Massachusetts Pension Reserves Investment Management Board: urban investing through a transparent selection process

Lisa A. Hagerman, Gordon L. Clark, and Tessa Hebb

University of Oxford, School of Geography at the Centre for the Environment
Harvard Law School, Pensions & Capital Stewardship Project, Labor and Worklife Program

Abstract. Investing in the economic growth of the state of Massachusetts has been a practice of the state employees’ public pension fund for the past three decades. Such investing is often perceived as falling outside the boundaries of a rigorous investment selection process. We argue that current selection of investments in economic development by the Massachusetts Pension Reserves Investment Management Board (PRIM) is guided by a strict investment philosophy. Targeted investments are governed by the same investment process that oversees traditional investments. The discipline applied tames the politics that can interfere with investments in economic development. In this paper we describe both the legislation and targeted policy that directs such investing. The paper deconstructs the decision making process and shows how investments in economic development are a part of that process.

Keywords. Investment philosophy, selection process, economic development, pension funds, Massachusetts.

Acknowledgements. We would like to thank Michael Travaglini, PRIM Executive Director and Stan Mavromates, PRIM Chief Investment Officer as well as other practitioners in the interview list for their valuable time and expertise. We would like to thank Elaine Bernard of the Labor and Worklife Program, Harvard Law School. The paper was written with the support of the Rockefeller and Ford foundations. None of the above should be held accountable for the views expressed, errors, or omissions.
Executive Summary

- A board level champion, such as the Massachusetts State Treasurer, retains an outside expert to structure an economically targeted investment (ETI) policy for the pension fund. The outside expert, in PRIM’s case a consultant, constructs the ETI criteria. This policy guides the PRIM board and staff in pursuit of qualified targeted investments. After the policy is established the board champion actively engages staff and board members to ensure implementation of the policy.

- The legislative mandate to invest in the Commonwealth of Massachusetts, together with the 2003 ETI policy, creates a safe haven for board members to consider investments in underserved markets.

- The ETI investment fund manager selection process should adhere to the same investment philosophy as non targeted investments. The selection process involves evaluating potential fund managers based on several factors including:
  - track records and ability to meet benchmarks,
  - competitive fee structures and,
  - ability to meet the five ETI criteria.

- The ETI Request for Proposal of December 2005 allows for a transparent competitive bidding process. The selection process allows market-based principles to govern the process—not personal networks prone to political favors.

- Successful implementation of ETIs includes a monitoring component that tracks performance against contractual benchmarks and requires fund manager reporting back to the pension fund through ETI quarterly update reports.

- PRIM’s investment in Access Capital’s fixed income product (invests in mortgages to homebuyers with income 80% or less than the Area Median Income in MA counties) and has consistently outperformed the benchmark. The 2003 ETI program is still in its infancy and returns on investments in the asset classes of private equity and real estate are not yet realized.

- Current investments are being tracked for: 1) ability to achieve risk-adjusted market-rate returns and, 2) ability to meet the five ETI criteria that includes tracking of collateral benefits. Current investments (selected per the manager’s ability to meet the 2003 ETI policy yet not through the 2006 RFP) are in Boston and surrounding cities. These investments aim to outperform their contractual benchmarks, while also revitalizing inner cities and benefiting the local economy.
Contents

1 Introduction 2
2 Legislative framework 4
3 Revisions to the legislation 9
4 Investment process 11
5 Economic development as part of the process 18
6 Conclusion 26
7 References 28
8 Appendices 34
   8.1 PRIM ETI Policy 34
   8.2 PRIM ETI Quarterly Update Form 35
   8.3 Linking PRIM ETIs with urban revitalization 36
   8.4 List of interviewees 37

List of Figures

Figure 1 PRIT Fund Growth in Net Assets Fiscal Years 1985 to 2004 11
Figure 2 PRIM’s 2006 ETI Investment Manager Selection Process 14
Figure 3 PRIT Fund Performance Summary 32

List of Tables

Table 1 Access Capital Investment Performance (net of fees) March 31, 2006 22
Table 2 PRIM Economically Targeted Investments as of March 31, 2006 24
Table 3 Massachusetts Local Systems in PRIT 30
Table 4 List of Consultants 31
Table 5 Asset Allocation Policy of the PRIT Fund 33

Glossary

PRIM - Massachusetts Pension Reserves Investment Management Board (the Board)
PRIT – Massachusetts Pension Reserves Investment Trust (the Fund)
PERAC – Public Employees Retirement Administration Commission (the Commission)
ETIs - Economically Targeted Investments
1 Introduction

Investments in economic development can revitalize communities through affordable housing and job creation among other social benefits. Investing in America’s inner cities is a practice in which investors can achieve both an economic and a social benefit. Inner cities provide investment opportunities through untapped resources such as: unmet local demand, a strategic location, integration with regional clusters, and an underemployed labor force (Porter 1995). As a result of a higher population density in the inner cities, they have greater purchasing power per square mile than their wealthier suburbs (Stegman 1998, Stanley 2000). This attribute can be seen in the inner cities of New York, Los Angeles, Chicago, and Boston where pension funds have invested in the inner cities. Investments in the inner cities or more broadly, economic development, has historically been referred to as economically targeted investments (ETIs).

These investments can sometimes be politically motivated and prone to selecting a politician’s favorite project rather than being part of the formal investment process (Hagerman et.al 2005). When targeted investments fall outside of a rigorous selection process they can fail yielding below market returns and a poor track record. Critics argue that such investing is prone to political pressure and can fail (Romano 1993). Proponents of the efficient markets argue that if there is a capital gap it reflects the market’s poor risk/return characteristics (Nofsinger 1998). These failures and market prejudices influence a pension fund’s attitude towards investing in the emerging domestic markets. Economic development policies that fall outside of the process fail because they have bypassed a rigorous set of checks and balances similar to any other prudent investment made by the pension fund.

Massachusetts has had a history of investing in the Commonwealth through targeted programs intended to create economic activity in the state. Targeted investments can spur economic growth in specific sectors such as the high-technology industry. Pension fund targeted investing in Massachusetts has been driven by the state pension fund’s legislative mandate to invest in the Commonwealth whenever possible. Investing in the state has also occurred as a byproduct of the fact that Massachusetts is home to a number
of high-technology companies, including bio-technology firms. Since the 1980s, the Massachusetts’ state pension fund has made a number of targeted investments. These investments were made through investment vehicles such as the Massachusetts Technology Development Corporation (MTDC) and Commonwealth Capital that were intended to create economic activity and spur jobs within the state. Another targeted investment program included the American Dream that committed to the financing of affordable housing mortgages and created home-ownership opportunities for low to moderate income homebuyers. These targeted investments were either mandated by the legislature or initiated by the PRIM board and staff. However, these investments were not part of the formal ETI policy created in 2003.

In this paper we argue that the Massachusetts Pension Reserves Investment Management Board (PRIM) managed their targeted investments through a formal investment process. This process was a change from earlier practices. We further argue that these practices are distinguished by three factors: 1) the application of professional investment principles honed in the investment community, 2) a market rate of return set against policy benchmarks and 3) the separation between legitimate legislative and political interests in urban economic development and the professional investment management process. We argue that these factors framed targeted investments in the Bay State and by virtue of the process tamed the politics that can interfere in such investments.

The fund’s investments are managed through a selection process in which the pension fund Board approves or rejects external fund managers. The decision-making process is a formal one with checks and balances that involve both internal and external managers. A pension fund’s fiduciary duty to meet its current and future liabilities drives the investment process. Central to the process is a strategic asset allocation policy that guides staff, consultants, committee members, and the Board in their investment choices. While some might argue that choosing investments is a speculative process it can be argued (Clark 2000) that it is a “structured gamble” shaped by regulation and policy that guide the decision makers and allow for protection in the case of failed investments.
This paper is structured in the following way. Sections two and three provide a historical overview of the pension reforms that include a mandate to invest in the Commonwealth and an 8.25% long-term actuarial return for the overall fund. The fourth section outlines the pension fund’s investment selection process and the internal and external managers in that process. Section five addresses PRIM’s economic development policy in practice. We conclude with arguments in favor of the adoption of best practice for other public pension funds likely to implement similar targeted investment policies.

2 Legislative framework

Massachusetts has a rich history in pension reform legislation. Examining the legislation is important as the reforms had implications for the investment management process and future investing in economic development. The relevant history began in the early 1980’s with pension reform acts created out of a need to address the state and local retirement systems’ $10 billion unfunded liability position (amount of the actuarial accrued liability over current assets). Today we see that a pension fund’s liability position is a critical issue for cities, counties, and states nationwide.¹

In addressing the pension fund’s growing liability position leaders saw a need for a regulatory agency to provide oversight of the state’s decentralized system. In 1982, former Governor Edward King signed legislation that created a statewide monitoring system for the state and local retirement systems, the Public Employees Retirement Administration (PERA). It was created to address the system’s abuse relative to disability pensions (State House News Service, August 29, 1983). In 1996, PERA became the Public Employees Retirement Administration Commission (PERAC or “the Commission”) and is today an important governance mechanism for the state’s decentralized system.² Following the creation of PERA, Chapter 661 of the Acts of 1983 established the framework for the operating and investment performance of the state retirement system for the next two decades.

¹ The December 2005 New York City transit strike that crippled the city for three days was set off in part by increased costs for transit workers and highlighted the urgency of funding soaring pension costs.
² Chapter 306 of the Acts of 1996 created PERAC (the Commission) and modified the oversight of the system that today provides governance and oversight of the 106 different systems in the state’s decentralized system (PERAC 2005).
Chapter 661 of the Acts of 1983 was created out of a working group referred to as the “Dunlop Commission or the Harvard Working Group”. The group was lead by John Dunlop (distinguished labor negotiator and advisor to many U.S. Presidents, former U.S. Secretary of Labor under former President Gerald Ford, and founder of the Harvard Trade Union Program), Chester Atkins (former Senate Ways and Means Chairman), Paul Quirk (PRIM Executive Director, 1984-1991) and former State Senator John Brennan. Other members in the working group included labor leaders, legislators, and municipal employers. The group recognized an urgent need to address pensioner’s abuse relative to disability pensions and the system’s growing unfunded liability position.

The comprehensive pension reform legislation created out of the working group had several components and implications for the future management of the state’s retirement system. Most importantly it established the Pension Reserves Investment Management Board (PRIM or “the Board”) to administer the retirement system with oversight over the Pension Reserves Investment Trust (PRIT or “the Fund”). The trust was created to serve as a pool of assets for the pensions of participating cities, towns, and counties in the Commonwealth (then 103 local systems and the state and teachers’ retirement systems). This was important in terms of the future management of the fund as it gave the fund the opportunity to manage investments of scale and hire professional managers.

As of 2005 PRIT operates as a pooled investment trust that invests assets of the state employees’ and teachers’ retirement systems and those of the “participating” and “purchasing” local systems. An investment program called “segmentation” (as per Chapter 84 of the Acts of 1996) gives local retirement boards the authority to invest in individual asset classes, depending on their needs, as an alternative to investing in the aggregate of the PRIT fund.

---

3 Local systems may be restricted by PERAC in their investment choices. Pension reform legislation of 2006 submitted to the Massachusetts General Court is reviewing this requirement.
The local systems may purchase shares in the separate accounts of the Fund (PRIM 2005a). A “participating” system transfers all their assets to PRIT and a “purchasing” system invests in separate accounts through the segmentation program (see table 3 for a list). PRIT’s net assets total $40.2 billion (as of 12/31/05) and current beneficiaries include state employees and teachers and the employees of the 52 local systems.\(^4\) In addition to PRIM and PRIT, the 1983 legislation created the Pension Reserve Fund to establish a reserve to meet future pension fund costs. The reserve fund will be discussed in section three as part of the subsequent revisions to the legislation.

Chapter 661 of the Acts of 1983 was also important establishing standards of fiduciary duty for the pension fund. It mandated that PRIM must comply with the prudent person rule that sets forth the principles of a sound investment management policy. The language mandated that a fiduciary’s sole duty is to provide benefits to its members and their beneficiaries with “care, skill, prudence, and diligence” and with the aim of diversifying investments and reducing risk as long as it is prudent to do so. Massachusetts General Law (Chapter 32; Section 23, “Management of Funds”) also mandates the “prudent expert rule” and sets forth for the management of the Fund:

“…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 and by diversifying the investments of the system so as to minimize the risk of large losses unless under the circumstances it is clearly prudent not to do so” (Massachusetts General Law 2005).

In terms of enabling the Board to prudently diversify the plan’s assets, the legislation removed quantitative restrictions on asset classes and specific investments for PRIM. This piece of the legislation allowed for greater diversification of investments by moving off legal lists.\(^5\) Initially the investment restrictions established in Chapter 343 of the Acts of 1972 (subsequently amended) set forth legal investments as: not more than 20% in

---

\(^4\) The Massachusetts State Teachers’ and Employees’ Retirement Systems (“MASTERS”) merged into the PRIT Fund as of January 1, 1997 as per Chapter 315 of the Acts of 1996 and invest all their assets in the PRIT Fund. As of 2005 the Fund invests the assets of state public-employees and state teachers and participating municipalities that represent 80,000 active workers and over 50,000 retirees & beneficiaries (PRIM, http://www.mapension.com/aboutus/FAQ.htm).

\(^5\) Parameters for investing in Northern Ireland and South Africa remain in place as of 2005 (Massachusetts General Law 2005).
railroad, not more than 35% in telephone, not more than 50% in public service/utility, not more than 15% in bonds of optional companies on the state’s legal list, and not more than 25% in bank or insurance company stocks. The 1983 legislation amended this language by striking out the investment restrictions and inserting the following:

Subject in each instance to the approval of the investment committee established under the provisions of paragraph (a), the state treasurer shall invest and reinvest such funds, to the extent not required for current disbursements as much as reasonably possible to benefit and expand the economic climate within the Commonwealth so long as such is consistent with sound investment policy… (Massachusetts ACTS, 1983. – Chapter 661, 1267)

In making this change Senator Chester Atkins stated: “Present restrictions force the state to invest in things that aren’t really good investments.” (Massachusetts State House News Service, October 14, 1983). Giving PRIM the flexibility to choose the most prudent investments and diversify the Fund’s portfolio was an important step in reducing the $10 billion unfunded liability position. In 1984 the Board’s asset allocation policy moved from bonds and legal list investments to broader domestic and international equities. In 1986, PRIT had a target asset allocation of 50% equity, 30% fixed income, 15% real estate, and 5% venture capital (Krauss 1986). This policy was a deliberate strategy by the then PRIM Executive Director aimed to reduce the unfunded liability. According to the PERAC actuarial valuation report, the estimated funded ratio (assets to liabilities) as of January 1, 2005 for the state retirement system is 82.8% (PERAC 2006).

In summary, Chapter 661 of the Acts of 1983 became Massachusetts General Law (Chapter 32, Retirement Systems and Pensions: Section 22 “Methods of Financings” and Section 23 “Management of Funds”) and created the legislative framework that would rehabilitate the system in the years to come. As Governor Dukakis said after signing the bill, “The framework has now been provided to make our state’s pension systems sound. This new law is aimed squarely at strengthening the public employee retirement system and protecting the benefits of thousands of state and local retirees” (The Boston Globe, December 21, 1983).
In addition to loosening restrictions on investments the pension reform legislation of 1983 created public policy that would guide the pension fund to promote in-state investments. The legislation mandated that the pension fund should make investments to benefit the economic climate of Massachusetts whenever possible as per the following language:

Subject to the approval or ratification of the PRIM board, the executive director shall invest and reinvest such funds...as much as reasonably possible to benefit and expand the economic climate with the Commonwealth so long as such is consistent with sound investment policy and the other requirements of this section; provided, however, that no funds are to be invested directly in mortgages or in collateral loans; provided, further, that the executive director shall transfer not less than two million dollars of said fund into a fund managed by the Massachusetts Technology Development Corporation on behalf of the board; and provided, further, that said Massachusetts Technology Development Corporation shall manage the fund in accordance with the provisions of section four A of chapter forty G (Massachusetts ACTS, 1983 – Chap. 661, p. 1271).

This language was important to Massachusetts in establishing a legislative framework to target investments in economic development. As noted above it also mandated a $2 million investment in the Massachusetts Technology Development Corporation (MTDC). Further language elaborated on the MTDC investment and set out that the fund shall invest in a separate fund of MTDC provided that; 1) MTDC shall invest and reinvest the monies to make funding available to enterprises that cannot obtain funding from the traditional markets and 2) that the enterprise has the potential to create jobs within the Commonwealth. The reforms of 1983 were the first to legislate that a pension fund should invest in the state whenever possible, later we will address whether this directive was enforced and how important it was for in-state investments.

The legislation had three important implications for the future management of the fund. First, it was clear that there was an urgency to address the pension fund liability that influenced the future investment strategy. Second, in looking for increased investment opportunities, there was now a willingness to accept more risk for higher returns—as a result of the removal of legal list investment restrictions. Third, this new investment strategy allowed for more innovative investment alternatives such as equities—at the
time deemed very risky. With this legislation the fund now started to take significant equity positions in large corporations. Essentially the legislative initiative and its implications set the framework for the management of the fund that exists today.

3 Revisions to the legislation

Thus far we have reviewed the initial major pension reforms that created the framework for the management of the state’s retirement system. This section addresses two major revisions to the legislation in 1988 and 1998 that impacted the future management of the fund. While the 1983 legislation set the framework for reducing the unfunded liability position, it was not until 1988 that legislation more systematically attacked the $11 billion unfunded position.

In January of 1988 Governor Dukakis signed into law Chapter 697 of the Acts of 1988 that further regulated the pension system. The legislation established a funding plan for the Commonwealth to meet its financial obligations that included annual payments to reduce the unfunded liability by the year 2028. A funding schedule was created to move from a pay-as-you-go system to a pre-funded one that draws on reserves to meet its pension costs. Principally the legislation created the “Commonwealth Liability Fund” and the “Commonwealth Funding Schedule” to pay current benefits and amortize over the next 40-year period the unfunded liability (PERAC 1988). Governor Dukakis said in a state news release, “This is a comprehensive and fiscally sound plan to eliminate finally a major problem that has created unnecessary concern among public employees and retirees and diminished the Commonwealth’s credit rating” (February 3, 1986). Reducing the unfunded liability is crucial to the economic stability of the Commonwealth. The unfunded liability diminishes the state’s credit rating that affects future investment growth in Massachusetts.

The 1988 legislation set up a policy with ambitious efforts to reduce to zero the pension fund liabilities over the next 40 years. According to a State House News Service press

---

6 Records available show that as of January 1, 1987 the unfunded liability position was $10.5 billion and as of January 1, 1990 it was $10.9 billion (PERAC Executive Office).
release (January 12, 1988) the legislation reorganized PERA lessening the governor’s authority over the governing organization; improved benefits; and authorizing five percent of state corporate, income, and sales tax increases to reduce pension costs. According to the report, municipalities would receive $26 million for pension deficit reduction in fiscal year 1989.\(^7\)

Ten years later another piece of legislation was enacted that provided governance and structure to the investment management process in an effort to reach a fully funded position. The legislation started as a bill out of the House Ways and Means Committee and was signed into law by the Governor as part of the 1998 fiscal year budget.\(^8\) The legislation mandated an overall return for the PRIT fund of 8.25%. Previous to this legislation the policy was an informal target of 8.5% yet not mandated by the legislature. This 8.25% mandate as stipulated in the 1998 fiscal year budget then became part of PRIM’s Investment Policy Statement (IPS) in place today (PRIM 2005b). The legislation provided governance to keep the board from pursuing bad investments and stipulated:

> For the Commonwealth’s Pension Liability Fund established under Section 22 of chapter 32 of the General Laws; provided, that the amount appropriated herein shall constitute the first-year payment of a 20 year, level-funded funding schedule for the Commonwealth’s unfunded liability; provided further, that said funding schedule shall be predicated upon an assumed investment rate-of-return of 8 ¼ percent; [emphasis added] provided further, that said amount shall meet the Commonwealth’s obligations under section 22C of said chapter 32…(Commonwealth of MA Treasurer and Receiver General Fiscal Year 1998 Budget).

Over the course of twenty years PRIM has targeted the 8.25% return and the PRIT Fund’s net assets have grown from $597 million (as of June 30, 1985) to approximately $40.2 billion (as of December 31, 2005). Figure 1 shows the fund’s growth in net assets from fiscal years 1985 to 2004.

\(^7\) As of 2005, “the provisions of Chapter 32, Section 22C require amortization payments such that the Unfunded Actuarial Liability is reduced to 0 by June 30, 2023. Under the present schedule, the amortization payments to eliminate the unfunded liability increase by 4.5% per year” (State Actuarial Valuation Report 2005, 2). The state appropriates funds to reduce the unfunded pension liability in which “each fiscal year the Governor is required to recommend a minimum dollar amount equal to 1.3% of the permanent state payroll, subject to legislative approval, to assist local retirement systems in reducing their unfunded pension liabilities (M.G.L., c.32 Section 22B)” (PRIM 2005).

\(^8\) Line item 0612-1010 of Fiscal Year 1998 budget (part of Chapter 43 of the Acts of 1997).
The legislation provided the Board with a mandate to achieve the actuarial long-term return of 8.25%. We recognize that this is a target return and the market cannot be legislated. Some might argue that with this mandate a pension fund manages return, instead of managing risk, a practice that is not good public policy. The legislation does however provide structure and a formal policy to reach a targeted return. The PRIM staff and board must balance an aggressive investment policy with their fiduciary responsibility to safeguard the fund. In so doing the investment policy selection process discussed in the following section provides the governance mechanism to achieve that balance and focuses the fund managers.

4 Investment process

Since the 1970’s PRIT has invested in economic development yet the extent to which these investments were a result of a rigorous selection process is debatable. The key word in this discussion is “process”. From the 1970s to 2003 PRIM in-state investing was not part of a defined policy. Prior to 2003, targeted investments were made through investment funds such as the Massachusetts Technology Development Corporation (MTDC) and Commonwealth Capital intended to create economic activity and stimulate job growth. Other programs included the American Dream, a mortgage program to create homeownership opportunities for low to moderate income homebuyers. While
investments had been made in the domestic emerging markets, there was no framework for such investing. PRIM staff and the Board reluctantly considered ETIs that could be prone to political interference.

In January of 2003, Timothy P. Cahill was sworn in as State Treasurer. One of his first acts was to engage an outside expert, a private equity fund manager and political consultant, to chair his transition team and assess PRIM’s policies and directives. As part of this process the transition team contracted an outside consultant to structure an ETI policy. The study evaluated successful and failed ETI programs and identified the components of a successful initiative. The exercise involved changing the mindset of both staff and the Board who were of the opinion that if a policy did not look solely at the return then it would risk diluting the return.

In July 2003 the McKinsey study was complete and PRIM had a clear directive with the ETI policy supported by Treasurer Cahill. The study resulted in the PRIM Board adopting the ETI policy (see appendix 8.1). The final policy included a clause that all ETIs must be in-state and benefit the economic growth of the Commonwealth of Massachusetts (Travaglini 2005). The policy mandated that ETIs adhere to the same rigorous investment philosophy and selection process as traditional investments. The New York City Employees’ Retirement System and the California Public Employees’ Retirement System policies target 2% of their total portfolio to ETIs (Hagerman et al., Hebb 2005). The PRIM ETI policy took a slightly different approach and set a cap of 2% for ETI investments (approximately $764 million at current value), giving board members assurance that ETIs would not exceed two percent of total assets.

PRIM targeted investments are part of a four-step selection process that follows the same investment discipline as non-targeted investments. The process incorporates checks and balances that give board members assurance that proper due diligence was performed before reaching a final vote. Figure 2 illustrates the investment selection process guided by three key factors: 1. an ETI criteria and legislated mandate to invest in the

---

9 The transition team contracted McKinsey & Company to conduct a pro-bono study to evaluate ETIs modeling State Treasurer Phil Angelides’ “California Initiative”.
Commonwealth, 2. reaching the 8.25% long-term actuarial return for the overall fund, and 3. assessing fund managers in their ability to meet the policy benchmarks. Pension fund staff, in some cases with a consultant, evaluate submissions and perform the due diligence. Consultants may provide outside advice on potential candidates. They can reassure the Board that someone other than PRIM staff are reviewing the potential fund manager.

The most recently issued ETI Request For Proposal (RFP) (December 15, 2005) states that the “Search Committee” includes one member of the Investment/Real Estate Committee or its representative and one PRIM staff person. The search committee usually performs a due diligence interview with the proposers and then chooses finalists based on the selection criteria. A member of the search committee may then visit the finalists’ offices and performs on-site due diligence. The committee ranks the finalists and proposes the selected fund managers to the PRIM Real Estate/Investment Committee and the PRIM Board. Finalists selected may need to make a presentation (or finalist interview) to the Investment/Real Estate Committee and/or the PRIM Board. The Investment/Real Estate Committee will either accept or reject the recommendations and may propose a different manager to the PRIM Board (PRIM 2005c, p. 10).

---

10 “The investment policy benchmark is calculated by applying the investment performance of the asset class benchmarks to the Fund’s asset allocation targets. The investment policy benchmark permits the Board to compare the Fund’s actual performance to a passively managed proxy, and to measure the contribution of active investment management and policy implementation” (PRIM CAFR 2005, p. 77).
As the process shows, three bodies are part of the selection process: the Board, the advisory committees, and the consultants.

The Board serves as trustee for each retirement system that invests in PRIT and is responsible for management of the Fund. The Board has nine members and is chaired by Massachusetts State Treasurer and Receiver General, Timothy P. Cahill. There are two outside experts on the Board in the field of investment management; one is an investment consultant with Cambridge Associates appointed by the Governor. The second outside expert, a Professor at Brandeis University, is appointed by the Treasurer. Appointed members serve a term of four years. Other members include a Governor designee that is the Chief Administrative Officer for the Commonwealth of Massachusetts, a Governor appointee that is a state police officer, and four elected members for a term of three years representing state employees and teachers’ retirement board (PRIM 2005d). As per the Massachusetts General Law Chapter 32 Section 23 (2Ai) there shall be at least two minority members on the Board.
The Board members are fiduciaries of the Fund and have final decision making authority and accountability. Board members meet six times a year for approximately two hours per meeting and serve without compensation net of expenses. Board meetings are open to the public. The ethical guidelines and responsibilities of the Board, chairman, executive director, and advisory committees are outlined in detail in the publication, PRIM Charters and Policies. The publication is specific regarding governance, education, and communication (PRIM 2004). Academic studies have noted that governance and education policies are important components of a Board’s function. As Clark et.al. (2005) state, “…education, professional qualifications, and training (task-specific skills) are important for consistent trustee decision-making” (p. 19).

PERAC is a regulatory agency that helps board members in their education policies and provides guidance to the local retirement systems. PERAC does not have jurisdiction over the PRIM Board. Recent legislation does however impact PRIM in terms of future local system’s investment in PRIT. In May of 2005 PERAC approved the Advisory Committee’s (made up of five governance experts from business and academia) Reform Initiatives booklet that made recommendations related to investment decisions, enforcement issues, conflict of interest, board structure, and education policies for the 106 retirement systems (PERAC 2005a). The Massachusetts Joint Committee on Public Service adopted the Advisory Committee recommendations in January of 2006. Sections requiring legislative approval are in the document 2006 Pension Reform Legislation submitted to the Massachusetts General Court. The proposed legislation would give PERAC the enforcement power to order local systems in breach of their fiduciary duty to invest assets in PRIT. PERAC would control the day-to-day operations of the system.

In addition to the Board there are three advisory committees: Investment, Administration/Audit, and Real Estate/Timber. The advisory committees are made up of board members and private citizens that provide external investment expertise. The investment committee meetings are not open to the public and are confidential. The staff sets the agenda and distributes the investment fund manager finalists to the committee in advance of the meeting. The closed investment committee meetings allow
for more open discussion of the staff proposed investment managers in all asset classes (except for real estate and timber with their own committee).

It is at the investment committee level that staff submits several recommendations and committee members determine whether the investment manager has the qualifications and track record to meet the expected performance results. It is worth noting that sixty five percent of PRIT is actively managed and the investment committee selects and recommends managers to the Board, as opposed to investing in index funds that passively invest in the broader market. These managers are evaluated and expected to outperform their respective contractual benchmarks (PRIM 2005e).

As referred to in section two, PRIM follows the “prudent expert rule” of Chapter 32: Section 23. The rule requires board trustees to select and hire experts to manage the pension fund’s assets. As Ghilarducci (1994) points out, the “prudent expert rule” calls for pension funds to retain outside experts to achieve adequate portfolio diversification and risk-adjusted “reasonable” returns that may allow for the pursuit of “social criteria” as long as risk-adjusted rates of return are not compromised (p. 7). Investment managers have the expertise to manage investments and seek risk-adjusted market-rate returns (that may have a collateral benefit). Outside consultants are retained to assist staff in the hiring of active investment managers and in establishing the pension fund’s strategic asset allocation policy. A pension fund’s general consultant is involved in overall asset allocation strategies and hiring of managers across asset classes. An asset class specific consultant advises on investments for that particular asset class (e.g. alternative/private equity or real estate).

PRIM’s outside consultants provide advice to staff on asset allocation and the selection of fund managers. A pension fund looks at four factors when choosing a consultant:

1. Qualifications and track record,
2. Experience with similar clients (e.g. large public sector pension funds),
3. Objectivity and no conflict of interest and,
4. Competitive fees.
Cliffwater LLC is PRIM’s general consultant (as of July 2005 with a three year contract) and provides advice in allocating assets, monitoring existing assets, and assessing new opportunities for the Fund. Pathway Capital is PRIM’s asset consultant in alternatives and Townsend Group and Morris & Morse is their real estate consultant (PRIM 2005c).

The consultant world is complex in terms of the type of expertise provided and level of fiduciary responsibility. Consultants can have discretionary and non-discretionary clients. Consultants are often referred to as “gatekeepers” between the pension fund decision makers and a potential investment fund manager. This term is used as the consultant’s advice to the pension fund determines where and how investments are made. In some cases, a pension fund hires a consultant to independently manage assets. Here these consultants only report back to the pension fund with performance returns. In other cases, for example PRIM, a pension fund hires a consultant to advise on asset allocation and perform due diligence on potential investment fund managers. The third type of consultant may produce general reports on industry trends and manager performance with no client work in setting asset allocation polices or selecting fund managers. A partial list of pension fund consultants, either general or specific to real estate and private equity, is listed in table 4. Academic literature has referred to the principal-agent relationship in which the “principal” is the investor or beneficiary and the “first-tier agent” is the external money manager (Black 1992), to which consultants can be considered an agent in this complex chain (Clark 2000).

Consulting firms are structured with “research staff” and “field consultants”. The research staff track investment manager performance and manage databases of information on managers relevant to existing clients. Research staff has a product focus in an asset class such as fixed income, private equity, or real estate. The field consultants interface with clients and think about market solutions for the client and report back to research staff with requests. The consulting industry is dynamic as sub-asset classes emerge and alternative consultants compete to be general consultants.

It is widely believed that consultants are not in favor of ETIs as they perceive the investments to be low performing. Typically the client directs a consultant to evaluate a
potential ETI fund manager. Some consultants consider an ETI proposal evaluation to be more time consuming than a proposal for traditional investments. The client’s directive is usually the only incentive for a consultant to pursue ETI investments. Unlike PRIM, a pension fund client does not usually direct the consultant to pursue targeted investments. An important factor for a consultant is that the ETI product has a market based pricing mechanism, as in the case of the fixed-income mortgage backed securities product. A consultant may find selecting a targeted investment fund manager unwieldy if there is no market based pricing mechanism.

This section has deconstructed the components of the investment decision-making process. PRIM staff, committees, consultants, and the Board each offer a different perspective and challenge assumptions. With a competitive selection process and investment philosophy a pension fund can gain access to top-tier investment firms and grow its assets to meet its future liabilities.

5 Economic development as part of the process

Investments in economic development add needed diversification and performance to the Fund and cover three asset classes: fixed income, real estate, and alternatives. Strategic asset allocation and portfolio optimization are the building blocks of a pension fund and allow the fund to meet its investment objectives. With a properly executed strategic asset allocation policy the fund can significantly grow its net assets. PRIT’s investment performance in relation to the actuarial target goal of 8.25% and the policy benchmark are shown in figure 3.

Overall asset allocation policy is set every three to five years by staff with advice from the general consultant and is approved by the investment committee and Board. At the June 2005 asset allocation review, the long-term expected rate of return of the Fund was revised upward to 8.33% from the former long-term expected rate of 8.16%. “The revision was made in conjunction with a decrease in the overall expected risk of the portfolio from 12.75% to 11.60%, thus achieving the goal of significantly reducing the volatility of the overall portfolio” (PRIM 2005e, p. 47). “The PRIM Board recognizes
that over the long term, asset allocation is the single greatest contributor of return and risk to PRIT” (PRIM 2005e, p. 22).

PRIT’s asset allocation distribution (1989-2005) and most recent policy and actual allocation (as of October 31, 2005) are shown in table 5. The greatest fluctuation has been in real estate and alternatives—for PRIT this includes private equity, venture capital, and natural resources. Economic development investments are included in the current asset allocation across the three classes: fixed income (part of the U.S. Bonds allocation of 10.7%), alternative investments (5.9%), and real estate (11%). The Fund’s rebalancing policy is “triggered when an asset class exceeds or falls below its target allocation range” (PRIM 2005e, p. 78). The ETI criteria states, “Investments must not exceed a reasonable weighting in the portfolio…” and in this regard should adhere to the same investment philosophy as non-targeted investments.

The December 15, 2005 ETI RFP highlighted the fact that an important part of the selection process is the description of the firm’s investment philosophy.\(^{11}\) Within the philosophy the question is asked: “What benchmark is appropriate? How important is benchmark-tracking error? What has been the historical tracking error for the subject product?” (PRIM 2005c, p. 23).\(^{12}\) A benchmark is essentially a road signal along the way to measure how the investment manager is doing based on the stated goals and performance. It is important for PRIM management and the potential investment manager to agree on what will be the contractual benchmark for the investment as the benchmarks vary.

As with other investments, PRIM staff and consultants monitor targeted investment performance against the defined asset class benchmarks defined as: the Lehman Aggregate Bond Index (78%)/Lehman Brothers US TIPS (22%) for fixed income and the NCREIF Property Index for real estate. There is however no defined benchmark in

\(^{11}\) Allocations from the 2005 RFP are to be approved and commence in July 2006 (PRIM ETI RFP 2005).

\(^{12}\) “Tracking errors are reported as a "standard deviation percentage" difference…the difference between the return you received and that of the benchmark you were trying to copy” (investopedia.com).
alternatives. The Wilshire’s Trust Universe Comparison Service (TUCS) Median is also used as an overall benchmark for the performance of institutional funds as well as the TUCS Universe Ranking (PRIM 2005e, p. 72).

The PRIM Board decided at the October 2005 Board meeting that PRIM staff should review ETI investments in response to an RFP issued annually. Considering that investments in economic development are more time intensive than the core portfolio, investment managers now have a 60-day window to respond. The PRIM board issues the RFP and places an advertisement on PRIM’s website, in Pensions & Investments trade magazine, and in the Massachusetts Register for Goods & Services. The advertisement directs interested firms to PRIM’s ETI criteria as firms must demonstrate that they meet the set criteria. This strategy allows PRIM board and staff to review ETIs annually and frees staff time for the core portfolio.

The RFP formally established the PRIM ETI selection process that calls for proposals from investment managers across the three ETI asset classes (fixed income, private equity, and real estate). The RFP makes the bidding process a transparent one and puts the ETI criteria out in the marketplace. The RFP was mentioned in Money Management Letter (January 31, 2006), a publication widely read by the investment community, “…The $40 billion Massachusetts Pension Reserves Investment Management Board recently issued an RFP for economically-targeted investments. The board adopted a policy in 2003 to seek out investments that benefit the local economy, but this is the first time a formal RFP has been issued…” In the January 9, 2006 issue of the Pensions & Investments trade magazine, the RFP was advertised as follows:

The Commonwealth of Massachusetts Pension Reserves Investment Management (PRIM) Board, a $39 billion public pension fund, is soliciting proposals from firms interested in providing a Commonwealth of Massachusetts Based Economically Targeted Investment (ETI) Investment Management Services Program. The Board will accept and evaluate equity, fixed income, real estate, and alternative investment (venture capital and buyout) proposals to manage these assets in an approach that meets the Board’s Specific ETI criteria and is at least 50% invested in the Commonwealth of Massachusetts [emphasis added]…(Pensions & Investments 2006, p. 24)

---

13 An industry benchmark in venture capital and private equity is the Venture Economics Young Funds index however as Hebb notes, “without knowledge of the vintage years of the exited investments in this index it doesn’t provide a meaningful benchmark at this early stage of investment” (Hebb 2005, p. 17).
It is important to note that in addition to meeting the ETI criteria the advertisement states that the investment manager must be “at least 50% invested in the Commonwealth of Massachusetts”.

PRIM made its first ETI investment prior to the issuance of the formal ETI RFP with an allocation of $25 million to Access Capital in March of 2004. The firm manages the “Access Capital Strategies Community Investment Fund” that invests in securities with at least an Aaa Moody’s rating, an AAA rating from Standard & Poors, or issued or guaranteed by the US Government, government agencies or government-sponsored agencies (Fannie Mae, Freddie Mac, and Ginnie Mae). The securities are targeted to support low and moderate-income individuals in Massachusetts for affordable housing mortgages, small business loans, and health care loans. The firm’s practice is to invest in geographically specific private placement debt securities designed to support underlying community development activities serving low and moderate-income individuals (Access Capital 2005).

The decision to invest in Access Capital came before the first ETI RFP was issued but was part of the PRIM investment selection process. In addition to Access Capital meeting with PRIM staff they also met with the general consultant (then Wilshire) twice during the selection process. It was Access Capital’s six-year track record and competitive returns that were attractive to both Wilshire and the PRIM Board. As the first PRIM ETI investment under the new ETI policy, the evaluation focused on what the fund might be “giving up” because these were economically targeted investments. As PRIM was already investing in non-targeted mortgage-backed securities it was an easy fit to continue in this type of fixed-income product but with a focus in the state of Massachusetts (R. Homer and D. Sand, pers. comm.). PRIM staff saw that the Access Capital allocation was a logical fit based on PRIM’s familiarity and success with their ongoing investments in mortgage-backed securities (S. Mavromates, pers.comm.).

---

14 The federal chartered and stockholder-owned mortgage finance companies, Government Sponsored Enterprises (GSEs), are not allowed by their charters to originate loans but purchase and/or securitize mortgage loans made by others.
PRIM’s initial $25 million investment in Access Capital included 312 loans (affordable housing, small business, and economic development) in 135 cities and towns throughout Massachusetts. “To support affordable homeownership, the Fund invests in mortgages to homebuyers with income that is 80% or less than Area Median Income (AMI) [emphasis added] or the Fund acts as the take-out for loans originated under special affordable housing programs” (Access Capital 2005, p. 3).

A key aspect to the Access Capital fund is that it buys specially created mortgage backed securities that are sourced from community loan programs such Massachusetts Housing Partnership among other local affordable housing groups. This frees up commitments so that these organizations can make new loans to low and moderate-income families in the Commonwealth of Massachusetts and at the lowest current rate supported by the secondary market. The fund also invests in “high impact” transactions such as the Massachusetts based Holyoke Health Center located in a federally designated “Medically Underserved Area and a Health Professional Shortage Area” (Access Capital 2005).

As a large institutional investor PRIM takes advantage of the diversified returns of a commingled vehicle (Access Capital Strategies Community Investment Fund) yet can invest in a target specific area like Massachusetts (Homer 2004). The institutional investor also enjoys the benefits of Merrill Lynch as the investment sub-manager that has expertise in the fixed income market and portfolio management. PRIM receives a customized report of the target specific low-income loans made in their state. In terms of performance, table 1 shows Access Capital has consistently outperformed the fund’s blended benchmark (80% Merrill Agy MBS index (MF30) & 20% Merrill U.S. Treasury 1-10yr. Index).

<table>
<thead>
<tr>
<th>Access Capital</th>
<th>1 Year Annualized</th>
<th>Fiscal Year 2005</th>
<th>Since Inception 3/31/04</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return</td>
<td>2.59%</td>
<td>6.17%</td>
<td>2.70%</td>
</tr>
<tr>
<td>Benchmark</td>
<td>2.41%</td>
<td>5.67%</td>
<td>2.41%</td>
</tr>
<tr>
<td>Difference</td>
<td>+18 basis points</td>
<td>+50 basis points</td>
<td>+31 basis points</td>
</tr>
</tbody>
</table>

At the October 2005 Board meeting a motion was approved to increase allocations to ETI managers that had met the ETI criteria and thus approved a $50 million increase to Access Capital. PRIM now has committed $75 million to the Access Capital Fund. At the Board meeting it was noted that since inception Access Capital net return was 3.40% and had outperformed the plan’s core fixed income return of 2.97%. Access Capital provides an investment product to PRIM in line with their investment philosophy, adding performance and diversification to the Fund while benefiting the local economy.\textsuperscript{15}

Currently the PRIM ETI program is in its infancy. However, the program has committed capital of $140 million with $80.8 million deployed as detailed in table 2.

\textsuperscript{15}“The Fund currently has over $121.9M invested in Massachusetts. This includes 1,069 home mortgages to low- and moderate-income homebuyers, 705 affordable rental-housing units, 7 small business loans, 5 economic development loans, and a $9.375M loan to the Holyoke Community Health Center. The Holyoke Health Center has added 300 new jobs. These investments are located in 13 counties and 231 cities and towns throughout the state” (PRIM 2005).
## Table 2 PRIM Economically Targeted Investments as of June 30, 2006

<table>
<thead>
<tr>
<th>Fund Manager</th>
<th>Asset Class</th>
<th>Committed Capital (in millions)</th>
<th>Capital Called (in millions)</th>
<th>Product type and inner city focus</th>
</tr>
</thead>
</table>
| Canyon-Johnson Urban Fund II      | Real Estate | $20, Jan-05                     | $1.5                         | • Affordable & market-rate housing - Charlestown  
  • Former bakery conversion to 146 for-sale condominium units – 15 affordable & 131 market-rate, plus 190 parking spaces.                                                                                                                                                                                                                     |
| Intercontinental Real Estate Fund | Real Estate | $10, Jan-05                     | $2.3                         | • Residential, office, industrial, retail, and mixed-use properties  
  • South Boston and Quincy  
  • Quincy project has generated 245,050 labor hours for MA vendors, building trades, construction companies, sub-contractors, and local businesses.                                                                                                                                                                                      |
| New Boston Fund Urban Strategy    | Real Estate | $10, Jan-05                     | $0                           | • Affordable & market-rate housing, economic development  
  • Mattapan – former Boston State Hospital  
  • Of the $10 million committed, $6.7 million will be invested in Massachusetts.                                                                                                                                                                                                                                   |
| Access Capital                    | Fixed Income| $50, Mar-04 $25, Aug-05 Total: $75 | $75                          | • Mortgages to homebuyers 80% or less than AMI, small business, economic development, and healthcare loans  
  • MA Counties:  
    • Barnstable, Bristol, Dukes, Essex, Franklin, Hampden, Hampshire, Middlesex, Norfolk, Plymouth, Suffolk, Worcester                                                                                                                                                                                                 |
| CRA Fund Advisors                 | Fixed Income| $25, June-06                    | $0                           | • 100% earmarked for MA-based investment  
  • High quality taxable municipal bonds.  
  • Single family and multifamily MBS, asset backed securities, and collateralized mortgage obligations.  
  • Small business, community development programs, affordable healthcare facilities, down-payment assistance and statewide homeownership programs. affordable rental housing units, and home mortgages for low and moderate families.                                                                                     |
| DFJ New England Fund II           | Venture Capital | $10, June-06                 | $0                           | • Focus on early-stage companies in information technology also: internet media, digital imaging, clean energy, security, and physics/materials.                                                                                                                                                                                      |
| Flagship Ventures                 | Venture Capital | $10, Jan-05                 | $2.0                         | • Seed or first round venture capital  
  • 75% life sciences, 25% information technology  
  As of December 31, 2005 the fund has invested $14.4 million in 7 MA companies (total of 84 employees). PRIM’s portion of the invested amount is $953,613.                                                                                                                                                                               |
| Castile Ventures                  | Venture Capital | $10, Dec-05                | $0.0                         | • Early stage VC (pre-plan-formation), pre-product (development), pre-revenue (initial expansion)  
  • IT services, systems, software and components  
  • 57% of prior investments in MA.                                                                                                                                                                                                                                                                       |
| **TOTAL**                         |              | **$170.0**                    | **$80.8**                    |                                                                                                                                                                                                                                                                                                                                 |
These investments were approved based on staff recommendations and sometimes with consultant due diligence as well. It is however very important to recognize that these investments were approved before the current ETI RFP process was put into effect. As of December 31, 2005 PRIM ETI Fund Managers are required to report to PRIM a “PRIM ETI Quarterly Update” as detailed in appendix 8.2.

PRIM’s real estate consultant, the Townsend Group, advised PRIM staff in the selection process of the real estate fund managers. The alternative investment consultant, Pathway Capital, was not part of the selection process. While the economic and social returns have not yet been realized, on the real estate side there are collateral benefits in the employment of construction workers.

The most recent allocation was in December 2005 with the approval of a $10 million allocation to Castile Ventures third fund, Castile Ventures III, L.P. Castile Ventures, based in Waltham Massachusetts, makes early-stage venture capital investments in communications, software, and information technology infrastructure. Castile actively invests in Massachusetts companies with 57% of its prior investments located in the state.

In the December 6th 2005 board meeting agenda, staff examined Castile Ventures ability to meet the five ETI criteria. In doing so the agenda showed that Castile’s track record was comparable to other private equity firms within the same time period. The investment committee saw that Castile’s professionals had experience in managing venture capital investments having previously worked for well established private equity firms. In the selection of venture capital investments it was important for the committee to believe that the fund manager would be able to interpret shifts in the sector and successfully manage the changes. The investment recommendation provided in the December 6th board materials gave a full assessment of the risks associated with Castile Ventures. The report also showed that PRIM’s $10 million allocation in Castile Ventures represented a reasonable weighting in the PRIT portfolio of approximately 0.025% of the total Fund. In targeting a “capital gap” Castile Ventures strategy is
focused on early stage investments. The fund and its investments will be tracked on the same basis as PRIM’s other alternative investments (PRIM 2005f, p. 30-31). The Board presentation showed that Castile aimed to meet the ETI criteria while achieving performance returns comparable to non-targeted investments. PRIM selected Castile Ventures for its professional management and investment focus in the state of Massachusetts, characteristics of a sound ETI investment.

6 Conclusion

The Massachusetts legislative framework is important to the public pension fund’s targeted investment program. While the mandate to invest in the Commonwealth has existed for the last two decades, the directives in the 2003 ETI policy paved the way for investments in economic development. In PRIM’s case a Board champion, the state treasurer, began the process by engaging an outside expert to review these types of investments and develop a formal policy. The policy was approved and the Board champion followed up with PRIM staff to ensure that the policy was put into effect. Today both the legislative mandate to invest in the Commonwealth and the formal ETI criteria provide the Board and staff with a safe haven to pursue targeted investments.

Targeted investing is only successful if it is part of a rigorous selection process equal to selecting traditional investments. A stringent process examines track records beforehand and monitors progress against contractual benchmarks. Without this process ETIs are prone to political interference and failure. The selection process encourages decision-making that aims to separate itself from political forces that can lead to bad investment choices.

The selection process shows that best practice in targeted investing should include an ETI RFP that goes out to the market annually. This strategy allows more staff time for the core portfolio. The RFP and its advertisements carefully stipulate that potential investment firms must have at least 50% of all investments in the state of Massachusetts.
This research examined the role of the consultants in the investment selection process. Consultants often feel it is not in their interest to pursue targeted investments without a client directive. However, a consultant and the pension fund may be more inclined to pursue a targeted investment if the product can be priced in the market. In general a consultant considers investments in economic development only at the client’s directive.

In analyzing a pension fund’s targeted investments, programs can take shape in different capacities. The New York City Employees’ Retirement System formed an ETI policy to address a failing city in the late 1970s. The California Public Employees Retirement System began with an eye towards building their in-state real estate portfolio in the form of the CURE initiative. In the case of the Massachusetts State Retirement System targeted investing has a legislative agenda. Investing in economic development took shape in the legislature as part of the 1983 pension reforms and then established itself as a formal ETI policy in 2003.

This research has implications for other pension funds with potential to invest in urban revitalization. We find three best practice implications. First, a board level champion involves outside experts to construct an ETI policy. Second, an ETI RFP makes the bidding process transparent and deflects political interference. Third, ETIs are approved through an investment selection process that incorporates a rigorous investment philosophy. We argue targeted investments can be successful with an ETI policy and selection process that evaluates and monitors targeted investments like any other potential investment.
7 References


http://www.mapension.com/InvestmentProgram/InvestProgHome.html


—2005d. Members of the PRIM Board.  
http://www.mapension.com/prim/BoardCommitteesStaff/BoardMembers.html


Stegman, M.A. Fall 1998. America’s Inner Cities as Emerging Markets. Paper presented at the fall meeting of the Kenan Flagler Alliance, Kenan-Flagler Business School, Chapel Hill.

Table 3 Massachusetts Local Systems in PRIT

<table>
<thead>
<tr>
<th>Participating (28)</th>
<th>Purchasing (34)</th>
<th>Independent (44)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berkshire Regional</td>
<td>Amesbury</td>
<td>Adams</td>
</tr>
<tr>
<td>Blue Hills</td>
<td>Andover</td>
<td>Arlington</td>
</tr>
<tr>
<td>Chelsea</td>
<td>Barnstable County</td>
<td>Athol</td>
</tr>
<tr>
<td>Dedham</td>
<td>Belmont</td>
<td>Attleboro</td>
</tr>
<tr>
<td>Easthampton</td>
<td>Braintree</td>
<td>Beverly</td>
</tr>
<tr>
<td>Everett</td>
<td>Brookline</td>
<td>Boston</td>
</tr>
<tr>
<td>Fairhaven</td>
<td>Chicopee</td>
<td>Bristol County</td>
</tr>
<tr>
<td>Framingham</td>
<td>Concord</td>
<td>Brockton</td>
</tr>
<tr>
<td>Gardner</td>
<td>Dukes County</td>
<td>Cambridge</td>
</tr>
<tr>
<td>Hingham</td>
<td>Essex County</td>
<td>Clinton</td>
</tr>
<tr>
<td>Hull</td>
<td>Fall River</td>
<td>Danvers</td>
</tr>
<tr>
<td>Lowell</td>
<td>Franklin County</td>
<td>Falmouth</td>
</tr>
<tr>
<td>Marblehead</td>
<td>Gloucester</td>
<td>Fitchburg</td>
</tr>
<tr>
<td>Milton</td>
<td>Greenfield</td>
<td>Greater Lawrence Sanitary</td>
</tr>
<tr>
<td>Minuteman Tech</td>
<td>Hampden County</td>
<td>Haverhill</td>
</tr>
<tr>
<td>Montague</td>
<td>Hampshire County</td>
<td>Holyoke</td>
</tr>
<tr>
<td>Needham</td>
<td>Lawrence</td>
<td>Lexington</td>
</tr>
<tr>
<td>Newburyport</td>
<td>Leominster</td>
<td>Lynn</td>
</tr>
<tr>
<td>Northbridge</td>
<td>Mass Turnpike</td>
<td>Malden</td>
</tr>
<tr>
<td>Reading</td>
<td>MassPort</td>
<td>Marlborough</td>
</tr>
<tr>
<td>Revere</td>
<td>Medford</td>
<td>Mass Housing Finance Agency</td>
</tr>
<tr>
<td>Saugus</td>
<td>MWRA</td>
<td>Maynard</td>
</tr>
<tr>
<td>Springfield</td>
<td>New Bedford</td>
<td>Melrose</td>
</tr>
<tr>
<td>State Employees’</td>
<td>Peabody</td>
<td>Methuen</td>
</tr>
<tr>
<td>State Teachers’</td>
<td>Plymouth</td>
<td>Middlesex</td>
</tr>
<tr>
<td>Stoneham</td>
<td>Quincy</td>
<td>Milford</td>
</tr>
<tr>
<td>Wakefield</td>
<td>Shrewsbury</td>
<td>Natick</td>
</tr>
<tr>
<td>Winthrop</td>
<td>Waltham</td>
<td>Newton</td>
</tr>
<tr>
<td></td>
<td>Webster</td>
<td>Norfolk</td>
</tr>
<tr>
<td></td>
<td>Wellesley</td>
<td>North Adams</td>
</tr>
<tr>
<td></td>
<td>Weymouth</td>
<td>North Attleboro</td>
</tr>
<tr>
<td></td>
<td>Winchester</td>
<td>Northampton</td>
</tr>
<tr>
<td></td>
<td>Woburn</td>
<td>Norwood</td>
</tr>
<tr>
<td></td>
<td>Worcester (City)</td>
<td>Pittsfield</td>
</tr>
</tbody>
</table>

16 “Participating systems must transfer all of their assets to PRIT, commit to remain invested for five years, and are entitled to share in appropriations made to PRIT by the Commonwealth. Participating systems may invest all or a portion of their assets in PRIT and retain the ability to contribute and withdraw funds at their discretion; however, they are not entitled to state appropriations (PRIM CAFR 2005, p. 20-21). A purchasing system may invest in the PRIT Core (General Allocation Account) or in one or more of the separate investment accounts of PRIT Core available through “Segmentation” (PRIM CAFR 2004, p. 24).
Table 4 List of Consultants

<table>
<thead>
<tr>
<th>General and Alternative</th>
<th>Real Estate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angeles</td>
<td>Cortland Partners</td>
</tr>
<tr>
<td>Asset Consulting Group</td>
<td>Chadwick, Saylor &amp; Co.</td>
</tr>
<tr>
<td>Asset Strategies Portfolio Services</td>
<td>Conrad and Associates</td>
</tr>
<tr>
<td>Becker Burke</td>
<td>KPM Associates</td>
</tr>
<tr>
<td>Callan Associates</td>
<td>JRT Realty Group</td>
</tr>
<tr>
<td>Cambridge Associates</td>
<td>Le Plastrier Development Consulting</td>
</tr>
<tr>
<td>Canterbury Consulting</td>
<td>Morris &amp; Morse</td>
</tr>
<tr>
<td>CRA Rogers Casey</td>
<td>Schonbraun McCann Group</td>
</tr>
<tr>
<td>Cliffwater</td>
<td>Situs Realty Services</td>
</tr>
<tr>
<td>Colonial Consulting</td>
<td>Townsend Group</td>
</tr>
<tr>
<td>Consulting Services Group</td>
<td></td>
</tr>
<tr>
<td>Consultiva International</td>
<td></td>
</tr>
<tr>
<td>Ennis Knupp</td>
<td></td>
</tr>
<tr>
<td>Frank Russell Associates</td>
<td></td>
</tr>
<tr>
<td>Grove Street Advisors</td>
<td></td>
</tr>
<tr>
<td>Hamilton Lane Associates</td>
<td></td>
</tr>
<tr>
<td>Highland Consultants</td>
<td></td>
</tr>
<tr>
<td>Independent Fiduciary Services</td>
<td></td>
</tr>
<tr>
<td>Marquette Associates</td>
<td></td>
</tr>
<tr>
<td>Meketa Investment Group</td>
<td></td>
</tr>
<tr>
<td>Mercer Investment Consulting</td>
<td></td>
</tr>
<tr>
<td>New England Pension Consultants</td>
<td></td>
</tr>
<tr>
<td>Pacific Corporate Group</td>
<td></td>
</tr>
<tr>
<td>Paul Capitol Partners</td>
<td></td>
</tr>
<tr>
<td>Pacific Portfolio Consultants</td>
<td></td>
</tr>
<tr>
<td>Pension Consulting Alliance</td>
<td></td>
</tr>
<tr>
<td>Prime Buchholz &amp; Associates</td>
<td></td>
</tr>
<tr>
<td>Rocaton Investment Consultants</td>
<td></td>
</tr>
<tr>
<td>Strategic Investment Solutions</td>
<td></td>
</tr>
<tr>
<td>Summit Strategies</td>
<td></td>
</tr>
<tr>
<td>Wainwright Investment Counsel</td>
<td></td>
</tr>
<tr>
<td>Watson Wyatt Worldwide</td>
<td></td>
</tr>
<tr>
<td>Wilshire Associates</td>
<td></td>
</tr>
<tr>
<td>Windermere Investment Associates</td>
<td></td>
</tr>
<tr>
<td>Wurts &amp; Associates</td>
<td></td>
</tr>
</tbody>
</table>
Source: Investment seek, http://www.investmentseek.com/Consultants/#listings, Pensions & Investments, http://www.pionline.com, research interviews. Note, this is a partial list whose clients are either public pension funds or the consultant may be more apt to look at targeted investments.

Figure 3 PRIT Fund Performance Summary\(^{17}\)

---

\(^{17}\) Gross of Fees. Total PRIT Fund includes Capital Fund and Cash Fund. “For the threeyear period ending June 30, 2005, PRIT Core had an annualized return of 12.13%, exceeding the interim policy benchmark by 115 basis points. During the five-year period ending June 30, 2005 the PRIT Core return of 4.25% outperformed the policy benchmark by 124 basis points per year and over ten years the PRIT Core returned 10.65%, 133 basis points above the benchmark” (PRIT CAFR, p. 52).
### Table 5 Asset Allocation Policy of the PRIT Fund

Source: PRIM Executive Office, Boston, MA.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US Stocks</td>
<td>43</td>
<td>38</td>
<td>38</td>
<td>38</td>
<td>38</td>
<td>42</td>
<td>50</td>
<td>47</td>
<td>46</td>
<td>43</td>
<td>42</td>
<td>40</td>
<td>40</td>
<td>35.1</td>
<td>29</td>
</tr>
<tr>
<td>Non US Stocks</td>
<td>14</td>
<td>14</td>
<td>16</td>
<td>17</td>
<td>17</td>
<td>16</td>
<td>15</td>
<td>16</td>
<td>19</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>16</td>
<td>15.7</td>
<td>16</td>
</tr>
<tr>
<td>Emerging Markets</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>5.7</td>
<td>6</td>
</tr>
<tr>
<td>US Bonds</td>
<td>22</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>24</td>
<td>24</td>
<td>25</td>
<td>20</td>
<td>28</td>
<td>20</td>
<td>18</td>
<td>18</td>
<td>11.1</td>
<td>11</td>
</tr>
<tr>
<td>TIPS</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4.7</td>
<td>4.6</td>
</tr>
<tr>
<td>Non-US Bonds</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>High Yield</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>7.3</td>
<td>8.7</td>
</tr>
<tr>
<td>Real Estate</td>
<td>15</td>
<td>10</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>6</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6.6</td>
<td>11</td>
</tr>
<tr>
<td>Alternatives*</td>
<td>4</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>12</td>
<td>8</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>5.6</td>
<td>5.9</td>
</tr>
<tr>
<td>Timber</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4.6</td>
<td>5.1</td>
</tr>
<tr>
<td>Absolute Return</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4.6</td>
<td>5.1</td>
</tr>
</tbody>
</table>

| 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

*Venture Capital, Private Equity, Natural Resources
*2005 Policy as of 10/31/05

---

**Strategic Asset Allocation and Actual Allocation as of 10/31/05**

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Long Term Target Allocation</th>
<th>Actual Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Equity</td>
<td>26%</td>
<td>28.7%</td>
</tr>
<tr>
<td>International Equity</td>
<td>15%</td>
<td>15.8%</td>
</tr>
<tr>
<td>Emerging Markets</td>
<td>5%</td>
<td>6.0%</td>
</tr>
<tr>
<td>U.S. Bonds</td>
<td>10%</td>
<td>10.7%</td>
</tr>
<tr>
<td>US TIPS</td>
<td>5%</td>
<td>4.6%</td>
</tr>
<tr>
<td>High Yield Debt*</td>
<td>9%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Alternative Investments</td>
<td>10%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Real Estate</td>
<td>10%</td>
<td>11%</td>
</tr>
<tr>
<td>Timber</td>
<td>5%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Absolute Return</td>
<td>5%</td>
<td>5.1%</td>
</tr>
</tbody>
</table>

* High yield allocation consists of 5% to high yield bonds, 2% to distressed debt, and 2% to emerging markets debt; actual allocation to high yield consists of 5.6% to high yield bonds, 0.4% to distressed debt, and 2.4% to emerging markets debt. Source: PRIM ETI RFP 2005, p. 40.
8 Appendices

8.1 PRIM ETI Policy

Adopted 8/14/03

A. PRIM recognizes its obligations under Massachusetts law include a responsibility to seek out investment opportunities that will benefit the economic climate of the Commonwealth as a whole, provided that such investments are consistent with the Board’s obligations to the members and beneficiaries of its participating retirement systems. (See M.G.L. ch. 32, sec. 23(2A)(h)) Accordingly, in cases where investment characteristics, including returns, risk, liquidity, compliance with allocation policy, and others, are equal, PRIM will favor those investments that have a substantial, direct and measurable benefit to the economy of the Commonwealth.

B. Such Economically Targeted Investments (“ETI’s”) must meet the following criteria:

1. Investments must target risk-adjusted, market-rate returns and provide net returns equivalent to or higher than other available investments, at commensurate levels of risk. Economic or social benefits will not justify a lower return on any PRIM investment. When evaluating ETI opportunities, PRIM will discount projected returns for any subsidies, deferral of income, higher risk levels, and other concessions to reach a real rate of return for comparison with other ETI and non-ETI investment alternatives. Similarly, ETI benefits will not justify higher investment risk. However, where appropriate, the PRIM staff, its managers, and its consultants will actively seek out and develop guarantees, third party recourse, hedging, and other acceptable and customary risk management vehicles to reduce or eliminate risk in ETI investments.

2. Investments must not exceed a reasonable weighting in the portfolio, including tracking the degree of exposure to the Massachusetts economy and ensuring appropriate geographic diversification. Investments should maintain the overall portfolio’s compliance with its asset allocation strategy. ETI benefits will not justify deviation from the Asset Allocation Plan adopted by the PRIM Board.

3. Investments should be placed with an experienced and capable manager through an objective and transparent process. Investments should be managed by qualified discretionary investment managers. PRIM will not make any direct investments.

4. Investments should target a “capital gap” where there are likely to be underserved markets.

5. Investments must be tracked (both investment performance and collateral benefits) and
managed with the same rigor and discipline imposed on other investments. Investments should be reviewed and monitored by PRIM staff and consultants without disproportionate expenditure of time and resources. (PRIM ETI RFP 2005, p. 53).

Note: earlier in the ETI RFP on page 13 within the basic selection criteria for proposing firms it adds:

f. Investment managers must demonstrate that their firm will invest over 50% of their portfolio in the Commonwealth of Massachusetts [emphasis added]. (PRIM ETI RFP, page 13).

8.2 PRIM ETI Quarterly Update Form

Asset Class ________________________________ Quarter Ending __________

Firm ________________________________

AUM _________ Committed Capital _________ Capital Called_________

**Program Objective**

(Please describe your investment vehicle and its objectives. Please attach an additional page if more space is required.)

**Gross Performance**

<table>
<thead>
<tr>
<th></th>
<th>Quarter</th>
<th>Year to Date</th>
<th>1 Year Annualized</th>
<th>3 Year Annualized</th>
<th>Inception to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benchmark Return</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(In Basis Points)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Residual Benefits of Program in Massachusetts**

(Please quantify or explain how this investment program benefits Massachusetts and its residents. Quantify the number of jobs that have been created in Massachusetts as a result of the program, if applicable. Please attach an additional page if more space is required.)
8.3 Linking PRIM ETIs with urban revitalization

This appendix shows how the 2003 PRIM ETI Policy and the 2005 PRIM ETI RFP incorporates policy and process in choosing investments aimed at the emerging domestic markets.

1. The ETI Policy links targeted investments to underserved communities with criteria number four of the ETI policy as follows:
   Investments should target a ‘capital gap’ where there are likely to be underserved markets.

2. The ETI RFP asks the question in examining the fund manager’s investment philosophy:
   Describe how your product differentiates itself from those of PRIM’s current managers. What role would your portfolio play in PRIM’s ETI program? (ETI RFP 2005, p. 24)

3. The ETI RFP further mandates that the proposing investment fund manager:
   Demonstrate that your firm will invest over 50% of the portfolio in the Commonwealth of Massachusetts (ETI RFP 2005, p.17).

4. The ETI RFP also asks fund managers to describe the risk components inherent in an emerging domestic market by asking:
   What is your firm’s definition of risk with respect to this product? If more than one, specify each with its percentage of importance. Describe how you monitor and manage risks such as: residual risk versus the benchmark, common factor analysis, security, sector, and industry weightings, and, value at risk.
   Describe any risk measurement models used and how this analysis is incorporated in the portfolio management process.

These four points seek to address how a potential fund manager’s product intends to address the underserved markets in Massachusetts.
Current fund managers, while not approved through the 2005 ETI RFP, were approved with respect meeting the five ETI criteria of the 2003 ETI Policy. Table 2 details allocations to the investment vehicles (Canyon Johnson, Intercontinental, New Boston, Access Capital, Flagship Ventures, and Castile Ventures) that currently have an inner city focus (e.g. South Boston, Quincy, Mattapan). Through these investment vehicles PRIM is investing in the underserved urban markets.

8.4 List of interviewees

Peter Brooke, Chairman, Advent International Corporation
Eileen O’Connor, Communications Director, Massachusetts Department of the State Treasury
Robert Crowley, President, Massachusetts Technology Development Corporation
Catherine Crocket, General Partner, Grove Street Advisors
Ron Homer, CEO, Access Capital Strategies LLC
Neal J. Howe, Managing Director, Merrill Lynch Investment Managers
Belden Hull Daniels, President & CEO, Economic Innovation International
Chris Gabrieli, Chairman, Mass2020
Stanley P. Mavromates, Jr., Chief Investment Officer
Massachusetts Pension Reserves Investment Management Board
Joseph Martin, Deputy Executive Director of Policy and Development
Public Employee Retirement Administration Commission
Jerry Mitchell, CIO, Boston Foundation
Chair, PRIM Investment Committee and former CIO PRIM
Doug Moseley, Senior Consultant, New England Pension Consultants
Stephen L. Nesbitt, CEO, Cliffwater LLC
David F. Sand, President, Access Capital Strategies LLC
Wayne D. Smith, CFA, Senior Investment Officer, Alternative Investments
Massachusetts Pension Reserves Investment Management Board
George G. Wilson, Senior Investment Officer, Real Estate & Timber
Massachusetts Pension Reserves Investment Management Board
Paul F. Quirk, Vice President, Landmark Partners

Michael Travaglini, Executive Director
Massachusetts Pension Reserves Investment Management Board

Ralph White, PRIM Board of Trustees
President Retired State County and Municipal Employees Assoc. of MA, Former state parole officer.