

RELEASED

22847

~~RESTRICTED — Not to be released outside the General Accounting Office except on the basis of specific approval by the Office of Congressional Relations.~~

BY THE U.S. GENERAL ACCOUNTING OFFICE

Report To Senator Lloyd Bentsen Joint Economic Committee

Government-Industry Cooperation Can Enhance The Venture Capital Process

Venture capitalists seek out new technology, entrepreneurial talent, and management resources and combine them for new business opportunities that have significant market growth potential. Compared to the amount of capital invested to create fast-growing, high-technology businesses, this small segment of the U.S. economy has produced disproportionately large benefits to the Nation's productivity and economic well-being.

In the 1970s, the problem was the limited supply of venture capital. In the 1980s, however, the problem may be too few experienced venture capitalists to manage a growing supply of capital.

The venture capital process is very sensitive to Government policies, rules, and regulations. Industry and Government should work together to identify pertinent issues and suggest actions needed by either or both sides to create the greatest likelihood of a successful venture capital process in an environment of increasing capital supply.



GAO/AFMD-82-35
AUGUST 12, 1982

593100 1/10/17

Request for copies of GAO reports should be sent to:

**U.S. General Accounting Office
Document Handling and Information
Services Facility
P.O. Box 6015
Gaithersburg, Md. 20760**

Telephone (202) 275-6241

The first five copies of individual reports are free of charge. Additional copies of bound audit reports are \$3.25 each. Additional copies of unbound report (i.e., letter reports) and most other publications are \$1.00 each. There will be a 25% discount on all orders for 100 or more copies mailed to a single address. Sales orders must be prepaid on a cash, check, or money order basis. Check should be made out to the "Superintendent of Documents".



UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

ACCOUNTING AND FINANCIAL
MANAGEMENT DIVISION

B-206827

The Honorable Lloyd Bentsen
United States Senate

Dear Senator Bentsen:

In your August 10, 1981, letter you expressed the view that the venture capital approach to innovation is critically important to this country's economic and productivity well-being. Based on a briefing we provided your staff on the venture capital "process," you requested a report giving our findings, conclusions, and recommendations on this subject.

Our study showed that even though venture capital was relatively scarce during the 1970s, it contributed significantly to the Nation's economic and productivity well-being. And venture capital is more readily available now, creating the prospect of potentially greater contributions to the Nation's economy in the 1980s. Yet, if the venture capital now available is to make its greatest contribution, both Government and the venture capital industry must be alert to other issues that will influence whether the complex venture capital process works successfully. For example, a question exists as to whether the number of experienced venture capitalists able to deal with the increased capital supply is sufficient. To ensure that all relevant issues affecting the venture capital process are addressed, dialog between the Government and the industry must be improved.

Our conclusions are based on views expressed by a wide range of individuals and organizations either involved in or familiar with the venture capital process. We also employed a contractor to study the experiences of 1,332 companies that were established in the 1970s with venture capital backing. The results of the contractor's study, coupled with our own independent research and analysis, provided a good, overall picture of the venture capital process, as well as an appreciation of venture capital's contribution to the economy and the various factors that influence the process. Appendix I provides further details on the objectives, scope, and methodology of our review, and appendix II provides details of our findings. Appendix III is a case study of the contributions of one small, high-technology firm to productivity. Appendix IV is the National Venture Capital Association's response to our draft report, and appendix V is the Commerce Department's response.

VENTURE CAPITAL HAS CONTRIBUTED TO THE
NATION'S ECONOMY AND IMPROVED PRODUCTIVITY

The venture capital process, when working successfully, can improve the Nation's economy and enhance its productivity growth. Improvements achieved through this process in the 1970s were many and varied, despite the limited availability of venture capital.

The experiences of 1,332 companies that were started with venture backing during the 1970s demonstrate benefits to the Nation's economy and productivity that are disproportionately large when compared with the amounts of capital invested. For example, with \$209 million invested to create 72 of these firms, their combined sales in 1979 alone totaled \$6 billion. 1/ Growth in annual sales averaged 33 percent a year and, in the process, these firms created (1) an estimated 130,000 jobs, (2) over \$100 million in corporate tax revenues, (3) \$350 million in employee tax revenues, and (4) \$900 million in export sales. Moreover, most products were productivity enhancing, such as computer related equipment, fiber optics, industrial controls, lasers, robots, word processors, and numerous others. Productivity gains resulted from the diffusion of such products into the design and manufacturing operations of a wide variety of industries.

These results were even more notable in view of the relative scarcity of venture capital at the time. For example, between 1969 and 1975

--the private capital committed to venture capital firms declined from about \$175 million to about \$25 million annually and

--investments by venture capital firms declined from nearly \$500 million to about \$250 million annually.

CURRENT AVAILABILITY OF VENTURE CAPITAL
CREATES OPTIMISTIC OUTLOOK

Venture capital is more readily available now than it was in the 1970s, and prospects for the future are good. Thus, the

1/Our concentration on 72 firms whose stock had "gone public" (traded in public stock exchanges) by 1979 does not mean the remaining 1,260 firms were as successful, nor does it mean they were business failures. Since most new companies take 5 to 7 years to go public, sufficient time had not elapsed to determine final outcomes. However, according to venture capitalists, about 20% of venture backed companies achieve public market success, about 40% achieve success through upward mergers into larger firms, and about 20% become profitable but continue to operate as small, privately held businesses. The rest, approximately 20%, are deemed business failures.

potential benefits to the Nation's economy and productivity growth are great. (Within the context of this report, the existence of certain offsetting factors should be recognized. These factors reduce the aggregate economic benefits from the increased flow of funds into venture capital because some of those funds would have gone into other activities that also benefit the economy. It is not possible to precisely estimate the net effect of the venture capital process, and no attempt was made to do so.)

The \$657 million in new capital committed to venture capital companies in 1980 represented an increase of nearly 400 percent above the \$197 million committed in 1979. Commitments for 1981 were approximately \$1 billion with a similar amount expected in 1982. The largest investors are, in order: pension trust funds, major corporations, individuals and families, endowments, insurance companies, and foreign investors.

Venture capitalists are confident that the current trend in availability of venture capital will continue. It is expected to be a driving force for innovation in the 1980s. But even if capital remains available, other factors will determine whether the venture capital process works successfully.

BOTH GOVERNMENT AND INDUSTRY CAN INFLUENCE
HOW WELL THE PROCESS WORKS

Because of the important potential benefits that could be obtained from available venture capital, both the Government and the industry have a stake in seeing that the process works successfully. Coincidentally, actions by either or both can influence whether the complex and sophisticated venture capital process will work successfully.

Government role is seen as critical
by the industry

Individuals and organizations familiar with the venture capital process believe that Government plays a key role in influencing how much venture capital is available. They also believe that Government actions increasing or decreasing capital can produce unintended side effects. However, it is extremely difficult to clearly identify all the factors--economic, political, technological, psychological, and others--that influence the flow of venture capital or the venture capital process itself.

Many venture capital advocates believe that Government actions produce both direct and indirect effects on the venture capital industry that can be felt over a long time. For example, many knowledgeable individuals point to a series of tax policy changes, beginning with the Tax Reform Act of 1969 and culminating with the Tax Reform Act of 1976, which ultimately increased the maximum marginal tax rates on capital gains from 25 percent before 1969 to as much as 49 percent by 1976. The 1976 act also significantly

altered the tax treatment of stock options. Venture capitalists believe these policy changes led directly to a decrease in available capital between 1969 and 1975. For example, as noted earlier, investments by venture capital firms during that period declined from nearly \$500 million to \$250 million annually.

Further, venture capital advocates tend to view these tax policy changes as causing a series of ripple effects:

- Recognizing that their chances for obtaining risk capital were extremely limited, entrepreneurs became less inclined to present new business proposals to venture capitalists.
- The increased capital gains tax rate, coupled with elimination of qualified stock options, gave top management talent little, if any, incentive to abandon secure careers and enter into new business ventures.
- Rather than starting new businesses, venture capitalists began investing in or buying out existing enterprises to lessen their risks and shorten their investment periods.
- Because the lack of capital caused a reduction in the number of venture capital firms, the opportunities for encouraging and training new entrants into the venture capital industry were limited.

Aside from tax policies, other Government actions can influence the venture capital process in more subtle ways. For example, when Government so much as suggests a rule change, the industry sometimes reacts unexpectedly. In 1979 the Department of Labor published a proposed regulation change in the Federal Register for pension trust fund participation in venture capital investments. According to a Department of Labor official, the Department's intention in proposing the change was to elicit industry views on ways to increase pension fund participation in venture investing. Legal counsel for various pension funds, however, interpreted the language as creating a "personal" fiduciary responsibility for the trust fund manager. As a result, many trust fund managers shunned venture investments, with many continuing to do so as late as mid-1981, even though the Labor Department's intent had been to increase--not decrease--venture participation.

Venture capital experts believe the current availability and growth of venture capital result primarily from Government action which (1) reduced the capital gains tax from 49 percent to 28 percent in 1978, (2) relaxed pension trust fund investment rules in 1979, and (3) further reduced the maximum capital gains tax for individuals from 28 percent to 20 percent in 1981. In the experts' opinion, these policy changes have created incentives for risk taking not seen in the United States since 1969. Nevertheless, this significant and relatively sudden turnabout in the availability of venture capital causes essentially the same ripple effect but in the opposite direction.

In the opinion of venture capitalists, these examples typify how Government actions influence the availability and flow of venture capital, its use over protracted time, and the sensitivity of the industry to Government actions.

Complex venture capital process also requires sophistication and skill within the industry

Although the Government's role is seen as critical, the venture capital industry itself has a complex and sophisticated role. Managing the process involves many important actions and difficult decisions which influence how successfully the process works.

Venture capitalists seek out new technology, entrepreneurial talent, and management resources and combine them for new business opportunities that have significant market growth potential. They are faced with hundreds of difficult technical and judgmental decisions, any of which can translate into millions of dollars gained or lost for their investors. Venture capitalists must know myriad laws and regulations on such topics as tax, securities, and incorporation, and must be able to sense a valid market niche and to find, judge, and acquire needed management talent. They must also be able to raise millions of dollars quickly. Finally, they must be able to orchestrate all these activities so that the venture-backed company achieves its public market or upward merger goal within a planned timetable.

Clearly, the role of the venture capitalist is far more than that of a supplier of capital to an entrepreneur to develop and market products. There is some question, however, as to whether the number of experienced venture capitalists available to manage the growing supply of venture capital will be enough.

A matter of industry-Government concern:
Are more venture capitalists needed?

There has been concern in the industry that the number of experienced venture capitalists may not now be sufficient, or may not keep pace with the growing availability of venture capital. Because venture capitalists continue to actively participate in managing each venture they help to create, their primary constraint is the number of firms they can manage--not the amount of capital they can raise. Without an adequate number of experienced and professional venture capitalists, the venture capital process cannot work to its full potential in benefitting the Nation's economy, even when ample capital is available.

When little venture capital was available during the 1970s, the number of experienced venture capitalists decreased. That number may not now be adequate to manage the growing supply of venture capital in the 1980s. The possibility exists, therefore, that less experienced individuals may be attracted to the industry, creating the possibility that those inexperienced venture

capitalists may make less sound decisions than those with experience. This would hurt the industry's image and lessen the success of the process. To avoid this, professional standards must be strengthened to ensure that new entrants are fully qualified to manage the process.

BETTER GOVERNMENT-INDUSTRY DIALOG COULD
IDENTIFY AND RESOLVE KEY ISSUES
AFFECTING THE PROCESS

Two major indications suggest that improved dialog between Government and industry may be needed:

--Many venture capital advocates believe the Government is not fully aware of how its actions influence the process.

--The range of issues and the degree to which Federal involvement can affect the venture capital process are great, but no single office or congressional committee has total jurisdiction.

In this environment, key issues--such as what is an appropriate number of experienced venture capitalists--may not be adequately addressed.

The National Venture Capital Association is a major representative of the industry. In addition, other industry spokespersons represent the industry before the Congress and other Federal offices. Yet, many venture capital advocates believe the Government is not always sufficiently aware of the impact of governmental actions on the venture capital process. For example, some believe that the Government may not have fully considered, before enactment, the adverse impact the Tax Reform Act of 1969 and subsequent changes would have on the venture capital process.

Within the Government, many offices can potentially affect the venture capital process through their actions. Actions that affect the process can be the result of executive or congressional initiatives. Tax policies are a clear example; labor and regulatory policies are others. Yet, no central point of coordination exists for Government actions that affect the venture capital process.

We are not in a position to agree or disagree with the view of some venture capital advocates that Government policymakers are not sufficiently aware of how their decisions affect the venture capital process. Nor would we argue for establishment of a single Federal office to monitor the impact of all relevant policies on that process. Even so, a case for better industry-Government dialog can be made, since both sides stand to gain by sharing information and viewpoints on how the venture capital process can help the economy and productivity growth.

CONCLUSION

The venture capital process can greatly contribute to the Nation's economy and can significantly improve productivity in the 1980s. The supply of venture capital is increasing and prospects for future growth are good. However, to achieve the greatest benefits from the availability of capital, both the industry and the Government need to properly deal with other issues that will influence how well the complex venture capital process translates available capital into economic and productivity gains. Better dialog between Government and industry is needed to jointly identify pertinent issues and to suggest actions needed by either or both to create the greatest likelihood of a successful venture capital process in the present environment of increasing capital supply.

We have no specific recommendations to make at this time. However, congressional hearings could be used to determine how Government-industry dialog can be improved and to identify and discuss other important issues, such as the role of the venture capitalist, that will influence how well the venture capital process succeeds in the 1980s. Such questions could be addressed as:

- What kind of forum or mechanism, if any, would be agreeable and beneficial to both Government and industry in exchanging views on current or proposed policies, rules, and regulations affecting the venture capital process?
- Should such a forum or mechanism be established on a permanent or an ad hoc basis?
- Where should such a function be housed, in the legislative or executive branch or both?
- What form of industry participation would be most effective in identifying and addressing issues sensitive to the venture capital process, e.g., individuals or representatives from the National Venture Capital Association or other organizations?
- What is the possibility of too few experienced venture capitalists? If the possibility is great, how does industry propose to alleviate the potential shortage?
- Does Government have a role in assisting the venture capital industry?

We believe that open discussion of these and similar questions could result in an agenda for specific action by both Government and industry to strengthen the venture capital process.

AGENCY AND INDUSTRY COMMENTS

Although the Small Business Administration and the Departments of Labor and Treasury did not formally respond to the draft report, they reviewed and provided needed information to clarify and correct portions of this report. The Department of Commerce agreed with the thrust of the report.

The draft report was reviewed by several knowledgeable individuals in the venture capital industry. We requested and received a formal reply from the National Venture Capital Association to represent industry's views on the report.

We deeply appreciate the assistance of individuals and companies in the industry and individuals in Federal agencies whose contributions were invaluable to this study. We are particularly grateful to Venture Economics of Capital Publishing Corporation for providing access to its proprietary data on venture capital activity in the United States.

- - - - -

As arranged with your office, subsequent distribution of this report will be delayed until you announce its release, or 30 days from the date of the report, whichever occurs first. At that time we will send copies to interested parties and make copies available to others upon request.

Sincerely yours,

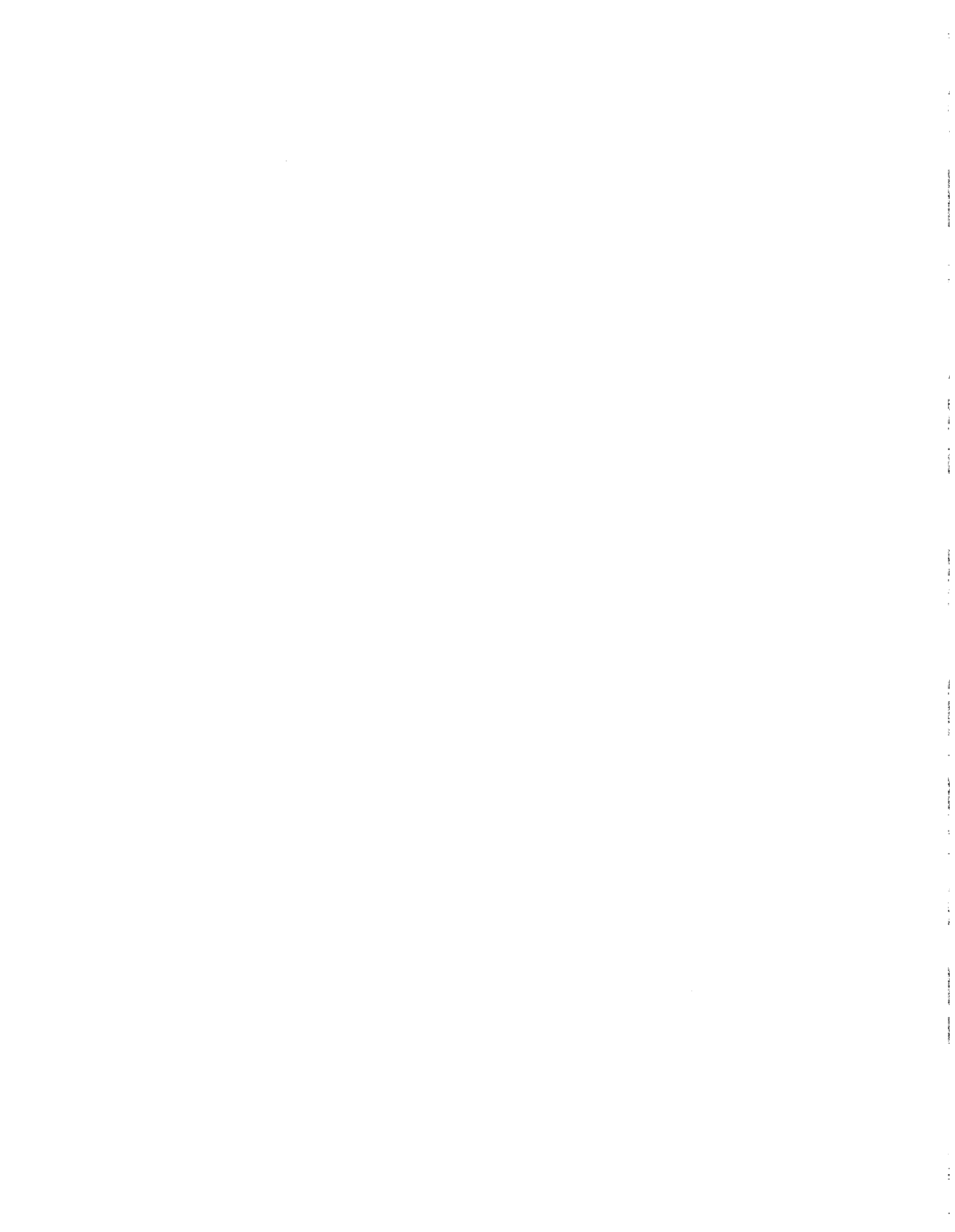

W. D. Campbell
Director

C o n t e n t s

		<u>Page</u>
APPENDIX		
I	Objectives, scope, and methodology	1
II	The venture capital process--a unique free-enterprise approach to entrepreneurial activity in the United States	2
	Part 1: History and state of venture capital	4
	Part 2: The venture capital process provides major contributions to the economy	7
	Part 3: How the venture capital process works	13
	Part 4: Sensitivity of the venture capital process to government rules, regulations, and policies	29
	Part 5: Bright prospects for the future	33
	Part 6: Maintaining an environment for entrepreneurship	40
III	The contributions of a small, high-technology firm to productivity: A case study	42
IV	June 3, 1982, comments from the National Venture Capital Association	43
V	March 30, 1982, comments from the Department of Commerce	49

ABBREVIATIONS

CAD/CAM	Computer aided design/computer aided manufacturing
ERISA	Employee Retirement Income Security Act
GAO	General Accounting Office
SBIC	Small Business Investment Company



OBJECTIVES, SCOPE, AND METHODOLOGY

The objectives of our review were to (1) provide a fuller understanding of the venture capital process, (2) assess the potential impact of the venture capital process on the Nation's productivity and economic growth, (3) explore the applicability of the process to Government policies, rules, and regulations, and (4) seek alternative courses of action for both Government and industry to stabilize the venture capital process over the long term.

The study included data on 1,332 venture capital backed companies in which investments were made between 1970 and 1979. These data were acquired under contract with Venture Economics, a division of Capital Publishing Corporation, Wellesley Hills, Massachusetts. The data are unique in that they are the only known historical record of venture capital backed firms in the Nation, and have been accumulated over the past 20 years. The data are also proprietary, which means we could discuss company information only in those situations where the stock of the venture backed firms is traded in the public stock exchanges. Detailed company information gathered for this study, therefore, concentrated heavily on 72 firms that had "gone public" by the end of 1979 because information on publicly held corporations is available to the public. So that proprietary rights were not breached, only summary information was gathered on the other 1,260 companies.

Information describing the venture capital process and the impact of Government policies, rules, and regulations on the process was obtained through discussions with general partners of several venture capital companies and with other knowledgeable individuals in Government and industry.

We made extensive reviews of available literature, including dozens of reports, hundreds of articles, and the published proceedings of numerous panel discussions. We also participated in several conferences and panel discussions.

THE VENTURE CAPITAL PROCESS--
A UNIQUE FREE-ENTERPRISE APPROACH
TO ENTREPRENEURIAL ACTIVITY
IN THE UNITED STATES

INTRODUCTION

Much has been written and debated during the last several years about declining entrepreneurial spirit in the United States and the lack of willingness on the part of American business enterprise to take risks. Similarly, debate has continued about how small, high-technology companies have affected productivity and overall economic growth. Part of this debate has centered on the role of venture capital in creating new high-technology companies.

High-technology venture capital
investments are unique

The term "venture capital" is commonly taken to mean any or all forms of investment in business enterprises. For this report to have relevance or even to be understood, it is essential to distinguish between the venture capital process to create high-technology, high-growth firms, and all other forms of venturing. There are significant differences, for example, in the scope of investment, degree of risk, extent of risk analysis, goals and objectives of investors, economic and financial return on investment, extent of investor participation in managing the firm created, and the form investments take--whether through debt or equity financing. The venture capital process discussed in this report is unique to a relatively small segment of the total financial investment community, which comprises about 130 venture capital firms that manage a total private capital pool of nearly \$3 billion. This segment specializes in creating high-risk, high-technology portfolio businesses, which, when successful and compared to other forms of venturing, pay exceptionally high economic returns in job creation, exports, tax revenues, and returns on invested capital.

The approach, goals, rationale, and mode of operating differ considerably from those of commercial banks, small business investment corporations, savings and loan institutions, investment banks, and brokerage houses, and from the hundreds of individuals and firms classified as venture capitalists but whose investments tend to specialize in such areas as real estate, building development, wholesale/retail operations, franchise businesses, oil and mineral exploration, and others.

While some functions are common among these diverse sources, no other segment of the financial marketplace that we could determine performs all of the functions done systematically by this small group of high-technology specialists. No other segment

invests with the specific intention of remaining actively involved in business operations for extended periods, often as long as 10 years. In short, the venture capital process described in this report has become an increasingly unique force in our economy.

This appendix is in six parts:

- Part I provides the history and current state of the venture capital pool.
- Part II demonstrates the disproportionate effect of the venture capital process on productivity and economic growth.
- Part III describes how the process works.
- Part IV addresses the sensitivity of the process to Government regulations, rules, and policies.
- Part V discusses prospects for the future.
- Part VI discusses an approach for stimulating the process and for maintaining an environment conducive to entrepreneurial activity through Government-industry interaction.

PART 1HISTORY AND STATE OF VENTURE CAPITALEVOLUTION OF THE VENTURE CAPITAL INDUSTRY

Venture capital investment was instrumental in the early development and industrialization of America. Before World War II, venture investments were the province of wealthy individuals, syndicates organized by investment bankers, or a few family organizations employing professional managers. Although many government studies in the 1930s and 1940s expressed concern about the problems of financing small businesses, institutionalization of the venture capital process did not start until after World War II with the formation of Boston's American Research and Development Corporation in 1946.

The next major milestone in the industry's development was the enactment of the Small Business Investment Act of 1958, which provided for the creation of Small Business Investment Companies (SBICs). These provided tax advantages, potential Government lending leverage, and a vehicle designed for small business financing and thus became the first phase of a true venture capital industry.

THE INDUSTRY AS IT IS TODAY

The industry today is made up of three types of firms: private venture capital companies, SBICs, and subsidiaries of major corporations.

Private venture capital companies

These are the dominant institutionalized source of classic venture capital activity. Most are limited partnerships, usually with two to four general partners and several sophisticated investors as limited partners. To a lesser extent, they are closely held corporations. As of about mid-1982, an estimated 130 private venture capital firms existed in the United States, funded by pension trust funds, major corporations, insurance companies, endowment funds, wealthy individuals, and foreign investors.

Private firms generally begin by raising a venture fund ranging from \$15 million to \$100 million--roughly three times the size of typical funds during the 1960s and early 1970s. The time required to place these funds into promising ventures and then to see them mature to fruition usually dictates a life expectancy for a fund of about 10 to 12 years.

Small Business Investment Corporations

About 360 private and public firms are licensed as SBICs by the Federal Government; they are structured according to the program established by the Small Business Investment Act of 1958.

They usually have minimum equity capital of \$500,000 with access to Government loans to achieve 3-to-1 or 4-to-1 leveraging.

Corporate subsidiaries

In the last 10 years, about 75 to 100 major corporations have made venture capital investments. These include both financial corporation venture capital subsidiaries, such as Citicorp and Allstate, and large industrial corporations, such as Xerox, Exxon, and General Electric, that have formed venture capital divisions.

SIZE OF THE VENTURE CAPITAL INDUSTRY

With major impetus from the Revenue Act of 1978, which reduced the capital gains tax from 49 percent to 28 percent, dramatic expansion of the industry began and continues today. Although there are fewer active industry participants than at the beginning of the last decade, the surviving core is well capitalized and can participate in a wider range of situations.

The total venture capital pool--the amount of funds committed to venture capital investment--has expanded from about \$2.5 billion in 1977 to nearly \$6 billion by the end of 1981.

<u>Source of funds</u>	<u>Amounts (billions)</u>
Private venture capital firms	\$2.6
Small business investment companies	1.6
Corporate subsidiaries (financial and nonfinancial)	<u>1.6</u>
Total	<u>\$5.8</u>

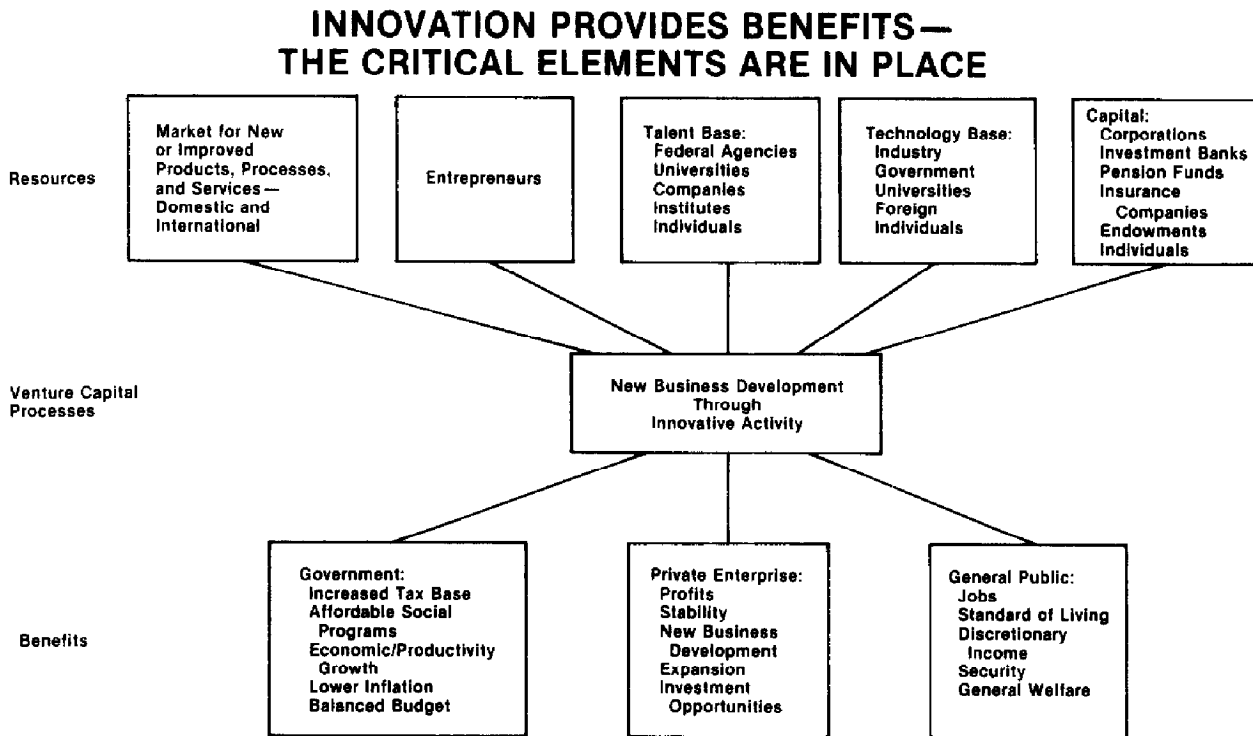
This pool remained static from 1969 to 1977 at some \$2.5 billion to \$3 billion, with new fundings more or less equal to withdrawals, before expanding by more than \$1 billion from 1978 to 1980 and an estimated \$1 billion in 1981.

CRITICAL ELEMENTS OF THE VENTURE CAPITAL PROCESS

The process epitomizes the American free enterprise system through a highly sophisticated, methodological approach of combining technology, entrepreneurial talent, and capital resources to meet an identified market need.

Chart 1 indicates that all the critical elements needed for successful venture capital activity exist in the United States. The venture capital industry, in turn, can provide benefits to the Nation vastly disproportionate to its size.

Chart 1



This study is based on the experiences of 1,332 companies in which venture capitalists invested \$1.4 billion from 1970 to 1979. The study showed that, in addition to limitations on and rewards from the process from a Government policy standpoint, benefits accrue from a productivity improvement point of view.

Historically, the most important source of productivity growth has been the application of new technology to the production of goods and services. Economists have attributed more than half of the net productivity growth during 1947 to 1977 to technological advances.

PART 2

THE VENTURE CAPITAL PROCESS

PROVIDES MAJOR CONTRIBUTIONS TO THE ECONOMY

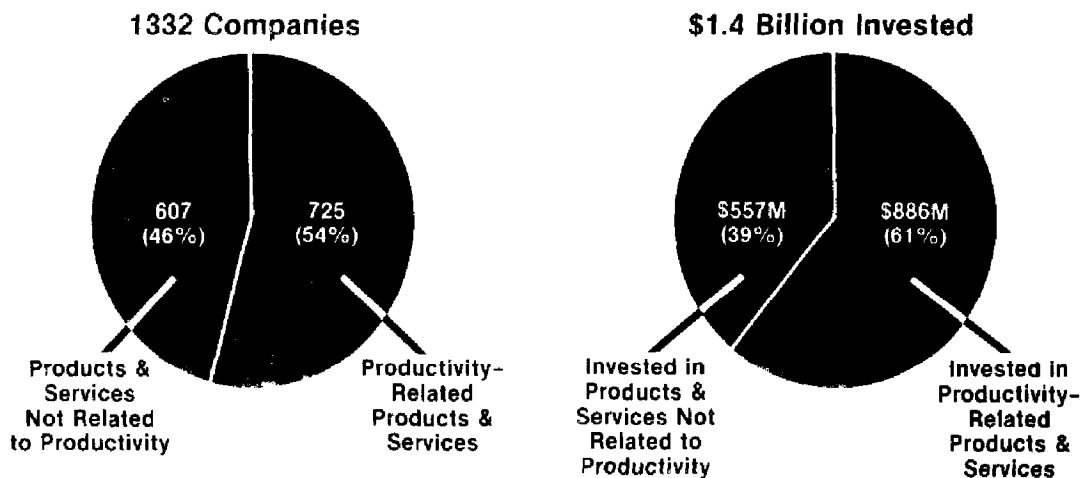
PRODUCTIVITY ENHANCING PRODUCTS AND SERVICES
BEST FIT VENTURE CAPITAL CRITERIA

Products, systems, and services that are productivity enhancing best meet venture capital criteria for investment. Note in chart 2 that 54 percent of the ventures and 61 percent of the capital went to companies offering productivity related products, systems, and services. These included a wide range; to name a few:

- Automatic testing equipment.
- Computer peripherals.
- Energy conservation devices.
- Fiber optics.
- Industrial controls.
- Lasers.
- Robotics.
- Word processors.

Chart 2

**PRODUCTIVITY-RELATED PRODUCTS
& SERVICES**
**BEST FIT VENTURE CAPITAL
CRITERIA**



SOURCE: Venture Economics

For each \$1,000 of venture capital invested during the 1970s, an estimated \$40,000 to \$54,000 worth of productivity enhancing products and services will be sold during the 1980s.

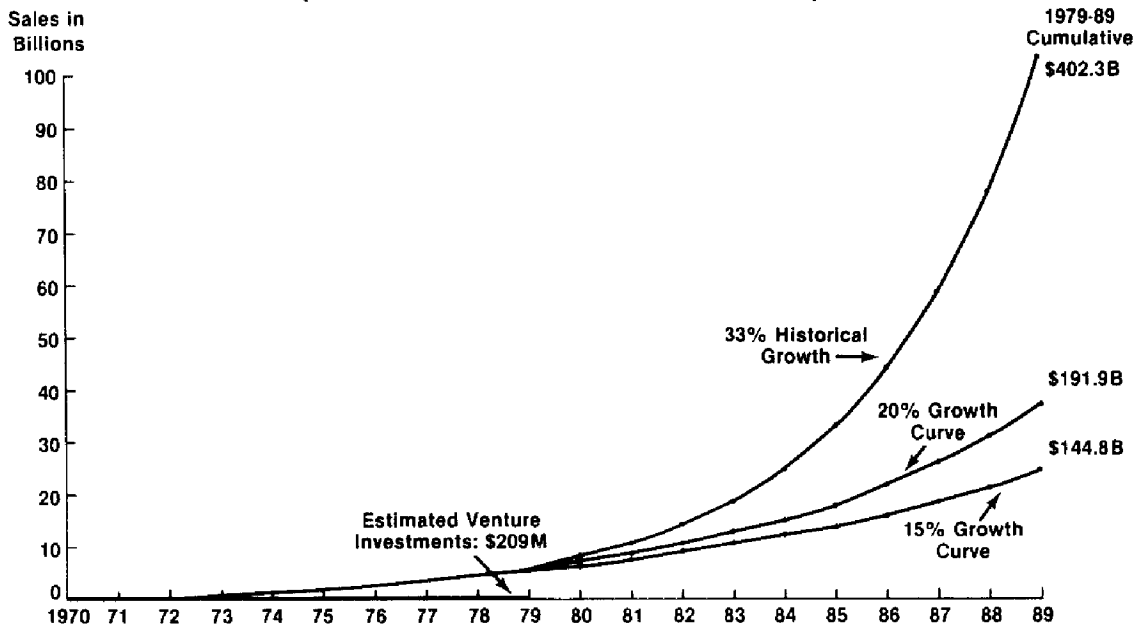
DISPROPORTIONATE BENEFITS IN PRODUCT SALES

To demonstrate the disproportionate benefits from the venture capital process, chart 3 shows the growth in sales of 72 firms backed by about \$209 million in venture capital during 1970 to 1979. In 1981, these firms were all under 12 years old. They were predominantly high-technology companies whose products were designed, manufactured, and marketed specifically to increase the productivity of the firms buying them.

The products are typically computers or computer related hardware and software used to improve manufacturing processes, computer related products that improve information handling and storage, new or improved medical equipment and devices, precision measurement devices, and other high-technology products. Productivity can be improved by reducing labor content, reducing processing time, improving quality of products or services, eliminating certain functions altogether, or shortening the new product development or manufacturing cycle by automating highly complex design and manufacturing tasks. It was not possible to fully measure improvements in most of these functions, but on a case-by-case basis, productivity increases in labor alone ranged from 10 to over 50 percent.

Chart 3

**DISPROPORTIONATE BENEFITS—
PRODUCT SALES
(72 VENTURE-BACKED FIRMS)**



SOURCE: Venture Economics and GAO Est.

By 1979, these 72 firms were trading in public markets, 1/ which means their respective growth records were high and they were able to obtain equity capital through public stock sales. "Going public" is a critical milestone to the venture capitalists. In fact, going public is a primary goal because this form of liquidity usually provides the highest return on invested capital.

Combined sales of these 72 firms totaled more than \$6 billion in 1979. Their growth in sales averaged 33 percent a year. The sales projections through 1989 are shown on chart 3 and are based on three different assumptions. The most optimistic curve shows continued growth at the firm's historical rate of 33 percent a year. The other two curves, based on sales growth of 20 and 15 percent, respectively, were calculated for no other reason than to be conservative, with the expectation that actual growth is likely to fall somewhere between the high and low curves.

At some point in a company's life cycle, of course, sales will level out, depending on many factors. However, since we were addressing the creation and early growth of firms, as opposed to the maturation period, we considered these curves realistic. For example, a primary objective of a firm seeking equity capital from public stock issues is to raise capital for expansion. This translates into more production, more product lines, more sales, more acquisitions, and so forth, all of which could occur within the span of time shown in the chart.

Stated simply, a new firm's ability to do well during its first 5 to 7 years generally determines its ability to go public. Its ability to go public, in turn, dictates how much and how rapidly it can expand. The resulting benefits to the Nation--such as jobs, tax revenues, and trade--multiply at an increasing rate as companies expand through more production and sales, through research on and development of new technology and new product lines, and through acquisitions for greater liquidity and stability.

If the projected optimistic growth rate of 33 percent were sustained through 1989, as shown in chart 3, sales by these 72 firms could exceed \$100 billion a year; cumulative sales for the period could approach \$400 billion. Even in the conservative range, annual sales would range from \$24 billion to \$37 billion and cumulative sales would range from \$145 billion to \$192 billion.

1/Information on publicly held corporations is more readily available than on privately held corporations. This explains our concentration on the 72, rather than 1,332 venture-backed firms, to demonstrate economic benefits.

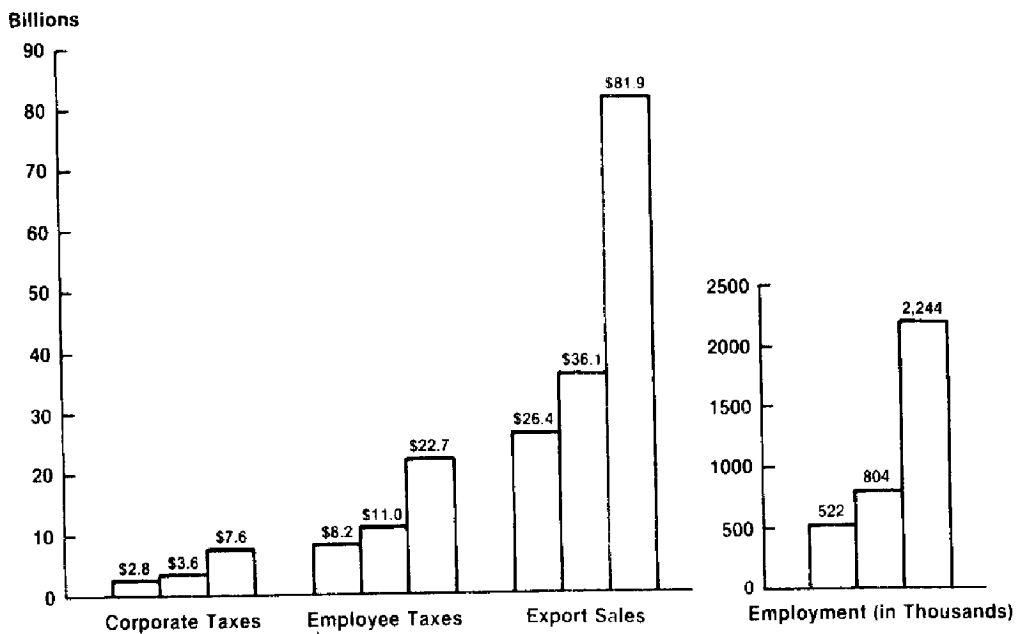
OTHER BENEFITS--TAX REVENUES,
EMPLOYMENT, AND EXPORT SALES

In addition to direct benefits to venture backed companies and their investors, other benefits accrue to the economy. Using very conservative approaches, 1/ chart 4 shows that by 1989, corporate taxes of these 72 firms alone could range between \$3 billion and \$8 billion annually, employee taxes from \$8 billion to \$23 billion, export sales from \$26 billion to \$82 billion, and jobs from a half million to 2-1/2 million workers.

Some economists argue, quite correctly, that these estimates overstate the benefits because they fail to account for the product sales, jobs, etc., of firms whose products are displaced. We

Chart 4

**OTHER BENEFITS—TAXES,
EMPLOYMENT AND EXPORTS**



1/Using the "Statistical Abstract of the United States," national average figures on corporate taxes, employee taxes, and export sales were compared to overall sales to derive what we consider to be conservative projections. For projecting employment, we developed a ratio of employment to sales for several industry sectors and selected the sector yielding the lowest number of employees: radio and television receiving set manufacturing.

made no attempt to calculate the net benefits. Instead, we gave credence to the theory of Harvard economist Joseph A. Schumpeter, who maintained that a capitalist economy grows by a process he called "creative destruction"--combining entrepreneurial innovations with technological investment to create new growth industries. This process inevitably inflicts displacement and distress on older, less dynamic businesses. The process, nevertheless, does provide economic growth. Moreover, in today's world market economy, it can be argued that if this process were not generated internally by U.S. entrepreneurs, it probably would be generated by our international competitors and inflict even greater economic displacement and distress.

After considering these factors and recognizing there was no intent to make these projections absolute, we concluded that the venture capital process is fully justified, provides benefits, and is needed by the Nation.

AGGREGATE POTENTIAL BENEFITS FROM VENTURE-BACKED COMPANIES

Assuming the other 1,260 firms achieve a modicum of the success enjoyed by the 72 publicly held firms, annual sales would undoubtedly total tens of billions of dollars by 1989, as indicated in chart 5.

The certainty of these projections cannot be guaranteed. However, one way of judging their validity is through the historical venture capital success/failure rate. Venture capitalists have claimed high-level success (growth warranting public stock issues) in about 20 percent of the ventures. If this rate holds true for all 1,332 firms--and we found nothing to indicate otherwise--we could expect high-level success by 226 firms, of which the 72 already discussed represent 27 percent. Using the most conservative projection of 15-percent growth per year rather than the 33-percent historical growth rate, successful firms during 1980 to 1989 could exceed \$500 billion in sales in constant 1979 dollars, corporate taxes could exceed \$10 billion, employment could approach 2 million workers, employee taxes could be \$30 billion, and export sales could reach nearly \$100 billion.

Not included in these calculations, however, are an additional 40 percent of the ventures which, according to venture capitalists, become profitable business enterprises but on a smaller scale. This usually means their growth and market expansion predictions did not materialize so neither did their prospects for going public. Many of these firms achieve upward mergers with larger firms; their products complement those of the larger firms and thus fit well into the larger firms' marketing strategies. Upward mergers also yield high returns on invested capital.

The projections of potential benefits also do not include portfolio companies that continue to operate as small independent companies.

Chart 5

**AGGREGATE POTENTIAL BENEFITS—1980-89
FROM 1332 VENTURE BACKED
COMPANIES—1970-79**

	<u>Annual by 1989</u> (in Billions)	<u>1980-89 Cumulative</u> (in Billions)
Sales	\$88.8	\$537
Corporate Income Taxes	1.7	10
Employment	1.9 Million	N/A
Employee Taxes	5.0	30
Export Sales	13.6	100

Overall, there can be little doubt that the benefits to the Nation from the venture capital process during 1970 to 1979 are truly disproportionate to the \$1.4 billion originally invested in these 1,332 firms.

PART 3

HOW THE VENTURE CAPITAL PROCESS WORKS

COMPONENTS OF THE PROCESS

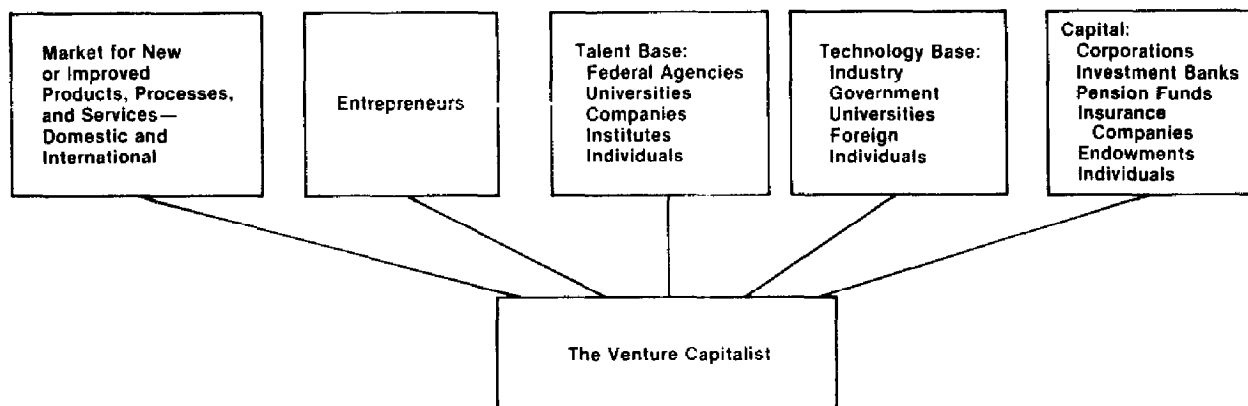
Three generic components make up the venture capital process:

- Technology that meets an identifiable market need.
- Talent that includes not only the entrepreneurs, but business managers, marketing managers, technologists, and others.
- Capital to develop a product, fund initial production facilities, and provide operating capital.

While chart 6 indicates the availability of the sources for these components, it does not begin to capture the complexities of the process by which the components are integrated. The key to integrating them is the venture capitalist and, more particularly, the portfolio manager. The impression that the venture capitalist merely supplies money to high-risk ventures is totally erroneous.

Chart 6

COMPONENTS OF THE VENTURE CAPITAL PROCESS



It is essential to understand that the driving force for the venture process, and the reason for describing it in detail, is the free enterprise profit motive. This portion of the report, therefore, is as much a description of the people involved as it is the process itself. Any conclusion that this is a mechanical process misses the mark. The process involves people, which is to say it

involves egos, personal drive, judgment, knowledge, experience, skills, and business savvy. These characteristics vary from person to person and are difficult, if not impossible, to describe accurately.

VENTURE SELECTION PROCESS

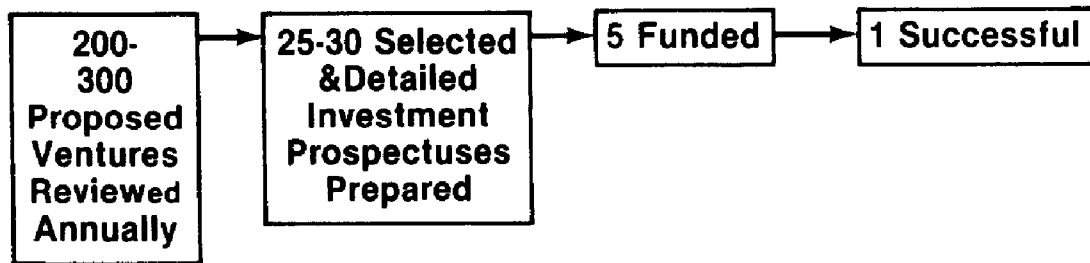
Very few business proposals presented to venture capitalists meet the stringent criteria for investment--assessments of the technology, markets, people who will be managing the enterprise, and business plans.

Chart 7 depicts the typical selection and screening process followed by each of the 130 top venture capital firms in the United States. Of 200 to 300 proposed ventures that a venture capital firm may review each year, about 90 percent are rejected during initial screening. About 25 to 30, or roughly 10 percent, are considered good enough for detailed analysis.

Analysis of these 25 to 30 business "packages" is significant because, according to venture capitalists (1) only five or six can be financed and managed by each of them at any one time and (2) the cost of analysis is high (top analysts are scarce and command daily fees of \$1,000 to \$1,500 for work that may range in scope from a few days to several months). Venture capitalists want to be able to select those packages offering the best prospects for success and/or the highest potential returns on investment.

Chart 7

VENTURE SELECTION PROCESS OF VENTURE CAPITAL FIRMS (PARTNERSHIPS — 100-125 FIRMS)



According to venture capitalists, the reason so few proposals are financed is a combination of the strict criteria applied, a dearth of or inaccessibility to highly competent management talent, the limited number of portfolio managers, and the risk-reward environment created by the Government.

Venture capital criteria--technical

Not all venture capitalists operate in exactly the same way, but some criteria are generic to the industry. These include assessments of the technology, market, management talent, and business plan.

Chart 8

VENTURE CAPITAL CRITERIA—TECHNICAL

- **Innovative or Unique Technological Applications**
- **Product Appeal That Yields High Profit Margin, e.g., Productivity Enhancing Products or Systems**
- **Competitive Variables of Technology and Applications Engineering (as Opposed to Economies of Scale Production/Price)**
- **Unexploited Spin-Off Opportunities**

In assessing the technical applications, the venture capitalist looks for an application of technology, whether new or not, that serves a unique purpose and, therefore, a unique and potentially fast-growing market.

A new product or new system should improve performance, increase the level of service, reduce costs, eliminate equipment needs, and so forth. For these reasons, productivity enhancing products, systems, or services are prime candidates for venture investments. All of the 72 firms discussed earlier produce and sell productivity enhancing products, systems, and services.

The uniqueness of the product must yield a high profit margin so that the competitive advantage of the would-be new company comes from the technology itself or the unique engineering applications of that technology. This uniqueness provides an effective channel into the marketplace, and the high profit margin provides sufficient cash flow for operations as well as profits to plow back into research and development.

Finally, the venture capitalist looks for technology with the potential for other unexploited applications. Since the market life of a new product is often limited to 3 to 5 years, the venture capitalist wants a product out of which other products can be developed, using the same distribution channels for marketing.

Venture capital criteria--markets

The distinction between the technical assessment and the market assessment is often hard to find. If the technical application is unique, it is unique to an identifiable user community. That community must be identified and tested sufficiently to convince the venture capitalist that the new applications not only will improve performance of a function or delivery of a service, but will do so to the extent that prospective users will want to buy the new product or service.

The size of the user community must be large enough to offer growth potential to a new firm. The venture capitalist looks for a market niche of at least \$50 million to \$100 million to support future expansion. In exceptional cases a market may not exist but a basic economic need is identified. This adds tremendously to the risk of a venture but may produce a major success.

Venture capital criteria--talent

The most critical criterion to the venture capitalist is that the people running a new business enterprise must be fully competent to do so. A standard cliché in the venture capital community is that a company using second-rate technology with good management is a better investment than one using first-rate technology with bad management.

The venture capitalist looks for unique technical know-how because this can provide market leadtime over a competitor. The company that gets to the market with a competitive edge captures a large share of the market as well as the bulk of the profit earned in that market.

The management team must consist of a group of individuals experienced in the areas of expertise critical to success, not only in technology but also in manufacturing, marketing, finance, and overall management.

Chart 9

VENTURE CAPITAL CRITERIA—MARKETS

- **Identifiable Market Niche**
- **Relatively Easy to Measure**
- **High Growth Potential**

Chart 10

VENTURE CAPITAL CRITERIA—TALENT

- **Experienced Managers With Proven Track Records**
- **Balanced Team**
- **Sources of Talent**
- **Incentives for Acquiring Talent**

Not uncommonly, the weakest part of a business proposal is the talent or management team itself. But by using many associations and connections, the venture capitalist often assists in locating and putting together a strong management team as a condition to raising the necessary capital.

Key members of the team are expected to have a high level of commitment to the enterprise; a "will to win"; a desire to become wealthy; a willingness to take risks; and, above all, personal integrity. To test the team's commitment, the venture capitalist often insists that team members make an investment in the new enterprise that is significant relative to their individual financial resources. While this may make the venture capitalist appear insensitive, venture capitalist philosophy holds that such a requirement is central to success.

A primary incentive to someone with recognized talent and experience is the opportunity of gaining part equity in a new firm. Although such a move represents a substantial risk on the part of a manager whose present income and job security are probably much higher than the new firm can offer, an ownership position in a new business enterprise whose success he or she can personally influence offers a chance for significant rewards. The value of founder stock or stock options received as a condition for joining a new enterprise, for example, can rise tenfold to twentyfold, depending on the success of the enterprise. The individual recognizes that success depends largely on all team members' initiative and drive.

Finally, the venture capitalist expects and usually insists on being part of the management team, ordinarily as a member of the board of directors. This mode allows the venture capitalist to assist the company with policies, strategies, financial advice, and so forth. This active involvement usually continues for at least 5 to 10 years. The lengthy period of active participation clearly sets the venture capitalist rationale apart from that of banks, SBICs, and other types of investors. Venture capitalists say they can participate actively in no more than five or six portfolio companies at any one time.

Venture capital criteria--business planning

The business plan prepared for the company must be realistic and achievable. It must include all the cost elements of running the business and conservatively project market penetration.

In practice, according to venture capitalists, cost estimates are often exceeded, while revenue and profit projections are rarely achieved, at least initially. Capital requirements projected in the business plan must provide for these contingencies. Otherwise, the company runs into serious cash flow problems, which in periods of high inflation and high interest rates can make success doubtful or impossible.

Chart 11**VENTURE CAPITAL CRITERIA—
BUSINESS PLANNING**

- **Planning Start Up and Early Growth**
- **Planned Expansion Through Public Stock Issue in 5-7 Years or Appropriate Equity or Long Term Debt Financing**
- **Cash Flow Projections**
- **Return on Investment Projections**
- **Staged Investments**

The market assessment and rate of penetration are extremely important. Market size and growth must enable the company to grow to about \$20 million in revenue and not less than 7 percent profit after taxes within 5 years. This growth and its timing are critical for later expansion via public stock sales or upward merger. During this period, capital availability must enable the company to develop to the point where additional capital can be raised from private sources for the next stage of development without value dilution. In other words, the company's actual performance must stay very near or exceed its projected growth so that its value increases in proportion to its size.

A final but critical projection is return on investment. Venture capitalists look for a prospective company with the ability to earn a compound rate of return on investment at least 20 percent greater than risk-free alternatives, such as secured loans and Treasury notes and bills. In this calculation, the time horizon is actually more significant than the capital requirement itself, because investment decisions consider the present value of dollars earned in the future. At the most frequently used discount rate of 15 percent, for example, the present value of a dollar earned 10 years from now is 24.7 cents; in 20 years, 6.1 cents; and in 30 years, 1.5 cents.

Using the present value method, it becomes readily apparent why business plans and strategies for new ventures use a maximum horizon of 5 to 7 years and, in turn, why maintaining the projected growth pattern to go public or merge upward within that time is critical to success. Otherwise, the extraordinarily high returns on investment are not achieved and investors may seek other avenues of investment.

As inflation grows, investment decisions are forced into shorter and shorter time periods and long range investments simply are not made. A necessary role for Government, therefore, is to be continuously aware of the impact of inflation on investment decisions so that appropriate changes can be made in policies, rules, and regulations to maintain a healthy entrepreneurial environment for risktaking.

STAGES OF BUSINESS DEVELOPMENT AND INVESTMENT

It is important to see how a new venture progresses from an idea to a mature business enterprise. A successful business enterprise passes through six phases, each one distinctly different in size, capital needs, managers, the way it is affected by Government rules and regulations, and where it finds capital for operations, growth, and expansion.

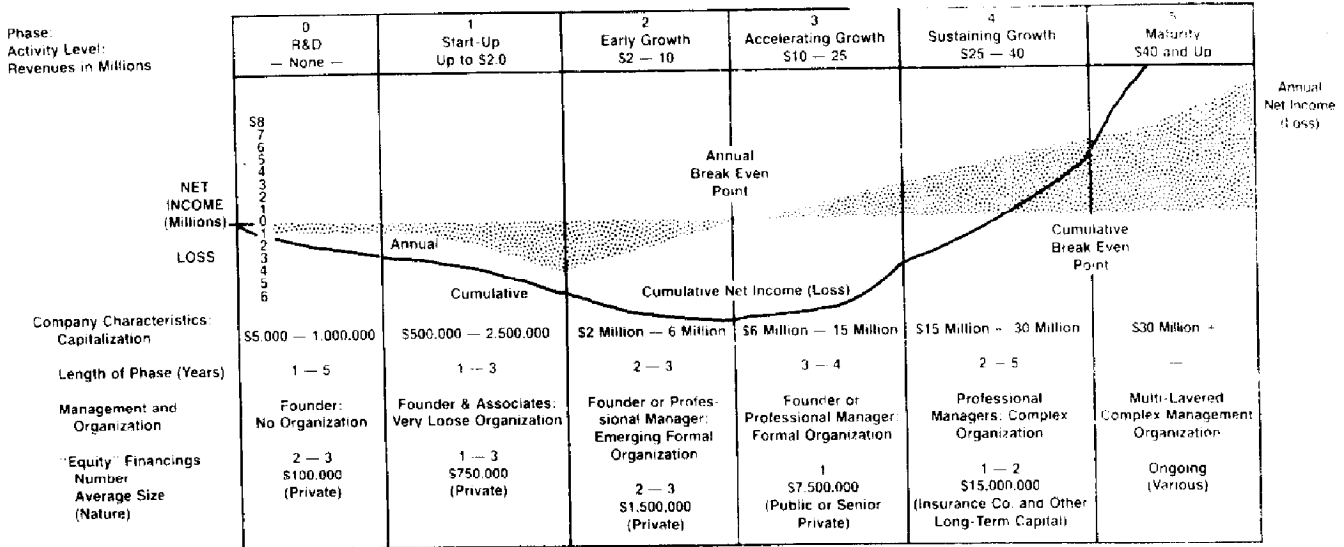
Chart 12 shows the life cycle of a new enterprise under fairly ideal conditions. The chart shows the kinds of milestones that must be met to proceed from one phase to the next, the kinds of activities that are occurring, what the sales and capitalization picture generally looks like, what the organizational structure looks like, and where capital resources come from. (The dollar figures used are very conservative. Depending on the complexity and sophistication of each business enterprise, dollar figures could be two or three times those shown in the chart.)

The research and development phase

Charts 13 through 17 describe each business development phase separately. The discussion is based on a hypothetical case because, since every new business faces somewhat different problems, it was not feasible to demonstrate all facets of business development through actual case histories. Appendix III, however, is an actual case history of a successful venture-backed company that experienced most of the elements described here. Information for this discussion was obtained and verified through discussions with several venture capitalists, entrepreneurs who had gone through this experience, and research of available literature and studies on the subject.

Chart 12

**LIFE CYCLE OF A NEW ENTERPRISE
MODEL OF A GROWING AND SUCCESSFUL COMPANY**



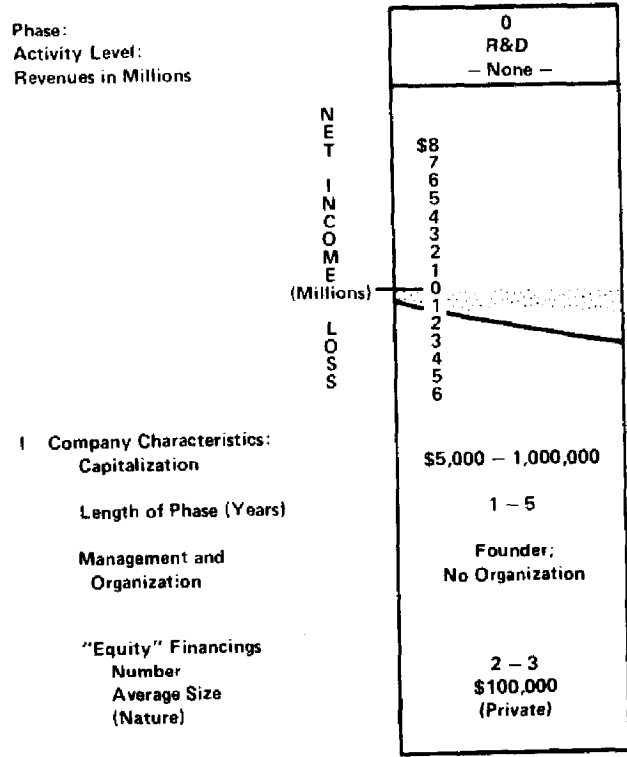
SOURCE: Small Business Administration

Assume that two or three bright scientists or engineers in an existing large company develop a good idea for a new product. The company, however, does not give the idea a high priority and the inventors decide to strike out on their own. (Such individuals could come from Government, universities, or research institutes, or simply be "garage" inventors.)

They pool their resources, maybe get additional support from family and friends, and proceed to develop their invention. This form of capitalization may raise enough money to last through product development, typically in some form of loose partnership. This phase may take 1 to 5 years, during which there is probably little or no income.

Chart 13

**LIFE CYCLE OF A NEW ENTERPRISE
MODEL OF A GROWING AND SUCCESSFUL COMPANY
1975 - 1976 FINANCIAL MARKET CONDITIONS**



Startup phase

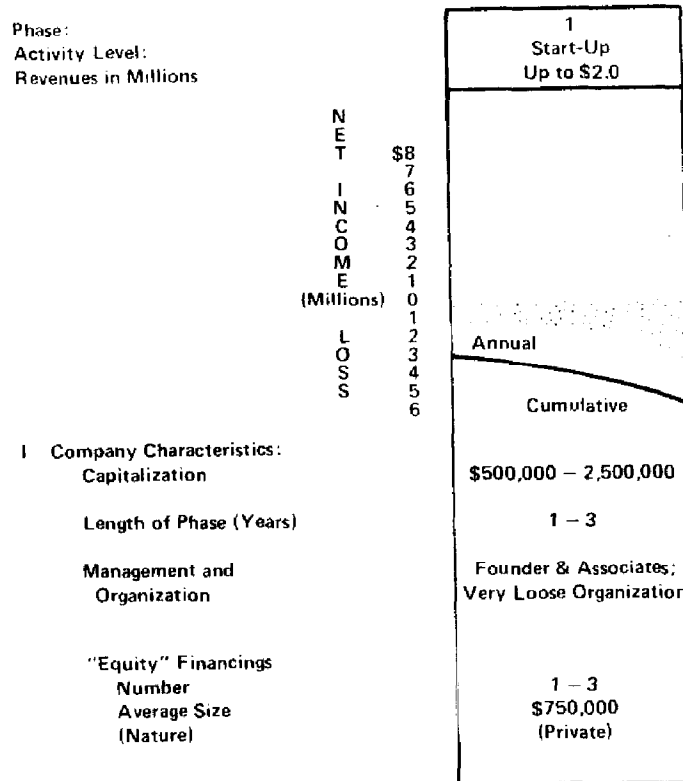
Once the inventors have their product developed and are ready to start their operation, they will need a large infusion of capital to build and equip a small production facility to serve a small and probably local market. The amount of capital needed may range from \$1 million to \$3 million. They may seek bank loans, but even if they can obtain this kind of debt capital, it is short term financing. The more short term loans they get, the worse their debt-to-equity ratio becomes. Each successive bank loan becomes more difficult to get, unless the company is exceptionally profitable, and in times of high inflation and high interest, the drain on cash flow from short term financing could quickly drive the new enterprise into bankruptcy.

What they need is permanent capital; in other words, they must sell equity. But since the new firm has no business record it cannot obtain investment bank or institutional funds, and it is too new to go public or merge upward.

At this point, the founders make up a business proposal and present it to a venture capitalist who reviews the proposal against

Chart 14

LIFE CYCLE OF A NEW ENTERPRISE
MODEL OF A GROWING AND SUCCESSFUL COMPANY



the venture criteria described earlier. If the proposal meets those criteria, the venture capitalist may be willing to fund the new enterprise in exchange for an equity position.

For many inventors and entrepreneurs, the share of equity that must be given up to the venture capitalist is a bitter pill to swallow. It may be 50 percent or more. What they learn, however, is that their growing portfolio company must dilute its equity, as well as that of the venture capitalist, in order to acquire the management team necessary to ensure business success in the long run. The growing venture-backed company will probably have to offer an equity position or attractive stock options to entice needed talent to give up secure positions for ones in which success depends entirely on skills and personal drive. This aspect quickly separates those individuals content to manage a small, independent business from those who aspire to build a significant growth business.

(The stock option provisions of tax law provide the United States one of the most effective and enviable incentives to entrepreneurship of any country in the world. A change in tax treatment of stock options in 1976 materially inhibited the flow of talent into new business enterprises. Those changes were reversed in 1981.)

If the venture meets all criteria, the venture capitalist will raise the capital needed by the new firm in exchange for an equity position in the company. This first-stage financing is critical to the new firm because it provides enough capital to operate to a break-even or profit position, at which point it can obtain additional capital for expansion through bank loans or second-stage venture capital financing.

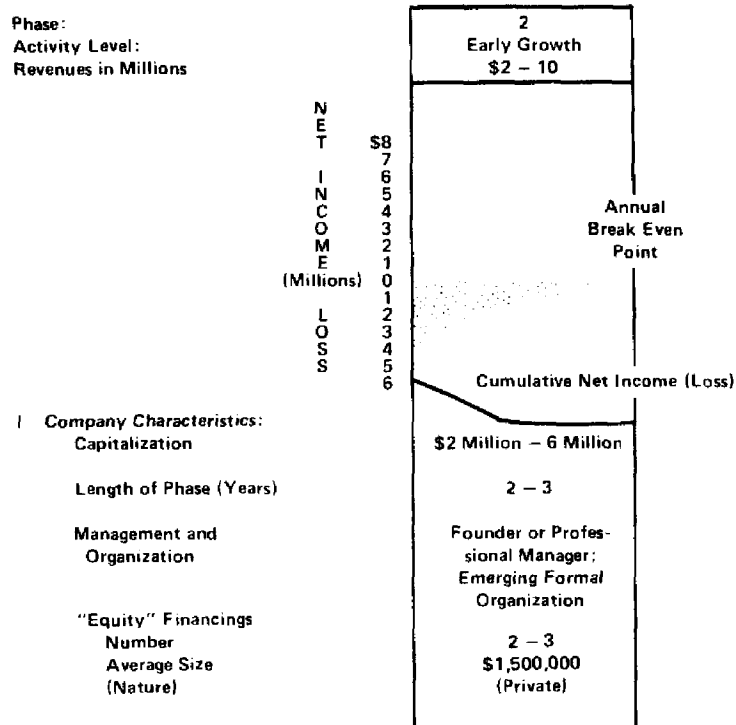
The new firm's organization becomes more structured, and startup--the time required to begin producing and selling a product--may take 1 to 3 years. The venture capitalist or portfolio manager serves as advisor, probably as a member of the board of directors.

Early growth phase

Assuming things have gone well to this point, the new firm may have reached annual revenues of \$2 million to \$3 million, perhaps approaching its maximum capacity within the existing business operation. If the market for its product looks good, it will now want to expand, requiring an even larger infusion of new capital--say \$1.5 million to \$2 million, or, in today's environment, \$3 million to \$5 million.

Chart 15

LIFE CYCLE OF A NEW ENTERPRISE
MODEL OF A GROWING AND SUCCESSFUL COMPANY



Again, its operation is not sufficient to attract a public stock offering, so the venture capital firm or group of firms may again supply the needed capital. This is second-stage financing. To raise this round of financing, growth in sales and earnings must have been sufficient to prevent value dilution. Otherwise, raising the needed capital may be difficult since the company may appear to be a questionable investment.

Having raised second-stage capital, the company is likely to require more key professional talent, both technical and managerial; a more formal organizational structure; and possibly expansion into new product lines. The question of incentives to new managers again comes into play. In addition, during the early growth phase, revenues must grow rapidly through increased sales, and earnings must exceed the break-even point within 24 months.

As discussed previously, these are critical milestones because they reinforce earlier projections of markets, growth potential, and return-on-investment calculations. But perhaps most important, progress to this point dictates success in the next phase: the new firm's move to acquire expansion capital through a public stock offering.

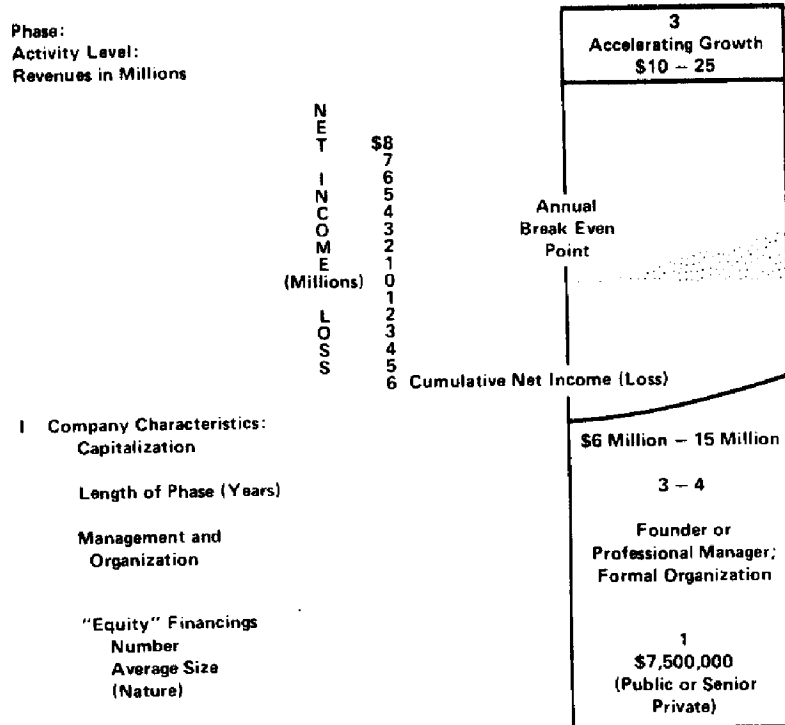
Accelerating growth phase

Now further expansion should occur, new product lines should be introduced, and a formal organization should be established. This is the phase that will determine whether the firm will grow and mature into a medium or large firm. A new and larger infusion of capital must now be raised through senior private placement or public offerings, say \$7.5 million to \$8 million on a conservative scale or as much as \$20 million to \$50 million in a more complex arrangement. Unless the company's performance record has met expectations, this level of new capital may not be available and venture capitalists may go into third-stage financing. If this financing is not forthcoming, the company stops growing or it merges with or is bought by another firm.

For the venture capitalist, liquidation is the payoff. The preference is a public offering or at least an upward merger. Both offer high returns to the investors to whom the venture capitalists are accountable. The venture capital firm should now be able to either distribute its investment in cash or liquid securities to its investors (usually limited partners) or plow the returns back into other promising ventures. Obviously, to achieve high returns, a venture capitalist must have a number of big successes to offset failures and marginal successes. No institution other than the venture capitalist approaches investments with this rationale. As a result, according to industry representatives, aggregate returns on investment for professionally managed venture capital funds historically have averaged 25 percent or more, compounded annually.

Chart 16

**LIFE CYCLE OF A NEW ENTERPRISE
MODEL OF A GROWING AND SUCCESSFUL COMPANY**



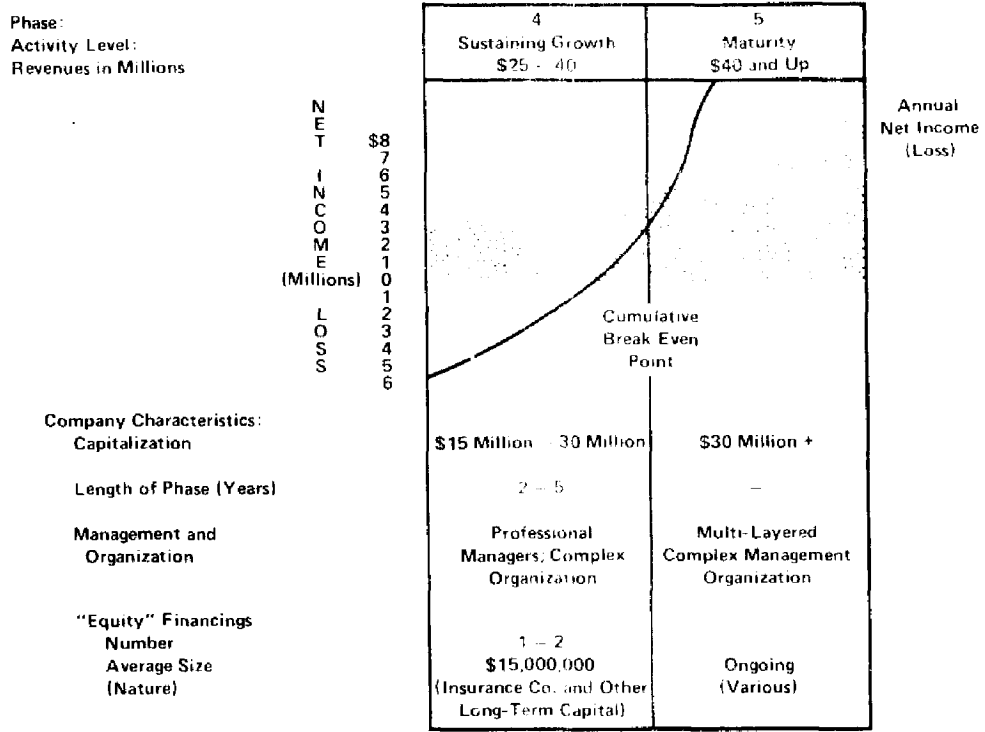
For the issuing company, going public provides new permanent capital in the form of increased equity investment; new borrowing capacity through an improved debt-to-equity ratio; working capital; and capital for expansion, marketing, and perhaps acquisitions of its own.

Sustained growth and maturity

Once a firm has reached annual revenues of \$25 million or more, after-tax net profits of 7 to 8 percent, an annual growth rate of 25 percent, and a solid capital base, it has access to a wide range of financing arrangements, both debt and equity. A well-managed and well-structured organization should continue to grow to maturity.

Chart 17

LIFE CYCLE OF A NEW ENTERPRISE
MODEL OF A GROWING AND SUCCESSFUL COMPANY



ROLE OF THE VENTURE CAPITALIST

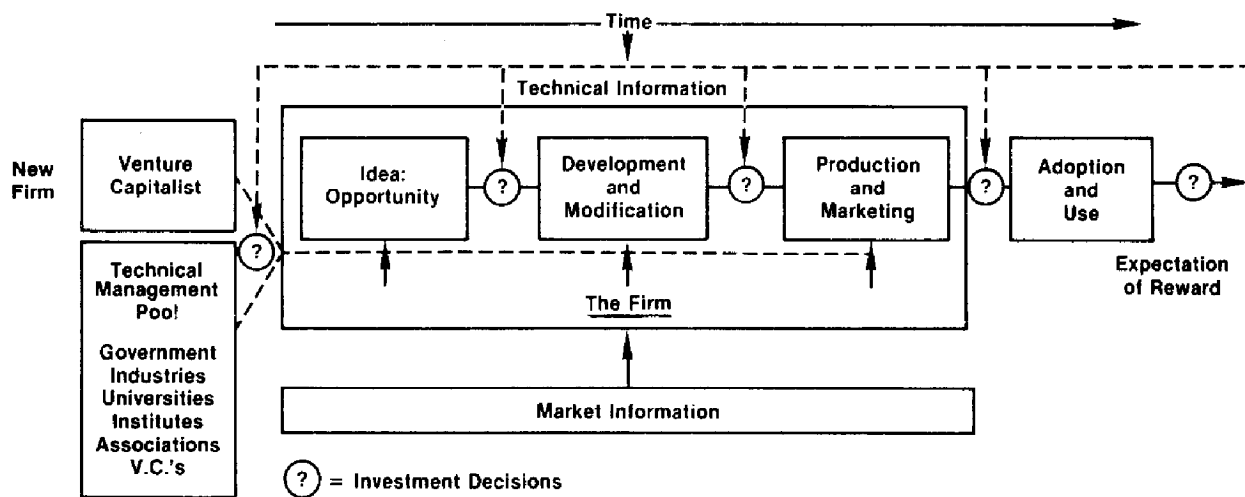
In summary, the role of the venture capital firm, and in particular the venture capital portfolio manager, is far more than that of simply supplying capital to an entrepreneur to develop and market an idea. As portrayed in chart 18, it is to:

- Analyze the idea from both a technological and business perspective.
- Help the entrepreneur prepare a business plan and an investment prospectus.
- Validate the risk/reward ratio of the plan.
- Assist, as necessary, in locating individuals who together form a highly qualified technical and managerial team.
- Obtain investment capital, including continuing assistance in short term and long term financing.

- Participate as an active adviser to the team to facilitate the success of the fledgling enterprise.
- Assist in developing supplier relations and in marketing products, often through personal contacts with other portfolio companies.

Chart 18

ROLE OF THE VENTURE CAPITALIST



PART 4SENSITIVITY OF THE VENTURE CAPITAL PROCESSTO GOVERNMENT RULES, REGULATIONS, AND POLICIESEFFECT OF POLICY AND RULES CHANGES
ON THE FLOW OF VENTURE CAPITAL

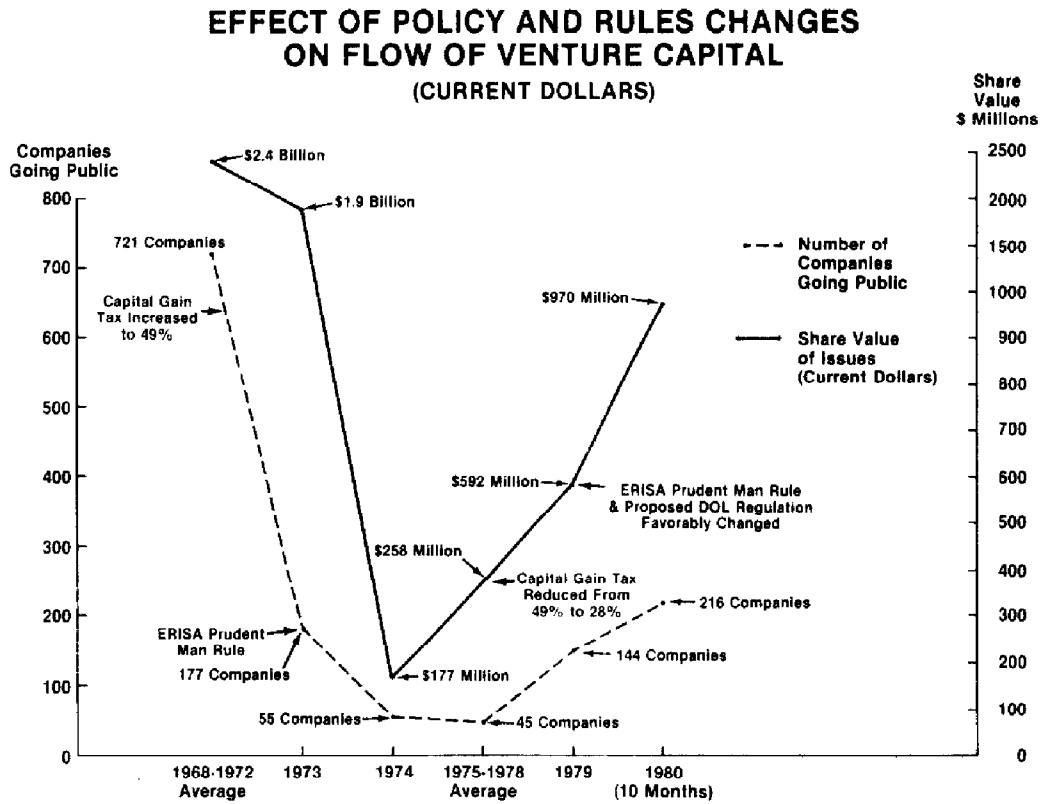
Despite the demonstrated high payoff the venture capital process provides to the Nation, the flows of venture capital, technological innovation, and entrepreneurship have slowed precipitously at various times, as either a direct or an indirect result of Government rules, regulations, and policies. Advocates of the process believe that such results are neither desirable nor necessary and, for the most part, are not intended by policymakers. Their view is that any Government action that affects return on investment, innovation, or the willingness to take risks is immediately felt in the process.

Most Government actions affect the process directly by increasing or decreasing the flow of available capital. According to venture capitalists, the availability of venture capital affects the number and willingness of entrepreneurs to take risks. Often this means the entrepreneur's personal perception of availability. Venture capitalists believe that negative Government actions come about inadvertently because those who make policies and rules lack sufficient understanding of the process to predict their outcome.

One major action frequently pointed to is the Tax Reform Act of 1969. This was the first in a series of tax changes that by 1976 had increased the capital gains tax rate from 24 percent to a maximum 49 percent and significantly altered the tax treatment of stock options. Charts 19 and 20 illustrate the dramatic decline in venture capital and in the number of venture-backed companies going public. Venture capitalists believe this situation resulted directly from the increases in the capital gains tax. Chart 19 figures are in current dollars, and chart 20 figures are in 1969 constant dollars.

From 1968 to 1972, an average of \$2.4 billion was raised in new issues for an average of 721 companies that went public each year. This fell to a low of \$117 million raised for 55 companies in 1974, and a 3-year average of \$258 million for an average of only 45 companies a year during 1975 to 1978. A reversal then occurred with the enactment of the Revenue Act of 1978, which rolled back the capital gains tax to 28 percent. Another boost to the supply of available venture capital came in 1979 when the Department of Labor took a more liberal view of the Employee Retirement Income Security Act (ERISA) "prudence" rule affecting the ability of pension trust fund managers to invest in so-called risky ventures.

Chart 19

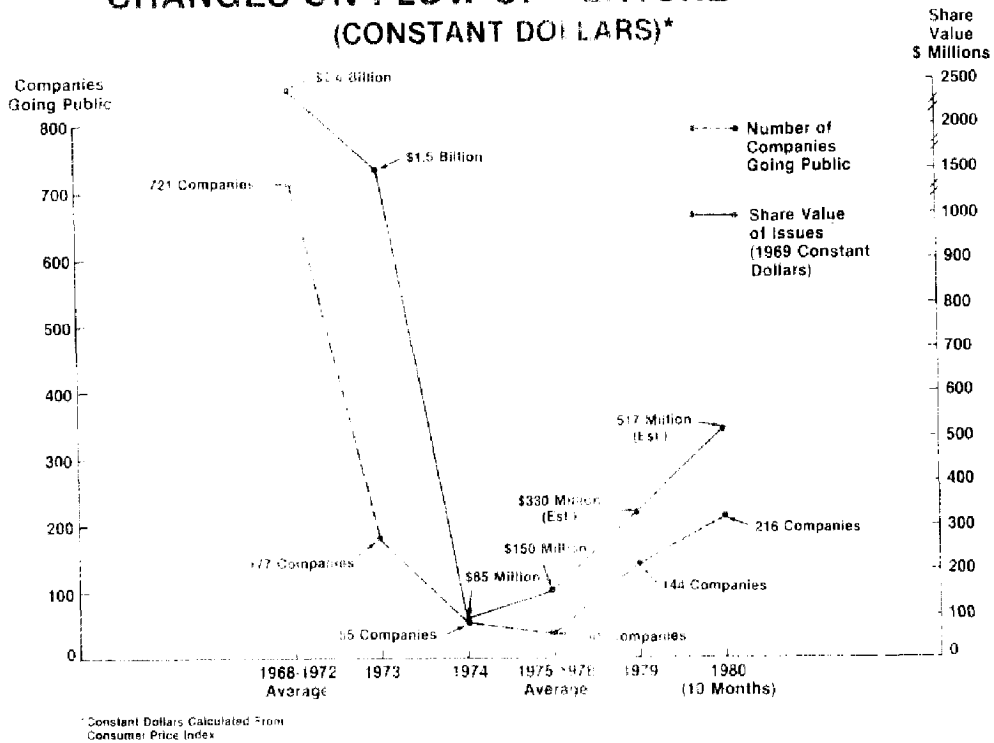


SOURCE: Venture Economics and GAO estimate

Note that the \$970 million raised in new issues in the first 10 months of 1980 financed only 216 companies, an average of \$4.5 million per company compared with \$3.3 million per company from 1968 to 1972. This 36-percent increase is evidence of high inflation over the last several years. Even more dramatic was that funds raised in 1980, in 1969 constant dollars (chart 20), amounted to only \$517 million, or an average of only \$2.4 million per company going public. In this context, it appears that either (1) companies going public in 1980 were undercapitalized compared with those in 1968 to 1972, and thus may not achieve the expansion otherwise possible, (2) the companies were better managed, or (3) investors were simply paying more and getting less.

Chart 20

**EFFECT OF POLICY AND RULES
CHANGES ON FLOW OF VENTURE CAPITAL
(CONSTANT DOLLARS)***



SOURCE: Venture Economics and GAO estimate

Government actions cause "ripple" effects

Charts 19 and 20 do not indicate the "ripple" effects that venture capitalists believe were caused by the 1969 and subsequent acts. Entrepreneurs, for example, became less inclined to present business proposals because they knew venture capital was scarce. Such a condition at least infers a slowdown in research and development, especially by individuals. In addition, drawing high-caliber management talent into new ventures was more difficult because there was no incentive for a candidate to abandon a relatively secure career for one laden with risk. That is, the marginal difference between existing salaries and bonuses, versus highly taxed capital gains and stock options, eliminated any monetary advantage of taking such a risk.

The logic of incentivizing this kind of risk is better appreciated when viewed in practical terms. For example, most individuals who meet venture capitalists' criteria of high-caliber management talent are between the ages of 30 and 50. Yet, these are the individuals who have the heaviest financial obligations,

usually related to family commitments--mortgages, children from infancy to college age, and so on. Unless the potential rewards are significant compared with the financial risks, people in this category will not jeopardize their existing security.

OTHER GOVERNMENT RULES AND REGULATIONS
AFFECTING THE VENTURE CAPITAL PROCESS

Virtually hundreds of rules and regulations affect the venture capital process. They cover a wide range of issues and are administered by different Federal agencies. Tax regulations are administered by the Internal Revenue Service in the Department of the Treasury; securities regulations are administered by the Securities and Exchange Commission; pension fund regulations are administered by the Department of Labor; antitrust regulations are administered by the Federal Trade Commission; health and safety regulations are administered by the Office of Safety and Health Administration in the Department of Labor; patent rules are set by the Congress and administered by the Patent and Trademark Office in the Department of Commerce; environmental regulations are administered by the Environmental Protection Agency; and so on.

Because the range of issues and degree of Government involvement affecting the venture capital process are so great, no single Federal agency or congressional committee has total jurisdiction. Moreover, the venture capital industry has no focal point, mechanism, or conduit through which its concerns can be voiced or where dialog between Government and industry can routinely take place.

If such a mechanism had been in place during the 1970s, venture capital representatives say, much of the adverse impact from Government policies, rules, and regulations experienced during that decade could have been lessened and some may have been avoided altogether.

Venture capitalists expressed a number of views that appear to be particularly noteworthy:

- The basis on which a rule or regulation was originally established changes over time and may cease to exist, making the rule inappropriate.
- The criteria or parameters used originally are often overtaken by such factors as inflation or other economic conditions.
- The potential exists for improving the rulemaking process by gaining more active and direct participation by industry.

PART 5

BRIGHT PROSPECTS FOR THE FUTURE

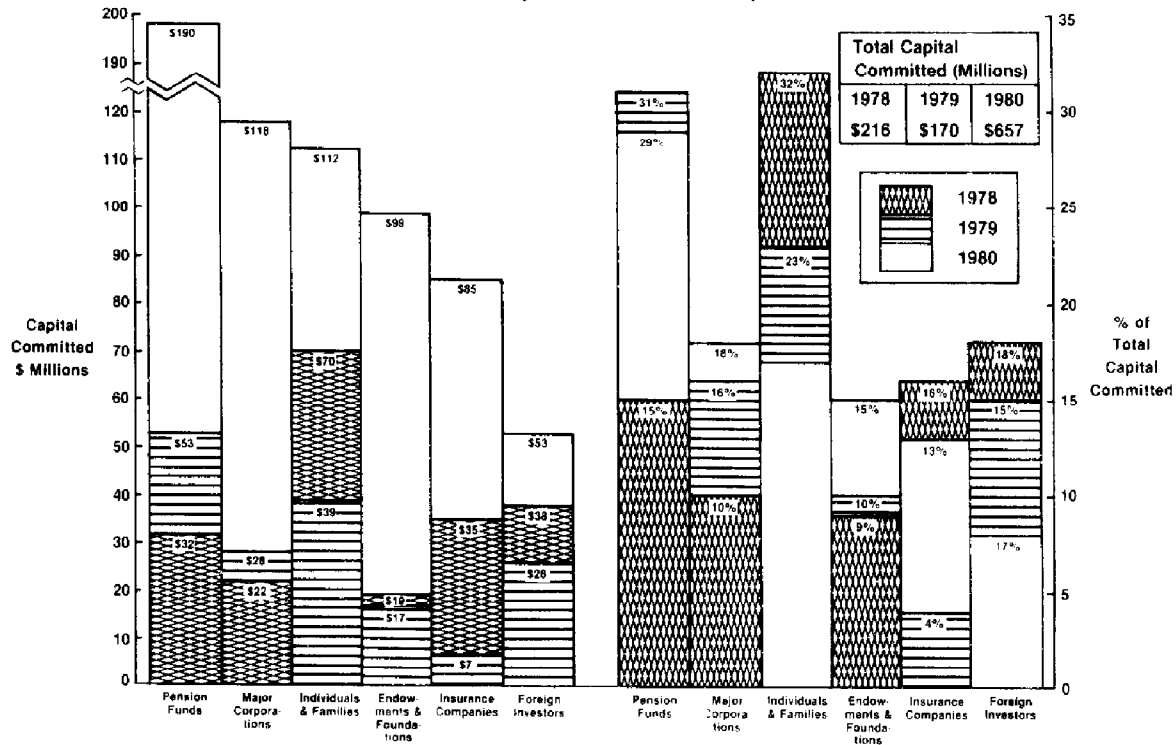
AVAILABILITY OF VENTURE CAPITAL IS HIGH AND IS GROWING

Venture capital was more readily available in 1981 than at perhaps any time in the Nation's history. New capital committed to venture capital companies of \$657 million in 1980 was nearly 400 percent above the \$170 million committed in 1979. According to Capital Publishing estimates, commitments in 1981 were about \$1 billion and a similar amount is expected in 1982.

As shown on chart 21, the largest investors are pension trust funds, major corporations, wealthy individuals and families, endowments, insurance companies, and foreign investors.

Chart 21

MAJOR SOURCES OF CAPITAL COMMITTED — 1978-1980 — TO THE INDEPENDENT VENTURE CAPITAL FIRMS ONLY (100-125 FIRMS)



SOURCE: Venture Economics and GAO

Venture capitalists believe the growing availability of venture capital is a direct result of (1) reducing the capital gains tax from 49 percent to 28 percent in 1973, (2) relaxing pension trust fund investment rules in 1979, and (3) further reducing the capital gains tax for individuals from 28 percent to 20 percent in 1981. In their opinion, these changes have created incentives for risktaking not seen in the United States since 1969.

By far the largest source in 1980 was the pension trust funds --\$190 million or 29 percent of the total \$657 million committed-- with an increase of nearly 400 percent over 1978 to 1979. While the Department of Labor has no specific data to support these figures, the general trend appears to be consistent with the primary objective of the Department in setting pension investment policy. That is, to create an environment that gives pension fund managers flexibility to exercise prudent investment strategies over a broad range of opportunities, including venture investments.

A growing number of large corporations are looking to venture capitalists to keep them ahead of inflation. Part of the corporate strategy is to finance new small companies because these historically have been more aggressive.

A number of large corporations have set up venture capital divisions themselves, but few have achieved the level of success that the top 100 to 125 venture capital firms have. Our discussions with venture capitalists and with large corporations attempting to execute the venture capital process confirm that the reason for lack of success is that few of them applied the same rigid criteria for venture investments that are followed by established venture capital firms. One view expressed was that large corporations were very good at 1- to 3-year "product development" decisions, but not at 3- to 7-year "business development" decisions, the latter representing the venture capitalist's forte. Therefore, part of the increase in venture funds from large corporations is a specific corporate strategy to invest in experienced venture capital partnerships to gain a "window" on technology as well as high returns on investment.

Wealthy individuals and families historically have been a primary source of venture capital. The increase in investments by this group in 1980 indicates the more conducive climate for risk-taking created by recent tax policy changes. The large increases in participation by endowments and insurance companies indicate recognition of the venture capital process as a sound investment strategy. The steady increase in foreign participation indicates confidence in the venture capital process and, again, an apparent strategy to gain a window on U.S. technology and markets.

A VENTURE CAPITAL SHORTFALL STILL EXISTS

Despite these increases in available venture capital, a shortfall continues to exist. Depending on how the shortfall is

estimated, it could range from \$5.5 billion to \$13.5 billion on the optimistic side to as high as two to three times these figures on the pessimistic side.

Chart 22

VENTURE CAPITAL SHORTFALL

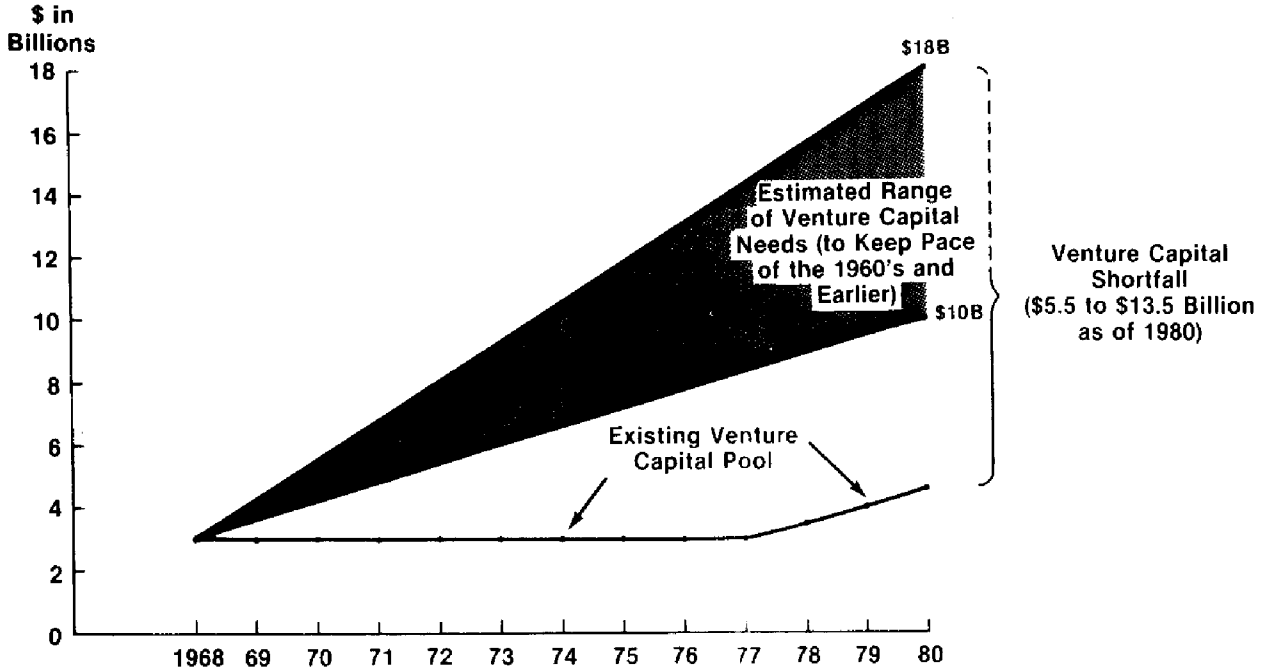


Chart 22 presents a conservative estimate of the shortfall. The top two curves, showing 1980 venture capital needs of \$10 billion to \$18 billion, are based on separate estimates by the Congressional Research Service and Venture Economics. Each study used slightly different assumptions, and each is calculated in constant dollars using pre-1968 venture capital growth as a baseline. In current dollars, this shortfall would be two to three times that shown in the chart. The bottom curve, calculated in current dollars, shows a virtual lack of growth in the venture capital pool during the 1970s but ignores the devastating effect of inflation. This also suggests the actual gap is wider than shown in the chart.

The accuracy of these estimates, however, seems far less important than the fact that recent tax policy changes have created an environment conducive to risktaking. Venture capitalists are confident the current trend in increased availability of venture capital will begin to close the gap and support whatever level of entrepreneurial activity the marketplace dictates.

Notwithstanding the positive side of these recent policy changes, the significant and relatively sudden turnabout in the availability of venture capital brings to bear a different set of potential problems.

THE NUMBER OF EXPERIENCED VENTURE CAPITALISTS
NEEDS TO INCREASE TO MANAGE
THE GROWING AVAILABILITY OF VENTURE CAPITAL

The paucity of venture capital during the 1970s discouraged the entry and training of new venture capitalists, and the number of experienced venture capitalists declined. Since the process depends heavily on the personal involvement of venture capitalists, which are limited in number, a major challenge to the industry is to train enough competent analysts and portfolio managers to accommodate the growing supply of capital.

Recall that one important criterion of the venture capitalist is that for those new businesses financed, he or she continues as an active participant until the firms have grown to a point that they can go public or merge upward. This means that successful venture capitalists are limited by the number of companies in which they can actively participate--not by the number they can finance. Thus any shortage of experienced venture capitalists takes on more significance.

For example, chart 23 shows rapid growth in new capital committed to organized venture capital companies (broken curve) following the enactment of the Revenue Act of 1978. Then from 1978 to 1979, new capital declined while, in the same period, disbursements by venture capital companies into portfolio companies (solid curve) rose dramatically. As corroborated by the president of the National Venture Capital Association, existing venture capital firms essentially became saturated, which meant that most of their efforts were devoted to investing the capital on hand rather than raising more capital.

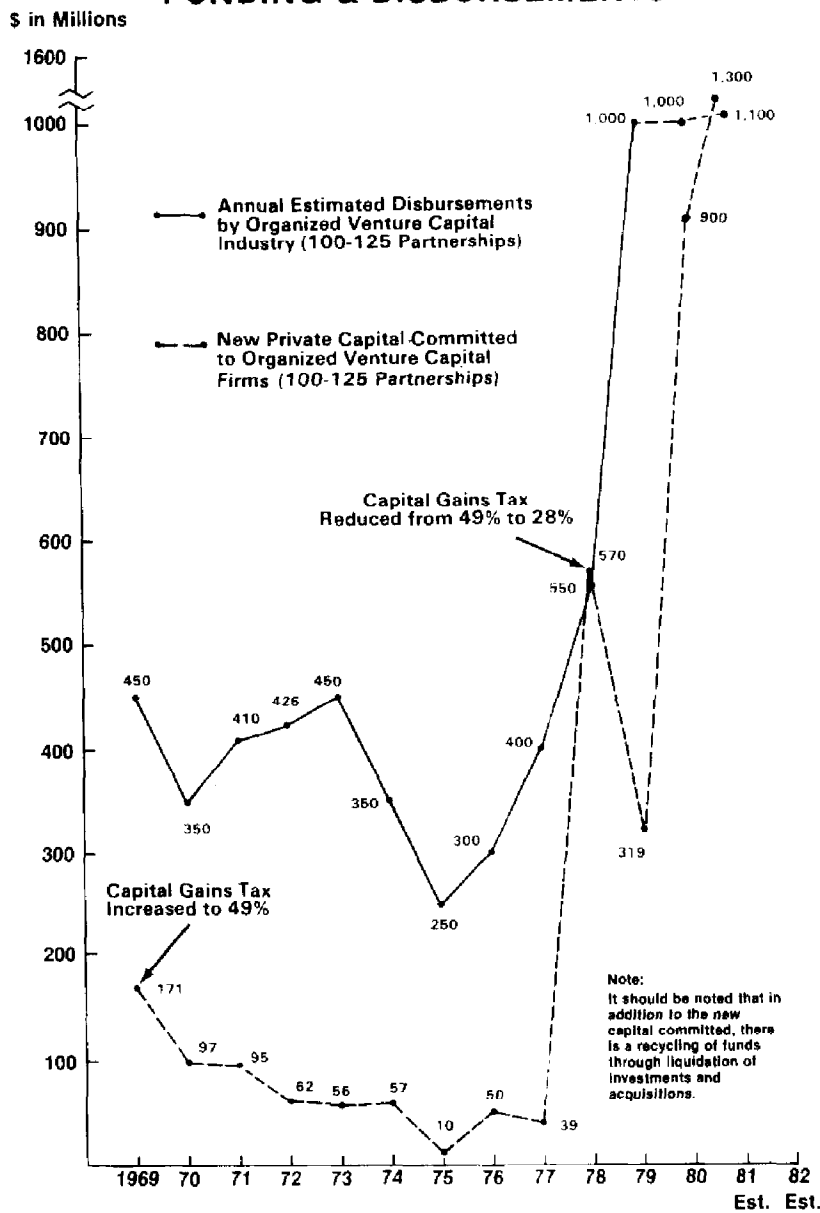
To keep pace with the growing supply of capital, at least 29 new venture capital firms came into being between 1978 and 1980, bringing the total number of organized firms to 131 as of May 1982. According to National Venture Capital Association estimates, about 80 to 90 percent of all private venture capital placements are made by its 131 member firms.

A major challenge to the existing venture capital industry is to train, by apprenticeship or some other means, enough competent analysts and portfolio managers to accommodate this large growth in available capital. If this is not done, according to venture capitalists, numerous new, inexperienced, maybe incompetent venture capital firms are likely to be formed. If their investment records and rationale are seriously flawed, the entire industry could suffer. This, in turn, could result in Government rules and regulations that stifle entrepreneurship and could affect the public securities markets. The established venture capital community is very much concerned about this.

Venture capitalists believe that learning through apprenticeships is necessary. In fact, the 29 new funds established since 1978 relied heavily on the apprenticeship approach. That is, general partners in most new funds include one or two apprentices and one or two general partners of an earlier fund. This approach, they believe, provides essential continuity and guidance while it increases the number of experienced venture capitalists.

Chart 23

VENTURE CAPITAL INDUSTRY FUNDING & DISBURSEMENTS



SOURCE: Developed by GAO from data provided by Venture Economics.

VENTURE CAPITALISTS MAY NEED
STRENGTHENED STANDARDS OF PROFESSIONALISM

The increased recognition of the importance of the venture capital industry to our free enterprise system, the enhanced encouragement for risktaking, the rise in available capital, and Government's inevitable and necessary role as rulemaker and policymaker have created an environment in which the venture capital process could be appropriately recognized as a unique professional discipline. To achieve this status, the industry would need to play a primary role by establishing its own generally accepted principles and practices for entry into and operating in the profession.

While the industry founded the National Venture Capital Association in the early 1970s and represents 80 to 90 percent of funding activity, its charter merely admonished its members to "act in a professional manner" without defining what that meant. For example, it did not include standards for entry into the industry, for operating once in the industry, or for compliance monitoring.

A call for generally accepted principles and practices developed by and for the industry would be an expansion of the widespread practice of self-monitoring. Such a practice is followed by the American Bar Association for the legal profession and by the Financial Accounting Standards Board and the American Institute of Certified Public Accountants for the accounting and auditing professions.

There appears to be very practical logic as well. If an adequate number of professional venture capitalists were assured, generally accepted principles and standards would be less needed. Conversely, strengthened standards could lead to improved training and enhanced professionalism. However, if neither exists, an increase in inexperienced venture capitalists in an environment of increased capital could lead to a deterioration of the image of the industry and possibly to a lower rate of success for the process.

In discussing this subject with some industry spokesmen in July 1981, we found agreement that the industry should develop its own set of principles and practices for self-monitoring. They felt that if industry does not develop standards, the Government may. Industry is extremely sensitive to further Government intervention. Industry does not oppose Government rules and regulations and, in fact, recognizes the need for them. However, both Government and industry should be concerned about and want to correct Government actions that cause unexpected turbulence. Ideally, self-monitoring would eliminate the need for some Government rules and mitigate others.

In responding to our June 1982 draft report, the National Venture Capital Association stated that its Board of Directors, in

April 1982, created a Professional Standards Committee to develop a Code of Professional Standards. The code, comprising seven comprehensive standards, has been developed and adopted by the Board of Directors. As of this report, the code was being circulated to member firms. Membership in the Association, both new and renewal, will require acceptance of the code.

PART 6MAINTAINING AN ENVIRONMENTFOR ENTREPRENEURSHIPGOVERNMENT AND INDUSTRY DIALOG
COULD OFFER A MEANINGFUL FIRST STEP
TOWARD IMPROVED RULES AND POLICYMAKING

The venture capital process as it has evolved is a vital link in our free enterprise system between research and development and the introduction of new productivity enhancing technology into new and fast-growing business enterprises. It is the nucleus of new company stocks that will be traded in public stock exchanges. Government policies, rules, and regulations have caused extreme fluctuations in venture capital activity by controlling the availability and flow of capital. They have also inadvertently interrupted entrepreneurial activity and limited the entrance and training of new venture capitalists.

The sophistication and complexities of the process; the myriad Government policies, rules, and regulations that affect the process; the sensitivity of the industry to Government action; the prospect of too few experienced venture capitalists; and the newness of industry standards preclude specific recommendations. Rather, the many issues involved warrant the creation of a public forum for Government and industry dialog. In its response, the National Venture Capital Association said it "enthusiastically looks forward to the establishment of an appropriate public forum for a more efficient exchange of ideas." Congressional hearings could be an appropriate initial step and, as a minimum, they could address these questions:

- What kind of forum, if any, would be agreeable and beneficial to both Government and industry to exchange views on current or proposed policies, rules, and regulations affecting the venture capital process?
- Should such a forum be established on a permanent or an ad hoc basis?
- Should such a forum be housed in the legislative or the executive branch or both?
- What form of industry participation would be most effective to identify and address issues sensitive to the process; should there be representation by individuals or through the National Venture Capital Association or other organizations?
- What are the prospects of there being too few experienced venture capitalists?

--How does industry propose to alleviate potential shortages?

--Is there a role for Government in assisting industry?

Open discussion of these and other questions could result in agendas for specific action by both Government and industry which could strengthen the entrepreneurial spirit that has been the backbone of the American free enterprise system.

THE CONTRIBUTIONS OF A SMALL, HIGH-TECHNOLOGY FIRM
TO PRODUCTIVITY: A CASE STUDY

This case study demonstrates the remarkable benefits to the Nation's economy that can accrue from the successful application of technology and innovation by a small, high-technology firm. Significant productivity enhancing benefits resulted from the diffusion of the firm's products into the design and manufacturing operations of its customers in a wide variety of industries. Other positive contributions to the gross national product are the substantial number of jobs created by the firm and the tax revenues produced. Since the company operated in foreign markets it also contributed to the Nation's export trade, thus helping to alleviate our trade deficit. This case study also documents the vital contribution by venture capitalists to the development and growth of the company. Indeed, without the commitment of venture capital, it is likely that the firm's entrepreneurial and technological success would not have occurred.

This case study is based on information taken from the company's annual reports, financial investment reference sources, filings with the Securities and Exchange Commission, and--to a lesser extent--periodicals. We visited the company and obtained information on its initial founding and development. We also discussed the productivity benefits accruing from the diffusion of its products among its customers, particularly one large corporation.

THE COMPANY

This case study presents the results achieved by the company from 1969 to 1979. The company, headquartered in Bedford, Massachusetts, is in the industry automation business. It designs, manufactures, markets, and services products that automate the product development and production processes of its customers. Its customers increase productivity, improve product yields, and shorten the new product development or manufacturing cycle by automating complex and repetitive design and manufacturing tasks.

In the year ended December 31, 1979, the firm earned \$12.9 million after taxes, or 9.9 percent of \$131.5 million in sales. Results, by the two industry segments in which the company operates, were:

	<u>Net sales</u>	Operating profits (note a)
	------(millions)-----	
CAD/CAM systems and products (note b)	\$103.0 (73%)	\$26.9 (99%)
Semiconductor production automation products	<u>28.5</u> (22%)	<u>0.3</u> (1%)
Total	<u>\$131.5</u> (100%)	<u>\$27.2</u> (100%)

a/Before taxes, interest, and general corporate expenses.

b/CAD/CAM stands for "computer aided design/computer aided manufacturing."

For the 9 months before September 30, 1980, the firm's sales were \$161 million and its net income was \$15.9 million (9.9 percent of sales). For all of 1980, the firm anticipated sales of around \$200 million; about 33 to 35 percent was contributed by the CAD/CAM line.

The company markets products and services domestically through its own sales and field service organizations in 35 cities located in 19 States. Internationally, the company has seven wholly owned European sales subsidiaries. It also maintains sales and service locations or operates through international sales representatives in the Far East, Australia, Mexico, Canada, and Venezuela. The company reported that product sales in Europe had nearly doubled during 1979, and that it planned a rapid expansion into the Japanese market in 1980. About 50 percent of its CAD/CAM sales are outside the United States and Canada.

The firm's products have been sold to the electronics, automotive, energy, piping, aerospace, metalworking, semiconductor, and mapping industries; public utilities; and various government agencies.

RAPID DEVELOPMENT AND GROWTH

In the 11 years from its beginning in 1969 to 1979, the company's sales grew from \$51,000 to \$131 million--a compound annual growth rate of over 139 percent. Following losses of about \$1.2 million incurred in the first 2 years of operations, after-tax net income grew from \$70,000 in 1971 to \$12.9 million in 1979, or over 92 percent compounded yearly. During the 11 years the company invested about \$33 million in research and product development and made capital investments in property, plant, equipment, and acquisitions of over \$37 million. No cash dividends were paid during this period.

STARTUP BY ENTREPRENEURS

The firm was incorporated in Massachusetts during January 1969. The original corporate business strategy was to develop and sell products and systems to increase the productivity and profitability of a wide variety of industries.

The company was founded by two individuals, one of whom was chiefly responsible for the design and development of its original products. The other founder provided overall managerial talent. He has been the firm's president since 1969 and chairman of the board since 1979.

The idea for the company was conceived while both founders were working for a large technologically oriented firm, after extensive discussion with a group of engineering professors. Influenced by their technical backgrounds in design work, the entrepreneurs decided early to concentrate on turnkey systems in the computer graphics market. From a group of about 12 product ideas, they selected 3 of the most feasible. They opened a small office in Waltham, Massachusetts, with about 16 employees. As of March 1980, the founders still owned about 22 percent of the total outstanding stock of the corporation.

VENTURE CAPITAL PROVIDED THE SEED MONEY

A venture capital firm invested about \$320,000 in the company's stock early in 1969 as first-stage financing. During April 1970 a group of six other venture capitalists invested another \$635,000 as second-stage financing. On several occasions during 1971 some of these same investors and other venture capitalists provided additional capital. In all, from April 1970 to February 1972, 17 different venture capitalists invested over \$1 million in the company, of which about \$820,000 represented equity financing by the purchase of company stock. Representatives from two of the venture capital firms served on the company's board of directors and remained with the company after it went public in 1972. A company representative said the firm could not have been developed without the contributions of venture capitalists.

ACQUISITIONS

In its initial development, the firm made two key acquisitions that helped its growth. In 1971, the company purchased another firm through the issuance of stock valued at \$400,000. The acquired company designed, manufactured, sold, and serviced a wide variety of products used in the automated mass production of semiconductor components, principally integrated circuits. The acquired firm's products were used frequently in conjunction with the company's design automation products in systems to increase the productivity of semiconductor manufacturers. Indeed, the initial applications of the CAD/CAM systems were concentrated in the design and production of circuits for the semiconductor industry.

In August 1974, the company purchased the interactive graphics business (hardware, software systems, and development technology) of another firm. The software complemented the company's existing and planned graphics systems enabling the company to introduce several new systems and expand its markets.

GROWTH OF THE COMPANY'S CAPITAL

At December 31, 1971, after purchase of the semiconductor equipment supplier, the capital of the corporation was \$1.3 million:

	<u>Semiconductor equipment line</u>	<u>Balance</u>	<u>Consolidated</u>
Common stock:			
At par	\$ 10,000	\$ 83,000	\$ 93,000
Excess over par	<u>390,000</u>	<u>1,961,000</u>	<u>2,351,000</u>
	\$400,000	\$2,044,000	\$2,444,000
Accumulated deficit			(<u>1,090,000</u>)
Total			<u>\$1,354,000</u>

The company went public in December 1972, at which time it raised about \$4 million. The proceeds were used to repay all short term borrowing and to provide working capital and funds for plant expansion.

In 1973, the company raised \$9.5 million through another public sale of its common stock. The funds were used to repay all long term bank debt, which amounted to \$9 million at the time of the offering.

The company's capital at December 31, 1979, was \$40.6 million, having grown thirtyfold in the 8 years after 1971, or about 53 percent annually. The principal sources of this growth were public financing and reinvested earnings.

<u>Sources of capital 1972-79</u>	<u>Amount</u> (millions)	<u>Percentage of total</u>
Public issues	\$13.5	81
Stock options	1.0	6
Employee purchases	1.2	7
Acquisitions and other	<u>0.9</u>	6
Total common stock	\$16.6	42
Retained earnings	<u>22.7</u>	58
Total	<u>\$39.3</u>	100

In 1971, before going public, long term debt was only 16 percent of capital, and between 1972 and 1974 it was only 3 percent of capital. After 1975, the company was obligated to a significant amount of longterm debt. Most of the debt shown for 1978 and 1979 was related to mortgage construction loans.

<u>Year</u>	<u>Long term debt (note a)</u> (millions)	<u>Percentage of long term debt to capital</u>
1975	\$5.9	93
1976	6.4	79
1977	8.2	75
1978	4.2	16
1979	7.7	19

a/In August 1980, the company issued additional stock. The proceeds were used to eliminate all bank debt.

PRODUCTIVITY AND GROWTH BENEFITS CREATED

A company official said that the firm has installed about 800 systems in almost 500 companies. The productivity enhancing benefits of its products have been documented by the company. The reports show how the products became diffused throughout the economy and resulted in significant productivity growth for the users.

In 1978, for example, the company documented the application of its interactive graphics systems by a major U.S. aerospace firm. The director of engineering computing systems of that firm reported that a designer using an interactive graphics system had been able

to lay out a cockpit instrument panel in 2 hours--about a twofold increase in productivity since this task would have taken a week to do manually. In another instance, the computer graphics manager of a large French manufacturer reported that using the company's system meant a 7-to-1 productivity increase in design of liquor or perfume bottles, two of the firm's most important products.

Officials of a large manufacturer we visited demonstrated several ways their firm was using the CAD/CAM system to increase productivity. The data given us showed that the company was saving staff-hours in drafting technology (primarily in engineering and logistic support work) and in design of integrated logistic support work. All told, the manufacturer saved over 28,000 hours (39 percent) during 1978 to 1979.

An example of the productivity benefits created by the company's semiconductor production automation product line is the case of a large U.S. manufacturer of microcircuits. The company's automatic projection aligners allowed the microcircuits manufacturer to double the memory capacity of a single computer chip each year. As a result, despite increasing raw material prices and inflation, the microcircuits manufacturer was able to reduce its cost per function from over one dollar to less than one-tenth of a cent--more than a thousandfold increase in productivity.

Additional benefits to the economy were created by the successful growth of the firm. During the 11 years from its beginning through 1979, the company created over 2,500 jobs. This number increased to about 4,000 by the end of 1980.

The company also generated tax revenues of almost \$13 million in Federal, State, and foreign taxes on the income it earned. This figure excludes additional taxes resulting from income and payroll taxes produced from the earnings of the company's employees and franchise, payroll, and property taxes paid by the corporation. In 1978 and 1979, for example, the company paid over \$4 million in payroll taxes. During 1978 and 1979, it generated about \$80 million in foreign sales, over 85 percent of which represented export sales from the United States.

NATIONAL VENTURE CAPITAL ASSOCIATION

1225 19th Street, N.W., Suite 750
Washington, D.C. 20036
(202) 659-5756

June 3, 1982

Mr. C. E. Fritts, Group Director
Private Sector Productivity
U.S. General Accounting Office
441 G Street, N.W. - Room 6027
Washington, D.C. 20548

Dear Mr. Fritts:

We have carefully reviewed your report examining the venture capital process and the implications of that process for the economy of the United States. In our view, your report correctly identifies the key elements of the venture process. The report provides an excellent analysis of each of these elements with sufficient quantitative information to rapidly and accurately provide the reader with perspective concerning the importance of the process to the free enterprise system.

The rapid increase in the availability of capital for the venture process brought about by changes in regulatory and tax policy since 1977 has caused a perceived concern relating to the number of available venture capitalists. The venture industry is currently training apprentices at a very rapid rate to overcome this potential problem. While the number of venture capital firms, each founded by one or more experienced venture capitalists, has increased substantially, so has the number of people employed by each firm. There appears to exist no shortage of highly trained and highly motivated people available to be employed in the venture industry. The free enterprise system works as well in the venture industry as it does in those industries to which the capital is provided.

We concur with your judgement that improved rules and policymaking will flow from enhanced dialogue between government and industry. The National Venture Capital Association was formed to provide a body representative of the venture industry to engage in such dialogue. This dialogue began in earnest when we established our Washington Office in 1977 and has increased dramatically since that time. The National Venture Capital Association enthusiastically looks forward to the establishment of an appropriate public forum for a more efficient exchange of ideas.

Your report provides a very clear and concise overview of the venture process not contained in any other document. We encourage careful study of your report by any individual or organization interested in venture capital or productivity in the economy of the United States.

Sincerely yours,

NATIONAL VENTURE CAPITAL ASSOCIATION


Morton Collins, Chairman

MC:jb



UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary for Economic Affairs
Washington, D.C. 20230

MAR 30 1982

Mr. Ed Fritts
Group Director
Private Sector Productivity
General Accounting Office
Washington, D.C. 20548

Dear Mr. Fritts:

This is in response to your recent request for comments on the draft Report on the Venture Capital Process. Our brief suggestions and comments are as follows:

The GAO draft report on the venture capital process is generally well prepared and should be quite useful in dispelling some of the mystery concerning the role of the venture capital industry in our economy. The case study of the 72 publicly held corporations was especially educational, in view of the fact that all of those firms were engaged in the production of things designed, manufactured, and marketed specifically to increase the productivity of other firms.

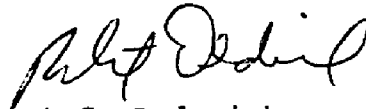
Part IV of the report cites the Tax Reform Act of 1969, which increased the capital gains tax and altered the treatment of stock options, as a major contributor to the subsequent decline in the number of new stock issues. It should be noted that the drop in the flow of venture capital as shown in Charts 19 and 20 began during the 1970 recession and reached a low point during the 1973-75 recession--both periods in which corporate profits plunged sharply. Although it is impossible to isolate the effect of the tax changes from the effect of the business cycle, we believe that the recessions were also a significant factor in the decline in the number of new issues.

In regard to the industry's need for a set of principles and professional practices, we support such an effort. We agree with the GAO report on page 50 a/ that it might be possible to eliminate or reduce some Federal regulation through industry self-monitoring. Such a reduction in regulation would be consistent with the goals of this Administration.

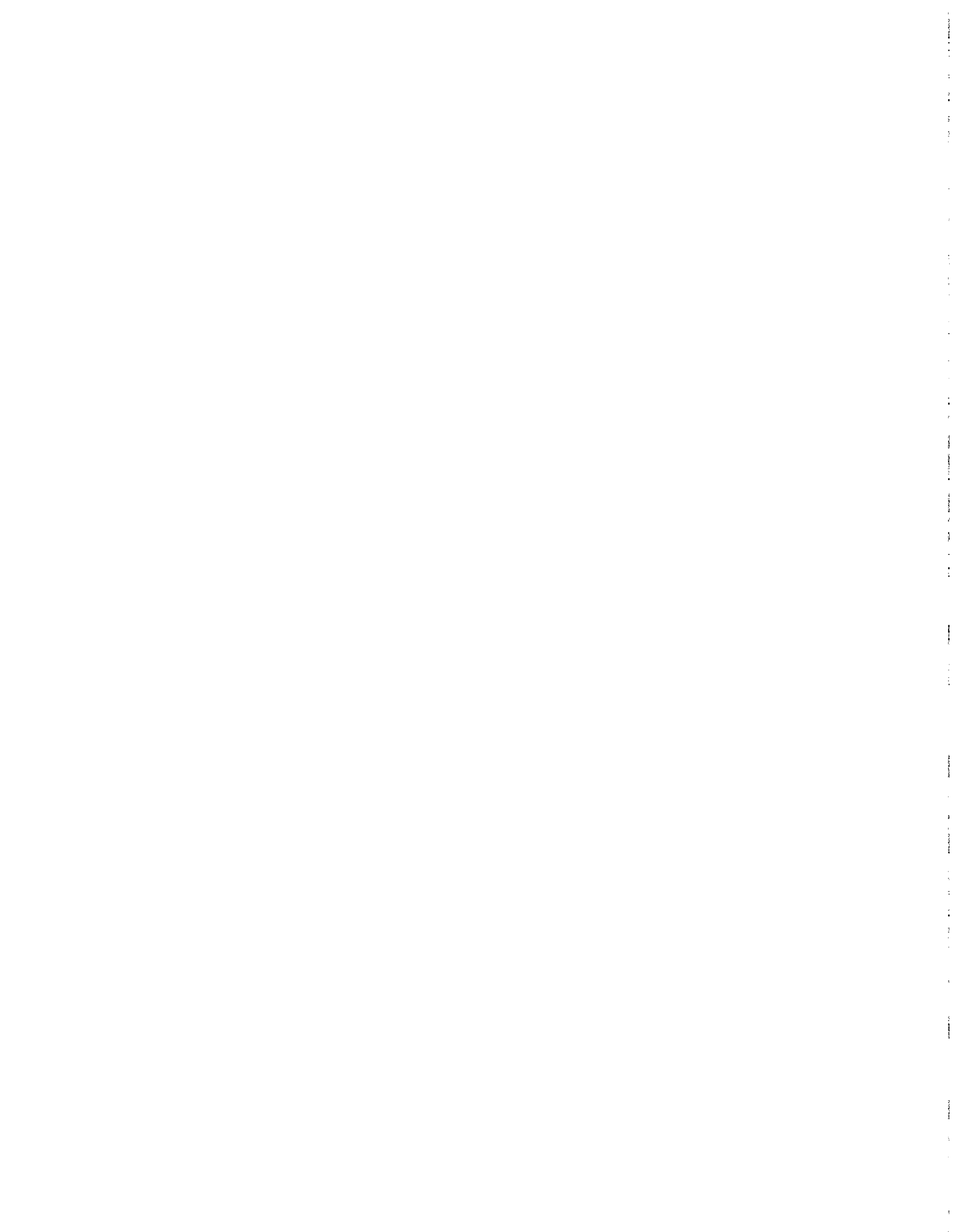
a/Discussion now appears on pp. 38 and 39.

In October 1980, the Securities and Exchange Commission and the Small Business Administration announced that the two agencies would conduct the first comprehensive study of the utilization of exemptions available under the Securities Act of 1933, focusing on "private placements" and the financing needs of small business. The registration exemptions to be studied included private placement pursuant to section 4(2) of the 1933 Act; a "safe harbor" rule known as Rule 146, which is utilized by firms raising capital under the private placement exemption; Rule 242, which was adopted by the SEC to provide more flexibility in smaller securities offerings; and the SEC's Regulation A, which provides for reduced disclosure requirements for offerings under \$1.5 million. We would suggest that the GAO staff review the results of that study in connection with the discussion contained in Part IV regarding the effect of government rules, regulations, and policies on the venture capital process.

Sincerely yours,



Robert G. Dederick
Assistant Secretary
for Economic Affairs



AN EQUAL OPPORTUNITY EMPLOYER

**UNITED STATES
GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548**

**OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300**

**POSTAGE AND FEES PAID
U. S. GENERAL ACCOUNTING OFFICE**



THIRD CLASS