

## **PUBLIC SECTOR INVESTMENT FAILURES: THEORETICAL CONTRIBUTIONS FROM NEW INSTITUTIONAL AND AUSTRIAN ECONOMIC THEORY**

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**ABSTRACT.** This paper illustrates how two contemporary economic traditions - New Institutional and Austrian economics - may be used to add insight into the organization and governance of public sector investment programs. When combined, these frameworks offer a theoretical foundation that may be used for purposes of assessing relative levels of agency and transactions costs within different institutional settings. The insights provided suggest that one option for reducing these costs is to "outsource" the public sector investment function. The theories explored in the paper are not panacea for dealing with agency and transaction costs, but they do draw attention to key institutional characteristics that influence their size.

### **INTRODUCTION**

State and local governments in the U.S. have not always fared well in abiding to general investment principles when carrying out short- and long-term investment programs aimed at generating yields on excess operating cash and long-term payment obligations (e.g., trust funds and pension funds). Most important, they have often failed to strike a prudent balance between three investment

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objectives: 1) securing the principal, 2) producing investment income equivalent to market yields, and 3) preserving sufficient liquidity to meet short-term financial demands. The objectives: 1) securing the principal, 2) producing investment income equivalent to market yields, and 3) preserving sufficient liquidity to meet short-term financial demands. The objective of this paper is to offer theoretical insights into to how U.S. state and local governments should organize and govern their investment programs to most effectively meet these three investment objectives.

Rational choice theory, the focus of this symposium, is one theoretical option for providing such insights. Rational choice is rooted in neo-classical economics and is designed as a theory to move beyond economics into other social science areas (e.g., political science) (Zafirovski, 2000). As such, rational choice theory seeks to provide an integrative theory for social science, referred to by skeptics as economic imperialism. Yee (1997) defines the basic and familiar rational choice model as an approach in which "...intentional actors with stable and consistent preference rankings select from available alternatives the option that best serves their self interest." The question of public sector investing could be a target for rational choice as defined by Yee, given that one major goal of rational choice models is to 1) understand, 2) explain and 3) help direct decisions in the political sector.

Given its roots in neo-classical economic theory, however, rational choice theory carries many of the flaws inherent in neo-classical economic theory. Perhaps the most important flaws include failures to account for the role of *time* and *uncertainty* (i.e., imperfect information) in explanations of economic phenomena. The failure to account for these has lead to a critical view regarding the ability of neoclassical economics to offer solid theoretical foundations for explaining modern economic problems. According to Kirzner this view is rooted in (Kirzner, 1997, p. 61)

... (a) criticisms of the lack of relevance in models which seek to explain market phenomena as if they were, at each and every instant, strictly equilibrium phenomena, and (b) in the belief that it is a methodologically legitimate demand to be made of a theory of the market, that it not merely begins with the instrumentalist assumption of already-attainted equilibrium, but also realistically offer a plausible explanation of how, from any given initial set of

non-equilibrium conditions, equilibrating tendencies might be expected to be set into motion in the first place.

In addition, criticism has been raised by those who have continued to build rational choice theory on a neo-classical basis, targeting more hard-core or narrow rational choice models (the so-called thin models) for their failure to reject the influence of social forces in decision-making. Some of this criticism has led to models that incorporate norms and ideas into rational choice models, where norms are viewed as generally accepted principles that affect actions (the so-called thick model) (Yee, 1997). Adding norms may enrich rational choice by including a social force that places limits on neo-classical equilibrium models, but rational choice scholars cannot have it both ways. Including social forces, such as norms, override the assumption that all information is available for maximizing profits or utility. Moreover, both models, the thin and the thick, lack an adequate account of the cost of information and the influence of time and learning on economic decision making (Kirzner, 1997; Hayek, 1948a).

This paper extends the foundation of basic and extended rational choice theory (that is, both the thin and thick model). Specifically, the paper relies on two contemporary economic traditions - New Institutional and Austrian economics - to provide insights into how public sector investment programs should be governed and organized to most effectively meet the above three investment objectives. When combined, these theoretical frameworks offer a rich theoretical foundation for the study of economic decision making that accounts for a number of factors that the basic and extended rational choice model ignores or de-emphasizes. These factors include, but are not limited to information asymmetry, subjective assessment, institutional context, social embeddedness, entrepreneurship, process, history, and knowledge (Boettke, 1996; Samuels, 1989; Williamson, 2000).

The analytical portion of the paper illustrates that the two frameworks, New Institutional and Austrian economics, are particularly useful for assessing relative levels of agency and transactions costs associated with outsourcing the public sector investment function versus preserving it in-house. These insights are provided through the emphasis they place on relating particular institutional circumstances to "transaction" and "agency" costs.

Examples of transaction and agency costs that may be substantial in public sector settings include costs associated with information gathering, opportunism (the propensity to seek ones self interest over the interest of the organization), monitoring and enforcement. The theories explored in the paper are not panacea for dealing with these potential costs, but they do draw attention to a key institutional characteristic that may reduce them.

### **PUBLIC SECTOR INVESTING: OVERVIEW**

State and local government investors manage hundreds of billions of dollars in investments (Miller, Larson & Zorn, 1998). The operations of those assigned with the responsibility of managing these assets tend to be divided into short-term (i.e., cash-management investment programs) and long-term investment programs. The former type of program is established for purposes of investing excess cash temporarily in short-term money market securities. By contrast, long-term investment programs are charged with investing funds earmarked to meet specific long-term payment obligations, including debt service funds, trust funds and pension funds.

The different investment horizon in short and long-term investment programs is one of the most important differences, affecting the investment objectives of these programs. Consistent with their shorter investment horizon, short-term investment programs tends to operate under guidance of a set of investment principles whereby the preservation of principal is accorded the highest priority, followed by liquidity (i.e., the relative speed by which the financial asset can be liquidated/sold for cash) and then yield (Steiss, 1989; Greifer, 2002). Investments in longer maturities are discouraged, because of the added risk these carry in terms of market price loss, commonly referred to as "market risk" (Miller, Larson & Zorn, 1998, p. 61). Active portfolio management and other aggressive high income strategies are also discouraged (Miller, 1987).

Long-term investment programs offer a much longer investment horizon than cash management investment programs, allowing these programs to use risk as a strategic variable for earning additional investment income (Miller, Larson & Zorn, 1998). For this reason, it is not uncommon for long-term investment programs to rank-order yield

as the foremost investment objective, particularly in the case of pension funds. Moreover, consideration of liquidity needs is often of limited concern, due to a relatively small proportion of funds that are required for purposes of meeting current payment obligations (i.e., for purposes of cash management). Hence, in contrast to short-term investment programs, the rank-ordering of investment objectives tend to be yield, preservation of principal and, last, liquidity.

As noted in the introduction, however, US state and local governments have not always fared well in carrying out their investment objectives. This is exemplified by a long history of investment failures in government run investment programs (both short- and long-term). These failures can be traced back as far as the 1840s when the state of Indiana was at the verge of bankruptcy after having invested heavily in the Wabash and Erie Canal Company (Lenzner & McCormack, 1998), as was typical of the era of state sponsored economic expansion. Another early example is South Carolina, where a quarter of the state's revenues were lost in a single fiscal year during the 1870s after a failed investment in the Troubled Greenville and Columbia Railroad Company. More recent examples of public sector investment failures, reported both by academicians and in the popular press, include:

- Investment losses exceeding \$60 million incurred by the City of San Jose, California, in 1984, as a result of investment in risky stocks and bonds for direct revenue yield (Miller, 1998).
- The financial disaster that befell West Virginia's state-run investment pool over a three-year period beginning in April 1987 (Hayes, 1999).
- Investment losses in the early to mid 1990s of advanced bond proceeds that were to be used for school construction in school districts in Pennsylvania. One example is the school district in the Tyrone area (Gasparino & Moss, 1997). Instead of careful research or competitive bidding, the school district accepted a bid at face value. It was awarded to local investment firm and involved management of over \$20 million dollars in investments. The investment firm took high risks and when the investments failed, the firm used money from other school districts to cover the losses.

- Widespread investment losses in 1994, when billion of dollars in losses occurred within state and local governments from California to Maine (Miller, 1993; Larson, 2002; Cohen & Eimicke, 1998). Among these, the most widely publicized case was the bankruptcy declared by Orange County, California on December 6, 1994, where \$1.7 billion was sustained through risky investments in derivatives and repurchase agreements (REPOS), and significant degrees of leveraging (Cohen & Eimicke, 1998).
- Ohio's "coingate" scandal, involving Tom Noe, a rare coin dealer, who was given the authority to invest \$50 million of the State of Ohio's Bureau of Workers Compensation funds in collectables, including rare coins and baseball cards. The monies were invested in a fund, referred to as the Capital Coin Fund. Tokaji reports that the fund, since its inception in 1997, has been unable to account for \$12 million in state funds, has two coins missing that have been valued at \$300,000 and has written off \$850,000 (Tokaji, 2005).
- The City of San Diego's use pension funds as "slush funds" to cover general government expenditures and salary increases among council members (Gelinas, 2005).

#### EMPIRICAL CONTEXT

To date, several studies have been important in advancing our understanding of why failures, such as those reported above occur. Several of these have addressed public sector investment failures, using case analysis. Examples include examinations of (a) the events that lead to the Orange County investment debacle (Cohen & Eimicke, 1996; Cohen & Eimicke, 1998); (b) the \$2.2 billion "run" from the State of Texas' Local Government Investment Pool ("TexPool") in 1994 (Bunch, 1999); and (c) the failure of the West Virginia Consolidated Investment Fund in 1987 (Hayes, 1999). While not directly focused on investment failures, an article by Peng provides insights into mass losses experienced in New York City's pension funds, over the course of fiscal years 2001 and 2002. A large portion of these losses are attributed to overly aggressive investment strategies (Peng, 2004).

The two studies by Cohen and Eimicke, as well as the study by Hayes suggest that an overly heavy reliance on so called "Prudent Person Rule" statutes played an important role in the failures. Such statutes are generally based on the Law of Trusts, which states the following (Hayes, 1999, p.50):

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 investments and only such investments 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....

While commonly thought to safeguard the principal, by limiting investments to relatively safe financial vehicles, discretion and loop holes that permit highly risky investment ventures have often been at odds with these statutes. This is exemplified in the Orange County Case, where the prudent person rule was entirely disregarded. In brief, Orange County's Treasurer Robert Citron was left to his own devices with a very limited degree of oversight (a so-called *de facto* policy). Repeated interest rate increases, by the Federal Reserve during 1994, revealed that the investments made by Treasurer Citron had carried significant degrees of interest rate risk. Substantial losses were incurred as Citron's "luck ran out" (Cohen & Eimicke, 1998).

In addition to the above studies and notes, a number of research pieces with equal or less analytical rigor may be identified that have served partly as commentaries on the above mentioned investment failures and partly as a source for recommendations about how to avoid the recurrence of losses. Most important, these have drawn attention to advantages and drawbacks associated with expanding the investment options available to investment managers (Miller 1981; Kiley 1981; Dew, 1981; Thompson, 1988); the importance of investigating investment practices used by local government investment pools (LGIP), prior to participation in such pools (Lynch 2002); and the importance of improving and adhering to formal investment policies (Greifer, 2002; Heller, Walton & Willmoth, 2002);

However, an important limitation remains in the literature. It lacks a conceptual framework, rooted in a solid theoretical foundation. Miller called for the development of such a framework in 1987 (Miller, 1987), arguing that it was needed for moving formal research

in the area public investing forward. The next section suggests one possible theoretical foundation that may be used for this purpose. As noted in the introductory section, the proposed framework is rooted in New Institutional and Austrian economic theory. Using these foundations as a basis, the remainder of this paper illustrates how the combination of these two foundations may be used to offer insight to the following question: How should public sector investment programs be organized and governed to most effectively meet their general investment objectives?

### **ORGANIZING THE PUBLIC SECTOR INVESTMENT FUNCTION**

New Institutional and Austrian economic theory serve to advance economic theory, by placing emphasis on the role of a number of factors that conventional neo-classical economics ignores or de-emphasizes in explaining economic phenomena. By accounting for these factors, the frameworks may be argued to be more sensitive to the realities of decision-making within different institutional and organizational contexts. In regards to the issue of organizing the investment function, the two frameworks are particularly helpful in providing insight into whether the public sector investment function may warrant outsourcing over in-house decisions, in terms of transaction and agency costs. Whether it is an investment decision in a government organization or a contract with an outside organization, some type of agency and transaction costs result. Examples include costs associated with information gathering (e.g., time and money spent when trying to exchange financial assets, goods, or services), opportunism (the propensity to seek ones self interest over the interest of the organization), monitoring, or enforcement. The section relates the institutional environment in which the investment function operates to agency and transaction costs. Discussions of whether these costs would warrant outsourcing over in-house decisions are addressed in the final two sections of the paper.

#### **New Institutional Economic Theory**

New Institutional Economic (NIE) is often used as an umbrella term for efforts encompassing the development of theories of market failure and institutional analysis. It does not declare neo-classical theory to be wrong, but rather that it lacks explanations of asymmetric information, imperfect market structure, externalities and sub-optimal allocation of government sponsored goods related to the



institutional environment of organizations (Boettke, Coyne & Leeson, 2003; Williamson, 2000). In contrast to neo-classical economics, NIE recognizes the role of organizations, above and beyond the market, in achieving efficiency. Moreover, the assumption in neoclassical economics that information is complete, costless and equally shared is rejected.

Organizations, often referred to as hierarchies, are formed to manage the cost of transactions, including contracts that take place when information is incomplete. Ronald Coase, one of the initial scholars to help form NIE, asked why firms internalize exchanges that might be handled in the market (Coase, 1937). He recognized that incomplete information as well as cognitive limits and opportunism may be handled by rules of institutions or organizations. In particular, NIE addresses the transaction cost issue, which provides insight to when it is preferable to produce goods or services in the government hierarchy and when it might be desirable to contract it to the market. At the center of the analysis are those transaction costs that arise from public choice theory and agency problems. A description of these problems and how they are related to specific institutional characteristics inherent in the setting in which public sector investment programs are carried out is provided next.

### Public Choice Problems

Public choice problems arise when costs of information gathering enable special interests to reduce their tax burden or increase their receipt of public benefits at the expense of the wider public interest (Scott, Ball & Dale, 1997; Sandmo, 1999). These problems are defined in public choice theory, which may be described as a continuously evolving framework for studying of how choices about public resources are made collectively, applying conventional economic principles. The framework originated in James Buchanan and Gordon Tullock's book *Calculus of Consent*, published in 1962 (Buchanan & Tullock, 1962). At the center of this framework are the public sector bureaucrats. Ideally, they are supposed to work for the public interest, putting into practice the policies of government as efficiently and effectively as possible.

Applying the logic of conventional economic principles to politics, bureaucrats and elected officials are often viewed as self-interested utility-maximizers, rather than public utility-maximizers. This view of

bureaucrats and elected officials, allows public choice theorists to illustrate how rent-seeking behavior imposes transaction costs on principals. In other words, uncompensated transfers of goods or services from another person to one's self are a result of a "favorable" decision on some public policy (Krueger, 1974).

A direct implication of the public choice framework is that the outcome of decisions based on self-motivational factors often is at odds with what is best for the constituents. According to conventional economic principles, this problem is avoided in commercial settings because of competitive pressures. These pressures create an environment where entities are producing at lowest possible cost at the same time as profits are being minimized. This means that entities are just surviving and selling at minimal prices. Any organization that systematically makes suboptimal decisions will fail to survive. The solution suggested by public choice theorists to tackle inefficiencies within the bureaucracy is therefore to allow for competitive pressures to the extent this is possible.

Evidence drawn from the past two decades "new public management reforms," provides partial support for the claims and the solutions suggested by public choice theory. Efficiency improvements have been realized from outsourcing and other privatization efforts aimed at enhancing competitiveness in the delivery of public services. Examples include the contracting out and privatization in the United Kingdom, Sweden, Australia and New Zealand. However, it is important to remember that the public choice framework views these benefits as being realized from increased competitiveness wherein principal agent and rent seeking problems are reduced. These conditions were not met, in several cases where reforms were driven by the new public management philosophy. Harrison, for example, underscores this point in his analysis of problems associated with the reforms, undertaken in the United Kingdom (Harrison, 1989, p. 146).

In short, the public choice framework suggests that transaction costs are reduced under conditions where entities are exposed to competitive pressures from alternative providers. Under competitive conditions, efforts to move price upward or to be a rent seeker are often caught by competitors who make fairer offers. Competition does not eliminate price gouging but reduces it. Given the focus of this paper, it is therefore important to ask whether the necessary

conditions of competitiveness are present in the operating environment in which the public sector investment function operates.

### **Competitiveness and the Public Sector Investment Function**

Public sector investing trades, directly and indirectly, in the same markets as its counterpart in the commercial sector (e.g., mutual funds, private corporations and individual investors). Similar to these entities, it may elect, in concept, to engage in trade to compete for favorably priced securities, using the same tools and methods as those in a commercial environment. It may also elect to have a passive portfolio (buy and hold). Finally, it is subject to the same market risk as entities operating in the commercial sector. At one level, therefore, the competitive context in which the public sector investment function operates may be viewed to be similar to that of its counterparts in the commercial sector.

Beyond the above similarities, however, a number of characteristics are unique to the institutional environment in which the public sector investment function operates. Many of these constrain the ability of U.S. state and local governments to compete effectively in the financial market place. At least five such constraints may be identified. First, governments are often constrained in their ability to compete, due to a lack of professional capabilities. A common problem in the public sector is to secure and uphold a high quality work force. In part, this may be argued to be a result of the public sector compensation schemes. The reward system in the public sector generally consist of established payment scales that do not allow for a monetary incentive structure to be aligned with organizational goals such as bonuses based on performance. In addition, it is often difficult to compete for, secure and uphold a high quality workforce, due to a limited amount of resources held by many local governments. This problem is particularly challenging for governments in rural areas (Dougherty, Klase & Song, 1999). In the case of cash management programs, it is not uncommon that the investment administration function is reduced to cash held in a checking account.

A second constraint that prevents the public sector investment function to compete effectively in the financial market place is that it may have to adhere to objectives that go beyond cost minimization and profit maximization. A good example is the use of social and

economically targeted investments (ETIs). An ETI is just like any other investment, but it also seeks to fulfill a social or economic objective. That objective usually comes in the form of creating collateral benefits for a specific geographic area, group of people, or sector of the economy (Watson, 1994). The objective of maximizing yield is likely to suffer with the addition of an ETI objective. These investments generally produce sub-par rates of return (Moore, 1995).

A third constraint is the relative emphasis that is placed on safety and liquidity in relation to yield. This is exemplified in a number of ways. One example is the use of stringent statutes dictating the type of securities the public sector investment function may invest in. These statutes are particularly damaging to a government's ability to compete, in cases when market yield is the goal.

A fourth factor that may work to constrain the abilities of the public sector investment function to compete is the use of funds as a mechanism of accountability. To keep appropriations with different legal mandates separate, governments in the U.S. account and report on their activities using a fund structure (i.e., "fund accounting"). These mandates directly shape the investment opportunities available to public sector investors, by forcing the investment function to adhere to different priorities and policies for different "fund types."

Finally, the Government Securities Act (P.L. 99-571) of 1986 constrains public sector investors, by dictating what brokers and dealers the governments may do business with. It brought all dealers in the U.S. government securities market under federal regulation for the first time.

### **Agency Problems**

The second major area that adds insight to how the public investment function ought to be organized is agency theory. Similar to public choice, agency theory presumes that those operating or running the entity (the agents) for the stakeholders (the principals) behave opportunistically to advance their own self interest over the interest of the owners or creditors (Eisenhardt, 1985). Two important differences exist between public choice and agency theory, however. First, agency theory does not attempt to account for problems associated with circumstances unique to specific sectors of the economy. It is focused on explaining the implications that absentee ownership has on increasing the "profits" for the agent over the

principal, an organizational arrangement that is possible in either of the public, private and non-profit sectors. By contrast, public choice does recognize sector specific differences (i.e., public vs. private).

The second important difference between the two frameworks is that agency theory allows for imperfect knowledge, while public choice theory remains faithful to the omniscience assumption (i.e., perfect knowledge). Perfect knowledge can not persist under an absentee ownership arrangement, according to agency theory, because it presumes delegation of decision authority to agents. Such delegation result in information discrepancies between principals and agents, in favor of the agents. This information advantage will impose costs on the principals, whenever the interests of the agent conflict with the interests of the principal.

Two types of transaction costs arise from delegating decision authority, according to agency theory. These are referred to as monitoring expenditures and residual losses (Jensen & Meckling, 1976). Monitoring expenditures are defined as those expenditures that are imposed on a principal to control an agent's activities. Residual losses are defined as those losses that are imposed on a principal as a result of a disparity between decisions taken by an agent and those that would coincide with the wishes of the principal.

Attempts to reduce these two "agency costs" generally take two forms. The first involves finding the optimal balance between the amount of monitoring costs expended to control an agent's activities, and the relative contribution the monies expended have on the reduction of residual losses. In theory, this would be expressed as the point where the marginal contribution of an additional dollar spent on monitoring equals zero. Given the dynamics of organizations and the uncertain environment in which these often operate, this point can only be identified in theory. The second way to lower agency costs is to make the interests of the agents more closely align with those of the principal (Scott, Ball & Dale, 1997). In commercial settings, this is exemplified by compensation schemes to agents that include shares and share options in the company.

In summary, agency theory offers insights to the implications of knowledge discrepancies between principals and agents. Specifically, it informs that agency costs are imposed when (a) the information discrepancy between the investment function and its principals is significant, and (b) the incentives of the agents carrying out the

investment function are not aligned. Consequently, in regards to the evaluation of transaction costs in the context of the public investment function, the key questions that arise from agency theory are:

- To what extent do information discrepancies exist between principals and agents in the context of the public sector investment function?
- To what extent are the incentives of the agents carrying out the investment function aligned with the wishes of the principals?

### **Agency Theory and the Investment Function**

Notwithstanding the contribution of agency theory in identifying the above two questions, it is necessary to go beyond the agency framework to gain more substantive insights to them. The most important reason is that the framework falls short in explaining how knowledge discrepancies accrue (e.g., are they a result of the institutional setting or not?) and under what conditions the discrepancies may be removed most cost effectively. Part of the failure of agency in allowing insight to these more dynamic questions is a result of its exclusion of sector specific differences in its analysis of agency costs. As such, the theory falls short in providing insights to the relative level of transaction costs that are a direct result of a particular institutional context, such as the public sector investment function. Even more important, however, is that it falls short in recognizing the influence of time on decision-making. Similar to public choice, agency theory applies the logic of conventional economic principles in analyzing economic phenomena (Ikeda, 2003). As such, public choice and agency theory are “static” frameworks that rely on the assumption of one-period economic activity (Stalebrink & Sacco, 2003; Stalebrink, 2004). In other words, they are limited to explanations illustrating start states and end states (i.e., “here” and “there”) rather than the process of the movement (i.e., “how we get from here to there”) (Boettke, Coyne & Leeson, 2003).

Perhaps the most profound implication of using a static framework to answer the above two questions is that it does not allow for the role of learning. Static frameworks view knowledge as a constant. Hence, by definition the two frameworks are unable to explain how knowledge discrepancies accrue and under what conditions the discrepancies may be removed most cost effectively.

“Process” explanations are required if the resulting analysis is to carry additional weight. Recognizing this, the next section illustrates how “Austrian economics” may be added to add more substantive and nuanced insights to the above questions. Austrian economics hold potential for providing such insights, by placing knowledge and time at the center of economic analysis (O’Driscoll & Rizzo, 1985).

### **Austrian Economics**

Austrian economics is affiliated with NIE, in that it challenges the conventionally normative emphasis in economics (i.e., what should be), by seeking to explain what is (i.e., positive theory). As noted above, however, it differs from NIE in that it studies economic phenomena from a process perspective. It views explanations of change to be the central task of economics.

In its quest of providing explanations of change the Austrian framework rely on a few basic tenets. First, it views the entrepreneur, who is driven by man’s universal need to better his position, to be the ultimate driver of change (von Mises, 1996). Specifically, the entrepreneur drives the market process through his attempts to earn profits and to avoid losses (Boettke, Coyne & Leeson, 2003).

Second, it treats institutions of private property rights as facilitating economically efficient decision-making. It is argued that decision-makers will lack the necessary incentive to act economically in the absence of such rights (von Mises, 1935; von Mises, 1996). Private property is also viewed as a key facilitator of learning. In brief, learning is viewed to occur when the consequences of decision-making under uncertainty are revealed. That is, learning is viewed as a discovery process in which an individual learns about what works and what does not work, through their entrepreneurial activities. Consequently, individuals that have fewer incentives to take risk will engage in less knowledge discovery.

Third, the Austrian framework also place emphasis on the role of market imperfections in economic activity constitutes. Acknowledgment of these is perhaps the most fundamental difference between Neoclassical and Austrian economic theory. Austrian theory points out that an absence of market imperfections implies a state of conditions under which all aspects of market learning and uncertainty has been worked out (i.e., equilibrium); a

state where there are no remaining incentives for engaging in entrepreneurial activities. That is, Austrian economics criticizes the traditional neo-classical framework's emphasis on equilibrium modeling, by arguing that it assumes away the very issue that needs to be explained - the entrepreneurial aspect of human action (Boettke, Coyne & Leeson, 2003). Market imperfections and imperfect information, thus, are pivotal drivers of economic activity in the Austrian framework. Together with private property rights and rule of law, they trigger a market process aimed at the discovery and exploitation of undiscovered profit opportunities that "moves" the economy closer toward equilibrium (i.e., a state where all profit opportunities have been discovered and exploited) (Kirzner, 1973; Hayek, 1979).

Finally, Austrian theory also recognizes private knowledge as distinct from scientific knowledge (Hayek, 1948c; Hayek, 1948a). Such knowledge is possessed only by individuals, reflecting their individual's unique circumstances. Hayek writes "...the knowledge of the circumstances of which we must make use [to calculate] never exist in concentrated or integrated form but solely as the dispersed bits of incomplete and frequently contradictory knowledge which all the separate individuals possess" (Hayek, 1948c). The latter could be made available to all, in theory. More recent publications examine private knowledge in relation to knowledge economies. Hodgson, for example, emphasizes the notion that knowledge economies tend to increase the gap between principals and agents, due to the specialist nature of knowledge work (Hodgson, 1998). In knowledge based functions learning is the primary source of competitive advantage (Zucker, 1991). The complexity and specialized nature in these industries increases the knowledge gap between principals and agents. Knowledge based industries are therefore particularly vulnerable to transactions costs, in the form of residual losses. In addition, the complexity of these industries makes attempts to implement monitor tools more costly, which adds to the monitoring costs.

### **Austrian Economics and the Investment Function**

At least four major contributions may be drawn from the Austrian framework, in regards to the organization of public sector investment programs. Two of these arise from the emphasis it place on the relationship between different specifications of property rights and



individual decision-making. In the context of public sector investment programs, there are often few individual private property implications linked to decision-making. The specification of property rights is often far removed from the decision making process; much more so than in the commercial sector (while agents in commercial firms do not invest their own property, their well-being is often attached to their decision-making).

One implication of the absence of a private property link, concerns the extent to which the available incentive structure translate into economic decision-making. As noted above, Austrian economics proposes that an incentive structure that is properly aligned with individual property rights result in economically superior decisions. Given the lack of property rights, Austrian theory implies that public sector investment decisions tend to be sub-optimal, resulting in sub-par investments returns. The failure of capturing the additional yield represent transactions costs, imposed on the principals.

In addition, without property rights being aligned to decision-making managers would also become less likely to engage in risk-taking. Regardless of the potential profitability that is associated with a particular opportunity, the consequences of failure (e.g., in terms of advancing their careers) would outweigh the benefits (Hayek, 1948b, p. 198). With no prospect of profit they would consistently elect to err on the side of safety. This logic may also be used to explain why investment failures often lead to legislative overreactions that have done more harm than good (i.e., imposing transaction costs on principals). For example, after the scandal in the Pennsylvania school districts, the Pennsylvania legislature reacted strongly, recommending legislation that imposed a number of restrictions covering school districts, counties, cities, boroughs, townships and authorities ("Reform Local Government," 1999). Key provisions included:

- Clearly specified limits on the investments local governments can make.
- Greater oversight of investment pools.
- Strong new conflict-of-interest and disclosure provisions.
- Mandatory investment policies.

- Mandatory investment training for local government officials.
- Consolidation of multiple laws into one.

Many of these provisions have likely improved the operations of the public sector investment function and reduced the risk of non-prudent investing within public sector investment programs in Pennsylvania. Concerns, however, have been raised in regards to overly restrictive alterations made to the list of allowable securities (if in place) based on the argument that they have reduced the ability and opportunities available to the investment function to generate market returns at specified risk and liquidity levels (Miller, 1981).

The second implication that follows is that learning will suffer. As described, above, private property is a prerequisite for learning in that it provides the necessary incentives for people to engage in "discovery" of profit opportunities. In essence, the framework implies an operating environment where agents, in the absence of private property, have less of a reason to stay connected with the dynamic changes of the market process. In the case of active portfolio management, this learning process suggests that public sector investors are at a disadvantage in competing for and capitalizing on market opportunities. The costs imposed on principals come in the form of lower yields. Most investment programs operate with at least some portion of the portfolio being actively managed (i.e., active portfolio management as opposed to buy and hold). In a survey covering 54 state pension funds, the National Association of State Treasures, reports that all but one actively manages at least some portion of their pension funds (Allen, DeSimone & Tyson, 2001).

It is important to note, however, that transaction costs associated with the challenge of staying informed with market activities (for purposes of gaining a competitive advantage) may be offset by the ability of analysts to "beat the market." Empirical findings have illustrated that the ability of analysts to "beat the market" is very slim (Fama & French, 1988). The hunt for "deals" based on capabilities, may therefore be argued to result in less of an advantage than posed above. The effects of a lack of capabilities are more likely to impose transaction costs (finding, training, organizing, holding quality workers and writing the investment contracts) if capabilities translate to a lack of knowledge about more basic areas of investing. A case in point would be the costs imposed from failing to properly diversifying an investment portfolio (i.e., adhering to basic investment principles).

In addition, Hodgson's discussion (see above) of knowledge economies and private knowledge also has implications on transaction costs. An extension of this discussion into the realm of public investing suggests, at least two implications. First, given that investing is a knowledge based function, it suggests that the principal-agent problem may be extensive in the area of public sector investing. Second, it suggests that within this function, long-term investment programs may potentially be subject to higher transaction costs than short-term programs. This logic follows from the fact that the latter type of program tend to be less specialized, due to investment objectives that prioritize preservation of the principal and liquidity. These objectives imply a smaller range of investment options, compared to long-term programs. As already noted, the latter type of programs tends to place yield as their foremost objective. They also operate in a broader segment of the market and across a wider range of securities.

#### FROM THEORY TO PRACTICE

Both of the traditions examined in the paper have characteristics that are similar to the reinventing government literature. One contribution, for purposes of extending the above framework into recommended actions about how governments should organize and govern investment programs, therefore regards the merits of outsourcing the public sector investment function. The combination of New Institutional and Austrian economics offers support for such actions, in terms of a reduction in agency and transaction costs, given the presence of certain basic conditions. One condition is that a decision to outsource leads to enhanced alignment between private property rights and decision-making. Under such conditions, transactions and agency costs would be reduced through enhanced learning and exploitation of market opportunities.

Another condition is that a decision to outsource enhances the competitive pressure imposed on the investment function. The framework suggests that such pressure reduces transactions and agency costs by removing a number of institutional characteristics that causes political opportunism. Contracting out, for example, may be able to reduce transaction costs arising from the influence of events where political pressures lead to sub-par public sector investment decision-making. Often, the political environment tends to

push for investment policies and decisions that increase the potential for generating larger returns on public investments. A number of examples of this may be found throughout the 20<sup>th</sup> century. An early case is found during the post World War II economic boom (Miller, Larson & Zorn, 1998). This boom placed significant pressures on states to revisit and expand their existing listings of allowable securities to include domestic and international stocks. A large number of cases also emerged during the 1970s and early 1980s when inflation exceeded the yields of traditional fixed equity investments. To prevent investment portfolios from losing value many governments revisited their lists of "allowable" securities for both pension and cash management investments to include more aggressive instruments. A similar trend occurred in the 1990 as governments sought to capitalize on the bull market of the late 1990s.

Decisions to outsource, however, need to be carefully assessed in conjunction with issues that goes beyond transaction costs, such as giving up control to govern and allowing for investment objectives that may be contradictory to efficiency. A good example of investment objectives that may be contradictory to efficiency is socially and economically targeted investments (ETIs). As already noted, such investments generally produce sub-par rates of return (Moore, 1995). In regards to giving up control, governments that have decided to outsource the management of public sector investment programs have often required contracting firms to adhere to a strict set of investment policies (e.g., TexPool).

Practical advice can often be found in the Government Financial Officers Association (GFOA). These cover advice for selecting investment consultants, ranking of investment goals, documents on pension financing and internal control. Many of the publication can be found at the GFOA home site (<http://www.gfoa.org>). However, given the diverse publications and often long list suggestion, conflict might occur.

## CONCLUSION

This paper has relied on two contemporary economic traditions - New Institutional and Austrian economics - for purposes of adding insight into the organization and governance of public sector investment programs. When combined, these frameworks offer a

theoretical foundation that may be used for purposes of assessing relative levels of agency and transactions costs within different institutional settings. The insights provided suggest that one option for reducing these costs is to "outsource" the public sector investment function. The theories explored in the paper are not panacea for dealing with agency and transaction costs, but they do draw attention to key institutional characteristics that influence their size.

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