Venture capital may play an important role in supporting entrepreneurial development and small business growth. But institutional arrangements and instruments must be carefully chosen, taking into account the lessons from countries where venture capital has been a reality now for a few years. The Bank’s role should be largely to disseminate these lessons.
This paper — a product of the Financial Policy and Systems Division, Country Economics Department — is part of a larger effort in PRE to explore different options for financing the productive sector and promoting private sector development. The paper explores the potential of venture capital operations as a way to finance start-ups and to expand existing operations in terms of advancing into new stages in the production and the distribution processes. Copies are available free from the World Bank, 1818 H Street NW, Washington DC 20433. Please contact Zena Seguis, room N9-005, extension 37665 (63 pages).

Venture capital attempts to cater to the financial and managerial needs of new operations through arrangements that involve essentially the investor's equity participation in a firm, through the direct purchase of stock or through warrants, options, or convertible securities; a long-term investment horizon (five to 10 years); and the investor's active involvement in the invested company. Typically, venture capital finances start-ups and the expansion of existing operations in terms of advancing into new stages in the production and/or the distribution process.

What role can venture capital be expected to play in financial markets in developing countries? For one thing, say Sagari and Guidotti, it makes little sense merely to transplant techniques directly from the developed to the developing world. The difficulties that traditionally conceived venture capital operations may face in these markets appear many and varied. They have to do with the characteristics of the projects being generated, the size and purchasing power of the domestic markets, the lack of adequate skills, entrepreneurs' attitudes toward sharing control, difficulties with exit mechanisms, and so on.

It may be difficult in many LDC markets to find a series of innovative "high-tech" enterprises that can capture a business niche in which to grow. Yet venture capital operations could flourish in low technology and in the service sector, where competitive advantage might result from an innovative distribution system or marketing strategies. New business opportunities are likely to emerge in deregulating industries, the transfer of technologies, and the marketing of ideas already tested in developed countries. In the smaller LDC markets, exports may provide the potential for growth for manufactured products.

What role should government play? In terms of direct financial support, the record of development banks with venture capital funds has been dismal. Sagari and Guidotti suggest that a more appealing alternative might be for governments to set aside a small "pilot" fund to be managed under contract by a private group, with a remuneration scheme dependent on the performance of the portfolio. Otherwise, the government's main role should be to provide appropriate tax incentives, support the establishment of sound organized markets for new companies, and ensure that the regulatory framework for pension funds, insurance companies, and other institutional investors does not unduly prevent them from investing in venture capital firms of recognized performance.

What role should the Bank play? Venture capital activities are essentially small-scale, so making them the focus of major Bank operations would not be recommended. The Bank's main role should be to disseminate the lessons learned in countries where venture capital has been a reality for some years. The Bank might also have a role in continuing research in some aspects that are still largely unexplored; examples are the financial performance of venture capital firms in the East Asian markets or the interaction between universal banks and venture capital activities.
# Venture Capital Operations and Their Potential Role in LDC Markets

**by**

Silvia Sagari
and
Gabriela Guidotti

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Venture Capital Operations  
and their Potential Role in LDC Markets¹

by

Silvia B. Sagari and Gabriela Guidotti

I. Introduction

This paper was prompted by the many concerns in multilateral financial institutions like the World Bank in terms of what are the most adequate mechanisms to provide financial support for the development of the productive sector. Up to the present, World Bank operations, for example, attempted to reach this goal mostly through long-term loans channeled through development finance corporations (DFCs). The experience with this approach has been far from satisfactory; some of the problems have to do with government intervention using these institutions to achieve non-economic targets, others have to do with macroeconomic mismanagement, lack of adequate skills, faulty regulatory environments. Today, efforts are being redirected towards the search for a new financial paradigm. In summary, the DFC model has provided in practice a fertile ground for the flourishing of moral hazard problems which jointly with inadequate follow-up have led to a poor performance from both a developmental and a financial perspective.²

The question that emerges then is what are the alternative approaches to a more efficient financing of the productive sector. This paper explores one possible option, focusing on one narrow market segment: the financing of new operations or start-ups, and the financing of the expansion of existing operations in terms of advancing into new stages in the production and/or the distribution process. Normally, these firms have little or not enough cash flow to support debt obligations, high quality information on their activities and prospects may be impossible or very costly to obtain externally, their level of capitalization is very low. All these factors create serious moral hazard problems that must be controlled by the outside investor, and that cannot adequately been dealt through pure debt-type contracts. The use of instruments which include an equity feature then, is particularly important, since this would allow investors to better access

¹ The views and interpretations in this document are those of the authors, and should not be attributed to the World Bank, to its affiliated organizations, or to any individual acting in their behalf. Thanks are due to the authors' academic advisor Anthony Saunders, and to Teresa Barger, Bela Balassa, Cesare Calari, Jack Garrity, Millard Long, Richard Radez, and Andrew Sheng for helpful comments and suggestions. Bo Wang provided excellent research assistance. All errors are the sole responsibility of the authors.

² Note that DFC lending contains a double monitoring problem: DFC's monitoring of the borrower, and World Bank's monitoring of the DFC.
information and to share in the results of exceptionally favorable outcomes—in the form of cash flows or increased value of the enterprise assets. Yet, typically, conventional equity financing will not be either suitable or available since the target investments are new ideas, companies, processes or services which, consequently, lack a performance history and that will normally take a few years before positive cash flows are realized.

Venture capital practitioners claim to have found the answer to the peculiarities of the financial and managerial needs of such new operations through arrangements that involve essentially: (i) an equity participation of the investors via a direct purchase of stock, or through warrants, options or convertible securities, (ii) a long-term investment horizon, since nominally significant expected returns can only materialize after a period of between 5 and 10 years, and (iii) an active, on-going involvement in the investee company (Pratt, 1981). In short, venture capital operations are a combination of managerial expertise with equity and sometimes debt financing.

Tyebjee and Bruno (1984) add as aspects which distinguish venture capital investments from equity financing the facts that: (i) the venture capital investment is typically in small firms, and (ii) the nature of the investor and investee relationship involves a higher degree of direct involvement as compared to the relatively inactive role of investors in publicly traded companies. Finally, another aspect that is crucial to the venture capital investment is planning for divestment or liquidation of the holding position, hopefully with a substantial capital gain (IFC, 1986).

Originally, venture capital was thought of exclusively as the early-stage financing of new and young companies dealing with advanced technology. Clearly, high tech industries exhibit the characteristics that appeal to venture capital firms: they are normally young industries, with many small innovative firms of high growth potential. As such, these firms have received a big share of venture capital funds in several developed countries. However, even when these industries are still an important target of venture capital activities in the developed world, there are numerous examples today of a broader range of investment interests. It is this potential for a somewhat broader spectrum of investment choices that makes venture capital operations a subject that appeals to those that in practice attempt to solve some of the financial problems of the developing world.

A substantial number of papers have been written during the last 10 years on the topic of venture capital. Much of these writings reflects practitioners' experience; some are the result of academic research focused on very narrow issues. Lessons from experience in venture capital operations were reported by IFC in 1986 on the basis of case studies of both developed and developing countries. The main objective of the present paper is to

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3 Ceteris paribus (e.g. taxes), the risk of the corporation grows with its systematic risk, which in turn is higher, the higher the leverage. (See Beaver, Kettler and Scholes (1970) for empirical evidence).

4 Including management/leveraged buy-out financing to assist operating managements purchase and revitalize absentee-owned private companies.
provide Bank staff and policymakers in developing countries with complementary evidence on key issues in this subject.

The main focus of section II is the investment activity of the venture capital firms and therefore deals with the relationship between the venture capital firm and the investee firms. The evidence on the role of government vis-a-vis the industry is reviewed in section III. Section IV summarizes the findings of the paper and concludes with some thoughts on the potential role for venture capital operations in LDC financial markets.

II. Venture Capital Firms: Sectoral Issues, Theoretical Framework and Investment Activities

This chapter focuses on those issues pertaining specifically to the firms that comprise the venture capital industry. Section A provides a sectoral framework with a short description on the emergence and size of the industry across the world. Section B reports on the scarce literature on the theory of the venture capital firm (VCF). Section C discusses the key aspects of VCFs' investment activities.5

A. Overview

The venture capital industry started and developed as an institutional response to rapid changes in the industrial sector and, in particular, to the emergence of small and medium-sized companies. Venture capital targets mainly smaller and also younger companies, primarily during their early stage, when they are developing new products and/or services. The risks inherent to this early stage of operations make them generally unacceptable customers for the traditional commercial lending institutions.6 In some developing countries, interest rate ceilings may prevent these intermediaries from adequately pricing their loans to these risky borrowers. In other cases, credit rationing is a result of adverse selection problems.7

Overall these firms do not have the collateral often required by the traditional credit suppliers, nor the equity base of a well established company. They have a low probability of a high pay-off and a high probability of a low pay-off. Moreover, given the early stage of development of their operations, they have—in general—not yet attained their break-even situation, and do not have enough history or size to make them suitable for the traditional securities markets.

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5 Attachment A contains further information on specific countries. Attachment B discusses key microeconomic and institutional issues.

6 At least in a scenario where lending institutions provide, exclusively, debt financing.

7 For an analysis, see Stiglitz and Weiss' (1981) model where the interest rate an individual is willing to pay acts as a device for borrowers' screening, and borrowers willing to pay high interest rates may be, on average, worse risks.
These special characteristics call for equally special financing arrangements. In particular, relatively higher risk-taking can only be encouraged through equity-type of contracts, that allow for investor's participation in exceptionally favorable outcomes. It is the demand for this type of financing that venture capital arrangements attempt to satisfy.

An issue that is frequently subject to debate is that of the significance of venture capital firms as suppliers of corporate financing. Cross-country data are not easily available. Evidence for the U.S. case is provided by Henderson (1989). The data in this study shows that between 1980 and 1988 U.S. corporations issued $234 billion in new shares, of which venture capital investments accounted for $23 billion (or approximately, 10%). Initial public stock offerings accounted for some $50 billion (approximately 20% of new gross equity), out of which one fifth were backed by venture capital firms.

B. Theory of the Venture Capital Firm

Most of the studies on venture capital operations do not explicitly refer to any theoretical framework. Chan (1983) was the first to explore theoretically the rationale for the existence of venture capitalists as financial intermediaries. Within an imperfect information framework, Chan develops an optimization model, where venture capitalists serve as information agents in the market. Through their actions, venture capitalists increase investor welfare by forcing entrepreneurs to offer higher return projects.

While interesting, Chan's work does not consider an aspect that has proved to be very significant in successful venture capitalist activities, which is the "value-added" through strategic planning, management recruiting, supplier/customer relations, support in securing additional financing and the like. Chan, Siegel and Thakor (1987) model this "value-added" aspect of venture capital activity, and provide a rationale for the specific characteristic of venture capital contracts—a combination of a risky claim for the venture capitalists with a disproportionately large control feature. Theirs is a two-period model where both the entrepreneur and the venture capitalist have the skills to run the firm. However, the skill level of each is learnt through the arrival of information at the end of the first period. This enables the parties to decide whether the venture capitalist should take over the management of the firm in the second period (thus capturing the active monitoring role of venture capitalists who stand ready to replace inept management).

A complementary approach to modelling the role and contribution of the venture capitalist focuses on the pricing of initial public offerings (IPOs). This is precisely at the heart of the question addressed by Lim and Saunders (1990). The IPO marks the beginning of an association between a firm and the outside investing public. Conversely, for the venture capitalist the IPO represents the culmination of a financing efforts and association begun sometime earlier. On the issue of pricing, the evidence is clear and

---

8 Same as in the models developed by Leland and Pyle (1977) and Campbell and Kracaw (1980).
conclusive that IPO are on average under-priced.\textsuperscript{9} In this context, however, if venture capital firms are viewed as financial intermediaries with specialist skills regarding the financing, monitoring and management of new firms, it would be expected that the average firm brought to the market by a venture capitalist is in some sense better than non-venture capital backed new issues. This in turn should have an impact on the degree of underpricing of the venture backed new issue.

Lim and Saunders (1990) examine this problem through a model based on optimal dynamic new issue strategies adopted by good firms relative to bad firms. In their model, the "events" taking place at each stage of the process are as follows: (i) at the IPO, the venture backed firm--i.e. the good firm--underprices more precisely to signal that it is a good firm\textsuperscript{10}; (ii) at the second stage, the venture backed firm gets better market reception--i.e. more analysts track the stock, there is higher institutional ownership, the shares appreciate faster towards their true market value in the aftermarket; (iii) once the true value is revealed, the venture backed firm comes to the market with new seasoned offerings of stock at an earlier date and raises larger amounts, recouping the cost of underpricing at the IPO. Empirical tests performed on data for 925 non-venture backed IPOs and 382 venture backed IPOs offer some support to the first two stages of the dynamic strategy model. As to the third stage, venture capital backed firms were found to come out with seasoned issues earlier and at higher dollar amounts than non-venture capital backed firms, as predicted by the model; yet, the differences were not statistically significant.

C. A Stylized Model of the Investment Activity of the Venture Capital Firms

1. Basic Stages

The investment activity of the venture capital firm can be modelled as consisting of three basic stages:

(i) In the first stage a decision must be made as to the entry of a venture capital firm in terms of embracing a particular investment. The key aspects to be analyzed are the following:

(i.1) how do venture capital firms choose among different projects, that is: (a) how is the process of screening done?, (b) how are individual projects evaluated and what are the factors affecting the decision (for example: (b.1) sharing rules for risk taking, (b.2) operational decision-making in selecting projects)?

\textsuperscript{9} Underpricing is the difference between the offer price of the initial public offering and the first available market bid price. The degree of underpricing is measured by the percentual ratio of this difference to the offer price.

\textsuperscript{10} Since in the aftermarket the bad firm's true value is revealed, it could not recoup the costs associated to the degree of underpricing assumed by the good firm, and therefore the signal cannot be imitated.
(i.2) how are deals structured and priced?\textsuperscript{11}

(ii) Once a venture capital firm has entered a deal, a \textit{second, operating stage} focuses on decisions having to do with:

(ii.1) monitoring management in order to anticipate possible problems and take actions to minimize losses;

(ii.2) maximizing gains through an advisory role and, if necessary, by providing new rounds of financing and/or finding outside debt at a price cheaper than that which would be faced by the entrepreneur;

(ii.3) assisting the entrepreneur in professionalizing the firm (or occasionally taking over the management of the firm during transitory periods), and "packaging" it for outside investors.

(iii) Finally, in the \textit{third, exit stage}, the question is how to exit from the investment.\textsuperscript{12} The issues have to do with:

(iii.1) the existence of outside parties interested in acquiring venture backed firms;

(iii.2) the mechanism for sale--e.g. private placement (direct sale) or public sale \textit{via} the capital markets (IPOs);

(iii.3) the tax regime;\textsuperscript{13}

(iii.4) how much to sell, i.e., full exit or retention of some equity.\textsuperscript{14}

The paragraphs below comment on the most interesting features of these stages.

2. \textit{Screening}

The criteria used to select the deals that will be further evaluated responds mainly to the general portfolio strategy followed by the particular

\textsuperscript{11} In a world of asymmetry of information, investment decisions and financing decisions are not separate. Consequently, entry would also be affected by how the VCF is being financed.

\textsuperscript{12} The second and third stages are sometimes grouped as \textit{post-investment} activities.

\textsuperscript{13} This issue is discussed in section IV.

\textsuperscript{14} See Lim and Saunders (1990) for a discussion of this aspect.
VCF. This may be one of specialization in certain industries, geographical areas, stages of development, etc. or one of diversification.\textsuperscript{15}

The initial screening is based on four criteria relating to:

(i) size of the investment.— Given the cost of following up each individual venture, a VCF may not want to distribute its investments into numerous small deals. Conversely, too few ventures would jeopardize portfolio diversification. Brophy (1981) found that in the U.S. the average number of ventures per portfolio was ten in 1979. Tyebjee and Bruno (1984) found that the median amount per deal was $1,000,000. In 1988 in the U.S. the minimum portfolio size considered satisfactory to provide enough capital to effectively allocate and follow up venture capital operations was $10 million (Venture Economics, 1988).

(ii) technology and market sector of the venture.— Tyebjee and Bruno (1984) found that 63 percent of their sample of venture capitalists followed this criteria to screen deals. In fact, many venture capitalists choose areas in which they have expertise, which facilitates the evaluation and the post-investment monitoring processes. In a second study Tyebjee and Bruno found that 75 percent of the deals which passed the screening process were in the technology intensive industries, while 10 percent were in the consumer goods sector. U.S. venture capitalists showed a strong preference for manufacturing companies (90 percent of the deals screened) and products involving a new technology or a new application of an existing technology.\textsuperscript{16}

(iii) stage of development.— Investee firms can be classified, according to the stage of their development, in three groups: firms at early stage (including seed financing and start-ups), firms at an expansion stage (including those firms which have already been in operations for a while, and are growing), and firms at other stages (including those going through leveraged buy-outs).

The types of financing that may be needed at each of these stages can be in turn classified as follows:

* Within the early stage,

  * Seed Financing: a relatively small amount of capital provided to an inventor or entrepreneur to prove a concept. It may involve product development but rarely involves initial marketing.

\textsuperscript{15} See section on portfolio risk management in attachment B.

\textsuperscript{16} Note however that venture capital industry specialization is probably a phenomenon that results from the establishment of a large venture capital market. This would allow companies to take advantage of the benefits coming from specialization while still enjoying a large inflow of deals which is a crucial condition for a successful venture capital activity. It is therefore very likely that in an emerging and small venture capital market, firms would not be able to afford such a specialization.
* **Startup:** financing for use in product development and initial marketing. Companies may be in the organization process or may have been in business a short time (one year or less), but have not sold their product commercially. Usually, such firms would have assembled the key management, prepared a business plan, made market studies and generally prepared themselves to do business.

* **Other Early Stage:** first stage financings and other early stage financings including companies receiving venture capital for the first time that have already developed a product. A first stage financing is financing provided to companies that have expended their initial capital (often in developing a prototype) and require funds to initiate commercial manufacturing and sales.

* **Within the expansion stage,**

* **Second Stage Financing:** working capital for the initial expansion of a company which is producing and shipping, and has growing accounts receivable and inventories. Although the company has clearly made progress, it may not yet be showing a profit.

* **Later Stage Financing:** including third stage and bridge financings. Third stage financing is provided for expansion of a company whose sales volume is increasing, and that is breaking even or profitable. These funds are utilized for further plant expansion, marketing, working capital or an improved product. Bridge or mezzanine financings are for companies expecting to go public within six months to a year.

* **Financing for firms at other stages includes:**

* **Leveraged Buy Out/Acquisition:** financing provided either to enable a management group to acquire a product or business from a public or private company, or to enable a firm to finance its acquisition of another company.  

* **Other:** other venture capital financing such as bridge loans--small loans made prior to a finalized equity financing--, or public market purchases.

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17 A leveraged buy out involves the use of a large amount of debt--commonly secured by the acquired firm's assets--to finance the purchase of the firm. The cash flows of the acquired firm are then used to repay the debt. In the particular case of a management buy out, the acquiring investor is a group which includes the management of the acquired firm or division, and an investment firm, usually a venture capital firm. The mechanics are in general as follows. The management acquires a small portion of equity, the rest of the equity is provided by an investment firm, often a venture capital firm (which also generally issues preferred equity and subordinated debt). In addition, the financing package generally includes bank debt.
Venture capitalists usually invest in early stage financing or in expansion financing.¹⁸ Tyebjee and Bruno (1984) found that 46 percent of the deals were done with firms in their start-up stages, while 43 percent were done during their expansion stages. A very similar profile results from analyzing table II.7 (in the previous chapter) which shows the distribution of deals and funds according to the different stages of development of the investees companies. From 1984 onwards, the trend has been of a decreasing relative participation of start-ups financing in the portfolios of venture capital firms, with the counterpart increase in expansion financing.¹⁹

(iv) geographic location of the investee firm. This is a widely used criterion to perform first screenings. The reasons behind the use of this criterion is the degree of management involvement usually present in venture capital deals, which makes it very difficult to participate in management in firms which are located far away from the VCF.

3. Evaluation

As opposed to mature firms, most firms demanding venture capital do not have an operating history that can be subject to a standard credit or loan analysis. Instead of objective measures, the venture capitalist has to rely on his subjective assessment based on a set of multidimensional and often intangible characteristics. Table II shows the results of a series of studies which aimed at identifying the most important variables considered during the evaluation process.

The most important determinant shown by the four studies presented in that table has to do with management skills. In fact, given the lack of past history, the quality of management is one of the main tools that the venture capitalist has in order to assess the prospects of the company. It is interesting to note that management quality is considered more important than the product characteristics. It is often mentioned that in this industry, a first quality management with a second quality product is preferred to a second quality management with a first quality product. A further interesting point to observe from table II.1 is the fact that venture capitalists surveyed in those studies did not consider as relevant in the evaluation process the degree of correlation of a deal with the rest of the portfolio investments. This suggests that portfolio diversification is not considered a relevant determinant in the evaluation of a prospective deal.

Tyebjee and Bruno (1984) analyzed the factors behind the decision process of venture capital allocation. With that purpose they asked venture

¹⁸ Formal or institutionalized venture capitalists are however not a very important source of funds of the specific type of early stage financing called "seed financing" in which funds are provided to prove an idea or create a prototype before the existence of any formal entity. The main providers of financing at this stage are informal venture capitalists (Wetzel, 1981).

¹⁹ See the section dealing with the portfolio specialization criteria by stage of development of the investee firm. This is a widely used criterion to perform the first screenings.
capitalists to rate 90 deals which have passed the initial screening according to 23 criteria, and to the expected return and risk. The 23 criteria were given a four-point scale (low=1,...very high=4). The perceived risk was measured by the probability that the venture would be a failure (as assessed by the venture capitalists).

The most important aspects determining whether a venture capitalist would allocate funds to a specific firm after performing the due diligence or evaluation process were clustered by the authors in five basic groups.

The first group of criteria related to market attractiveness which relates to the size of the market, the market need for the product, the market accessibility, and its potential growth. The second criteria group reflects product differentiation which is the consequence of the entrepreneur's technical skills to create a unique product which can give him high profit margins, and be protected by patents. The third criteria group involves the managerial capabilities of the entrepreneur which include not only his management skills but also his marketing and financial skills and personal references. The fourth group relates to the environmental threat resistance which is the capacity of the investee firm to resist risks posed by product or technology obsolescence, change, in economic conditions, and competition given by low barriers of entry. Finally, the fifth group of criteria denominated cash-out potential relates to the possibility of easily liquidating the investment position at the desired time.

Next, Tyebjee and Bruno (1984) evaluated the impact of each one of these 5 criteria groups on the perceived risk and the expected return. The criteria that proved to have the highest impact in significantly reducing risk were managerial capabilities and the resistance to environmental threats. The determinants that improved significantly the expected return were market attractiveness and product differentiation.

Finally, a group of venture capitalists was asked to give their impressions in terms of the characteristics that the authors found to be important in the evaluation stage, in order to validate the results of the study. The main differences found with the authors' conclusions were: (i) the venture capitalists found that the quality of management has a higher impact on the selection process than the one suggested by the study; and (ii) they believe that quality of management affects not only risk but also expected return in a considerable way.

Goslin and Barge (1986) focused their study on identifying the entrepreneurial traits that contribute to management quality according to venture capitalists and which are considered by them to be critical to the success of an investment. They found that venture capitalists look for the following factors in order of importance: management experience, marketing experience, balanced team, proven track record, finance experience, realism about venture's shortcomings, and highly respected source of referral/contracts. Note that experience in finance is considered significantly less important than other aspects because most of the venture capitalists feel that this is a type of expertise they can provide.
Macmillan, Zemann, and Subbanarasimha (1987), performed a regression analysis in order to determine the criteria that had significant betas (or were significant predictors) for each of a set of defined performance variables. They found that the only two criteria that consistently predicted performance were: (i) competitive threat — defined as the degree of present or anticipated competition during the first two years of operations —, and (ii) demonstrated market acceptance of the product. It is interesting to note that these two criteria were not highly weighted as important criteria for project evaluation in a previous study done by the authors in 1985. Furthermore, the criteria which were highly weighted in the previous study were not found to be good predictors of successful ventures. By analyzing the results of both studies, the authors concluded that the criteria found important in the previous study were used to weed out undesirable ventures (they can be interpreted as necessary conditions for financing), while the two criteria found to predict ventures' success in this study, differentiated among the ventures that did receive funding (and can be interpreted as sufficient conditions for success). Finally, a factor analysis was performed, the results of which showed an "encouraging" degree of convergence among the two studies done by the authors and the study performed by Tyebjee and Bruno (1984). The results show that the evaluation criteria used by venture capitalists could be classified in five groups according to the type of risk involved. These categories were: management risk, inexperience risk, cash-out risk, and viability or implementation risk.
# TABLE 11.1

## VENTURE CAPITAL FIRMS EVALUATION CRITERIA

| Sample: | Eight venture capital firms  
<table>
<thead>
<tr>
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<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>(Personally interviewed)</td>
</tr>
</tbody>
</table>
| WELLS (1974) | 97 venture capital firms  
| POINDEXTER (1976) | 46 venture capitalists  
| TYEBJEE & BRUNO (Study I-1984) | (Telephone survey, open-ended questions) |

<table>
<thead>
<tr>
<th>Factor</th>
<th>Average Weight</th>
<th>Rank Order of Importance</th>
<th>Investment Criteria by Factor</th>
<th>% of Respondents Mentioning</th>
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<tr>
<td>Management</td>
<td>10</td>
<td>1.</td>
<td>Quality of Management</td>
<td>Management Skills</td>
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<td></td>
<td>2.</td>
<td>Expected Rate of Return &amp; History</td>
<td>Market Size/Growth</td>
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<tr>
<td>Product</td>
<td>8.8</td>
<td>3.</td>
<td>Expected Risk</td>
<td>Rate of Return</td>
</tr>
<tr>
<td>Market</td>
<td>8.3</td>
<td>4.</td>
<td>Percentage Equity Share</td>
<td>Market Niche/Position</td>
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<td>Marketing Skill</td>
<td>8.2</td>
<td>5.</td>
<td>Management Stake in Firm</td>
<td>Financial History</td>
</tr>
<tr>
<td>Engineering Skill</td>
<td>7.4</td>
<td>6.</td>
<td>Financial Provisions for Venture</td>
<td>Venture Location</td>
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<tr>
<td>Financial Skill</td>
<td>6.4</td>
<td>8.</td>
<td>Venture Development Stage</td>
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<td>9.</td>
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<td>12.</td>
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<td>Venture Development</td>
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<td>Venture Development</td>
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</table>

**PREMUS (1984)**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean (a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Team</td>
<td>9.7</td>
</tr>
<tr>
<td>Market Niche with high growth potential</td>
<td>8.2</td>
</tr>
<tr>
<td>Technical assessment of product</td>
<td>7.5</td>
</tr>
<tr>
<td>Price of equity participation</td>
<td>7.2</td>
</tr>
<tr>
<td>Timing of presumable positive cash flow</td>
<td>6.2</td>
</tr>
<tr>
<td>Market type (for ex. technology or services)</td>
<td>6.2</td>
</tr>
<tr>
<td>Percent of equity ownership</td>
<td>5.5</td>
</tr>
<tr>
<td>Patent and legal considerations</td>
<td>3.9</td>
</tr>
<tr>
<td>Others</td>
<td>7.1</td>
</tr>
</tbody>
</table>

**Note:** (a) A value of 10 (high) to 0 (low) could be assigned to indicate the importance of each factor in the valuation process.

**Sources:** Adapted from Tyebjee and Bruno (1984), and Premus (1984).
4. Deal Structuring and Pricing

**Deal structuring** refers to the set of arrangements negotiated between the entrepreneur and the venture capitalist with the objective of reconciling the different needs and concerns of the two parties with respect to a specific venture capital deal. The issues to be settled at this stage have to do with: (i) the kind and mix of financial instruments to be used, i.e. the capital structure; (ii) the pricing of the deal; and (iii) other terms of the agreement (including warranties and covenants).

When negotiating the structure of the deal, a venture capitalist will seek a set of arrangement that stresses his main concerns. These in general include:
- earning a reasonable return given the level of risk of the deal;
- having sufficient influence on the development of the company, usually through board representation;
- minimizing tax payments resulting from the cash flows resulting from the deal;
- assuring liquidity in any future scenario;
- having voting control in order to be able to replace management in case of consistent bad performance (Golder, 1986).

Entrepreneurs, on the other hand, will look for a structure that protects their interests, in particular:
- being able to lead the business they are establishing;
- receiving a reasonable financial return for their initiative;
- having a flow of resources adequate to run their business;
- minimizing their tax exposure.

In addition, both the venture capitalist and the entrepreneur share a series of concerns. It is in their interest to agree on a flexible structure which will enable for future additional financing as the firm grows, and which will include incentives for management and employees. Further, the resulting financial structure should be attractive to other suppliers of finance.

The introduction to this paper discussed the specific characteristics of new firms, where informational asymmetries and moral hazard problems are particularly exacerbated. The financial instrument used in a venture capital operation is crucial precisely because it embodies the basic contract between the venture capitalist and the entrepreneur, and as such it provides the primary tool to deal with those informational and moral hazard problems.

The choice of the specific instrument depends on the type of firm financed, the venture capitalist's philosophy, and his/her concerns. From the point of view of the venture capitalist, the crucial issues are: the liquidity of the investment, the protection of the investment, and the control of the business.

The use of **senior debt** has the advantage of yielding income while at the same time offering a privileged position, in case of liquidation, and a control position, in case of default. The disadvantage is that the venture capitalist does not participate in the potential growth of the firm. In
addition, if this instrument is used, the capital structure of the firm is already leveraged, which restricts the issue of additional debt and therefore, limits from the start the participation of other traditional financial institutions.

On the opposite extreme of the range of financial instruments, common stock has the advantage of allowing the investor to benefit from the upside potential of a firm. In the case of a successful venture, the investor will benefit from such success not only through capital gains on the common stock, but also from the increased liquidity of this stock. But in the case of bankruptcy, common stock provides only a junior claim to the assets of the firm. In addition, common stock investment poses a problem of control. Since normally holding a majority share in ownership is not one of the venture capitalists' goals, their interests are dependent on the goals of the majority shareholder. Consequently, the pricing of a venture capitalist participation will reflect the lack of control and thus higher risk of minority ownership.\textsuperscript{20}

These features—i.e. lack of protection and control—make this type of financing very expensive from the point of view of the entrepreneurs (or inside equity-holders) who have to give up a high portion of equity in order to satisfy the investors' concerns and his expected return on investment. Costs for the investee firm may be further increased if, as is frequently the case, the tax regime results in double taxation of dividends and/or if interest on debt is tax deductible—in this case equity financing implies losing the tax shield on debt.

The most often used financial instruments in venture capital deals are the so called hybrid instruments which combine some of the characteristics of straight debt with some of the characteristics of straight equity. Among these we find most notably preferred stock, and debt with warrants.

Like common stock, preferred stock is considered equity which strengthens the capital structure of the firm, and only pays dividends when the firm has made profits. However, in the event of liquidation, the preferred stock offers relatively more protection to its holder since it has a privileged position with respect to common stock.\textsuperscript{21} A particular type of preferred stock, the no-load convertible preferred is often used for start-up and early stage financings. This instrument pays no dividend, has liquidation

\textsuperscript{20} This is typically the agency problem derived from the existence of outside equity. The owner-manager (inside equity-holder) may have a utility function that includes not only pecuniary returns but also non-pecuniary benefits deriving for example from the physical appointments of the office, the growth of the firm, the purchase of production inputs from friends, etc. The interests of the outside shareholder will then diverge from those of the inside shareholders, which calls for the design of a special contract to take care of the agency problem. (See Jensen and Meckling (1976) for a pioneer analysis of these issues).

\textsuperscript{21} The opposite is true with respect to debtholders. In the event of a liquidation, preferred stockholders' claims are subordinated to those of debtholders'. Also, debtholders are more likely to continue receiving income in times of financial difficulties.
preference, converts to common stock at the option of the holder at any time, including the event of a public offering. The convertibility feature allows the stockholder to exchange its preferred stock for common stock, under specific conditions.

Another widely used instrument in the financing of small, rapidly growing firms is the debt with warrants. For these types of firms, conventional debt would be very expensive and would entail very restrictive covenants. To avoid this, warrants are attached to the debt instrument as "sweeteners". Those warrants are options to buy common stock at a specific price in the future. The debt with warrant, then, allows investors to share in the company’s upside potential, if it does in fact grow. This eventual participation has a value and therefore investors are willing to accept lower interest rates and less restrictive covenants. From the point of view of management, this arrangement may lower the firm’s cost of capital.

The difference between warrants and convertible stocks or bonds is that the exercise of warrants brings additional capital to the firm, while convertible instruments replace one instrument by another in the balance sheet.

The choice of the financial instrument also depends on the type of venture capital firm and more precisely on the type of obligations that the firm has contracted with its capital suppliers. In the case of the Small Business Investment Companies (SBICs), for instance, most of their funds come from debt on which they must make regular payments. Therefore, and in order to ensure a flow of income, these institutions tend to hold convertible debt rather than equity.

Structuring a deal in a flexible way using innovative financing may deal with the concerns and needs of both parties, allowing for maximum cooperation between them.

The pricing of a venture capital deal is the most controversial aspect of the negotiation. Pricing includes the total return expected to be received over the life of an investment and includes both current income (dividends and interests) and capital gains. The venture capitalist will accept a deal if its total expected return compensates for its perceived risk. In general, venture capitalists look for average annual rates of returns of 50 percent or more for financing seed or startup companies. For second stage financing, they look for 30 to 40 percent, and 25 to 30 percent for later stage financing.

Venture capitalists’ assessment of the value of a company are based on what can be considered factors internal to the deal, and factors external to the deal.22 External factors are those related to the general macroeconomic environment, the stock market situation, and the venture industry and

22 Alternatively this may be approached in terms of factors that affect the firm's systematic risk, and those affecting the firm's unsystematic risk.
entrepreneurial climate. As such, they are exogenous to the specific deal under analysis. The internal factors, on the other hand, are:

(i) the potential of the company.- This includes the assessment of the upside as well as the downside potential of the firm through a quantitative estimation of earnings and of their timing. These estimates will be based on a comparative analysis of other similar firms in the same industry.

(ii) the soundness of the assumptions used for the financial projections presented in the business plan.

(iii) the future dilution of equity based on the expected additional rounds of financing.

(iv) the easiness of exit from this investment.- Will the company be able to trade in the public market or will it be easily sold?

(v) the performance to date.- Knowing whether the firm has met its projections to date is crucial to prospective investors and a significant determinant of price.

Additional internal factors in the venture capitalists' evaluation of a specific deal are: the type of product and market, the experience and accomplishments of the management team, and the level of financial resources committed by the entrepreneur from his own pocket.

After the entrepreneur and the venture capitalist have agreed upon the type of security and the price, all the terms of the agreement should then be discussed and specified. In general, the terms of the agreement are detailed in the "term sheet". Silver (1985) discusses the main aspects covered in a term sheet. These are:

(i) amount of the investment

(ii) securities (type and mix) to be used to instrument the financing of the deal.- This also includes a description of the securities' features in what has to do with associated dividends, interests, or conversion price in the case of a convertible instrument.

(iii) representation and warranties.- The entrepreneur needs to provide evidence supporting the statements contained in the business plan. This may include proof of incorporation of the firm, trademarks, patents, leases, and any other contract undertaken by the firm.

(iv) affirmative covenants.- These are actions that the entrepreneur agrees to take so long as senior instruments (preferred stock or debt) are outstanding. The company may

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23 See Koloski Morris (1986).
be asked, for example, to maintain certain types of insurance, to ensure investors' right to access the firm's premises and records, and to allow investors to be represented on the firm's board of directors.

**negative covenants.**—The objective of negative covenants is to limit actions that the entrepreneur might take and which could fundamentally change the nature of the firm or the balance of control between entrepreneurs and investors. Many of the negative covenants limit and/or put some conditions on: (1) mergers, consolidations, and sale or purchase of assets; (2) dealings with other parties; (3) change in line or type of business; (4) charter amendments; (5) distribution of dividends and redemptions or repurchases of securities; (6) issuance of stock or convertible securities; (7) liens and encumbrances; (8) indebtedness; (9) investments in other companies; (10) employee compensation; (11) other financial decisions affecting financial ratios (Testa, 1986).

Affirmative and negative covenants are especially important for venture capitalists who have invested through debt rather than equity instruments and have not obtained a directorship. In those cases, the investors will not have voting rights, which will significantly limit their ability to exert any influence on the management of the investee firm if necessary. Consequently, they can resort to voting agreements that enable them to participate in the election of the directors or try to indirectly set constraints to the actions of management through the affirmative and negative covenants included in the investment agreement.

Additionally, the term sheet might include conditions about any other action that the company might take and that might considerably affect the return of the investors. Typical cases are related to the event of a public offering, future financings, and breach of contract. It is in the best interest of both investors and entrepreneurs to clarify the conditions relating to those events in the terms of the agreement.

For investors holding equity, the most desirable outcome is that the investee firm grow fast and go public. It is therefore, important to clarify the conditions under which venture capital investors would participate in such public offering. Investors will usually ask for the right to register their shares in the event of any public offering. Frequently, investors also require "demand registration rights", which allow them to demand other security holders to register their shares.

A further point discussed at the investment agreement stage is the investors' rights to participate in future financing. Investors usually require to be granted this right so that to be able to participate in the

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24 Dividend covenants are especially important because of the incentives for the small firm owners to "take the money and run" (if successful), leaving an empty shell for other claim-holders.
company's growth and/or limit their ownership dilution in the event of additional financing rounds.

Finally, investors may require indemnification from the entrepreneurs in the case of any breach of the investment agreement due to causes within the entrepreneur's reasonable knowledge and that were not opportunistically disclosed.

5. Operations

One of the peculiarities that differentiates venture capital firms from the more traditional financial institutions is the degree of involvement that the venture capitalist is willing to have with the investee firm after the investment is done. The goal of VCFs is to create capital gains for their investors. The purpose of monitoring is to minimize losses and maximize gains by anticipating possible problems and providing the venture capitalist with timely information on the basis of which sound decisions can be made. This is achieved through following up the operations results of the firm, and providing expert advise. In fact, while the entrepreneurial teams of small firms generally know every aspect of the product or service they have developed, they are generally less knowledgeable about launching the product or service to the market and managing the firm through the growth phase. Venture capitalists, on the contrary, have developed an expertise in these areas and their assistance is extremely valuable to the firm.

A venture capitalist must decide the degree of involvement that he considers desirable and convenient for each individual investment. Some prefer to rely on management reports and periodic company visits; others prefer to take a more active role. Premus' (1984) study found that over 97 percent of the U.S. independent firms and 95 percent of the corporate firms prefer close or frequent involvement with the management team.25 The results of the survey also showed that the area in which venture capitalists prefer to get involved are future financial arrangements and planning development in the first place, followed by marketing and personnel issues (see table II.2).

VCFs' close monitoring of their portfolio firms also benefit the investee firms. In fact, venture capitalists usually have a very strong network which makes them an excellent source of human resources for assisting the entrepreneur in professionalizing the firm; this is especially in the key areas of finance, marketing and sales. In addition, venture capitalists have a strong relationship with other financial institutions, which makes them as well a valuable source for additional capital.

There may be however some problems associated with close monitoring. Among those are the fact that close monitoring can be very time consuming, and venture capital firms tend to have few staff. Also, new firms tend to be run in a very personal way, and a venture capitalist's close involvement may be seen as an outsider intrusion. When the investment is done jointly by several

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25 SBICs show a lower preference for management involvement probably because of the type of financial instrument often used by them--i.e., convertible debt--, which makes them less vulnerable to the performance of the firm.
VCFs and one of them is in charge of closely monitoring the investee firm, the responsibility of the outcome of the investment tends to be put on the active investor who might feel pressured to participate in additional rounds of financing to be sure that the firm under his/her supervision does not fail. Additionally, the investor can lose objectivity about an investment to which he has devoted a lot of time.

Monitoring is a costly activity and the style and intensity have to be decided on an individual project basis. For the sake of cost-effectiveness, VCFs generally devote more human resources to monitoring the larger the size of the investment and the perceived growth potential of the investee firm. U.S. venture capitalists tended to be more closely involved with their investee firms than their European colleagues; this different approach seems to have lessened more recently as some European venture capitalists began to adopt the American "hands-on" technique.

Active involvement is mostly performed through membership in the board of directors. In the U.S., on average, VCFs, partners sit on the board of directors of five or six investee firms. Exceptionally, the involvement goes all the way, with VCFs partners taking temporary executive management positions in the investee firm. In other cases, the involvement is mostly carried through specialized advice.

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26 Two extremely successful examples of very active venture capitalist involvement are the cases of Tandem Computers, Inc. and Hybritch, Inc. Tandem Computers which developed a fault tolerant computer, not only received seed financing from a venture capitalist, but also partners of the VCF took positions as president and vice president of finance, and chairman of the board. This company became one of the most successful venture capital investments in history. The initial investment was done in 1974 and in 1977 the firm went public yielding a return of 100 times to the VCF.

Hybritch had the same performance. This was a situation where a scientist created a new technological process but needed management assistance to make it commercially viable. One of the partners of the VCF which financed the project launched the company in 1978 as acting president. He then recruited a permanent president and became chairman of the board continuing his advising role in strategic and policy matters. In 1981, Hybritch became a publicly held company and the VCF investment appreciated over 100 times.

27 In the U.K., there is the Investors in Industry (3i) group which is owned jointly by the major clearing banks and the Bank of England and which is the largest single provider of medium and long-term finance for smaller firms. Within 3i, there is a team of highly specialized staff which is committed to give intensive support to investee firms. This monitoring and advising is however reserved for a few companies with high potential. Given the limited size of the domestic market, 3i Ventures is closely involved in the operations of firms that plan to expand internationally, counting for these purposes with specialized staff.
TABLE II.2  

TYPES OF INVOLVEMENT PREFERRED BY VENTURE CAPITALISTS WHO WANT CLOSE OR FREQUENT INVOLVEMENT WITH THE MANAGEMENT TEAM OF THEIR PORTFOLIO COMPANIES  

(Percent Distribution)  

<table>
<thead>
<tr>
<th>Type of issue</th>
<th>SBIC</th>
<th>INDEPENDENT</th>
<th>CORPORATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future financial arrangement</td>
<td>94.9</td>
<td>95.9</td>
<td>86.4</td>
</tr>
<tr>
<td>Planning development</td>
<td>87.5</td>
<td>95.1</td>
<td>93.2</td>
</tr>
<tr>
<td>Marketing</td>
<td>35.3</td>
<td>63.4</td>
<td>50</td>
</tr>
<tr>
<td>Personnel issues</td>
<td>25</td>
<td>73.2</td>
<td>56.8</td>
</tr>
<tr>
<td>Supplier relationships</td>
<td>5.9</td>
<td>9.8</td>
<td>6.8</td>
</tr>
<tr>
<td>Day-to-day operations</td>
<td>3.7</td>
<td>7.3</td>
<td>4.5</td>
</tr>
<tr>
<td>Others</td>
<td>8.8</td>
<td>12.2</td>
<td>6.8</td>
</tr>
</tbody>
</table>

6. Exit

The third and final stage of the venture capital process is exiting from the investments. The goal of the venture capitalist is to sell the investment in a period ranging from 3 to 7 years at a considerable gain. Exit conditions are usually discussed and agreed upon in the term sheet at the time of the investment agreement. The purpose is to avoid "lock in" situations when the venture capitalist divests. Situations like this may happen after a couple of years when, for example, the entrepreneur of the investee firm decides against selling his firm. If the venture capitalist has not obtained, ex ante, an exit agreement, his/her investment may remain locked.

The venture capitalist has an exit option which is, in fact, a timing option. The wider the time space in which the venture capitalist can exit from any one of the investments, the higher the value of the exit option. This value is also a function of the characteristics of: (i) the portfolio of the VCF and (ii) its financing sources. For example, a VCF that has invested in very few projects may be forced to exercise an exit option too early. On the other hand, a VCF which is adequately financed from long-term, diversified sources will have more flexibility to maximize the value of its exit option than a peer firm facing tighter financial constraints.

The conditions and prices at which the investments are closed will determine the performance of VCFs. Factors affecting this stage of the venture capital process are both internal and external to the investee firm. Internal factors are the ones relating to the management and performance of the investee firm. External factors have to do with the situation of the exchanges, as well as the general macroeconomic situation.

There are basically four ways to exit from venture investments. These are:

(i) initial public offerings (IPOs);

28 An after tax return of 30% per annum is considered reasonable.

29 In general, a firm can go public through:

(i) a firm commitment underwriting, where the brokerage firm underwrites all the shares and assumes the risk of selling those shares;

(ii) a "best effort" underwriting, where the brokerage firm does not underwrite the shares, and the issuing firm bears all the risk of not placing securities;

(iii) a public issue, where the shares are offered directly to the public on the basis of a prospectus;

(iv) a tender offer, where the shares are offered to the public with a stated minimum price. (The public tenders for a given amount at a given price. The resulting price is the striking price or the minimum price at which all shares offered can be placed. This is not used in the U.S.).

A new hybrid "private/public" placement market has developed in the U.S. Under the Securities and Exchange Commission Rule 144A on private
(ii) acquisition by another company;
(iii) repurchase of the venture capitalist's shares by the investee company; and
(iv) secondary purchase of venture investor's shares by a third party.

The two most used exit vehicles for venture capital investors are IPOs and acquisitions. It is difficult for a small firm to go public in the main stock exchanges given the numerous and stringent listing conditions. In some countries other exchanges which specialize in selling stock of smaller firms have developed, for example the Vancouver Exchange, in Canada, and the Denver Stock Market, in the U.S. Specialized brokerage firms have also emerged. In the United States, most venture-backed firms that go public first do so on NASDAQ, the over-the-counter exchange, which has been advantageous to small firms because they have less stringent listing requirements than the New York Stock Exchange or the American Stock Exchange. A similar role has been played in the U.K. by the Unlisted Securities Market (USM) which was established in the early 1980s. Its creation is considered to have been crucial for the development of the venture capital industry in that country. In Canada, venture-backed firms had a lot of difficulty accessing the public markets given that there is not a public market for small firms at a national level. The development of stock exchanges which are receptive to small firms is crucial for investors but even more for the firms themselves as a way to access additional equity capital to finance their future growth.

IPOs have been the most profitable exit vehicle. Table II.3 shows the results of a study which analyzed the portfolios of 26 U.S. funds started between 1970 and 1982. It shows the difference in profitability associated with different exit mechanisms. The profitability resulting from IPOs is by far the highest. However, it seems that, in order to realize those gains, the funds had to hold those investments in their portfolios longer than they held investments exited via acquisitions.

While acquisitions generated a smaller average return than IPOs during the last decade, they have been a very popular exit vehicle for venture capitalists. In the U.S., this has been the most used exit mechanism, and has shown a steady growth. Table II.4 shows the number of IPOs and acquisitions that took place between 1981 and 1988 for a sample of U.S. VCFs. In some cases, acquisitions can be a more profitable exit vehicle than IPOs due to placements, a firm may issue shares without the need for prospectus, registration, etc.—i.e. almost no information disclosure requirements—if the shares are exclusively bought by corporations with assets of $100 million or more. Once these shares have been bought by an initial group of large corporations, they become tradeable but only among corporations fulfilling the size requirements. It will definitely be interesting to observe the development of this new market which may provide an attractive exit mechanism for VCFs.

30 This issue is further discussed later.

31 Section IV comments on second tier and over-the-counter markets.
(i) the underpricing of IPOs, and (ii) the premium that some specific buyers are willing to pay. If, for example, the buyer is a firm such that, by annexing the second firm, would obtain some synergy benefits (due, for example, to the use of the technology the target company has developed, or due to the complementary nature of the two firms’ products or services), it is likely that it will be willing to pay a premium which individual investors or other firms would not be willing to pay.

As shown in Table II.3, the repurchase of shares by the investee firm can also be profitable for the venture capitalist. Here, the premium may result from the desire of the entrepreneur to regain full control. In Canada, more than a third of all exits made from venture capital investments have taken place through share repurchases by investee companies, with average returns of more than 40 percent per year (Venture Economics Canada Limited, 1988). It is therefore in the interest of both parties to allow for such an alternative in the investment agreement. In some cases, venture capitalists require that if the firms do not grow as expected and are not interesting targets for any acquisition, or IPOs, the venture capitalist’s shares be repurchased.

The venture capitalist can also exit the investment via a secondary purchase, that is, by selling the shares to a third party -- other than the entrepreneur or another firm.\textsuperscript{32}

\textsuperscript{32} To avoid a negative reputation, venture capitalists should be careful not to sell their shares to a party which may be hostile to the entrepreneur’s and/or shareholders’ interests.
<table>
<thead>
<tr>
<th>EXIT METHOD</th>
<th>AVERAGE HOLDING PERIOD* (years)</th>
<th>AVERAGE COST (000)</th>
<th>AVERAGE PROCEEDS (000)</th>
<th>MULTIPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPO</td>
<td>4.2</td>
<td>814</td>
<td>5804</td>
<td>7.1</td>
</tr>
<tr>
<td>Acquisition</td>
<td>3.7</td>
<td>988</td>
<td>1699</td>
<td>1.7</td>
</tr>
<tr>
<td>Company Buyback</td>
<td>4.7</td>
<td>595</td>
<td>1268</td>
<td>2.1</td>
</tr>
<tr>
<td>Secondary Sale</td>
<td>3.6</td>
<td>715</td>
<td>1431</td>
<td>2.0</td>
</tr>
<tr>
<td>Liquidation</td>
<td>4.1</td>
<td>1030</td>
<td>198</td>
<td>0.2</td>
</tr>
<tr>
<td>Write-off</td>
<td>3.7</td>
<td>961</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

* Holding period refers to the time elapsed between initial date of investment and date of the final exit.

### TABLE II.4
NUMBER OF VENTURE-BACKED ACQUISITIONS AND IPOs in the U.S.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquisitions</td>
<td>32</td>
<td>40</td>
<td>49</td>
<td>86</td>
<td>101</td>
<td>120</td>
<td>140</td>
<td>135</td>
</tr>
<tr>
<td>IPOs</td>
<td>68</td>
<td>27</td>
<td>121</td>
<td>53</td>
<td>47</td>
<td>98</td>
<td>81</td>
<td>36</td>
</tr>
</tbody>
</table>

III. Government Policies: Incentives and Regulatory Framework

Overall, there are very few measures that can be identified as having been designed and implemented by a government with the purpose of promoting, specifically, venture capital activities or institutions. Excluding direct financial support, such measures have to do in particular with fiscal incentives. However, in many instances, schemes designed to increase the flow of capital into the small firm sector, or to support technological development, have had a clear positive impact in the development of the industry. This chapter reviews the evidence on these subjects.

A. Government Owned/Sponsored Institutions - Financial Support

Governments have followed different approaches to the supply of risk capital. Some have used already existing government-owned development banks. Others have created state-owned or state-sponsored institutions the specific purpose of which is the supply of equity capital to small businesses. Generally, the role of these institutions has been to act where and when no private investment was available, i.e., to be an investor of last resort. In most cases, their financial performance has not been satisfactory, nor has their intended objective of economic growth been achieved. In some cases, development banks which hold equity have, under non-profit maximizing behavior, had incentives to keep the "winners" too long, in order to subsidize the "losers." If the "winners" are brought for privatization in the capital markets, there is the risk that the bank will be forced to invest in projects that are not necessarily financially attractive, and the proceeds of the sale are eventually lost. Alternatively, the "winners" are kept in the portfolio, and only the income flows are used to finance the new projects. That way, even with zero profits, the bank can easily continue its operations. This may well be ultimately management's most important objective.

Brazil, France, and Spain are seen, by some analysts, as exceptional success stories of direct governmental participation in venture capital operations. In Brazil, the National Development Bank holds a portfolio of investment in equity in small firms. In addition, the bank has a subsidiary, BNDESPAR, which is the main supplier of public sector venture capital. Established in 1982, this state-owned institution, has the objective to provide equity finance to promote Brazilian control of enterprises, a wider distribution of equity ownership, and other medium and long term financial assistance. In general, BNDESPAR invests in equity positions not exceeding 33 percent of the capital of the investee company.

In France, where the public sector has been very involved in providing venture capital under different schemes, the government has created the "Agences Nationales de Valorisation de la Recherche" (ANVAR), which are state-owned institutions supplying mainly quasi-equity instruments to firms involved in R&D. These instruments are paid back as a fixed percentage of sales revenue; yet, repayment is due only if the business financed is successful. Between 1979 and 1985, ANVARs have granted about FF 4.8 billion in quasi-equity instruments to 7,000 companies, most of them to small and medium

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33 One example can be found in Kenya.
businesses (IFC, 1986). The failure rate in terms of companies that have been unable to repay, has been 10-15 percent. The companies that did repay generated a return of six times the amount invested.

Also, the Industrial Modernization Fund (FIM) established in 1983 is managed by ANVAR. This fund finances investment in the modernization of firms in specified priority areas, including installation of high technology machinery and equipment and office automation. Other public sector suppliers of venture capital are the development institutes headed by the Institut de Development Industriel (IDI), the regional development companies (SDRs), and a group of development finance corporations like SOPROMEC-IDI, CODIF, and SOFIRIND which specialize in equity financing of small and medium enterprises with growth potential (Fournier, 1987).

In Spain, the equity financing is provided primarily by the SODIs (Sociedades de Desarrollo Industrial), a group of seven industrial development institutions located in less developed regions, the ENISA (Empresa Nacional de Innovacion, S.A.), a company specialized in innovation and technology, and by the SCRICAs (Sociedades de Capital Riesgo de las Comunidades Autonomas), which are mostly financed by the autonomous public sector.

The SODIs provide the biggest portion of venture capital in Spain. In 1986, they accounted for some 50 percent of the total pool of venture capital whereas the SCRICAs provided an additional 30 percent. Their objective is to primarily promote development in the community in which they operate rather than the search for profit like in the case of private venture capital firms.

Though the cases of these three countries are frequently referred to as success stories, the criteria behind this assessment are not clear. In particular, in-depth evaluations of the finances of each of these schemes, and the true impact in the support of new enterprises are not readily available.

In some countries, governments have set aside special venture capital resources which are invested: (i) in a strictly government owned fund which is managed by professional venture capitalists, or (ii) in other venture capital funds in conjunction with resources coming from the private sector. Examples of the first type of institutional arrangements are found in Canada where numerous public sector venture capital institutions managed by independent boards have been created following provincial initiatives. Examples of the second type of arrangement are in the U.S. the Small Business Investment Companies (SBICs) and the Japanese Small Business Investment

34 In Ontario, for example, the Small Business Development Corporation (SBDC) program which started in 1979, established 405 of these institutions by 1984. Similar institutions have been created in other provinces (IFC, 1986).
Companies (JASBICs), modelled after the SBICs. U.S. SBICs are described in detail in attachment C.

Japan, also has the Venture Enterprise Center (VEC) which was created by the MITI (Ministry of International Trade and Industry) with the juridical character of a foundation. Its objective is to help small businesses obtain technological autonomy, make commercial the results of research and development, and introduce new products into the market. The financial instrument used is guaranteed debt and in this respect it is not pure venture capital. The demand for VEC support is important even though it only supplies debt. The reason is that, in Japan, the increase in stocks is closely inspected by the taxation office and capital gains taxes are high, while interest on debt is considered a cost for tax purposes. A further reason is that, in Japan, a company's capital structure is considered less important than in the U.S. when lenders determine credit risk (Gotoh, 1985; Nakamura, 1987).

B. Specific Incentives: Tax Benefits

Much has been written on the significance of the impact of tax considerations on venture capital operations. IFC (1986) classifies the tax incentives specific to venture capital in the following groups:

- **up front** incentives, including rebates, tax credits, deductions from taxes or taxable income of amounts invested in eligible venture capital institutions (e.g. France, Belgium, the U.K., Ireland);
- **incentives to the venture capital institution**, including tax reliefs on income received from investee companies (e.g., Korea, Netherlands, Brazil), or exemption from corporate tax for a predetermined period (e.g. Singapore).

35 The JASBICs were founded in 1963, in Tokyo, Osaka and Nagoya. Their investors are government agencies, insurance companies, and the national and local governments. The purpose of these JASBICs is to increase the equity or quasi-equity capital of small businesses as well as to promote their growth. The profits of the JASBICs increased after 1975, when the secondary stock market of Osaka opened, where several of the JASBICs investee companies started trading. As of March 1989, JASBICs had invested 71.6 billion yen (equivalent to approximately $0.5 billion) in stocks or in convertible bonds of some 1700 small-and medium-size firms to strengthen their capital.

36 This may well be a consequence of the banks' being both equity- and debt-holders.

37 These types of schemes have no impact on the expected absolute return on investments, but it encourages investment by reducing the entry cost and therefore enhancing the rate of return.

38 Note that, conversely, double taxation of capital gains and dividends operates as a significant disincentive for venture capital operations.
- **post-investment incentives**, including tax breaks or exemptions for investors on income received from their investment on a venture capital institution, or on net capital gains upon dissolution of the institution, and specially favorable regimes allowing use of capital losses incurred to offset capital gains or ordinary income (e.g. the U.K.).

Overall, the analysis of capital gains tax policy has been one of the most important centers of attention in both practitioners’ and academic circles. Most writings give conceptual support to the idea that capital gain tax reductions or exemptions would favor the venture capital industry. For instance, many consider that in the U.S. the 1978 and 1981 capital gain tax reductions were among the key determinants of the expansion in the volume of funds available to the industry (see Pratt (1981) and Premus (1984), for example).

The results in Poterba (1989), however, call for a more cautious approach to the issue. In his discussion of the potential impact of capital gain tax changes on venture capital Poterba focuses on two separate issues, effects that would work through the supply of venture funds, and effects that would operate via the demand for venture funds. On the supply side, Poterba presents evidence that in the U.S. more than 80 percent of the funding for venture capital projects is from investors who are not affected by the personal income tax. Consequently, a cut in capital gains tax rates could not reasonably be expected to have a crucial role in promoting venture activity.

Further, Poterba (1989) reports data indicating the insignificance of capital gains on venture investments vis-a-vis total capital gains. Taking the dollar value of venture backed initial public offerings (IPOs) as a proxy for capital gains on venture investments, Poterba’s data show that over the period 1983-1987, capital gains on venture investment represent on average 1.1 percent of total capital gains. IPOs are likely to account for more than half of the capital gains on venture investments; but even assuming that the total amount of IPOs represent capital gains, and doubling such gains to get an optimistic estimate, the ratio is still fairly insignificant. This suggests that while a systematic reduction in capital gains tax rates would most likely lead to a revenue loss, it would most significantly benefit investors in assets besides venture capital firms, leaving the total tax burden on venture capital financiers basically unchanged.

However, capital gain taxation could be relevant for the level of start-up activity, and affect the venture capital industry via the demand for funds. It appears reasonable to assume that most potential entrepreneurs are faced with the option of either working as middle or high level managers for large firms, or setting their own firms with a leading executive position. Since their compensation is likely to involve a larger share of capital gains

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39 Some supporters backed President Bush’s proposal to reduce the maximum rate of tax on long-term gains on the rationale that the tax cut would ultimately **increase** total revenues. Auerbach (1989) presents an interesting discussion on the debates generated by the proposal, and the improbability of the “increasing-revenues” scenario.
at a start-up firm than at a larger, more established firm, by altering the relative tax burdens on each of these shares, reductions in the capital gains tax are bound to make entrepreneurship more attractive.\textsuperscript{40}

The discussion above suggests therefore that if one were to design a policy to aid high-risk start-up firms through fiscal incentives, the policy should be adequately targeted. The question would then obviously arise about whether it is feasible to design a targeted tax subsidy for the high-risk start-up sector, and whether such policy would be implementable. Unfortunately, none of these issues have been, so far, adequately studied, for which the policy question remains unanswered.\textsuperscript{41}

C. \textbf{Legal and Regulatory Framework}

A few countries have laws that specifically define venture capital companies and their procedures. The existence of such legislation is usually associated with the existence of tax benefits, and establishes the precise requirements to access them. The French legislation for instance requires: A minimum paid-in capital, a maximum ownership limit of 30\% for any one shareholder, minimum portfolio investments in innovative situations of 60\% at the end of the first three years of operations and 80\% by the end of the sixth year, a maximum investment in any one investee firm of 25\% of the capital of the venture capital firm, divestment of at least one third of the capital employed in "innovation" positions every three years, starting at the end of the first nine years of operations, and exclusive use of equity instruments or convertible debentures. Other countries with specific venture capital legislation are Australia, Canada, Germany, Korea, Mexico, the Netherlands and Portugal (IFC, 1986).

Other components of the legal framework of relevance to this area are:

- rules governing the establishment of venture capital subsidiaries by banks, insurance companies and other financial institutions (in

\textsuperscript{40} Additionally, reduction in personal capital gain taxes may provide bigger incentives to save, and consequently increase the supply of funds in the capital market. \textit{Ceteris paribus} the supply of funds to venture capital firms would also increase.

\textsuperscript{41} One of the issues that should be clearly resolved before proceeding with such analysis would be whether policy should subsidize small or risky firms. Then, the immediate issue has to do with how to adequately target these firms. Targeting by enterprise size encounters the problem of distinguishing between genuine new ventures and pre-existing ventures that have been spun-off into new enterprises. A second option is targeting by enterprise risk, which leads to problems of objective measurement of the riskiness of an investment. (See Poterba (1989) for discussion).
Belgium and Chile, for example, banks are explicitly forbidden to establish wholly-owned venture capital subsidiaries\(^{42}\));

- the statutory framework guiding the portfolio choices of institutional investors, which affects their role as suppliers of funds to venture capital firms;

- aspects of the overall legal framework affecting rights of minority shareholders, incorporation regulations, treatment of bankruptcies, legal liability of corporate directors, and the like.\(^{43}\)

D. **Measures Pertaining to Exit Mechanisms**

Availability of channels to easily dispose of venture capital investments is a significant factor affecting the development of the industry. The promotion and establishment of "second boards", "second tier markets", markets for "unlisted securities", can therefore be seen, as well, as ways to promote venture capital activities. These markets are junior markets in the sense that listing criteria are less than those for full listing. For example, (i) minimum required corporate existence may be shorter than for other markets; (ii) minimum percentages of voting equity capital to be held by the public may be less. Also listing fees may be lower in those markets. Shares offers are often advertised in the newspapers.

In the UK, for example, the Stock Exchange established the Unlisted Securities Markets in 1980, and followed this in 1987 with the Third Market. In the USM companies are required to provide a 3 year trading history and a minimum of 10\% of their shares must be in public hands after flotation. By 1989 well over 500 companies had obtained USM listings, with some 75 moving up to a full listing (Kitchen, 1989). The Third Market is for those smaller companies with short, or even no, trading record, and those without a broad spread of shareholders. There is no minimum proportion of equity which has to be in public hands; companies need only a one year track record; and there is no specific obligation to publish half-year figures; and listing is less expensive.

The "over-the-counter" (OTC) markets are somewhat special in nature. By far the largest OTC market in the world is in the NASDAQ (National Association for Security Dealers' Automated Quotations), in the U.S. Trading

\(^{42}\) In the US, banks and merchant banks are allowed to carry on venture capital operations through wholly-owned subsidiaries. However, the experience to date has not been too satisfactory and in many cases such subsidiaries are being sold away.

\(^{43}\) For instance, in India, restrictions on remunerations to managers found in the Companies Act may hinder implementation of incentive compatible remuneration schemes by which employees of the venture capital firm are rewarded with equity shares in the investee firm.
is done by telephone on the basis of prices displayed on computer screens by competing market makers.44

Bygrave and Timmons (1985) studied the effect of the over-the-counter activity (among other explanatory variables) on the flow of venture capital funds in the U.S. They found that the health of the over-the-counter market, measured by both the number of IPOs and the NASDAQ Index, had a strong influence on the amount of funds to venture capital firms. In contrast, the results did not show a strong influence of the New York Stock Exchange market on those flows.

In the developing world one example of an over-the-counter market is the Stock Exchange of Singapore Dealing and Automated Quotation System (SESDAQ), which was modelled on NASDAQ and established to attract small and new companies. SESDAQ has less stringent listing requirements than the Big Board of the Stock Exchange of Singapore. Before a firm can go public and be listed on the Big Board, it has to satisfy quite a restrictive set of criteria, including a minimum of five years' operating experience, three successive years of profits, a SS4 million paid-up capital, a minimum of SS1.5 million or 25 percent in the hands of not less than 500 shareholders with minimum percentages ranging from 10 to 20 percent being placed with the 500 to 10,000 shares range. Beginning in 1987, for listing on the SESDAQ only a three-year track record is needed and the minimum amount of paid-up capital required is lower than on the Big Board (Saunders and Lim, 1989).

OTC markets however have a mixed performance record. In the U.K., for example, the OTC market is small and the promotions and activities of some of its market makers have been frequently questioned. In Japan, as a result of the recent revision of the law regulating the securities exchanges, the requirements for listing new firms on the second section of the Tokyo Securities Exchange and on the over-the-counter market have been eased. The second section of the Tokyo Securities Exchange can now list firms which have not yet declared dividends and the over-the-counter market can trade new issues of stocks. The subsiding problem is that the government still requires "relevant preparation for about two years prior to submission of the application of the listing" on the over-the-counter market (Nakamura, 1987). Despite the lack of popularity that the OTC market has traditionally had in Japan, at the end of 1989, it had four times the size of the unlisted securities market in London and was larger than the exchanges of New Zealand and Thailand (Sender, 1989).

Other exit-facilitating provisions. In the U.K., exit from venture capital investments has been further facilitated by the Companies Acts of 1981 and 1982 which: (i) allow unquoted companies to buy back their own shares45, and (ii) allow managers of a private company who wish to buy shares in that company from the existing owners to secure a loan for this purpose on the company's assets (leveraged buy-outs) (IFC, 1986).

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44 The number of companies traded on NASDAQ is greater than on the New York Stock Exchange (Kitchen, 1989).

45 Repurchase of own shares is normally forbidden to avoid financial speculation.
IV. Concluding Remarks: The Potential Role of Venture Capital in LDC Financial Markets

Venture capital may appear to many like the panacea for entrepreneurial development and small business growth. In fact, the life of the venture capital industry has been ultimately dependent on success stories that have turned new ideas into profit making machines and backyard dreams into multimillion dollar operations. But how far can venture capital institutional arrangements and instruments go in terms of financing the growth of the productive sector in the developing world? This chapter summarizes the basic features of successful venture capital operations, and concludes with some speculative comments on their potential role in LDCs' financial markets.

A. Basic Features of Successful Venture Capital Operations

What are the basic features of successful venture capital operations? The accumulated evidence appears to point to the following aspects:

(i) hands-on approach. - The trend of the industry indicates that a key factor for success is the so-called American technique of "hands-on management," the ability to add value to an investment by actively contributing to running the business. This is basically implemented through providing a non-executive director who advises on matters such as finance, staffing, marketing, product development, distribution, etc.46

(ii) high growth potential investees. - The success of venture capital business is largely a function of finding projects that require relatively small initial investment but that have very high potential for growth. Venture capitalists look for small businesses which will become large businesses.

(iii) small scale. - The two aspects commented above lead to a third feature of successful venture capital operations, i.e., small scale. The one thing you do not need in the high-risk world of venture capital is pots of money (Barrett, 1987). The large numbers are to be found at the time of "exit from" as opposed to "entry to" the business. Further, the needed close supervision and monitoring of the activities of the investee firms significantly limit the number of projects that each venture capital manager can deal with to half a dozen.

(iv) skills. - The performance of venture capital firms is considerably dependent on the ability of the venture managers to: (1) assess the growth potential of a new business, and (2) ensure that the "new idea" is transformed into a success story. This requires not only financial expertise to produce customized financial structures for the

46 British venture capitalists followed, traditionally, the hands-off approach; however, the fastest growing firms in the industry are following the American techniques with certain adaptations for European circumstances (Barrett, 1987).
clients, but also experience in industrial management, market research, sales, and the like.

(v) **private management/ownership.** From the above it seems that governments, and government-owned institutions would generally not be a suitable base for venture capital funds. The characteristics of civil service and government employment do not frequently lead to the entrepreneurship, flexibility and managerial skills needed in a venture capital firm.

(vi) **management remuneration schemes.** Management remuneration schemes are most successfully based on low fixed payments combined with a significant participation in the profits deriving from the deals under each manager’s responsibility.

(vii) **large inflow of deals.** Typically, not more than 5% of the deals that are presented for consideration by the venture capitalist reach negotiation stage. Consequently, venture capital activity will require a dynamic and business supportive economic framework.

(viii) **long-term investment horizon.** Investors in venture capital firms must have a long-term time framework; a minimum of 5 years and more like 8 to 10 years may be necessary to bring venture capital operations to full fruition.

(ix) **availability of exit mechanisms.** Well functioning securities markets provide a "natural" exit mechanism to venture capital investors. However, alternative methods of divestment, such as mergers, private placements, management buy-outs and, most importantly, acquisitions, have been also widely utilized.

B. **Thoughts on LDC Markets**

On the basis of what is known on the essence, successes and failures of venture capital activities, what is the role that they may reasonably expected to fulfill in the LDC financial markets? To begin, it may not make much sense to attempt to merely transplant the techniques conceived and used in the developed world, and mainly the U.S., to the LDC markets. The difficulties that traditionally conceived venture capital operations may face in these markets appear many and of a varied nature. They have to do with the characteristics of the projects being generated, the size and purchasing power of the domestic markets, the lack of adequate skills, entrepreneurs’ attitudes towards sharing control, difficulties with exit mechanisms, etc.

Though venture capital in the developed world has now begun to focus in the service area, in health care, in food services and distribution, the initial success of the industry was mostly anchored in technologically innovative enterprises. Correspondingly, even when at the margin profit sources are changing, on average up to date the gains earned by venture capital investors have preponderantly come from sectors where new technology has played a role, in office automation, factory automation, telecommunications, biotechnology, and medical instrumentation.
It may be difficult in many LDC markets to find a series of innovative, "high-tech" enterprises which can capture a business niche in which to grow. Yet, venture capital operations could flourish in areas of low-technology and in the service sector—where the foundation of competitive advantage would be an innovative distribution system or marketing strategy. New business opportunities are likely to emerge in deregulating industries. New market niches may also result from transfer of technologies and marketing of ideas already tested in developed countries. Agribusiness, aquaculture, and horticulture can provide major venture capital investing opportunities; among them, food irradiation, manufacturing of tropical fruit juice concentrates, marketing and distribution of fresh vegetables and flowers, development of new packaging technology specifically designed for agricultural projects. In many cases, assessment of business opportunities could be usefully supported by market research on the taste of the consumers in the developing countries. Venture capital may be an ideal form of finance to enable dynamic small enterprises based on craft tradition to make the transition to newer technologies. In the smaller LDC markets, exports may be the clue to provide the potential for growth to manufactured products.

Also along these lines, small domestic markets may force a venture capital community to go transnational. Such is, for example, the case of Singapore. As a first step in this direction, Singapore has tried to set up transnational links, primarily with the venture capital community in Silicon Valley and with the Advent group. Ultimately, however, Singapore may find it more profitable to integrate a regional venture capital community linked to the surrounding ASEAN countries with a focus upon low-technology ventures appropriate to these developing economies, rather than trying to focus upon high-technology manufacturing for the American venture capital community.\(^47\)

Successful venture capital operations depend largely upon the skills and competence of the managers and their ability to add value to the investees. These skills are not abundant in many developing countries, and the scarce high caliber manpower may prefer working for large and stable organizations to becoming independent in risky new ventures. In this framework, efforts should be addressed toward providing technical assistance, transferring managerial skills and training local personnel. In the US, venture capital firms are employing experienced senior managers from medium size and larger corporations, and are working with successful entrepreneurs either as direct associates or partners in an affiliate fund arrangement. Such model might be explored in LDCs markets.

A different problem has to do with the reluctance of many entrepreneurs in the developing world to share management control of their firm with outsiders. In such cases, the role of the venture capitalist may have to be enlarged in terms of working with the entrepreneur in developing the new investment idea, performing the market research, preparing the business plan, putting together a management team and securing the financing from the venture capital community. Alternatively, a package of financial instruments may need to be utilized so that by combining equity and debt contracts, the entrepreneur will not worry about dilution of ownership.

\(^{47}\) We owe this point to Richard Radez.
Lack of professional market research organizations may also act as a constraint to the development of new businesses since that will prevent the entrepreneur from adequately understanding the potential dimensions of new venture opportunities.

In what concerns the availability of exit mechanisms, venture capitalists in LDCs may have to hinge, even more so than their colleagues in the developed world, on taking charge in finding another company to buy their venture investments. Clearly, the establishment and development of markets for smaller or new companies would also support the success of venture capital operations. However, the experience in some of these markets indicates that the initial stages in their operations should be closely monitored by the authorities. Further, it is doubtful whether listings of small and medium size enterprises should be encouraged before the regulators and investors have acquired enough experience in trading in the stocks of major companies (Kitchen, 1989).

In developing countries with very incipient securities market experience OTC markets may be a more immediate alternative. But also in this case the evidence from some existing OTC markets strongly calls for the establishment of clear rules concerning the qualifications for companies whose stocks are to be traded, and government approval and regulation of the market makers.48

Within this context then, the question emerges as to the specific role of the government in this area. At this point, all ideas are very much at an embryonic stage; more definite recommendations may have to wait for tested solutions. In terms of direct financial support, there is clearly the temptation to re-address existing DFCs toward venture capital activities. However, the experience has been that venture capital funds established within and operated by development banks in developing countries have had a dismal record in first round financing. Overall, it is difficult to find examples of DFCs that can be truly considered entrepreneurial, and venturesome.49

A common problem associated with government funds is their often erratic and undependable nature. Abrupt changes in the rules awarding financing are common. In addition, the requirements that make an idea less

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48 For example, where regulators are still inexperienced and weak, it may be wise to forbid market makers to buy and sell stocks for their own portfolios.

49 The U.S. provides some interesting experience in this area. A number of commercial bank holding and insurance companies have established venture capital subsidiaries to provide financing for investment in risky enterprises that do not meet their loan requirements. However, many of these institutions attempting to form captive venture subsidiaries have subsequently pulled back upon discovering they could not easily convert their credit analysts and lending officers into venture capitalists (IFC, 1986).
commercially successful very often do not match government guidelines. In addition, governments are often insensitive to technological changes and improvements (Obermayer, 1981).

A more appealing alternative may be for the government to set aside some funds to be managed under contract by a private group, with a remuneration scheme dependent on the performance of the portfolio. This two-tiered structure is in fact frequently found in successful private venture capital operations in the United States. The experiment could then be initiated with a "pilot" fund of relatively small size, to prevent that availability of larger amount of resources "pressure" management to accept projects that would have normally been rejected.

Apart from direct financial support, government could definitely play a secondary but supportive role, setting up an enabling framework for interested private parties to launch venture capital institutions. The most fruitful policies and measures would be those designed to:

- provide adequately targeted tax incentives;
- support the establishment of sound organized markets for new companies through the timely development and implementation of an adequate prudential regulatory framework and training of those in charge of it;
- ensure that the regulatory framework applicable to pension funds, insurance companies, and other institutional investors does not unduly prevent them from investment in venture capital firms of recognized performance.

C. The Role of the Bank

In the strict sense adopted by this paper, venture capital activities appear to have intrinsically a small-scale nature. As such, at this stage it is impossible to visualize them as the center of major Bank operations. Overall, development banks in LDCs have a poor record and can hardly be expected to be the engine of venture capital-type of operations. On the other hand, unloading large amounts of resources on to newly created institutions, functioning in incipient financial markets in a frequently unstable economic environment, risks killing a potentially good idea before it is born. This is aggravated by a perhaps excessively idealized vision of what can be achieved through the implementation of venture capital operations. In terms of direct government financial support, setting a small "pilot" fund to be managed under contract by a private group is the safest and healthiest alternative.

The Bank has a very important role to play in disseminating the lessons learnt in countries where venture capital has been a reality now for a few years. At the heart of these lessons are the basic features of successful venture capital operations discussed above. The small seed of venture capital

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50 For example, some governments may be reluctant to grant exclusive rights to patents that were developed with public funds.
must also find a fertile ground if it is to turn into a flourishing tree, and
the Bank may support LDC governments in providing such fertile ground. The
previous section on thoughts on LDC markets explored some specific areas where
governmental action may be required.

There is yet a lot more that needs to be learnt and understood in the
way venture capital operations actually work. For instance, very few
developing countries have established new institutions in this area. Their
"young age" in a necessarily long-term business, has prevented a sound
assessment of their performance. Currently, however, some of the East Asian
markets may have accumulated enough experience to make individual country and
firm studies a worthwhile exercise. The cases of Malaysia, Singapore, Taiwan
and Korea are particularly appealing. Along these lines, much could be learnt
from the "exit" mechanisms in these markets. IFC's participation as an
investor in venture capital operations in developing countries could provide
an excellent source of information to enrich such study.

A different area of interest would focus on the interaction between
universal banks and venture capital firms. The operations of universal banks
are receiving increasing attention across the world. These banks can provide
financing through both debt and equity instruments; are they then potential
substitutes for venture capital firms in LDCs? What are the similarities and
differences between universal banks and venture capital firms? Intuitively,
universal banks may be able to replicate the financing contracts offered by
VCFs. However, they may not be able to deliver the "managerial support"
component of the venture capital deal, which would mean that there is still a
market niche to be filled by VCFs. A clearer understanding of these questions
would provide helpful guidelines for policy-makers trying to develop financial
institutions truly responsive to the needs of the productive sector.

Ultimately, the hope is that this type of work will provide renewed
inspiration in the design of a new paradigm for Bank operations, that specific
features of venture capital activities may be adopted and mixed with
ingredients from other financial schemes to yield a new concept to finance
growth in the developing world. This is the task to come.
Overview of the Venture Capital Industry

The development of an institutionalized venture capital industry is a relatively recent phenomenon with the exception of the U.S. where a venture capital industry has operated through the private sector for a number of years. In 1985-86, the international pool of venture capital was estimated to be at about 29 billion dollars (see Table A.1). The U.S. is the main supplier of venture capital providing more than two thirds of the total industry capital pool. The United Kingdom is second supplying 16 percent of the total pool. The total number of venture capital firms is estimated to be at about 1200 with more than half being located in the U.S. and 10 percent in the United Kingdom.

The venture capital industry grew markedly during the last years as a result of a more favorable tax and regulatory environment for this type of investments. An example of the growth in this type of industry, is the recent increase in the U.S. venture capital industry resources (see Table A.2). From 1977 to 1987, the U.S. pool of venture capital has increased by more than 10 times from $2.5 to $29 billion.

The last three years have seen a significant expansion of the venture capital industry in Europe. Most countries have been promoting the entrepreneurial spirit through the deregulation of financial markets and the creation of new exchanges with less stringent requirements so that small companies can trade their stock. The United Kingdom (U.K.) still dominates the European venture capital scene, even though France and The Netherlands

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51 This includes firms supplying venture capital in the 20 countries listed in table A.1.

52 The 1978 and 1981 capital gain tax reductions are considered by many to be one of the determinants of the expansion of the industry in the U.S. [Pratt (1981), Premus (1984)]. Other authors, like Poterba (1989), present the view that such reductions are inconsequential to the development of venture capital. These issues are discussed in detail later.

53 These figures and those in tables A.1 and A.2 describe the size of the formal or institutionalized venture capital market. However, there is also an informal market composed of the so-called "business angels". These are dispersed individuals who may have created their own successful ventures and will invest their experience and capital in new ventures. Even though this market is virtually invisible and therefore difficult to quantify, researchers estimate that in the U.S. informal private investors provide as much equity capital as SBICs (Sandberg and Hofer, 1982).
have established rapidly growing venture capital industries. Austria, Belgium, Denmark, Sweden and Switzerland all have also a distinct venture capital industry. Spain and Portugal are the latest entrants to the market.54

One question that emerges very clearly when looking at the development of the venture capital industry across European countries has to do with the interaction between a universal banking approach to financial intermediation and the need for venture capital as "traditionally" conceived. The relative insignificance of the latter in countries such as West Germany might be suggesting that universal banks may be engaging in at least some of the activities otherwise taken up by pure venture capitalists. The authors are more inclined to think, however, that the close involvement with the management of the investee firm which seems to increasingly be the key "mechanism" whereby venture capitalists add value to those firms, make these types of activities very unique in nature, and not necessarily of economic interest to larger universal banks. In this scenario, the apparent underdevelopment of the venture capital industries in these countries will have to be explained by other factors. In any case, the topic is open for exploration and should make a stimulating research objective.

In this context, it will also be interesting to observe the impact of Europe 1992 on the development of the industry. As per the European Community’s (EC) Second Banking Directive, branches of banks chartered by individual EC member states would be permitted to engage in universal banking activities, provided that they are allowed by their home countries. With barriers among countries' financial markets thus eliminated, one wonders who will ultimately be the suppliers of venture capital for a unified Europe.

In the Pacific Rim, venture capital firms have mostly focused on expansion financing, while seed financing is generally provided by the entrepreneurs themselves. Also, VCFs are less technology oriented than their U.S. counterparts and more focused in the services and consumer products industries.55 In most cases there has been significant government involvement in terms of sources of funds and supportive regulatory and incentive frameworks. These aspects are covered in more detail in the relevant section of the main text.

In Japan, venture capital could be better labelled as "mezzanine financing" since funds usually go to companies that have already been established and have fairly stable sales and earnings.

54 Italy has the least developed institutionalized venture capital industry in Europe, compared to the size of its economy (Venture Capital Journal, 1987). Table 1 shows that in 1985, there were only 15 venture capital firms in Italy. Most of the Italian venture capital firms tend to combine venture capital activities with other more general equity investment operations like trading and commercial banking (OECD, 1986). It is likely however that, given the innovation push in Italy, informal sources of venture capital may play an important role.

55 This may be partially a result of a relatively lower emphasis on research.
In most of the developing world, venture capital operations—in the sense utilized here—is a new phenomenon, and still fairly uncommon. To a large extent, this is the result of "unfair" competition from subsidized loans provided by development banks. But also it stems from the lack of divestment options, unsatisfactory legal infrastructures, inadequate tax regimes, and frequently, a macroeconomic framework non-conducive to business growth. IFC has participated in the development of several of these, through joint ventures. Some countries like Brazil, Taiwan, Korea, Malaysia, and India who have set several venture capital firms, have active stock markets as a common denominator. Commercial banks have also been important in some cases like Argentina. In some cases, venture funds are provided via development banks, or subsidiaries of these banks established specifically for this purpose. These questions are discussed further in the main text.
Attachment B

Venture Capital Firms: Microeconomic and Institutional Issues

This attachment briefly reviews some key microeconomic issues pertaining to the operations of venture capital firms.

1. Institutional Arrangements: Types and Organizational Structures

Within the institutionalized segment, venture capital is primarily supplied by private sector profit making organizations. Private investors have set up different types of institutional arrangements to supply venture capital. The basic organizational structures that have been used are: (i) corporations, (ii) limited partnerships, and (iii) corporate subsidiaries.

Corporations.- This legal structure only exposes its venture capital investors (in this case, stockholders) to limited liability. Consequently, stockholders are protected from the risk of third parties claims for damages resulting from matters such as breach of contract. A corporate structure allows for a frequent and direct involvement of stockholders in management through an active role on the Board of Directors and the possibility to choose the venture funds management. Given that corporations are more difficult to dissolve, it may contribute to give more confidence to the potential venture capital investors, especially in the context of a newly established venture capital industry. This is probably the reason behind the predominance of this type of structure during the early stages of the venture capital industry in Europe, and presently in the developing countries.

Limited Partnership.- Under this arrangement, individual private investors purchase limited partnership interests in a venture capital fund placed under the management of a group of experienced venture capitalists who charge a management fee plus a share of the capital gains. The limited partners have only limited liability while the managers or general partners

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56 Government owned/sponsored institutions are discussed in the main text.

57 The comments below use names or concepts normally found in the U.S. markets. Corporations and limited partnerships are usually referred to as "private independent venture funds."

58 Additionally, the Small Business Investment Companies found in the U.S. can adopt a limited partnership or a corporation type of structure receiving, in both cases, a preferential and distinct tax treatment. Their funds combine private capital and government loan funds in a proportion of 1 to 3 respectively. They are discussed in detail in Attachment B.

59 By this expression the authors mean the managers of the venture capital firm. Conversely, the expression "venture capital investors" refers to those who have provided their own capital to the fund.
are fully responsible for any wrong doing. In general, the fee charged by the managers is of about 2 to 3 percent of the pool managed and the profit participation is of about 20 percent. This participation in the profits of the venture capital firms by their general partners, only takes place after the full initial capital has been returned to the limited partners (Perez, 1986).

From a tax point of view, limited partnership arrangements have advantages over the corporate format. In a partnership, only the partners--and not the entity--are taxed. All income and losses are attributed to the individual partners and taxed at their individual marginal tax rates. This is especially convenient for wealthy individuals during the early years of a fund, when losses are expected and can be deducted against other income at the individual marginal tax rate. They are therefore specially attractive for wealthy individuals subject to high marginal tax rates. However, limited partnership also attract investors at the other extreme of the tax spectrum, namely, pension funds, endowments, foundations and trusts, which are mostly tax exempt. These institutional investors benefit from the big profit potential of venture capital investments for which they are not taxed. Clearly, while the main interest for wealthy individuals, from a tax point of view, lies in the period of high losses which coincides with the first years of a venture fund, the interest of the other cited institutions coincides more with the period where the investments made are mature and start yielding profits (Premus, 1985).

A partnership is easier to form and dissolve than a corporation, and its scope and time of action are predetermined. As opposed to the corporate structure, in which stockholders can at any time, change the funds' objectives and distribution profit arrangements, in partnerships, those are set from the moment of its creation. In general the arrangements recognize that no profits will be made during the first four or five years, and that the fund will be dissolved at the tenth year by distributing the final portfolio to its participants.

General managers of limited partnerships demand and expect high financial rewards for the high risk they take. The amount of risk taken requires a high degree of expertise. This is probably the reason why this form of structure has not be dominant in the early stages of this industry. However, at present, it is the most frequently found arrangement in the U.S.; and has lately become very important also in Europe. In developing countries, however, this legal structure has not yet been used in the supply of risk capital (IFC, 1986).

Corporate Subsidiaries.- This group includes subsidiaries and affiliates of large financial institutions or industrial corporations. They pull most of their funds from their parent corporation. Their share in the venture capital industry pool has declined from 41 percent in 1977 to 14 percent or $3.96 billions in 1987. Of this amount, one half is accounted for by corporate subsidiaries of financial institutions.

This relative decline in the participation of corporate subsidiaries is the mirror image of a parallel increase in the participation of the limited partnerships. In fact, since the late 1970s, banks have seen many of their
more experienced personnel leave their venture capital subsidiaries to join partnerships in order to attain higher compensations. To prevent this loss of human resources, many of the bank-affiliated venture funds have changed their structure to partnerships, which allow for a more direct and higher participation in earnings (Venture Capital Journal, 1987).

2. **Financial Management Issues**

2.1. **Sources of Funds**

The question is frequently asked about where do privately-owned venture capital firms (VCFs) get their funds from. Clearly, the essence of the operations embraced by VCFs requires a structure of financing sources that matches the characteristic performance of the asset portfolio. Typically, in the short term the VCF will see a number of the chosen investments collapse. Conversely, it will be necessary to wait for some five years before the "winners" can yield any significant revenues. Therefore those investing in VCFs must be able and willing to witness losses in the immediate future while waiting for the good investments to manifest themselves and prosper. Such behavior is most likely to be found in institutional investors operating in the longer term segment of the financial markets. In fact, pension funds are the largest suppliers of funds for VCFs in the U.S. and Canada. In the United Kingdom, they account for about a third of the total funds invested in independent venture capital firms in 1987. Foreign institutions have become the largest suppliers of venture capital with a share of 36 percent of total funds, which proves the international nature of the U.K. venture capital industry.

Data from other European countries show that: (i) in the Netherlands, pension funds are the leading source of capital (for independent funds), (ii) in West Germany—where pension funds are not structured as independent investment entities, independent venture capital companies receive most of their capital from banks and industrial corporations, (iii) in almost all other European countries, especially in France, banks are providers of venture capital through their own in-house subsidiaries as well as through investments in independent venture capital funds.

2.2 **Portfolio Risk Management**

The nature of the venture capital business involves a high degree of risk. Individual project risks are essentially very high. However, the risk of the overall portfolio can be minimized through adequate diversification. This can be accomplished through a wide allocation of investments into different economic sectors, regional areas, or companies that are in different developmental stages among other criteria of allocation. An effective diversification, in terms of minimization of risk, is most likely when the potential returns associated to the different investments are inversely

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60 UK independent venture capital firms are defined as comprising private, public, and the Business Expansion Scheme venture capital firms.
correlated. In such case, the overall risk of a portfolio composed of a sufficiently large number of investments is minimized.61

Despite the benefits of diversification, VCFs' pattern of behavior in terms of portfolio choice has shown a trend toward specialization. This is especially true in the U.S., Canada and the U.K.62 It is apparent that this choice of strategy is based on the belief that the benefits of specialization—based on comparative advantages in expertise—will counteract and probably overcompensate for the increase in portfolio overall risk due to a lower degree of diversification. The reason for this belief may be found in the peculiar traits of this industry, more precisely in the close involvement that venture capital firms want to have with their investees companies.63 This hands-on business style requires a know-how of the industry and/or product involved in the venture business. It would be very difficult, for example, for a venture capital firm to be able to be involved in the management of firms located far from one another, or in firms working in completely different economic sectors.

3. Skills

The success of venture capital firms depends largely upon the skills and competence of their managers and their ability to add value to the investees. In fact, it is often remarked that the financial contribution that the venture capitalist makes may be less valuable than the business expertise and the contacts it contributes to new or rapidly expanding businesses (IFC, 1986). The venture capitalist activity demands proficiency in a much wider range of areas than those in sphere of conventional financial institutions.

61 Wagner, W.H., and S.C. Lau (1971) showed, however, that the gains from diversification are exhausted fairly rapidly. Their results indicate that when the number of securities is increased beyond 10, the improvement is minor. In a diversified portfolio, the contribution of one asset to the total risk is given by the correlation of the returns of that asset with the returns of the rest of the assets in the portfolio. This is the systematic risk usually referred to by "beta". The unsystematic risk is eliminated.

62 In 1985 in Canada, about 60 percent of the venture capital funds followed a balanced or diversified focus portfolio strategy, while the remaining 40 percent were allocated according to some type of specialization criterion. In 1987 these percentages reversed. Among the resources that were allocated according the stage of development of the investee firm, 10 percent specialized by geographic region, and 3 percent according to the economic sub-sector of the investee firm (Venture Capital Journal, April 1988, and Canadian Venture Capital, February 1988).

In the U.K. the funds that are experiencing larger growth are those which concentrate on international investments and buy out financing. During 1987, the first three ECU (European Currency Unit)—denominated funds were launched in the U.K. and raised approximately 11 percent of the total capital raised during the year.

63 This issue is discussed in the main text.
In order to approve a loan, a credit analyst or a loan officer needs to fundamentally analyze the capital needs and the cash flow of a company. Conversely, the venture capitalist will be temporarily holding a portion of the equity of the investee firm. Different aspects of the role of the venture capitalists are: (i) analysis of the idea from both a technological and business perspective; (ii) contribution in the preparation of business plan and investment prospectus; (iii) estimation of the risk-reward ratio of the investment; (iv) assistance in locating individuals who together with the entrepreneur will form a highly qualified technical and managerial team; (v) assistance to obtain additional financing; (vi) participation as an active advisor to the team to facilitate the success of the investee firm; (vii) assistance in developing supplier relations and in marketing products, often through personal contact and other portfolio companies.

Venture capitalists affirm that the quality of the investee's firm management is a key factor in the performance of the firm and therefore the investment. Evaluating the management team of a new firm is a very difficult task which requires a lot of experience from the part of the venture capitalist. It is considered so important that many venture capitalists resort to psychological screening to help in the appraisal of a management team (Perez, 1986). For most of the venture capitalists it is a priority to get to know the entrepreneur and his team well with the purpose of assessing whether they will be good business partners.

In addition to assessing the quality of the management team, venture capitalists need to determine the quality of the product and the market. The best positioned to judge the product or service and their possibility of success are venture capitalists which have had extensive working experience in areas related to the investee firm's product or service. In fact, many of the most successful venture capitalists have first worked in the industrial sector, and then launched their own venture capital firms.

Finally, venture capital investments portfolio decisions require staff with very specialized skills who are able to manage investments independently from pressures of parent organizations or political interests. The best way to ensure such independent action is through an independent organizational structure. The empirical evidence, in fact, suggests that even when during the early stages of the venture capital industry, the dominant forms of organizational structures are heavily tied to other organizations (parent organization or government), as the industry develops with a larger flow of deals, the independent partnership structure form becomes more viable and dominant.

Summarizing, the venture capitalist team should include a mix of excellent financial skills, management experience and a deep and detailed knowledge of the markets and technologies with which they are working. Very
few people can, by themselves, gather such a wide range of expertise. Mature venture capitalists however fill the requirements by means of a combination of specialized education and the experience acquired by "living" with numerous investee companies through the years. Given that assessing the future of new firms requires the analysis of a number of intangible factors the experience collected in evaluating deals and monitoring investments becomes of great value to the performance of the venture capital firm. This is why investors frequently prefer the most experienced firms, firms whose partners have the most years of investing experience. Table B.1 shows some interesting evidence along these lines. It reports the distribution of firms and capital resources by years of experience of the VCF partners. During the first half of 1989, for example, 38 percent of VCFs in the U.S. had at least one partner with more than 10 years of experience. Those firms managed 58 percent of the total venture capital pool. Firms with partners with less than 3 years of experience in the business accounted for 17 percent of the VCFs and only managed 7 percent of the resources.

\*\* Thomas Perkins from Kleiner, Perkins, Caufield & Byers offers the profile of a typical venture capitalist. He has an MIT electrical engineer degree and a Master's in business from Harvard. He then worked for Hewlett Packard. In 1966, he invested $15,000 in a laser company which returned $2 million and started his venture capitalist career.
### TABLE B.1
**EXPERIENCE LEVEL OF FIRMS**

#### 1. Number of Firms by Experience Level (%)

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<tr>
<td>i) Less than 3 yrs</td>
<td>16</td>
<td>26</td>
<td>30</td>
<td>NA</td>
<td>29</td>
<td>26</td>
<td>26</td>
<td>16</td>
</tr>
<tr>
<td>ii) 3 - 4 yrs</td>
<td>17</td>
<td>16</td>
<td>17</td>
<td>NA</td>
<td>19</td>
<td>20</td>
<td>20</td>
<td>22</td>
</tr>
<tr>
<td>iii) 5 - 9 yrs</td>
<td>28</td>
<td>18</td>
<td>19</td>
<td>NA</td>
<td>21</td>
<td>22</td>
<td>22</td>
<td>24</td>
</tr>
<tr>
<td>iv) 10 or more yrs</td>
<td>39</td>
<td>40</td>
<td>34</td>
<td>NA</td>
<td>31</td>
<td>32</td>
<td>32</td>
<td>38</td>
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<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
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#### 2. Capital Resources by Experience Level (%)

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<tr>
<th></th>
<th>77-82(b)</th>
<th>1983</th>
<th>1984</th>
<th>1985</th>
<th>1986</th>
<th>1987</th>
<th>1988</th>
<th>1989(c)</th>
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<tbody>
<tr>
<td>i) Less than 3 yrs</td>
<td>)</td>
<td>6</td>
<td>9</td>
<td>NA</td>
<td>9</td>
<td>8.5</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>ii) 3 - 4 yrs</td>
<td>23</td>
<td>-</td>
<td>13</td>
<td>NA</td>
<td>11</td>
<td>9.5</td>
<td>10</td>
<td>17</td>
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<tr>
<td>iii) 5 - 9 yrs</td>
<td>11</td>
<td>-</td>
<td>15</td>
<td>NA</td>
<td>19</td>
<td>21</td>
<td>25</td>
<td>18</td>
</tr>
<tr>
<td>iv) 10 or more yrs</td>
<td>66</td>
<td>69</td>
<td>63</td>
<td>NA</td>
<td>61</td>
<td>61</td>
<td>58</td>
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<tr>
<td>Total</td>
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<td>100</td>
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**Notes:**
- (a) >10 yrs for category (iv); 6-9 yrs for (iii); and 4-5 yrs for (ii).
- (b) 7-9 yrs for (iii).
- (c) data corresponds to first half of 1989.

**Source:** Venture Capital Journal, various issues.
Overview.- In 1958, the U.S. introduced the Small Business Investment Act, which authorized the Small Business Administration (SBA) to license, regulate and help finance Small Business Investment Companies (SBICs). SBICs are essentially closed-end investment trusts which provide both managerial and capital assistance to start-up firms. SBA seeks to minimize its oversight of SBICs. Once licensed, each SBIC is subject to annual reporting and on-site examination by the SBA, and is required to meet certain statutory and regulatory restrictions regarding approved investments and operating rules. The regulations are geared toward protecting the interests of small business concerns and the integrity of the program, and to insure its overall effectiveness.

By law, an SBIC can be organized in any state, as either a corporation or a limited partnership. Most SBICs are owned by relatively small groups of local investors. Some SBICs are corporations with publicly traded stock; some are privately held; others are subsidiaries of corporations.

Funding.- SBICs can obtain financing through a number of means: acquiring private equity capital, publicly selling stock, taking advantage of government leverage, issuing debt securities, and obtaining loans. An SBIC in good standing with demonstrated need for funds can apply to the SBA for the sale or to obtain SBA guarantee of its debentures. SBICs with private capital of at least $1,000,000 (the current minimum required for an SBIC to become licensed) may receive up to three guaranteed debenture dollars for each dollar of the SBICs private capital. In addition, an SBIC with at least 65% of its total funds available for investment invested in venture capital can receive an additional, or fourth dollar of leverage in excess of $35,000,000. In recent times, however, SBA funds have been severely limited due to budget cuts, which have led to a decrease in the growth of SBICs.

The regular SBIC can choose a three, five, seven, or ten year debenture maturity date. Until the debenture matures, the SBIC must pay interest semi-annually. The rate of interest on each debenture issue is determined by the Secretary of the U.S. Treasury at the time of sale. The rate is based on the current average market yields of outstanding U.S. Treasury obligations which have remaining periods to maturity comparable to those of the newly-issued debentures.

Although repayment of the principal is due in full at the debenture's maturity, an SBIC in good standing may apply for the sale or SBA guarantee of new debentures in order to refund its maturing debentures.

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65 The description below has been mostly extracted from materials published by the U.S. Small Business Administration.

66 Note that SBA also has a program in which it provides a 65 to 90 percent guarantee against default on bank borrowings by a small concern.
**Tax Treatment.**— Besides the opportunities for government leverage, all SBICs can benefit from a number of tax advantages.

All SBIC shareholders can treat losses on the sale of SBIC stock as ordinary losses, and gains as capital gains. Generally, capital gains realized on SBIC portfolios are taxed as capital gains, but capital losses on debt instruments are treated as ordinary losses. An SBIC can therefore achieve the maximum advantage by structuring its investments in the form of convertible debt. (Privately funded venture capital funds, conversely, tend to prefer equity investments.) SBICs may carry back net operating losses for ten years and may carry losses forward for five years.

Owners of partnership interests in non-corporate SBICs, can realize the normal tax advantages for such ownership. Corporate SBICs can deduct 100% of their dividends received from portfolio concerns (rather than the standard 85% for other corporations) from the corporation’s taxable income and are exempt from taxes on excess retained earnings. SBICs registered as investment companies with the Securities and Exchange Commission may qualify to “pass through” their income to shareholders in lieu of paying corporate income tax. Corporate SBICs are exempt from the Personal Holding Company Tax provided no shareholder owns 5% or more of a portfolio concern.

SBICs often charge a fee for their management services, and are less involved than other venture capital firms with marketing and personnel issues facing the companies in their investment portfolios.

The investment income of SBICs is not taxable until it is distributed to shareholders; consequently, SBICs provide an attractive investment vehicle for banks or insurance companies wishing to defer taxable income. Further, bank ownership in an SBIC subsidiary can allow the banks to invest in small businesses in which they could not have otherwise invested, because of banking laws and regulations. A bank may invest up to 5% of its capital and surplus in a partially- or wholly-owned SBIC.

Individuals may also invest through SBICs but they have not been the principal suppliers through this channel (Poterba, 1989).

**Investments.**— It is the function of the SBIC to act as a financier for small business concerns. Such financing is specifically tailored to the needs of each small business concern. SBICs may invest only in qualifying small business concerns or, if the SBIC has temporarily idle funds, certain short-term instruments (Federal Government securities, federally-guaranteed government agency securities, insured S & L deposits, CDs, and demand deposits).

Financing is tailored to the specific needs of each small business concern. SBICs can make straight, long-term loans to small business concerns in order to provide them with funds needed for sound financing, growth, modernization, and expansion. An SBIC may provide loans independently, or in cooperation with other public or private (incorporated or unincorporated) lenders. Such loans may have a maturity of no more than twenty years, although under certain conditions the SBIC may renew or extend a loan’s
maturity for up to ten years. An SBIC may elect to loan money to a small business concern in the form of convertible debt securities.

By law, the SBIC must provide equity capital to small business concerns, and may do so by purchasing the small business concern's equity securities. The SBIC may not, however, become a general partner in any unincorporated small business concern, or otherwise become liable for the general obligations of an unincorporated concern.

In general, investment funds used to purchase securities must go directly to the business issuing the securities. They should not be used to purchase already outstanding securities such as those on a stock exchange, unless such a purchase is necessary to ensure the sound financing of a small concern, or when the securities will be used to finance a change of ownership. The purchase of publicly offered small business securities through an underwriter is permitted as long as the proceeds of the purchase will go to the issuing company.

Limits.- Without written SBA approval an SBIC may invest no more than twenty percent of its private capital in securities, commitments, and guarantees for any one small concern. Investment in real estate related businesses is limited to one-third of the SBIC's portfolio, and combined investment in real estate-related activities (building contractors, hotels, and lodging places, etc.) is limited to two-thirds of an SBIC's portfolio investments. 67

Prohibitions.- SBICs may not invest in the following: other SBICs, finance and investment companies or finance-type leasing companies, unimproved real estate, companies with less than one-half of their assets and operations in the United States, passive or casual business (those not engaged in a regular and continuous business operation), companies which will use the proceeds to acquire farm land, small concerns whose primary business activity involves directly or indirectly providing funds to others, purchasing debt obligations, factoring, or leasing equipment on a long-term basis with no provision for maintenance or repair. 68

An SBIC may not engage in "self-dealing" to the advantage of or with favoritism to its associates. The SBA defines associates broadly to include: (i) certain of its shareholders, officers, directors and employees; and (ii) the unincorporated SBIC, its members, control persons, and employees.

67 However, an SBIC may not invest in farm land, unimproved land, cemetery subdividers or developers, or any small concerns classified under Major Group 65 (Real Estate) of the SIC Manual.

68 However, SBICs may finance Disadvantaged Concerns engaged in relending or reinvesting activities (except agricultural credit companies, and those banking and savings and loan institutions not insured by agencies of the Federal Government).
The SBIC may not directly or indirectly provide financing to any of its associates. It may not borrow money from a small business concern it has financed, nor from the small concern's owners or officers.

An SBIC is not permitted to control, either directly or indirectly, any small business on a permanent basis. Nor may it control a small business in participation with another SBIC, or its associates. In cases of inordinately high risk the SBA may allow an SBIC to assume temporary control, in order to protect its investment. But in those cases the SBIC and the small concern must have an SBA approved plan of divestiture in effect.

Ownership and Management.- With only a few exceptions, there are no restrictions on the ownership of SBICs. Almost any person or organization with a minimum initial private capitalization of $1,000,000 and SBA-approved full-time manager who will be in charge of the licensee's operations and who is able to serve the licensee's small business concerns may be approved for ownership of a SBIC. For example, SBICs may be:

- owned and operated by U.S. or foreign operating companies, banks, insurance companies, finance companies, or savings institutions;
- publicly or privately held;
- managed under contract by asset management companies or fiduciaries;
- owned as subsidiaries of other venture capital organizations who want to realize the advantages of the SBIC form of organization while retaining the parent company's autonomy.

Cost of Money for the Investee.- The cost of money on SBIC loans and debt securities issued by small concerns is regulated by the SBA in the interest of the small business concerns, and is limited by the applicable state regulations governing such loans and debt securities, or by SBA regulations, which ever is lower.

Loans made to and debt securities purchased from small concerns should have minimum terms of five years. The small concern must have the right to prepay a loan or debt security, with a reasonable penalty where appropriate. Loans and debt securities with terms of less than five years are acceptable only when they are necessary to protect existing financings, are made in contemplation of long-term financing, or are made to finance a change of ownership.

Other Regulations.- In addition to the specific regulations described above, SBICs are subject to some other regulations regarding activities, operations, and reporting, which must be followed to ensure the continuation of the SBIC license and its related advantages.

Market Share.- Currently, SBICs are the smallest providers of venture capital, accounting for about 8 percent of the total pool in 1987 and only 1 percent in 1988 (Henderson, 1989). Their importance, however resides not on their size but on the fact that they are considered the seed of the rest of the venture capital business.
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