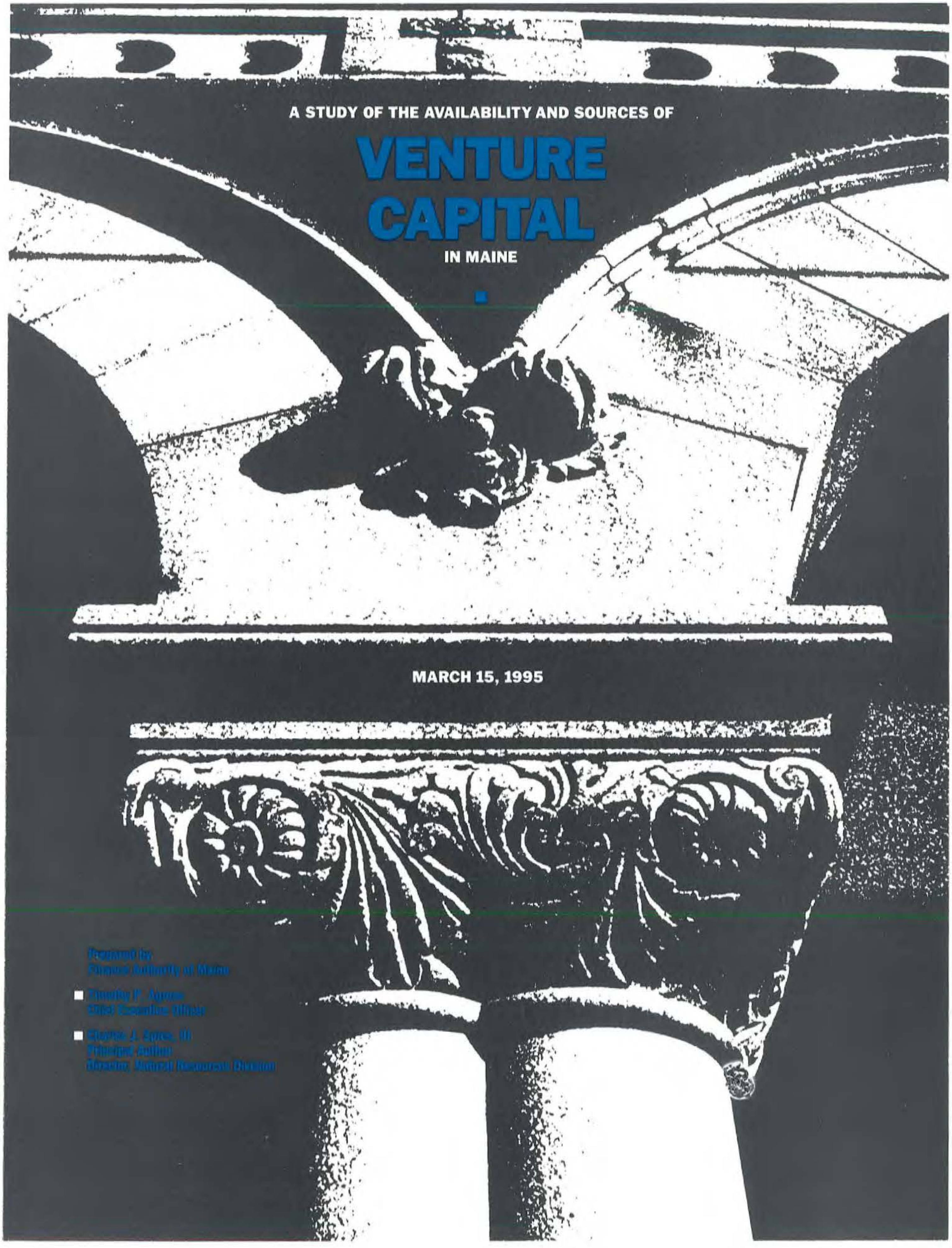


A STUDY OF THE AVAILABILITY AND SOURCES OF

VENTURE CAPITAL

IN MAINE

MARCH 15, 1995

Prepared by
Finance Authority of Maine

- Timothy P. Agnew
Chief Executive Officer

- Charles J. Spies, III
Principal Author
Director, Natural Resources Division

A STUDY OF THE AVAILABILITY AND SOURCES OF

VENTURE CAPITAL

IN MAINE

FINANCE AUTHORITY OF MAINE • 83 WESTERN AVENUE • AUGUSTA • MAINE 04332

TABLE OF CONTENTS

March 15, 1995

- The Honorable Angus S. King, Jr.
  Governor
  State of Maine
  Office of the Governor
  State House Station #1
  Augusta, Maine 04333

- The Honorable Jeffrey H. Butland
  President of the Senate
  Maine State Senate
  Office of the Senate President
  State House Station #3
  Augusta, Maine 04333

- The Honorable Dan A. Gwadosky
  Speaker of the House
  Maine House of Representatives
  Office of the Speaker
  State House Station #2
  Augusta, Maine 04333

Dear Gentlepersons:

On behalf of the Finance Authority of Maine, I am pleased to submit this report entitled ***A Study of the Availability and Sources of Venture Capital in Maine***. In this report, the Finance Authority of Maine explores the nature and types of venture capital investment, the history of venture capital in Maine, models in other states and recommendatiions to support expanded venture capital investment in Maine.

In submitting this report for your consideration, I want to extend my personal gratitude and appreciation to Charles J. Spies III, FAME's Director of Natural Resources and the principal author of this study. His dedication of time, effort, and enthusiasm to the research and writing of this report reflect his professionalism and commitment to a job well done. This report also includes the hard work and diligent efforts of Ellen Curtiss, Donna Dufour, Charles Mercer, Paula Taylor, Michele Thibault, and Cindy Pelletier.

I look forward to the opportunity to work with you to discuss the conclusions and recommendations outlined in this report and to consider ways in which support for venture capital investment can create new opportunities for the people of Maine.

Sincerely,

Timothy P. Agnew

Timothy P. Agnew
Chief Executive Officer

FINANCE AUTHORITY OF MAINE • 83 WESTERN AVENUE • AUGUSTA • MAINE

EXECUTIVE SUMMARY

In 1994, the 116th Maine State Legislature directed the Finance Authority of Maine (FAME) to prepare a study on the availability and sources of venture capital in Maine. The Maine State Legislature requested the Authority consider existing sources of venture capital available in Maine and review venture capital programs in other states. Based on its findings, the Finance Authority of Maine was asked to make recommendations for increasing in-state access to venture capital markets.

In conducting its study of venture capital availability in Maine, FAME conducted a review of current information on activity in and outside the State. FAME staff contacted economic development agencies across the nation to determine what types of programs had been developed to encourage venture capital investment in their specific localities. We also sought their advice and counsel as to which venture capital access programs were effective and which ones were not. Finally, the Finance Authority of Maine sent out numerous letters soliciting comments and suggestions from a wide variety of knowledgeable individuals in Maine. These letters were followed by phone calls and face-to-face interviews.

Venture capital investors, whether they are individuals or institutional fund managers, typically look for a company profile that offers a significant return on investment and a predefined exit strategy. High returns are sought to offset the risks associated with the business stage at which venture capitalists typically invest. Exit strategies, such as public stock offerings, sale of the company, or buy backs from other stockholders, are required at the outset to assure the venture capitalist that the investment will provide liquidity at a pre-determined point in time.

Companies targeted for investments typically have high growth potential, a proprietary market niche, and the ability to allow an investor to achieve the desired exit strategy. Informal investors, commonly known as **business angels**, also seek out companies to invest in that can provide a high return on investment and an acceptable exit strategy. Some business angels may temper their return on investment demands if a "social return", such as job creation in the community, is also an outcome from their investment.

Venture capital is **not** a financial resource for companies that do not possess the attributes mentioned here. These companies are typically served by self-financing from the entrepreneur or friends and family. Rather, these firms also obtain financing from "near equity sources" such as loan guarantee or subordinated debt programs. Near equity sources are usually willing to accept a lower return on investment than venture capital investors because their charter is weighted in favor of job creation over investment earnings. However, very early stage businesses that do not have any significant sales are usually inappropriate candidates even for near equity sources of financing because of the need to service debt payments out of current cash flow.

A formal institutional venture capital industry was developed in Maine in the 1980s with the creation of the Maine Capital Corporation. This State sponsored effort is credited with attracting significant capital to Maine businesses as well as being the catalyst for the State's existing private institutional venture capital industry. As of this writing, there are at least two institutional funds being raised in Maine. If successful, on a combined basis, these funds could make capital available to worthy Maine businesses in all but the earliest stages of development. This would serve a wide spectrum of venture capital needs in Maine and help to reduce the chronic capital gaps that typically exist for small, early stage businesses.

Informal or "business angel" activity is hard to quantify because of the lack of market structure and a general tendency to keep such investment activity confidential. However, two surveys conducted in the southern half of the State indicate that when small businesses actively pursue arms-length investors, they were remarkably successful.

Previous efforts by the Finance Authority to bring entrepreneurs and business angels together through a formal capital network met with little success due to a lack of critical mass which is necessary to generate suitable contacts between investors and entrepreneurs. However, the Maine Seed Capital Tax Credit Program, which provides investors a 30% tax credit on investments in eligible seed-stage companies, has been well received. Moreover, the utilization of this tax credit is increasing as general awareness of its availability rises.

Of the various venture capital models studied in other states, two appear to show some promise for Maine. The first is a combination public/private model which invests state funds in a privately-managed institutional fund in return for reinvestment by that fund in promising early stage companies in Maine. This strategy mitigates risk through diversification and the selection of fund managers with acceptable track records. This strategy accomplishes public benefit objectives by targeting investments in-state and drawing more attention to Maine businesses from outside sources of venture capital.

The second promising model is one that encourages a professional fund manager to locate within a given state. The fund manager then attracts "deal flow" to the state by investing in seed stage companies that are willing to locate in the area. This strategy overcomes a common problem in rural states which often lack the "native" deal flow necessary to attract significant interest from out-of-state venture capital firms. This model could also generate a new source of business activity for Maine.

Based upon our study and analysis of venture capital availability in Maine, the Finance Authority of Maine recommends the following actions to increase the flow of venture capital to Maine businesses:

- Enhance & expand the Maine Seed Capital Tax Credit Program;
- If direct appropriations are made available for venture capital investments, the money should be invested in one or more privately managed funds on the basis that the fund managers will reinvest a portion of the monies in Maine based businesses;
- Wherever possible, the State of Maine should support private efforts to establish "business angel" networks;
- A committed seed stage venture fund should be encouraged to locate in Maine with the intent of attracting new deal flow to the State;
- The State of Maine should continue to support near equity programs which assist "non-venture capital" target companies;
- The State of Maine should continue to vigorously cultivate a "business friendly" reputation; and
- The State of Maine should sponsor occasional venture capital forums to allow entrepreneurs to present their ideas to large audiences of potential investors.

SECTION 1

INTRODUCTION

In April of 1994, the 116th Maine State Legislature enacted Chapter 60 of the Resolves of 1993 (S.P. 656 - L.D. 1825 attached as *Appendix A*) directing the Finance Authority of Maine to prepare a study on the availability and sources of venture capital in Maine.

In the Resolve, the Maine State Legislature directed the Finance Authority of Maine to:

- Review existing sources of venture capital in the State.
- Consider models of venture capital programs in other states.
- Consider options for increasing access of Maine businesses, particularly smaller businesses and new ventures, to equity capital.
- Consider the structure and composition of a venture capital program for Maine and other incentives to encourage equity investment, including tax incentives.

In conducting its study of venture capital in Maine, the Finance Authority of Maine conducted a comprehensive literature review of current information on activity both in and outside the State of Maine. FAME staff then contacted economic development agencies in the other 49 states to determine what types of programs they have developed and implemented to encourage venture capital investment. Throughout this study, FAME staff also sought to determine which programs were effective and which were not.

As the final component of this study, the Finance Authority of Maine solicited comments and suggestions from a wide variety of knowledgeable entrepreneurs and investors in Maine. These letters were followed with phone calls and, in many cases, personal interviews. Our goal was to determine their views about the level of venture capital activity and availability that currently exists in Maine and what role, if any, the State should play to improve access and availability.

Participants were asked the following questions:

TARGETS: In developing a strategy to enhance venture capital availability in Maine, what types of business indigenous to Maine are likely targets for investors? Are there currently investment opportunities in Maine that show strong growth potential with niche or proprietary products, that have strong management teams, and offer significant potential return on investment? Conversely, with Maine's geographical, social, and economic attributes, what industries could the State of Maine successfully attract and develop with enhanced access to venture capital? For example, there have been notable successes in southern Maine with a number of bio-tech firms. Do aquaculture or other new industries based on Maine's natural resources offer similar investment opportunities for venture capitalists?

LIMITATIONS: Some rural states attract little or no interest or investment from traditional venture capitalists because the relative volume of investment opportunities is too low or there is an apparent lack of local "professional infrastructure" (experienced attorneys, accountants, and academic research facilities) to support successful early stage companies. Does Maine face similar problems? If so, can these problems be mitigated to the satisfaction of potential venture capital investors? Does Maine's proximity to Boston create opportunities? If so, can we capitalize on those opportunities?

AMOUNTS: Much attention has been focused on the need of small businesses in Maine for relatively small amounts of venture capital, i.e.: $25,000 to $250,000. Can private sources of venture capital address the need for smaller amounts of "patient capital"? If so, should the focus be limited to certain investors such as "business angels" or is a broader approach more appropriate?

STRATEGY: What is the most appropriate vehicle, or combination of vehicles for enhancing a viable venture capital environment in Maine? Should the State's efforts be focussed on:

- Tax incentives;
- Networking angels and other sources of capital;
- Indirect investments in private funds;
- Creation of a state-sponsored fund.

WHAT ELSE? Are there any other actions Maine's Governor or the Maine State Legislature can take to enhance venture capital investment in Maine business?

Using the information gathered through our research and interviews, we have assembled this report about what is happening in Maine and elsewhere with venture capital programs and how the State of Maine can benefit further from future initiatives in the public and private sectors.

Frequently in this report we reference activities of specific individuals either in Maine or elsewhere. This was done to take some of the mystery out of the subject and to provide real examples of how venture capital is raised or used. There are many more specific examples that could have been included, unfortunately, though, time and space did not permit.

This report is organized into five major sections, including the *Introduction*. *Section 2* discusses types of venture capital and sources to provide a basic understanding of the topic.

Section 3 discusses past and present venture capital activity in Maine.

Section 4 explores the use of state-sponsored programs in other states. It is a compilation of information gathered from existing publications, mailings and, in two cases, direct visits. This is not presented as a complete listing, but rather as a representative sampling of programs that exist to encourage the flow of venture capital in states and localities across the nation.

Finally, based on the conclusions drawn from our study, *Section 5* suggests how the State of Maine could assist development of more venture capital sources and a more efficient market to encourage investment.

SECTION 2

TYPES OF VENTURE CAPITAL: STAGES & SOURCES

Venture capital is a broad term describing a "high risk/high reward" investment strategy and a primary component for the growth of entrepreneurial businesses. Venture capital encompasses a variety of financing sources which can be invested in many types of businesses, usually during the earlier stages in the life-cycle of those businesses.

Much of the investment activity associated with venture capital occurs when a company is at a stage that requires significant change in order to go forward. Most often this change is designed to bring significant growth and profitability to the company. For example, the change may be the commercialization of a new product, a substantial volume expansion in sales, or the sale of a division. Typically, the risks involved with the successful implementation of this kind of change make the company unsuitable for traditional commercial debt and other financing sources commonly available to companies in more mature stages of growth or in an established mode of operations.

To fully understand how venture capital benefits business, it is important to understand what the sources of venture capital are and what motivates venture capitalists to invest in certain businesses. In some circles, venture capital is referred to as "risk capital" because these investments are typically unsecured, investors receive no payments from current cash flow, and the probability of a loss on any single investment is relatively high. However, the venture capitalist accepts these risks based on a judgment that the potential return on investment adequately compensates for these risks. This return is usually financial, but in the case of relatives or "business angels" discussed below, the return may also be social in nature.

Venture capitalists invest "patient capital" which typically has a 5- to 10-year time horizon before returns are expected. Venture capitalists target (a) companies in an early stage of life with a potentially strong product line; (b) developed companies attempting to enter a new market; (c) companies seeking to significantly expand in an existing market; or, (d) occasionally, ailing companies that can be revitalized to generate significant profits.

The patient, high risk/high reward element is what sets venture capital apart from more commonly utilized sources of financing such as commercial banks, auto finance companies, credit card companies and others *(referred to here as lenders)*[1] Lenders look for economic returns but at a lower rate than venture capitalists. Also, most lender investments are made using a strategy that minimizes probability of a loss. They typically target financially sound companies that have a proven track record; show the ability to repay debt from historic earnings with immediate cash flow; have assets which can be pledged as collateral; and often have principal owners who are willing to guaranty payment of the debt should the company fail. These attributes mitigate the lender's risk by allowing investment decisions to be based on a set of known quantities.

---

[1]Public stock offerings are also a source of funding for companies moving out of the venture capital phase and are occasionally noted herein as an "exit strategy" for the venture capitalist. However, the mechanics for making such offerings are complex and beyond the scope of this report.

Figure 1 shows traditional sources of capital for a growth company and at what stage in a company's growth each source of capital is used.[2] Venture capitalists will sometimes employ debt-like structures, especially with later stage companies that are producing some cash flow, but they almost always attach equity-like features such as warrants to purchase stock, or a percentage of future royalties from sales, to share in the financial success of the company and increase their return on investment. In nearly all cases, venture capital is more costly to the company than other sources of business financing. The greater the risk of the business venture seeking financing, the more expensive capital will be.[3]

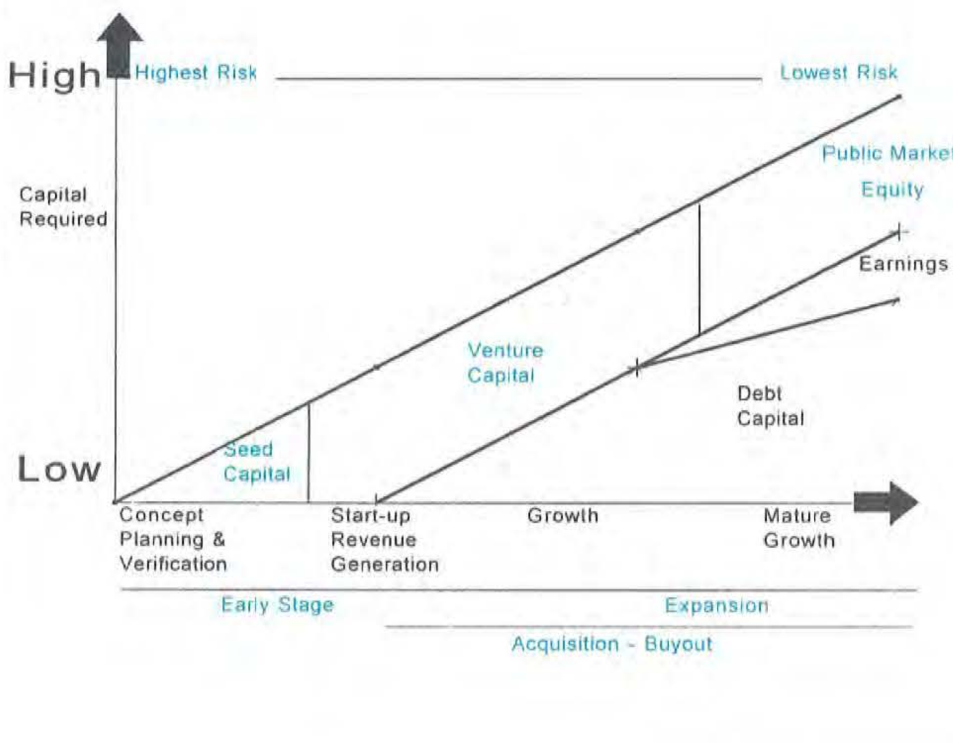
---

[2]Later in the section on Near Equity Sources, Figure 2 shows how debt is sometimes shifted down the scale to companies with higher risk profiles.

[3]Investors often refer to this concept as "risk adjusted return".

FIGURE 1:

SOURCES OF CAPITAL FOR A GROWTH COMPANY



(Modified, Original Source Unknown)

The following are generally accepted definitions of the usual "stages" at which venture capitalists invest. These definitions are mainly taken from a well-known industry publication, *Pratt's Guide to Venture Capital Sources* (Pratt 1990). The stages encompass most venture capital investment opportunities. However, by themselves, the stages do not tell the entire story. No investment can be completed without a "source" of funds. Sources of funds and how investors make investment decisions are discussed beginning on page 12.

STAGES OF VENTURE CAPITAL FINANCING

EARLY STAGE FINANCING

- **Seed Financing:** Seed financing is typically a relatively small amount of capital provided to an inventor or entrepreneur to prove a concept and qualify for start-up capital. Seed financing may include monies for product development and building a management team.
- **Research & Development (R&D) Financing:** Research & Development financing is usually a tax-advantaged partnership set up to finance product development. Investors may secure tax write-offs for their investments as well as a later share of profits if the product is successful.
- **Start-up Financing:** Start-up financing is provided to companies completing product development and initial marketing. Companies may be in the process of organizing or may already be in business but, at this stage, but they have not sold product commercially. Usually, such companies will have conducted market studies, assembled key management, developed a business plan and are essentially ready to do business.
- **First-stage Financing:** First-stage financing is provided to companies that have expended their initial capital, often in developing and testing a prototype, and require funds to initiate full scale manufacturing and sales.

EXPANSION FINANCING

- **Second-stage Financing:** Second-stage financing is working capital for the initial expansion of a company that is producing and shipping and has growing accounts receivable and inventories. The company has progressed beyond the "early stage", but may not yet be generating profits.
- **Third-stage or Mezzanine Financing:** Third-stage or mezzanine financing is provided for major expansion of a company whose sales volume is increasing and that is breaking even or profitable. These funds are used for further plant expansion, marketing, working capital, or development of an improved product.
- **Bridge Financing:** Bridge financing is needed at times when a company plans to go public in six months to a year. Bridge financing is often structured so that it can be repaid from the proceeds of a public offering. It can also involve restructuring of major stockholder positions through secondary transactions to take out earlier investors or the holdings of former management and relatives.

ACQUISITION/BUYOUT FINANCING

- **Acquisition Financing:** Acquisition financing provides funds to finance acquisition of another company.
- **Management/Leveraged Buyout:** Management or buyout funds enable an operating management group to acquire a business product line which may be at any stage of development. Entrepreneurial management usually acquires a significant equity interest (including Employee Stock Ownership Plans "ESOP's") in these often closely held or family-owned businesses. Furthermore, these management/leveraged buy outs usually involve revitalizing an operation upon purchase.

SOURCES OF VENTURE CAPITAL FINANCING

Venture capital is generally considered to come from two broad categories of investors: the "organized" venture capital community and the "informal" venture capital community. The organized community is comprised of institutional firms supported by private funding, public funding or both. Informal communities consist simply of individuals willing to invest in a venture-stage firm, sometimes on their own initiative or with an informal group of individuals. A third source of capital for early stage or "non-bankable" companies is often referred to as "near equity". These are funds that are sometimes used in lieu of venture capital or to supplement it. Near equity is provided by entities like the Finance Authority of Maine, the U.S. Small Business Administration, Coastal Enterprises, Inc. and others. These entities are often the only source for companies that do not fit the investment target profile of the venture capitalist.

THE ORGANIZED VENTURE CAPITAL COMMUNITY AS A SOURCE OF FINANCING

Organized, professional venture capital entities are usually managed by professional investment teams that may oversee investment portfolios ranging from $1 million to $1 billion. Most often these funds exceed $10 million. Usually the funds are formed as limited partnerships of sophisticated investors, pension funds, insurance companies, banks, and others. These companies focus on all stages of financing but are less active in very early stages such as the seed level (Gupta 1995).

The venture capital industry began to emerge as a formal industry shortly after World War II. Prior to that, venture capital investments were mostly made by wealthy individuals, syndicates formed by investment bankers, or wealthy family organizations who hired professional managers. The formal industry received a strong vote of confidence in 1958 with the passage of the Small Business Investment Company Act. This legislation allowed the creation of Small Business Investment Companies (SBICs) that offered tax advantages and leveraged government lending. The legislation also allowed for the licensing of 585 Small Business Investment Companies and prompted a substantial increase in the amount of capital available for entrepreneurial ventures.

Unfortunately, problems occurred with the structure of the initial Small Business Investment Companies, which were highly regulated and lacking private capital, causing many to fail. However, the momentum initiated by Small Business Investment Companies is credited with launching the venture capital industry as it exists in the United States today.

Since 1960, the industry has gone through a series of contractions and expansions. Funds experienced growing pains as management developed expertise and better understanding of the risks and rewards related to various investment stages. At the same time, the general health of the economy and publicly-traded stock markets affected the ability of fund managers to raise necessary capital or exit investments.

After nearly 40 years, the venture capital industry appears to have achieved some level of maturity and stability and, based on earlier experiences, many funds have chosen to specialize in specific industries, stages of investments, and geographical regions. Today, there are more than 800 venture capital funds operating throughout the country. As of late 1989, the "organized" venture capital community was managing over $30 billion in aggregate funds. In 1994, this group raised $4.2 billion in new funds, a record for the industry.

The organized venture capital community can be divided into three primary types of funds: Independent Private Venture Capital Firms, Small Business Investment Companies, and Venture Capital Subsidiaries.

Independent Private Venture Firms: Independent Private Venture Firms account for the majority of institutional venture capital and they are the major source of classic early and second stage venture development. During the past decade, these funds shifted from a primary focus on technology businesses to include consumer-related businesses and health care. Critical investment criteria include: strength of management, identified market niche, and high growth potential.

Subject to specific corporate philosophy, minimum investments are usually $500,000 and are targeted at companies with excellent management teams capable of achieving sales of $20 million to $50 million in a 5- to 10-year time frame. These combined attributes are expected to produce a major new business and associated profits for the investor.

Generally speaking, private venture capitalists are active investors. They work closely with the businesses in their portfolio to help the companies achieve growth and profitability targets, often providing management advice, hiring and firing chief executive officers, and helping with market development, all based on their industry connections and expertise. Private venture capitalists typically seek to harvest their investment through a public stock offering or private sale.

To account for the risk of inevitable portfolio losses for businesses that fail, private venture capitalists ordinarily seek returns of from 20% to 50% or more, depending on the initial investment stage, and 20% or greater for their portfolio as a whole. A typical fund portfolio will have ten or more companies. Thus, if one third of the companies in the portfolio fail, one third break-even, and one third do extremely well, the investors can achieve their targeted returns.

Company features that attract investments from Independent Private Venture Firms (Pratt 1990):

- A product or service with sustainable proprietary features.
- An "unfair" advantage in terms of technical know-how and/or lead time.
- A market niche in which the features show a clear economic benefit; higher quality, lower cost and/or improved productivity.
- A market potentially large enough and growing fast enough that the expected market share provides substantial revenue within a few years.
- Access to the market through existing channels of distribution to identifiable customers.
- Gross margins that are high enough to allow for errors that inevitably occur in rapidly growing companies and, if it is a technology-based company, margins that provide for substantial research and development expenditures.

■ **Small Business Investment Companies (SBICs):** Small Business Investment Companies are licensed by the federal government through the U.S. Small Business Administration (SBA). The Small Business Investment Company Program was started with the Small Business Investment Company Act of 1958. Most Small Business Investment Companies are profit motivated entities that either make loans or equity investments. Of the 370 licensed companies existing in 1989, approximately 200 were primarily venture-oriented. The others were making loans or investing in specific businesses (Pratt 1990).

Under Section 301(d) of the Small Business Investment Company Act, Specialized Small Business Investment Companies (SSBICs) can also be established. These specialized investment companies must have a specific investment focus on businesses with 51% or greater ownership by economically or socially disadvantaged persons such as minorities or veterans of the Vietnam War. The U.S. Small Business Administration requires a minimum capitalization for Small Business Investment Companies of $2.5 million ($1.5 million for Specialized Small Business Investment Companies). However, several sources, including the U.S. Small Business Administration, believe that $5 million is generally the smallest feasible capital amount needed to be economically viable.

The stated intent of the Small Business Investment Company Program is to stimulate the flow of equity capital and long-term funds into "small businesses" so they can grow and develop (USGPO 1994). For purposes of clarification, the U.S. Small Business Administration's basic definition of a small business is one that has a net worth of not more than $18 million and has not had an average after-tax income of more than $6 million for the previous two fiscal years. According to the 1994-1995 Directory of the National Association of Small Business Investment Companies, SBICs have invested more than $10 billion to over 100,000 small businesses.

Small Business Investment Companies can leverage their private funds up to 300% (400% for Specialized Small Business Investment Companies) depending on the type of leverage requested, the amount of private funds, the types of investments being made, and the availability of leveraged funds. If a fund meets appropriate benchmarks, it is possible for a Small Business Investment Company to leverage up to $90 million on a core private capitalization of $30 million.

Leveraged funds are made available to Small Business Investment Companies in three ways:

1. Five- or ten-year **debentures** sold on the public market can be issued by SBICs and SSBICs. They are typically priced at an interest rate that is three quarters to one percent over the yield on U.S. Treasury bonds of comparable maturities and carry the full faith and credit guarantee of the U.S. Government. The Small Business Investment Company is required to pay semi-annual interest on the debenture and the full principal payment at maturity.
2. **Preferred securities** with a 15-year mandatory redemption may be issued by SSBICs only. These are for non-voting shares with a 4% interest dividend accrued to maturity.
3. The Small Business Investment Company legislation was amended in 1992 to allow SBICs to issue **participating securities** with maturities of up to 15 years. These securities allow the U.S. Small Business Administration to share in up to 12% of the profits of the company, after dividends. No dividends, profits or principal payments are due until a company has earnings.

   Unlike the debenture structure, this postpones the company's cash outflow for interest payments, which makes it easier for Small Business Investment Companies to invest patient capital as equity that may not produce a return for several years. According to the U.S. Small Business Administration, the Small Business Investment Company Program has experienced a marked increase in program activity since the 1992 amendments were approved by Congress and the President.

Small Business Investment Companies can limit themselves to one leveraging source or combine sources. They may also simultaneously invest with equity, debt instruments or a combination financing including convertible debt and warrants. Some restrictions apply to Small Business Investment Company funds that do not apply to independent private funds, such as restrictions on real estate investments and percentage of control in any one business. Also, no more than 33% of a Small Business Investment Company's direct funds can come from state or local government sources. This limitation was put in place by the United States Congress to retain profit motivation in the program which in turn, should help to keep Small Business Investment Company funds viable over the long term.

Because of the underlying structure of Small Business Investment Companies, their funds generally target later stage investment opportunities, which reduces risk but still provides an adequate return with timely cash flow (Coit and Kyle 1995, and others). However, some active seed stage funds do exist that make use of the participating securities option under the program to avoid current cash flow needs. The potential for significant growth and other attributes sought by private venture firms are also sought by Small Business Investment Companies. However, as with private firms, the required rate of growth and profitability of the targeted companies is inversely related to the perceived risk and investment stage.

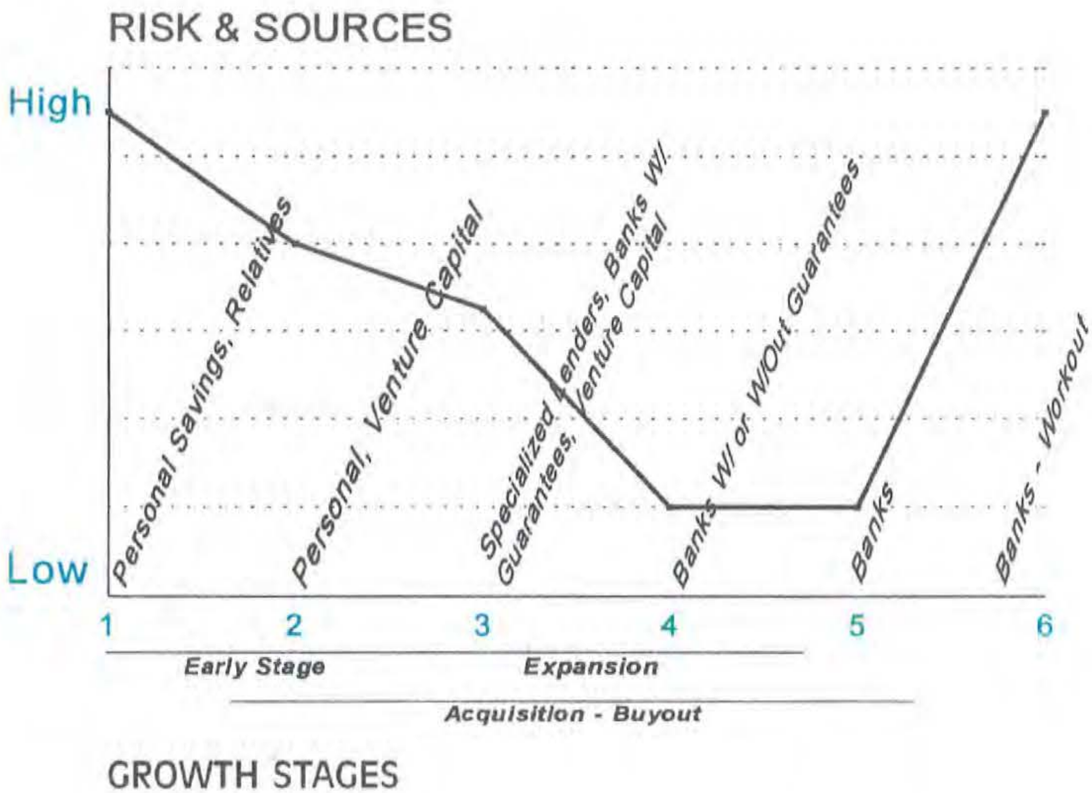
■ **Venture Capital Subsidiaries:** Venture Capital Subsidiaries are corporations established as a separate subsidiary by a parent holding company to make business development investments that fall outside the parent's usual investment or loan criteria or are not eligible for Small Business Investment Company funds. Capitalization for bank subsidiaries is limited to 5% of the parent company's capital and can range from $5 million to $200 million dollars.

Motivation for a parent company to establish a venture capital subsidiary is often strategic in nature. Investments are made in businesses that potentially offer synergistic products. The partnership between the parent and the venture capital subsidiary benefits both parties by providing funding and expertise to the venture company as well as a competitive advantage to the parent company. Some venture capital subsidiaries operate as a separate profit center for the parent and behave like the independent private venture capital firms.

FIGURE 2:

RISK VERSUS BUSINESS GROWTH STAGES

SOURCES OF FINANCING & REASONS FOR BORROWING



1 - Conception/Creation—Investigation & research resulting in a concept, plan or invention

2 - Development—Purchase of fixed assets; market research; training personnel; production start-up costs

3 - Young Operating—Fixed assets; working capital

4 - Middle-aged Operating—Replacement & new fixed assets; increasing working capital due to growth.

5 - Mature Operating—Periodic replacement of fixed assets; acquisitions; entry into new markets

6 - Declining—Restructuring liabilities; financing unprofitable operations; slowdowns in accounts receivable collections

THE INFORMAL VENTURE CAPITAL COMMUNITY AS A SOURCE OF FINANCING

In addition to the "organized" venture capital community there is an informal source of venture capital that can come from a diverse group of individual investors. These individuals range from a company's founder, to friends and relatives, to wealthy individuals. The latter are often referred to as "business angels". As with the organized venture capital community, these sources seek investments in companies that have the potential to succeed and to offer an acceptable return on investment. However, as noted previously, the return does not always have to be economic. Return can be social or "psychic" as described by Wetzel (Pratt 1990 and earlier publications) and driven by the satisfaction the investor obtains from being part of a new company or filling some local need such as job creation.

■ **Family & Friends:** Family and friends are an obvious funding source for small businesses, especially in the early stages when the business is more of a concept than a reality. This source is one that is difficult to quantify because the successful combinations of entrepreneurs with relatives and friends that are liquid and willing to invest are random events. However, there are many corporate success stories that begin with the commitment of an entrepreneur and his or her family.

The Finance Authority of Maine's experience with small business financing also justifies the argument that family and friends often provide the capital cushion required to support small businesses. The Authority is often involved in helping to provide financing to businesses that receive some outside capital but only after family or friends provide an additional "cushion" of their own. Quite often, they would not survive without this non-bank source of funds because the risk of involvement by the Authority and/or another lender would have been too great without the capital cushion provided by friends and family.

■ **Business Angels:** "Business Angel" is a term applied to wealthy individuals who are willing to make venture capital investments. This group is extremely diverse, hard to compartmentalize, and its members often prefer anonymity when it comes to thier investment activity. Even so, a rough profile of the "typical" business angel has been developed by various sources. The following is based on William Wetzel's observations while at the Center for Venture Research located at the University of New Hampshire (Wetzel 1990).

■ **Profile of a Business Angel:**

- Approximate age 47 with a postgraduate degree.
- Often has technical and management experience with start-up ventures.
- Typically invests $20,000 to $50,000 in any one venture.
- Often participates with other financially sophisticated individuals to fund larger deals in the $100,000 to $500,000 range.
- Invests approximately once every two years.
- Prefers to invest in start-up and early stage situations.
- Finances technology-based inventors when technology and markets are familiar.
- Prefers manufacturing and technology-based ventures.Invests close to home—most often within 50 miles.
- Maintains an active relationship with companies in which he has invested, usually in a consulting role or on a board of directors.
- Does not have diversification and tax-sheltered income as important objectives.
- Expects to liquidate investment in 5 to 10 years.
- Looks for compound annual rates of return on individual investments ranging from over 50% from inventors to 20% to 25% from established firms.
- Looks for minimum portfolio returns of about 20%.
- Often accepts limitations on financial returns or higher risks in exchange for nonfinancial rewards.
- Learns of investment opportunities primarily from friends and associates.
- Would like to look selectively at more investment opportunities, but does not want to be unduly "pestered" by entrepreneurs.

NEAR EQUITY AS A SOURCE OF BUSINESS FINANCING

Although not usually included in discussions of "pure" venture capital, public and private sources for "near equity" can provide support for both classic venture capital targets and firms that do not meet the venture capitalist's investment profile. For either public benefit or other reasons, these sources tend to take somewhat more risk and accept lower returns than most traditional lenders. These near equity sources of capital are not typically considered a preferred source of funding for seed and early stage companies because of the need for immediate cash flow to service the debt.

As *Figure 2 (see page 16)* indicates, debt instruments from non-venture capitalists can sometimes be substituted for venture funds. The graph displays the level of perceived risk associated with developmental stages of companies and the likely sources of funds. It is similar to *Figure 1*, but the growth stages represent the full business life cycle and are broken down more precisely.

Near equity sources are typically specialized loan funds supported by some form of federal, state or local development organization. Near equity financing is distinguished from equity sources by an interest component which requires the business to pay debt service payments with existing resources. In other words, it is risk oriented capital but not entirely "patient capital". The graph shows how the use of near equity funds can provide capital to businesses in a high risk spectrum that are unsuitable for conventional debt financing and even unsuitable for some conventional venture investors. Near equity target companies often exhibit some kind of viability and perhaps social benefits but not the attractive potential for return on investment sought by the venture community.

Non-venture debt financing is not technically within the scope of this study but near equity instruments are briefly discussed to demonstrate how this source interacts with venture capital activities. Near equity programs and their impacts in the State of Maine were discussed in some detail in the *Report of the Commission on Investment Capital* (1993). Other sources of information on these programs are readily available from the agencies that sponsor these programs and others including: Maine Department of Economic & Community Development, Finance Authority of Maine, Coastal Enterprises, Inc, the U.S. Small Business Administration and others. An excellent summary list of these programs, including contact information, is *Public Sources of Capital in Maine*, a publication sponsored by Key Bank of Maine (1994).

As noted, these funds usually have a public benefit orientation and as such they are willing to accept a lower return on investment as long as public benefits are enhanced. To support this important public mission, the funds are often subsidized, usually through allocation of government resources to back up losses and support administration.

Companies supported by these programs may show potential for major growth or they may simply create new jobs in order to replace those lost in other areas of the local economy. According to Peter Drucker, whose work appears in many published sources on commercial financing and venture capital, ". . . there are 'job creation businesses' and 'job replacement businesses' . . .". The former is the typical venture target and has the public benefit of creating a significant number of new jobs through real net growth. The latter offers the public benefit opportunity to create employment for displaced workers but they generally do not create any significant net new growth in the economy. Virtually everyone would prefer the job creator type businesses, but we also recognize that job replacement businesses also provide important public benefits.

It must be emphasized that near equity programs are **not** "give away" programs. In most instances, these programs operate under intense public and private scrutiny that demands accountability and acceptable loss rates. These types of programs usually support businesses that show strong prospects of long term viability. Typically, decisions are only made after a stringent review process.

Near Equity Programs:

Loan Guarantees: Loan guarantees are one example of near equity capital. They offer conventional lenders a means by which they can participate in financing companies that otherwise would be considered too risky. For example, a company may show potential growth and have a good management team but be too small for regular venture sources and too young for conventional bank financing. In many cases, if the company is in the second stage to mezzanine stage of development, a lender is willing to go beyond normal risk parameters to finance a worthy company if they can reduce their risk of loss via a loan guarantee. Guarantee agencies usually work with a lender before a loan is closed to understand the financing and to make sure that all parties are able to proceed comfortably. If the loan is closed, the guarantee agency agrees to cover a certain percentage of losses on that loan should the company default. Usually, guarantee percentages can range from 25% to 90%.

Sources for such guarantees are federal, state and local development agencies that are funded with taxpayer dollars, fee income, and private or public grants. State and Federal agencies operating in Maine include:

- The U.S. Small Business Administration (Federal)
- The Finance Authority of Maine (State)
- The Consolidated Farm Service Agency[4] (Federal)
- The Economic Development Administration (Federal)

Subordinated Debt: Several of the agencies listed above, and others not listed here, have subordinated debt programs. These "higher risk" lending programs often act as a substitute for venture capital for smaller companies that cannot access the institutional or informal venture markets. These programs operate by making direct loans to eligible companies. The loans may be at special rates or have special structures that allow companies to improve cash flow over the short term. Often, subordinated loans are matched with conventional sources of debt or even venture capital. The subordinated lender is generally willing to take higher than normal risk by accepting a junior position on collateral which in turn frees up company assets for leveraging conventional debt.

The Regional Economic Development Revolving Loan Program approved by Maine voters in November of 1994 will provide $10 million to local and regional non-profit and governmental entities for "near equity" loans to businesses meeting certain statutory criteria. Administered by the Finance Authority of Maine, this program will also leverage other sources of loan funds.

LIMITATIONS OF VENTURE CAPITAL

The review of sources and uses of venture capital helps define the limitations of venture capital. Given the venture capital investor's desire for an appropriate "risk adjusted" rate of return, companies targeted for investment must have attributes that are likely to produce profits and allow for an exit strategy for the investor. Companies that cannot meet these vital criteria will not be targeted by venture capitalists. Slow growing "job replacement" companies or those with entrepreneurs unwilling to give up some ownership control will typically not qualify for venture capital investments.

[4]Successor to Farmers Home Administration

SECTION 3
VENTURE CAPITAL SOURCES IN MAINE

Venture capital has been available prior to Maine even becoming a State. Investors seeking above average returns targeted industries with competitive advantage and promising new technologies during the 17th and 18th centuries and became the impetus behind the State's early timber and ship building industries among others. More recently, venture capitalists have been involved in many start-up companies including Ventrex, Intelligent Controls, Moss Tent Works, Brunswick Technologies, Idexx, Great Eastern Mussel, Delorme Publishing, Wright Express Corp., Claw Island Foods,Inc. Yale Cordage, Raye's Mustard, and PharmX, Inc., to name just a few. Without venture funds from the formal and informal venture capital communities, these companies would not have been able to grow.

MAINE'S ORGANIZED VENTURE CAPITAL COMMUNITY

HISTORICAL ACTIVITY IN MAINE

■ **The Maine Capital Corporation:** Organized institutional venture capital funds originated in Maine in the 1980s. The best known fund is probably the Maine Capital Corporation because of the publicity it received as a State-sponsored fund and as the first organized venture capital fund in Maine. The Maine Capital Corporation was originally established in 1980 with a private corporate structure[5] as a licensed Small Business Investment Company. The Maine Capital Corporation made its first investment in 1983.

The purpose of the Maine Capital Corporation was to promote economic development by raising $1 million from private institutions and individuals in exchange for $500,000 (50%) in tax credits against State income tax liability. The fund was later leveraged to $2 million with a loan from the Federal Financing Bank. The fund targeted early stage and later stage investments but not seed stage. First round investments were usually $100,000 to $200,000.

Initially the Maine Capital Corporation's resources were limited to investments in Maine. Delays in initial fundraising, requests to raise additional funds, and the apparent need to make investments outside the State, raised concerns among elected officials, the media, and the public about the Maine Capital Corporation in the mid-1980s. Some legislators and citizens felt that the fund was not fulfilling its public mandate by seeking to invest in companies outside of Maine and being "ultra-conservative" when reviewing investment opportunities.

David Coit, the fund manager for the Maine Capital Corporation argued strongly that the benefits created by looking outside the State of Maine were critical to the fund's ultimate success. Eventually, the Maine Capital Corporation did make out-of-state investments which allowed diversification of the portfolio and the establishment of a network of coinvestors. By mid-1984, benefits of the Maine Capital Corporation's investments were being seen. At that time, the Maine Capital Corporation announced it had made $5 million in investments in three Maine based companies in cooperation with 11 out-of-state funds.

Designed as a 10-year fund, the Maine Capital Corporation was terminated and fully liquidated in early 1995. In the final analysis, its investments returned 15% compounded. This return did not produce a gain for investors after netting out management fees. However, the initial tax credit provided by the State should have left most participants in a net positive position.

As is the case with most state funds surveyed for this report, the ultimate benefit to the State from the Maine Capital Corporation is difficult to quantify in a strict manner. The difficulty arises from the long period of time to investment maturity (3 to 8 years or longer), the multiple investors for each deal, and the success and failure of various deals.

However, it is clear that the primary benefit from the Maine Capital Corporation is the venture capital infrastructure that was established as a direct result of what was a modest first step by today's industry standards. The Maine Capital Corporation funds attracted significant coinvestments in Maine companies by outside venture capitalists in the 1980s and allowed for new venture capital funds to be created.

---

[5]Tax law changes in 1984 made a corporate structure less desirable to investors. Consequently most structures are now in the form of limited partnerships.

North Atlantic Venture Fund, L.P.: In 1987, David Coit and partners initiated and raised funds for another private fund known as the North Atlantic Venture Fund, L.P. This new fund focused on investment opportunities in the region with special emphasis on Maine, Vermont, and New Hampshire. At the time, this was the largest fund in Northern New England with a $17 million capitalization. The formation of North Atlantic Ventures is directly attributed to the foundation established by the effort to create and develop the Maine Capital Corporation. Between 1987 and 1993, the North Atlantic Venture Fund made 18 investments in Northern New England, six of which were in Maine. The current performance of the portfolio suggests that it will provide significant returns to its investors that are within industry standards.

Vermont Venture Capital Fund, L.P.: The Maine Capital Corporation also acted as a model for a similar fund raised in Vermont and managed by Mr. Coit and partners. The Vermont Venture Capital Fund, L.P. was capitalized with $7.8 million dollars using a tax credit incentive similar to the tax incentives used in Maine. The Vermont Venture Capital Fund's investment targets were not limited to Vermont, and Vermont Capital even participated in a number of Maine deals along with North Atlantic Ventures. On a combined basis, Maine Capital Corporation, North Atlantic and Vermont generated the following activity in Maine as estimated by management of North Atlantic Ventures:

- Direct Investments .... $ 5.2 million
- Venture Capital Imported by Coinvestors .... $ 75.0 million
- Total Venture Capital Invested .... $ 80.2 million
  (90% of formal venture capital activity in Maine from 1980 through 1994)
- Jobs Created in Maine 760
- Annual Payroll and Benefits Paid in Maine .... $ 16.0 million
- Current Bank Loans to Portfolio Companies .... $ 35.0 million
- Portfolio Company Revenues (1994) .... $180.0 million
- Revenue Growth Rate (1994) 38%

Despite the admittedly modest results the Maine Capital Corporation realized for its investors, the establishment of this innovative venture capital fund has clearly been a success in attracting new sources of capital to Maine. The Maine Capital Corporation can appropriately be viewed as a catalyst for Maine's venture capital industry that contributed significant public benefit in comparison to the initial $500,000 in tax credits that supported the creation of this venture capital fund.

Katahdin Securities: Katahdin Securities is another Maine based private venture capital fund that was raised by Charlton Ames, the fund's general partner, in 1985. Prior to starting Katahdin Securities, Mr. Ames had experience with Arthur D. Little, Inc., an international management consulting firm, and TA Associates, a venture capital firm based in Boston, Massachusetts. Katahdin Securities is a $3 million fund that is now completely invested. Katahdin targeted early to later stage companies with minimum revenues of $1 million and the potential to achieve at least $10 million. In making investment, Katahdin looked for the nucleus of a quality management team with a well-developed business plan and products that produced a gross margin of 20% or better. Katahdin invested all funds in Maine companies, some of which are listed at the beginning of this section, in increments as low as $100,000 and with typical investments of $250,000 (Ames 1995).

When interviewed for this report, Mr. Ames made several observations related to venture capital activity in Maine based on his experience as a fund manager:

- Indigenous funds are benefical for Maine.
- A focus that limits investments to in-state companies provides a competitive advantage to the fund manager because of the reputation the fund establishes and its ability to focus on the State.
- Indigenous funds expect to bring venture capital to businesses in smaller amounts than large regional funds.
- A fund of this structure must be willing to "go it alone" because co-institutional investors often shy away from smaller deals.
- A localized fund focussed strictly on seed stage would not be able to function because Maine deal flow is too small. Therefore it would take too much time to invest a meaningful amount of money.
- Lack of high risk/high reward deals can be somewhat offset if the fund enters investments with the proper pricing.
- Maine has an adequate infrastructure of lawyers and accountants to service entrepreneurial companies and venture capitalists. If, on rare occasions, issues are outside of local expertise, the necessary assistance is readily available in Boston.
- Needs under $100,000 are best funded by the informal angel community.

Tribal Assets Management: Tribal Assets Management is a private company with approximately $40 million under management from the Federal Lands Claims Settlements that has been paid to Maine Native American Tribes. Tribal Assets has made equity investments in Maine companies either as a participant with other venture investors in the State or on its own.

Other Funds: During the past decade, several other venture capital funds have been initiated. These include attempts by both private and public entities. In most cases it appears the failure of the funds to materialize was due to lack of interest on the part of investors, either because investors lacked faith in the fund managers, lacked faith in the investment strategy of the fund or because of external economic factors which limited available sources.

ACTIVITY IN MAINE IN 1995

There are no public or private Maine-based funds that are actively investing at this time. As noted above, all of the funds raised in the 1980s are now fully invested. However, this situation is expected to change during 1995 as at least two new funds commence investment activities after several years of structuring and fundraising.

■ **North Atlantic Venture Fund II, L.P.:** North Atlantic Venture Fund II is a Small Business Investment Company being created by the general partner of North Atlantic Venture Fund and the Maine Capital Corporation. This new fund will draw upon the 12 years of experience gained by the principals while managing the Maine Capital Corporation, the North Atlantic Venture Fund and the Vermont Venture Capital Fund. North Atlantic II is expected to close in the Spring of 1995 with $15 million to $20 million dollars in capitalization. As of January 1995, North Atlantic Venture Fund II had already closed on $5.7 million through a limited partnership participation by a consortium of regional banks.

The remainder of the funds will come from other institutional investors and accredited individuals. One prospective limited partner is the Maine State Retirement System which has pledged up to $4 million if this amount can be matched by retirement funds from other states. The Small Business Investment Company structure will allow leveraging at two-to-one, resulting in a potential capitalization of $45 to $60 million. The fund life will be an estimated 11 years.

The North Atlantic Venture Fund II will target mezzanine stage businesses (relatively mature, profitable companies) in Maine, New Hampshire and Massachusetts, though some early stage companies may be selectively targeted. Fund investments will range from $300,000 to $2 million. Most often, investments will be structured as debt instruments with current debt service payments combined with warrants to allow both current income and return from growth. The principals believe their experience in the Northern New England market and affiliation with the commercial bank limited partners will assure satisfactory, high quality deal flow.

The capitalization of the North Atlantic Venture Fund II effectively takes the State of Maine to a higher level of capital availability. Larger amounts of available capital and sophisticated management can help attract new businesses to Maine as well as assist those already in the State. The fact that the general partner is based in Portland, Maine adds to the likelihood that the fund will benefit firms in Maine. North Atlantic II represents a positive continuation of an effort to expand venture capital availability in Maine that began with the Maine Capital Corporation.

Coastal Ventures Limited Partnership: The second fund being raised is Coastal Ventures Limited Partnership. This fund is being sponsored by Coastal Enterprises, Inc (CEI), a private, not-for-profit, community development corporation based in Wiscasset that has been operating for 15 years. To date, most of Coastal Enterprises' business financing activity has been through loans rather than equity investment. Coastal Enterprises has set up a wholly-owned, for-profit, subsidiary called CEI Ventures, Inc. to act as general partner for Coastal Ventures Limited Partnership. CEI Ventures and Coastal Ventures Limited Partnership will be managed by Nathaniel V. Henshaw. Mr. Henshaw has been with Coastal Enterprises, Inc. for six years and has previous venture capital experience in other states.

The fund is described as a "socially-responsible" venture capital fund that is designed to provide a social as well as financial return on investment by targeting small, closely held businesses with excellent growth potential. The fund is seeking to raise $2.5 to $7 million from institutional and private investors with minimum share prices of $100,000. The general partner will fund $50,000 directly. The fund will have a ten year life.

Investments will be targeted at a broad range of companies and stages of development from seed to mature. However, discussions with management indicate that the fund will tend to focus on early stage companies (Phillips and Henshaw 1995). Investment size will range from $50,000 to $500,000 and may be structured either with equity or debt instruments. Maine will be the primary investment focus of the fund. However, the fund reserves the right to invest outside the State of Maine in appropriate cases. Coastal Enterprises, Inc. believes its experience working with small local companies should help it to identify adequate deal flow in Maine.

Target companies for Coastal Ventures Limited must show substantial growth prospects, provide the potential for financial return to investors and a social return on investment. The goal for financial rate of return is to exceed that of comparable investments in publicly-traded stocks. The three major social goals for the fund are:

- Create quality income, employment and ownership opportunities for community residents and people with low incomes;
- Develop socially beneficial products and services; and
- Enhance socially responsible business practices and community involvement.

Coastal Enterprises maintains Coastal Ventures will generate financial returns to investors because company profits are enhanced by meeting the needs of all stakeholders, including vendors, customers, employees, shareholders and the community at large.

Coastal Ventures will attempt to manage risk by:

- Diversification among industry sectors and stages of development
- Co-investing where feasible
- Intensive monitoring and advisory services
- Taking security for debt instruments where possible.

There are currently "social venture capital funds" operating in Minnesota, North Carolina, Wisconsin, Michigan and California.

If Coastal Enterprises, Inc. is successful in raising this fund, the State of Maine will benefit by having a locally managed fund capable of small, early stage investments. The expectations of investors for social as well as financial return may allow the fund to invest in companies that otherwise would not be targeted by venture capitalists because of lower than average potential return on investment for the industry. Therefore, this fund may also represent a source of financing for profitable ventures that do not promise sufficient returns to attract traditional venture capitalists.

The ongoing efforts to create these two new funds offer the potential for a broad range of venture capital access opportunities for Maine businesses. Fund managers note that their objectives make their individual funds complimentary rather then competitive. If successful, Coastal Ventures and North Atlantic Ventures could, on a combined basis, make capital available to worthy Maine businesses in all but the earliest stages of development. This combination would serve a wider spectrum of venture capital needs in the State and help reduce chronic capital gaps at the small, early stage end of the spectrum.

MAINE'S INFORMAL VENTURE CAPITAL COMMUNITY

HISTORICAL & CURRENT ACTIVITY IN MAINE

Business angels have been described as *"those invisible individual investors who provide small amounts of equity capital to startup and developing businesses . . . and represent the largest source of venture capital in the U.S. . . ." (Venture Capital Journal, 1986).*

Invisible is the key word. There is general agreement that informal investors comprise an important component of capital for Maine businesses. There is also general agreement that formal efforts to connect these investors with Maine businesses have met with little success. In addition, it is difficult to accurately determine how much capital is invested each year by business angels because of their informal nature.

Prior to discussing State-sponsored efforts to encourage informal venture capital investments, it is important to review recent data developed for small businesses seeking equity in two parts of the state. These two surveys were cooperatively conducted in 1993 (Knox County) and 1994 (Portland) by Enterprise Resources, Inc. and Market Decisions, Inc with the sponsorship of Eastern Maine Development Corporation and the City of Portland, respectively (Flynn 1993 and 1994).

Among other things, the Knox County survey tried to determine the level of angel investment activity in the area (Flynn 1993). Findings from responses of 245 business owners in Knox, Waldo and Lincoln Counties indicated that a significant number of companies in the region were undercapitalized and over-leveraged (carrying excessive debt relative to assets) which impeded their prospects for growth. Most angel activity was "relationship based" where an investor acted on the basis of a personal relationship with the business owner and not necessarily because it was a strong investment opportunity. There appeared to be very little arms length, prospectus investing in the region, despite a relatively large proportion of wealthy residents with investment acumen.

The study's author also noted that the very nature of relationship investing makes it nearly impossible to institutionalize. He suggested that tax credits such as the Maine Seed Capital Tax Credit Program (discussed below) and local Community Development Corporations can help activate non-relationship investors through incentives and better contacts in the local community.

The Knox County survey also revealed that of 60 companies which actually tried to raise equity in the prior five years from sources not related by blood or marriage, 73% met with some success while 55% raised more than 100% of their goal. The amount of equity raised ranged from $10,000 to $250,000.

The second survey was done for the City of Portland in 1994. That survey found that 60% of businesses which tried to raise non-relationship equity also met with some success. However, in comparison to the 55% success rate in the Knox County survey, only 30% of the Portland businesses raised funds in excess of their goal. In most cases, the Portland companies that sought equity were in financial decline rather than a growth stage, indicating attempts to restructure for survival.

The results of these two surveys indicate that a degree of success can be expected when companies make efforts to seek small amounts of informal venture capital. However, the author noted that for equity financing to be more prevalent among small businesses, owners must go through a cultural change: they must accept the fact that equity financing is expensive in terms of ownership dilution, but it is also critical to growth.

■ **Environmental Capital Corporation:** An interesting concept that may help some small, early stage companies move forward and raise capital is now being solidified. A new firm operating out of Lewiston, Environmental Capital Corporation, identifies inventors of proprietary environmental products, determines market viability and the capital needs to bring the product to market (Blackburn 1995). Once this phase is completed, Environmental Capital helps raise capital through an established network of sources including lenders, informal investors and institutional venture capitalists. Environmental Capital takes an equity position in established ventures as part of its servicing fee. Capital is raised as debt, equity or royalty-based strategic relationships with larger companies. In this way, an entrepreneur is provided with the skill base required to get a concept to the next stage and raise capital from informal or institutional sources.

A 1985 report on *Entrepreneurship in Maine* prepared for the Maine Science and Technology Board by the Maine Development Foundation (Flynn 1985) determined that Maine's informal seed capital market was inefficient due to a more or less random delivery system—word of mouth through trusted and confidential contacts. In 1993, Maine's Commission on Investment Capital discussed the potential for enhancing or encouraging this source but determined that an entree by State government was extremely difficult due to the private and informal nature of this capital delivery system.

■ **Maine Capital Network (MCN):** Partly in response to recommendations made in the report *Entrepreneurship in Maine*, the Finance Authority of Maine started the Maine Capital Network (MCN) in an effort to make informal venture capital investment easier and more efficient. It was modeled after similar networks in New Hampshire and elsewhere. The Network works much like a "dating service" whereby companies seeking investment are matched with interested investors via a detailed questionnaire. The matching service is confidential, with each side independently completing data forms for input into a computer and selection when parameters agree. Once a match is made, the investor is sent more information on the company and the address of the principals. Once this step is achieved, the Network backs away and allows the two parties to pursue the deal further.

Matching networks, such as the Maine Capital Network, are very careful not to create any impression of solicitation for the companies or representation regarding the quality of the deal; to do so would conflict with Security & Exchange Commission regulations. At its peak, the Maine Capital Network had approximately 30 companies and 12 investors registered. Although some introductions were made, it is not known whether or not any investment activity actually occurred. In reviewing the Maine Capital Network in 1993, the Finance Authority of Maine came to the conclusion that all participants would be better served by participating in the Technology Capital Network, a successful network based in Cambridge, Massachusetts. This allowed both entrepreneurs and investors access to a substantially larger pool of prospective matches.

The Maine Capital Network was not more successful due to the following:

1. No "critical mass" was achieved in the Network. Discussions with other network administrators revealed that as many as 300 investors and 300 companies are needed at any one time to keep deal flow current and inquiries from investors at a high enough level to spark introductions. This level of participation was not achieved with the Maine Capital Network.

   The lack of critical mass may be due to the difficulty of finding interested businesses and investors or the fact that there simply are not enough deals and investors in Maine to support a random access network system. Most successful networks are located in states with large economies such as Texas, New York and California and offer services on a regional, inter-state basis. The networks are usually run by a non-profit groups associated with a public entity such as a university or state development agency.

2. Moreover, it has been suggested that success of a network is due in part to the support of high profile, well respected angels (Meyer 1994). When these angels actively support a network, others will follow and add momentum to the project. The Maine Capital Network never achieved this active support component.

■ **Maine Seed Capital Tax Credit Program:** While results of the Maine Capital Network were disappointing, a different public approach to the informal investor community is meeting with success. The Maine Seed Capital Tax Credit Program, administered by the Finance Authority of Maine, was started in 1989 as a new approach to provide an incentive to investors to support small Maine companies that are manufacturers or exporters. The Maine Seed Capital Tax Credit Program has attracted national attention as a ground-breaking program.

Under this program, the Finance Authority of Maine is authorized to approve a total of $2 million in tax credits. Investors who invest in eligible Maine firms may receive a 30% tax credit for an investment of up to $100,000 per investor per business. Each business may receive up to $600,000 in qualified investments. Investors may invest in more than one eligible company. The Finance Authority makes no representations about the quality of such investments. The tax credit immediately reduces risk to the investor and allows participation in potential growth of the company. Businesses can be pre-qualified as being eligible for investments, allowing them to use the tax credit certification as a fundraising mechanism.

The Maine Seed Capital Tax Credit Program has gained significant momentum with growing awareness among Maine's investor and small business communities. In fiscal 1994, $311,700 in credits were issued on total investments of over $1 million. This amount represented a 66% increase over total credits issued in 1993 when credits were issued to 44 individual investors helping 6 separate businesses. Since June 30, 1994, 31 credits totalling $170,700 have been issued on investments of $569,000 into small Maine companies seeking equity partners. Since its inception the program has supported approximately $2.7 million in informal venture investments in Maine companies. Approximately $1.2 million remains available for new credits.

The Maine Seed Capital Tax Credit Program is working well at this time. Momentum continues and the rate of program utilization is increasing. This program is consistently promoted at the various information seminars sponsored by the Finance Authority throughout Maine each year. Special attention is given to accountants and attorneys that may be working with entrepreneurs or investors who can take advantage of such a program. During recent interviews with principals of some of the companies that have benefited from the program, several offered suggestions for potentially improving the program. These suggestions encouraged mechanisms to allow later stage investments and better targeting of investments. Those suggestions are incorporated under the *Recommendations* section of this Report.

Other efforts are also occurring in Maine to enhance informal investment activity. There is at least one effort to develop a private, non-profit group to encourage better networking among Maine investors and entrepreneurs. Thomas Muller, a private business consultant from Poland Spring, has researched a Pennsylvania-based model known as the Pennsylvania Private Investors Group (PPIG). The Pennsylvania Private Investors Group is a non-profit corporation established by venture capitalists to provide a forum for entrepreneurs to present business plans to individual accredited investors.[5] The members hold a monthly breakfast meeting at which one or two entrepreneurs make a presentation. Educational briefings on management, tax law, banking and accounting are also included. No endorsement is made by the organization, but entrepreneurs must go through a pre-screening process, including a meeting with a pre-screening committee, before they can make presentations to the full membership.

Mr. Muller believes this model can be adapted to Maine with some modification including a downsizing of the $300,000 average investment size in the Pennsylvania Private Investors Group. If successful, the Maine forum will be called the Maine Private Investors Group (MPIG). Mr. Muller has initiated discussions with the Maine Department of Professional and Financial Regulation's Securities Division to determine how the program could work without falling under direct oversight by the Securities & Exchange Commission and how to allow non-accredited investors to participate.

If successful, this program could open the door to smaller investments (less than $50,000) with participation by investors who typically would not have access to this market. This program could break down the generally accepted belief that all angels are accredited investors. As of this writing Mr. Muller has self financed the start-up of this venture. He is currently seeking public or private sources of non-recourse capital to help him launch plans for establishment of the Maine Private Investors Group. Ironically, his efforts represent an example of a seed stage company facing capital needs as it tries to help other seed stage companies.

---

[5]Accredited investors are defined as: 1) Having annual income in 1992 and 1993 exceeding $200,000 individually or $300,000 jointly with similar expectations in 1994; or 2) Net worth exceeds $1,000,000.

SECTION 4

VENTURE CAPITAL PROGRAMS IN OTHER STATES

STRUCTURES USED IN STATE FUNDED PROGRAMS

The typical private venture capital fund is set up as a limited partnership. This is done to limit investor exposure and improve yields through a more streamlined tax structure than that enjoyed by a corporation. Most state-sponsored funds with multiple investors have opted for the same structure for these same reasons as well as the general acceptance of this structure in the venture capital community. When structured this way, the fund is managed by a general partner who selects investment candidates, makes final investment decisions, and handles any other administrative needs of the fund. The limited partners rely on the general partner to manage the investments of the fund and typically meet periodically to discuss the fund's performance.

Funds are usually structured as discreet entities with a limited life. Money is raised, invested over a 2 to 4 year period, and harvested in 5 to 10 years. Depending on the success of the fund and other factors, the general partner may then seek to start a new fund by raising new capital and making new investments over a similar cycle. Once capital for a fund is raised to target levels it is closed to further investors. The fund is then invested in a portfolio of 10 or more companies to diversify risk. Often a fund will reserve some capital to make "follow-on" investment in a given portfolio company to help it achieve another stage of growth and thus ensure a successful exit strategy. Most funds are designed to liquidate their investments within 5 to 10 years. It is unusual for a fund to exist for more than 10 or 12 years.

Some state-sponsored programs that are purely funded by public monies do not follow this structure because they have no underlying investors looking for liquidity or a significant return on their investment. They tend to operate on a continuous basis with an ongoing stream of investments in an ever-changing portfolio of companies. However, the funds do try to build in timely exit strategies for each investment to allow reinvestment of funds in new companies.

A consistent theme stressed by all public fund managers queried is that return on investment is of paramount importance to the long-term viability of any program. Over time, job creation and other social benefits can only be sustained if the majority of portfolio companies are viable, growing and profitable. In some cases, though, the financial return on investment standard may be lower for state-sponsored funds than for a wholly private fund, in recognition that returns to the state may be other than financial.

In **The 1993 National Census of Seed Capital Funds** (Meyer 1993), the eight respondents that were purely public seed stage venture capital funds showed the poorest average return on investment at 6% versus a 16% average among all 67 respondents and a 23% average among 17 combination private/public funds. The substantially lower purely public seed fund return on investment was partially due to the fact that some of these funds have the ability to provide grants with fund money. Even though the return on investment was relatively low, it may have been an acceptable target given the primary charter of the public funds: creating new jobs. In fact, the public funds did create jobs most effectively at a cost of $6,766 per job versus the average among all respondents of $8,845 per job. However, the purely public seed funds also had the highest failure rate for their portfolio at 19% versus 16% for the others. Interestingly, the combination public/private seed funds, which also have a strong job creation preference, had the lowest failure rate at 12%. Just why combination funds performed so well was unclear due to the average age of the funds at the time of the survey (6 to 7 years).

State sponsored public and combination public/private venture capital funds exist in at least 21 different states in a variety of forms. There does not appear to be any one preferred model among the states. This variance is a function of the models in vogue at the time the sponsorship occurred, the local political climate, and the inherent realities of the given state's economy. For example, some state funds:

- Are publicly managed while others are privately managed;
- Are funded solely by the state, while others use a combination of state and private funds or are funded privately with state-sponsored incentives for private investors (Maine Capital Corporation is an example of the latter);
- Are targeted either by investment stage or industry sector while others take a more general approach in both areas; and
- Make direct equity investments while others are limited to near equity components such as debt with warrants.

Transfer of one state's model to another must be carefully considered based on the intrinsic needs and limitations of the state adopting the model. For example, in the mid-eighties, South Carolina attempted to duplicate Indiana's Corporation for Innovation Development. South Carolina's program incorporated some of Indiana's concepts but not others to account for differences in the economies , deal flow, investment stage targeted, and the flexibility of the fund to invest out of state (Jones 1989).

The State of Oklahoma created an investment board to mobilize venture capital activity in 1987, yet it took the board until 1992 to develop an acceptable model for use in their state. Similarly, Hawaii developed and funded a public fund in 1990 with $6 million, but recently switched this fund to a private structure to improve investing efficiency.

ACTIVE PROGRAMS IN OTHER STATES

Appendix B summarizes venture capital programs that exist in 21 states. These states either responded to information requests from the Finance Authority of Maine or were described by other sources (Gentry 1994). Other programs do exist: for example, Kentucky has a charter, but has not yet implemented a fund while other states have active fund programs that may not be listed here as information is not readily available from published sources.

As noted previously, it is difficult to make broad generalizations about state-sponsored programs. However, one consistent trend appears to be the focus of investments—most state-affiliated funds target seed and early stage investments in technology-related companies. One recent study found that 90% of the seed funds surveyed targeted their investments at technology-based industries (Meyer 1993). Clearly the upside potential for growth and job creation in these industries is of interest to state-sponsored efforts just as it is to private funds.

STATE PROGRAM STRENGTHS & WEAKNESSES

PUBLIC MODELS

"Pure" public models funded only with state funds and managed by a public entity were found in several states including: Massachusetts, Arkansas, Connecticut, Iowa, Maryland, Montana, Minnesota, Utah, and West Virginia.

■ **The Massachusetts Technology Development Corporation:** The Massachusetts Technology Development Corporation is an excellent example of a pure public program. The Corporation was initially started in 1978 to address a perceived "capital gap" for start-up and early-stage technology companies. The program was funded with a $1,000,000 federal grant from the U.S. Economic Development Agency (EDA) which was matched by a $1,000,000 million state appropriation. Massachusetts continued to appropriate funds through 1988 (total funds appropriated: $4.2 million) at which time the Massachusetts Technology Development Corporation became self-funding from earnings.

The Massachusetts Technology Development Corporation also manages $2 million in pension reserves which it targets toward later stage investment for the benefit of the Massachusetts State Retirement System. As of June 30, 1994, the Corporation had made cumulative investments of $25.7 million (including $2 million pension monies) in 71 Massachusetts companies. The Massachusetts Technology Development Corporation estimates that it has created 6,600 jobs, $260 million in annual payroll, $74 million in federal tax revenue and $13 million in state tax revenue. Cumulative gains net of losses are $13.3 million.

The Corporation targets in-state (or willing to locate in-state), technology-based companies with high potential for growth in employment and high return on investment which have not been able to secure funding from conventional sources. The Massachusetts Technology Development Corporation attempts to co-invest with private professional venture capitalists and leverage its investment 3 to 5 times in this manner. The Corporation staff intensively review applications and make recommendations to the Corporation's board of directors. Prior to making any final investment decision, the board of directors of the Massachusetts Technology Development Corporation meets personally with the management of the companies it is considering for investments.

The success of the Massachusetts Technology Development Corporation demonstrates that a state-sponsored venture capital investment fund can be successful. The keys to success included a fairly substantial investment of state funds, combined with experienced, professional staff, adequate deal flow, and the participation of other venture capital funds in each investment.

■ **Hawaii Strategic Development Corporation:** The Hawaii Strategic Development Corporation is another example of a pure state fund. In 1990, the Hawaii State Legislature created a venture capital fund with a $6 million appropriation. The fund was allowed to make direct and indirect investments. In 1993, the fund changed direction and opted to target investments in private funds as a limited partner, shifting away from the pure model to a combination public/private model. The Hawaii Strategic Development Corporation is now closing or moving to close investments in three funds that will target technology-based companies in Hawaii. The Hawaii Strategic Development Corporation anticipates leveraging total fund balances to $55 million with private limited partners using its initial $6 million appropriation as seed funding.

If there is a general criticism of the "pure" public models, it is the limitations created by restrictions to in-state investments. While this focus seems to be working well in Massachusetts, such a limitation can create problems in more rural states where the number of good investments or "deal flow" is limited due to the dispersed and less diverse economies of these states. As previously noted, a recent survey of public seed funds showed a relatively high rate of failure and lower than average return on investments for pure public funds. General comments received by private venture capitalists interviewed for this study indicate some reluctance to co-invest with most of these funds due to limitations that restrict viable exit strategies.

PUBLIC/PRIVATE MODELS

Public/Private programs are currently functioning in several states including: Connecticut, Delaware, Hawaii, Maryland, Michigan, New Hampshire, Oklahoma, Oregon, Pennsylvania, and Vermont. These programs are characterized by state funding which is often leveraged with private funding and then managed by an independent private fund manager. The leveraging of funds usually occurs by investing the state monies as a limited partner in one or more privately managed venture capital funds that already have private limited partners or seek them out. When the state enters as a limited fund partner, it often sets up benchmarks for the private managers such as leveraging multiples for the private component, requirements for in-state investments, targets for specific technologies and others.

■ **Pennsylvania: The Ben Franklin Model:** Several examples of this structure are currently operating. The Pennsylvania model, also referred to as the Ben Franklin model, was developed in 1984. The Ben Franklin model was funded with $4.5 million in state monies that were then invested in 5 private funds and leveraged at a three to one ratio. Each of the private funds had its own focus depending on the expertise of the managers. Most funds focussed on early stage financing and all were required to invest in Pennsylvania-based companies. The Ben Franklin model is credited with creating venture capital momentum in Pennsylvania. As of 1992, an additional $40 million in private capital had been raised by the original fund managers, including $12 million from two state pension fund managers. Although one of the original funds failed, others have done well. The founders of the program point to the current level of venture activity in the state as a measure of its success.

Note that this is more or less the model that has been adopted by the Hawaii Fund discussed earlier. Hawaii is requiring its fund partners to place all "state money" in-state. However, if the fund leverages additional monies, those can be invested elsewhere.

Oklahoma: The Oklahoma Investment Board: The State of Oklahoma has developed a program that utilizes a private/public structure but does not strictly limit private funds to in-state activities. The State of Oklahoma founded the Oklahoma Investment Board in 1987 and by 1992 the Board had developed a program that it believed was appropriate for the State. The Oklahoma model uses debt secured by $50 million in income and premium tax credits as a capital source. The tax credits are salable with a contracted market in place at fixed prices until the year 2015. The debt financing is provided by local banks who take the tax credits as collateral. The bank monies are then invested in privately managed funds. This structure allows Oklahoma to raise capital without having to put cash up-front. Anticipated returns from fund investments should offset most if not all costs associated with the tax credits.

The private venture capital funds are selected on the basis of the fund manager's track record. Only experienced venture capital fund managers with above-average historical performance are selected. The funds selected are then engaged to make investments in seed and early stage companies in Oklahoma on a "best efforts" basis. Investments are not strictly limited to the state of Oklahoma.

Oklahoma intends to select 8 to 10 venture firms over time and invest up to $28 million as a limited partner. To date, the Oklahoma Investment Board has extended preliminary commitments totalling $18 million to five firms. Oklahoma cites important investment and strategic objectives that are accomplished with their model.

Investment Objectives:

- Oklahoma is able to market its resource broadly and select fund managers with successful track records who have historically out-performed the average within their class of venture capital firms.
- Oklahoma enjoys a portfolio diversified by sector, by stage of business development, by management style, by geography, and by related years of experience.

Strategic Objectives:

- Oklahoma is able to select funds that will commit to maintaining a significant focus in Oklahoma.
- The diversity of talent in 8 to 10 venture capital funds available to support a wide range of local investment opportunities, from early stage to later stage, and from high-tech to low-tech.
- The strategy intensifies the search for promising in-state entrepreneurs, enhancing the likelihood that each business plan will receive the attention it deserves.
- The approach accelerates the growth of a strong, professional venture capital industry in the state.

New Hampshire: Combining Pennsylvania and Oklahoma: The State of New Hampshire is following a strategy similar to Oklahoma's but on a smaller scale and for slightly different reasons. In 1994, the New Hampshire Department of Resources and Economic Development allocated $250,000 for a fund which was then leveraged to $5 million with private funds, local bank resources, State retirement funds and others. However, state officials wanted to use the Small Business Investment Company program, discussed earlier in this report, and needed to raise $10 million to use the Participating Securities segment of the program. It was unclear whether another $5 million could be raised. Also, qualification as a Small Business Investment Company required extensive application procedures and the likely hiring of new personnel.

These circumstances led New Hampshire to pursue a separate course which is something of a hybrid between the Ben Franklin model in Pennsylvania and the Oklahoma model. New Hampshire decided to invest its $5 million with Zero Stage Capital Corporation, Inc., a Massachusetts-based fund manager. Zero Stage is in the process of raising a $35 million dollar fund (Zero Stage Capital V.L.P.) in the form of a Small Business Investment Company using participating securities. Zero Stage will then have the ability to leverage up to $105 million. Zero Stage has a solid track record as a licensed Small Business Investment Company. Zero Stage was also one of the original funds involved in Pennsylvania's Ben Franklin model.

New Hampshire's funds will be leveraged up to $15 million via the Small Business Investment Company structuring. Zero Stage is committed to investing the $15 million in seed and early stage firms in New Hampshire. Zero Stage has an established network in the state and believes it can prudently place all funds. New Hampshire benefits from the leveraging, the professional management and the risk diversification gained by being 1/7th of a limited partnership that will invest on a "super-regional basis". In other words, New Hampshire will benefit from direct investments within its borders but its own investment risk will be spread among several states. Zero Stage expects to close the fund and begin investing in the spring of 1995.

The option of becoming a limited partner in a professionally managed fund, adopted in one form or another by Pennsylvania, Hawaii, Oklahoma, and New Hampshire, appears to be a prudent way to leverage initial state funding, encourage in-state investments and diversify risk. This model is predicated upon an agreement being reached with a professionally managed fund to invest a proportionate share of the fund in state. However, there is no certainty that enough good investments will be found in the state. This model has the substantial benefit of attracting the attention of professional fund managers to the state.

Vermont: Maine Model Duplicated: As previously discussed, some venture capital funds have been created using tax incentives. In these cases, state tax incentives are provided to private investors who invest in a venture capital fund. That is the mechanism used to fund the Maine Capital Corporation. Vermont used the Maine Capital Corporation model to create its own fund. Vermont offered 50% tax credits to corporate and individual investors, raising $2.8 million. Vermont then leveraged an additional $5 million from private investors for a total fund capitalization of $7.8 million. The fund was fully capitalized in April 1988 and eventually invested in 17 companies, 8 of which are in Vermont and account for approximately one half of the fund's capital. The fund was designed as a ten-year fund and will mature in 1998.

COMMON-WEALTH BIOVENTURES: A CASE STUDY

A Massachusetts example demonstrates that it is possible to create successful economically-targeted private funds with limited direct public funding. This example came to light when staff of the Finance Authority of Maine interviewed Robert Foster for this report. Mr. Foster is the President & Chief Executive Officer of Commonwealth BioVentures, Inc (CBI) of Worcester, Massachusetts. He is also a resident of Yarmouth, Maine. Mr. Foster is familiar to many as a founder and Chief Executive Officer of Ventrex Laboratories, Inc., a pioneering biotechnology company that operated in Maine in the 1970s and 1980s before being sold to out-of-state interests.

Commonwealth BioVentures, Inc. serves as fund manager for five seed stage funds operating out of Worcester, Massachusetts. These funds target new and developing biotechnology companies, which seek to manufacture commercial products. Commonwealth BioVentures was founded in 1987 as part of an overall process to create a biotechnology infrastructure in Worcester, Massachusetts.

As a first step, and to create a favorable lease-subsidized location for seed stage companies, the Commonwealth of Massachusetts transferred ownership of a former mental health facility (the campus) to the Worcester Chamber of Commerce in 1987. At that time, the campus had approximately 100 acres of open land available for development and it is located directly across the road from the University of Massachusetts Medical School. The Worcester Business Development Corporation, an arm of the Worcester Chamber of Commerce, then funded the construction of a speculative building to house new biotechnology companies. At the same time, the State of Massachusetts contributed $350,000 to the Massachusetts Biotech Research Institute, a public, non-profit, incubator-type organization. The Massachusetts Biotech Research Institute raised additional private funds and created Commonwealth BioVentures to serve as a private venture corporation.

Today, Commonwealth BioVentures raises and manages funds solely with private investors. Both the Worcester Business Development Corporation and the Massachusetts Biotech Research Institute own percentages in the general partner of these funds and earn income when investment funds are harvested. To date, fund distributions to these entities exceed $10 million. The Worcester Business Development Corporation manages the campus real estate and has also built three more research facilities on campus to house the growing number of companies looking to locate there.

The venture capital funds managed by Commonwealth BioVentures, Inc. have been very successful. Combined, these funds have raised more than $60 million in private capital. The first two funds have been liquidated at a substantial profit for investors. Activity from these funds has attracted 18 start-up companies to Massachusetts with only one failure.

The success of Commonwealth BioVentures is even more compelling considering none of the biotechnology projects funded by Commonwealth BioVentures had an association with any of the area's ten higher education institutions . Commonwealth BioVentures was able to identify suitable ventures outside of the area and then offer incentives to the principals to have them locate their companies in Worcester. This fact is important and relevant to a state like Maine which suffers from a low level of "native" deal flow which is critical to successfully attracting venture capitalists.

Is it possible to create a climate in which available venture capital, managed by well-connected principals can generate its own deal flow from afar? When asked this question, Commonwealth BioVentures' Foster suggested that this was a viable concept based. Based on his personal experience with Commonwealth BioVentures, he believes the key components for success with this strategy are:

- Keep the fund private with private investors.
- Choose an experienced seed stage manager with an established network of investors and deal sources.
- Create a community atmosphere that welcomes the entrepreneurs and their families by involving local lenders and realtors to help with home financing, educators to support the technologies being imported, and any other incentives that make the option of moving to Maine more attractive.

When asked whether having a designated campus with available space for new companies was essential to success, Foster stated that such a campus would be helpful but not entirely necessary as long as reasonable lease space was available.

FAME staff visited Worcester to see the campus and meet with the Chief Executive Officers of four companies funded by Commonwealth BioVentures. Two of these companies resided on campus while the other two companies were based off site. Each executive said that the existence of Commonwealth BioVentures was pivotal to their decision to locate in Worcester. They also were united in their belief that, in addition to the financial support provided by Commonwealth BioVentures, the "mentoring" support they received was also critical to their success.

According to these four company executives, Commonwealth BioVentures provides management guidance and has a well-established network of lawyers, accountants and other professionals immediately available to support their companyies' specific needs. The combination of support from Commonwealth BioVentures and the favorable lease space provided by the Worcester Business Development Corporation was described as a "super-incubator" situation extremely beneficial to seed stage companies. When asked if the favorable lease arrangements were critical to the decision to move to Worcester, the two on-site company executives stated that it was indeed helpful, but as long as plentiful and reasonably priced lease space was available elsewhere, that too would be acceptable.

When asked if an entity similar to Commonwealth BioVentures could be successful in attracting their company to Portland, Maine—three of the chief executive officers responded positively, while one felt that Worcester's proximity to the Boston research centers was also very important. The remain three company executives believed the relative distance to Boston from Portland was not a significant determinant. All stressed that faith in the management of a Commonwealth BioVentures entity would be critical to their decision to move anywhere.

Based upon its successful track record, Commonwealth BioVentures has been requested to develop similar programs in Alabama, Rhode Island, Maryland, Scotland, Ireland and England.

Under the right set of circumstances a seed stage fund could be developed that would attract deal flow to Maine. Making this happen would require:

- An experienced fund manager with an excellent reputation and commitment to the project;
- Available lease space, preferably at subsidized rates; and
- Community involvement among the business, education, recreational and other sectors to create a unified effort to offer incentives to entrepreneurs to locate in the area.

SECTION 5

RECOMMENDATIONS FOR INCREASING VENTURE CAPITAL AVAILABILITY IN MAINE

The Finance Authority of Maine's study of venture capital has revealed that venture capital investment activity is certainly occurring in Maine and appears to have immediate prospects for increasing as a result of two new funds being raised by the "organized" venture capital community and attempts by the private sector to improve informal networking. Given its importance in supporting the growth of businesses that have the potential to create jobs and increase economic activity in Maine.

The Finance Authority of Maine has made several recommendations for further action and consideration. Our recommendations are presented as suggestion that would supplement or enhance the existing venture capital activity in the State. These suggestions are offered with the goal of supporting the whole venture capital spectrum by both stage of growth and amount of capital needed.

To further clarify the potential impact of these recommendations, two graphs were created to show how existing and proposed activities in Maine affect venture capital activity. *Figure 3 (see next page)* depicts existing programs and our recommendations, showing where they fit along the spectrum of a company's growth stage. *Figure 4 (see next page)* shows how the same programs address the capital needs of companies, from the very small to the very large.

TAX CREDITS

The Maine Seed Capital Tax Credit Program is an attractive incentive that is viewed favorably by Maine's business angel community. During the course of this study, several suggestions were made that would help to make the program more effective. The Finance Authority has analyzed these suggestions and recommends the following:

- Increase available tax credits for the Maine Seed Capital Tax Credit program by $1,000,000 in 1997, 1998, 1999, 2000, and 2001.
- Further consideration should be given to making the Maine Seed Capital Tax Credit Program more sophisticated by allowing eligible investors and companies to qualify for "second round" credits in companies that have shown significant growth and need to move to the next stage of development. By allowing multiple rounds of tax-credited investments, the program could induce more angel capital to be invested in promising, small Maine companies. Some investors have also suggested that the higher the percentage of in-state private capital the less likely a growing company is to leave the state.
- Create a new form of Institutional Venture Capital Tax Credit Program that could be applied to investments in private institutional funds that meet specific eligibility standards. For example, if a fund agrees to invest $1 million in Maine companies of a certain size or business sector,[7] tax credits could be awarded for eligible investments. The Finance Authority of Maine recommends this program be initiated with tax credits totalling $1,000,000.

  To assure compliance with the intent of the program, 50% of the tax credit could be made available when investments are made in the fund and the remainder would be released when the fund meets the targeted investment level in Maine companies. Alternatively, or in addition, investors could be given a partial exclusion from State capital gains taxes on successful investment in eligible Maine firms. Eligibility standards could be based on the size of the investments made in the business as well as the type of business. This would make the program flexible enough to be used by either a small venture capital fund targeting smaller companies or a larger fund with minimum investment sizes. The total amount of credits available under the program would be capped to limit the State's exposure.

[7]Funds could be targeted by industry. For example a January 1994 report by the Maine Chamber of Commerce and Industry entitled "Charting Maine's Economic Future", identifies 11 industries that have strong economic potential in Maine.

- Remove current limitations in the Maine Seed Capital Tax Credit Program which require $500,000 in tax credits to be applied only to investments in natural resource based companies and $500,000 in tax credits to be applied only to investments in companies that reside in Job Opportunity Zones.

DIRECT INVESTMENTS

- If direct appropriations are made available, the Finance Authority of Maine believes the most effective and efficient use of these funds would be to invest in a manner similar to the venture capital models of New Hampshire, Oklahoma, and Hawaii. In these models, money is invested in one or more private professionally managed funds on the basis that the managers will make real efforts to reinvest the money in-state. This strategy allows targeted investing in-state, leveraging of funds, professional managers with track record, and a diversification of risk.

SUPPORT OF PRIVATE EFFORTS TO CREATE ANGEL NETWORKS

- Encourage efforts to create private venture networks in whatever manner is possible, including the mention of such efforts at public forums and by any other means that may become available.

ENCOURAGE A VENTURE CAPITAL FUND MODEL SIMILAR TO COMMONWEALTH BIOVENTURES, INC.

- Determine whether there are any seed stage venture capital funds willing to locate in Maine. If there are, the State of Maine should make a best efforts case to support such a fund with readily available, reasonably priced lease space for business start-ups, and active community involvement to make new entrepreneurs welcome.

SUPPORT NEAR EQUITY PROGRAMS

- Continue to support near equity programs which provide funds to businesses that are not appropriate targets for venture capital.

VENTURE CAPITAL FORUMS

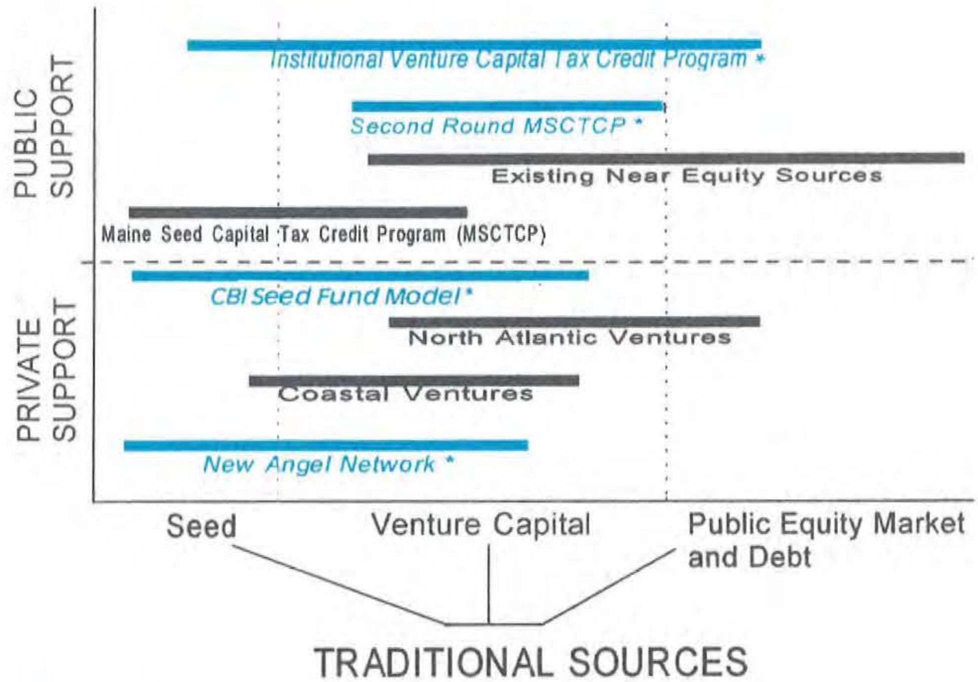
- Venture capital forums have been held in Northern New England in the past and have met with some success (in Nashua, New Hampshire in May and November of 1992). This format should be considered every few years in Maine.

MAINE: A "BUSINESS FRIENDLY STATE"

- A "need" identified by virtually all parties interviewed for this study is to continue efforts to create and nurture an image of Maine as a business friendly location. It is a point that is tangentially important to venture capital activity because a receptive business climate tends to support both long-term investment decision and a decision to move to Maine in the first place.

FIGURE 3:

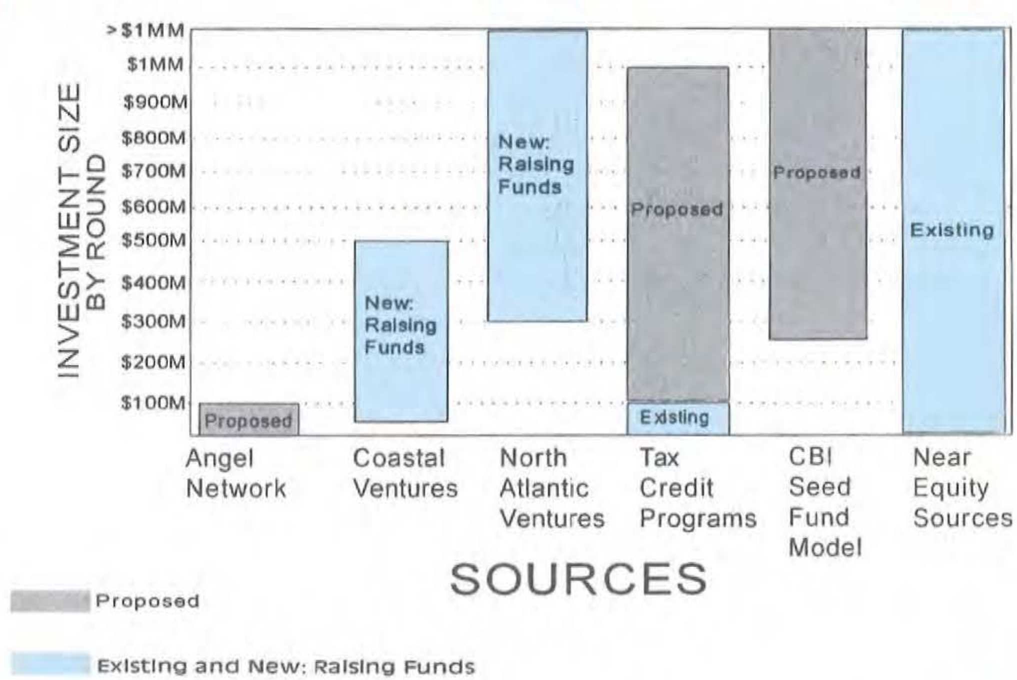
SOURCES OF CAPITAL FOR A GROWTH COMPANY IN MAINE



* Proposed

FIGURE 4:

PROPOSED & EXISTING VENTURE CAPITAL PROGRAMS IN MAINE



REFERENCES

- Ames, Charlton. General Partner, Katahdin Securities—*Personal interview* (1995)
- Austin, Phyllis. "Maine's Venture Capital Firm Wants to Invest Out of State" *Maine Times* (February 3, 1984).
- Blackburn, Thomas. Principal, Environmental Capital Corporation—*Personal interview* (1995)
- Commission on Investment Capital, *Final Report of the Commission on Investment Capital.* (October 1993)
- Coit, David M., and G. Clayton Kyle. Principals, North Atlantic Capital Corporation—*Personal interview* (1995)
- Flynn, Gore. *Entrepreneurship in Maine: Report on Equity Financing* (July 1985)
- Flynn, Gore. *Availability of Business Financing in Knox County, Maine.* (May 1993)
- Flynn, Gore and Market Decisions, Inc. *Recommendations of the Industry and Commerce Plan Advisory Committee* (June 1994)
- Gaston, R.J. & Bell, S.E., *BUSINESS ANGELS—Mobilizing Private Sector Seed Capital* (Spring 1987)
- Gentry, Linda E., *Analysis of State-Sponsored Venture Capital Programs* (November 1994)
- Gupta, Udayan. "Venture Capitalists Raised Record $4.2 Billion in 1994—Investment Surge Bodes Well for Firms Seeking Money This Year *Wall Street Journal* (January 1995)
- Hubbard, Samuel T., *Entrepreneurial Development and Risk Capital Formation: Options for Intermountain States* (September 1989)
- Jones, Merriwether. *Entrepreneurial Economy Review* Vol. 7, No.7. (March 1989)
- Key Bank of Maine. *Public Sources of Capital in Maine* (May 1994)
- Meyer, Richard T., Timothy Falvey and Min Lee. *The 1993 National Census of Seed Capital Funds* (September 1993)
- Meyer, Richard T., Comments before the Conference on State Sponsored Seed and Venture Funds. Salt Lake City, Utah. (October 1994)
- NASBIC. *Venture Capital: Where to Find It* (September 1994)
- Phillips, Ronald B. and Henshaw, Nathaniel V. Principals, Coastal Enterprises, Inc. and CEI Ventures, Inc.—*Personal interviews* (1995)
- Pratt. *Pratt's Guide to Venture Capital Sources.* Jane K. Morris, Susan Isenstein, Anne Knowles editors. Venture Economics, Inc. (1990)
- Stillman, Robert D., Comments made before the Conference on State Sponsored Seed and Venture Funds. Salt Lake City, Utah. (October 1994)
- USGPO 1994. *Small Business Investment Companies—The SBIC Program.* U.S. Small Business Administration. 0-378-212 01 : 3. (1994)
- *Venture Capital Journal.* (anonymous) "Angel Money—Plentiful But Devilishly Hard To Find" (September 1986)

APPENDIX A

STATE OF MAINE

IN THE YEAR OF OUR LORD
NINETEEN HUNDRED AND NINETY-FOUR

S.P. 656 — L.D. 1825

Resolve, to Study the Availability and Sources of Venture Capital in Maine

Sec. 1. Finance Authority of Maine directed to study venture capital availability and sources. Resolved: That the Finance Authority of Maine is directed to review existing sources of venture capital in the State, to consider models of venture capital programs in other states and to consider the options for increasing access of Maine businesses to equity capital, particularly for smaller businesses and new ventures. The authority shall consider the structure and composition of a venture capital program and shall also consider potential tax and other incentives to encourage equity investment; and be it further

Sec. 2. Report. Resolved: That the Finance Authority of Maine shall submit a report on its findings along with recommendations for any necessary implementing legislation to the joint standing committee of the Legislature having jurisdiction over housing and economic development matters by February 1, 1995.

APPENDIX B

SUMMARY OF STATE SPONSORED VENTURE CAPITAL PROGRAMS IN 21 STATES

STATE	FUNDING SOURCE & YEAR	FORM OF MANAGEMENT	TYPE OF INVESTMENTS*	STAGE(S)	AMOUNT INVESTED	INDUSTRY FOCUS	OTHER COMMENTS
Arkansas	State 1985	Public	DR	Seed/Early	\$500M max. Avg = \$170M	Up to 1993 was hi-tech; now broader to match deal flow	All state funds must be leveraged at 3:1
Connecticut							
a) Seed Fund	a) \$5MM State + \$6MM Private 1990	Private	E; DR; DW; D	Seed/Early	\$1MM max.	Technology	Coinvests equally w/ company or other outside source
b) Product Development	\$5MM State in '94 alone	Public	Mostly DR	Early	\$400M avg.	Technology	
c) Product Marketing	\$5MM State in '94 alone	Public	Mostly DW	Early & Others	\$400M avg.	Technology	
Delaware	\$1MM State 1994 to be invested w/ \$4MM private	Private	E & Other	Seed/Early	< \$500M /round with \$1MM max /company	Technology	RFP's issued for fund manager. Expect to operate late 1994.
Hawaii	\$6MM State 1990. Now leveraging another \$50MM private	Was Public now L.P. in 3 private funds	E & other	Seed/Early	n/a	Technology & other with growth potential	Interesting transformation from public to private due to lack of direction when public

*D .... Debt
DR .... Debt with royalties
DW .... Debt with warrants
E .... Equity

STATE	FUNDING SOURCE & YEAR	FORM OF MANAGEMENT	TYPE OF INVESTMENTS*	STAGE(S)	AMOUNT INVESTED	INDUSTRY FOCUS	OTHER COMMENTS
Iowa							
a) Seed Capital Corporation	State 1983 w/ annual approps	Public	E, DR, DW	Seed/Early	$161M avg.	New products and processes	Formerly Iowa Product Development Corporation
b) Venture Capital Resources Fund and Iowa Capital Corp.	State plus private	Public w/ private advisor	E, DR, DW & others	Later Stage & Mezzanine	$50M to $1MM and $250M avg.	Non-retail 5 year operating history with strong potential return	
Maryland							
a) VC Trust Fund	$19MM Public in 1990 leveraged 3:1 w/ Private	Private	E	Seed/Early	$1MM max. public funds per company	Emerging	Final placement May 1994. No results yet.
b) Enterprise Investment Fund	$2.75MM public 1993	Public	E	Seed	$150M to $250M avg.	Targeted technology sectors	
c) Challenge Investment Program	$1.7MM Public	Public	E	Seed/Early	$50M leveraged 1:1	Technology	Expects 10 seed stage investment /year
Massachusetts							
a) Mass. Technology Development. Corporation[8]	$3MM federal, $5.8MM state (started 1978, self supporting since 1988)	Public	E, DW, DR, and D	Seed/Early	$500M max. $100 to $250M avg.	Technology	Must be in or agree to move to Mass.
Michigan	Public $9.8MM plus $4.8MM Private	Private w/ State as L.P. in three funds.	E	Seed/Early	n/a	General by fund preference: includes technology, services, and food processing.	

[8]The literature also notes four other sources of seed and later stage venture funds: Community Development Finance Corporation (< $500M/invest.); Executive Offices of Communities Development (seed money < $500M); Massachusetts Capital Resource Company (later stage); Massachusetts Industrial Finance Agency (seed money).

*D .... Debt
DR .... Debt with royalties
DW .... Debt with warrants
E .... Equity

STATE	FUNDING SOURCE & YEAR	FORM OF MANAGEMENT	TYPE OF INVESTMENTS*	STAGE(S)	AMOUNT INVESTED	INDUSTRY FOCUS	OTHER COMMENTS
Minnesota	$7MM Public (1991)	Public	E, DW	Seed/Early	$250M max. leveraged 2:1	Technology; mfg; value-added natural resources	80% of the fund must be invested outside the Minneapolis/ St. Paul region
Montana	Public 1985; in 1989 $7.5MM Coal Tax Trust Fund	Public	E	Most early, occasionally seed	$350M avg/round. $750M max. per company	Technology	
New Hampshire	New effort 1994/1995 $250M public leveraged to $5MM w/ pension and private funds	Private via L.P. whereby $5MM has been invested in a larger regional fund of $35MM	E	Seed/Early	Usually < $250M /round w/ max $2MM per company	General Technology	SBIC structure allows total fund to leverage to $105MM w/ $15MM targeted at NH on a "best efforts basis" See further discussion in text.
New York	Public 1982 w/ $1MM Federal and $1MM State plus later state approps. Total $14MM	Public	E	Seed, 1st & 2nd Stage	$25M-$500M	Targeted Technologies	
North Dakota	Dissolving existing fund and starting new one in 1995	n/a	n/a	n/a	n/a	n/a	No further details were made available
Oklahoma	Public/Private w/ State expecting to invest $28MM funded by long term debt secured with salable tax credits	Private. State will be L.P. in 8 to 10 private firms. 5 commitments to-date totalling $18MM	E & Other	Seed through later stage depending on private firm expertise	n/a	Various—depending on private firm expertise	See further discussion in text of this section

*D ...... Debt
DR ...... Debt with royalties
DW ...... Debt with warrants
E ...... Equity

STATE	FUNDING SOURCE & YEAR	FORM OF MANAGEMENT	TYPE OF INVESTMENTS*	STAGE(S)	AMOUNT INVESTED	INDUSTRY FOCUS	OTHER COMMENTS
Oregon	Public (1985) from annual State Lottery Proceeds ($10MM to date)	Was Public moved to private 6/94	DW: DR; D no equity	Seed/Early	$278M avg.	Targeted Technologies and value added Natural Resources	Use of lottery proceeds appears to be unique among states surveyed
Pennsylvania (Ben Franklin model)	Public/ Private w/ $4.5MM state money invested in funds at 3:1 with private $	Private as L.P. in 5 private funds (one fund now bankrupt)	E	Small/Early stage	Usually $250M /round with max. of $500M per company	Advanced technology, mfg., international exporters	Must be in-state company
Utah	Public 1983 annual approps ($14MM to date)	Public	E, DR, DW	Seed/Early	$50M avg.	Technology focus	Program has also leveraged some federal funds
Vermont	Private w/ $3MM tax credit elig. Total fund $7.6MM. incentives funding	Private	Prefer E	Early to Mezzanine (no Seed)	$100M to $300M by round	General	Best efforts to invest in VT. Fund is fully invested. Of 17 companies: 8 in VT and ½ capital in VT
West Virginia							
a) WV Jobs investment trust	Public ($10MM 1992)	Public (one person)	E and D usually with a 5 year liquidation strategy	Various	Max. of $10M per job	Various w/ focus on job creation	
b) Leveraged Technology Loan Program	Public ($300M 1994)	Public	D	Various	n/a	Technology	Few details available due to newness of the program

*D .... Debt
DR ...... Debt with royalties
DW ..... Debt with warrants
E .... Equity

ACKNOWL-EDGMENTS

Throughout the process of conducting this study and completing this report, many individuals and organizations volunteered their valuable time to meet and speak with staff of the Finance Authority of Maine about the issue of venture capital and more specifically about how venture capital supports Maine businesses and businesses in other parts of the country. The Finance Authority of Maine wants to extend its sincere thanks and appreciation to all who took time to assist us with this report. We are especially thankful to the following individuals and organizations who gave of their time, expertise and counsel with the research and development necessary for this final report.

• Charlton Ames	Katahdin Securities
• Dr. Gordon Baty	Zero Stage Capital
• Thomas Blackburn	Environmental Capital Corporation
• Jack Boles	Boles & Company
• Bruce A. Coggeshell, Esq.	Pierce, Atwood et als
• David M. Coit	North Atlantic Capital Corporation
• Bryan M. Dench, Esq.	Skelton, Taintor & Abbot
• Robert Dick	PharmX, Inc.
• Gloria Doubleday	Commonwealth BioVentures, Inc.
• Robert G. Foster	Commonwealth BioVentures, Inc.
• Gregory S. Fryer, Esq.	Verrill & Dana
• Linda E. Gentry	Virginia Center for Innovation Technology
• Myron C. Hamer	Binax
• Andrew Hamilton, Esq.	Eaton, Peabody, Bradford & Veague
• Jane K. Havey	Capricorn Products, Inc.
• Robert G. Heard	Edge Development Capital
• Nathaniel V. Henshaw	Coastal Enterprises, Inc. & Coastal Ventures
• Hugh M. Johnston	PharmX, Inc.
• Robert M. Kidd	Maine Science & Technology Foundation
• G. Clayton Kyle	North Atlantic Capital Corporation
• Bradley C. McCurtain	Maine Securities Corporation
• Nancy C. McDonald	PharmX, Inc.
• The Honorable Rita B. Melendy	Maine House of Representatives
• Thomas A. Muller	Business Consultant
• Greg B. Peters	North Atlantic Capital Corporation
• Ron Phillips	Coastal Enterprises, Inc. & Coastal Ventures
• The Honorable Rochelle M. Pingree	Maine State Senate
• Gerald E. Rudman, Esq.	Rudman & Winchell
• Brad Wellman	Finance Authority of Maine

NOTES

FINANCE AUTHORITY OF MAINE
83 WESTERN AVENUE
P.O. BOX 949
AUGUSTA, MAINE 04332-0949

(207) 623-3263
(207) 623-FAME
FAX: (207) 623-0095
TDD: (207) 626-2717