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Report to the Ranking Minority Member,
Subcommittee on Federal Services, Post
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March 1995

PUBLIC PENSION PLANS

Evaluation of Economically Targeted Investment Programs



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The Honorable David Pryor
Ranking Minority Member, Subcommittee on Federal
Services, Post Office, and Civil Service
Committee on Governmental Affairs
United States Senate

Dear Senator Pryor:

Governments at all levels are increasingly looking to the nearly \$4 trillion held as of 1992 by our nation's public and private pension plans to provide funds for meeting public needs through what are known as economically targeted investments (ETIs). In fact, a number of state and local government employee pension plans have implemented ETI programs. Advocates of ETIs have stressed the potential benefits of investing plan assets not only to help the plan but also to provide collateral benefits to the economy as a whole. Critics, however, raise concerns about plan participants' retirement savings being lost through economically dubious but politically expedient investments, requiring increased taxation and reductions in other needed spending to pay the costs. They cite widely publicized cases in Alaska, Connecticut, and Kansas, where public employee pension plans have lost millions of dollars through ETIs that went bad.

Given this interest in and controversy over ETIs, we undertook an evaluation of them and, at your request, are reporting the results to you. Specifically, we addressed the following three questions:

1. What has been the extent of ETIs by nonfederal public employee pension plans, in terms of the amounts invested and the types of investments?
2. Did ETI programs aimed at business development realize competitive returns (that is, receive rates of return similar to alternative investments of comparable risk)?
3. What were the economic effects of business development ETI programs, such as jobs created?

The focus of our study was exclusively on nonfederal public pension plans, not on private sector plans.

Results in Brief

Regarding the extent of ETIS, we found that public pension plans currently have billions of dollars invested nationwide in ETIS. However, such investments were limited, accounting for only a small fraction of plan assets. In a survey of the 139 largest public pension plans, 50 of the 119 respondents indicated that they had invested a total of \$19.8 billion (or 2.4 percent of all respondents' assets) in ETIS to promote housing, real estate, or small business development. Of this amount, about \$3.2 billion was invested in ETIS to promote business development.

We examined the types of ETI investments for promoting business development by analyzing seven public pension plans that had considerable experience in conducting apparently successful ETI programs. These investments included bond purchases, loan purchases, private placements, certificate of deposit (CD) purchases, and venture capital investments.

We found that the expected performance of ETI investments other than venture capital by these seven public pension plans was generally similar to the returns of benchmark investments.¹ That is, the performance of these investments was similar to that of comparison investments at the time of our analysis. However, the performance of ETI venture capital programs sometimes lagged the comparison investments, based on industry median returns.

Although these seven plans represent a substantial share of total ETI investments made by public pension plans nationwide, our findings cannot be generalized to all public pension plan ETIS. A few public pension plans are known to have made unsuccessful ETI investments, and the performance of other plans may or may not match that of these seven plans, which have a reputation for successful ETIS for business development.

Concerning the economic effects of ETI programs, we were unable to reach definitive conclusions because of a lack of data. The nationwide surveys and studies we reviewed provided little information regarding the economic effects of ETIS conducted by public pension plans. Similarly, pension plans in our case studies had limited data concerning the economic effects of their ETIS. The plans generally do not gather such data, and although some plans received information on economic effects from intermediaries (for example, state agencies, banks, or venture capital

¹We used expected rather than actual yields (except for venture capital) because all the investments we examined were still being held by the public pension plans at the time of our study. Thus, data on the final actual returns for these investments were not available.

partnerships), this information suffered from several methodological weaknesses.

Background

As of 1992, nonfederal public pension plans controlled nearly \$1 trillion in assets and provided retirement income for millions of state and local government workers. In several states, pension plan managers have been encouraged by their state legislatures to invest some portion of their assets in ways that will affect economic development, as long as these investments are consistent with sound investment policy. Similarly, at the federal level, the Commission to Promote Investment in America's Infrastructure has explored ways to encourage pension plan investment in infrastructure projects. Also, on June 23, 1994, the Department of Labor issued guidelines that could encourage private pension plan investments in affordable housing, start-up companies, and other programs.² Such pension plan investments, designed to encourage a particular type of economic activity (for example, community development or infrastructure investment), are known as economically targeted investments.

Pension plans are established to provide retirement income and other benefits to a defined group of individuals. State and local government pension plans, for instance, provide retirement and disability benefits to state and local government employees, as well as other benefits to the employees' beneficiaries. In 1991, there were about 2,360 such public employee pension plans in the United States, covering about 17.5 million workers and retirees.³

Public pension plans are maintained in every state, but they differ from one another in a variety of ways. For example, the retirement boards governing the plans consist of varying combinations of elected, appointed, and ex officio members. The plans range greatly in the size of their membership and professional staff. Small plans (those with fewer than 1,000 active members) usually have professional staffs averaging about three full-time equivalent employees while large plans (those with 100,000

²These guidelines were in the form of an interpretative bulletin that set forth DOL's position that a pension fund fiduciary can invest in an investment that provides collateral economic benefits only if the fiduciary is satisfied that the investment is expected to achieve a competitive, risk-adjusted rate of return and meets ERISA's other fiduciary standards.

³U.S. Department of Commerce, Economics and Statistics Administration, Bureau of the Census, *Finances of Employee Retirement Systems of State and Local Governments: 1990-1991* (Washington, D.C.: January 1994). Most of the pension plans covered in the U.S. Bureau of the Census survey, and reviewed in this report, are actually pension systems. Pension systems provide retirement and other benefits to employees of multiple agencies or administer multiple pension plans. For reasons of simplicity, we refer to the pension systems as pension plans.

or more active members) have staffs averaging over 200 employees.⁴ The plans also differ in terms of the size of their administrative budgets, their level of funding, and their experience with implementing ETI programs.⁵

Pension plans control a significant amount of money. In 1992, private and public pension plans (excluding those of the federal government) held \$3.9 trillion in assets.⁶ Pension plans owned 33.1 percent of all equity holdings in the economy and 17.9 percent of all taxable bond holdings. Of the \$3.9 trillion held by these plans, \$987.8 billion (25 percent) was held by public pension plans.

Generally, public pension plan money (contributed by both employees and their state and local government employers) is held in trust and invested by plan administrators, or fiduciaries. Investment returns on pension plan assets benefit both employees and taxpayers. For employees, the realized investment income helps ensure that pension benefits will be paid as they become due. For taxpayers, the investment income earned on plan assets reduces the ultimate cost to them of paying these pension benefits.

Fiduciary Rules

In all 50 states, the public pension plan fiduciaries' investment activities are bound by prudence rules defined in state statutes.⁷ Many states use some variation of the prudence rule found in the Employee Retirement Income Security Act of 1974 (ERISA), a federal law governing private pension plans that is administered by the Department of Labor (DOL) and the Department of the Treasury.⁸ Under the prudence rule, plan fiduciaries must seek investments that will provide market-rate returns. DOL has

⁴Public Pension Coordinating Council, Survey of State and Local Government Employee Retirement Systems (Washington, D.C.: June 1994).

⁵U.S. General Accounting Office, Underfunded State and Local Pension Plans, GAO/HRD-93-9R (Washington, D.C.: December 1992).

⁶Employee Benefit Research Institute, EBRI Quarterly Pension Investment Report, 8:2 (October 1993), 41.

⁷National Council on Teacher Retirement, Protecting Retirees' Money: Fiduciary Duties and Other Laws Applicable to Public Retirement Systems, 3rd ed. (Arlington, Va.: 1995).

⁸ERISA establishes minimum standards for private pension plans concerning reporting and disclosure, participation and vesting, funding, and fiduciary responsibility. Among DOL's duties under ERISA, it has the primary responsibility for promulgating and enforcing fiduciary compliance. The Internal Revenue Service, within Treasury, oversees plan participation, vesting, and funding and determines whether plans are qualified under rules set out in the Internal Revenue Code. (For qualified plans, members can defer taxes on their plan contributions and imputed earnings until retirement.) While nonfederal public pension plans are not regulated by DOL, they must comply with the Internal Revenue Code, as enforced by the Internal Revenue Service, and state laws. In addition, there are many instances in which the tax rules that apply to public plans differ from those that apply to private plans.

determined that a private pension plan can invest in an ETI if the ETI has an expected rate of return that is commensurate with the expected rates of return on alternative investments with similar risk characteristics.⁹ In addition, plan fiduciaries may consider collateral benefits in choosing between investments that have comparable risks and expected rates of return. However, if fiduciaries violate the prudence rule by investing in projects that clearly will not yield expected market-rate returns, they may be held personally liable for the losses incurred. Such liability will attach to private plan fiduciaries under ERISA and may attach to public plan fiduciaries, depending on the regulatory scheme overseeing the plan.

In order to receive the benefits of tax qualification, plans must also follow the exclusive benefit rule, which, as set forth in section 401(a)(2) of the Internal Revenue Code and many state statutes, requires that plans operate with the members of the plan foremost in mind. For example, plan sponsors cannot forego the members' benefit to act in their own interest or in the interest of elected officials. The Internal Revenue Service (IRS) has interpreted "exclusive" in such a way that a plan may make investments from which people other than plan members also derive some benefit, as long as the investments are fairly priced, yield a market-rate return, are sufficiently liquid, and are otherwise prudent. However, IRS will disqualify a plan that fails to act for the exclusive benefit of its members. If a plan were disqualified, the preferential tax treatment provided to plan sponsors and participants would be adversely affected or even eliminated.

Definition of ETIs

According to DOL, ETIs are generally defined as investments that are selected for the economic benefits that they create in addition to the investment return to the employee benefit plan investor.¹⁰ For example, some groups define ETIs as investments that are designed to produce a competitive rate of return commensurate with risk as well as create some collateral economic benefit for a targeted geographic area, group of people, or sector of the economy.¹¹ ETI collateral benefits may include construction of affordable housing, job creation or retention, sales and tax revenue generation, and payroll growth.

⁹U.S. Department of Labor, Interpretive Bulletin 94-1 on Economically Targeted Investments, bulletin relating to ERISA, Washington, D.C., June 23, 1994.

¹⁰U.S. Department of Labor, Interpretive Bulletin 94-1.

¹¹Based on definitions in New York State Industrial Cooperation Council, Competitive Plus: Economically Targeted Investments by Pension Funds (New York: February 1990), and Institute for Fiduciary Education, Economically Targeted Investments: A Reference for Public Pension Funds (Sacramento, Calif.: June 1993).

"ETIs [can] target the local economy (or the markets upon which the plan sponsor depends for continuing revenues to fund its pension obligations). . . . Investments in affordable housing are expected to strengthen the social fabric of the region. To the extent that capital markets are judged to be tradition-bound, rigid, or incapable of funding all 'worthy' investments, making funds available from the pension investment pool is seen as addressing capital gaps that would otherwise impede local economic development."¹²

Consider a pension plan interested in providing economic benefit to the citizens of its state in addition to earning a competitive return for plan members. Rather than simply making traditional stock and bond investments in national markets, the pension plan might seek less common mechanisms to direct some portion of plan assets toward local companies. For example, the plan might purchase stock in local start-up companies through venture capital funds that target some portion of their assets to companies located in the pension plan's state. The intention would be to make equity financing available to viable in-state companies that might not come to the attention of out-of-state venture capital partnerships. As another example, the plan might invest in programs to provide loans to in-state companies that might not be able to secure debt financing at competitive terms from traditional lenders.

Scope and Methodology

To determine the extent and nature of ETIs nationwide, we reviewed available surveys and literature. We gathered information on the value, types, and numbers of ETI investments made by nonfederal public pension plans. A key source we used was a 1992 survey conducted by the Institute for Fiduciary Education (IFE).¹³ This survey canvassed the 139 largest nonfederal public pension plans regarding their experience with ETIs; 119 pension plans responded, for an 86-percent response rate. The respondents accounted for about 85 percent of total nonfederal public pension plan assets in 1992, so the data are broadly representative.¹⁴

To gain greater insight into the nature of ETI programs, as well as to obtain and analyze information on the financial returns and economic effects of these investments, we conducted case studies of seven pension plans

¹²U.S. Department of Labor, "Economically Targeted Investments: An ERISA Policy Review," *Report of the Work Group on Pension Investments, Advisory Council on Pension Welfare and Benefit Plans* (Washington, D.C.: November 1992), pp. 3-4.

¹³Institute for Fiduciary Education, *Economically Targeted Investments: A Reference for Public Pension Funds* (Sacramento, Calif.: June 1993).

¹⁴While the survey did not report the respondents' total assets, we estimated them by multiplying the average pension plan asset figures reported in the survey by the number of pension plans responding.

implementing ETI business development programs.¹⁵ We concentrated the case studies on ETIs designed to promote business development because we had previously reviewed public pension plan ETIs in affordable housing.¹⁶ For each case study in this review, we interviewed plan officials and analyzed data on the plans' ETI programs. Each of the seven pension plans conducted one or more ETI programs. These programs, in turn, consisted of one or more individual investments.

The pension plans in our sample were identified in national surveys or by industry experts as having considerable experience in conducting successful ETI programs to promote business development. We selected these seven plans because, given their experience, they were likely to have data regarding the financial returns and economic effects of ETIs. The plans we selected were the Public Employees' Retirement Association of Colorado, the Massachusetts Pension Reserves Investment Trust, the Minnesota State Board of Investment, New York City Pension Systems, the Pennsylvania State Employees' Retirement System, the State of Wisconsin Investment Board, and the Wyoming Retirement System.¹⁷

Our sample of plans is small and it was not randomly selected. Therefore, it is not representative of public pension plans nationwide. Consequently, the results of our case studies concerning the financial returns on ETIs as well as their economic effects cannot be generalized to the universe of public pension plans.

To answer the second question concerning whether business development ETI financial returns were competitive, we compared the yields on individual ETIs held by seven public pension plans at the time of our study to returns of alternative investments with similar risk characteristics and maturities (or terms). To carry out this analysis, we collected data on the date of purchase, amount, risk rating, and expected yield of over 200 individual investments made through 14 separate ETI programs conducted in 7 states. We then compared the expected yields on these investments (actual yields in the cases of venture capital) to the yields on alternative benchmark investments (that is, other investments with similar risk and

¹⁵For another example of using case studies to examine ETIs, see Center for Policy Alternatives, Economically Targeted Investments by State-wide Public Pension Plans (Washington, D.C.: September 1993).

¹⁶U.S. General Accounting Office, Pension Plans: Investments in Affordable Housing Possible With Government Assistance, GAO/HRD-92-55 (Washington, D.C.: June 1992).

¹⁷We reviewed ETI programs funded by the New York City Police Pension Fund and the New York City Employees' Retirement System that were administered by the New York City Comptroller's Office.

maturity characteristics) whose selection we based on the advice of experts.

To assess the economic effects of business development ETIs, we reviewed nationwide studies as well as information provided by the seven pension plans examined in our case studies. Through the case studies, we obtained and analyzed available information concerning job creation, revenue generation, and other potential economic effects of ETI programs. We did not attempt to independently assess the economic effects of these investments, nor did we independently verify the accuracy of the information provided to us.

Throughout our study, we used an advisory panel consisting of experts from academe, a national association representing administrators of teacher and other public employee retirement systems, an employee benefits consulting firm, a venture capital consulting firm, an investment consulting firm, and a nonprofit group familiar with the design and implementation of ETI programs. The panel helped us select case studies and identified relevant literature to be reviewed. The panel also reviewed our methodology for conducting case studies and analyzing the data and provided comments on a draft of our report. We conducted our work between June 1993 and July 1994 in accordance with generally accepted government auditing standards.

Extent and Nature of ETIs

In this section, we provide data on the value, type, number, and geographic dispersion of ETIs nationwide. We then provide similar data for the business development ETI programs conducted by the seven pension plans we studied.

Value, Type, and Number of ETI Investments

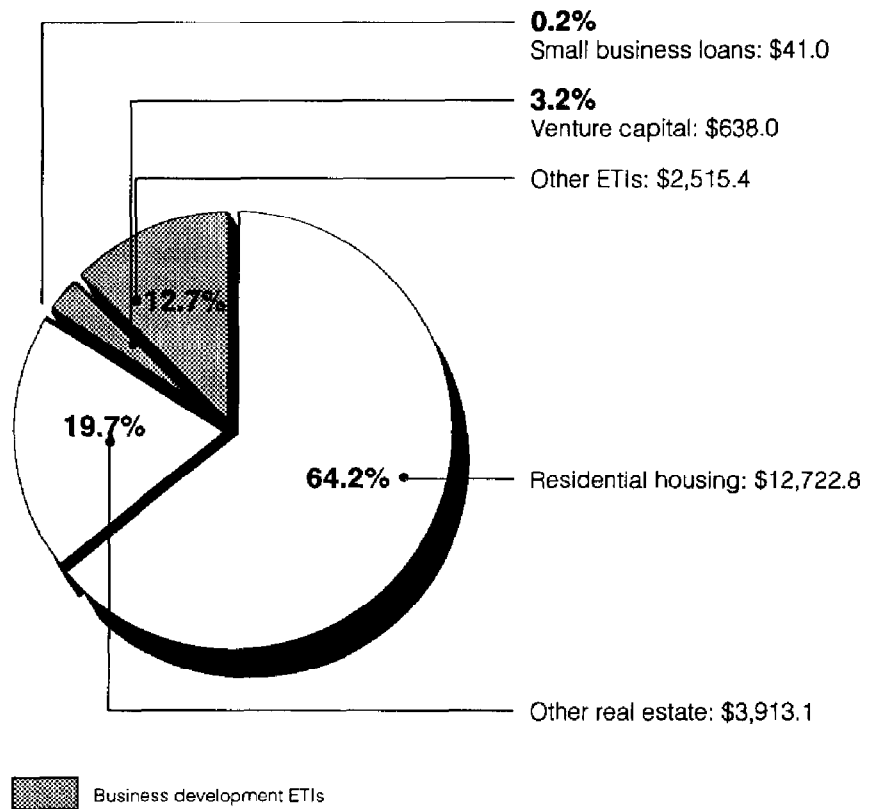
Public pension plans have invested a significant amount of money in ETIs nationwide, although these investments constitute a modest portion of all public pension plan assets. According to the IFE survey, 50 of the 119 responding plans (42 percent) conducted a total of 95 ETI programs. Overall, they had invested \$19.8 billion of their assets in ETIs by 1992. This amount is nearly 2.4 percent of the 119 respondents' 1992 assets.

The IFE survey had several limitations. First, the survey relied on self-reported data: thus, some investments that would meet the definition of ETIs might not have been reported by the survey respondents, while other investments that would not meet this definition could have been

reported by the respondents. Second, the IFE questionnaire asked respondents to indicate the dollars invested in ETIs but did not make clear whether this amount should be assessed at the current market value or the value at origination, so we cannot know precisely what values are represented by respondents' answers. Third, the survey asked for ETI investment "to date"; therefore, the IFE totals include some ETIs that were no longer held by the survey respondents.

The survey report grouped respondents' ETIs into five major categories: residential housing, other real estate, small business loans, venture capital, and other ETIs (private placements, CD programs, limited partnerships, and other investment vehicles not appropriately included in the four other areas). Figure 1 shows the amounts invested in ETI programs for the 50 plans reporting ETIs, while figure 2 shows the number of ETI programs conducted by the plans. The bulk of the survey respondents' ETI assets were invested in residential housing programs, while business development programs (that is, small business loans, venture capital, and other ETIs) accounted for only about 16.1 percent of those assets (the shaded portion of figure 1). Nevertheless, business development programs did constitute nearly 58 percent of the number of ETI programs reported (the shaded portion of figure 2).

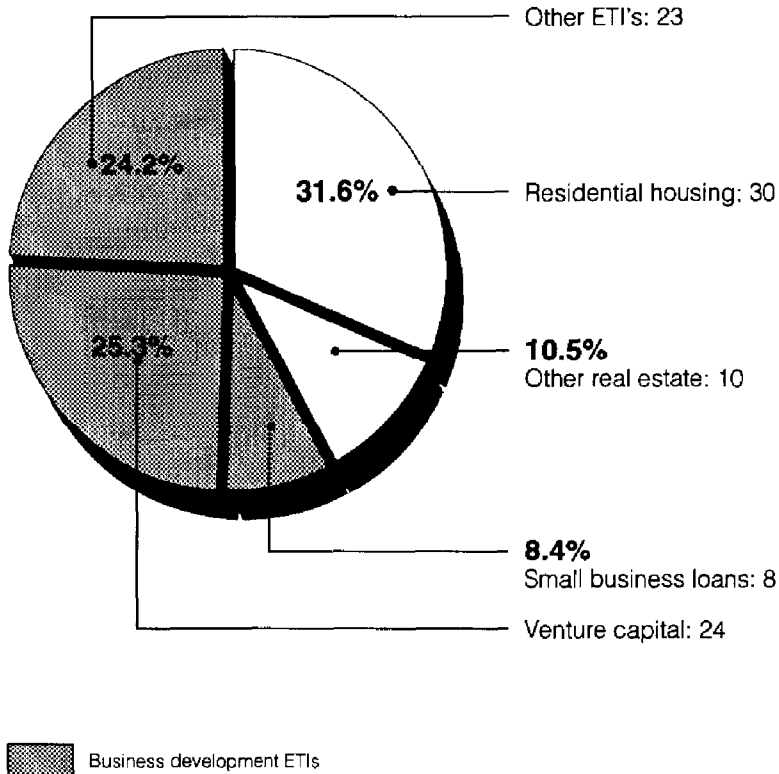
Figure 1: Investments in ETI Programs by IFE Survey Respondents, by Program Type^a



^aDollars in millions. Total invested in ETIs = \$19.8 billion. "Other ETIs" includes private placements, CD programs, limited partnerships, and other investment vehicles not appropriately included in the four other areas.

Source: Institute for Fiduciary Education, Economically Targeted Investments: A Reference for Public Pension Funds (Sacramento, Calif.: June 1993), pp. 14-15.

Figure 2: ETI Programs Conducted by IFE Survey Respondents, by Program Type*



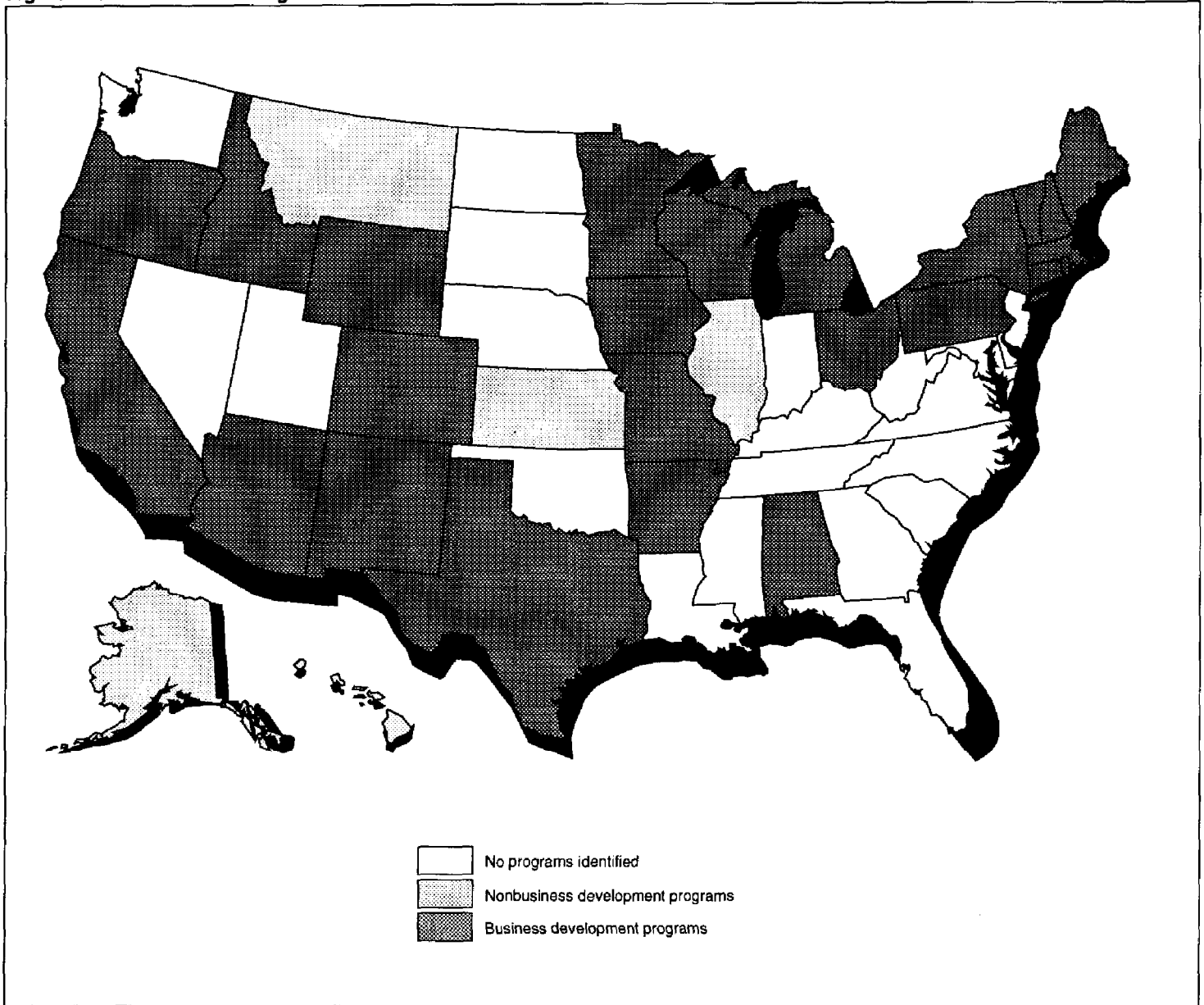
*"Other ETIs" includes private placements, CD programs, limited partnerships, and other investment vehicles not appropriately included in the four other areas.

Source: Institute for Fiduciary Education, *Economically Targeted Investments: A Reference for Public Pension Funds* (Sacramento, Calif.: June 1993), pp. 14-15.

Geographic Dispersion of ETIs

ETIs are geographically widespread. We identified 29 states in which public pension plans were implementing housing, business development, or some other type of ETI program. Our list may not be complete, however, given the lack of a nationwide database on ETI activity. Figure 3 shows (1) the 29 states in which we identified one or more pension plans having an ETI program and (2) the 24 states in which plans had business development ETI programs. (See appendix I for the types of business development ETI programs conducted in each of the 24 states.)

Figure 3: States With ETI Programs



Business Development ETIs by Seven Pension Plans

In addition to gathering national data on the amounts and types of ETIs, we gathered data from seven selected pension plans on ETIs currently in their portfolio that were intended to promote business development. As of 1993, these pension plans conducted a total of 14 ETI business development programs: 2 bond purchasing programs, 3 loan purchasing programs, 2

private placement programs, 2 CD purchasing programs, and 5 venture capital programs. According to IFE, most bond and loan purchases would fall into the "small business loan" category shown in figures 1 and 2, while private placement and CD purchasing programs would fall into the "other ETIS" category.

Bond purchasing programs were conducted in Colorado and Minnesota. In Colorado, the pension plan purchased Colorado Housing and Finance Authority bonds backed by U.S. Small Business Administration (SBA) guaranteed loans. The loans were made to certified development companies by local banks, and then the loans or loan participations were purchased and securitized by the authority. These loans were secured by either unguaranteed first liens subordinated by an SBA second lien or a federal guarantee. According to an authority official, the bonds were backed by the general obligation of the authority.¹⁸ Businesses receiving loans under this program included a minority-owned day-care facility and a woman-owned construction firm. In Minnesota, the pension plan purchased bonds from the Minnesota Small Business Finance Agency. The bonds were backed by the guaranteed portions of SBA loans. The loans were made by local banks in Minnesota and then purchased and securitized by the agency.

Loan purchasing programs were conducted in New York City and Wyoming. The New York City pension plan conducted two loan purchasing programs. Under one, the pension plan committed to purchase loans for 20 stores and offices in low- to moderate-income areas and had purchased one loan as of November 1, 1994. The loans will be underwritten by the Community Preservation Corporation and fully guaranteed by the State of New York Mortgage Authority. Under the second program, the plan purchased the guaranteed portions of SBA loans made by local banks. Similarly, in Wyoming the pension plan worked with the Wyoming Industrial Development Corporation to select and purchase the guaranteed portions of SBA loans made by Wyoming banks.

Private placement programs were conducted in Colorado and Wisconsin. Unlike loan purchasing programs, under which the pension plans purchased the federally guaranteed portions of loans made by local banks, the private placement investments were loans made by the pension plans themselves to in-state companies. For example, in Wisconsin, a typical transaction is structured for repayment over a 10-to-15-year period, with

¹⁸While the state government has not explicitly guaranteed the bonds, the bonds are backed by the authority's general funds and assets.

the plan charging a fixed interest rate usually 150 to 250 basis points above Treasury securities of comparable maturity.¹⁹ To avoid excessive portfolio turnover, borrowers usually cannot prepay a loan during the first 5 years of its term. The loans were usually with established companies with strong performance records. The plan competed, in terms of pricing the loan, with other large public pension funds, life insurance companies, and commercial banks. No intermediaries were used in implementing either the Colorado or Wisconsin private placement programs.

CD purchasing programs were conducted in Minnesota and Wisconsin. Under these programs, the funds purchased CDs from state banks, thereby increasing the banks' capital that could be available for small business lending. In each state, the pension plan set rates at which it would purchase CDs from state banks and then worked with large lending institutions to arrange the transactions.

The objective for both programs was to try to encourage business lending activity and economic development in small towns by increasing the capital available for lending in local banks. The logic was that if small-town banks had more deposits, they would be more likely to lend money to businesses in their communities. However, neither of the plans we examined directly linked bank participation in its CD program to business lending activity, nor did they systematically monitor business lending by participating banks.

ETI venture capital programs were conducted in Colorado, Massachusetts, Minnesota, Pennsylvania, and Wisconsin. Under these programs, the pension plans invested as limited partners in venture capital funds that were likely to invest a portion of their assets in the pension plan's state. In Colorado, the plan invested in six state venture capital funds, all of which in turn invested some portion of their assets in Colorado. In Massachusetts, according to a plan official, the state legislature mandated that the plan invest in a state development corporation that targeted state technology companies. The pension plan also invested in a separate venture capital fund that targeted 20 percent of its assets toward Massachusetts businesses. The Minnesota pension plan invested in two Minnesota-based venture capital funds, one investing in state high-tech businesses and the other targeting at least 50 percent of its assets toward Minnesota businesses. The Pennsylvania pension plan's venture capital portfolio consisted of 17 venture capital funds that had a history of

¹⁹One hundred basis points equal 1 percentage point. For example, an expected yield of 8 percent is 100 basis points lower than an expected yield of 9 percent.

investing some of their funds in Pennsylvania and that were likely to make further in-state investments. Finally, the Wisconsin plan invested in three state venture capital funds that, according to fund officials, were likely to invest some portion of their assets in Wisconsin. For all the pension plans, the actual venture capital investments were made by the general partners running the venture capital funds, not pension plan administrators. Table 1 shows the level of ETI investment, by program type, for each of the seven pension plans.

Table 1: Amount Invested in ETIs by Seven Pension Plans as of 1993, by Program Type

Pension plan	Type of ETI program ^a				
	Bond purchase	Loan purchase	Private placement	CD purchase	Venture capital ^b
Colorado	\$12.1	•	\$94.9	•	\$41.5
Massachusetts	•	•	•	•	52.0
Minnesota	14.0	•	•	\$65.6	11.9
New York City	•	\$14.5 ^c	•	•	•
Pennsylvania	•	•	•	•	89.6
Wisconsin	•	•	387.4	34.9	10.7
Wyoming	•	15.4	•	•	•
Total	\$26.1	\$29.9	\$482.3	\$100.5	\$205.7

^aDollars are in millions. Amount invested is the origination value.

^bAmounts are funds actually invested, not funds committed.

^cIncludes two separate loan purchasing programs.

Financial Returns on Investments

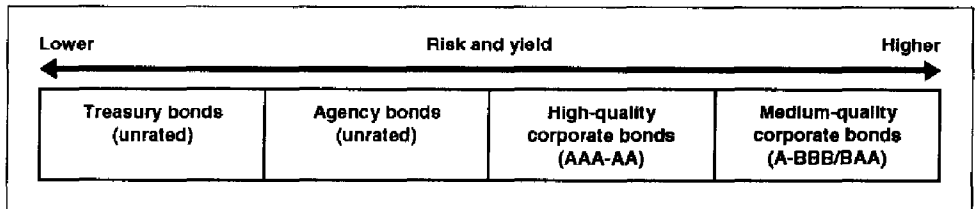
To assess the financial returns on ETIs, we collected and analyzed financial information for our seven case studies and reviewed our earlier reports and academic articles concerning ETI investment results. We also contacted public pension plans in Alaska, Connecticut, and Kansas, for information on specific state investments that resulted in investment losses. In this section, we describe our case study methodology and its limitations, summarize our case study results, and briefly describe the returns on ETIs conducted by other public pension plans not reviewed in our case studies.

Case Study Methodology

An analysis of the success of any investment requires a consideration of its yield and risk characteristics. In a competitive, well-functioning capital market, the expected yield of an investment is directly related to its risk.

Investments with a high risk are generally expected to yield more than investments with a low risk because investors demand higher compensation for the additional risk they incur. (High-risk investments do not necessarily carry high expected yields, but an investor choosing between two investments with equal yields but different risk characteristics would want to be compensated for selecting the higher-risk option.) For example, Treasury bonds, being fully guaranteed by the U.S. government, have less credit risk than corporate bonds and consequently provide lower yields for comparable maturities. Figure 4 illustrates the relative risk and yield of alternative bond investments, as reflected in bond ratings by Standard and Poor's.

Figure 4: Relative Risk and Yield Characteristics of Bond Investments^a



^aRatings are Standard and Poor's.

For our seven case studies, we compared expected yields on ETIs held by plans at the time of our study to expected returns on alternative investments, or benchmarks, with similar risk, maturity, and, where possible, sector characteristics. Specifically, we calculated the difference, or spread, between ETI and benchmark yields on more than 200 individual ETIs made through 14 ETI programs. Except for venture capital, data on the benchmarks were drawn from Salomon Brothers' Analytical Record of Yields and Yield Spreads (July 1994), the Wall Street Journal, and Data Resources, Inc.—all industry recognized data bases. For the bond purchasing, loan purchasing, private placement, and CD purchasing programs, we calculated the average spread between the ETI expected yields and those benchmarks.²⁰ We did not incorporate transaction costs (such as researching candidates for investment, brokerage fees, and legal fees) in our analysis. The venture capital benchmarks were drawn from the 1993 Venture Economics report.²¹

²⁰Except for venture capital, the average spread for each ETI program was calculated by subtracting the benchmark yield from the expected yield for each individual ETI in that program, summing the differences, and then dividing this total by the number of ETIs in that program.

²¹Venture Economics, 1993 Investment Benchmarks Report: Venture Capital (Boston, Mass.: 1993).

We used a different methodology to assess the returns on ETI venture capital investments. Five of the seven pension plans examined in our case studies implemented ETI venture capital programs. These five plans invested in 16 ETI venture capital funds for which we could obtain information concerning a fund's internal rate of return (IRR).²² For these 16 funds, we compared their actual IRRs to the IRRs as of December 31, 1992, for all venture capital funds formed in the same year as the ETI venture capital fund.²³ For example, we compared the IRRs on ETI venture capital funds formed in 1985 to the IRRs for all venture capital funds formed in 1985. We then determined whether the ETI fund IRRs fell within the upper, middle, or lower quartiles of IRRs for all venture capital funds formed in the same year.²⁴ This "vintage year" approach was developed by Venture Economics and is considered by some in the industry as the best benchmark for analyzing interim venture capital returns.

We took several steps to ensure that the benchmarks we used to analyze the ETI programs were appropriate. First, we confirmed our benchmark selection for some of the programs through reviews of prior studies and discussions with industry officials. For example, for our analysis of bond purchases, we used corporate bond benchmarks employed in our 1992 report on ETI bond purchases to promote affordable housing development.²⁵ For our analysis of SBA loan purchases, we used Treasury securities of similar maturity, as suggested by pension, industry, and SBA officials. To analyze venture capital investments, we used industry benchmarks identified through consultation with industry experts. Finally, industry experts on our advisory panel reviewed all our benchmarks. Table 2 shows the benchmarks we used to analyze the expected yields of each ETI program.

²²The IRR is calculated by considering the money paid into the fund by the limited partners (for example, the pension plan), the money returned to the limited partners by the venture capital fund, and the estimated value of the remaining investments held by the fund. Because the value of the remaining investments is an estimate, the IRR is merely an approximation of the venture capital fund's performance. Moreover, all venture capital funds may not calculate this value the same way.

²³Not all plans could provide IRR information as of December 31, 1992. The venture capital fund IRRs reported to us were as of June 30, 1992, for one plan; December 31, 1992, for three plans; and June 30, 1993, for the fifth plan.

²⁴A quartile is the segment of a sample representing a sequential quarter (25 percent) of a group. For example, out of 40 funds, the 10 with the highest IRRs would constitute the first quartile.

²⁵U.S. General Accounting Office, *Pension Plans: Investments in Affordable Housing Possible With Government Assistance*, GAO/HRD-92-55 (Washington, D.C.: June 1992).

Table 2: Benchmarks Used to Analyze the Financial Returns of ETI Programs

ETI program	Benchmark
Bond purchases	Similarly rated bonds with like maturity and sector characteristics
Fixed-rate SBA loan purchases	Treasury securities of like maturity
Variable-rate SBA loan purchases	3-month Treasury bills
Private placements	Similarly rated bonds with like maturity and sector characteristics
CD programs	3- and 6-month secondary market CD rates or 3-year Treasury securities
Venture capital	Vintage year analysis by Venture Economics

Source: DRI/McGraw-Hill; Salomon Brothers, Inc., Analytical Record of Yields and Yield Spreads (New York: July 1994); Venture Economics, 1993 Investment Benchmarks Report: Venture Capital (Boston, Mass.: 1994); The Wall Street Journal.

Our methodology has three key limitations. First, our benchmarks were not adjusted to account for all the risk characteristics unique to each ETI, such as prepayment risk, credit risk, and liquidity risk. Typically, such adjustments are made by pension plan investment officials prior to making individual ETI investments. We did not have the information needed to appropriately adjust our broad benchmarks to account for the unique risk characteristics of each ETI.

Second, the benchmarks often did not perfectly match the maturity characteristics of the individual ETIs. We tried to use benchmarks with maturities equalling either the maturities or average lives of the ETIs we examined.²⁶ However, the Treasury security and corporate bond benchmarks did not always match the dates of purchase or the maturities or average lives of the ETI bond purchases, loan purchases, and private placements in our case studies.

Third, our data, except in the case of venture capital, reflected expected yields on ETIs rather than actual returns. The ETIs we examined in our case studies were held by the public pension plans at the time of our study. Therefore, data on final returns were not available. In addition, we did not have data on expected and actual credit losses incurred through ETIs.

²⁶Some of the investments we examined were prepaid or were amortized such that the lives of the investments were shorter than their terms. The average life of an investment time-weights the principal payment stream to reflect the early retirement of debt throughout the life of that investment.

These first two limitations may, to some extent, counterbalance each other. On the one hand, investors would expect to be compensated, in terms of higher yield, for additional prepayment, credit, or liquidity risk in an ETI bond purchase, loan purchase, or private placement. In other words, investors would expect that an ETI SBA loan purchase, given its prepayment risk, would earn higher yields than a Treasury security of similar maturity; and they would expect that an ETI bond purchase or private placement, given their liquidity risk, would earn higher yields than a similarly rated, long-term corporate bond. However, we did not adjust our benchmarks upward to account for these higher expectations of risk and return.

On the other hand, we did not adjust our benchmarks downward when their maturities were longer than the maturities or average lives of the ETIs. Assuming that short-term interest rates were lower than long-term rates at the time an ETI investment was made, our benchmark yields would be too high when benchmark maturities were longer than ETI maturities. Benchmark maturities slightly exceeded those of fixed-rate loan purchases in 58 of 86 cases and they exceeded the average lives of the private placements in 18 of 34 cases we analyzed.

Despite these limitations, because of the reasons cited above, we are confident that comparison of ETI expected yields to broad industry benchmarks provides a sound basis for determining whether, on the average, ETI investments are characterized by reasonable expected yields.²⁷

Case Study Results

We found that the expected performance of ETIs, other than venture capital, for the seven public pension plans we studied was generally similar to the returns on benchmark investments. For example, on the average, expected yields on the ETI bond purchases were somewhat higher than those on comparably rated bonds with like maturity and sector characteristics. Similarly, expected yields on federally guaranteed fixed-rate loans generally approximated those on Treasury securities of comparable maturity. Expected yields on all federally guaranteed

²⁷Pension portfolio managers are presumably concerned with the expected return, relative to risk, of the entire portfolio. Because ETI returns may be correlated with the returns of other investments in the portfolio, the risk associated with a given ETI, evaluated in isolation, is not always a reliable indicator of how the ETI affects the riskiness of the portfolio. The same can be said of the alternative investments we analyzed. However, an analysis of how ETI returns covaried with returns on other investments in the portfolio would have required a more ambitious data-gathering effort than was feasible for this study. In addition, because, in the aggregate, the investments we analyzed are small relative to the size of the pension plan portfolios, the covariance of ETI returns with other investment returns is not likely to be an empirically important consideration. Therefore, we did not undertake such an analysis.

variable-rate loans well exceeded those on 3-month Treasury securities, but this might reflect the relatively conservative benchmark we used for these investments. For the most part, private placements had expected yields somewhat above those of similarly rated bonds of like sector and maturity. CD purchases had expected yields equal to or slightly higher than appropriate benchmarks, either Federal Reserve Bank of New York secondary CD rates or 3-year Treasury note rates, depending on the term of the CD.

While the investments above, on the average, had reasonable expected yields in comparison to broad industry benchmarks, interim financial returns on the venture capital investments we examined were less encouraging. Interim returns on 10 of the 16 funds we examined lagged industry median returns, although the returns of the older funds more closely mirrored those of the overall market. Of the 10 oldest funds we examined, 5 had returns above the median, and 5 had returns below the median. As discussed later, the interim returns of the older funds are a more reliable indicator of future performance than the interim returns of younger funds. Table 3 summarizes the average spread to the benchmarks for each of the ETI programs we examined. A more detailed discussion of the expected yields for each ETI program is provided in appendix II.²⁸

Table 3: Summary of ETI Expected Yields Relative to Benchmarks

ETI program	Number of investments	Average spread to benchmark (in basis points)
Bond purchases	3	93
Loan purchases		
Fixed rate	86	27 ^a
Variable rate	62	355
Private placements	34	52
CD programs		
3- and 6-month	3	-1
3-year	12	53
Venture capital	16	^b
Total	216	

^aThis is the average spread to benchmark for all 86 fixed-rate loans we examined, including 85 federally guaranteed loans and 1 loan guaranteed by the State of New York Mortgage Authority. The 85 federally guaranteed loans had an average spread of 28 basis points over Treasuries of like maturity.

^bTen of the 16 ETI venture capital funds had interim internal rates of return that lagged industry median returns.

²⁸We analyzed only financial returns from the point of view of the plans. This analysis did not address whether the particular investments were otherwise desirable from a public policy point of view.

Our case study results suggest cautious optimism concerning the ability of public pension plans to earn reasonable financial returns through their ETI programs. They demonstrate that some pension plans have made investments characterized by reasonable expected yields through their ETI programs to promote business development.

These results complement those of the IFE survey in which 53 percent of respondents said that they were either satisfied or very satisfied with the financial returns of their ETIs, 38 percent were neutral, and 12 percent were slightly or very dissatisfied with their ETI financial performance.²⁹ Regarding the ability of ETIs to realize benchmark returns, 62 percent of respondents said that the ETI returns either met or exceeded benchmarks, and 14 percent said they failed to meet their benchmarks. Other respondents, noting that the ETIs were long-term investments, said that it was too early to assess ETI financial results. (Of course, these views were provided by pension officials who might have an interest in reporting positive results.)

While encouraging, the case study and IFE survey results do not suggest that all pension plans can easily construct ETI programs that will realize returns similar to those of alternative investments with similar risk characteristics. The pension plans included in our case studies were chosen, in part, because they had a long history of making these investments. Some of the programs were cited as successful in previous studies by the Center for Policy Alternatives and the State of New York.³⁰ The plans implementing these programs often employed an in-house professional staff that made or monitored these investments. Indeed, in recognition of their experience and expertise, some officials of these plans had spoken at ETI conferences or testified before the ETI Work Group of the Department of Labor's Advisory Council on Employee Welfare and Pension Benefit Plans or before the Commission to Promote Investment in America's Infrastructure. Not all plans seeking to implement an ETI program will have, or will be able to easily acquire, this level of expertise. For example, according to the IFE survey, the most commonly cited problem confronted by plans seeking to develop an ETI program was the procurement of a competent asset manager. About 38 percent of survey respondents noted that the procurement of a competent asset manager to

²⁹This includes financial returns on both affordable housing and business development ETIs.

³⁰Center for Policy Alternatives, Economically Targeted Investments by State-Wide Public Pension Funds (Washington, D.C.: September 1993); New York State Industrial Cooperation Council, Our Money's Worth: The Report of the Governor's Task Force on Pension Fund Investment (New York: June 1989).

implement the program was of some or great difficulty. Therefore, while the plans in our case studies realized reasonable expected yields from their ETIs, other pension plans may not easily replicate these financial results.

Returns on Other ETIs

Studies of ETI affordable housing programs and commonly cited examples of business development programs implemented by other public pension plans demonstrate that success is not automatic when implementing an ETI program. For example, two studies on the financial returns of affordable housing ETIs had differing results, one positive and one negative. In a prior case study analysis of public pension fund affordable housing ETIs, we found that all five of the pension plan investments for which financial return information was available received rates of return similar to other investments of comparable risk.³¹ In contrast, a nationwide survey of state-administered pension funds found that many ETI programs to promote affordable housing development did not realize competitive returns.³² This study concluded that, while public pension investments in government-insured mortgage-backed securities yielded competitive returns, plans sacrificed returns in an attempt to foster home ownership when using almost any other targeted mortgage investment instrument. It should be noted that the study is dated and, according to one expert on ETIs, does not account for the full maturing of the mortgage-backed securities market nor for the recently expanded union pension fund investment in affordable housing projects.

Similarly, public pension plans may be vulnerable to significant financial losses through their state investments, as illustrated by three commonly cited examples in Kansas, Connecticut, and Alaska. In Kansas, a series of private placement investments made by the Kansas Public Employees Retirement System had resulted, by 1991, in losses of about \$122 million. The ultimate losses, according to a plan official, will probably total as much as \$200 million, including a fiscal year 1991 loss of about \$65 million invested in a savings and loan. The Kansas state legislature investigated the losses and concluded that one of the plan's investment managers violated the prudence rule in making some of these investments. The legislative investigation also noted a significant oversight failure on the plan's part. Subsequently, according to a plan official, the plan increased its professional staff to improve oversight of plan investments.

³¹U.S. General Accounting Office, Pension Plans.

³²Alicia H. Munnell, Lynn E. Blais, and Kristine M. Keefe, "The Pitfalls of Social Investing: The Case of Public Pensions and Housing," New England Economic Review, September-October 1983, pp. 20-41.

In Connecticut, the State of Connecticut Retirement and Trust Funds invested \$25 million in 1990 to acquire 64.3 percent of Colt's Manufacturing Company stock, as well as 49.5 percent of the rights to the Colt name and trademark. The funds had obtained an opinion from a national investment banking firm that it considered to be well regarded. This firm stated that the investment was "fair, from a financial point of view" to the funds. Only after the investment was made, according to a state official, did it become apparent that Colt was unable to manufacture firearms on competitive terms because of problems with management, antiquated manufacturing equipment, and labor-management relations. In March 1992, Colt declared bankruptcy. The same official stated that the funds ultimately lost \$20.7 million of their investment.

According to a nationwide study of ETIs, the Alaska Retirement Systems invested over \$250 million during the 1980's in unguaranteed home mortgages, over one third of which were for property in Alaska.³³ When oil prices dropped dramatically, according to this study, the Alaska real estate market crashed. As a result, over a third of the state loans became delinquent, and the plan lost millions of dollars. Alaska officials told us that they did not believe the mortgage investments were ETIs, and they declined to provide information on the results of these investments.

Summary

The expected yields that characterize investments that public pension plans have made through their business development ETI programs have been reasonable but should be viewed with caution. The yields on most fixed-income ETIs we examined in our case studies were generally similar to those of comparable alternative investments. However, these programs were implemented by pension plans with extensive experience with ETIs, and often with in-house staff, so these results cannot be generalized to the universe of pension plans. Further, the actual returns on about 62 percent of the venture capital ETIs we examined lagged industry benchmarks. Also, the successes of these programs should be balanced against the failures of programs not included in our case studies. For example, while five housing ETI programs we examined in 1992 generally received rates of return similar to other investments of comparable risk, another nationwide study identified many ETI housing programs that did not yield competitive returns. Also, while the private placement programs that we examined evidently achieved competitive returns, the Kansas experience reminds us that success is not automatic. Finally, as noted above, there

³³Center for Policy Alternatives, Economically Targeted Investments.

were a number of technical limitations to our analysis (for example, transaction costs were not included in our study).

ETIs' Economic Effects

To assess the economic effects of business development ETIs, we reviewed nationwide studies as well as information provided by the seven pension plans examined in our case studies. From the pension plans, we obtained and analyzed available information concerning job creation, revenue generation, and other potential economic effects of their ETI programs. We did not attempt to independently assess the economic effects of these investments, nor did we independently verify the accuracy of the information provided to us.

An investment can have both direct and indirect economic effects. Direct effects occur at the business receiving the investment. For example, for a business receiving investment money, the direct economic effects could include the number of jobs created or retained, the payroll created, or the tax or sales revenue generated as a result of the investment. Indirect, or multiplier, effects are linked to the direct effects but take place not at the business receiving the investment but, rather, at related businesses. For example, if a business is able to expand its manufacturing facility as a result of a small business loan, a direct effect of the expansion might include new manufacturing jobs. These new jobs, in turn, would increase local demand for, and jobs in, restaurants, health service facilities, retail shops, newspapers, and other businesses.

Direct and indirect effects in a targeted area can be measured on a gross or net basis. The gross effects on the economy of an ETI, in terms of job creation, are the total number of jobs created, both directly and indirectly. The net effects on the economy are the gross effects less any jobs lost as a result of the ETI. For example, jobs could be lost through the ETI that expanded a manufacturing facility because of either equipment modernization or job displacement from one area to another. Concerning the latter, an ETI could have little net effect if the company receiving the ETI merely displaced another company that, without the ETI, would have employed the same people, developed the same product, and created the same level of economic activity. Similarly, an ETI could have little net effect if it merely displaced capital that would have been invested anyway by another investor. Litvak noted that "Displacement will occur when a pension fund targets projects so well served by capital markets that the fund only competes with private investors rather than supplying additional

capital."³⁴ For example, a public pension fund's investment in SBA-guaranteed loans could merely displace capital that would have been invested by another investor in SBA-guaranteed loans.

Economic Effects of ETI Programs Nationwide

In our literature search, we found only two national surveys that addressed the economic effects of public pension plans' ETI programs. The first, conducted by IFE, reported how pension plans measure the economic effects of their ETIs (that is, in terms of jobs created or retained or housing units rehabilitated or constructed).³⁵ But specific economic effects, such as the actual number of jobs created, were not reported.

The second survey, conducted by the Center for Policy Alternatives, also provided limited information regarding the economic effects of ETI programs.³⁶ The survey report described ETI programs conducted by pension plans nationwide but provided economic effect estimates for plans in only 6 states. In these states, according to the survey report, the direct effects of ETI programs included 18,304 jobs created, 9,953 jobs retained, and 28,396 housing units (including low-income units) financed. However, according to an author of the survey report, these estimates did not include indirect effects. Further, the author did not know if these effects were net effects over and above what would have occurred if the ETI programs had not been implemented.

A study of ETIs throughout the country conducted for the governor of New York cited the need for further information on the economic effects of ETI programs.³⁷ The study concluded that despite the growing interest in ETIs, too little formal evaluation of the effectiveness of these programs had been conducted. Most ETI programs did not include an evaluation plan. Such evaluations could determine whether the economic development objectives of ETI programs were being achieved, and they could identify how to improve ETI programs. The study recommended that ETI programs include an evaluation component examining both the financial performance and economic effect of these investments.

³⁴Lawrence Litvak, Pension Funds and Economic Renewal, Studies in Development Policy (Washington, D.C.: Council of State Planning Agencies, 1981), vol. 12, p. 13.

³⁵Institute for Fiduciary Education, Economically Targeted Investments.

³⁶Center for Policy Alternatives, Economically Targeted Investments.

³⁷New York State Industrial Cooperation Council, Competitive Plus: Economically Targeted Investments by Pension Funds (New York: February 1990).

A Department of Labor study noted that quantifying and documenting collateral benefits and tracking them back to the plans was a difficult process that could be beyond the capabilities of small plans.³⁸ In August 1993, several experts testified before the ETI Work Group of DOL's Advisory Council on Employee Welfare and Pension Benefit Plans about the need for an independent clearinghouse to provide information on ETI financial performance, benchmarks, and collateral benefits. According to a DOL official, in April 1994 DOL let a request for proposals for an information clearinghouse to be funded through a cost-sharing arrangement involving DOL, the Department of Housing and Urban Development, and private sources. The contract was awarded to Hamilton Securities Advisory Services, Inc., in September 1994.

Economic Effects of Seven Plans' ETI Programs

We also examined data on the economic effects of ETIs in the seven pension plans we reviewed. For each of the 14 ETI programs conducted by the plans, we examined available data on four types of economic effects: job creation and retention, payroll, sales revenue, and tax revenue. Job creation and retention estimates were available for 7 of the 14 business development ETI programs invested in by the pension plans. Information on other economic effects was more limited. Estimates of payroll were available for 2 of the 14 programs, and of sales revenue and tax revenue for one program each. Table 4 shows the estimated direct economic effects of the seven pension plans' business development ETI programs. In no case could the pension plans provide us with estimates of indirect effects. Further, they did not attempt to assess whether the direct effects above were net of what would have occurred without the pension plan investments. That is, they did not assess whether their investments displaced capital that would have been invested by other investors.

³⁸Advisory Council on Pension Welfare and Benefit Plans, U.S. Department of Labor, "Economically Targeted Investments: An ERISA Policy Review," Report of the Work Group on Pension Investments (Washington, D.C.: November 1992).

Table 4: Reported Estimated Effects of ETI Programs^a

State	ETI program	Estimated direct effect			
		Jobs created or retained	Payroll	Sales revenue	Tax revenue
Colorado					
	Bond purchases	1,241	b	b	b
	Venture capital	4,603	b	b	b
	Private placement	200	b	b	b
Massachusetts					
	Venture capital ^d	4,800	\$199	b	\$68
Minnesota					
	Venture capital	2,115	b	\$656.6	b
	Bond purchases	b	b	b	b
	CD purchases	b	b	b	b
New York City					
	CPC loan purchase	b	b	b	b
	SBA loan purchases	550	b	b	b
Pennsylvania					
	Venture capital	6,850	\$145	b	b
Wisconsin					
	Venture capital	b	b	b	b
	Private placement	b	b	b	b
	CD purchases	b	b	b	b
Wyoming					
	Loan purchases	b	b	b	b

^aDollars in millions.^bNot available.

The table highlights the paucity of information available on economic effects for most of the plans. Moreover, the estimates of economic effects for venture capital programs, which accounted for 8 of the 11 estimates contained in the table, were of limited value because they did not isolate that portion of the effect that resulted from the pension plan's investment. That is, the estimates did not break out the effects among all partners that had invested in the venture capital fund.

All the estimates of economic effects were compiled by intermediaries involved in the programs. Pension plan personnel did not independently

assess the economic effects of their investments. Several pension plan officials told us that they saw no need to have precise information on economic effects because their primary concern is the financial return on their investments. One pension plan official added that he did not want economic effect information because it might inappropriately influence his investment decisions. That is, the knowledge that one investment would have a lower return than another but might create more new jobs could result in an imprudent decision, such as a concessionary investment based on potential economic effects rather than on financial merit. Moreover, such information could lead to political pressures to make such concessionary investments.

In sum, then, we found that the economic effects of ETI programs are, to a great extent, unknown. The national surveys and studies we reviewed provided little information regarding the economic effects of ETIS conducted by public pension plans. Similarly, pension plans in our case studies had little information on the economic effects of their ETIS, and the information they did have was of limited value. Pension plans are not required to gather information on their ETIS' economic effects. Further, the collection and analysis of these data could prove difficult and be burdensome to many pension plans. Mechanisms to collect such data as unobtrusively as possible could be developed. Such efforts could use third parties, such as financial analysts, and sampling techniques that minimize the overall burden. In any case, unless or until such information, derived from methodologically sound data collection and analyses, can be made available, pension plan officials and public policy makers will not know whether ETIS are effective in encouraging local economic development.

Conclusions

Although no national data base on ETI activity exists, we found from surveys that many large public employee pension plans across the nation conduct ETI programs. Currently, however, the overall percentage of plan assets devoted to such investments is limited. Thus, overall, the risk posed to public pension plans by ETI investments is relatively small, although some plans may be exposed to more risk than others.

We found that certain ETI programs achieved financial returns similar to benchmark investments. The bond, loan purchasing, private placement, and CD programs we examined generally were characterized by expected rates of return that were similar to other investments of comparable risk. However, these results cannot be generalized to other pension plans, as demonstrated by the Kansas experience with state investments. In

addition, we found that ETI venture capital returns sometimes lagged benchmarks. Further, prior studies of ETI housing programs have identified some housing ETI programs that have realized competitive returns and other housing ETI programs that have not.

We were unable to determine the economic effects of pension plan ETI programs because of a lack of reliable data and methodological limitations. Pension plan officials usually do not track the economic effects of their ETIs. Therefore, they may not know whether their ETIs are an effective means of encouraging economic development.

Our analysis of ETI programs suggests that pension fund participation in any ETI program should be voluntary, not mandatory. Although some pension plans have realized satisfactory returns on their ETIs, others have not, and some have suffered substantial losses. Requiring plans to invest in ETIs could lead to more plans experiencing such undesirable financial results. In some cases, plan officials could be forced to make bad investments in order to meet a mandated level of ETI activity. Moreover, pension plans differ in terms of their level of financial assets, portfolio composition, numbers of professional staff, and administrative budgets; an ETI program appropriate for one plan may not be appropriate for another. Thus, any large-scale program encouraging ETIs would need to be accompanied by a strong evaluation component to ensure against undesirable effects on plans.

The tendency of plan administrators to monitor the financial returns of their ETIs more closely than the economic effects of their investments establishes an area of tension to be addressed in any effort to encourage ETIs for economic development purposes at the national level. That is, from the point of view of plan administrators,

“Regardless of the merits of the project to the community at large, the fiduciaries’ sole concern is to decide whether the project would benefit the members of the plan. If it benefits the members, the fiduciaries may go forward with it. If it does not, but the fiduciaries proceed in any event, they and the plan’s members face an array of negative consequences.”³⁹

³⁹Statement by Cynthia L. Moore, National Council on Teacher Retirement, before a hearing of the National Conference on State Legislatures, May 6, 1993. The possible negative consequences include IRS disqualification of the plan, resulting in the loss of tax preferential treatment that is afforded to plans satisfying the requirements under section 401(a) of the Internal Revenue Code. In addition, according to Moore, the fiduciaries may be sued for breach of their fiduciary duties.

However, unless the social returns on investment, in the form of economic development, are also taken into account, the goals of an ETI program may not be met. Rather than fill capital gaps, ETIs could merely displace otherwise available capital. Thus, according to one analyst,

“The key to success [in ETIs] is concentrating on sectors and enterprises that have been underfinanced due to gaps and inefficiencies in our financial system Effective yet financially sound development investing first requires identifying situations where the unavailability of capital on competitive terms is impeding development that would otherwise take place.”⁴⁰

These conflicting views demonstrate the difficulty that could confront any effort to enlist public or private employee pension plans in improving economic development through ETIs. Investments would have to be justified not only in terms of their financial returns to the plans but also in terms of their net contribution to economic development, which plan administrators generally prefer not to analyze. Moreover, while quantification of these development benefits is desirable, it is not legally required and is difficult to achieve.

Matter for Congressional Consideration

If the Congress decides to initiate a program to promote public or private pension plan investment in ETIs, it should ensure that participation in the program is voluntary, not mandatory, and that such efforts are properly evaluated in terms of both their financial and economic outcomes.

Agency Comments and Our Response

DOL provided written comments on a draft of this report. (See appendix IV.) Most of these comments were technical or editorial in nature, and we have made changes where we deemed them appropriate. DOL agreed that any ETI program that the Congress may adopt should be voluntary.

However, DOL disagreed with our conclusion that other states might not easily replicate the financial results we found in our seven case study states. DOL argued that it is possible that other states could model their ETI programs on those of the states we studied, making replication easier. Of course, it is possible that other states could learn from those now conducting ETIs. Our point, however, was that we selected the seven cases precisely because they were reputed to be good examples of how ETIs might work. Because they do not necessarily represent all state and local pension plans, we cannot generalize our results to other plans, and

⁴⁰Lawrence Litvak, *Pension Funds and Economic Renewal*, Studies in Development Policy (Washington, D.C.: Council of State Planning Agencies, 1981), vol. 12, p. 4.

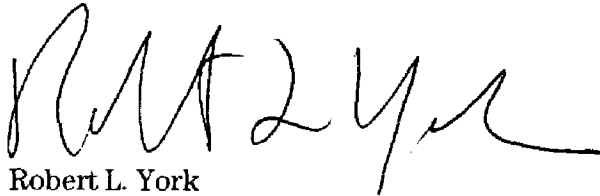
therefore we caution against the assumption that similar results could be obtained by other plans.

We also obtained informal comments from staff of IRS and SBA. These were technical in nature and are reflected in the text, as appropriate.

As we agreed with your office, we plan no further distribution of this report until 30 days from its date of issue, unless you publicly announce its contents earlier. We will then make copies available to others who are interested upon request.

If you have any questions or would like additional information, please call me at (202) 512-5885. Other major contributors are listed in appendix V.

Sincerely yours,

A handwritten signature in black ink, appearing to read "RL York", with a long horizontal flourish extending to the right.

Robert L. York
Director of Program Evaluation in
Human Services Areas

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Abbreviations

CD	Certificate of deposit
DOL	Department of Labor
ERISA	Employee Retirement Income Security Act of 1974
ETI	Economically targeted investment
FDIC	Federal Deposit Insurance Corporation
GAO	General Accounting Office
IFE	Institute for Fiduciary Education
IRR	Internal rate of return
IRS	Internal Revenue Service
SBA	Small Business Administration

State Business Development ETI Programs

State	Type of program identified			
	Venture capital	Small business ^a	Private placement	CD purchasing
Alabama			x	
Alaska				
Arizona	x			
Arkansas		x	x	
California	x			
Colorado	x	x	x	
Connecticut	x			
Delaware				
Florida				
Georgia				
Hawaii				
Idaho			x	
Illinois				
Indiana				
Iowa	x			
Kansas				
Kentucky				
Louisiana				
Maine		x		
Maryland				
Massachusetts	x			
Michigan	x		x	
Minnesota	x	x		x
Mississippi				
Missouri	x			
Montana				
Nebraska				
Nevada				
New Hampshire	x			
New Jersey				
New Mexico		x		
New York	x	x		
North Carolina				
North Dakota				
Ohio	x			
Oklahoma				

(continued)

Appendix I
State Business Development ETI Programs

State	Type of program identified			
	Venture capital	Small business^a	Private placement	CD purchasing
Oregon		x		
Pennsylvania	x		x	
Rhode Island		x		
South Carolina				
South Dakota				
Tennessee				
Texas	x			
Utah				
Vermont	x			
Virginia				
Washington				
West Virginia				
Wisconsin	x		x	x
Wyoming		x		

^aIncludes bond purchase and loan purchase programs.

Source: Center for Policy Alternatives, Economically Targeted Investments by State-wide Public Pension Funds (Washington, D.C.: September 1993); Institute for Fiduciary Education 1992 survey.

Financial Returns of ETI Programs Examined in Our Case Studies

This appendix presents the results of the ETI bond purchasing, loan purchasing, private placement, CD purchasing, and venture capital programs examined in our seven case studies.

Returns on ETI Bond Purchases

Expected yields on the ETI bond purchases we examined were, on the average, 93 basis points above similarly rated bonds with like maturity and sector characteristics. For one of Colorado's two ETI bond purchases, the expected yield was 77 basis points above that of similarly rated, medium-term (10-year) financial bonds. The expected yield on the other Colorado bond purchase exceeded this benchmark by 182 basis points. We used 10-year financial bonds as the benchmark because, although the Colorado Housing and Finance Authority bonds had terms of from 20 to 25 years, the bonds were expected to be paid off within 10 years, according to a plan official. Indeed, all six authority bonds previously purchased by the plan had been paid off in less than 10 years.

In Minnesota, the expected yield on the pension plan's one ETI bond purchase was 20 basis points above that of 10-year Treasury securities. We used 10-year Treasuries as the benchmark because the Minnesota Small Business Finance Agency bond consisted solely of the guaranteed portions of SBA loans, and the 10-year Treasury had the closest maturity to the 12-year expected life of this bond. Given that all three of the ETI bonds we examined were backed by federally guaranteed loans or state authority assets, the ETI bond returns seem reasonable. Table II.1 provides the specific expected yields for each bond purchase, as well as those for alternative investments on the date of purchase.

**Appendix II
Financial Returns of ETI Programs
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Table II.1: Financial Returns of Colorado and Minnesota ETI Bond Purchases, Compared to Returns on Alternative Investments (at Date of Purchase)

State	Pension system bond purchase					Benchmark		Spread to benchmark (basis points)
	Investment date	Investment amount	Term (years)	Rating	Yield	Term	Yield	
Colorado ^a	02/01/93	\$ 4,857,000	25.6	A	7.87%	^b	7.10%	77
	03/31/93	7,239,000	20.3	A	8.62	^b	6.80	182
Minnesota ^c	12/12/84	14,000,000	20.0	AA	11.70 ^d	^e	11.50	20

^aData from September 30, 1993.

^bBenchmark was yield on A-rated medium-term (10-year) financial bonds, as the Colorado Housing and Finance Authority bond was A rated, and it had an expected life of about 10 years.

^cData from July 31, 1993.

^dThe yield calculation does not include a commitment fee received by the Minnesota State Board of Investment that was equal to 0.5 percent of the aggregate principal amount of the bonds.

^eBenchmark was the 10-year Treasury bond as the Minnesota Small Business Finance Agency bond consisted solely of the guaranteed portions of SBA loans, and the bond had an expected maturity of 12 years.

Source: Pension system information was obtained from the Colorado Public Employees' Retirement Association and the Minnesota State Board of Investment. The benchmark data were obtained from Salomon Brothers, *Analytical Record of Yields and Yield Spreads* (New York: July 1994). Although the information contained in the Salomon Brothers report was obtained from sources that Salomon Brothers believed to be reliable, Salomon Brothers does not guarantee the accuracy of the information. The information may be incomplete or condensed. All opinions and estimates included in the Salomon Brothers report constituted its judgment as of July 1994 and are subject to change without notice.

Returns on ETI SBA Loan Purchases

The expected yields on the loan purchasing programs approximated those of alternative investments. All but one of the 86 fixed-rate loan purchases that we examined were purchases of the federally guaranteed portions of SBA loans. On the average, the expected yields on these 85 guaranteed loan portions were 28 basis points above Treasury securities of similar maturity. The expected yields on 77 of the 85 guaranteed loans approximated or exceeded the Treasury benchmarks, with 14 of these loans exceeding the benchmark by more than 100 basis points. Expected yields on the remaining 8 guaranteed loans lagged those of Treasuries of similar maturity by more than 100 basis points. These 8 loans were purchased by the Wyoming pension plan in the early to mid-1980's. A Wyoming pension investment officer could not explain why these investments lagged the benchmark.

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The average spread seems reasonable given that the guaranteed portions of the SBA loans and Treasury securities have similar risk characteristics. Concerning liquidity risk, according to SBA documents, there is an active secondary market for the portions of small business loans guaranteed by SBA. Concerning the credit risk of SBA loans, if the SBA loans become 60 days delinquent, SBA guarantees to purchase from the registered holder the guaranteed portion of the loan as well as accrued interest due. SBA's guarantee is unconditional and is backed by the full faith and credit of the United States.

The remaining loan purchase that we examined, which was purchased by the New York City pension plan under its Community Purchase Corporation program, was unrated but was backed by a state guarantee. The expected yield on this investment exceeded by 7 basis points that for long-term, AA-rated new financial bonds.

Figure II.1 shows, for the 86 fixed-rate loan purchases, how the expected yields compared to those of alternative investments of similar maturity. Table II.2 provides the specific expected yields for each New York City and Wyoming pension plan fixed-rate loan purchase as well as those for alternative investments on the date of purchase.

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Figure II.1: Spreads to Benchmark on Fixed-Rate Loan Purchases

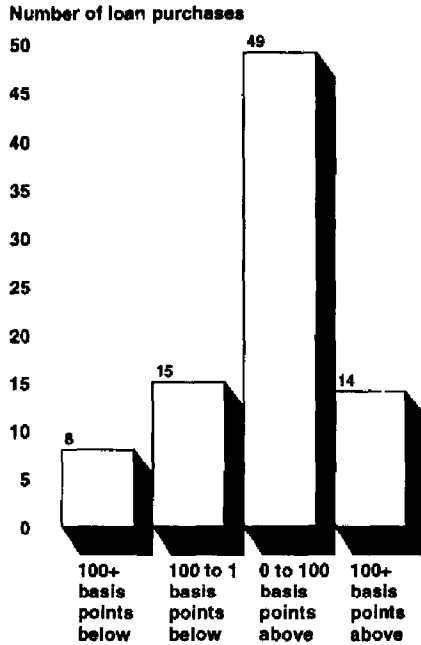


Table II.2: Financial Returns of New York City and Wyoming ETI Fixed-Rate Loan Purchases, Compared to Returns on Alternative Investments (at Date of Purchase)

City or state	Pension system loan purchase				Benchmark		Spread to benchmark (basis points)
	Investment date	Investment amount	Term (years)	Yield	Term ^a	Yield	
New York City ^b	08/12/92	\$1,300,000	18.0	8.22% ^c	^d	8.15%	7
	10/14/92	120,886	6.8	9.25	7	5.90 ^c	335
	12/02/92	135,000	20.0	7.65	20	7.26	39
Wyoming ^e	10/24/78	112,500	15.9	9.50	15	8.54	96
	04/07/82	188,988	14.9	9.25	15	13.83	-458
	03/09/83	421,200	14.3	10.25	15	10.52	-27
	04/28/83	60,000	16.4	11.00	15	10.77	23
	06/22/83	379,274	14.9	9.50	15	11.04	-154
	08/25/83	60,000	19.9	7.75	20	11.98	-423
	11/21/83	495,000	19.8	8.25	20	11.92	-367
	08/09/84	486,690	18.2	9.00	20	12.89	-389
	12/05/84	163,595	20.0	8.50	20	11.68	-318
	02/25/85	502,818	19.0	7.88	20	11.30	-342
	07/31/85	107,000	20.0	11.00	20	10.55	45
	01/31/86	105,186	13.5	8.75	15	9.24	-49

(continued)

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City or state	Pension system loan purchase				Benchmark		Spread to benchmark (basis points)	
	Investment date	Investment amount	Term (years)	Yield	Term ^a	Yield		
	02/07/86	\$275,106	9.6	8.00%	10	9.04%	-104	
	01/30/87	80,000	20.0	7.75	20	7.86	-11	
	01/30/87	81,000	20.0	7.75	20	7.86	-11	
	01/30/87	148,750	20.0	7.75	20	7.86	-11	
	02/19/87	216,750	14.6	8.00	15	7.68	32	
	02/19/87	296,639	17.6	7.88	15	7.68	20	
	04/30/87	47,293	19.8	8.25	20	8.02	23	
	04/30/87	72,000	19.8	8.25	20	8.02	23	
	04/30/87	216,911	19.8	8.25	20	8.02	23	
	09/15/87	111,531	15.1	9.75	15	9.17	58	
	09/15/87	226,800	15.1	9.75	15	9.17	58	
	10/30/87	172,217	23.6	1	0.50	20	9.86	64
	11/09/88	260,800	24.7	10.13	20	8.77	136	
	01/30/90	366,489	14.8	8.38	15	8.00	38	
	04/24/90	161,140	9.8	8.38	10	8.64	-26	
	04/24/90	212,500	14.8	8.38	15	8.70	-32	
	04/24/90	240,093	14.7	8.38	15	8.70	-32	
	06/29/90	34,740	14.8	8.38	15	8.65	-27	
	06/29/90	47,563	14.0	8.38	15	8.65	-27	
	06/29/90	64,800	13.4	8.50	15	8.65	-15	
	06/29/90	162,000	14.9	8.38	15	8.65	-27	
	06/29/90	179,350	14.6	8.38	15	8.65	-27	
	06/29/90	414,400	19.8	8.38	20	8.70	-32	
	08/22/90	49,255	14.7	8.88	15	8.41	47	
	12/27/90	61,200	19.9	9.00	20	8.40	60	
	01/31/91	26,981	9.4	9.00	10	8.07	93	
	01/31/91	123,033	12.6	9.00	15	8.16	84	
	01/31/91	124,390	14.7	9.00	15	8.16	84	
	06/12/91	680,000	15.0	8.63	15	8.16	47	
	06/26/91	76,610	14.7	8.63	15	8.16	47	
	06/26/91	107,451	14.7	8.63	15	8.16	47	
	06/26/91	135,000	14.9	8.63	15	8.16	47	
	07/25/91	711,257	19.5	8.00	20	8.38	-38	
	10/17/91	215,759	14.8	8.50	15	7.57	93	
	03/19/92	30,614	10.1	7.75	10	7.26	49	
	03/19/92	37,241	10.1	8.00	10	7.26	74	
	03/19/92	64,050	15.1	8.00	15	7.40	60	

(continued)

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City or state	Pension system loan purchase				Benchmark		Spread to benchmark (basis points)
	Investment date	Investment amount	Term (years)	Yield	Term ^a	Yield	
	03/19/92	\$64,694	15.1	8.63%	15	7.40%	123
	04/23/92	25,319	4.5	7.88	5	6.93	95
	04/29/92	205,970	6.7	7.75	7	7.22	53
	06/11/92	184,151	3.8	7.75	5	7.45	30
	08/11/92	76,987	4.3	7.75	5	7.45	5
	08/11/92	180,000	9.6	7.75	7	7.08	7
	09/03/92	86,360	15.0	7.50	15	6.81	69
	09/03/92	107,100	14.3	7.75	15	6.81	94
	09/03/92	153,000	19.6	7.75	20	7.01	74
	09/03/92	270,000	19.5	7.75	20	7.01	74
	01/14/93	40,694	15.9	7.50	15	6.87	63
	01/14/93	505,270	14.8	7.50	15	6.87	63
	04/01/93	45,000	29.8	7.25	30	6.93	32
	04/01/93	72,938	14.7	7.25	15	6.26	99
	04/01/93	146,872	18.7	7.25	20	6.48	77
	04/01/93	239,418	29.2	7.25	30	6.93	32
	04/01/93	480,000	19.9	7.25	20	6.48	77
	04/01/93	527,547	19.8	7.25	20	6.48	77
	04/15/93	41,577	9.6	7.25	10	6.03	122
	04/15/93	69,715	4.5	7.25	5	5.24	201
	04/15/93	179,775	6.7	7.25	7	5.69	156
	04/15/93	192,000	14.6	7.25	15	6.26	99
	04/15/93	255,000	19.3	7.25	20	6.48	77
	05/06/93	78,449	15.0	7.50	15	6.25	125
	05/06/93	176,187	15.6	7.68	15	6.25	143
	07/29/93	45,000	13.3	7.00	15	6.01	99
	07/29/93	68,200	11.8	6.75	10	5.78	97
	07/29/93	203,639	19.8	6.75	20	6.23	52
	08/26/93	134,400	10.0	7.25	10	5.81	144
	08/26/93	166,868	14.1	7.25	15	6.00	125
	08/26/93	245,650	15.0	7.25	15	6.00	125
	09/30/93	257,070	2.2	7.25	2	3.87	338
	01/20/94	89,713	14.6	7.25	15	5.94	131
	01/20/94	131,747	14.7	7.25	15	5.94	131

(Table notes on next page)

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^aTreasuries, in years.

^bData for February 15, 1994.

^cInvestment guaranteed by the State of New York Mortgage Authority.

^dBenchmark was AA-rated long-term (25-30 year) new financial bonds.

^eData from March 17, 1994.

Source: Pension system information was obtained from the New York City Comptroller's Office and the Wyoming Retirement System. The benchmark data were obtained from Salomon Brothers, *Analytical Record of Yields and Yield Spreads* (New York: July 1994). Although the information contained in the Salomon Brothers report was obtained from sources that Salomon Brothers believed to be reliable, Salomon Brothers does not guarantee the accuracy of the information. The information may be incomplete or condensed. All opinions and estimates included in the Salomon Brothers report constituted its judgment as of July 1994 and are subject to change without notice.

All 62 variable-rate loan purchases we examined had expected yields greater than those of 3-month Treasury securities. On the average, expected yields on these purchases exceeded those of 3-month Treasury securities by 355 basis points. Because almost all these SBA loans are adjusted quarterly, both pension fund and SBA officials stated that 3-month Treasury securities are an appropriate benchmark for analyzing variable-rate SBA loan purchases. The variable-rate loans we examined are set to fluctuate with the prime rate, at a fixed spread ranging from 26.5 basis points below the prime to 162.5 basis points above. Because the prime rates far exceeded the 3-month Treasury rates when the loans were purchased, the expected yields on the ETI loan purchases also exceeded this benchmark.¹ All ETI expected yields exceeded those on 3-month Treasury securities by more than 100 basis points, and often they exceeded this benchmark by from 300 to 400 basis points. According to a plan official, the plan requires this large spread because, although the plan purchases all the loans at a premium, SBA would reimburse the plan only the par value of the loans, were the loans to default. Figure II.2 shows, for the 62 variable-rate loan purchases, how the expected yields compared to those of 3-month Treasury securities. Table II.3 provides the specific expected yields for each pension plan investment, as well as those for 3-month Treasury securities on the date of purchase.

¹Since expected yields are affected by changes in the spread between the prime rate and the T-bill rate, future yields could differ significantly from those reported here.

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Figure II.2: Spreads to Benchmark on Variable-Rate Purchases

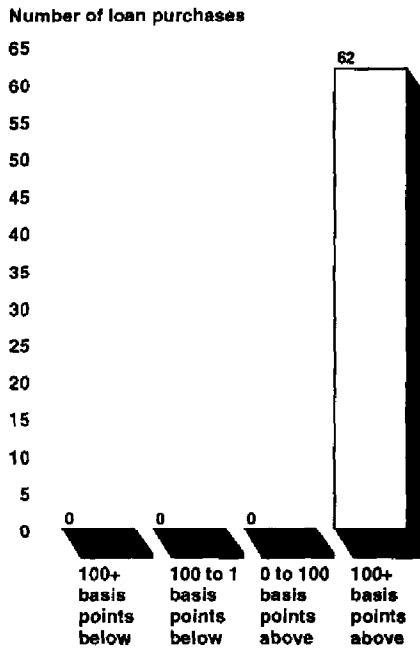


Table II.3: Financial Returns of New York City Variable-Rate Loan Purchases, Compared to Returns on 3-Month Treasury Securities (at Date of Purchase)^a

Investment date	Investment amount	Term (years)	Yield at purchase	Yield on 3-month Treasury securities	Spread to Treasuries (basis points)
12/14/90	\$22,500	6.9	10.85%	6.81%	404
12/14/90	66,300	9.6	10.93	6.81	412
12/14/90	111,081	9.7	10.92	6.81	411
12/14/90	117,727	5.8	10.56	6.81	375
12/14/90	131,958	6.7	10.86	6.81	405
12/14/90	133,298	9.7	10.92	6.81	411
12/14/90	135,000	7.0	10.83	6.81	402
12/14/90	163,556	6.5	10.89	6.81	408
12/14/90	271,501	19.8	11.15	6.81	434
12/28/90	31,500	7.1	10.83	6.52	431
12/28/90	157,857	6.4	10.47	6.52	395
12/28/90	168,000	4.6	10.25	6.52	373
02/28/91	54,000	5.9	9.67	5.98	369
04/22/91	368,750	4.9	10.00	5.64	436
07/19/91	80,028	4.5	8.95	5.58	337
07/19/91	342,358	9.7	8.86	5.58	328

(continued)

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Investment date	Investment amount	Term (years)	Yield at purchase	Yield on 3-month Treasury securities	Spread to Treasuries (basis points)
07/31/91	\$284,750	5.0	9.02%	5.59%	343
07/31/91	425,000	10.0	9.37	5.59	378
10/01/91	255,000	5.0	8.48	5.14	334
10/01/91	425,000	11.9	8.77	5.14	363
11/12/91	98,720	5.3	8.23	4.68	355
03/13/92	208,958	4.9	6.82	4.06	276
04/29/92	27,000	7.0	6.97	3.70	327
04/29/92	63,750	5.0	6.99	3.70	329
04/29/92	64,286	6.6	6.99	3.70	329
04/29/92	112,375	6.6	6.99	3.70	329
04/29/92	552,500	7.0	6.83	3.70	313
07/16/92	108,800	7.0	6.71	3.19	352
09/08/92	625,500	10.1	6.83	2.90	393
10/14/92	65,000	5.3	6.71	2.91	380
10/14/92	81,021	6.0	6.78	2.91	387
10/14/92	102,428	5.8	6.75	2.91	384
12/16/92	255,000	15.0	6.92	3.20	372
12/17/92	90,000	5.0	6.30	3.20	310
01/07/93	46,750	8.0	6.86	3.10	376
01/07/93	135,000	10.0	6.78	3.10	368
01/07/93	660,000	15.0	6.92	3.10	382
02/01/93	84,075	5.0	6.38	2.97	341
02/01/93	375,000	7.0	6.64	2.97	367
02/08/93	106,773	5.6	6.03	2.95	308
02/08/93	133,393	7.5	6.29	2.95	334
03/04/93	69,700	10.0	6.77	2.98	379
03/30/93	722,500	10.0	6.74	2.95	379
04/15/93	135,000	7.1	6.61	2.85	376
07/13/93	276,250	15.0	6.26	3.03	323
07/23/93	184,000	20.1	7.00	3.08	392
07/29/93	62,400	4.4	6.71	3.10	361
07/29/93	88,717	6.0	6.51	3.10	341
07/29/93	103,125	2.9	6.95	3.10	385
09/03/93	126,000	20.0	5.52	2.98	254
09/03/93	311,100	10.0	7.18	2.98	420
09/29/93	416,146	11.7	6.43	2.93	350
10/15/93	397,375	25.0	5.98	3.05	293
11/08/93	315,000	12.4	6.27	3.11	316

(continued)

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Investment date	Investment amount	Term (years)	Yield at purchase	Yield on 3-month Treasury securities	Spread to Treasuries (basis points)
11/22/93	\$368,100	10.1	6.30%	3.13%	317
12/03/93	87,000	10.0	6.22	3.11	311
12/10/93	572,000	25.0	6.67	3.08	359
12/15/93	224,000	10.0	6.22	3.06	316
01/10/94	184,000	7.1	5.83	3.05	278
01/10/94	216,000	20.1	5.28	3.05	223
01/13/94	85,000	10.1	6.12	2.99	313
01/13/94	212,500	15.1	5.67	2.99	268

^aData from February 15, 1994.

Source: Pension system information from the New York City Comptroller's Office; benchmarks from Data Resources, Inc.

Returns on ETI Private Placements

The expected yields on most state private placements appear to be competitive. We did not analyze the returns on 19 of 53 private placements because we did not have adequate information on either the rating of the placements or appropriate benchmarks. However, the expected yields on the remaining 34 private placements we examined were, on the average, 52 basis points above yields on similarly rated bonds with maturities approximating the average lives of the ETIs. (When possible, we also tried to use benchmarks of the same sector as the private placements we examined.) The expected yields on nine private placements exceeded the benchmarks by more than 100 basis points.

A previous analysis by State of Wisconsin Investment Board staff also determined that their state private placements realized competitive returns. The staff compared the spread of each individual placement at the time of origination with the spread over 10-year Treasuries for BBB-rated bonds available in the new issue market at approximately the same time. While the spreads of two AA-rated Wisconsin private placements lagged the BBB market spreads, all the other placements (including the AAA- and A-rated placements) had spreads exceeding the BBB market spreads. Many of the BBB-rated placements had spreads nearly twice that of the BBB market spread. Spreads on the BB- and B-rated investments were often twice or three times as great as the BBB market spread.

Figure II.3 shows, for the 34 private placements, how the expected yields compared to those of corporate bonds of similar risk and maturity. Table

**Appendix II
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II.4 provides the specific expected yields for each investment, as well as those for alternative investments on the date of purchase.

Figure II.3: Spreads to Benchmark on Private Placements

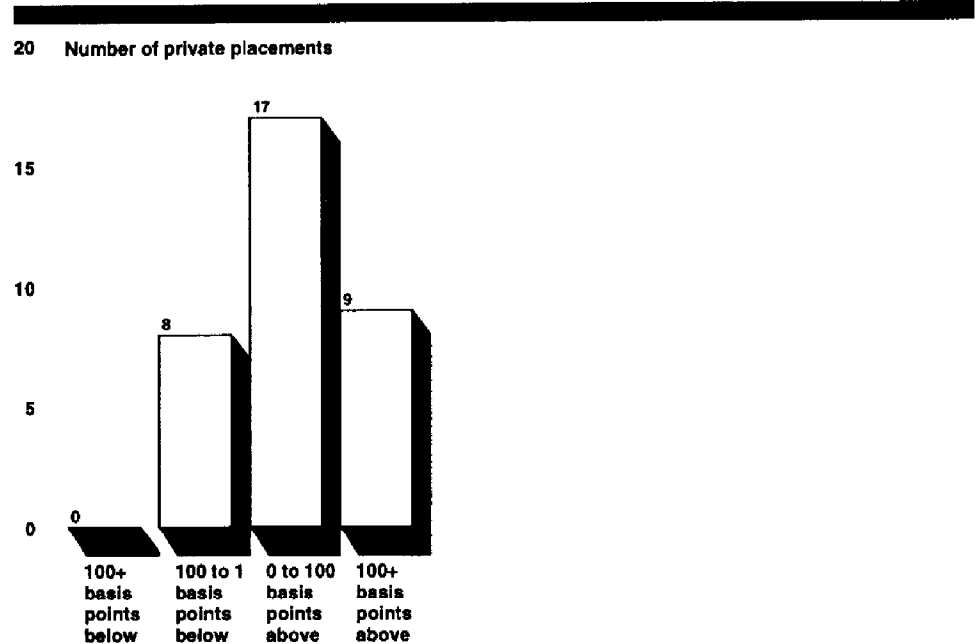


Table II.4: Financial Returns of Colorado and Wisconsin ETI Private Placements, Compared to Alternative Investments (at Date of Purchase)

State	Pension system private placement					Benchmark yield	Spread to benchmark (basis points)
	Investment date	Investment amount	Term/average life (years)	Rating	Yield		
Colorado ^a	05/29/73	\$4,000,000	30.0 ^b	A	7.60%	7.65% ^c	-5
	10/15/79	9,917,000	25.0 ^b	^d	10.25	10.14 ^e	11
	5/19/82	8,592,000	12.4 ^b	A	15.80	15.75 ^f	5
	5/17/84	22,994,000	10.4 ^b	A	13.00	13.63 ^f	-63
	08/17/87	49,391,000	13.9 ^b	^b	9.40	^b	^b
Wisconsin ^g	07/18/73	3,000,000	25.0/18.0	AAA	8.00	^b	^b
	11/07/85	3,500,000	13.0/10.0	AAA	11.88	10.30 ^h	158
	04/02/66	1,500,000	30.0/23.0	AA	5.45	^b	^b
	12/05/85	25,000,000	15.0/7.0	AA	8.18	^b	^b
	12/04/91	10,603,000	14.0/6.0	AA	8.21	^b	^b
	05/16/73	1,800,000	25.0/16.0	A	8.50	7.65 ^c	85
	01/09/86	10,000,000	15.0/9.0	A	10.30	9.70 ^h	60

(continued)

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Pension system private placement							
State	Investment date	Investment amount	Term/average life (years)	Rating	Yield	Benchmark yield	Spread to benchmark (basis points)
	03/05/87	\$15,000,000	12.0/9.0	A	8.63%	8.00% ^h	63
	05/06/87	3,000,000	10.0/6.0	A	9.75	8.88 ⁱ	87
	04/06/88	10,000,000	15.0/8.5	A	10.10	9.50 ^b	60
	06/02/88	5,000,000	15.0/9.0	A	10.80	10.10 ^b	70
	05/30/90	3,000,000	10.0/6.0	A	10.50	9.85 ⁱ	65
	09/05/91	10,000,000	15.0/10.0	A	9.05	8.85 ^a	20
	07/17/67	700,000	25.0/13.0	BBB	6.00	b	b
	07/02/75	1,500,000	20.0/14.0	BBB	11.00	11.50 ⁱ	-50
	11/01/76	1,000,000	20.0/13.0	BBB	9.00	b	b
	11/01/76	3,000,000	20.0/13.0	BBB	8.40	b	b
	04/03/77	3,000,000	20.0/14.0	BBB	10.75	8.95 ^c	180
	11/08/85	1,419,000	15.0/10.0	BBB	12.25	11.00 ^b	125
	11/08/85	1,150,000	15.0/10.0	BBB	12.25	11.00 ^h	125
	01/08/87	9,000,000	15.0/9.0	BBB	9.25	8.75 ^h	50
	08/06/87	4,000,000	15.0/9.0	BBB	10.70	9.80 ^h	90
	09/03/87	9,000,000	15.0/9.5	BBB	10.90	10.15 ^h	75
	10/08/87	17,000,000	20.0/12.0	BBB	10.90	10.85 ^h	5
	11/10/87	20,000,000	15.0/8.0	BBB	10.90	10.38 ^h	52
	03/03/88	35,000,000	15.0/8.5	BBB	10.50	9.30 ^h	120
	06/02/88	5,000,000	10.0/6.5	BBB	11.25	10.25 ^h	100
	08/04/88	4,000,000	15.0/10.0	BBB	11.25	10.15 ^h	110
	10/06/88	7,500,000	15.0/9.0	BBB	11.00	9.88 ^h	112
	01/04/90	12,500,000	15.0/10.0	BBB	9.75	9.45 ^h	30
	05/30/90	5,600,000	15.0/8.5	BBB	9.88	10.55 ^h	-67
	07/11/90	10,000,000	15.0/12.0	BBB	9.85	9.90 ^h	-5
	10/22/90	12,000,000	11.5/8.0	BBB	10.03	10.80 ^h	-77
	10/22/90	14,000,000	18.5/15.0	BBB	10.65	10.80 ^h	-15
	11/05/90	10,000,000	10.0/7.5	BBB	10.15	10.40 ^h	-25
	09/05/91	20,000,000	10.0/7.0	BBB	9.49	9.00 ^h	49
	03/03/92	11,756,000	18.5/12.5	BBB	9.84	8.30 ^h	154
	09/05/85	7,500,000	10.0/6.0	BB	12.50	b	b
	12/03/87	20,000,000	15.0/8.0	BB	9.80	b	b
	08/04/88	5,000,000	15.0/10.0	BB	11.82	b	b
	08/04/88	10,000,000	10.0/7.0	BB	10.97	b	b
	12/08/88	1,000,000	10.0/6.0	BB	11.50	b	b
	12/08/88	3,000,000	10.0/6.0	BB	12.00	b	b
	02/02/89	8,500,000	15.0/9.0	BB	12.13	b	b

(continued)

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Financial Returns of ETI Programs
Examined in Our Case Studies**

State	Pension system private placement					Benchmark yield	Spread to benchmark (basis points)
	Investment date	Investment amount	Term/average life (years)	Rating	Yield		
	12/07/89	\$3,600,000	16.0/10.0	BB	10.85%	^b	^b
	11/05/90	775,000	7.0/5.0	B	14.00	^b	^b
	11/05/90	7,000,000	10.0/7.0	B	10.85	^b	^b
	10/05/91	1,530,000	10.0/7.0	B	7.00	^b	^b

^aData from September 30, 1993.

^bNot available.

^cBenchmark was yield on similarly rated long-term (25-30 year) new utility and industrial bonds.

^dThis investment had no rating. The private placement was backed by certified Government National Mortgage Association, Federal Housing Administration, and Department of Veterans Affairs mortgages. Consequently, the risk characteristics of the investment are similar to those of agency securities.

^eBenchmark was yield on 20-year U.S. agency bonds, published by Data Resources, Inc.

^fBenchmark was yield on similarly rated medium-term (10-year) new financial bonds.

^gData from August 6, 1992.

^hBenchmark was yield on similarly rated medium-term (10-year) new industrial bonds.

ⁱBenchmark was yield on similarly rated medium-term (7-year) new utility bonds.

Source: Pension system information was obtained from the Colorado Public Employees' Retirement Association and the State of Wisconsin Investment Board. Unless otherwise noted, benchmarks were obtained from Salomon Brothers, *Analytical Record of Yields and Yield Spreads* (New York: July 1994). Although the information contained in the Salomon Brothers report was obtained from sources that Salomon Brothers believed to be reliable, Salomon Brothers does not guarantee the accuracy of the information. The information may be incomplete or condensed. All opinions and estimates included in the Salomon Brothers report constituted its judgment as of July 1994 and are subject to change without notice.

Returns on ETI CD Purchases

The expected yields on the CD purchasing programs approximated those of secondary CD rates or Treasury securities of similar maturity. In Minnesota, the CD purchases were insured by the Federal Deposit Insurance Corporation (FDIC), and the plan received, on the average, an expected yield on its 3- and 6-month CD purchases 1 basis point below the average secondary CD rates quoted by the Federal Reserve Bank of New York. In Wisconsin, however, the CD purchases were not insured by FDIC. Thus, the CDs' spreads above the Treasury rates were needed to compensate the plan for the higher credit risk of these uninsured CDs. According to plan officials, the plan limits its credit risk by conducting internal evaluations of the creditworthiness of banks interested in

**Appendix II
Financial Returns of ETI Programs
Examined in Our Case Studies**

participating in its CD program. The plan does not purchase CDs from banks it does not consider creditworthy. In addition, CDs are relatively illiquid investments. According to pension plan officials, expected yields on CD purchases were usually set about 55 basis points above the 3-year Treasury rate to take account of this lack of liquidity. The expected yields on the 12 Wisconsin 3-year CD purchases we examined, on the average, exceeded those on 3-year Treasury securities by 53 basis points. Table II.5 provides the specific expected yields for each CD purchase, as well as those for alternative investments on the date of purchase.

Table II.5: Financial Returns of Minnesota and Wisconsin CD Purchases, Compared to Alternative Investments (at Date of Purchase)

State	Pension system CD purchase					Yield on alternative investments	Spread to benchmark (basis points) ^a
	Investment date	Investment amount	Term	Number of banks	Yield		
Minnesota ^b	01/18/94	\$22,850,000	6 months	57	3.36%	3.34%	2
	04/18/94	13,200,000	3 months	34	4.00	3.98	2
	04/18/94	29,500,000	6 months	69	4.32	4.39	-7
Wisconsin ^c	9/9/92	5,000,000	3 years	1	5.10	4.34	76
	5/6/93	3,000,000	3 years	1	4.70	4.24	46
	5/18/93	3,000,000	3 years	1	4.85	4.49	36
	7/1/93	1,000,000	3 years	1	5.00	4.37	63
	7/15/93	500,000	3 years	1	4.90	4.34	56
	9/3/93	500,000	3 years	1	4.95	4.04	91
	9/22/93	8,000,000	3 years	1	4.60	4.22	38
	10/8/93	500,000	3 years	1	4.80	4.09	71
	10/21/93	5,000,000	3 years	1	4.65	4.19	46
	11/5/93	4,500,000	3 years	1	4.66	4.53	13
	2/28/94	2,000,000	3 years	1	5.50	5.04	46
3/18/94	1,900,000	3 years	1	5.90	5.42	48	

^aBenchmarks were 3- and 6-month secondary CD rates for 3- and 6-month CD purchases, respectively, and 3-year Treasuries for 3-year CD purchases. Our benchmark yields differed slightly from those used by the Minnesota State Board of Investment, apparently reflecting the use of different data bases to generate the benchmarks.

^bData from April 22, 1994.

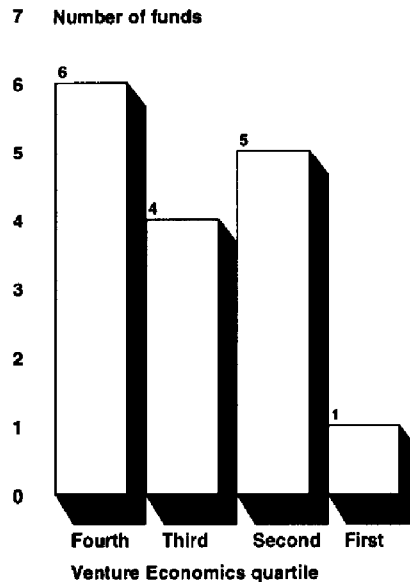
^cData from April 21, 1994.

Source: Pension information from the Minnesota State Board of Investment and the State of Wisconsin Investment Board; benchmarks from Data Resources, Inc.

Returns on ETI Venture Capital Investments

The interim financial returns on 10 of the 16 ETI venture capital investments we reviewed lagged the median returns for the industry. As shown in figure II.4, 10 of the funds had an IRR that would fall within the lower two quartiles of IRRs for venture capital funds formed in the same year. Only 1 fund had an IRR in the upper quartile. In addition, many venture capital investors look to realize at least 13 to 15 percent average annualized internal rates of return on their venture capital investments. However, only 1 of the 16 funds examined in our quartile analysis had realized returns greater than 13 percent. Table II.6 provides the interim return for each ETI venture capital fund examined in our case studies, as well as the quartile placement for the 16 funds for which both financial return and benchmark information was available.

Figure II.4: ETI Venture Capital Funds



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Table II.6: Financial Returns of ETI Venture Capital Investments, and Quartile Ranking, When Compared to Average Returns for Funds Formed in the Same Year

State	Fund	Pension system venture capital investment		Initial funding year	Internal rate of return ^a	Quartile for funding year
		Total committed	Total invested			
Colorado ^b	A	\$ 5,000,000	\$ 5,000,000	1982	8.3%	1
	B	5,000,000	5,000,000	1984	5.4	2
	C	2,000,000	2,000,000	1985	1.1	3
	D	25,000,000	25,000,000	1987	-2.8	4
	E	5,000,000	3,000,000	1988	c	d
	F	1,500,000	1,500,000	1989	c	d
Massachusetts ^b	A	2,000,000	2,000,000	1988	-9.7	4
	B	50,000,000	50,000,000	1990	6.8	e
Minnesota ^b	A	6,600,000	6,300,000	1986	4.3	2
	A	10,000,000	5,600,000	1990	3.9	e
Pennsylvania ^f	A	10,000,000	10,000,000	1985	-1.7	4
	B	10,000,000	10,000,000	1985	14.3	2
	C	2,000,000	2,000,000	1985	8.6	2
	D	5,000,000	5,000,000	1985	5.1	3
	E	9,000,000	9,000,000	1985	8.3	3
	F	2,000,000	2,000,000	1986	-13.0	4
	G	20,000,000	20,000,000	1987	5.9	2
	H	1,000,000	1,000,000	1987	0.5	3
	I	2,000,000	2,000,000	1987	-17.4	4
	J	2,000,000	2,000,000	1987	-5.8	4
	K	7,500,000	7,000,000	1989	-4.2	e
	L	7,500,000	6,300,000	1989	-1.1	e
	M	3,000,000	2,500,000	1990	8.2	e
	N	1,000,000	800,000	1990	-8.5	e
Wisconsin ^f	O	15,000,000	6,700,000	1992	24.2	d
	P	7,500,000	1,500,000	1992	-38.4	d
	Q	30,000,000	1,800,000	1993	c	d
	A	5,000,000	3,400,000	1984	c	d
	B	10,000,000	7,000,000	1987	c	d
	C	3,000,000	300,000	1991	c	e

(Table notes on next page)

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^aAs reported by the pension funds.

^bData from December 31, 1992.

^cNo IRR was calculated.

^dNot available.

^eNo quartile analysis was available for the 1989, 1990, and 1991 funds.

^fData from June 30, 1993.

Source: Pension system information was obtained from the Colorado Public Employees' Retirement Association, Massachusetts Pension Reserves Investment Management Board, Minnesota State Board of Investment, Pennsylvania State Employees' Retirement System, and the State of Wisconsin Investment Board; benchmarks were obtained from Venture Economics, Inc., as of December 31, 1992.

Because the methods for calculating venture capital returns are imprecise, limited conclusions can be drawn from the information above. Even the best-performing funds go through periods of high and low (even negative) valuations in their life cycles; this is the nature of venture capital investments. As a result, each fund's current position below (or above) the median for its vintage year does not mean that it will ultimately yield below-average or above-average returns once all its holdings are liquidated. According to Venture Economics, 40 percent of venture capital funds in the first quartile in year 4 of their partnerships will not be in the first quartile in year 10. Because the predictive ability of IRRs strengthens over the life cycle of a venture capital fund, the degree of confidence in the IRR calculation improves as funds mature. For example, the estimates of IRRs for funds formed in 1982 are more likely to reflect the fund's ultimate returns than are estimates for those funds formed in later years. For the 10 oldest ETI venture capital funds examined in our quartile analysis, formed between 1982 and 1986, the IRR was above the median in 5 cases and below in the other 5.

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Comments From the Department of Labor

U.S. Department of Labor

Assistant Secretary for
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Washington, D.C. 20210



January 31, 1995

Robert L. York
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Dear Mr. York:

We have reviewed the draft report prepared by the General Accounting Office entitled "Public Pension Plans: Evaluation of Economically Targeted Investment Programs." This letter provides our comments concerning the draft report with specific suggested supplemental language included in attachment to this letter. The draft report addressed three questions relating to economically targeted investments:

1. What has been the extent of ETIs by nonfederal public employee pension plans, in terms of the amounts invested and the types of investments?
2. Did ETI programs aimed at business development realize competitive returns (i.e. received rates of return similar to alternative investments of comparable risk)?
3. What were the economic effects of business development ETI programs, such as jobs created?

The report also discloses that "[t]he focus of our study was exclusively on nonfederal public pension plans, and not on private sector plans."

As a general comment, we commend your agency for its diligent research regarding this innovative investment alternative. In addition, we believe it is important to note at the outset that the Department of Labor is responsible for regulation of private benefit plans under the Employee Retirement Income Security Act of 1974.

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Now p. 2.

We offer the following specific comments to the report for your consideration:

1. On page 3, the report's conclusion on venture capital ETIs ("the performance of ETI venture capital programs often lagged the comparison investments, based on industry median returns") provides a more negative view of these investments than is warranted by the results obtained by the report's case studies described further in the report. On page 86, the report concludes that "the degree of confidence in the IRR calculation improves as funds mature . . . [f]or the ten oldest venture capital funds examined . . . the IRR was above the median in 5 cases, and below in the other 5." Therefore, we recommend the word "often" be replaced with "sometimes."

Now p. 3.

2. On page 5, the report states that "on June 23, 1994, the Department of Labor issued guidelines that could encourage private pension plan investments in affordable housing, start-up companies, and other programs." We recommend that a footnote be added with the following suggested language to explain more fully the Department's efforts: "These guidelines were issued in the form of an interpretive bulletin. The bulletin set forth the Department's long-held position that a pension fund fiduciary can invest in an investment which provides collateral economic benefits only if the fiduciary is satisfied that the investment is expected to achieve a competitive, risk-adjusted rate of return, and meets ERISA's other fiduciary standards."

Now p. 5.

3. On page 8, the report states "if private or public plan fiduciaries violate the prudence rule by investing in projects that clearly will not yield market-rate returns, they may be held personally liable for the losses incurred." We recommend that the report also make clear that personal liability will attach for private pension plan fiduciaries under ERISA, or may attach for public pension plan fiduciaries depending on the regulatory scheme overseeing the particular public plan.

Now p. 22.

4. On page 39, the report states "[t]herefore, while the plans in our cases studies realized reasonable expected yields from their ETIs, other pension plans may not easily replicate these financial results." We believe this conclusion is not justified by the results of the report's underlying analysis. In fact, it is similarly possible that other plans may more easily replicate such results because they could model their programs on existing ETIs instead of creating new designs, and thus benefit from the experience of their predecessors. Accordingly, we recommend that this sentence be deleted.

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Comments From the Department of Labor

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5. The report discusses the performance of selected ETIs in Kansas, Connecticut and Alaska. We believe these situations require more specific explanations than those currently provided in the report, and have attached suggested supplemental language for your consideration. In this regard, on page 40, the report notes that "[s]imilarly, some public plans have suffered significant financial losses through their in-state investments, as illustrated by three commonly cited examples in Kansas, Connecticut and Alaska." The report, however, does not appear to substantiate its reference to "some public plans" beyond these three examples. Therefore, we recommend that the report be amended to read as follows: "Similarly, public plans may be vulnerable to financial losses through their in-state investments, as illustrated by three commonly cited examples in Kansas, Connecticut and Alaska."

Now p. 23.

In addition, on page 43, the report opines that "the Kansas experience reminds us that success is not automatic." In view of the particular circumstances leading to the poor results in Kansas, we recommend the report consider highlighting another example for reference purposes.

Now p. 26.

6. On page 47, the report described the Department's efforts to establish a clearinghouse for ETIs. For your information, the contract for the establishment and operation of the clearinghouse was awarded in late September, 1994 to Hamilton Securities Advisory Services, Inc., a Washington, D.C.-based financial and investment consulting firm overseen by Austin Fitts, a former senior official at HUD under the Bush Administration.

Now p. 29.

7. On page 52, the report includes a paragraph noting the limited ability of pension plan officials to evaluate the economic benefits of ETIs, and concluding "[t]herefore, they do not know whether their ETIs are an effective means of encouraging economic development." We believe this conclusion overstates the challenge to these officials, and recommend that "do not" be replaced with "may not."

Now pp. 29 and 30.

8. On pages 53 and 54, the report discusses the question of how to assess an investment opportunity to determine whether it will, in fact, produce collateral economic benefits. This is certainly a legitimate and important area of inquiry. In fact, one of the objectives of the clearinghouse is to evaluate whether ETIs will produce these ancillary benefits.

The discussion on pages 53 and 54, however, implies that plans are somehow remiss if they have not sufficiently quantified these benefits. It is important to recognize that ERISA does not require a fiduciary to evaluate such economic or collateral benefits. Thus, this discussion serves to suggest

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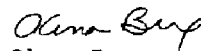
that an additional "burden of proof" should exist to prove that collateral economic benefits will accrue from an ETI. This additional level of analysis would create a different, higher standard for ETIs that does not exist for other pension fund investments. In this regard, our interpretive bulletin affirms our legal position that the fiduciary standards for judging plan investments in ETIs are no different from those for other plan investments. Therefore, we suggest that the report note that while such quantification of benefits may be desirable, it is not legally required.

9. We agree with your statement on page 54 that "[i]f Congress decides to initiate a program to promote public or private pension plan investment in ETIs, it should ensure that participation in the program is voluntary, not mandatory."

10. The report's conclusions on the bond purchasing and private placement programs on pages 60 and 74, respectively, appear mild in comparison to the underlying analyses. According to the report, the bond purchasing and private placement programs yielded results 93 and 52 basis points, respectively, above the relevant benchmarks. See table, page 37. We recommend the report be amended to reflect more closely the findings of the case study analyses of these programs.

We appreciate the opportunity to comment and look forward to discussing further with the GAO the issues raised in this report.

Sincerely,


Olena Berg

Attachment

Now p. 30.

Now pp. 36 and 45.

Now p. 20.

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Glossary¹

Bond	“Any interest bearing or discounted government or corporate security that obligates the issuer to pay the bond holder a specified sum of money, usually at specific intervals, and to repay the principal amount of the loan at maturity. Bondholders have an IOU from the issuer, but no corporate ownership privileges, as stockholders do.”
Certificate of Deposit	“A debt instrument, [which usually pays interest, that is issued by a bank]. Maturities can range from a few weeks to several years. Interest rates are set by competitive forces in the market place.”
Credit Rating	“A formal evaluation of an individual’s or company’s credit history and capability of repaying obligations. The bond ratings assigned by Standard and Poor’s and Moody’s are a form of credit rating. Most large companies and lending institutions assign credit ratings to existing and potential customers.”
Maturity Date	“The date on which the principal amount of a note, draft, acceptance, bond, or other debt instrument becomes due and payable. Also, the termination or due date on which an installment loan must be paid in full.”
Premium	“The amount by which a bond [or loan] sells above its face value. For instance, a bond with a face value of \$1,000 would sell for a \$100 premium when it cost \$1,100.”
Private Placement	“The sale of securities or other investments directly to a limited number of investors. For example, a new issue of stocks or bonds may be privately placed with an institutional investor such as a pension plan.”

From Dictionary of Finance and Investment Terms, 3rd edition by John Downes and Jordan Elliot Goodman. Copyright (c) 1991, 1987, 1985 by Barron’s Educational Series, Inc. Reprinted by arrangement with Barron’s Educational Series, Inc., Hauppauge, New York.

Risk	"The measurable possibility [that the <u>ex post</u> total return on an investment will deviate from the <u>ex ante</u> expected total return]. Among the commonly encountered types of risk are:
Inflation Risk	"The chance that the value of assets or of income will be eroded as inflation shrinks the value of a country's currency.
Interest Rate Risk	"The possibility that a fixed-rate debt instrument will decline in value as a result of a rise in interest rates.
Liquidity Risk	"The possibility that an investor will not be able to buy or sell a commodity or security quickly enough or in sufficient quantities because buying or selling opportunities are limited.
Prepayment Risk	"[The chance that] a debt obligation [will be prepaid] before it becomes due.
Repayment (Credit) Risk	"The chance that a borrower or trade debtor will not repay an obligation as promised.
Risk of Principal	"The chance that invested capital will drop in value."
Venture Capital	"An important source of financing for start-up companies or others embarking on new or turnaround ventures that entail some investment risk but offer the potential for above average future profits. Sources of venture capital are [venture capital funds, also known as] venture capital limited partnerships. Venture capital financing supplements other personal or external funds that an entrepreneur is able to tap, or takes the place of loans or other funds that conventional financial institutions are unable or unwilling to risk. In return for taking an investment risk, venture capitalists are usually rewarded with some combination of profits, preferred stock, royalties on sales, and capital appreciation of common stock."
Venture Capital Limited Partnership	"An investment vehicle organized by a brokerage firm or entrepreneurial company to raise capital for start-up companies or those in the early processes of developing products and services. The partnership will usually take shares of stock in the company [it invests in,] in return for the capital supplied. Limited partners receive income from profits the company may earn. If the company is successful and goes public, limited

Glossary

coupon offers a 10-percent current yield. If that same bond were selling for \$500, however, it would offer a 20-percent yield to an investor who bought it for \$500. (As a bond's price falls, its yield rises and vice versa.)

"[The yield can also be the] rate of return on a bond [or loan,] taking into account the total of annual interest payments, the purchase price, the redemption value, and the amount of time remaining until maturity."

Yield Spread

"The difference in yield between various issues of securities."

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