of these zero coupon bonds, which will mature in 2017 (Kabler, 1997). While admitting that this solution was “artificial,” Loehr believes that it allowed the state to stabilize its financial picture, and avoid the bankruptcy that faced Orange County, California seven years later (Loehr, p. 3). Despite these bond purchases, however, the effects of the loss continues to impact the state, since the lost funds are no longer available for other investment opportunities, and the state cannot earn interest on those funds (Loehr, p. 3).

The state legislature, in addition, expanded the Board of Investments from its previous size of three members (the governor, state treasurer, and state auditor) to seven members, and investment decisions for the state’s investment portfolios were transferred to the Board, as previously mentioned. In 1990, the Board of Investments completed another restructuring, and hired seven outside financial managers to run the state’s $794 million bond fund (“A changing of the guard,” 1990).

Even though no local governmental unit lost money in the West Virginia fund scandal, the aftershocks still can be felt. In 1987, local investments comprised nearly $500 million of the overall investment fund. According to Board of Investments executive director Craig Slaughter, the fund only had $23 million of local government money in 1992, “making it one of the smallest state-run funds in the nation” (Racine, 1992).

Ironically, the man picked in a special statewide election to complete Manchin’s term was the one Manchin defeated for the job in 1984. In a special 1990 election, Larrie

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67 Governor Moore argues that, “in consideration of the magnitude of the loss, I believe the State passed through this unfortunate administration of the Treasurer’s Office with little damage other than the public embarrassment that exposed the Treasurer’s Office shortcomings” (Moore, p. 3).
Bailey was selected by the voters to complete Manchin’s unexpired term; in 1992, Bailey won reelection to his third full term. In 1996, Bailey left the treasurer’s office in an unsuccessful bid for the governorship, and was replaced by John Perdue.

Performance of the Fund since the scandal

In the aftermath of the scandal, which prompted many of the legislative measures previously mentioned, the Consolidated Investment Fund has been operating with few, if any, problems. The fund has been broken down into several pools, with professional outside financial firms, selected by the Board, overseeing the operations of four of the pools (West Virginia State Board of Investments, 1996, p. vii):


4. Enhanced Yield Pool: Bank One, WV, Charleston, N.A.

In Fiscal Year 1995, the Consolidated Investment Fund had earnings of approximately $74.8 million on net assets valued at approximately $1.345 billion; in 1996, the fund earned approximately $80.7 million on net assets of approximately $1.383 billion (West Virginia State Board of Investments, 1996, p. v).

Conclusion

From this brief case study of the West Virginia Consolidated Investment Fund disaster of the late 1980s, it is clear that the overriding objective of establishing investment guidelines, limitations, and fiduciary responsibilities should be to ensure the safety of the public’s money while in the care of government. What is, however, the best way to accomplish this goal?

In many ways, the differences between New Jersey and West Virginia that were mentioned early in the chapter suggest propositions for further consideration regarding ways to safeguard the public’s money while earning a sufficient rate of return on investment:

- Does the inclusion (or exclusion) of elected officials from boards that determine investment policy for cash management programs have a negative (or positive) bearing upon the safety, liquidity, and yield of cash

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68 There are seven pools: (a) Cash Liquidity Pool, (b) Government Money Market Pool, (c) Enhanced Yield Pool, (d) Municipal Bond Restricted Pool, (e) Loss Amortization Pool, (f) State Loan Pool, and (g) Participant Directed Accounts (West Virginia State Board of Investments, 1996, p. 9).
management programs?

• Can the placement of cash management functions in a separate division of investments affect the performance of a cash management fund?

• Can the limitations (or lack of limitations) imposed by statute or regulation have a significant effect upon the track record of a cash management program?

While the first two questions have merit (and, while not within the scope of this dissertation, should be studied in the future), it is the last question--restrictions on investments and/or investment actions--that approaches most closely the topic of this dissertation. Can certain investment limitations lead to greater safety for the public’s money, or instead encourage investment officials to make risky decisions within those limitations? Should investment officials be given greater discretion over possible investment choices, or does such latitude increase the likelihood of financial disaster? Would investment limitations such as those in force in New Jersey (or put in place in West Virginia after the 1980s) have prevented the West Virginia Consolidated Investment Fund crisis, or would the scandal have happened regardless of any limitations that had been in place? In many ways, these questions lead into the debate over legal lists and the Prudent Person Rule, the focus of the next chapter of this dissertation.

From the case study itself, however, several points do become evident. If, for some reason, the guidelines or the specified fiduciary responsibilities of pool managers should fail, or prove dysfunctional, in encouraging prudent management of public funds, the ramifications for the state and its citizens can be enormous. Moreover, investment officials must remember that searching for the best rate of return on investments available is not the only consideration when making investment decisions; there must be a place for factors such as safety and liquidity, and acknowledgement that issues such as credit risk, market risk, and liquidity risk must be properly addressed in investment policy decisions, before a governmental unit finds itself unable to meet its fiscal responsibilities. Cash management, at least in the public sector, means more than simply a bottom-line financial return on investment.

West Virginia’s example is but one demonstration of the dangers of inadequately managing public funds for the benefit of the citizenry. Therefore, it is crucial for government to (a) establish procedures for protecting the public against such losses; (b) employ qualified individuals to exercise these procedures; and (c) keep the public informed about their investment actions. Most importantly, however, it is the responsibility of the public itself to make sure these issues are handled correctly, and if they are not, then to strive to implement the change needed to protect the public purse.
Chapter VI: The Prudent Person Rule

While examining how the West Virginia Consolidated Investment Fund disaster unfolded, it became apparent that much of the blame could be laid at the feet of Treasurer Manchin, Deputy Treasurer Margolin, and others within the West Virginia’s Treasurer’s Office. As one person later stated, “there is no absolute cure for incompetence or fraud” (Slaughter, p. 2). However, another possible explanation has emerged, centering on the permissible instruments which West Virginia could utilize.

At the time of the financial disaster, West Virginia operated under the “legal list” system. As mentioned in a previous chapter, under this system a state or local treasury may only invest in a “legal list” of permissible investments approved by the state legislature. The investment authority granted to the treasurer’s office in West Virginia was considered to be rather narrow and conservative; yet these limitations did not prohibit the hemorrhage of money incurred by the state in 1987. All of the investments utilized by Manchin and his office, in fact, were permissible under the “legal list” existing at that time.

Thomas Loehr, appointed treasurer after Manchin resigned, and his chief of staff, Craig Slaughter, have both indicated that the “legal list” might have actually contributed to the losses experienced by the state. By limiting the investment instruments available to Manchin’s office, the state forced him to invest in riskier investments within the list in order to reach Manchin’s unrealistic performance goals, rather than allowing for investment in instruments that might have presented less of a risk to the state:

“Had the State of West Virginia been permitted to engage in a more progressive, professionally managed investment program, there may not have been pressure to do the speculative things that were never contemplated by the [state] Constitution” (Loehr, p. 3).

In short, the “legal list of permissible investments is an ineffective control feature” (Slaughter, p. 4):

“Remember, [Manchin] lost most of the money by day trading in U.S. Treasury Bonds. These securities were on the list and, frankly, considered very safe by the average Joe on the street. It is a question of how you invest and not what you invest in” (Slaughter, p. 4).

Instead of utilizing a “legal list” to prohibit a state from engaging in risky cash management practices, Slaughter argues that state investment pools should operate under the Prudent Person Rule, “the only investment guideline that really makes any sense” (Slaughter, p. 4). What, however, is the Prudent Person Rule? What are its benefits and limitations, and what additional risk does the state incur in its implementation? And, most importantly, is there a significant difference in the performance results of government investment pools between those who use a “legal list,” and those who employ the Prudent Person Rule?
History of the Prudent Person Rule

The Prudent Person Rule is a fiduciary standard, designed to protect the beneficiaries of financial trusts and estates from speculative investments made by trustees (Haskell, 1990; Johnson, 1993). It was first developed by the Supreme Judicial Court of Massachusetts, in the 1830 decision Harvard College v. Amory, 26 Mass. 454 (Haskell, 1990, pp. 88-89; Johnson, 1993, p. 1176; Korn, 1994, p. 33; Aalberts and Poon, 1996, par. 8). At issue was the ability of a trustee to invest assets in corporate stock (Haskell, 1990, p. 89; Aalberts and Poon, 1996, par. 8). The court upheld the right of the trustee to invest in stocks, stating:

“All that can be required of a trustee to invest, is, that he shall conduct himself faithfully and exercise a sound discretion. He is to observe how men of prudence, discretion and intelligence manage their own affairs, not in regard to speculation, but in regard to the permanent disposition of their funds, considering the probable income, as was the probable safety of the capital investment” (26 Mass. 446, at 461).

This decision was in direct contrast with the traditional British fiduciary standard (Aalberts and Poon, 1996, par. 8), which held that “the only safe investment in trust portfolios were government-backed securities” (Johnson, 1994, p. 1175). At this time, however, there were no United States “government-backed obligations of commensurate rating” to those in Britain (Johnson, 1993, p. 1176); this was recognized by the court (Haskell, 1990, p. 89), which stated:

“If [United States government obligations] are resorted to, what becomes of the capital when the credit of the government shall be so much impaired as it was at the close of the last war?” (26 Mass. 454, at 468-69).

Therefore, the court adopted what became known as the Prudent Person Rule as a fiduciary standard, thereby allowing trustees to find suitable investments for trusts and estates.

In the 1869 King v. Talbot decision by the New York Court of Appeals, a similar standard was verbalized (Haskell, 1990, p. 89):

“[The] just and true rule is, that the trustee is bound to employ such diligence and such prudence in the care and management, as in general, prudent men of discretion and intelligence in such matters, employ in their own like affairs” (40 N.Y. 76, at 85-86).

In the decision, however, the court limited investments to “government obligations or individual debt secured by a mortgage on real estate” (Haskell, 1990, p. 89), and “declared investments in shares of stock imprudent” (Johnson, 1993, p. 1176). In effect, the court, while professing to adhere to the Prudent Person Rule, actually adopted the more limited English investment standard for all practical purposes (Aalberts and Poon, 1996, par. 10).

The court’s decision was later codified by the New York Legislature in 1889 (Johnson, 1993, p. 1176). This legislative action precipitated the formation of similar laws throughout the nation, leading to the formation of what eventually was referred to as “legal
lists” (Miller, 1981, pp. 22-23; Haskell, 1990, p. 90; Johnson, 1993, p. 1176; Korn, 1994, p. 33). With regards to public funds, these lists “emerged over the years as mechanisms to control and delimit the activities of public investment officers,” and were often designed under the influence of “competing political and economic interests” (Miller, 1981, p. 23).

The problem with legal lists was the inability to adapt to changing market conditions, including the development of new investment instruments, such as derivatives (Johnson, 1993, pp. 1176-77). Eventually, this need to adapt led most states to repeal their legal lists beginning in the 1930s and 1940s, and instead legislate some form of the Prudent Person Rule (Haskell, 1990, p. 90; Johnson, 1993, p. 1177). However, remnants of legal lists still exist, especially in regards to the disposition of public funds (Miller, 1981, pp. 22-23).

Most Prudent Person Rule statutes today are based upon the first and second Restatements of the Law of Trusts (Haskell, 1990, p. 91; Johnson, 1993, p. 1177). The second Restatement provides that:

“In making investments of trust funds the trustee is under a duty to the beneficiary (a) in the absence of provisions in the terms of the trust or of a statute otherwise providing, to make sure investments and only such investments as a prudent man would make of his own property having primarily in view the preservation of the estate and the amount and regularity of the income to be derived....” (Restatement of Trusts Section 227, 1957).

In short, the purpose of the Prudent Person Rule has become “the preservation of principal and the production of income” (Johnson, 1993, p. 1178), and speculation is prohibited (Haskell, 1990, p. 91).

What is prudent?

Under the Prudent Person Rule, a trustee is to act in a “prudent” manner. But what, exactly, is prudent? Is there a defined standard, and if not, how is prudence determined?

Generally, with the exception of legal lists, there are no statutory standards for prudence in existence. Prudence is usually defined through established investment practices, and judicial decisions handed down in challenges to the actions of trustees under the Prudent Person Rule standard. In many ways, Justice Potter Stewart’s definition of pornography could be applied to prudence: “I know it when I see it” (Jacobellis v. Ohio, 1964). In fact:

“[O]ne of the primary virtues of the prudent person rule lies in its lack of specificity, as this permits the propriety of the trustee’s investment decisions to be measured in light of the business and economic circumstances existing at the time they were made” (Laurino, 1977, p. 723, cited at Gibbs, 1997, p. 915).

Nevertheless, there are certain concepts that help define the prudence of an investment
action by a trustee.

Isolation of individual investments. Instead of judging the prudence of the trustee by the overall performance of an investment portfolio, each investment made by a trustee is analyzed in isolation, regardless of its relationship to other investments in the portfolio (Haskell, 1990, p. 93; Korn, 1994, p. 33; Phillips, 1997, par. 14). Therefore, even if the portfolio at large performs positively, the trustee can still be held liable for losses in an individual investment. This principle was stated clearly by the New York Court of Appeals in the Spitzer case:

“The fact that this portfolio showed substantial overall increase in total value during the accounting period does not insulate the trustee from responsibility for imprudence with respect to individual investments for which it would otherwise be surcharged...” (232 N.E.2d 700, at 703).

In short, “the trustee whose investment strategy is generally successful is liable for the decline in dollar value of the individual investment that is not in compliance with the standard of prudence” (Haskell, 1990, p. 93).

Prohibition on speculation. In all investments, there is a certain amount of risk. In the case of trusts governed by the Prudent Person Rule, the primary objectives are the preservation of principal and the production of capital (Haskell, 1990, p. 93; Johnson, 1993, p. 1179); therefore, any risk taken beyond these objectives, such as speculation in the hopes of actually increasing the value of the corpus (or principal) would be viewed as imprudent and unnecessary.

It is recognized that, in some cases, prudent investors might “frequently invest a small portion of their capital speculatively” (Haskell, 1990, p. 92). This is still, however, forbidden under the Prudent Person Rule:

“In making investments, however, a loss is always possible, since in any investment there is always some risk. The question of the amount of risk, however, is a question of degree. No man of intelligence would make a disposition of property where in the view of the price the risk of loss is out of proportion to the opportunity for gain. Where, however, the risk is not out of proportion, a man of intelligence may make a disposition which is speculative in character with a view to increasing his property instead of merely preserving it. Such a disposition is not a proper trust investment, because it is not a disposition which makes the preservation of the fund a primary consideration” (Second Restatement of Trusts Section 227 comment e, 1959).

Therefore, “investments in new enterprises, buying on margin, buying options and futures, and buying for the purpose of short term resale are strictly forbidden” (Johnson, 1993, p. 1179; Haskell, 1990, p. 93).

Originally, the Prudent Person Rule was interpreted to mean that it was imprudent

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to invest in common stocks; however, most states with a Prudent Person Rule now provide “specifically for investment in common stocks as well as other property” (Haskell, 1990, p. 90).

**Diversification.** Some argue that the diversification of investments is a required part of the Prudent Person Rule (Haskell, 1990, p. 91). Both the first and second Restatement of Trusts\(^70\) mandates diversification:

> “Except as otherwise provided by the terms of the trust, the trustee is under a duty to the beneficiary to distribute the risk of loss by a reasonable diversification of investments, unless under the circumstances it is prudent not to do so” (Restatement of Trusts Section 228, 1935; Second Restatement of Trusts Section 228, 1959).

In short, “trust investments must be diversified in order to avoid the pitfall of investing in only one safe instrument, which consequently increases risk” (Johnson, 1993, p. 1178).

Some courts, however, have held that “a fiduciary had no absolute duty to diversify and that a mere failure to diversify is, absent ‘other elements of hazard,’ not imprudent” (Gibbs, 1997, p. 917; Haskell, 1990, pp. 91-92). For example, in Estate of Knipp, 489 Pa. 509, 414 A2d 1007 (1980), the Pennsylvania Supreme Court ruled that, in a case where a trustee allowed Sears Roebuck stock to comprise 71 percent of a portfolio, that:

> “The evidence establishes that Sears stock was, during the period in question, reasonably believed to be a sound, national, broad based stock worthy of investment by a fiduciary. As it turned out... performance of the Sears stock was poor.... Hindsight however, is not the test of liability for surcharge” (Estate of Knipp, 489 Pa. 509, 414 A2d 1007, 1980; Haskell, 1990, note 29; Gibbs, 1997, p. 919).


In Matter of Lincoln First Bank, NA, 1919 WL 3492 (NY May 1, 1997), it appears that, “as a practical matter, the court of appeals decision in Lincoln First Bank appears to establish a de facto duty of diversification in all but the rarest of fact situations” (Gibbs, 1997, p. 918). After the death of Rodney James in 1973, Lincoln First Bank and James’ widow became co-executors of his estate. With holdings in Eastman Kodak common stock constructing “71 percent of the stock portfolio and 51 percent of the gross assets” of the James’ estate, Lincoln First Bank recommended to Mrs. James that the estate sell 1,232

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\(^70\) The Restatement of the Law of Trusts (otherwise known as the Restatement of Trusts) is a model law developed by the American Law Institute. The first Restatement was adopted by the ALI membership in 1935; the second Restatement was adopted in 1957; and the third Restatement was adopted in 1990 (Haskell, 1990).
Kodak shares, while retaining the other 12,000 shares. Mrs. James agreed with the recommendations, and only the 1,232 shares were sold.

When the bank formulated its recommendation to retain the Kodak holdings, the annual yield on Kodak common stock was 1.1 percent, and because of the estate’s large holdings in Kodak, the entire yield for the estate was only 1.7 percent. The stock was, however, trading at $139 a share. By 1978, though, its value had plunged to $40 a share. Finally, in October 1986 and July 1987, the bank sold the stock, when it sold for $92 and $127 a share, respectively (Gibbs, 1997, p. 908). At this point, the widow initiated a lawsuit against the bank for violating its duties under the Prudent Person Rule.

The New York Court of Appeals upheld both a lower court ruling that the bank had violated its fiduciary responsibilities under the Prudent Person Rule to diversify the estate, and a surcharge of over $4 million against the bank (Matter of Lincoln First Bank, NA, 1919 WL 3492, NY May 1, 1997). The court found that the bank had (a) failed to consider whether the estate’s concentration of Kodak was excessive, and created undue risk; (b) failed to consider the “scant” yield of the Kodak holdings; and (c) failed to exercise the expertise in financial matters that it professed to have (Matter of Lincoln First Bank, NA, 1919 WL 3492, NY May 1, 1997; Gibbs, 1997, pp. 910-11). In the end, the decision boiled down to “simply whether, under all the facts and circumstances of the particular case, the fiduciary violated the prudent person standard in maintaining a concentration of a particular stock in the estate's portfolio of investments” (Matter of Lincoln First Bank, NA, 1919 WL 3492, NY May 1, 1997, at 3); in this case, the court reviewed the facts, and held that the fiduciary did violate the standard (Matter of Lincoln First Bank, NA, 1919 WL 3492, NY May 1, 1997; Gibbs, 1997).

**Inflation.** One issue that the Prudent Person Rule ignores is inflation, and its ability to eat away at the actual purchasing power of principal (Haskell, 1990, p. 93; Phillips, 1997, par. 15). The risk of inflation to purchasing power “presents a serious threat to every investment portfolio” (Johnson, 1993, p. 1181), yet the Prudent Person Rule does not give a trustee the flexibility necessary to invest in instruments that, while under some circumstances might be considered “imprudent,” would benefit the purchasing power of principal during inflationary times (Haskell, 1990, p. 93; Johnson, 1993, p. 1181).

In 1974, “the legal standards required of a prudent investor” were significantly revised by the passage of the Employee Retirement Income Security Act, 29 U.S.C. Section 1001-1371, or ERISA (Aalberts and Poon, 1996, par. 14). First, a fiduciary must “diversify[] the investments of the plan so as to minimize the risk of large losses, unless under the circumstances it is clearly prudent not to do so” (29 U.S.C. Section 1004[a][1][B]; Levy, 1994, p. 4; Aalberts and Poon, 1996, par. 14). Second, the “conservation of capital as an investment objective” was not included (Levy, 1994, p. 4). Third, the riskiness of an investment instrument does not automatically “characterize such investment as either per se prudent or per se imprudent” (Johnson, 1993, p. 1185). Finally, the prudence of an investment must be made in light of the total return and performance of the portfolio (Johnson, 1993, p. 1185; Aalberts and Poon, 1996, par. 14). In short, the law protected fiduciaries from charges of imprudence if “they considered the investment in portfolio context along with the risk of loss, opportunity for gain, diversification, liquidity, cash flow, and overall return requirements” (Levy, 1994, p. 4).
According to Gibbs (1997) the Court of Appeals in *Lincoln First Bank* “identified the following factors ‘to be considered under the prudent person rule by a trustee in weighing the propriety of any investment decision’” made by a trustee (Gibbs, 1997, p. 915):

- “The amount of the trust estate;
- “The situation of the beneficiaries;
- “Trend of prices and the cost of living;
- “The prospect of inflation and deflation;
- “Marketability of the investment;
- “Possible tax consequences” (Gibbs, 1997, p. 915).

While not legally binding in all states, these guidelines not only appear to mirror other views on what constitutes the standards of the Prudent Person Rule, but also incorporates some of the standards of the Prudent Investor Rule, an increasingly popular alternative to the Prudent Person Rule.

**The Prudent Investor Rule**

Over the years, some criticized the Prudent Person Rule based upon its limited number of prudent investment instruments; its individual investment focus; and its lack of concern for inflation (Levy, 1994, p. 3). Eventually, many of these concerns led to the formation of a Prudent Investor Rule, stated in the 1990 Third Restatement of Trusts, and the development of the Uniform Prudent Investor Act, a model law, for consideration by the various states. Though there only appears to be a one-word difference between the Prudent Person Rule and the Prudent Investor Rule, the actual differences in practice are significant.

The basic thrust of the Prudent Investor Rule is its emphasis on the overall performance of a portfolio, instead of the performance of individual investments (Korn, 1994, p. 34; Duronio, 1996, par. 8). In short, the Prudent Investor Rule adopts the premises of “modern portfolio theory” (Haskell, 1990, p. 86; Korn, 1994, pp. 32-33; Aalberts and Poon, 1996, par. 2; Phillips, 1997, par. 18), in which the overall performance of the portfolio is the objective of any investment plan. This is in direct contrast with the Prudent Person Rule, in which investments are analyzed individually, regardless of the overall performance of the portfolio.

There are several other ways in which the Prudent Investor Rule, as articulated in the Third Restatement of Trusts, differs from the Prudent Person Rule.

**Inflation.** Unlike the Prudent Person Rule, the Prudent Investor Rule mandates that inflation “must be considered as part of the investment strategy” (Korn, 1994, p. 33), and a trustee “is now charged with responsibility for at least maintaining pace with the effects of inflation upon a portfolio” (Sages, 1995, p. 26). Moreover, by increasing the flexibility of
investment strategy, the Prudent Investor Rule allows one to fight “the corrosive effects of inflation that create the greatest threat for trustees” (Phillips, 1997, par. 3).

No investment automatically imprudent. As previously mentioned, some investment instruments were considered to be inherently imprudent under the Prudent Person Rule; some include “foreign stocks, or precious metals” (Phillips, 1997, par. 17), and “investments in new enterprises, buying on margin, buying options and futures, and buying for the purpose of short term resale” (Johnson, 1993, p. 1179). Under the Prudent Investor Rule, however, no investment is automatically considered imprudent (Korn, 1994, p. 33), and trustees “may now utilize a wider array of modern investments and, consequently, can better respond to the ever-changing market conditions that they face” (Phillips, 1997, par. 21). In short, a trustee may use any instrument “that promotes the risk/return objectives of the portfolio and that meets any other fiduciary objectives” (Duronio, 1996, par. 10).

Diversification. Under the Prudent Investor Rule, a trustee has a duty to diversify an investment portfolio, in order to minimize risk (Korn, 1994, p. 33; Duronio, 1996, par. 11). This is consistent with the court decision in Lincoln First Bank, previously mentioned in this chapter.

The need for diversification under modern portfolio theory centers around the differences between two types of risk: market risk, and specific risk. Market risk, also known as “non-diversifiable risk” (Aalberts and Poon, 1996, par. 35), describes the reaction of the overall market to general economic conditions, such as changes in inflation or interest rates (Haskell, 1990, p. 101; Johnson, 1993, p. 1186; Aalberts and Poon, 1996, par. 35; Phillips, 1997, par. 24). “Market risk cannot be diversified even by a well-diversified portfolio” (Aalberts and Poon, 1996, par. 35), and therefore is considered “unavoidable” (Phillips, 1997, par. 24).

Specific risk, however, is reflective of “those market forces that negatively affect a specific investment or industry” (Phillips, 1997, par. 25). This risk can be reduced by investing in different instruments, industries, and even companies, and is called “diversifiable risk” (Haskell, 1990, p. 101; Johnson, 1993, p. 1186; Aalberts and Poon, 1996, par. 34; Phillips, 1997, par. 25). There are cases where a risk that negatively affects one investment might possibly affect another positively; in other cases, two investments might both react negatively or positively to the same event (Haskell, 1990, p. 101). Therefore, the key to protecting a portfolio is to diversify by “having a large enough number of stocks in different industries” (Aalberts and Poon, 1996, par. 34), so that any “movement downward in one part of the portfolio will be offset by a corresponding upward movement in another part of the portfolio” (Johnson, 1993, p. 1186).

Delegation of duties. According to the Uniform Prudent Investor Act, if a trustee lacks the experience or expertise needed to carry out the proper management of a trust, he or she may delegate investment authority to professionals who are more qualified to make intelligent decisions (Korn, 1994, p. 33; Sages, 1995, p. 24; Duronio, 1996, par. 12). Considering the wide range of investment instruments available, “fiduciaries need the ability to rely on experts when they are venturing into unusual investments” (Duronio, 1996, par. 12). However, reliance upon such expert advice does not “deflect or shift responsibility away from the nominated fiduciary to exercise care, skill, and caution when
making such selections and in continually monitoring the actions of the agent” (Sages, 1995, p. 24), and it definitely “should be viewed as an ability to abdicate” one’s fiduciary responsibilities (Duronio, 1996, par. 12).

As of 1996, eleven states had adopted the Uniform Prudent Investor Act (Duronio, 1996, abstract), and others are debating its adoption. The rule is not, however, without its distracters. Levy (1994), for example, points out that Haskell (1990) argues against the use of the Prudent Investor Rule for family estates and trusts because it is too broad, instead arguing that all that is needed may be “some retuning (by permitting index funds” (Levy, 1994, p. 8). However, generally the Prudent Investor Rule is seen as “intended to liberate expert trustees to pursue challenging, rewarding, non-traditional strategies when appropriate to a particular trust” (Halbach, 1992, p. 1154).

Through its development by both statute and case law, and despite the emergence of the Prudent Investor Rule, the Prudent Person Rule has emerged as the preeminent fiduciary standard when it comes to investing other people’s money. While it is not perfect, as can be attested to through the advocacy by some of the newer Prudent Investor Rule, it does seem to be a marked improvement over the legal list method of fiduciary responsibility previously endorsed by state legislatures.

This chapter, however, has primarily dealt with the Prudent Person Rule and its variants (such as the Prudent Investor Rule and ERISA) from the standpoint of trusts, estates, and pension plans, while basically ignoring its impact upon state-run local government investment pools. The next chapter of this dissertation shall not only examine how the Prudent Person Rule is utilized by these pools, but also begin an examination of the premise put forth at the beginning of this chapter, as to whether a pool would be better served under the limitations of a legal list or the Prudent Person Rule.
Chapter VII: Local Government Investment Pools and their Use of the Prudent Person Rule

As previously mentioned, thirty states currently operate local government investment pools (NAST, 1995, p. 12), with at least 16,114 local governmental entities participating in the pools (NAST, 1997, p. 62). Assets in these pools exceeded $70 billion (NAST, 1997, p. 62), or nearly one-tenth of the more than $750 billion in assets under state and local management in 1996 (Doyne, 1996, p. 6).

With such large revenue amounts involved, it is vital that state treasuries which have assumed stewardship for local government revenues implement standards that are sufficient to protect pools from investment disaster. As seen in the example of West Virginia and its past financial problems, a failure to properly invest revenues can have serious consequences for the fiscal stability of state and local governments. In many ways, the role of state treasuries mirrors the responsibilities of trust fiduciaries, who must conservatively protect the financial interests of clients, lest those clients lose assets as a result of incompetence or error in judgment.

To examine the fiduciary standards employed by state-run local government investment pools, the author conducted a survey of the thirty state-run local government investment pools currently in operation in the United States. Twenty-eight pools were kind enough to respond to the survey, and supply information regarding the structure of their pools, and the rates of return earned by their pools during a five-year time period, beginning with Fiscal Year 1992 and ending with Fiscal Year 1996.

The survey asked whether “the portfolio guidelines for the investment policies of your local government investment pool” were set by one of the five following categories: (a) Prudent Person Rule only; (b) Modified Prudent Person Rule only; (c) Prudent Person Rule along with other constitutional or statutory limitations; (d) constitutional or statutory limitations with no Prudent Person Rule; or (e) other (with the survey respondent submitting an answer as to what “other” meant). After receiving the surveys, and verifying responses through additional correspondence and analysis of applicable statutes and/or regulations, three categories emerged in which the twenty-eight pools responding to the dissertation’s survey instrument could be classified during the time frame studied.

71 The two states not responding to the survey were Nevada and New Mexico. Information from Georgia, Massachusetts and Ohio could not be used, since their fiscal years are from 1 January to 31 December.
72 To learn more about the survey instrument involved, why this time frame was chosen, the methods of data collection, and ways in which the survey responses were confirmed, please see Appendix A, “Research Design.”
73 Massachusetts reported operating under a “Modified Prudent Person Rule.” However, under examination, there was not difference between this “Modified Prudent Person Rule” statute and traditional Prudent Person Rule statutes, and therefore the author chose to classify Massachusetts as a “Prudent Person Rule” pool.
74 For more information on survey and classification procedures, please see Appendix A.
• Only legal list. Eight states operated strictly under constitutional and/or statutory limitations on permissible forms of investments, with no statutory form of the Prudent Person Rule in effect.\footnote{These eight states are Arizona, Illinois, Louisiana, New Hampshire, North Carolina, Ohio, Pennsylvania, and South Carolina.}

• Only Prudent Person Rule. Five states operated under a statutory form of the Prudent Person Rule, with no other constitutional or statutory limitations on permissible investments.\footnote{The five states are Delaware, Massachusetts, Montana, New Jersey, and Oregon.}

• Both legal list and Prudent Person Rule. Fifteen states not only operate under constitutional and/or statutory limitations on permissible investment instruments, but also operate under a statutory form of the Prudent Person Rule.\footnote{The fifteen states are California, Connecticut, Florida, Georgia, Idaho, Kansas, Maryland, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.}

A summary of this information can be found in Table Two.

Interestingly, during the time frame under examination, no state pool was operating under the new standards of the Prudent Investor Rule. In 1997, however, West Virginia began operating its pool under a statutory form of the Prudent Investor Rule, and Washington was making similar efforts regarding its own investment pool.

During the survey, two states expressed reservation regarding their placement within the three classifications previously listed:

• New Jersey. The New Jersey pool operates under a statutory prudence law, while lacking any specific statutory limitations on investment instruments. However, under New Jersey law, the State Investment Council has the power and duty “to formulate and establish... such policies as it may deem necessary or proper which shall govern... transactions, etc.” (N.J.S.A. 52:18A-91). “Under this authority, the Council has established regulations which have the force of law and are reported under N.J.A.C. 17:16” (Machold, 1998). Therefore, the state believes that “the pool does operate under statutory limitations in the form of the Council’s regulations” (Machold, 1998).

• Wyoming. Wyoming operates its pool under both statutory limitations, and a statutory Prudent Person Rule. In a conversation with the author on 9 June 1998, however, Treasurer Stan Smith indicated his belief that the language of the Prudent Person Rule in his state was so broadly worded, that it was ineffective, and served as “nothing more than window dressing” in regards to the operation of his state’s pool.

Wyoming presents a good example of an issue that, while not studied in-depth
here, merits further research: the variations of the hybrid “combination legal list/Prudent Person Rule” classification. If both fiduciary standards are in place, are both standards equally effective, or does one standard have prominence over the other standard? In Wyoming, it appears that the legal list takes precedence over the Prudent Person Rule; are there cases in which this emphasis is reversed? Moreover, there may be instances in which legal list requirements vary between the states, regarding such issues as maturity limitations, investment instrument limitations, and percentage of funds available for investment in particular investment instruments. How narrow or broad are these variations, and might they have a significant impact upon the performance of pools listed within this classification?

Most statutory forms of the Prudent Person Rule employed by local government investment pools are similar in nature. These different forms of Prudent Person law can be found in Appendix B, “Examples of the various forms of the Prudent Person Rule used by local government investment pools.” The following is the statutory language of the Prudent Person Rule covering the Washington pool:

“In investing and reinvesting moneys in the public funds investment account and in acquiring, retaining, managing, and disposing of investments of the investment pool, there shall be exercised the judgment and care under the circumstances then prevailing which persons of prudence, discretion, and intelligence exercise in the management of their own affairs, not in regard to speculation but in regard to the permanent disposition of the funds considering the probable income as well as the probable safety of the capital” (Rev. Code Wash. Section 43.250.040).

The only significant difference among the statutory forms of prudence law is the inclusion of the phrase “familiar with such matters,” in order to form what some states refer to as a “Prudent Expert Rule.” An example of this revision can be seen in the statute governing Virginia’s pool:

“Any investment of such funds pursuant to the provisions of this chapter shall be made solely in the interest of such citizens and with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims” (Va. Code Ann. Section 2.1-328.14).

No case law or judicial opinion can be found by this author, however, to determine if this change to the traditional Prudent Person Rule actually has any legal effect upon the fiduciary responsibilities of those in charge of investing the assets of local government investment pools.

Moreover, this author cannot find any instance in which a Prudent Person law has actually been enforced against any local government investment pool, or any of its agents. In the only significant case of financial mismanagement of a state-run local government investment pool, that of West Virginia in the 1980s, the Prudent Person Rule never became a legal issue. Therefore, it is impossible for this author to predict on how a Prudent Person law would be enforced against those accused of financial mismanagement of a state-run
Nevertheless, as seen by the statements of West Virginia officials in the previous chapter, some people believe that there is a significant difference in the actual investment operations of an investment fund between those operating under a Prudent Person law, and those operating under a legal list. In the survey for this dissertation, officials overseeing pools were asked to answer the following question:

“Do you have any comments regarding the effectiveness of the Prudent Person Rule, and do you believe that local government investment pools operating under the Prudent Person Rule have a higher rate of return on investment than pools not operated under the Prudent Person Rule?”

Answers from twenty-four respondents of the survey can be found in Appendix C, “Responses to Question Four of survey instrument.” This question was not designed to elicit a quantitative response; instead, it was designed to capture the “conventional wisdom” might be regarding this topic.

Ten of twenty-four respondents either did not provide a response, or answered “no comment.” Of the remaining fourteen:

- One pool answered that a Prudent Person law pool would underperform a legal list pool.
- Three pools answered that a Prudent Person law pool might outperform a legal list pool, if the legal list was too restrictive.
- Five pools answered that a Prudent Person law pool would outperform a legal list pool.
- Five pools gave neutral answers, and did not attempt to venture whether a Prudent Person law pool would outperform or underperform a legal list pool.

From the above responses, it can be seen that the “conventional wisdom” might support the belief of those in West Virginia that a pool operating under a Prudent Person Rule would outperform a pool under a legal list, in regards to rates of return on investment.

This conventional wisdom, moreover, has been the basis of attempted policy change in at least one instance. The Pennsylvania IMPACCT Commission, a gubernatorial commission designed to find ways to improve government within the Commonwealth of Pennsylvania, recommended that the state adopt a Prudent Investor standard for the management of its investment policies, including those affecting the state’s local government investment pool (Hafer, 1997, p. 2). This recommendation was based upon “estimates of the additional revenue the Commonwealth might possibly generate” by switching from a legal list to the Prudent Investor standard (Hafer, 1997, p. 3). Subsequent to this recommendation, House Bill No. 439 was introduced on 11 February 1997 for consideration by the House Finance Committee.
In comments to the Finance Committee, the Treasurer’s Office was careful to avoid encouraging such conventional wisdom:

“Bear in mind that those projections are based on the historical performance of the stock market over a long period--and the performance in the past few years as been phenomenal. But Treasurer Hafer and I caution you to consider the disclaimer contained in any stock or mutual fund prospectus: ‘Past performance is not indicative of future returns’” (Hafer, 1997, p. 3).

Moreover, the Treasurer’s Office recognized the pressure that these expectations could have upon the investment policies of the Commonwealth:

“Of course, we recognize that whatever our performance under the prudent investor standard, it likely will be second-guessed. Regardless of the earnings--even if they far exceed industry norms--some will say we could have achieved more. I can assure you, however, that this Treasurer will not be swayed by Monday-morning quarterbacks and will pursue a prudent investor strategy in which the watchword, at all times, is ‘prudent’” (Hafer, 1997, p. 3).

It is clear that the issue of whether the conventional wisdom is correct, in believing that there is a significant difference in the return on investment yields between government investment funds utilizing the Prudent Person Rule and those utilizing a legal list, has both important financial and political ramifications. First, if the estimate that states and localities have $750 billion in cash assets (Doyne, 1996: 6) is correct, the change in investment authority from legal lists to the Prudent Person Rule could result in literally billions of dollars worth of additional revenue for state and local governments. This possibility in itself is reason in itself for studying whether differences do exist.

Second, before state and local officials use valuable time and resources attempting to switch from legal list authority to the Prudent Person Rule, based upon a belief that Prudent Person Rule authority will result in higher returns on investment, such a premise should be investigated. If there is a difference in the performance of investment funds, based upon whether a fund operates under a legal list or the Prudent Person Rule, then it could possibly be worth expending political capital in order to achieve the switch in authority. If, however, there is no significant difference, based upon the use of legal list or Prudent Person Rule authority, then it would be folly to expend that capital over an issue that will, in the end, have no bearing upon the yield performance of the fund.

Third, as seen in the current debate over House Bill 439 in Pennsylvania, some people may believe that the use of the Prudent Person Rule will always increase the return on investment gained over what could be earned by a fund under legal list restrictions. Such a belief not only can inflate expectations of performance by officials, thereby forcing the treasurer to attempt to meet those expectations; it can result in overly-optimistic estimates in future revenues. Such optimistic expectation could lead a governmental entity to spend money based upon projections of increased revenue that cannot be reasonably be achieved by the investment managers. Therefore, if there is no difference in the return on investment yield performance between funds operating under Prudent Person Rule, and those operating under legal lists, then the misplaced assumption of increased returns should be dismissed in a responsible fashion by investment managers and elected officials.
Hopefully, the answers to these above questions can be examined in the next chapter of this dissertation.
Table Two

Portfolio guidelines for Fiscal Years 1992-1996 of local government investment pools responding to survey (N = 28)

<table>
<thead>
<tr>
<th>Guidelines</th>
<th>States</th>
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<tbody>
<tr>
<td>Only constitutional/statutory limitations (&quot;legal list&quot;)</td>
<td>Arizona</td>
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<td>Illinois</td>
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<td>Wisconsin</td>
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<td></td>
<td>Wyoming</td>
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</tbody>
</table>

| Only statutory form of Prudent Person Rule                                 |                             |
|                                                                           |                             |

<table>
<thead>
<tr>
<th>Both constitutional/statutory limitations (&quot;legal list&quot;) and statutory form of Prudent Person Rule</th>
<th></th>
</tr>
</thead>
</table>
Chapter VIII: Examination of the Rates of Return for State-Run Local Government Investment Pools

At this point in the dissertation, attention turns to comparing rates of return on investments among the states, in order to see if there are any differences among the three classifications of states being studied: (a) states operating with only statutory legal list investment authority, (b) states operating with only statutory Prudent Person Rule investment authority, and (c) states operating with a combination of statutory legal list and Prudent Person Rule authority.

Twenty-eight states responded to the survey; this chapter will examine the rates of return on investment from twenty-five of those states. In addition, these comparisons include two benchmarks: (a) the IBC/Donoghue First Tier Institutions-Only Index, prior to 31 December 1995, and IBC First Tier Institutions-Only Rated Index through 30 June 1996; and (b) Federal Reserve three-month T-Bills.

Description of population and subpopulations

Tables Twenty through Twenty-Four contain the means and standard deviations for the population (state-run local government investment pools, responding to the survey instrument), and the subpopulations (the three classifications of “only legal list,” “both legal list/Prudent Person Rule,” and “only Prudent Person Rule”) under study in this dissertation. These statistics are for each of the five fiscal years under examination. It is important to note that the variation in standard deviations of returns on investment across years and types of classifications of states suggest that performance is not fully captured by the means. Therefore, some caution should be used in basing any conclusions solely on comparison of means.

Comparison of state-run pools with IBC/Donoghue Benchmark

This section examines the various rates of returns for the twenty-five state-run local government investment pools responding to the survey, and the rates of return for the IBC/Donoghue First Tier Institutions-Only Index, prior to December 31, 1995, and IBC First Tier Institutions-Only Rated Index through June 30, 1996. See Tables Three through Six, and Figures One and Two.

Table Three compares the means of state-run local government investment pool classifications, and the IBC/Donoghue First Tier Institutions-Only Index, prior to December 31, 1995, and IBC First Tier Institutions-Only Rated Index through June 30,

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78 Georgia, Massachusetts, and Ohio sent data based upon a fiscal year of 1 January to 31 December. Therefore, the data were incompatible, and subsequently unusable, in any comparison with other state rates of return on investment, which were for fiscal years from 1 July to 30 June of each year.

79 These two benchmarks are utilized by the State Treasurer’s Office in Connecticut (Burnham, 1996, p. 46).
Figure 1. Comparison of means of return on investment between all state-run local government investment pools (responding to survey), and IBC/Donoghue First Tier Institutions-Only Index prior to 31 December 1995, and IBC First Tier Institutions-Only Rated Index through 30 June 1996.

In addition, the means for each of the three specific classifications exceeded the benchmark rates of return in Fiscal Years 1992, 1993, and 1994. In Fiscal Years 1995 and 1996, however, only the means for “only Prudent Person Rule” and “both PPR/legal list” surpassed the benchmark rates of return, while the means for the “only legal list” classification were less than the benchmark rates of return.

Table Four compares the rates of return on investment for “only legal list” classified state-run local government investment pools and the IBC/Donoghue benchmark. In Fiscal Years 1992, 1993, and 1994, the rates of return on investment for all of the legal list pools in operation exceeded the benchmark rates of return. In Fiscal Year 1995, however, the rates of return on investment for only three out of seven pools (43 percent) exceeded the benchmark rate of return, and in Fiscal Year 1996, only two out of seven rates of return on investment (29 percent) surpassed the benchmark rate of return.

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80 Only five state-run local government investment pools under the “only legal list” classification were in operation during Fiscal Years 1992 and 1993, while in Fiscal Years 1994, 1995, and 1996, seven pools under the “only legal list” classification were in operation.
Table Five compares the rates of return on investment for “both legal list/Prudent Person Rule” state-run local government investment pools and the IBC/Donoghue benchmark. In Fiscal Year 1992, the rates of return on investment for ten out of twelve pools in this classification (83 percent) exceeded the benchmark rate of return, and in Fiscal Years 1993 and 1994 rates of return for all of the hybrid pools surpassed the benchmark rates of return. In both Fiscal Years 1995 and 1996, the rates of return on investment for ten out of fourteen pools (71 percent) exceeded the benchmark rates of return.

Finally, Table Six compares the rates of return on investment for “only Prudent Person Rule” state-run local government investment pools and the IBC/Donoghue benchmark. In Fiscal Years 1992, 1993, 1994, and 1996, the rates of return on investment for all pools in this classification surpassed the benchmark rates of return. In Fiscal Year 1995, three out of four rates of return on investment for Prudent Person Rule pools

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81 Only twelve state-run local government investment pools under the “both legal list/Prudent Person Rule” classification were in operation during Fiscal Year 1992, and in Fiscal Years 1993 and 1994 thirteen pools rations during Fiscal Years 1995 and 1996.

82 Only three state-run local government investment pools under the “only Prudent Person Rule” classification were in operation during Fiscal Years 1992 and 1993, while in Fiscal Years 1994, 1995, and 1996 seven such pools were in operation.
Comparison of state-run pools with T-Bill Benchmark

Next, one can examine the various rates of returns for state-run local government investment pools (responding to the survey instrument) and the rates of return for Federal Reserve Three-Month T-Bills, as presented in Tables Seven through Ten, and Figures Three and Four.

Table Seven presents the means of state-run local government investment pool classifications, and the rates of return on Federal Reserve Three-Month T-Bills. The means for all of the investment pools collectively were higher than the rates of return for the benchmark in Fiscal Years 1992, 1993, 1994, and 1996. In Fiscal Year 1995, however, the benchmark rate of return surpassed the mean rate of return for the pools.

Meanwhile, the mean rates of return on investment for each of the three specific classifications exceeded the benchmark rates of return in Fiscal Years 1992, 1993, 1994, and 1996. In Fiscal Year 1995, however, only the mean rate of return on investment for the “only Prudent Person Rule” pools surpassed the benchmark.

Table Eight compares the rates of return on investment for “only legal list” state-run local government investment pools with the rates of return on investment for Federal Reserve Three-Month T-Bills. In Fiscal Years 1992 and 1994, the rates of return on investment for all legal list pools surpassed the benchmark rates of return. In Fiscal Year
1993, four out of five rates of return on investment (80 percent) exceeded the benchmark rate of return, while in Fiscal Year 1995 only two out of seven rates of return on investment (29 percent) surpassed the benchmark rate of return. In Fiscal Year 1996, four out of seven rates of return on investment (57 percent) exceeded the benchmark.

Table Nine compares the rates of return on investment for “both legal list/Prudent Person Rule” state-run local government investment pools with the Treasury bill benchmark. In Fiscal Year 1992, eleven out of twelve rates of return on investment (91 percent) exceeded the benchmark rate of return, while in Fiscal Year 1993 twelve out of thirteen rates of return on investment (92 percent), and in Fiscal Year 1996 twelve out of fourteen (86 percent) surpassed the benchmark. In Fiscal Year 1994, all rates of return on investment exceeded the benchmark rate of return on investment. Only in Fiscal Year 1995, did just seven out of fourteen pools report rates of return that surpassed the benchmark.

Table Ten examines the rates of return on investment for “only Prudent Person Rule” state-run local government investment pools and the rates of return on Federal Reserve Three-Month T-Bills. In Fiscal Years 1992, 1993, 1994, and 1996, the rates of return on investment for all pools in this classification surpassed the benchmark rates of return. Only in Fiscal Year 1995 did any of the pool underperform; even in that year, three out of four rates of return on investment (75 percent) exceeded the benchmark.
Comparison of mean rates of return for state-run LGIPs

![Comparison of mean rates of return for state-run LGIPs](image)

**Figure 5.** Comparison of mean rates of return of different classifications of state-run local government investment pools (responding to survey) and all state-run local government investment pools (responding to survey).

Comparison of classifications of state-run pools

After looking at the individual states’ performances across the three kinds of investment classifications, examination turns to the three classifications themselves, as presented in Tables Eleven through Fourteen, and Figures Five and Six.

Table Eleven compares the mean rates of return on investment for different classification of state-run local government investment pools with the mean rates of return for all state-run local government investment pools. The mean rates of return for the “only Prudent Person Rule” pools exceeded the overall mean rates of return in four out of the five years, while the mean rates of return for the “both legal list/Prudent Person Rule” classification surpassed the overall mean rates of return in three out of five years. The mean rates of return for the “only legal list” states, however, exceeded the overall mean rates of return in only one out of the five years examined.

Table Twelve compares the rates of return for the individual legal list investment pools with the mean rates of return on investment for all state-run local government investment pools. In Fiscal Years 1992 and 1993, only two out of five mean rates of return on investment (40 percent) surpassed the mean rate of return for all state-run pools, while in Fiscal Years 1994 and 1995, only two out of seven mean rates of return (29 percent) exceeded the mean rates of return for all state-run pools. In Fiscal Year 1995, only three out of seven rates of return on investment for pools in this classification (43 percent) surpassed the rate of return for all state-run pools.
Table Thirteen compares the rates of return on investment for the “both legal list/Prudent Person Rule” investment pools to the mean rates of return for all state-run local government investment pools. In Fiscal Years 1992, five out of twelve rates of return on investments for pools in this classification (42 percent) exceeded the mean rate of return for all state-run pools, while in Fiscal Years 1993 and 1994 seven out of thirteen rates of return (54 percent) surpassed the mean rates of return for all state-run pools. Similarly, in Fiscal Year 1995, eight out of fourteen rates of return (57 percent) exceeded the mean rate of return for all state-run pools, but in Fiscal Year 1996 seven out of fourteen rates of return (50 percent) exceeded the mean rate of return for all state-run pools.

Table Fourteen compares the rates of return on investment for state-run local government pools in the “only Prudent Person Rule” classification to the mean rates of return for all state-run local government investment pools. In Fiscal Year 1992, the rates of return for all pools in this classification surpassed the mean rate of return for all state-run pools, while in Fiscal Year 1993 only one out of three rates of return (34 percent) exceeded the mean rate of return for all pools. In Fiscal Year 1994, one out of four rates of return (25 percent) surpassed the mean rate of return for all pools, while in Fiscal Year 1995 two out of four rates of return (50 percent) exceeded the mean rate of return for all pools. Finally, in Fiscal Year 1996, all four rates of return surpassed the mean rate of return on investment for all state-run local government investment pools.

Figure 6 compares the mean rates of return among the three classifications of state-run local government investment pools. As can be seen from the figure (and from a
reexamination of Table Eleven), the mean rates of return for the “only Prudent Person Rule classification exceeded the mean rates of return for the “only legal list” classification of pools in all five years, and surpassed the mean rates of return for the “both legal list/Prudent Person Rule” classification of pools in four out of the five fiscal years examined (all but Fiscal Year 1994).

Finally, the hybrid’s classification’s mean rates of return surpassed the mean rates for the “only legal list” pools in four out of five fiscal years (every year but Fiscal Year 1992).

Statistical Significance of Differences

An analysis of variance (or ANOVA) is a statistical technique “for analyzing differences among means” (Fox, 1995, p. 241), in order “to test the null hypothesis that several population means are equal” (Norusis, 1988, p. 263). This technique is utilized when studying “a categorized independent variable measured at any level and an uncategorized interval/ratio dependent variable” (Fox, 1995, p. 241).

The F ratio, or simply F, is a statistic produced in an ANOVA in which the “between-groups” mean square is divided by the “within-groups” mean square (Norusis, 1988, p. 267). “The stronger a relationship, the bigger the ratio,” and “the weaker a relationship, the smaller the ratio” (Fox, 1995, p. 149). In order to determine whether the F is statistically significant, one compares “the calculated F value to the F-distribution, the distribution of the F statistic when the null hypothesis is true” (Norusis, 1988, p. 268; Fox, 1995). In addition, the significance level “is based on both the actual value of F you obtain and on the degrees of freedom for the two mean samples” (Norusis, 1988, p. 268).

In this study, the independent variable is the legal list/Prudent Person Rule status of state-run local government investment pools, and the dependent variable is the return on investment yield performance of state-run local government investment pools. The null hypothesis being tested, first proposed in Chapter One, is that there is no difference in the return on investment yield performance of local government investment pools among those pools operating under the Prudent Person Rule fiduciary standard, those operating under a legal list fiduciary standard, and those operating under a combination legal list/Prudent Person Rule fiduciary standard, for the five-year period beginning with Fiscal Year 1992 and ending with Fiscal Year 1996. An ANOVA will be conducted for each fiscal year under examination in this dissertation.

Table Fifteen reports the results for Fiscal Year 1992. The F statistic is far above the statistical significance threshold of 0.05 level of significance sought here. Therefore, the relationship between return on investment yield performances and legal list/Prudent Person Rule status is not statistically significant for Fiscal Year 1992. Similarly, as Tables Sixteen through Nineteen indicate, the differences in rates of return in investment among pools operating under the three fiduciary standards do not reach statistical significance (although the F in Table Nineteen--0.0518--comes close to statistical significance).

83 Degrees of Freedom are the “number of scores or cell frequencies free to vary when computing a statistic” (Fox, 1995, p. 243), and is equal to the number of cases minus 1 (Fox, 1995, p. 70).
Summary of Findings

The following is a brief summary of findings, based upon the data previously presented in this chapter.

Comparison of pools and IBC/Donoghue benchmark. In the comparison of pools with the IBC/Donoghue benchmark, the mean rate of return for all pools surpassed the benchmark in all five years. The mean rates of return for all three categories of pools, furthermore, exceeded the benchmark in Fiscal Years 1992, 1993, and 1994. However, in Fiscal Years 1995 and 1996, the mean rates for the “only Prudent Person Rule” and “combination legal list/Prudent Person Rule” categories surpassed the benchmark, while the mean rate for the “only legal list” category performed more poorly than the benchmark.

Comparison of pools and Federal Reserve T-Bills. In the comparison of pools with the Federal Reserve Three-Month T-Bills benchmark, the mean rate of return for all pools surpassed the benchmark in Fiscal Years 1992, 1993, 1994, and 1996, while falling behind in Fiscal Year 1995. The mean rates of return for all three categories of pools, furthermore, exceeded the benchmark in Fiscal Years 1992, 1993, 1994, and 1996. However, in Fiscal Year 1995, the mean rate for the “only Prudent Person Rule” category surpassed the benchmark, while the mean rates for the “only legal list” and “combination legal list/Prudent Person Rule” categories trailed the benchmark.

Comparison of overall and individual category means. The mean rate of return for the “only Prudent Person Rule” category exceeded the overall mean in four out of five years, while the mean rates of return for the “combination Prudent Person Rule/legal list” category surpassed the overall mean in three out of five years. The mean rate of return for the “only legal list” category of pools, however, only exceeded the overall mean one out of five years.

Moreover, when comparing individual state rates of return with the mean rate of return for all pools), pools in the “only Prudent Person Rule” category seem to have performed best and pools in the “only legal list” category fared the worst.

Comparison of categories with each other. The mean rate of return for the “only Prudent Person Rule” category outperformed the mean rate of return for the “only legal list” category in all five years, and outperformed the mean rate of return for the “combination legal list/Prudent Person Rule” category in four of those years. The mean rate of return for the “combination legal list/Prudent Person Rule” category surpassed the mean rate for the “only legal list” category in four out of five years.

Statistical Significance. Out of the five ANOVA tests run on the rates of return for state-run local government investment pools, only the results for Fiscal Year 1996 came close to reaching the threshold necessary to suggest a statistically significant difference among the classifications. Therefore, it is impossible, based upon these tests, for the author to reject the null hypothesis.

What does it all mean?
Beyond the tables and statistical significance tests lie two basic questions: what is the substantive significance of all the information presented in this chapter, and how does it relate to the null and alternative hypotheses of this dissertation?

From an examination of Tables Eleven through Fourteen, one could assume that there are differences in performance among the three classifications of pools. In most cases, the “combination legal list/Prudent Person Rule” pools outperformed the “only legal list” class, and the “only Prudent Person Rule” pools outperformed both the “combination legal list/Prudent Person Rule” and “only legal list” states. Moreover, it appears in Tables Three through Ten that the “only Prudent Person Rule” pools (both as a group and individually) outperformed the other two types (both as a group and individually) when compared to the performances of the two benchmarks.

However, even if it appears that such differences exist, are these differences statistically significant? For this reason, ANOVA tests were conducted on the data. The level of statistical significance is “the probability that a relationship found in sample data occurs by chance if there is no relationship in the population” (Fox, 1995, p. 245). In short, the statistical significance level “tells you the probability that the observed differences could be due to chance” (Norusis, 1988, p. 213). In this particular case, are the observed differences in rates of return among the three kinds of pools based upon a relationship that could be observed in a larger population, or are they simply the result of chance?

In the case of the ANOVA tests reported in Tables Fifteen through Nineteen, one cannot reject the possibility that the observed differences were the result of random chance. Only in Fiscal Year 1996 did the level of significance (0.0518) approach the threshold of 0.054 used by the author.5 This is in direct contrast to Fiscal Year 1993, in which the level of significance of 0.9287 almost guarantees that one could find a similar relationship in the population through random chance.

One problem with these tests is the small sample size. “Statistical significance depends not only on the strength of a relationship, but also on the number of cases in a sample” (Fox, 1995, p. 117; Norusis, 1988). Therefore, even if there was an important relationship present, it might not be detected because the sample size was insufficient.6

Even if the ANOVA tests had reported a statistically significant relationship, does that mean the relationship would be substantively significant? Both Norusis (1988) and Fox (1995) argue that just because a difference is statistically significant, it may not be indicative of a truly important difference (Norusis, 1988, p. 232; Fox, 1995, p. 117):

“For sufficiently large sample sizes, you might find that a difference of

4 A level of significance of 0.05 “is just the level conventionally used to decide on statistical significance,” although “not all researchers and statisticians are pleased with this convention” (Fox, 1995, p. 109).
5 A 0.05 level of significance means that there is only a 1-in-20 chance that one could find a similar relationship in the population through chance.
6 In fact, a case could be made that this is precisely what happened in this case, since it appears that (with the exception of Fiscal Year 1993), the level of significance increases as the sample size increases.
even a month in education between excited men and unexcited men is statistically significant. That doesn’t mean that the difference is of any practical importance. We all know that on the average, an extra month of education won’t do much for you. It’s unlikely to alter your perception of the world. It probably does little to enhance your ability to explain why some people find life exciting and others don’t (Norusis, 1988, p. 232).

In short, “who cares about a relationship showing just a few percentage points difference even if it is generalizable to the population (and thus is statistically significant)?” (Fox, 1995, p. 117).

To determine the importance of this possible difference, let’s examine the data for Fiscal Year 1996, the only year that approached the threshold significance level. The seven states in the “only legal list” classification—Arizona, Illinois, Louisiana, New Hampshire, North Carolina, Pennsylvania, and South Carolina—had state-run local government investment pool assets of approximately $8.216 billion, with a mean return rate of 5.37 percent, or approximately $441 million. Had these states earned the mean rate of return of 5.55 percent for the “combination legal list/Prudent Person Rule” pools, the rate of return on investment would have been approximately $456 million (or $15 million more than they actually earned). If the legal list pools had earned the 5.70 percent rate of return earned by the “only Prudent Person Rule” classification, the rate of return on investment would have been approximately $468 million (or $27 million more than they actually earned).

Whether this amount is substantively significant probably depends on one’s own personal perspective. I would argue that these figures represent funds lost by the state that could have been spent on important government projects. Even if the money only represented a $1 million increase for each state, that still would be enough to either purchase new fire equipment, buy police vehicles, or hire new school teachers. Although this may seem small in comparison to the big picture, it would be large to those small communities benefiting from such increases in government funding.

Moreover, how do the results of this dissertation extend to the overall cash management population of state and local governments within the United States? As previously mentioned, there were over $750 billion in cash assets held by state and local governments in 1996 (Doyne, 1996, p. 6). If only $200 billion of those assets were influenced by these findings, that would have meant approximately $660 million in lost revenues to state and local governments in Fiscal Year 1996.

Therefore, it may be that not only statistically significant, but also substantively significant results will emerge in future studies. The potential for improving the cash management practices of states, and increasing revenues (and services) should justify further research into this area. However, as will be seen in the next chapter, at this stage the author is not ready to make any claim that such significance actually does exist, based upon the current results.
Table Three
Comparison of the means of state-run local government investment pool classifications (for pools responding to survey) and IBC/Donoghue First Tier Institutions-Only Index, prior to December 31, 1995, and IBC First Tier Institutions-Only Rated Index through June 30, 1996 (N = 28)

<table>
<thead>
<tr>
<th>Fund/Pool Classification</th>
<th>N</th>
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<th>FY 93</th>
<th>FY 94</th>
<th>FY 95</th>
<th>FY 96</th>
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<tr>
<td>IBC/Donoghue</td>
<td></td>
<td>4.62</td>
<td>3.03</td>
<td>3.08</td>
<td>5.31</td>
<td>5.44</td>
</tr>
<tr>
<td>All pools average</td>
<td>25</td>
<td>5.26</td>
<td>3.74</td>
<td>3.69</td>
<td>5.35</td>
<td>5.52</td>
</tr>
<tr>
<td>Only legal list</td>
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<td>5.32</td>
<td>3.71</td>
<td>3.51</td>
<td>5.17</td>
<td>5.37</td>
</tr>
<tr>
<td>Both PPR/legal list</td>
<td>14</td>
<td>5.17</td>
<td>3.73</td>
<td>3.83</td>
<td>5.41</td>
<td>5.55</td>
</tr>
<tr>
<td>Only PPR</td>
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<td>5.50</td>
<td>3.86</td>
<td>3.55</td>
<td>5.43</td>
<td>5.70</td>
</tr>
</tbody>
</table>
### Table Four

Comparison between “only legal list” state-run local government investment pool rates of return on investment (responding to survey) and the IBC/Donoghue First Tier Institutions-Only Index, prior to December 31, 1995, and the IBC First Tier Institutions-Only Rated Index through June 30, 1996 (N = 7)

<table>
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<th>Fund/Pool</th>
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<th>FY 94</th>
<th>FY 95</th>
<th>FY 96</th>
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</thead>
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<td>IBC/Donoghue</td>
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<td>3.03</td>
<td>3.08</td>
<td>5.31</td>
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<tr>
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<td>4.28</td>
<td>3.82</td>
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</tr>
<tr>
<td>Illinois</td>
<td>4.70</td>
<td>3.30</td>
<td>3.39</td>
<td>5.54</td>
<td>5.67</td>
</tr>
<tr>
<td>Louisiana</td>
<td>6.91</td>
<td>4.76</td>
<td>4.05</td>
<td>5.52</td>
<td>5.04</td>
</tr>
<tr>
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<td>n/a</td>
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<td>4.96</td>
<td>5.24</td>
</tr>
<tr>
<td>North Carolina</td>
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<td>5.28</td>
<td>5.43</td>
</tr>
<tr>
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<td>n/a</td>
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<td>5.29</td>
<td>5.58</td>
</tr>
<tr>
<td>South Carolina</td>
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<td>3.15</td>
<td>3.24</td>
<td>5.21</td>
<td>5.43</td>
</tr>
</tbody>
</table>
Table Five  
Comparison between “both legal list/Prudent Person Rule” state-run local government investment pool rates of return on investment (responding to survey) and the IBC/Donoghue First Tier Institutions-Only Index, prior to December 31, 1995, and the IBC First Tier Institutions-Only Rated Index through June 30, 1996. (N = 14)

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<th>FY 94</th>
<th>FY 95</th>
<th>FY 96</th>
</tr>
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<td>3.03</td>
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<td>5.31</td>
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</tr>
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</tr>
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<td>5.95</td>
</tr>
<tr>
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<td>5.05</td>
<td>5.50</td>
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<tr>
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<tr>
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<tr>
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<td>3.11</td>
<td>4.24</td>
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<td>5.45</td>
</tr>
<tr>
<td>Tennessee</td>
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<td>5.41</td>
<td>5.54</td>
</tr>
<tr>
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<td>3.76</td>
<td>4.98</td>
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</tr>
<tr>
<td>Utah</td>
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<td>5.32</td>
<td>5.44</td>
</tr>
<tr>
<td>Virginia</td>
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<td>3.41</td>
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</tr>
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<tr>
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<td>4.89</td>
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Table Six

Comparison between “only Prudent Person Rule” state-run local government investment pool rates of return on investment (responding to survey) and the IBC/Donoghue First Tier Institutions-Only Index, prior to December 31, 1995, and the IBC First Tier Institutions-Only Rated Index through June 30, 1996 (N = 4)

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<th>FY 94</th>
<th>FY 95</th>
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Table Seven

Comparison of the means of classifications of state-run local government investment pool classifications (for pools responding to survey) and Federal Reserve Three-Month T-Bill rates of return \( (N = 28) \)

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<td>FedRes 3-mth T-Bills</td>
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<td>3.08</td>
<td>3.09</td>
<td>5.41</td>
<td>5.29</td>
</tr>
<tr>
<td>All pools average</td>
<td>07</td>
<td>5.32</td>
<td>3.71</td>
<td>3.51</td>
<td>5.17</td>
<td>5.37</td>
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<tr>
<td>Only legal list</td>
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<td>3.83</td>
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Table Eight
Comparison between "only legal list" state-run local government investment pool rates of return on investment (responding to survey) and Federal Reserve Three-Month T-Bill rates of return (N = 7)

<table>
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<th>Fund/Pool</th>
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</table>
### Table Nine

Comparison between "both legal list/Prudent Person Rule" state-run local government investment pool rates of return on investment (responding to survey) and Federal Reserve Three-Month T-Bill (N = 14)

<table>
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</tr>
<tr>
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<td>Maryland</td>
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<td>4.24</td>
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</tr>
<tr>
<td>Tennessee</td>
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<td>3.35</td>
<td>5.41</td>
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</tr>
<tr>
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<td>3.41</td>
<td>5.46</td>
<td>5.59</td>
</tr>
<tr>
<td>Washington</td>
<td>4.98</td>
<td>3.40</td>
<td>3.45</td>
<td>5.35</td>
<td>5.58</td>
</tr>
<tr>
<td>West Virginia</td>
<td>4.69</td>
<td>3.26</td>
<td>3.37</td>
<td>5.46</td>
<td>5.59</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>5.96</td>
<td>3.95</td>
<td>3.74</td>
<td>5.19</td>
<td>5.27</td>
</tr>
<tr>
<td>Wyoming</td>
<td>5.93</td>
<td>4.63</td>
<td>4.89</td>
<td>5.75</td>
<td>5.99</td>
</tr>
</tbody>
</table>
Table 10
Comparison between "only Prudent Person Rule" state-run local government investment pool rates of return on investment (responding to survey) and Federal Reserve Three-Month T-Bill rates (N = 4)

<table>
<thead>
<tr>
<th>Fund/Pool</th>
<th>FY 92</th>
<th>FY 93</th>
<th>FY 94</th>
<th>FY 95</th>
<th>FY 96</th>
</tr>
</thead>
<tbody>
<tr>
<td>FedRes 3-mth T-Bills</td>
<td>4.49</td>
<td>3.08</td>
<td>3.09</td>
<td>5.41</td>
<td>5.29</td>
</tr>
<tr>
<td>Delaware</td>
<td>n/a</td>
<td>n/a</td>
<td>3.74</td>
<td>5.41</td>
<td>5.62</td>
</tr>
<tr>
<td>Montana</td>
<td>5.42</td>
<td>3.69</td>
<td>3.43</td>
<td>5.78</td>
<td>5.78</td>
</tr>
<tr>
<td>New Jersey</td>
<td>5.33</td>
<td>3.61</td>
<td>3.46</td>
<td>5.35</td>
<td>5.63</td>
</tr>
<tr>
<td>Oregon</td>
<td>5.74</td>
<td>4.28</td>
<td>3.58</td>
<td>5.18</td>
<td>5.78</td>
</tr>
</tbody>
</table>
Table Eleven

Comparison of the mean rates of return for different classifications of state-run local government investment pools (responding to survey) and the mean rate of return of all state-run local government investment pools (responding to survey) (N = 25).

<table>
<thead>
<tr>
<th>Pool Classification</th>
<th>N</th>
<th>FY 92</th>
<th>FY 93</th>
<th>FY 94</th>
<th>FY 95</th>
<th>FY 96</th>
</tr>
</thead>
<tbody>
<tr>
<td>All pools average</td>
<td>25</td>
<td>5.26</td>
<td>3.74</td>
<td>3.69</td>
<td>5.35</td>
<td>5.52</td>
</tr>
<tr>
<td>Only legal list</td>
<td>07</td>
<td>5.32</td>
<td>3.71</td>
<td>3.51</td>
<td>5.17</td>
<td>5.37</td>
</tr>
<tr>
<td>Both PPR/legal list</td>
<td>14</td>
<td>5.17</td>
<td>3.73</td>
<td>3.83</td>
<td>5.41</td>
<td>5.55</td>
</tr>
<tr>
<td>Only PPR</td>
<td>04</td>
<td>5.50</td>
<td>3.86</td>
<td>3.55</td>
<td>5.43</td>
<td>5.70</td>
</tr>
</tbody>
</table>
Table Twelve
Comparison between rates of return for “only legal list” classification of state-run local government investment pools (responding to survey) and the overall mean rates of return for all state-run local government investment pools (responding to survey) (N = 7)

<table>
<thead>
<tr>
<th>Fund/Pool</th>
<th>FY 92</th>
<th>FY 93</th>
<th>FY 94</th>
<th>FY 95</th>
<th>FY 96</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall mean</td>
<td>5.26</td>
<td>3.74</td>
<td>3.69</td>
<td>5.35</td>
<td>5.52</td>
</tr>
<tr>
<td>Arizona</td>
<td>5.65</td>
<td>4.28</td>
<td>3.82</td>
<td>5.41</td>
<td>5.67</td>
</tr>
<tr>
<td>Illinois</td>
<td>4.70</td>
<td>3.30</td>
<td>3.39</td>
<td>5.54</td>
<td>5.22</td>
</tr>
<tr>
<td>Louisiana</td>
<td>6.91</td>
<td>4.76</td>
<td>4.05</td>
<td>5.52</td>
<td>5.04</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>n/a</td>
<td>n/a</td>
<td>3.55</td>
<td>4.96</td>
<td>5.24</td>
</tr>
<tr>
<td>North Carolina</td>
<td>4.67</td>
<td>3.04</td>
<td>3.10</td>
<td>5.28</td>
<td>5.43</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>n/a</td>
<td>n/a</td>
<td>3.44</td>
<td>5.29</td>
<td>5.58</td>
</tr>
<tr>
<td>South Carolina</td>
<td>4.67</td>
<td>3.15</td>
<td>3.24</td>
<td>5.21</td>
<td>5.43</td>
</tr>
<tr>
<td>Fund/Pool</td>
<td>FY 92</td>
<td>FY 93</td>
<td>FY 94</td>
<td>FY 95</td>
<td>FY 96</td>
</tr>
<tr>
<td>---------------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>Overall mean</td>
<td>5.26</td>
<td>3.74</td>
<td>3.69</td>
<td>5.35</td>
<td>5.52</td>
</tr>
<tr>
<td>California</td>
<td>6.20</td>
<td>4.71</td>
<td>4.39</td>
<td>5.53</td>
<td>5.71</td>
</tr>
<tr>
<td>Connecticut</td>
<td>5.74</td>
<td>3.95</td>
<td>3.63</td>
<td>5.62</td>
<td>5.95</td>
</tr>
<tr>
<td>Florida</td>
<td>5.32</td>
<td>3.80</td>
<td>3.61</td>
<td>5.05</td>
<td>5.50</td>
</tr>
<tr>
<td>Idaho</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>5.74</td>
<td>5.38</td>
</tr>
<tr>
<td>Kansas</td>
<td>n/a</td>
<td>3.41</td>
<td>3.79</td>
<td>4.83</td>
<td>5.20</td>
</tr>
<tr>
<td>Maryland</td>
<td>3.65</td>
<td>3.11</td>
<td>4.24</td>
<td>6.02</td>
<td>5.45</td>
</tr>
<tr>
<td>Tennessee</td>
<td>4.61</td>
<td>3.06</td>
<td>3.35</td>
<td>5.41</td>
<td>5.54</td>
</tr>
<tr>
<td>Texas</td>
<td>5.00</td>
<td>3.80</td>
<td>3.76</td>
<td>4.98</td>
<td>5.48</td>
</tr>
<tr>
<td>Utah</td>
<td>5.23</td>
<td>4.08</td>
<td>4.12</td>
<td>5.32</td>
<td>5.44</td>
</tr>
<tr>
<td>Virginia</td>
<td>4.75</td>
<td>3.34</td>
<td>3.41</td>
<td>5.46</td>
<td>5.59</td>
</tr>
<tr>
<td>Washington</td>
<td>4.98</td>
<td>3.40</td>
<td>3.45</td>
<td>5.35</td>
<td>5.58</td>
</tr>
<tr>
<td>West Virginia</td>
<td>4.69</td>
<td>3.26</td>
<td>3.37</td>
<td>5.46</td>
<td>5.59</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>5.96</td>
<td>3.95</td>
<td>3.74</td>
<td>5.19</td>
<td>5.27</td>
</tr>
<tr>
<td>Wyoming</td>
<td>5.93</td>
<td>4.63</td>
<td>4.89</td>
<td>5.75</td>
<td>5.99</td>
</tr>
</tbody>
</table>
Table Fourteen

Comparison between rates of return for “only Prudent Person Rule” classification of state-run local government investment pools (responding to survey) and the overall mean rates of return for all state-run local government investment pools (responding to survey). (N = 4)

<table>
<thead>
<tr>
<th>Fund/Pool</th>
<th>FY 92</th>
<th>FY 93</th>
<th>FY 94</th>
<th>FY 95</th>
<th>FY 96</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall mean</td>
<td>5.26</td>
<td>3.74</td>
<td>3.69</td>
<td>5.35</td>
<td>5.52</td>
</tr>
<tr>
<td>Delaware</td>
<td>n/a</td>
<td>n/a</td>
<td>3.74</td>
<td>5.41</td>
<td>5.62</td>
</tr>
<tr>
<td>Montana</td>
<td>5.42</td>
<td>3.69</td>
<td>3.43</td>
<td>5.78</td>
<td>5.78</td>
</tr>
<tr>
<td>New Jersey</td>
<td>5.33</td>
<td>3.61</td>
<td>3.46</td>
<td>5.35</td>
<td>5.63</td>
</tr>
<tr>
<td>Oregon</td>
<td>5.74</td>
<td>4.28</td>
<td>3.58</td>
<td>5.18</td>
<td>5.78</td>
</tr>
</tbody>
</table>
Table Fifteen

Analysis of Variance of Returns on Investments by Legal List/Prudent Person Rule Status (for Fiscal Year 1992) \((N = 20)\)

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Sum of Squares</th>
<th>F</th>
<th>Sig of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>0.2795</td>
<td>2</td>
<td>0.1398</td>
<td>0.2458</td>
<td>0.7848</td>
</tr>
<tr>
<td>Within Groups</td>
<td>9.6686</td>
<td>17</td>
<td>0.5687</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>9.9482</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table Sixteen

Analysis of Variance of Returns on Investments by Legal List/Prudent Person Rule Status (for Fiscal Year 1993). \( (N = 21) \)

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Sum of Squares</th>
<th>F</th>
<th>Sig of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>0.0499</td>
<td>2</td>
<td>0.0249</td>
<td>0.0743</td>
<td>0.9287</td>
</tr>
<tr>
<td>Within Groups</td>
<td>6.0428</td>
<td>18</td>
<td>0.3357</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6.0927</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table Seventeen

Analysis of Variance of Returns on Investments by Legal List/Prudent Person Rule Status (for Fiscal Year 1994). (N = 24)

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Sum of Squares</th>
<th>F</th>
<th>Sig of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>0.5390</td>
<td>2</td>
<td>0.2695</td>
<td>1.7339</td>
<td>0.2009</td>
</tr>
<tr>
<td>Within Groups</td>
<td>3.2641</td>
<td>21</td>
<td>0.1554</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3.8031</td>
<td>23</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table Eighteen  
Analysis of Variance of Returns on Investments by Legal List/Prudent Person Rule Status (for Fiscal Year 1995) (N = 25)

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Sum of Squares</th>
<th>F</th>
<th>Sig of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>0.2916</td>
<td>2</td>
<td>0.1458</td>
<td>1.4503</td>
<td>0.2561</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2.2120</td>
<td>22</td>
<td>0.1005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2.5036</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table Nineteen

Analysis of Variance of Returns on Investments by Legal List/Prudent Person Rule Status (for Fiscal Year 1996) (N = 25)

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Sum of Squares</th>
<th>F</th>
<th>Sig of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>0.2953</td>
<td>2</td>
<td>0.1477</td>
<td>3.3972</td>
<td>0.0518</td>
</tr>
<tr>
<td>Within Groups</td>
<td>0.9563</td>
<td>22</td>
<td>0.0435</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1.2516</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table Twenty

Description of Subpopulations of State-Run Local Government Investment Pools (responding to survey instrument) for Fiscal Year 1992 (N = 20)

<table>
<thead>
<tr>
<th>Subpopulation</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire population</td>
<td>5.2575</td>
<td>0.7236</td>
<td>20</td>
</tr>
<tr>
<td>“Only legal list”</td>
<td>5.3200</td>
<td>0.9832</td>
<td>5</td>
</tr>
<tr>
<td>“Both legal list/PPR”</td>
<td>5.1717</td>
<td>0.7204</td>
<td>12</td>
</tr>
<tr>
<td>“Only PPR”</td>
<td>5.4967</td>
<td>0.2155</td>
<td>3</td>
</tr>
</tbody>
</table>
### Table Twenty-One

Description of Subpopulations of State-Run Local Government Investment Pools (responding to survey instrument) for Fiscal Year 1993 (N = 21)

<table>
<thead>
<tr>
<th>Subpopulation</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire population</td>
<td>3.7433</td>
<td>0.5519</td>
<td>21</td>
</tr>
<tr>
<td>“Only legal list”</td>
<td>3.7060</td>
<td>0.7678</td>
<td>5</td>
</tr>
<tr>
<td>“Both legal list/PPR”</td>
<td>3.7308</td>
<td>0.5336</td>
<td>13</td>
</tr>
<tr>
<td>“Only PPR”</td>
<td>3.8600</td>
<td>0.3659</td>
<td>3</td>
</tr>
</tbody>
</table>
Table Twenty-Two

**Description of Subpopulations of State-Run Local Government Investment Pools (responding to survey instrument) for Fiscal Year 1994 (N = 24)**

<table>
<thead>
<tr>
<th>Subpopulation</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire population</td>
<td>3.6896</td>
<td>0.4066</td>
<td>24</td>
</tr>
<tr>
<td>“Only legal list”</td>
<td>3.5129</td>
<td>0.3290</td>
<td>7</td>
</tr>
<tr>
<td>“Both legal list/PPR”</td>
<td>3.8269</td>
<td>0.4614</td>
<td>13</td>
</tr>
<tr>
<td>“Only PPR”</td>
<td>3.5525</td>
<td>0.1408</td>
<td>4</td>
</tr>
</tbody>
</table>
Table Twenty-Three

Description of Subpopulations of State-Run Local Government Investment Pools (responding to survey instrument) for Fiscal Year 1995 (N = 25)

<table>
<thead>
<tr>
<th>Subpopulation</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire population</td>
<td>5.3456</td>
<td>0.3230</td>
<td>25</td>
</tr>
<tr>
<td>“Only legal list”</td>
<td>5.1729</td>
<td>0.3289</td>
<td>7</td>
</tr>
<tr>
<td>“Both legal list/PPR”</td>
<td>5.4079</td>
<td>0.3248</td>
<td>14</td>
</tr>
<tr>
<td>“Only PPR”</td>
<td>5.4300</td>
<td>0.2529</td>
<td>4</td>
</tr>
</tbody>
</table>
Table Twenty-Four

Description of Subpopulations of State-Run Local Government Investment Pools (responding to survey instrument) for Fiscal Year 1996 (N = 25)

<table>
<thead>
<tr>
<th>Subpopulation</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire population</td>
<td>5.5236</td>
<td>0.2284</td>
<td>25</td>
</tr>
<tr>
<td>“Only legal list”</td>
<td>5.3729</td>
<td>0.2197</td>
<td>7</td>
</tr>
<tr>
<td>“Both legal list/PPR”</td>
<td>5.5479</td>
<td>0.2223</td>
<td>14</td>
</tr>
<tr>
<td>“Only PPR”</td>
<td>5.7025</td>
<td>0.0896</td>
<td>4</td>
</tr>
</tbody>
</table>
Chapter IX: Conclusion

Based upon the examination of findings on the rates of return for state-run local government investment pools in the previous chapter, I believe that one might be able to accept the alternative hypothesis proposed at the beginning of this effort:

Ha: There is a difference in the return on investment yield performance of local government investment pools among those operating under the Prudent Person Rule fiduciary standard, those operating under a legal list fiduciary standard, and those operating under a combination legal list/Prudent Person Rule fiduciary standard, for the five-year period beginning with Fiscal Year 1992 and ending with Fiscal Year 1996.

Such an acceptance is based upon the following findings from the previous chapter:

- The mean rates of return for both the “only Prudent Person Rule” and “combination legal list/Prudent Person Rule” categories of state-run pools matched or exceeded the IBC/Donoghue benchmark for all five years, while the mean rate of return for the “only legal list” category trailed the benchmark in at least one year.

- The mean rates of return for both the “only Prudent Person Rule” and “combination legal list/Prudent Person Rule” categories of state-run pools exceeded the Federal Reserve Three-Month T-Bill benchmark for all five years, while the mean rate of return for the “only legal list” category trailed the benchmark in at least one year.

- The mean rates of return for both the “only Prudent Person Rule” and “combination legal list/Prudent Person Rule” categories of state-run pools exceeded the mean rate of return for the state-run pools responding to the survey for more years than did the mean rate of return for the “only legal list” category of pools.

- The mean rate of return for the “only Prudent Person Rule” category of pools surpassed the mean rate of return for the “only legal list” category of pools in all five years, and the mean rate of return for the “combination legal list/Prudent Person Rule” category of pools exceeded the mean rate of return for the “only legal list” category of pools in three out of five years.

Therefore, it is possible that there is validity to the conventional wisdom, in that there are differences in performance among “Prudent Person Rule” pools, “legal list” pools, and combination “legal list/Prudent Person Rule” pools.

Despite these findings, however, I also believe that the above does not warrant a total rejection of the null hypothesis of no differences in performances among the three standards. My reluctance to reject the null hypothesis is based on several factors. First,
out of the five ANOVA tests run, only the results for Fiscal Year 1996 came close to reaching the level of significance necessary for the author to believe that there is a statistically significant difference between the classifications. Therefore, based strictly upon the ANOVA tests conducted, it is impossible to reject the null hypothesis.

Second, research failed to obtain information for two of the thirty states utilizing state-run local government investment pools, and also failed to obtain usable information from three other states. Had I been able to obtain this information, there is a chance that these data could have dramatically altered the results of this dissertation.

The ability of the findings from seven states to alter the conclusion of this dissertation leads to the third factor: sample size. Because of the small sample used, even the results of one state could significantly change the findings of this research. This very factor, for example, could explain why the level of significance in the ANOVA tests reached closer to becoming significantly significant as the number of cases analyzed increased. Moreover, the researcher is extremely troubled by the fact that the “only Prudent Person Rule” category of pools only contained four states, and the “only legal list” category of pools only contained seven states. Without survey results from all thirty states operating state-run pools, the researcher would be loath to ever reject the null hypothesis in this dissertation.

Finally, the researcher does not believe that the time frame utilized by this dissertation was broad enough to gain a more complete picture of the question being examined. Had the time frame been expanded beyond the five-year period in question, a more concrete pattern might have been found in the data. As it is, the researcher feels uncomfortable in accepting or rejecting a hypothesis based upon the limited time-frame findings of this effort.

In order to get a clearer picture of whether to accept or reject either the null or alternative hypothesis, the researcher believes that the following should be taken into consideration for future research on the topic.

Broadening the scope of research. All fifty states in the Union conduct some sort of cash management functions within their state treasuries. By examining the cash management functions of all states, instead of the thirty local government investment pools examined in this study, a researcher would be able to expand the population (and, hopefully, sample size) to be studied and analyzed.

Expand the time frame. In future research, the time frame should be expanded beyond five years, perhaps to ten years if possible. By expanding the time period to be studied, more confidence could be placed in patterns of performance that result from research into the topic.

Examine the “combination” category in greater depth. In the research for this dissertation, it became clear that the preferred category of investment standard, at least in regards to state-run local government investment pools (responding to this survey) was a combination of legal list and Prudent Person Rule investment standards. It also is clear that this category generally performed better than the “only legal list” category, but worse than the “only Prudent Person Rule” category. Was performance hindered by the retention of
some legal list provisions? Was it enhanced by the addition of the Prudent Person Rule standard? Or was performance both hindered and enhanced by the combination of standards?

**Examine states that have switched investment authority.** During the time period studied in this dissertation, no state-run local government investment pool switched categories (for example, from an “only legal list” pool to an “only Prudent Person Rule” pool). Since Fiscal Year 1996, however, at least one state--West Virginia--has switched from the “only legal list” category to the “combination legal list/Prudent Investor Rule” category, and two other states--Pennsylvania and Washington--have given serious consideration to also switching investment authority categories. Through the use of time series analysis, it might be possible to see whether any state that has switched categories has noticed a change in its rate of return performance, relative to its performance against other state pools and various benchmarks (such as those used in this dissertation).

**Examine variations within the “combination legal list/Prudent Person Rule” classification.** Among the issues not explored in this study were the possible variations among states within the hybrid classification “combination legal list/Prudent Person Rule,” and whether and how those variations might have contributed to the pools’ performance. For example, as previously mentioned, Wyoming operates under the combination fiduciary standard, yet believes that its Prudent Person Rule is so broadly worded that it renders that particular standard meaningless. Conversely, in other states, the Prudent Person Rule may actually be more restrictive than the legal list put in place by the legislature. Such differences in standards could have a potentially great effect upon the performances of pools within this classification.

In addition, variations within the legal lists adopted by the hybrid states must also be examined. For example, some states have shorter maturity limitations on investments than others. How do these differences affect the potential rates of return on investment within this classification? Other examples of variations that should be studied include the types of investments permitted by the various legal lists, and any percentage limitations on the amount of money that may be invested in a particular investment instrument.  

Yet another topic of interest should be considered in future research, if only because it was “too new” to be studied in-depth in this dissertation. As previously mentioned, there is considerable difference between the “Prudent Person” investment standard and the new “Prudent Investor” standard being adopted for trusts and estates across the nation by state legislatures. Until 1997, this switch in investment standard did not affect any of the state-run local government investment pools in America.

In 1997, however, the West Virginia legislature switched the investment standard of all state cash management functions (including the local government investment pools) from an “only legal list” standard to an “only legal list/Prudent Investor Rule” standard in which cash management functions became covered by the “Uniform Prudent Investor Act” standards applying to all trusts and estates within West Virginia.

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87 I also believe that these same arguments could be applied to the “only legal list” classification of state-run local government investment pools.
Moreover, Washington has been giving serious consideration to switching from a “combination legal list/Prudent Person” standard to a “combinational legal list/Prudent Investor” standard.

If these moves are made, serious attention must be paid to whether these funds outperform those still beholden to the “Prudent Person” standard. According to the research presented in this dissertation, one could make a reasonable assumption that a pool governed under the “Prudent Investor” standard would outperform one governed under the “Prudent Person” standard. Would such an assumption, however, be correct? And if correct, how and why should states convert from the old “Prudent Person” standard to the new “Prudent Investor” standard? The researcher believes that such inquiry deserves serious attention, if only for the same reasons the research in this dissertation was undertaken.

Implications of findings for cash management

Despite the reservations of the researcher, the results of this dissertation can be utilized in several ways. First, since it does appear that there is the possibility of better performance under a “Prudent Person” standard, officials should begin to examine the possibility of switching over from the more restrictive “legal list” standard. With over $750 billion in cash assets between state and local governments (Doyne, 1996, p. 6), the potential for additional revenue, without the hassle of having to raise taxes, definitely should be investigated.

This ability to raise additional revenue is in itself important. As public officials continue to face the pressure of reducing the size of government, or at least the tax burden required to maintain the current size of government, finding additional sources of revenue could mean the difference between having the revenue available to continue a particular government program, or being forced to cutback or even eliminate the program. This is especially true for state and local governmental units, where additional services are being required as federal aid is reduced.

In addition, despite the promise that may be held out by increasing revenues from a switch in investment standards, treasury officials must become even more adept at handling the expectations of those searching for additional revenue through a switch in standards. For example, the Pennsylvania treasurer’s office has had to downplay expectations of the legislature, which believes that more revenue will be a nearly automatic result of switching from a legal list to a Prudent Person Rule standard. As stated by Treasurer Hafer in an appearance before the state legislature:

“Of course, we recognize that whatever our performance under the [Prudent Person Rule] standard, it likely will be second-guessed. Regardless of the earnings--even if they far exceed industry norms--some will say we could have achieved more. I can assure you, however, that this Treasurer will not be swayed by Monday-morning quarterbacks and will pursue a prudent investor strategy in which the watchword, at all times, is ‘prudent’” (Hafer, 1997, p. 3).
While there may be valid reasons for such expectations, such pressures could force a treasury to actually act in a more risky manner than prudence would call for, in order to meet the higher expectations of the legislature and/or other officials and citizens.

In effect, the anticipation of better performance could actually lead to lower performance, through mismanagement brought about by trying to meet unrealistic expectations. It is exactly this sort of pressure that contributed to investment losses in places such as West Virginia and Orange County, California. Therefore, officials must be extremely cautious in any attempts to switch standards, lest they add undue and unnecessary pressure upon their offices.

Treasury officials must also decide whether the additional revenues that could be gained through a switch of investment standards justifies the expenditure of political capital and time necessary for passage by the jurisdiction’s legislative body. In West Virginia, the removal of a legal list prohibition against the use of equity instruments from private corporations required a constitutional amendment, and provoked considerable debate among public officials and the general populace alike. Before getting into a political battle that could use up valuable resources needed for other issues, officials must be certain that this is an endeavor that they truly wish to pursue.

It is clear from this dissertation that the potential to increase revenues through changes to the fiduciary standard utilized by state treasuries is possible. However, such optimism must ultimately be tempered with the realization that, regardless of the fiduciary standard employed, the key to successful cash management is the use of common sense when investing public funds. Both the Prudent Person Rule and a legal list governed the cash management functions of West Virginia in 1987, yet both failed to stem the hemorrhage of cash from the Consolidated Investment Fund when officials not only ignored provisions of these fiduciary standards, but also directives from those officials (in this case, the Board of Investments) charged with oversight functions over the Consolidated Investment Pool.

In many ways, the West Virginia Consolidated Investment Fund disaster of the late 1980s demonstrates one of the great dilemmas facing public administration: how much discretion should be given to public bureaucrats? For example, this dissertation shows that, by extending the discretionary abilities of administrators by removing limitations such as a legal list, one has the capability to increase government revenues, and thereby improve government services, without asking the public for unpopular tax increases. At the same time, however, it is possible that such discretion can be abused, and when it is (as in the case of West Virginia, and also Orange County, California), the results can be devastating to both the government and its citizenry, for years or even decades to come.

The Prudent Person Rule, legal lists, and other fiduciary standards (such as the evolving Prudent Investor Rule) are not the answer to increasing government revenues; they are but a tool, albeit an important tool, in improving the cash management strategies of both state and local governments across the United States. The key to increasing government revenues through cash management is to determine the risk that a governmental unit is willing to take for a particular return on investment, and then design an investment strategy that matches that particular level of risk, regardless of return on investment. This strategy differs from that employed by officials in West Virginia and Orange County, in
which the potential return on investment desired by the treasurer’s office dictated investment strategy, with an evaluation of risk taking a back seat to the yield objectives.

In order for any fiduciary standards to work properly, treasuries must strive to find capable people to manage public funds, administrators who not only will be aware of their duty to protect the public’s money, but also willing to obey both the letter and the spirit of laws and fiduciary standards put in place to protect the public’s money. While beyond the scope of this dissertation, it is an important issue in cash management, and must be studied further, lest we bear witness to further examples of fiscal cash management failures (and their consequences) in the future.

Conclusion

From this dissertation, it is possible to conceive that there is truth to the conventional wisdom that investment funds operating under a Prudent Person standard outperform funds operating under a legal list standard. Such a conclusion is important, if only to make treasury officials review their own investment standards, and consider those revisions that might benefit the financial picture of their governmental unit.

Despite the potential for increased returns, however, investment officials must temper their inclination to follow potentially higher rates of return with the knowledge that cash management involves more than just chasing the best rate of return available at any given time. Other factors must be considered when developing an investment program. For example, will the removal of local funds from local banks for placement in state-run local government investment pools remove a needed source of liquidity for the local economy, thereby endangering the economic security of the citizens the governmental unit is supposed to serve? Will the ways in which funds are invested protect the governmental unit’s principal, or will it unduly place that money at risk for returns that are, at best, uncertain? And will the investment policies of the governmental unit guarantee that, if money is needed in order to execute government functions, the money will actually be available, instead of being tied-up in a security that cannot be easily sold by the investment official? There are reasons that many governmental units have adopted the concepts of “safety, liquidity, and yield,” in that order, as the investment objectives in force for all of their investment decisions.

This dissertation is no means a definitive work on the subject. Rather, it is an introductory view, designed to provoke interest, thought, and further examination. If this work succeeds in meeting any of these objectives, and results in even one governmental unit reviewing its investment procedures for possible improvement and revision, then the researcher will have considered this effort to have been a success.
References


Kabler, Phil. “Phone tapes were key to investment saga.” *Charleston Gazette*, 20 January 1997.


Matter of Lincoln First Bank, NA. 1919 WL 3492 (NY May 1, 1997).


Miller, Girard. (1986). Investing Public Funds. Chicago, IL: GFOA.


Appendix A: Research Design

Introduction

This dissertation attempts to identify any possible difference in returns on investment among government investment funds using a Prudent Person Rule fiduciary standard, a legal list fiduciary standard, and a combination legal list/Prudent Person Rule fiduciary standard. In order to determine if such a difference exists, quantitative research methods are utilized. In addition, the dissertation attempts to discover whether any potential difference conforms to, or challenges, the prevailing “conventional wisdom” regarding whether such a difference should exist, and the results of such a difference.

Two hypotheses will be tested in this study. The first, the null hypothesis, will be as follows:

\[ H_0: \text{There is no difference in the return on investment yield performance of local government investment pools among those operating under the Prudent Person Rule fiduciary standard, those operating under a legal list fiduciary standard, and those operating under a combination legal list/Prudent Person Rule fiduciary standard, for the five-year period beginning with Fiscal Year 1992 and ending with Fiscal Year 1996.} \]

The alternative hypothesis for this study will be:

\[ H_a: \text{There is a difference in the return on investment yield performance of local government investment pools among those operating under the Prudent Person Rule fiduciary standard, those operating under a legal list fiduciary standard, and those operating under a combination legal list/Prudent Person Rule fiduciary standard, for the five-year period beginning with Fiscal Year 1992 and ending with Fiscal Year 1996.} \]

In order to determine any possible differences in return on investment, a survey was used to collect data from all states operating local government investment pools. This appendix briefly describes the design of the study and data collection procedures, the survey instrument utilized, and methods utilized to attempt confirmation of data supplied in the survey instrument.

Design of the Study

The collection and analysis of data in this dissertation was primarily concerned with: (a) finding out whether current operating local government investment pools operate under the Prudent Person Rule (or a variation), or under a legal list; and (b) what the return on investment was for all local government investment pools for a five-year period, ranging from Fiscal Year 1992 to Fiscal Year 1996.
Time Frame

This survey was designed to gather information regarding the yields for state-run local government investment pools for a five-year time period, beginning with Fiscal Year 1992 and ending with Fiscal Year 1996. There are two reasons that I decided to limit the survey to this five-year time period.

Recession of 1990-91. The United States experienced a recession at the beginning of the decade. This recession “officially started in July 1990” (Gardner, 1994, par. 3), and ended eight months later, in March 1991 (Gardner, 1994, par. 3; Sobel and Holcombe, 1996, par. 10; Hall, 1993; Marcus, 1997). Because of the instability of financial markets during contractionary periods in the economy, I preferred to examine only those fiscal years in which the economy was not in recession.

Maturing of pools. Most state-run local government investment pools were created during the 1980s. In order to minimize the effect of “start-up” problems that often afflict new government programs, I selected the time frame utilized to reflect a period in which most funds had already been operational for a period of several years. Despite this attempt, however, there were still three pools--Delaware, Idaho, and Kansas--which were created during the five-year period being examined in this dissertation.

Data collection procedures

The data for this dissertation were collected through the use of a survey instrument. This survey was performed by sending a researcher-constructed questionnaire to a specific target group, in this case all treasuries currently operating a local government investment pool. According to Special Report: Local Government Investment Pools (1995), produced by the national Association of State Treasurers (NAST), thirty-two (32) states operated local government investment pools in 1995 (NAST, 1995: 12).

Due to the relatively small size of the target group, the entire population of the target group was contacted, as opposed to just a sample of the target group in question. However, because some treasuries failed to respond to the survey, the data collected is analyzed as only a sample of the population group. In this instance, the sample (or population subset) consists of those state treasuries operating a local government investment pool that responded to the survey instrument sent to them by the researcher.

Upon completion of the survey instrument (which will be described in more detail later in this appendix chapter), each population group member was contacted by mail through the United States Post Office system. This mail contact consisted of the survey instrument, and a “cover letter” (see page 183) This cover letter introduced me and the dissertation project to the population group member, and asked the population group member to respond to the enclosed survey instrument. The letter indicated that all materials and data collected “will be held in confidence, and will not be utilized for any other purpose” by me. The letter also requested that the population group member supply any

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88 After conducting the survey, the researcher found that North Dakota does not have a state-run local government investment pool (Gilmore, 1997, p. 1).
other information “pertaining to this topic that you believed would be helpful” in preparing this dissertation. This initial contact letter and survey instrument was mailed on 30 April 1997.

After initial contact was made, each population group member who had not responded within approximately forty-five (45) days was recontacted by me. This time, the cover letter (see page 184) stated, “As of today, I still have not received a response from your office regarding your local government investment pool,” and the population group member was asked once again to fill out the questionnaire. This same procedure was then repeated with those population group members who had not returned the questionnaire after approximately two hundred and forty (240) days, on 18 February 1998 (see page 185), and again approximately ninety (90) days later, on 13 May 1998 (see page 186).

The survey instrument

The survey instrument was designed to obtain the information necessary to compute the independent and dependent variables needed to conduct statistical tests. Questions were also included on the survey to assist me in qualitatively determining what the “conventional wisdom” is regarding both the meaning of the Prudent Person Rule, and how treasuries view its return on investment effectiveness, within the sample group. The proposed survey instrument itself can be seen on page 182.

Question One. This question requested that each population group member supply (a) the amount of money invested by the pool for the fiscal year in question; (b) the amount of earnings on money invested by the pool; and (c) the effective yield percentage of the return on investment of the pool. Each population group member was asked to supply this information for a five-year period, beginning with Fiscal Year 1992, and ending with Fiscal Year 1996.

Question Two. This question requested that each population group member indicate how their portfolio guidelines for investment pools are set. The exact question will be: “The portfolio guidelines for the investment policies of your local government investment pool is set by....” After this question was asked, the population group member was given five choices: (a) “Prudent Person Rule only”; (b) “Modified Prudent Person Rule only”; (c) “Prudent Person Rule along with other constitutional or statutory limitations”; (d) “Constitutional or statutory limitations with no Prudent Person Rule”; and (e) “Other.”

Two components of these choices should be explained. First, NAST recognizes two broad categories of the Prudent Person Rule: the Prudent Person Rule, and the Modified Prudent Person Rule. During the course of the survey, no treasury indicated that they operate their pool under the Modified Prudent Person Rule, and this variable is therefore considered inoperative during this study. Second, instead of using the term “legal list,” which is utilized by sources such as NAST (NAST, 1995: 115), this survey utilized the more legalistic term “constitutional or statutory limitations.”

Question Three. This potential question asked each population group member: “What is your definition of the term Prudent Person Rule.” This question, not intended for
gathering data that can be statistically analyzed, was designed to assist me in determining what the “conventional wisdom” regarding the term “Prudent Person Rule” was among the sample.

**Question Four.** This potential question, also not intended for gathering data that can be statistically analyzed, was phrased as follows:

“Do you have any comments regarding the effectiveness of the Prudent Person Rule, and do you believe that local government investment pools operating under the Prudent Person rule have a higher rate of return on investment than pools not operated under the Prudent Person Rule?”

This question was designed to allow me to ascertain the “conventional wisdom” among the sample as to whether fund operating under the Prudent Person Rule should have a higher rate of return than non-Prudent Person Rule pools.

**Confirmation of Prudent Person Rule/legal list status**

After the survey instruments were received from those local government investment pools voluntarily participating in the survey, three efforts at confirming these results were undertaken regarding the Prudent Person Rule/legal list status of the population group (found in question two of the survey instrument). The following is a brief review of those attempts.

**One: NAST publications**

Results were checked against two publications by the National Association of State Treasurers (NAST): *State Treasury Activities and Functions, Fourth Edition* (1994), and *State Treasury Activities and Functions, Fifth Edition* (1997). Table 18 in the 1994 edition (NAST, 1994, pp. 43-44), and Table 19 in the 1997 edition (NAST, 1997, pp. 45-46), provided five ways in which portfolio guidelines were established: (a) state constitution; (b) statute; (c) administrative stipulations; (d) Prudent Person Rule; and (e) “other” methods (NAST, 1994, pp. 43-44; NAST, 1997, pp. 45-46). Information for these tables were collected through a NAST survey, responded to by all fifty states (NAST, 1994, p. v; NAST, 1997, p. v).

In a comparison, it appeared that there was a discrepancy in data received for several states. These states were contacted in a letter dated 2 March 1998 (see page 187), and asked to supply what they believed to be correct information. Maryland, New Jersey, Tennessee, and Wyoming graciously responded to this request for information, and sent letters of clarification to me.

**Two: LEXIS/NEXIS database search**

Through the Virginia Tech library, students may access the LEXIS/NEXIS database, which includes a search engine for all state constitutions and statutes. This database can be accessed through the Virginia Tech library at “www.lib.vt.edu” on the Internet, either at school, or at home through one’s own personal computer.
Confirmation for results from the survey instrument was attempted by verifying answers through a search of each individual state constitution and code. If a state indicated that it operated under a statutory Prudent Person Rule, the database was searched for that particular statute. If a state indicated that it operated under statutory limitations, the database was searched for that particular statute. In addition, in all cases where a state indicated that it was not covered by either a Prudent Person Rule statute, or statutory limitations, the database was searched to make sure that such statutes did not, in fact, actually exist.

After a review of all survey responses through the LEXIS/NEXIS database, three discrepancies were found. First, New Jersey indicated that it operated under statutory limitations, but the LEXIS/NEXIS database indicated that no such statute existed. Second, I was unable to find statutes confirming the data supplied by South Carolina and Tennessee, and requested, in letters sent to those state pools, that copies of appropriate statutes be sent for verification purposes.

Three: Letter requesting confirmation sent to the states

After confirming information through a search of the LEXIS/NEXIS database, I sent a letter to all participating local government investment pools on 6 May 1998 (see page 188). This letter contained (a) the response of the pool to the survey instrument, and (b) the results of the LEXIS/NEXIS search.

Each state was asked to confirm the information contained in the letter. If the letter correctly indicated the Prudent Person Rule/legal list status of their pool, the state was asked to simply return the letter with “correct” written on the letter. If, however, the information was incorrect, the state was asked to send the correct information, including copies of all statutes relevant to the Prudent Person Rule/legal list status of that particular local government investment pool.

Confirmation results

In most cases, information provided by state treasuries through the survey instrument was later confirmed through the methods previously mentioned. However, there were cases in which discrepancies arose. In these instances, the author (a) contacted the treasurer’s office, (b) explained the discrepancy involved, and (c) asked for revised information. Once this process was completed, the information was then resubmitted through the confirmation process previously mentioned, in order to verify the accuracy of the data. Until information could be verified through the confirmation process of this dissertation, it was not used.

Upon further review, it was found that while New Jersey does have a “legal list” in its state regulations, it does not have a statutory “legal list.”

States in which discrepancies were found during the confirmation process included Connecticut, Idaho, Maryland, Montana, New Jersey, South Carolina, Tennessee, Texas, Utah, Wisconsin, and Wyoming.
Confirmation of pool yield results

After the surveys were returned, two efforts at confirming the yield results of the local government investment pools were undertaken. In addition, I attempted to verify responses to two other questions: (a) the fiscal year time period of each state, and (b) whether reported yields were gross or net (after administrative and other fees and charges). The following briefly reviews those attempts.

One: NAST Publications

Results were checked against one publication by the National Association of State Treasurers (NAST): State Treasury Activities and Functions, Fifth Edition (1997). Table 5 (NAST, 1997, pp. 14-15), provided the fiscal year for each state in the Union. Table 28 (NAST, 1997, p. 64) provided local government investment pool yields, as of 30 June 1996. Information for these tables were collected through a NAST survey, responded to by all fifty states (NAST, 1997, p. v).

According to Table 5 (NAST, 1997, pp. 14-15), all but two states in this dissertation survey have fiscal years which begin on 1 July of the previous year, and end 30 June of the calendar year. For example, Fiscal Year 1992 began on 1 July 1991, and ended on 30 June 1992. The only exceptions to this rule are Texas, where the fiscal year begins on 1 September, and ends on 31 August; and Ohio, where the fiscal year for the pool is the same as the calendar year (Hillyer, 1998).

Unfortunately, I was unable to confirm the yields for the pools by comparing dissertation survey results with NAST results. In the dissertation survey, I asked the states to supply the fiscal year average yield for each pool. The NAST survey, however, asked the states to supply the pool yield “as of 6-30-96” (NAST, 1997, p. 64). Therefore, it was impossible to compare the results, since the two surveys asked for different information.

Two: Letter requesting confirmation sent to the states

On 13 May 1998, a letter (see page 189) was sent to all states initially responding to the survey instrument, asking for confirmation of information sent in the survey. Specifically, the letter requested confirmation of the following items:

- Yield returns for Fiscal Year 1992 through Fiscal Year 1996.
- Yields reflective of “net of administrative and other fees and charges.”

In the letter, information previously supplied by the state-run local government investment pool was included.

Each state was asked to confirm the information contained in the letter. If the letter correctly indicated the information, the state was asked to simply return the letter with “correct” written on the letter. If, however, the information was incorrect, the state was
asked to send the correct information, including all “administrative and other fees and charges.”

On 8 June 1998, a second letter, identical to the first, was sent to states that had not responded to the first letter of 13 May 1998. On 30 June 1998, a third letter, once again identical to the first, was sent to those states still not responding for confirmation of information provided on the original survey instrument.

Confirmation results

As in the case of the legal list/Prudent Person Rule status of state-run local government investment pools, information provided by state treasuries in the survey was later confirmed through the methods previously mentioned. Once again, there were cases in which discrepancies arose. In these instances, the author (a) contacted the treasurer’s office, (b) explained the discrepancy involved, and (c) asked for revised information. Once this process was completed, the information was then subjected to the confirmation process previously mentioned, in order to verify the accuracy of the data. Until information could be verified through the confirmation process, it was not used.

Utilizing ANOVA to analyze data

An analysis of variance (or ANOVA) is a statistical bivariate technique “for analyzing differences among means” (Fox, 1995, p. 241), in order “to test the null hypothesis that several population means are equal” (Norusis, 1988, p. 263). This technique is utilized when studying “a categorized independent variable measured at any level and an uncategorized interval/ratio dependent variable” (Fox, 1995, p. 241).

The F ratio, or simply F, is a statistic produced in an ANOVA in which the “between-groups” mean square is divided by the “within-groups” mean square (Norusis, 1988, p. 267). “The stronger a relationship, the bigger the ratio,” and “the weaker a relationship, the smaller the ratio” (Fox, 1995, p. 149). In order to determine whether the F is statistically significant, one compares “the calculated F value to the F-distribution, the distribution of the F statistic when the null hypothesis is true” (Norusis, 1988, p. 268; Fox, 1995). In addition, the significance level “is based on both the actual value of F you obtain and on the degrees of freedom for the two mean samples” (Norusis, 1988, p. 268).

In this dissertation study, the categorized independent variable is the legal list/Prudent Person Rule status of state-run local government investment pools, while the uncategorized dependent variable is the return on investment yield performance of state-run local government investment pools. The null hypothesis being tested, first proposed in Chapter One, is as follows:

91 States in which discrepancies existed regarding rates of return on investment included Arizona, Montana, Ohio, Oregon, Texas, Utah, West Virginia, Wisconsin, and Wyoming.
92 Degrees of Freedom is the “number of scores or cell frequencies free to vary when computing a statistic” (Fox, 1995, p. 243), and is equal to the number of cases minus 1 (Fox, 1995, p. 70).
Ho: There is no difference in the return on investment yield performance of local government investment pools among those operating under the Prudent Person Rule fiduciary standard, those operating under a legal list fiduciary standard, and those operating under a combination legal list/Prudent Person Rule fiduciary standard, for the five-year period beginning with Fiscal Year 1992 and ending with Fiscal Year 1996.

An ANOVA was performed for each fiscal year under examination in this dissertation.
Local Government Investment Pools

1. **Investment Earnings**

How much did your local government investment pool earn on its investments for the following years:

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Amount Invested</th>
<th>Amount of Earnings</th>
<th>Yield %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>$_______________</td>
<td>$_______________</td>
<td>________%</td>
</tr>
<tr>
<td>1995</td>
<td>$_______________</td>
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<td>1993</td>
<td>$_______________</td>
<td>$_______________</td>
<td>________%</td>
</tr>
<tr>
<td>1992</td>
<td>$_______________</td>
<td>$_______________</td>
<td>________%</td>
</tr>
</tbody>
</table>

2. **Portfolio Guidelines**

The portfolio guidelines for the investment policies of your local government investment pool is set by:

- _____ Prudent Person Rule only
- _____ Modified Prudent Person Rule only
- _____ Prudent Person Rule along with other constitutional or statutory limitations
- _____ Constitutional or Statutory limitations with no Prudent Person Rule
- _____ Other: ____________________________________________________

3. **Definition of Prudent Person Rule**

What is your definition of the term Prudent Person Rule?

4. **Your feelings on Prudent Person Rule**

Do you have any comments regarding the effectiveness of the Prudent Person Rule, and do you believe that local government investment pools operating under the Prudent Person Rule have a higher rate of return on investment than pools not operated under the Prudent Person Rule?
30 April 1997

«First Name» «Last Name»
Contact, «State-Full» Local Government Investment Pool
c/o State Treasurer’s Office
«Address»
«City», «State» «Zip»

Dear LGIP «Title» «Last Name»:

My name is Vernon Hayes, and I am a doctoral student at Virginia Tech’s Center for Public Administration and Policy. I am currently collecting data for my dissertation, which will focus on the investment returns of local government investment pools operating under the Prudent Person Rule, as opposed to those local government investment pools not operating under the Prudent Person Rule.

I would greatly appreciate it if you would take a few minutes to fill out the enclosed survey form regarding the local government investment pool in your state, and return it to me for my dissertation research. All materials collected for this dissertation will be held in confidence, and will not be utilized for any other purpose. In addition, if you have any information pertaining to this topic that you believe would be helpful to me in my research, please send this additional information along with the survey form.

Thank you very much for your assistance in my doctoral research, and I look forward to hearing from you soon. If you have any questions or comments, please feel free to contact me at my home phone number of 540/951-0258. I am,

Respectfully yours,

Vernon R. Hayes, Jr.
Doctoral Student, Virginia Tech
14 June 1997

«First Name» «Last Name»
Contact, «State-Full» Local Government Investment Pool
c/o State Treasurer’s Office
«Address»
«City», «State» «Zip»

Dear LGIP «Title» «Last Name»:

Previously, on 30 April 1997, I contacted you regarding your local government investment pool. I am a doctoral student at Virginia Tech’s Center for Public Administration and Policy, and I am currently collecting data for my dissertation, which will focus on the investment returns of local government investment pools operating under the Prudent Person Rule, as opposed to those local government investment pools not operating under the Prudent Person Rule.

As of today, I still have not received a response from your office regarding your local government investment pool.

I would greatly appreciate it if you would take a few minutes to fill out the enclosed survey form regarding the local government investment pool in your state, and return it to me for my dissertation research. All materials collected for this dissertation will be held in confidence, and will not be utilized for any other purpose. In addition, if you have any information pertaining to this topic that you believe would be helpful to me in my research, please send this additional information along with the survey form.

Thank you very much for your assistance in my doctoral research, and I look forward to hearing from you soon. If you have any questions or comments, please feel free to contact me at my home phone number of 540/951-0258, or my fax number of 540/231-7067. I am,

Respectfully yours,

Vernon R. Hayes, Jr.
Doctoral Student, Virginia Tech
18 February 1998

Dear LGIP «Title» «Last Name»:

My name is Vernon Hayes, and I am a doctoral candidate at Virginia Tech’s Center for Public Administration and Policy. I am currently collecting data for my dissertation, which will focus on the investment returns of local government investment pools operating under the Prudent Person Rule, as opposed to those local government investment pools not operating under the Prudent Person Rule.

I would greatly appreciate it if you would take a few minutes to fill out the enclosed survey form regarding the local government investment pool in your state, and return it to me for my dissertation research. All materials collected for this dissertation will be held in confidence, and will not be utilized for any other purpose. If you have any information pertaining to this topic that you believe would be helpful to me in my research, please send this additional information along with the survey form.

In addition, I would appreciate it if you could send me copies of the statutes in which your state mandates either a legal list, prudent person rule, or combination of the two for the investment authority of your LGIP.

Thank you very much for your assistance in my doctoral research, and I look forward to hearing from you soon. If at all possible, please send as soon as possible, as I am in the process of completing my statistical analysis. If you have any questions or comments, please feel free to contact me at my home phone number of 540/951-0258. I am,

Respectfully yours,

Vernon R. Hayes, Jr.
Doctoral Candidate, Virginia Tech
13 May 1998

«First Name» «Last Name»
Contact, «State-Full» Local Government Investment Pool
Fax: «Fax»
c/o State Treasurer’s Office
«Address»
«City», «State» «Zip»

Dear LGIP «Title» «Last Name»:

My name is Vernon Hayes, and I am a doctoral candidate at Virginia Tech’s Center for Public Administration and Policy. I am currently collecting data for my dissertation, which will focus on the investment returns of local government investment pools operating under the Prudent Person Rule, as opposed to those local government investment pools not operating under the Prudent Person Rule.

I would greatly appreciate it if you would take a few minutes to fill out the enclosed survey form regarding the local government investment pool in your state, and return it to me for my dissertation research. All materials collected for this dissertation will be held in confidence, and will not be utilized for any other purpose. If you have any information pertaining to this topic that you believe would be helpful to me in my research, please send this additional information along with the survey form.

In addition, I would appreciate it if you could send me copies of the statutes in which your state mandates either a legal list, prudent person rule, or combination of the two for the investment authority of your LGIP.

Thank you very much for your assistance in my doctoral research, and I look forward to hearing from you soon. If at all possible, please send as soon as possible, as I am in the process of completing my statistical analysis. If you have any questions or comments, please feel free to contact me at my home phone number of 540/951-0258. I am,

Respectfully yours,

Vernon R. Hayes, Jr.
Doctoral Candidate, Virginia Tech
2 March 1998

«First Name» «Last Name»
Contact, «State-Full» Local Government Investment Pool
c/o State Treasurer’s Office
«Address»
«City>, «State> «Zip»

Dear LGIP «Title» «Last Name»:

Previously, I contacted you regarding your local government investment pool. I am currently collecting data for my dissertation, which will focus on the investment returns of local government investment pools operating under the Prudent Person Rule, as opposed to those local government investment pools not operating under the Prudent Person Rule.

In your original response, you indicated the following as the portfolio guidelines for your local government investment pool:

«Statement One»

While verifying all of my information, I discovered that your office submitted the following response regarding your portfolio guidelines to NAST:

«Statement Two»

As you can imagine, the conflicting responses pose validity problems for my dissertation hypothesis. Therefore, I would greatly appreciate it if you could mark all of the following guidelines that pertain to the portfolio guidelines of your LGIP:

___ Prudent Person Rule      ___ State Constitution
___ Statutory limitations    ___ Administrative Stipulations

In addition, if you utilize both the Prudent Person Rule and statutory limitations, please indicate which one is the prevailing portfolio guideline for your LGIP.

Thank you very much for your assistance in my doctoral research, and I look forward to hearing from you soon. If you have any questions or comments, please feel free to contact me at my home phone number of 540/951-0258, or my fax number of 540/231-7067. I am,

Respectfully yours,

Vernon R. Hayes, Jr.
Doctoral Student, Virginia Tech
6 May 1998

«First Name» «Last Name»
«State-Full» Local Government Investment Pool
c/o State Treasurer’s Office
«Address»
«City», «State» «Zip»

Dear «Formality» «Last Name»:

My name is Vernon Hayes, and I am a doctoral candidate at Virginia Tech’s Center for Public Administration and Policy. Previous to this letter, I requested information regarding your state’s local government investment pool, and you were kind enough to send me the requested information.

I am now in the process of completing my dissertation. As part of the completion process, I am attempting to verify data. I would greatly appreciate it if you would help me to verify the information presented below. According to the information you sent me earlier:

- The pool ___ operate under a statutory Prudent Person Rule (or a form of the Prudent Person Rule or Prudent Expert Rule).
- The pool ___ operate under statutory limitations (otherwise known as a legal list) regarding the type of investments that the pool is allowed to make.

Earlier today, I attempted to find copies of statutes pertaining to your LGIP on LEXIS/NEXUS. In my search:

- I ___ find a statutory Prudent Person Rule under which your LGIP operates.
- I ___ find statutory limitations under which your LGIP operates.

In addition, I am operating under the assumption that, during the period of Fiscal Year 1992 to Fiscal Year 1996, your LGIP operated under the above results, and did not switch operating standards during this period.

If this information is correct, I would greatly appreciate it if you could simply respond in some fashion (such as a faxed copy of this letter with “correct” written across the top) in order to let me know that the information is correct.

If the information is incorrect, I would greatly appreciate it if you could send me correct information, and let me know of my error. If I stated that your LGIP lacked a particular statutory guideline, and your LGIP does have such a guideline, I would appreciate it if you could attach a copy of the statute.

Thank you very much for your assistance in this effort. If you have any questions, please call me at home at 540-951-0258. I am

Respectfully yours,

Vernon R. Hayes, Jr.
13 May 1998

«First Name» «Last Name»
«State-Full» Local Government Investment Pool
c/o State Treasurer’s Office
«Address»
«City», «State» «Zip»

Dear «Formality» «Last Name»:

My name is Vern Hayes, and I am a doctoral candidate at Virginia Tech’s Center for Public Administration and Policy. Previous to this letter, I requested information regarding your state’s local government investment pool, and you were kind enough to send me the requested information. I am now in the process of completing my dissertation. As part of the completion process, I am attempting to verify data. I would greatly appreciate it if you would help me to verify the information presented below. According to the information you sent me earlier, the returns on your LGIP are as follows:

- Fiscal Year 1992: «92»%
- Fiscal Year 1993: «93»%
- Fiscal Year 1994: «94»%
- Fiscal Year 1995: «95»%
- Fiscal Year 1996: «96»%

In addition, I am operating under the following assumptions:

- Yields reported above are for “fiscal years”
- Fiscal Year 92 for «State-Full» is: July 1, 1991 - June 30, 1992
- Yields are “net of administrative and other fees and charges”

If this information is correct, I would greatly appreciate it if you could simply respond in some fashion (such as a faxed copy of this letter with “correct” written across the top, or this letter mailed back with “correct” written on it) in order to let me know that the information is correct.

If the information is incorrect, I would greatly appreciate it if you could send me correct information, and let me know of my error. If there is an error in my assumption regarding yields being “net of administrative and other fees and charges,” I would appreciate it if you could let me know (a) whether your returns as stated above are net or gross, and (b) if net, what are the charges from the gross, and what are their amounts.

Thank you very much for your assistance in this effort. If you have any questions, please call me at home at 540-951-0258. I am

Respectfully yours,

Vernon R. Hayes, Jr.
Doctoral Candidate, CPAP, Virginia Tech

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Appendix B: Examples of the Various Forms of the Prudent Person Rule Used by Local Government Investment Pools

The following are eleven examples of the different forms of the Prudent Person Rule used by various state-run local government investment pools, which responded to the survey instrument of this dissertation. The examples include examples from all five states in which the Prudent Person Rule is the only statutory limitation upon the investment powers of the pool, and six examples from the thirteen states in which a combination of the Prudent Person Rule and legal lists govern the investment powers of the pool.

California. “When investing, reinvesting, purchasing, acquiring, exchanging, selling, or managing public funds, a trustee shall act with care, skill, prudence, and diligence under the circumstances then prevailing, including, but not limited to, the general economic conditions and the anticipated needs of the agency, that a prudent person acting in a like capacity and familiarity with those matters would use in the conduct of funds of a like character and with like aims, to safeguard the principal and maintain the liquidity needs of the agency” (Cal. Gov. Code Section 53600.3)

Delaware. “In carrying out its purpose to designate permissible investments, the Board shall exercise the judgment and care under the circumstances then prevailing which men and women of prudence, discretion and intelligence exercise in the management of their own affairs with due regard to the probable income and level of risk from investments of money belonging to the State or its political subdivisions in accordance with the policies established by the Board” (12 Del. C. Section 2716).

Maryland. “An investment made pursuant to this section shall be made: (1) with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims” (Md. Code Ann. Section 6-222).

Montana. “The unified investment program directed by Article VIII, section 13, of the 1972 Montana constitution to be provided for public funds must be administered by the board of investments in accordance with the prudent expert principle, which requires any investment manager to: (a) discharge the duties with the care, skill, prudence, and diligence, under the circumstances then prevailing, that a prudent person acting in a like capacity with the same resources and familiar with like matters exercises in the conduct of an enterprise of a like character with like aims” (Mont. Code Anno. Section 17-6-201).

New Jersey. “In investing and reinvesting any and all money and property committed to the director’s investment discretion from any source whatsoever, and in acquiring, retaining, selling, exchanging and managing investments, the Director of the

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These five states are Delaware, Montana, New Jersey, Oregon, and Texas.
The six examples come from the states of California, Maryland, Utah, Virginia, Washington, and Wisconsin.
Division of Investment shall exercise the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims” (N.J. Stat. Section 52:18A-89).

Oregon. “The investment funds shall be invested and the investments of those funds managed as a prudent investor would do, under the circumstances then prevailing and in light of the purposes, terms, distribution requirements and laws governing each investment fund” (ORS Section 293.726).

Pennsylvania. “Notwithstanding subsections (a) through (h), the Treasury Department shall have the exclusive management and full power to invest and reinvest the moneys of any fund as shall be accumulated beyond the ordinary needs of the various funds, and which are not authorized by law to be invested by any board, commission or State officer, subject, however, to the exercise of that degree of judgment and care under the circumstances then prevailing which persons of prudence, discretion and intelligence, who are familiar with such matters, exercise in the management of their own affairs not in regard to speculation, but in regard to the permanent disposition of the funds, considering the probable income to be derived therefrom as well as the probable safety of their capital” (H.R. 439, Session of 1997).

Texas. “Investments shall be made with judgment and care, under prevailing circumstances, that a person of prudence, discretion, and intelligence would exercise in the management of the person’s own affairs, not for speculation, but for investment, considering the probable safety of capital and the probable income to be derived” (Tex. Gov’t. Code Section 2256.006).

Utah. “Selection of investments as authorized by Sections 51-7-11, 51-7-12, and 51-7-13 shall be made with the exercise of that degree of judgment and care, under circumstances then prevailing, which men of prudence, discretion, and intelligence exercise in the management of their own affairs, not for speculation but for investment, considering the probable safety of their capital, as well as the probable benefits to be derived and the probable duration for which such investment may be made, and considering the investment objectives specified in Section 51-7-17” (Utah Code Ann. Section 51-7-14).

Virginia. “Any investment of such funds pursuant to the provisions of this chapter shall be made solely in the interest of such citizens and with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims” (Va. Code Ann. Section 2.1-328.14).

Washington. “In investing and reinvesting moneys in the public funds investment account and in acquiring, retaining, managing, and disposing of investments of the investment pool, there shall be exercised the judgment and care under the circumstances then prevailing which persons of prudence, discretion, and intelligence exercise in the management of their own affairs, not in regard to speculation but in regard to the permanent disposition of the funds considering the probable income as well as the probable safety of the capital” (Rev. Code Wash. Section 43.250.040).
Wisconsin. “The standard of responsibility applied to the board when it invests money or property shall be all of the following: (a) To invest, sell, reinvest and collect income and rents with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a similar capacity, with the same resources, and familiar with like matters exercises in the conduct of an enterprise of a like character with like aims” (Wis. Stat. Section 25.15).
Appendix C: Responses to Question Four of the Survey Instrument

The following are the survey responses obtained from the survey instrument to Question Four:

“Do you have any comments regarding the effectiveness of the Prudent Person Rule, and do you believe that local government investments pools operating under the Prudent Person Rule have a higher rate of return on investment than pools not operated under the Prudent Person Rule?”

The responses to the question are not listed in any specific order.

Responses to Question Four

1. “This is a difficult question. First, I don’t think you will find anyone who does not (or admits it) follow the Prudent Person Rule. Second, if I were to make a hypothesis, I would guess that managers who don’t follow this rule will out-earn those that do (simple rule of finance - greater risk [std. dev. of returns] = greater returns over the long run). Most LGIPs are money-market and thus have no place risking their participant’s principal.”

2. No response.

3. “We believe that the prudent expert rule is the appropriate standard for LGIPs. We have no knowledge of the impact of standards on investment return.”

4. “The Prudent Person Rule when exercised under the guidance of a well structured body of qualified citizens is effective. It would be my guess that a LGIP not operating under the Prudent Person Rule would have a higher rate of return than one that was. This would be anecdotal because I have no good statistical information on either side of the issue.”

5. “No comment.”

6. No response.

7. No response.

8. “Yes, since this is a subjective approach within reason, and many interpret the P.P. Rule quite differently considering the number of LGIPs across the nation.”

9. No response.

10. “Assuming that all constitutional or statutory limitations are narrowly drafted and security specific, then, it would follow that the PPR could well provide value added to any LGIP. However, given a very broad list of “eligible” investments tied to a LGIP’s short duration, it would be hard to make the case that the PPR would, in fact, add
additional value over specific time frames.”

11. “The Prudent Person Rule alone is very open-ended without any formal rules or guidelines. We use a combination of the Rule and the statutory limitations set forth by the Annotated Code of [deleted] and the investment manager’s proprietary guide list.”

12. “No comment.”

13. “The Prudent Person Rule is a legal umbrella which provides a useful philosophical statement. However, much more specific guidelines are needed to protect public moneys and these are provided by our regulations. As a matter of practice, nobody commits philosophical crimes and our malfeasors have uniformly been successfully prosecuted under fraud statutes.”

14. No response.

15. No response.

16. No response.

17. “I believe that public funds must be managed very conservatively. For this reason, returns may be sacrificed to a degree.”

18. “I believe LGIP’s should have higher returns if [the Prudent Person Rule] is less strict than state laws or investment policy.”

19. “Pool yields depend on the duration (term) of the investments, the particular investment vehicles chosen for use and the quality standards applied to those investment instruments. If statutory restraints are sufficiently flexible to allow the appropriate investments for a pool, then the Prudent Person Rule is not necessary. If the only way to get sufficient flexibility is to have a Prudent Person Rule, then it is important.”

20. No response.

21. “Most pools not operating under the Prudent Person are more restricted in their investments. It would seem logical that higher returns would be earned under the Prudent Person. Of course, higher risk would be associated with those higher returns.”

22. “I have no knowledge of any local government investment pool that operates according to something other than the Prudent Person Rule.”

23. “The Prudent Person Rule offers great flexibility and will enhance investment returns. We believe, however, that local government investment pools are short term pools by nature and should not operate under the Prudent Person Rule.”

24. “I think it is a necessary rule for today’s investment environment. It does not, however, reflect the necessity for a total return approach. There are times when selling a security, even at a loss, is the “prudent” thing to do in order to reinvestment at higher levels. There is also a Prudent Investor Rule which states:
“’A trustee shall invest and manage trust assets as a prudent investor would, by considering the purposes, terms, distribution requirements, and other circumstances of the trust. In satisfying this standard, the trustee shall exercise reasonable care, skill, and caution.’”

“This rule not only addresses the importance of prudence but also the importance in intelligent, total-return investment management.

“As far as a portfolio operating under the Prudent Person Rule earning a higher rate of return, yes and no. A high risk portfolio will attain higher returns some of the time but it won’t last forever. Public funds investment managers need to understand the importance of prudent investing. An investment officer is not going to be remembered for his or her fantastic returns on investment but for the poor, speculative investment decisions that lost their entity millions of dollars. If an entity can only attain comparable returns to their benchmark by investing speculatively, then they need to hire a new investment officer.

“We are going to modify our investment policy in the next month to reflect the Prudent Investor Rule.”
Appendix D: Glossary

Arbitrage. “Profiting from differences in the price of a single security that is traded on more than one market” (Washington Post, 1998; “Investor’s Galleria,” 1998). An example would be the purchase of General Motors stock on the New York Stock Exchange, where the going price was 100 a share, while simultaneously selling those same shares on the Hong Kong market, where the going price was 102 a share.

Banker’s acceptance. “A short-term credit investment created by a non-financial firm and guaranteed by a bank as to payment. Acceptances are traded at discounts from face value in the secondary market. These instruments have been a popular investment for money market funds” (Investor’s Galleria, 1998).

Benchmark. “The performance of a predetermined set of securities, for comparison purposes. Such sets may be based on published indexes or may be customized to suit an investment strategy” (Washington Post, 1998).

Bond. “Bonds are debt and are issued for a period of more than one year. When an investor buys bonds, he or she is lending money. The seller of the bond agrees to repay the principal amount of the loan at a specified time. Interest-bearing bonds pay interest periodically” (Washington Post, 1998).

Buying on margin. “A transaction in which an investor borrows to buy additional shares using the shares themselves as collateral” (Washington Post, 1998).

Call option. “An option contract that gives the holder of the option the right (but not the obligation) to purchase, and obligates the writer to sell, a specified number of shares of the underlying security at the give strike price, on or before the expiration date of the contract” (Washington Post, 1998; “Investor’s Galleria,” 1998).

Certificate of deposit (CD). “Also called a time deposit, a certificate issued by a bank or thrift that indicates a specified sum of money has been deposited at the issuing depository institution. A CD bears a maturity date and a specified interest rate, and can be issued in any denomination” (Washington Post, 1998).

Churning. “Excessive trading of a client’s account in order to increase the broker’s commissions” (Investor’s Galleria, 1998).

Commercial paper. “Short term unsecured promissory notes issued by a corporation. The maturity of commercial paper is typically less than 270 days; the most common maturity range is 30 to 50 days or less” (Washington Post, 1998).

Commodity. “A commodity is food, a metal, or another physical substance that investors buy or sell, usually via futures contracts” (Washington Post, 1998).

Convertible bonds. “Bonds that can be converted into common stock at the option of the holder” (Washington Post, 1998).


Coupon rate. “In bonds, notes or other fixed income securities, the state percentage rate of interest, usually paid twice a year” (“Investor’s Galleria,” 1998).

Day trading. “Refers to establishing and liquidating the same position or positions within one day’s trading” (Washington Post, 1998; NYMEX, 1998).

Debt instrument (or security). “An asset requiring fixed dollar payments, such as a government or corporate bond” (Washington Post, 1998).

Demand deposit. “Checking accounts that pay no interest and can be withdrawn upon demand” (Washington Post, 1998).

Derivatives. “A financial security, such as an option, or future, whose value is derived in part from the value and characteristics of another security, the underlying security” (Washington Post, 1998; “Investor’s Galleria,” 1998). “For example, futures contracts are derivatives of physical commodities, options on futures are derivatives of futures contracts” (NYMEX, 1998).

Equity option. “Securities that give the holder the right to buy or sell a specified number of shares of stock, at a specified price for a certain (limited) time period. Typically one option equals 100 shares of stock” (Washington Post, 1998; “Investor’s Galleria,” 1998).


Eurobond. “A bond that is (1) underwritten by an international syndicate, (2) offered at issuance simultaneously to investors in a number of countries, and (3) issued outside the jurisdiction of any single country” (Washington Post, 1998).

Eurodollar. “This is an American dollar that has been deposited in a European bank. It got there as a result of payments made to overseas companies for merchandise” (Washington Post, 1998).

Federal Home Loan Bank Board. “The agency of the federal government that supervises all federal savings and loan associations and federally insured state-chartered savings and loan associations. The FHLBB also operates the Federal Savings and Loan Insurance Corporation, which insures accounts at federal savings and loan associations and those state-chartered associations that apply and are accepted. In addition, the FHLBB directs the Federal Home Loan Bank System, which provides a flexible credit facility for member savings institutions to promote the availability of home financing. The FHL Banks also own the Federal Home Loan Mortgage Corporation, established in 1970 to

**Futures.** “A term used to designate all contracts covering the sale of financial instruments or physical commodities for future delivery on a commodity exchange” (Washington Post, 1998).

**Futures contract.** “A supply contract between a buyer and seller, whereby the buyer is obligated to take delivery and the seller is obligated to provide delivery of a fixed amount of a commodity at a predetermined price at a specified location” (NYMEX, 1998). “A futures contract differs from an option because an option is the right to buy or sell, whereas a futures contract is the promise to actually make a transaction” (Washington Post, 1998; “Investor’s Galleria,” 1998).

**Junk bond.** “A bond with a speculative credit rating of BB or lower is a junk bond. Such bonds offer investors higher yields than bonds of financially sound companies. Two agencies, Standard & Poor’s and Moody’s Investor Services, provide the rating systems for companies’ credit” (Washington Post, 1998).

**Margin.** “This allows investors to buy securities by borrowing money from a broker. The margin is the difference between the market value of a stock and the loan a broker makes” (Washington Post, 1998).

**Margin Call.** “A demand for additional margin funds when futures prices move adverse to a trader’s position, or if margin requirements are increased” (NYMEX, 1998).


**Nominal price.** “The declared price for a futures month sometimes used in place of a closing price when no recent trading has taken place in that particular delivery month; usually an average of the bid and asked prices” (NYMEX, 1998).

**Note.** “A written promise to pay a certain sum of money at a certain time” (Washington Post, 1998).

**Offset.** “Elimination of a current long or short position by making an opposite transaction” (Washington Post, 1998). “In spread positions, one side offsets the other without liquidating the entire position. Risk is reduced when one side offsets the other” (NYMEX, 1998).

**Option.** “Gives the buyer the right, but not the obligation, to buy or sell stock at a set price on or before a given date. Investors, not companies, issue options. Investors who purchase call options bet the stock will be worth more than the price set by the option (the strike price), plus the price they paid for the option itself. Buyers of put options bet the stock’s price will go down below the price set by the option. An option is part of a class of securities called derivatives, so named because these securities derive their value from the worth of an underlying investment” (Washington Post, 1998; “Investor’s Galleria,” 1998).
Principal. “The basic element of the loan as distinguished from interest and mortgage insurance premium. In other words, principal is the amount upon which interest is paid” (Washington Post, 1998).

Put option. “This security gives investors the right to sell fixed number of shares at a fixed price within a given time frame” (Washington Post, 1998).

Repurchase agreement. “An agreement with a commitment by the seller to buy a security back from the purchaser at a specified price at a designated future date. Also called a repo, it represents a collateralized short-term loan, where the collateral may be a Treasury security, money market instrument, federal agency security, or mortgage-backed security” (Washington Post, 1998).


Selling short. “If an investor thinks the price of a stock is going down, the investor could borrow the stock from a broker and sell it. Eventually, the investor must buy the stock back on the open market. For instance, you borrow 1000 shares of XYZ on July 1 and sell it for $8 per share. Then, on August 1, you purchase 1000 shares of XYZ at $7 per share. You’ve made $1000 (less commissions and other fees) by selling short” (Washington Post, 1998; Investor’s Galleria, 1998).

Speculator. “A trader who hopes to profit from the specific directional price move of a futures or option contract, or commodity” (NYMEX, 1998).

Stock index fund. A fund in which the underlying are common stock index options.

Stock index option. “An option in which the underlying is a common stock index” (Washington Post, 1998).

Treasury bills. “Debt obligations of the U.S. Treasury that have maturities of one year or less” (Washington Post, 1998).

Treasury bonds. “Debt obligations of the U.S. Treasury that have maturities of 10 years or more” (Washington Post, 1998).

Treasury notes. “Debt obligations of the U.S. Treasury that have maturities of more than 2 years but less than 10 years” (Washington Post, 1998).


Zero coupon bond. “Such a debt security pays an investor no interest. It is sold at a discount to its face price and matures in one year or longer” (Washington Post, 1998).
Zero-coupon bond. “A bond in which no periodic coupon is paid over the life of the contract. Instead, both the principal and the interest are paid at the maturity date” (Washington Post, 1998).
VITA

VERNON R. HAYES, JR.

6240 Highland Drive, Huntington, WV  25705
Telephone: (304) 736-0365
Email: vhayes@uab.edu

EDUCATION

Doctorate of Philosophy, Public Administration and Policy, December 1998
Virginia Polytechnic Institute and State University (Virginia Tech),
Blacksburg, VA
Dissertation: Effect of Prudent Person Rule on state-run local government
investment pools
Committee: Dr. Gary Wamsley (chair), Dr. Larkin Dudley, Dr. Susan
Gooden, Dr. Karen Hult, and Dr. John A. Rohr. Defended on 22
November 1998

Master of Arts, Social Studies, August 1995
Marshall University, Huntington, WV

Master of Arts, Political Science, May 1994
Marshall University, Huntington, WV

Bachelor of Public Affairs, Public Administration, December 1990
Wayne State University, Detroit, MI

ACADEMIC EMPLOYMENT EXPERIENCE

Instructor, University of Alabama at Birmingham, Birmingham, AL
September 1998 - May 1999 (One-year appointment)
- Teaching six (6) courses during a three-quarter period. Courses include:
  Introductory Scope of Public Administration (masters level); Special
  Topics in Public Finance (masters level); Public Budgeting and
  Finance (masters level); Introduction to Public Administration
  (undergraduate level); and Financial Management.

Instructor (Adjunct Faculty), New River Community College,
Christiansburg, VA
August 1997 - December 1997
- Taught one section of PLS 130, a course in basic American government
Graduate Teaching Assistant, Center for Public Administration and Policy, Virginia Tech, Blacksburg, VA  
August 1996 - December 1996  
- Conducted two lectures (one on local and state government, one on political campaigns)  
- Advised graduate public administration students during office hours  
- Assisted professor in determining grades for students

Graduate Assistant, Center for Public Administration and Policy, Virginia Tech, Blacksburg, VA  
- Assisted in the design and development of an interactive computer program entitled Crime Prevention Through Environmental Design  
- Conducted polling for a project with CPAP and Virginia Department of Social Services  
- Assisted in research efforts for faculty  
- Assisted with various clerical duties for faculty  
- Assisted faculty member with implementing electronic reserve for classes

**ACADEMIC PAPERS PRESENTED**

“Amendment 2: A Nightmare of Constitutional Issues,” West Virginia Political Science Association 27th Annual Meeting, Huntington West Virginia  
16 October 1993

**OTHER EMPLOYMENT EXPERIENCE**

Campaign Consultant, Missouri State Treasurer Wendell Bailey, Jefferson City, MO  
September 1990 - April 1991  
- Developed campaign strategy for Bailey’s 1992 gubernatorial bid  
- Planned fund raising activities  
- Supervised mailing activities  
- Improved contributor base  
- Assessed available campaign resources  
- Made budget, revenue recommendations  
- Communicated with campaign coordinators, volunteers  
- Supervised campaign staff, volunteers  
- Planned, organized a successful one-week, nine-city announcement of candidacy program
Township Cashier, Charter Township of Shelby, MI  
September 1987 - June 1989

- Processed government revenues (including tax receipts, various government fees)
- Provided administrative, clerical, public relations support to township treasurer
- Maintained financial records (including bank balances, bank deposits)

Director of PROJECT 1990, Charter Township of Shelby, MI  
July 1987 - April 1988

- Directed thirty-five member citizens advisory committee charged with evaluating township policies and procedures
- Developed, implemented proposal for township Board of Trustees
- Managed project budget and records
- Served as liaison between township Board of Trustees and committee members
- Handled public relations and media coverage for PROJECT 1990

Administrative Assistant, Charter Township of Shelby, MI  
March 1987 - June 1987

- Administrative assistant to the chief enumerator for 1987 Special Census
- Supervised over fifty field workers
- Managed project budget and records
- Developed, implemented policy for census effort
- Provided administrative and public relations support
- Project completed on-time and under budget, resulting in an additional $1 million in state revenue-sharing funds over a three-year period

ASSOCIATION MEMBERSHIPS

- The American Political Science Association
- American Society for Public Administration

CHARITABLE ASSOCIATIONS

Colonel, The Honorable Order of Kentucky Colonels, Frankfurt, KY

- Commissioned by KY Governor Collins as member of the charitable organization in 1987
COMMUNITY/POLITICAL ACTIVITIES

Campaigns for public office

Republican nominee, West Virginia Secretary of State, State of West Virginia
1996
- Campaigned for the constitutional office of West Virginia Secretary of State
- Won GOP primary on 14 May 1996, received 55% of the vote
- Lost the general election to three-term incumbent Ken Hechler, received 31% of the vote

Republican candidate, United States House of Representatives, Third District of WV
1994
- Campaigned for GOP nomination to Congress from West Virginia’s Third District
- Finished second in GOP primary on 10 May 1994, received 46% of the vote

Republican candidate, Shelby Township Treasurer, Shelby Township, MI
1990
- Campaigned for GOP nomination for Shelby Township Treasurer
- Finished second in five-person field
- Received 1,234 votes; trailed the first-place finisher, Mary Fietsam, by 137 votes

Other political activities

Member, Cabell County Republican Executive Committee, Huntington, WV
May 1994 - December 1994
- Elected by the voters on 10 May 1994 to the county party’s governing body

Coordinator, Bush/Quayle 1992 presidential campaign, West Virginia
July 1992 - November 1992
- Served as the southern West Virginia coordinator for an area covering eleven counties
- Scheduled, managed the arrival of Vice President Dan Quayle at Huntington’s Tri-State Airport two days before the general election
Executive Director, West Virginia Federation of Young Republicans, Huntington, WV

- Scheduled meetings, coordinated YR events; planned state YR conventions; handled press relations; all other functions necessary to execute organization policy

Campaign treasurer, Beth Hayes for House of Delegates, Huntington, WV
September 1992 - December 1992

- Handled campaign revenues and expenditures
- Prepared all campaign financial reports
- Conducted massive direct mail effort for candidate
- Responsible for campaign media relations
- Handled campaign scheduling

Co-Coordinator, George Bush for President 1988, Fourteenth District, MI
October 1985 - January 1988

- Served as co-coordinator of Bush campaign in Fourteenth Congressional District, MI
- Contact person between campaign and precinct delegates
- Recruited people to run as pro-Bush precinct delegates throughout Fourteenth District
- Chaired “rump” district convention to challenge Robertson delegates to state caucus

Campaign manager, Johnston for Michigan State Supreme Court, Mt. Clemens, MI
August 1988 - December 1988

- Managed campaign of the late Richard Johnston, probate judge, for MI Supreme Court
- Handled campaign revenues and expenditures
- Prepared all campaign financial reports
- Conducted massive direct mail effort for candidate
- Responsible for campaign media relations

Member, Michigan Mainstream Republican State Committee, Lansing, MI
July 1988 - September 1990

- Represented Michigan’s Fourteenth Congressional District on state committee
- Organization was designed to promote mainstream, moderate politics within state GOP
Precinct Delegate, Michigan Republican Party, Sterling Heights, MI
August 1986 - August 1990

- Elected by voters in August 1986 to represent my home precinct in GOP affairs
- Reelected by voters in August 1988

Member, Macomb County Republican Executive Committee, Mt. Clemens, MI

- Twice selected by committee members to serve on county party’s governing body

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Vernon Russell Hayes, Jr.