



Donors Committee

For consideration

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From: The Secretary
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Remarks: This report is an integral part of the work program of the Office of Evaluation and Oversight (OVE) to evaluate Multilateral Investment Fund (MIF) activities, since the beginning of its operations in 1993, following the mandate of its Donors Committee. The work of OVE aims at developing a comprehensive image of the Bank activities in support of the private sector, and particularly of the MIF, as established in the document MIF/GN-78 of February 2002.

The evaluation was initiated in 2002, covering four thematic groups of projects: Alternative dispute resolution (GN-78-2), microfinance (GN-78-3), and capital markets & financial reform (GN-78-4). During 2003, as established in the program approved by the Donors Committee (GN-78-1), the project groups to be evaluated include the rest of the MIF thematic areas of intervention: (i) private provision of infrastructure services; (ii) human resources development services (including skills standards and labor market reforms); (iii) business development services (including quality standards and promotion of trade and investment); (iv) **development of venture capital**; (v) environment; and (vi) promotion of competition and consumer protection.

Once these thematic group evaluations are finished in 2003, the results would be consolidated in an overall evaluation report, integrating the results of the evaluation for the 10 years of MIF operations.

References: MIF/GN-78(2/02), MIF/GN-78-1(11/02)



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*MIF Evaluation –
Development of Venture
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The following Annexes and Appendixes are available on OVE's Website in the Intranet: <http://ove/> (All about OVE / Docs. Sent to Board / Independent Evaluation of the MIF). If you need a hard copy please contact OVE.

ANNEXES

- ANNEX I: CONTENT AND EVOLUTION OF VENTURE CAPITAL DEVELOPMENT
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- APPENDIX 1: EXAMPLE OF A FUND EVALUATION AND THE APPLICATION OF OVE METHODOLOGY.

¹ CONFIDENTIAL (available upon special request to OVE Deputy Director, Mr. Sixto Aquino - sixtoa@iadb.org)

ACRONYMS

ABCR:	Associação Brasileira de Capital de Risco
ADR:	American Depository Receipts
AFP:	Pension Fund Administrators
AMEXCAP:	Asociación Mexicana de Capital Privado
AOL:	American On Line
ARDC:	American Research and Development Corporation
BNDES:	Banco Nacional de Desenvolvimento Económico
BNDESPAR:	BNDES Participações S.A.
CONACYT:	Consejo Nacional de Ciencia y Tecnología
CORFO:	Corporación de Fomento de la Producción
CRP:	Compañía Riograndense de Participaciones
FDI:	Foreign Direct Investment
FIDE:	Fondo de Inversión y Desarrollo de Empresas
FINEP:	Financiadora de Estudos e Projectos
FMIEE:	Fundo Mutuo de Investimentos em Empresas Emergentes (Emerging Companies Mutual Funds)
FONTEC:	Fondo Nacional de Desarrollo Tecnológico y Productivo
GDP:	Gross Domestic Product
IFC:	International Finance Corporation
IIC:	Inter-American Investment Corporation
IPO:	Initial Public Offering
LAC:	Latin American and the Caribbean
LAVCA:	Latin American Venture Capital Association
MIF:	Multilateral Investment Fund
NAFIN:	Nacional Financiera
NASBIC:	National Association of Small Business Investment Companies
NBER:	National Bureau of Economic Research
OCS:	Office of the Chief Scientist at the Ministry of Industry and Trade
OVE:	Office of Evaluation and Oversight
PE:	Private Equity
R&D:	Research & Development

SAIC:	Sociedad Anónima de Inversión Comercial
SBA:	Small Business Administration
SBIC:	Small Business Investment Corporation
SBIR:	Small Business Innovation Research
SEIF:	Small Enterprise Investment Fund
SINCA:	Sociedad de Inversión y Capital Anónima
UBTI:	Unrelated Business Taxable Income
VC:	Venture Capital
VCD:	Venture Capital Development

PROLOGUE

This report of this Group of Projects is an integral part of the work program of the Office of Evaluation and Oversight (OVE) to evaluate Multilateral Investment Fund (MIF) activities, since the beginning of its operations in 1993, following the mandate of its Donors Committee. The work of OVE aims at developing a comprehensive image of the Bank activities in support of the private sector, and particularly of the MIF, as established in the document MIF/GN-78 of February 2002.

In order to proceed with the evaluation, a special methodological framework was developed by OVE to capture the specific characteristics of MIF interventions. Also an initial estimate of its entire project portfolio was done, identifying the main thematic project groups for which common reference points could be established and meaningful lessons could be drawn. The evaluation was initiated in 2002, covering four groups of projects: (i) Financial Reform, (ii) Capital Markets; (iii) Microfinance; and (iv) Alternative Dispute Resolution. These four groups represented 134 projects from 16 countries with a total approved value US\$159.75 millions of MIF resources.

According to the detailed work program for 2003 included in the Progress Report of 2002 approved by the Donors Committee in (GN-78-1), during 2003 the project groups to be evaluated include the rest of the main MIF thematic areas of intervention: (i) private provision of infrastructure services; (ii) human resources development (including skills standards and labor market reforms); (iii) business development services (including quality standards and promotion of trade and investment); (iv) venture capital development; (v) environment and eco-efficiency; and (vi) promotion of competition and consumer protection. The first two groups have already the evaluation completed in the first half of the year, while the other four groups reports were completed during the second semester of 2003.

At the end of 2003, once all the evaluation work is covered for the main thematic project groups, an overall evaluation report would be produced by OVE, integrating the results of the evaluation done for the 10 years of MIF operation, and addressing also issues relating to institutional processes and mechanisms.

EXECUTIVE SUMMARY

The objective of this report is to present the results of the evaluation of the initiative taken by the MIF to support Venture Capital² Development (VCD) in the region. Until the end of 2002, the MIF had approved 35 projects in this area. Approximately US\$178 million of MIF funding were committed to Funds and US\$17.3 millions to 21 associated Technical Assistance components. A small group of those technical assistance projects (9 projects totaling US\$12.9 million) emerged with a strategic focus to develop new enterprises (i.e. Business Incubators), particularly in more technologically-related areas, as well as interventions to improve the legal and institutional framework for VCD. In total terms, SME funds received US\$105 million (58%) in capital commitments from the MIF, compared to US\$38.4 million (22%) for environmental and US\$ 34.8 million (20%) for technology-based funds. In aggregate terms, the program has settled at an average level of US\$27 million in commitments for the last three years.

The MIF's VCD program is probably one of the most ambitious and challenging programs that the institution has tried to tackle to date. The point of departure for this evaluation was to look at the international experience in SME/VC development and the benefits that this dynamic segment can bring to the economy as a whole. This report highlighted that the process of creating a VC industry is very long process and its success should be measured in decades. This long-term process demands considerable financial and institutional support, can only occur in an environment where a number of conditions have already created a critical mass of opportunities and experienced agents, will only flourish where legal, tax and regulatory conditions are stable and do not discriminate against this type of endeavour, and requires (or will be greatly facilitated by) a dynamic capital market. All these conditions underline that the task at hand is complex and difficult as the international experience demonstrates.

The MIF embarked in the development of the VC industry mainly using the instrument of equity funds when they were virtually non-existent in the region. For all practical purposes, there were no experienced managers and no local success stories or models to emulate. The program started with a favorable macroeconomic backdrop and reasonably buoyant capital markets. Both conditions deteriorated at the turn of the century, in particular the ebullience of equity markets worldwide. Perhaps another challenge faced was the initial dispersion in the strategic approach of the program, with

² **Venture Capital is understood as the provision of financing, mainly through equity and quasi-equity instruments, to small and early-stage young companies as they are developing their ideas, products and/or operations.** VC is a subset of PE, which deals with companies of various sizes and stages of development, including well established firms. Its aim is to identify entrepreneurs with the ideas and ability to create a business with the potential to grow substantially over time. An important characteristic of VC investors is that they add value to their portfolio companies beyond the financing they provide. VC managers are hands-on investors who become involved with their companies, assisting the owner/manager in developing them as businesses. Given the difficulty in estimating the risk involved, companies with this profile are typically not good candidates for commercial lending. On the other hand, with a highly skewed return distribution (high probability of low return/low probability of high return), they are suitable candidates for equity-linked investments. These allow participation from the upside of the potentially outsized success and thus reward undertaking the additional risk.

lack of precision in the objectives to be pursued. Indeed, the program tried to foster technology-based enterprises, prove that environmentally-oriented firms could be good businesses, support the use equity funds as a profit-making community development tool (in some regional funds) and promote the notion that equity and “modern” management support could unlock a dynamic process in small enterprises (all generic SME funds). The only common thread is the size of the firm. The evolution of the program shows important signs of learning and evolution. Indeed, from a starting point which strongly emphasized equity funds as the main instruments to develop the VC/SME industry (particularly until 2000), new program interventions have started to connect with other efforts in the countries.

The main challenge faced by the evaluation was the relatively immature stage of the investments. No fund has culminated its divestment period and few have even sold relevant portions of their portfolio. Although strictly speaking therefore, the final financial results are not out yet it is possible, however, to look at different metrics to determine where the funds stand, and to hazard a forecast regarding where things are likely to be headed. Moreover the evaluation framework and methodology used³ considered carefully all evaluative dimensions during the different stages of project execution.

Special focus was placed on in depth analysis of performance from the group of funds that achieved “early maturity”⁴ and therefore that had more information and track record. This group of funds could have a bias towards older interventions missing the recent evolution and adjustments of MIF investments that still are to be disbursed in the future. However adjustments on this Group were made to represent adequately the mix of countries and typologies of funds of the universe according to the funding allocation⁵. After this adjustments the Group consisted in 14 Funds that represent 30% of the capital committed and 90% of the SMEs where investments were made. To gain insights on the issues that arise at different levels of implementation, or that have evolved over time, the evaluation team visited a cross section of 17 funds that are in varying degrees of implementation. These comprise more than 40% of the capital committed in this program and range from funds created at the very beginning of the program and funds approved at the end of 2002. In these cases, extensive interviews with managers, investee firms and/or other participants were undertaken. The evaluation also included a detailed questionnaire sent to 25 fund managers in the universe. MIF documentation such as Donors Memoranda, management contracts, specific investment committee proposals, special reports, correspondence, fact sheets, annual reports, interim MIF evaluation reports, and audited financial statements of funds were also reviewed.

³ The evaluation methodology used was basically the same OVE developed for all the MIF evaluation, but some adjustments were made to tailor the evaluation tools (case format and survey) according to the nature of Venture Capital interventions. For more detail see Chapter 3 and Appendix 1.

⁴ Following the criteria defined by the Multilateral Development Banks-Evaluation Cooperation Group 11 Funds achieved “early maturity”.

⁵ For example the Group of Funds included other funds with substantial disbursements (50% more) to resemble the mix the funding allocation of the universe. Of the total resources committed to this Group, 64% were SME Funds, 16% Environmental, and 19% Technology Funds.

The Venture Capital (VC) industry in Latin America and the Caribbean (LAC) is still in its infancy. As the region saw unprecedented investment flows and Private Equity (PE) activity exploded in a very short period of time, the industry at first had to operate under the existing conditions and infrastructure. What took several decades in other places was being compressed in a period of less than 10 years. While the underlying environment has certainly evolved over the years, it is doubtful that during the nineties its evolution accompanied the speed at which capital was flowing to the region and deals were being signed.

The generation of the conditions for the development of a VC Industry is measured in decades, as the international experience demonstrates. Countries that achieved the most successful experiences in the development of a VC industry, like the US and Israel, show that the VC industry did not grow overnight, by itself or in a vacuum. The conditions had to be created so that VC can thrive in a context were policies and incentives foster entrepreneurship and technological development. The enormous development in these countries would have been impossible to achieve if it weren't for policies and developments that begun decades prior and that continue today. For instance, organized VC investing originated in the US some 55 years ago and government sponsorship began 10 years later. Since then, a variety of government programs have been initiated to complement and enlarge the scope of the original one. In addition to formal funding, the tax and regulatory framework in the US has been constantly evolving towards facilitating the development of the industry.

However, it is important to point out that ‘institutional’ VC investing is not the only way to promote entrepreneurship and the creation of new companies. It has certainly not been the universal path followed by all developed economies that achieved great success in promoting private sector. It may well be the case that the model is appropriate for certain countries and not for others; in particular, the high-tech successes witnessed in the US and Israel may be replicable only in a handful of other countries.

In the case of LAC, by the early nineties there was no organized VC activity. Nevertheless, as the economic landscape was changing, it became fertile ground for foreign investment in general and subsequently, Private Equity (PE) investments in particular. With PE becoming increasingly popular in the US and funds flowing at ever-higher rates, the industry needed to find new and innovative ways to deploy capital. An obvious extension was to replicate the domestic experience overseas. Public equities in LAC had already been ‘discovered’ in the early to mid nineties and the rising trend of companies seeking their listing in the US market through ADRs⁶ added visibility to the region. Suddenly, it seemed markets in LAC could also provide the proper exit mechanism, and hence they became a natural destination candidate for PE funds. Institutional PE funds, mainly targeting larger companies and privatized utilities, dedicated to Latin America start to appear in 1994-95, attracting significant capital to the

⁶ American Depository Receipts (ADR): certificates of stock issued outside the US markets traded in the New York Stock Exchange.

region. Commitments went from US\$107 million in 1992 to a peak of US\$3.7 billion in 1998. Overall, since 1992 these funds have raised close to US\$16 billion.

Besides this boom of PE investing to the region, smaller companies were outside the “radar screen” and still found it hard to access capital. As a result, even though investment flows increased dramatically, most of it ended up in the largest and more established companies in the main economies or in Internet star-ups. It is estimated that only 5% of funds raised until 2002 were directed to Small and Medium Enterprises (SMEs).

In the field of VC investment, the Multilateral Investment Fund (MIF) has been the pioneering force in the region, typically in partnership with the national development bank of the host country. Brazil was perhaps the first to get involved in supporting VC/PE investing and the one where the industry is most developed. Mexico and Chile are the other two countries where governments have been making efforts to promote the VC industry. In smaller economies, MIF sponsored funds have made possible VC investments either through the creation of country-specific funds or via regional funds. In addition to its quantifiable monetary contribution to investment funds and technical assistance projects, the MIF has been at the forefront of the debate on how to structure the appropriate legal and regulatory environment for the industry to thrive in the region.

After NASDAQ’s implosion capital became scarce: funds raised in 2002 were only US\$407 million, the lowest figure since 1993. Multilateral institutions (IFC, IIC and MIF) remained consistently involved in VC/PE funding throughout the period. As private sources of funding dried up, their contribution has become even more visible. By 2002, their commitments to VC/PE represented 22.5% of all capital committed to these funds in the region. In the niche where the MIF operates, its sponsored funds probably represented the only new source of risk capital to SMEs in the region.

The international experience indicates that the development of VC/PE investments require patient investors, savvy managers, a large pool of entrepreneurial talent, a predictable economic environment, good information sources, an appropriate tax and legal system, and active capital markets to allow for the eventual exit. The absence of some of these factors in the region leaves the door open for further government intervention and imposes a long-term and sustained level of commitment to go with any serious effort is made to develop the industry. An additional obstacle found in the region is wealth concentration, which limits the pool of qualified buyers and thus lowers the ability of VC/PE entrepreneurs to ‘shop’ their investments around.

VC investing requires specific skills from a special kind of “fund managers”. The ability to identify, nurture, grow and divest firms is a talent that needs to be honed and developed with experience. The initial cadre of fund managers in the MIF program had a more financial/legal background, and thus were not necessarily the best providers of value added to local entrepreneurs. They had limited hands-on management expertise, precisely the area where VC managers are expected to make their more important contributions. The presence of a large number of VC investors is also a catalyst for the

industry. It lowers the cost of doing business in many dimensions and establishes a group of stakeholders that will promote change favorable to this activity.

The VC industry requires clustering and critical mass, supported by the appropriate infrastructure. To gain size there is the need of a large base of entrepreneurs, scientists and skilled personnel, assisted by a network of service providers. If they are not there, they have to be created. This process requires patience and significant financial commitment by public or quasi-public institutions.

Growth in the industry requires success stories or “demonstration effect”. This generates a virtuous circle whereby resources move into VC investing, critical mass is attained faster and more entrepreneurs are willing to take risks. Supply and demand move to a higher level at a faster pace.

Of all exit possibilities, a booming stock market supports the highest valuations and generates visible success stories. This has been an elusive target in LAC. When episodes of stock market buoyancy occur is when the industry has the best opportunity to leap forward. This is not a factor that can be controlled by policy, but one that has to be taken advantage of when it materializes. Patience and flexibility is required to time the appropriate exit.

When looking at VC/SME opportunities in the region, it is essential to bear in mind is the nature of entrepreneurship in the region. It should be noted that the abundance of SMEs in the region does not translate necessarily in high potential demand for VC investments. A large proportion of self-described entrepreneurs in the region become ones out of necessity rather than because they are trying to exploit a particular business opportunity. Based on the evaluation results, it is probably safe to assume that the majority of SMEs are not likely to represent a significant growth opportunity for VC investing. Many SMEs face, among other, structural, management, product, and market limitations that preclude them as viable potentially high-growth VC candidates. Careful ex ante market analysis for VC feasibility is required before committing resources for equity funds.

Tax and regulatory legislation governing investment vehicles is often overly restrictive, since no specific legislation exists to deal with the VC/PE industry. Additionally, other obstacles to entrepreneurship and doing business still exist in the region. Other than the time and money required to set-up a business, there are significant compliance costs, administrative procedures, etc. to be covered once in operation.

Over time there are important signs of institutional learning and adjustments in the strategic approach and operations. In 2001, after the Working Group Report, the MIF prepared a 5-year strategy for VCD which took into consideration many aspects of a background review and recommendations of that Report. The strategy established the need to consolidate its experience in small business finance, drawing lessons from its early activities, publicizing these lessons in effort to have a demonstration effect, and adapting its programs to the specific needs of the different countries and environments in which it operates. With a substantial number of investments already in place by 2000,

the MIF proposed to be more selective in identifying its new operations, choosing those that have the highest potential for replication.

In terms of the funds interventions, the results of the evaluation are organized in terms of three types of funds: a) technology-based funds; b) environmental/renewable energy funds; and c) SME funds. Results in each category are summarized below.

Technology-Based Funds: **Financial results are weak so far, but investments in many cases have a reasonable chance for success.** A very small number of investments have the potential for high appreciation in the long-term, or after another round of equity infusions. The vast majority of companies report high degree of financial and “soft”(non-financial) additionality. This is the only sector that has begun attracting some private sector capital, hence there is hope for sustainability. Funding for technology-based companies is worth continued support if it is part of a cluster of activities with strong domestic stakeholders (like in Brazil and Chile). In other cases, it is necessary to identify or even assist in the “creation” of stakeholders before embarking directly into fund activities, for instance facilitating partnerships with companies of developed markets. From the outset, it should be clear that the effort involves decades and is not a year-long affair.

SME-Funds: **This group of funds includes a mix of different types of operations. It contains funds with a focus on regional, agro industrial, export-oriented activities, as well a “plain vanilla” SMEs. Results of the more “mature” in the group look generally poor.** Some show little investment activity due to difficulties identifying investment opportunities. The best prospects appear to be the cases where loan operations were structured. Financial information in this group is generally incomplete and poor. Innovation is not a high feature. Like the others, financial additionality is high. There is little chance that activities in this group will become sustainable. Beyond compliance with formal financial statements of fund activities, the fund managers in these group showed more deficiencies in terms of not reporting complete information of performance of their investee companies.

Environmental Funds: **Financial results have generally been very poor and it is expected that most will result in significant losses. This is one typology of funds that already has been almost discontinued based on the poor performance observed and the institutional learning of MIF.** In some cases difficulties in finding attractive investment opportunities were reported. The evaluation recommends that this type of fund be discontinued. The MIF’s experience with six funds shows that the only good stories occur when: a) managers stretched the concept to do investments that make sense but have little “environmental” content; and/or b) the fund concentrated on credit operations (as opposed to equity) with relatively conventional projects. The intent to support this sector it could be better served by a different program using other more appropriate financing instruments. In the course of the evaluation interesting commercial environmental opportunities, but they would require the technical support to develop new financial instruments and markets. It does not contribute to positive demonstration effects on the VC/SME funds program. Good environmental projects would be eligible investments for the new types of funds proposed by this evaluation, as explained below.

Innovation is mixed in this group and the fund activity has very low chances of being sustainable, unless subsidized by not-for-profit entities. Additionality has been the big positive, but with generally poor results the resources could have been used better elsewhere. Evaluation and monitoring have been weak. “Developmental” impact, a frequently used word in connection to these funds, cannot be verified due to lack of follow-up on indicators and basic data.

Continuation of SME funds (other than technology-based) should start by making a clear distinction between companies that are small and likely to remain substantially that way, and SMEs that have high growth potential. The first group has a ceiling on growth explained by many reasons: competitive markets, low product differentiation, lack of economies of scale, volatility in prices/supply, weather vulnerability, non-innovative business model, etc. In addition, corporate governance can show deficiencies. For instance, the lack of a VC “culture” in LAC is reflected when entrepreneurs appear to consider minority equity investments as zero interest loans without collateral. While it is true that most SMEs have limited access to resources from the financial sector, this does not mean the VC is the right instrument to support them. Other products such as leasing, factoring, supply chain financing, and specialized credit trust funds, could be a better fit for SMEs. MIF could explore the support to develop a viable business model for institutions that could obtain low-transaction cost in the provision of other financial services for SMEs, as successfully done in microfinance.

A. Strengths

The program has exhibited high marks on innovation and additionality. The MIF has been the leading actor in the region and is recognized as such. The MIF investment unit has evolved into a group that has a high degree of professionalism and commitment to the program. Over time it has learned to act more decisively when managers made mistakes, or when funds were floundering due to lack of management commitment. It has also learned from its own mistakes improving newer operations.

Although financial results of the “mature” portfolio are likely to be poor, there may be some success stories in the making. In particular, the cluster of activities, funds, regulatory changes and institutional development achieved in Brazil is a model worth strengthening and showcasing. The demonstration effect of this case is important given the size and visibility of Brazil in the region and worldwide. It shows a consistent and coherent strategy where both VC entrepreneurs and public or semi-public institutions have become important stakeholders.

A program that integrates remarkably well in a platform all the efforts of years of investment in technology and innovation, business support services, institutional fund managers and others is INOVAR, a program the financed by the MIF in Brazil. There the MIF helped to set-up the institutional mechanisms for the sharing of experiences and the promotion of the VC industry, pulling together different efforts through the executing agency FINEP and thus facilitating the creation of a “virtuous circle” to promote the VC industry.

MIF interventions are showing initial indication of creating a VC industry in Brazil, and great improvements are being made in Chile, where MIF has been a key actor and supported the development a more appropriate regulatory framework. A VC culture and modern VC mechanisms (i.e. technology clusters, incubators, VC/entrepreneur events, etc.) are clearly evolving and look like they are here to stay. If the benefits do not show up in the next few years, this evaluation is of the opinion that they are highly likely to show up in the future, provided patience and persistence prevail. Transplanting this type of experience to other countries in the region will not be easy, will take time and significant commitment from public and/or semi-public stakeholders would be a pre-requisite to replicate this success stories.

As a sign of the industry's growth, several domestic and a pan-regional VC/PE associations have been formed in recent years, such as the *Associação Brasileira de capital de Risco* (ABCR) in Brazil (2000), the *Asociación Mexicana de Capital Privado* (AMEXCAP) in Mexico (2003), and the Latin American Venture Capital Association (LAVCA) in the US (2002), where the MIF is an active sponsor. In the case of Brazil, an association of "Angel" investors, the *Associação Gávea Angels*, was very recently formed. All of these provide a networking forum for local entrepreneurs and fund managers, but perhaps more importantly, help all players join forces to lobby in favor of the changes they feel are required to make their industry grow.

Another important success story that should be pursued further is the compilation of legal/tax/institutional barriers that run against the development of the VC industry in the region. The funds program has been an invaluable source of information on these issues and in some cases has been a material agent for positive change, like in the case of Chile and Brazil. The MIF has been playing a very active role educating governments on the barriers imposed by the legal and regulatory framework. This contribution was done with studies, conferences, and particularly forcing through concrete investment situations where funds faced restrictions. These situations and policy dialogue then retrofitted into reform processes to create a friendlier environment for the VC industry.

There are many opportunities that could be taken further using this pilot MIF experience and introducing Bank leverage given that the regulatory framework and the basic conditions for high grow companies are lacking in many countries. However there are still significant hurdles in many countries for an efficient flow of risk capital to VC/PE investing, more than likely deterring some capital from engaging in this type of activity. Whereas investors in developed economies actively use existing laws and regulations to structure their investments, legal and regulatory systems are less flexible in the region. Common ingredients in the structuring of transactions such as the use of options, agreements to vote in a particular manner, share buy-backs and effective minority shareholder protection, are not universally present in the region.

The pioneering work of the MIF, opening the way for the VC Industry in a few key countries could be taken further and facilitated by the IDB Group. Particularly the Bank, through the Regional Financial Divisions and the support of the central Departments, could leverage these efforts supporting the consolidation of these initial

successful interventions. The use of the “know-how” of MIF VCD programs could be beneficial to improve the entrepreneurial orientation of Technological Development Programs, for example incorporating VC fund managers in panels for business innovation grants, which could also be latter investors in the successful SMEs. Other linkages and synergies could be established with other private sector development initiatives.

Additionally the direct linkage with the real economy, given by the MIF as “partner” of now 100 and in the near future 300 companies, could prove an invaluable source of information on barriers to growth, specific talents, needs and other key factors that could help to improve the Bank and the countries knowledge to promote the “entrepreneurial spirit” and conditions to grow in the region. This needs a programmatic effort of improvement in the way company and entrepreneurial information is collected and analyzed, and technical assistance could be directed to generate and expand the use of a wealth of information for entrepreneurial support and policy actions. For example, one of the most profound empirical systematic pieces of research on entrepreneurship has been done by analyzing a group of 500 private high growth companies⁷.

B. Weaknesses

Effectiveness, efficiency, evaluation and monitoring are low and could be greatly improved.

Effectiveness, in terms of the ability to deliver the intended fund results, is probably the most elusive goal, and the absence of a clear mandate made matters harder. A key element is management selection, which requires improvement. There has been considerable management turnover (30%) and generally poor results with “international” managers. There are also a number of structural elements that could be taken as opportunities to improve performance, as detailed below.

One form to improve efficiency could be seeking a larger average size of fund, which could be done for effectiveness reasons as well. The administration and support needed to nurture VC in SMEs is highly costly and would benefit greatly by improving economies of scale. In addition, to capture fully the success of outperforming companies, larger funds could increase their investment in consecutive rounds to accompany the successful firms over a longer period of time. According to analysis performed, fund sizes could target to grow from the actual US\$10-15 million level to go to US\$25 and US\$40 million, depending in the timing and market conditions to raise capital.

Another controllable cause of inefficiency relates to the “closing” process and the legal structuring of the funds. The “closing” process should be formalized and restricted to a shorter period of time. It may be necessary to sacrifice some additionality for the sake of efficiency. The legal structuring of the funds is slow. An attempt should

⁷ The research on the subject has been conducted by Amar Bhide and documented in the book “The origin and Evolution of New Business”, Oxford University Press, 2000

be made to develop uniform procedures and standard terms to lower the costs and time to negotiate, structure and set up each fund. The MIF also requires more resources in this area.

Evaluation and monitoring are similar but separate activities. Both require considerably more attention and resources than deployed today. To improve evaluation the first task is to introduce the good practice guidelines of the MDB-ECG.⁸ Initial steps are being taken, but a clearly defined program requires setting up in the short-term. The most important omission, as per those guidelines, is the lack of a systematic expanded annual supervision reports (XASR). The detailed evaluation work produced during this evaluation (Case Studies, see example Appendix I) for the more “mature” funds helps to set-up the analytical base for that process.

Monitoring requires a revamping of the current “Fact-Sheet” system used once a year, including the development of a rigorous risk-assessment system. It also requires a more active participation of the MIF in the affairs of the Investment Committee and the Board. This will demand either more staff or a larger budget to utilize consultants/advisors. Monitoring will present additional problems in the near future. As the newer funds begin their investments, this task will grow exponentially (at some point during the next year or two there could be over 300 firms in the various portfolios from approximately 100 now).

C. Threats

One of the biggest threats that could affect the program “demonstration effect” is the monitoring and management of the portfolio of funds as the new cohort invests in new companies and the old cohort enters into uncharted divestment difficulties. Without adequate preparation today the process can become messy and lower further the financial effectiveness, affecting the reputation of the VC industry as a viable financing tool. Confronting this threat may require closing funds or disengaging managers in a more speedy fashion. The MIF has been working in several instances managing workouts and complicated situations, particularly in the last two years. However, since the information system and risk assessment are relatively weak, conditions could be worse than they seem. Although MIF followed common industry practices and required audited financial statements for all funds, other complementary efforts are needed to improve information and risk assessment systems. It is essential to revamp these systems to take stock of the current situation and position the MIF to the growing challenge of a higher number of firms in the portfolios. The negative demonstration that a few funds may cause to the budding regional VC industry may be more than the positive effect of the ones that are likely to be successful.

⁸ “MDB-ECG Good-Practice Standards for Evaluation of Private Sector Investment Operations”, Multilateral Development Banks Evaluation Cooperation Group, Working Group on Private Sector Evaluation April 23, 2001.

D. Opportunities and Possible Next Steps

The MIF has a unique position in the region to continue leading the industry giving its specific mandate and the specialization achieved in this subject. This is not only because of its “first mover advantage” or its level of resources, but also because of its relationship to the Bank. As exemplified in the previous section, this linkage could be utilized and be a source of leverage in the future. In particular, since it is clear that the development of the VC industry will require a set of complementary interventions to pave the way for the VC industry (and not just money through funds). The MIF and the Bank could explore strategic synergies, by using the MIF programs as pioneers and learning instruments that allows further mainstreaming or streamlining other set of interventions.

Another set of opportunities derives from the potential to restructure and rebrand the activities of the program. At present the bulk of the program virtually has only one instrument and one name: equity funds. The result of this evaluation indicates that equity funds are not a good fit or the most sensible instrument for all countries and circumstances. It is a tool that should be applied very selectively and only once a specific set of conditions and prerequisites are in place. The MIF VC strategy recognizes these needs, but more interventions are demanded in this type preparatory work before investments in equity are launched in certain countries. Now is the opportunity to develop a menu of instruments and a set of guidelines to match instruments with need and/or requests depending on the conditions and situation of the any specific country.

Through its stake in the equity funds, the MIF has potential access to a pool of knowledge that should be put to use to the development of the private sector. In particular, if the MIF participates more directly in the live of the funds, it will quickly develop a direct, grounded knowledge on the dynamics of private business and the barriers to entrepreneurial development. This first hand knowledge of more than 100 SMEs and entrepreneurs can be systematized and retrofitted to the Bank’s programs on competitiveness, technological development, credit and modernization of the state (i.e. simplification of administrative processes, collateral execution, guarantee programs, testing of new ideas, etc.).

In this final section, a set of short tem and medium terms actions are specified to facilitate the implementation of possible next steps in the program.

1. Short Term Actions

Formalizing management selection process: Managers’ selection should be formalized into a clearer and more open process. Two non-exclusive recommendations are:

- a) to introduce a “contest” process, as is done by the INOVAR program supported by the MIF. In this case, the best fund ideas/groups are selected on a quarterly, bi-annual or yearly basis by the MIF staff and a panel of recognized experts in the field; and/or

- b) to call for open, international bids to manage new vehicles through a widely circulated notice that would attract a broader pool of potential managers. Two essential criteria to introduce are the track record in managing investment vehicles (audited), and experience in operating businesses (as opposed to financial expertise alone).

Revamping monitoring and evaluation system: This is an urgent task. The new monitoring system would need to include quarterly reports (by the fund managers) with at least:

- a) full financial statements for all companies (particularly cash flow statements) with company by company and consolidated reviews;
- b) a risk assessment system with quantitative financial indicators;
- c) a summary of the completion of objectives and main events in the quarter, including any material change (firm, sector or country) that may affect the portfolio.

The evaluation system could be upgraded to follow the guidelines in the MDB-ECG. The first tasks could be to:

- a) make an inventory of current evaluation requirements in the funds;
- b) review the progress made to date in those funds that call for evaluations and recommend the indicators to be tracked, as needed;
- c) propose a mechanisms to incorporate the funds which have no planned evaluations, along with guidelines on indicators and methodology; and
- d) propose a detailed work plan to incorporate other features recommended in the MDB-ECG guidelines.

Assessing underperforming funds/companies within funds: It would be important to devote special organizational resources to coordinate and lead this process within the MIF to strengthen ongoing efforts to deal with problematic funds and those headed in that direction. As indicated above this action could allow to contain the threat to take care of the most important intangible that this programs looks for: the “demonstration” effect that the VC is a viable model. Similarly, each manager could do the same exercise in the existing portfolio of firms. It would be worthwhile in some funds to concentrate the resources (management and financial) to salvage or enhance the position of likely winners. This would improve the effectiveness (results) of the fund. The evaluation found a number of cases where good companies need second or third investments in order to survive or move forward. Similarly, there are companies where it may be better to convert the equity to debt or liquidate the investment and move forward. This task will only grow bigger over time.

2. Medium Term Actions and Strategic Decisions

Increasing direct participation on funds’ activities: The MIF is the leading investor in all funds, but has no management responsibilities. While this is correct, it is also true that

the incipient and experimental nature of the industry in the region usually requires close participation to obtain better results and to control possible damage to the “demonstration” effect. A higher degree of MIF’s participation at the Board and Investment Committee level is a strategic decision that would increase costs (staff/resources) and will entail some risks. The likely benefits are:

- a) more intimate knowledge of the portfolio companies;
- b) improved steering of the fund towards the intended goals (financial and non-financial);
- c) faster reaction time to changes in managers’ or companies’ performance; and
- d) better first-hand knowledge of what works and what does not work in the business, opening the possibility for cross-fertilization between funds and between new and old operations.

Defining precise mechanisms of collaboration with Bank Group: The development of a dynamic VC industry requires more than funds. Depending on the country, it may require sizeable investment in technology, human capital for management or other areas. It may call for a significant overhaul of certain tax, regulatory or enforcement systems. The scale and nature of this effort goes beyond the MIF’s resources. Three possible examples of collaboration are:

- a) the use of the technology development programs as a tool to create a pool of technology-based entrepreneurs, managers and firms.
- b) joint/coordinated lobbying with the Bank on tax/legal/regulatory matters that affect the industry. Again, the MIF’s input and pilot demonstrative examples could be integrated to the country dialogue on these matters; and
- c) identification and nurturing of strong domestic stakeholders for the VC industry through institutional development programs in the technology, private sector and financial areas.

Developing criteria and menu of options for MIF’s intervention and optimize activities other than funds: The MIF has been introducing other important interventions beyond equity funds. At this point it should assess their effectiveness, determine the optimal way of undertaking each of them and define a set of criteria to determine which options make sense in which context. Some of the most relevant interventions identified for further action in the future are:

- a) training for VC managers and entrepreneurs and support of trade associations (i.e. national VC groups);
- b) funding the application of technology for commercial purposes through grants and system of contests with an independent panel of experts;
- c) systematic review of legal/tax/capital market barriers;
- d) dissemination of information on VC or high growth SME investing through contests, seminars, publications, etc.; and

- e) in-depth feasibility or relevance studies on a country or regional basis for a fund-type intervention.

Fewer, more selective funds with a larger target size, more open mandate, and more flexibility to support/abandon investments: Formation of new funds should be extremely selective, from none to two or three per year. The current size of the funds would benefit by a more flexible possibility of growth in size, and was found too small and deterred participation from some talented VC managers in the past. The expense ratio of the current funds is also a major impediment to their financial success. Higher target size funds, would also allow to accompany investment needs of successful ventures, and would enhance the capacity of management company to hire the mix of expertise required, including more sales and marketing experts currently absent. A target size of US\$25 million to US\$40 million is suggested growing from the actual US\$10-15 million. In addition, there are a number of structural features that could be changed, such as:

- a) Funds could be as open as possible to invest in a variety of sectors and in a broader range of firm sizes. Extreme targeting should be avoided to actually benefit the access of smaller SMEs. The most difficult task is to find opportunities with all the ingredients (i.e. good manager, sound business plan, technical expertise, high work ethic and ethical standards, etc.). Limitations on sectors or geographical areas have not worked well. New funds should be allowed to invest across sectors and in firms larger than the current limit. This would help to dilute costs, introduce possible synergies/demonstration effects between smaller and larger entities (including merger possibilities), diversify portfolio risk, etc. This change would also allow the funds to support firms at their various growth stages. The key size criteria to change would be sales, which should be increased to US\$5 million.⁹
- b) To avoid possible investment concentration on larger firms, the funds could use an incentive system that gives higher rewards to outstanding performance in smaller firms. For example, after returning principal and the hurdle rate of return, managers could earn, say 30% of profits on investments in smaller firms and only 10% on medium-sized firms.¹⁰
- c) The funds should explicitly target two or three investment tranches, increasing the investment exposure to the likely winners. The initial target should be 15-20 firms, the second tranche should include only 5-7 firms, and the last tranche should only fund 1-3 investments. The purpose of this change is twofold. First it introduces a strong element of competition between firms (access to more resources). Second, it improves the chances of achieving a high financial return (a positive demonstration effect).

⁹ Some of the newer funds already allow for this higher limit.

¹⁰ The average reward to outperformance is currently 20%.

- d) A new fund structure would require more flexibility to sell investments that are likely to be winners and rigidity in divesting out of underperforming assets. While the divestment period for the likely winners should be lengthened, the sale of likely losers should be accelerated. An option to force discipline into this process is to shorten the divestment period for some of the investments. For example, if the initial group is 15-20 investees, half of them should be sold by the first six years (or the equity converted to debt), as opposed to the current ten-year period. For likely winners, size limitations should be abandoned for second/third round investments in portfolio companies.
- e) The restriction on control investments should be eliminated. The majority of PE investors in the region argue that control is necessary to attain desired results. This evaluation does not advocate that control should be pursued, but rather that the taboo against it be lifted. There are several instances in which control has *de facto* occurred in the MIF funds. This always occurred for the wrong reasons (i.e. some form of business failure). This may have been avoided if the manager had enjoyed the control from the beginning.

I. EVOLUTION OF THE CONTEXT FOR VENTURE CAPITAL DEVELOPMENT

1.1 The evolution of Venture Capital (VC) and Private Equity (PE) investments in Latin America and the Caribbean (LAC) is shaped by economic, financial and political factors. In addition, being these activities largely novel in the region, they are influenced by practices prevalent in developed markets, particularly the US. This Chapter begins with a brief overview of VC, including the rationale for government intervention, its origins and evolution in the US and a description of the ingredients required for success (using the Israeli experience as background). It then describes the context in which VC/PE activities developed in LAC prior to and during the period where the MIF's Small Enterprise Investment Funds (MIF/SEIF) originated and developed, including an overview of the main economic trends, portfolio flows and equity markets; a description of the first VC/PE activities prior to the MIF/SEIF with a brief evaluation of their results; and the participation of local governments and multilateral financial institutions in this process (a more detailed description of the MIF/SEIF is presented in Chapter II).

A. Venture Capital: An Overview

- 1.2 Venture Capital is understood as the provision of financing, mainly through equity and quasi-equity instruments, to small and early-stage young companies as they are developing their ideas, products and/or operations. Its aim is to identify entrepreneurs with the ideas and ability to create a business with the potential to grow substantially over time. An important characteristic of VC investors is that they add value to their portfolio companies beyond the financing they provide¹¹. VC managers are hands-on investors who become involved with their companies, assisting the owner/manager in developing them as businesses
- 1.3 In developed economies, VC investing is more closely identified with the development of innovative technologies or new products, whereas in the developing world it has a more general connotation of supporting young enterprises in their formative years. VC is a subset of PE, which deals with companies of various sizes and stages of development, including well established firms.
- 1.4 The entrepreneurial drive behind these new and young companies is an important source of dynamism in the economy, responsible for the creation of new job opportunities, improved products and services, a more competitive environment and overall enhanced growth possibilities. Indeed, initial attempts to measure the

¹¹ For empirical evidence, see: Hellman and Puri (1999). "Venture Capital and the Professionalization of Start-up Firms: Empirical Evidence", Stanford University.

- relation between entrepreneurship and economic growth across countries show a positive correlation between current entrepreneurial activity and future growth¹².
- 1.5 VC investment targets young companies in their early stages of development. In some cases (more so in developed economies), the company is built around the potential discovery of a new product or technology and its subsequent commercialization. Given the difficulty in estimating the risk involved, companies with this profile are typically not good candidates for commercial lending. On the other hand, with a highly skewed return distribution (high probability of low return / low probability of high return), they are suitable candidates for equity-linked investments. These allow participation from the upside of the potentially outsized success and thus reward undertaking the additional risk.
 - 1.6 Initial funding comes from the entrepreneur's own funds, family, friends and other personal contacts ("Angel Investors"). These resources tend to be limited and are not sufficient to bring the up-and-coming company to breakeven. This is the stage where VC steps in, to help bring the company to the next level, where other forms of ownership, financing and control are more suitable. Empirical studies¹³ have shown that the oversight and assistance provided by VC managers to their portfolio companies does appear to differentiate them from non-VC backed companies (through higher sales, lower financing costs, higher growth rates, etc.).
 - 1.7 Investing in new companies carries high transaction costs, and investors are generally faced with very imperfect and asymmetric information; owners typically know more about the state of their business and tend to emphasize the positive while downplaying potential pitfalls. As was made clear by Akerlof in analyzing the market for used cars¹⁴, this leads buyers to exaggerate the true risk involved. In the case of small company investing, this results in investors demanding higher returns than warranted by the underlying risk and hence investment is less than what is economically optimal.
 - 1.8 The effort by VC managers to gather and process information goes a long way towards closing the gap between real and perceived risk. This is a costly endeavor, more so in the absence of an organized community of institutional investors. Hence the case for government intervention to help foster the

¹² Reynolds, Bygrave, Autio, Cox and Hay (2002), "Global Entrepreneurship Monitor: 2002 Executive Report", Babson College, Ewing Marion Kauffman Foundation and London School of Economics. The authors point out that this does not imply that entrepreneurial activity is by itself a source of growth, but it may indicate that changes leading to higher economic growth are more effective when an active entrepreneurial sector is available to implement those changes.

¹³ See for example the DRI-WEFA study reported by the National Venture Capital Association on 6/25/2002 (www.nvca.org) and Avnimelech and Teubal (December 2002), "Venture Capital Policy in Israel: A Comparative Analysis & Lessons for Other Countries", Hebrew University of Jerusalem.

¹⁴ Akerlof (1970), "The Market for Lemons: Quality of Uncertainty and the Market Mechanism", Quarterly Journal of Economics, No. 84.

- development of the industry: by helping lower costs to the manager and/or investor, it leads to investment levels that are closer to what is socially desirable.
- 1.9 In an ideal world, VC/PE investments require patient investors, savvy managers, a large pool of entrepreneurial talent, a predictable economic environment, good information sources, an appropriate tax and legal system, and active capital markets to allow for the eventual exit. The absence of some of these in emerging markets leaves the door open for further government intervention¹⁵.
 - 1.10 What is needed for a VC industry to develop and grow? First and foremost, a VC industry can only prosper with an adequate supply of entrepreneurs. Successful practitioners in the US coincide that entrepreneurship cannot be taught¹⁶. You can help people discover their talents and provide them with the tools to exploit them, but entrepreneurs are born, not made. The academic establishment disagrees: there are over 2,200 entrepreneurship courses offered in the US at over 1,600 schools. The underlying view is that entrepreneurship is a discipline and as such it can be learned¹⁷. In either case, other factors come into play that affect the ‘supply of entrepreneurs’. Among them, the flexibility of the employment system, the adequacy of a social safety net, the security of jobs in large corporations and the tax/legal environment.
 - 1.11 The second ingredient is a pool of skilled VC managers. These are highly motivated professionals whose interests are aligned with those of their investors through an appropriate incentive mechanism. VC managers recognize that potentially high rewards come with high risk and their role is to decide which bets are more likely to turn (or be tilted through their actions) in their favor.
 - 1.12 The third ingredient is good professional and managerial talent. Initially an owner/manager is heavily involved with all aspects of the operation he creates. The presence of the VC manager and his team provide a welcomed relief, but eventually the successful company needs to develop and be run by its own managerial and professional staff.
 - 1.13 Finally, it is necessary to have the supporting infrastructure (e.g. accountants, lawyers, head hunters) and a legal/regulatory framework that enable private sectors players to develop the industry.
 - 1.14 It is important to point out that ‘institutional’ VC/PE investing is not the only way to promote entrepreneurship and the creation of new companies. It has certainly not been the universal path followed by all developed economies. It may well be the case that the model is appropriate for certain countries and not for others; in

¹⁵ An additional obstacle in emerging economies is wealth concentration, which limits the pool of qualified buyers and thus lowers the ability of VC/PE entrepreneurs to ‘shop’ their investments around.

¹⁶ “Entrepreneurship: can the touch be taught?” Wall Street Journal, August 5, 2003.

¹⁷ See Kuratko (2003). “Entrepreneurship Education: Emerging trends and challenges for the 21st Century”, The Entrepreneurship Program, Ball State University.

particular, the high-tech successes witnessed in the US and Israel may be replicable only in a handful of other countries. The answer to this question, however, is well beyond the scope of this analysis

B. Origins of VC Investing: The US Experience

- 1.15 The modern VC industry was originally developed in the US¹⁸. The first formal VC fund was a publicly traded closed-end company founded in 1946, the American Research and Development Corporation (ARDC). Official sponsorship of VC investments began in 1958 with the creation of the Small Business Investment Company (SBIC) program. SBICs are privately owned and managed investment firms, licensed and regulated by the Small Business Administration (SBA). They operate like VC funds and their mission is to invest in small businesses and provide them with managerial assistance.
- 1.16 While SBICs have been a significant source of funding to small companies, including some highly successful ones such as Federal Express, Intel Corporation and Staples, the program has had its share of problems. The SBA has noted that failed SBICs typically lack adequate private capital and had unqualified management¹⁹. On the other hand, successful ones offer attractive compensation packages that draw well-qualified managers. In addition, successful SBICs actively assist their portfolio companies and monitor their financial health, thus adding value to their financial investment. Overall, and despite its difficulties, the SBIC program pioneered and contributed to the expansion of VC activity, provided substantial amounts of funding to small and young companies and led to the emergence of a new class of investors (VC fund managers) who were instrumental in the development of the industry.
- 1.17 Regulatory and tax changes in the late seventies, fueled an explosive growth in VC/PE investments. Most important, new regulations allowing pension funds to invest in the asset class opened the doors for significant flows of previously unavailable funds²⁰. While commitments to VC funds in 1980 were US\$ 620 million, by 1989 they had risen to US\$ 2.76 billion. For PE funds these figures are even more impressive, going from US\$780 million in 1980 to US\$ 14.7 billion in 1989.
- 1.18 Other factors included reductions in capital gains taxation (which affects both the behavior of taxable investors as well as the relative attractiveness of becoming an entrepreneur) and the proliferation of Limited Partnerships allowing tax liabilities

¹⁸ For a more detailed discussion see: Fenn, Liang and Prowse (1995), "The Economics of the Private Equity Market", Board of Governors of the Federal Reserve System. This section draws extensively from their presentation.

¹⁹ Inspection of SBIC Best Practices (August 1994), Office of Inspector General, US SBA.

²⁰ A detailed analysis is presented in Gompers and Lerner (1999). "What drives Venture Capital Fundraising?" NBER Working Paper 6906.

- to be passed directly to the investor (thus freeing non-taxable investors from the burden of taxation implicit in owning shares of a corporation).
- 1.19 Small, new companies are often involved in the development of new products and technologies through R&D. As a result, one tends to think of R&D support as falling under the same umbrella as VC support. In the case of R&D investment, the rationale for government intervention is called for by the gap between private and social returns; for example, a new technology provides benefits to society that go beyond the monetary return to its original developer. By not internalizing these benefits, managers end up investing less than is socially desirable²¹.
 - 1.20 In the case of the US, the largest source of support to R&D investment by small entrepreneurial firms is the Small Business Innovation Research (SBIR) program²². There is evidence²³ that SBIR grants are effective only when recipient companies are located in areas where there is already substantial VC activity. This finding is consistent with the literature that emphasizes the importance of geographic concentration by high-tech companies. Because of knowledge spillovers, specialized labor markets and the critical mass required in order to develop a supporting structure, firms find it more efficient to locate close to each other and form clusters of specialization. Companies operating in this enabling environment are better able to take advantage of additional funding.
 - 1.21 Within the US there are also a variety of State-sponsored programs²⁴ complemented in many cases by investments from the State's Public Employees' Retirement System. Overall, all these programs share a common element: support is given to various stages and aspects of the VC/PE industry and its development, and not just to the promotion/subsidization of investments.
 - 1.22 This long tradition and heavy support, underpinned by the depth and dynamism of its equity market, flourished in the 1990's. VC investments grew at explosive rates, driven by NASDAQ's exceptional rise and the nature of the market's overvaluation. Previous episodes of stock market excesses were characterized by investors (unrealistically) assuming that companies would be able to sustain high growth rates way into the future. Under the 'New Economy' paradigm, companies that were bleeding cash would eventually become gold mines and investors had to buy them as soon as possible. This environment provided VC funds fertile ground to liquidate their investments at much earlier stages and thus shorten their portfolio cycle with hefty gains.

²¹ One could argue that this argument applies also to an incipient VC/PE industry: while the return to the initial cohorts may be low or negative, they lay the ground for the creation of the industry and thus make possible the future (high) returns.

²² Lerner (1996). "The Government as Venture Capitalist: The Long-Run Impact of the SBIR Program", NBER Working Paper 5753.

²³ Lerner (1996), op.cit.

²⁴ See Ernst & Young LLP (2001). "Venture Capital Climate for Bioscience in Maryland" for a description.

Box 1.1: The Late Nineties: An Abnormal Period for VC Returns in the US

Returns to VC funds are expected to materialize over the medium to long run. In the 80's and early 90's the norm was to receive a small cash return during the first three years of investments (the formative years) while portfolio companies were getting established.

Investment Returns of US based VC Funds by Vintage Year

Year of Fund Formation	Measurement Date (12/31)	Percentage distributed	Percentage unrealized	Total Return
1984	1987	5	100	5
1990	1993	12	102	14
1996	1999	111	385	396
1999	2002	20	43	-37

Source: Thomson Venture Economics / National Venture Capital Association.

Percentage distributed is based on actual cash distributions while percentage unrealized is based on investment manager valuations, both calculated over the initial investment.

Towards the late nineties, VC funds were able to recoup 111% of their initial investment within three years while the remaining (unrealized) portion was estimated to be worth close to 4 times the original investment! As the bubble burst things changed: the 1999 cohort was able to 'liquify' only 20% of its investments (probably during its first year) while the remainder (unrealized) portion had a significant drop in value.

- 1.23 Returns reported by VC funds remained high and so did their ability to raise capital. Between 1991 and 2000, capital raised by VC funds grew at a compounded rate of 55% per year, going from \$2 billion to over \$105 billion²⁵. As NASDAQ imploded, however, flows were drastically reduced; it is estimated that in 2002 the industry managed to raise only US\$ 8.6 billion, a level not seen since the early nineties. Further, unable to find attractive investment opportunities and with an estimated overhang estimated at over US\$ 70 billion (committed but uninvested resources), VC funds have been downsizing and returning capital to investors. It is estimated²⁶ that under the best of circumstances the industry can deploy no more than US\$20 billion per year, with a more conservative estimate ranging between US\$ 5 and US\$ 15 billion. All of the above point towards lower returns in the future and a steady rationalization in the industry.
- 1.24 In summary, organized VC investing originated in the US some 55 years ago and government sponsorship began 10 years later. Since then, a variety of government programs have been initiated to complement and enlarge the scope of the original one. In addition to formal funding, the tax and regulatory framework in the US has been constantly evolving towards facilitating the development of the industry. Against this background VC investments have been flourishing, and even after the rise-and-fall of the nineties, they remain an important source of growth and dynamism in the economy.

²⁵ National Venture Capital Association (www.nvca.org).

²⁶ Meehan, Lemmens and Cohler (2003). "What Venture Trends Can Tell You", Harvard Business Review, July 2003.

C. Successful VC Promotion: The Case of Israel

- 1.25 Outside of the US, the most notable example of VC development is Israel²⁷. The seeds for its development were planted in the late sixties, with the desire for self-sufficiency in the military establishment. At the same time, Offices of the Chief Scientist were created in the various ministries, to stimulate applied Research and Development (R&D).
- 1.26 Due to its closeness to the business sector, the Office of the Chief Scientist at the Ministry of Industry and Trade (OCS) became the cornerstone of the Israeli strategy for promoting innovation in the private sector. Its main policy instrument is the “R&D Industrial Fund”, established in 1969 to support R&D activity whose objective is the creation of new (or improved) products or processes, directed to the export market.
- 1.27 In the next fifteen years, a civilian R&D-intensive industry developed alongside the military, taking advantage of, and generating increased demand for, the highly skilled labor force. The army became in effect a great technological incubator, taking advantage of significant economies of scale and creating strong networking between research teams. Due to the links created through R&D cooperation with its allies, channels of communication were established that opened the doors for technological collaboration with tech-clusters in other countries and further integration of the Israeli establishment with its peers overseas.
- 1.28 Beginning in the mid-eighties and into the early nineties, a sequence of events coincided that fueled the rapid growth of the VC industry. First, the downsizing and restructuring of Israel’s military initiated a migration of scientists and engineers to the private sector. Second, a massive wave of immigration from the former Soviet Union further increased the supply of qualified engineers and scientists. Third, from an economic/cultural standpoint, a significant shift was taking place, one where the country was moving away from its socialist origins and towards a market oriented economy where entrepreneurship and profit motives became accepted terms in Israeli society.
- 1.29 Until the early nineties, there had been several attempts at creating startup companies, most of which had failed. In spite of massive R&D support, entrepreneurs lacked the ability to grow their companies beyond the development phase. The OCS determined that a targeted policy specifically designed to promote VC investing was the way to fulfill the lack of managerial/marketing capabilities prevalent in Israeli startups. Given developments in the rest of the world in the early nineties (in terms of VC activity and capital markets), the OCS’s decision was extremely timely.

²⁷ This section draws extensively from Avnimelech and Teubal (January 2002), “Israel’s Ventura Capital Industry: Emergence, Operation and Impact”, Hebrew University of Jerusalem as well as Avnimelech and Avnimelech and Teubal (December 2002) op.cit.

- 1.30 The first attempt (Inbal-1992) was a program to provide downside protection to VC funds traded in the domestic stock market; it was not a great success and all four participants eventually left the program. The second attempt (Yozma-1993), on the other hand, was extremely successful. Its explicit objective was to create a solid base for a competitive VC industry; taking advantage of the knowledge accumulated by foreign partners and trying to create a network of international contacts that would help domestic companies thrive overseas.
- 1.31 Each fund supported by Yozma had to involve both a foreign financial institution (typically a PE manager) and a well-established domestic financial group. The program granted its funds a call option on government-owned shares at cost plus interest for a period of five years, in essence providing asymmetric leverage (magnifying returns only on the upside). Finally, there was no limitation on portfolio companies, if qualified, from receiving R&D support from the OCS.
- 1.32 The high returns achieved by Yozma-sponsored funds triggered the entry of new players, initiating a dynamic growth process involving learning by doing and learning from foreign partners. Perhaps the best indication of their success was that all Yozma-capitalized funds had subsequent follow-up vehicles outside the Yozma umbrella.
- 1.33 Israel's VC-funded companies were early and active participants in global capital markets, taking full advantage of the appetite for Nasdaq-related stories. As of 2000, there were over 150 Israeli companies listed on Nasdaq, the third largest group after the US and Canada. And the number of Israeli companies listed in London's AIM market was second only to the UK. Access to these exit possibilities clearly helped Israeli VC funds achieve attractive rates of return. It is important to keep in mind that the nineties were a period of unusually high returns and it is hard to isolate this fact when assessing the success of Yozma funds and of the program itself.
- 1.34 Due to its particular circumstances, Israel decided early on to promote the development of technology. It started in the late sixties within the military establishment, but soon after it became a matter of economic development policy and involved also the private sector. In the next twenty years a strong technological base was developed, laying the ground for the subsequent growth of VC investments. A sequence of favorable events in the late eighties-early nineties coincided with a timely decision to support the VC industry, as US markets were starting to take off. Today, Israeli companies are over-represented in the main stock markets overseas and in some cases are recognized leaders in the sectors where they operate.

D. Economic Context and Capital Markets in Latin America and the Caribbean

- 1.35 The prevalent economic model in Latin America during the seventies was one of inward looking economies with strong state intervention, where import substitution and selective price controls were the norm. Following the debt crisis

- and the “lost decade” of the eighties, countries were forced to reevaluate their development strategy. The overall response was similar across the region. In various degrees and timing, countries adopted market-oriented reforms, trade and capital account liberalization, tax and financial sector reforms, privatization of state-owned enterprises and, in general, a more receptive attitude towards the private sector and foreign investment became more prevalent.
- 1.36 On the financial side, the search for solutions to the crisis led in part to the creation of innovative instruments and active capital markets in the region. Brady Bonds were the vehicle of choice for restructuring of foreign public debt and became highly traded instruments, eventually helping reinsert the region to international capital markets.
 - 1.37 The early nineties marked the beginning of a distinctively different period. Reforms were taking hold in the region, growth accelerated, inflation was tamed and most importantly, there was a sense of economic and financial stability. These changes led the way for the re-emergence of capital inflows, both from official as well as private sources.
 - 1.38 One of the most important drivers of investment and capital flows was the privatization of large state-owned companies, acting also as a magnet for increased equity market activity. This process opened the possibility for sizable investments to enter the region in concentrated deals. Funds raised in privatizations went from US\$ 1.4 billion in 1989 to a peak of US\$37.5 billion in 1998, averaging almost US\$ 18 billion in the period 1990-99.
 - 1.39 A good number of the privatized companies were listed in the local stock markets, further increasing liquidity and trading interest. In many cases, where public companies had already been listed for a while prior to their privatization, sizable price gains occurred prior to, or during privatization, as market participants anticipated large efficiency gains. Price appreciation and outperformance in the stocks of these companies obviously led to increased interest in these markets.
 - 1.40 Privatizations also served to attract investment flows over and above those related to the purchase of assets, as these companies typically required further additional investments. In some cases, these explicit commitments were an integral component of the bidding as part of the privatization process.
 - 1.41 Another force that exerted itself gradually over the period was the increased participation of local pension funds in some markets. The early and well-known case of this phenomenon is Chile. In the early 1990s, privatization of the pension fund system in Argentina and Peru eventually led to the development of a sizeable presence of institutional investors. Finally, in some cases (Brazil) the participation of local pension funds from state owned enterprises (and local Mutual Funds) also became very important sources of liquidity.

- 1.42 The initial surge in capital flows was concentrated in portfolio investments (both equity and fixed income). Trading volume in the local stock exchanges increased significantly, accompanied by impressive price gains. In the early nineties, Latin America was one of the top performing regions in the world. These positive trends took a short breather during 1995 with the devaluation of the Mexican Peso and the ensuing financial crisis. Towards the end of 1995-early 1996 investors were already returning to the region; and by 1997, having managed to credibly bring itself out of the crisis, the return on Mexican equities reached 52%. During these years the issuance of new American Depository Receipts (ADRs) accelerated, although this was restricted to the largest and best-known firms in the region.²⁸
- 1.43 The dynamism in Latin American equity markets was uneven during the following years. The Asian crisis, the debt default in Russia, the devaluation in Brazil and finally the debt default in Argentina resulted in high volatility, dwindling foreign interest and generally declining volumes. By the late nineties, net resource transfers to the region turned negative and foreign direct investment, which had been steadily increasing throughout the decade, plummeted.
- 1.44 A significant trend in the equity markets during the later part of the 1990s was the interest in Internet-related companies with a base in Latin America. In the same way as the US-based companies, Latin Internet stocks attracted sizeable funds and, for a period at least, yielded very high returns. It is relevant to note, however, that most of them were regional in nature and listed directly in the US (and not in local markets).
- 1.45 Debt markets evolved in tandem with equity markets. Before 1990, Latin American issuers had little access to the international bond market. As pro-market regimes were voted to power and reforms began to take hold, bond issuance became a significant source of external financing. International bond issues²⁹ grew tenfold between 1990 and 1993, going from US\$2.8 billion to US\$ 28.8 billion. Volumes fell in 1994-95 but rose rapidly thereafter to reach a peak of US\$54.4 billion in 1997. The sequence of Emerging Market crises in 1997-98 negatively affected volumes, which recovered again during 2000 and 2001.
- 1.46 The Argentine crisis (late 2001) and the factor of change of party in the Brazilian Government (early 2002) shut two of the largest issuers out of the market; it is estimated that during 2002 only US\$15 billion were issued in the region³⁰.

²⁸ American Depository Receipts, popularly known as ADRs, are certificates of ownership of specific stocks that are traded the US markets as regular stocks. There are different levels of listing, from over the counter (OTC) listing to full New York Stock Exchange (NYSE) listing. In the latter case, the company whose ADR is traded is subject to the same information and reporting rules as any other NYSE stock. This involves, for example, reporting under US GAAP standards.

²⁹ These figures include both sovereign and corporate debt. See: Bustillo and Velloso (2000), "Bond Markets for Latin American Debt in the 1990s", Economic Commission for Latin America.

³⁰ "The Door is Open Again", Latin Finance, July 2003.

Things have started to improve, both because the change in Brazil did not turn out to be what the market feared but mainly because “yield-hungry” investors in the US have been willing to take more risks to compensate for the ever decreasing interest rates at home.

- 1.47 Corporate issuers were very active participants in the issuance of foreign, dollar denominated debt. The bulk of it was concentrated in the largest companies in the region. In an environment of stable exchange rates (certainly relative to the recent past), interest rates and maturities in local currencies looked very unattractive compared to lower rates and longer maturities in US dollars. Unfortunately for many, what looked like a sensible bet in the 1990s has become a mushrooming industry of corporate restructuring and workouts.

E. The Development of VC in the Region

- 1.48 Overall, the environment in the years prior to 1990 was extremely volatile and unfriendly to risk takers whose horizon is in the medium to long-term, such as VC/PE investors. Not surprisingly, we find very little organized activity prior to that year, the bulk of it sponsored by U.S. and Multilateral Agencies. The first “modern” attempt at promoting VC investment in the region was carried out by the United States Agency for International Development (USAID)³¹. The rationale for their support was to demonstrate the existence of a profitable market for this type of activity, help canalize private flows into venture capital and eventually stimulate development by creating more jobs and raising overall output.
- 1.49 Between 1970 and 1986, USAID initiated five projects in the region³² with overall commitments of \$119 million. In addition, eight projects were sponsored in other emerging economies. Only the first project became a viable and sustainable business; however, it did so by transforming itself from a VC fund to a micro-lending institution. Overall, USAID’s VC experience did not achieve its intended purpose. Among the reasons for these, the Agency mentions choosing the wrong implementers and imposing excessive rigidity on them and on the project’s design. More recently, their efforts in this area have been re-directed towards Enterprise Funds in the Baltics, Eastern Europe and the NIS. These vehicles have greater flexibility and are intended to be more agile than their predecessors. While it is still early to determine the success of this approach (and mistakes have been recognized), the USAID considers this model an improvement over their original approach.

³¹ Previous attempts at carrying out private equity investments in the region include the International Basic Economy Corporation (1947) established by the Rockefeller Foundation and the Atlantic Community Development Group for Latin America (1964) established by US and European multinationals. Both ended in liquidation after several years of activity.

³² James W. Fox (1996). “The Venture Capital Mirage: Assessing USAID Experience with Equity Investment”, USAID Program and Operations, Assessment Report No. 17.

- 1.50 Other early entrants into the VC/PE field in the region include the International Finance Corporation's (IFC) through BRASILPAR's Investment Fund (1980) and CRP (1982) in Brazil, SAIC de Riesgo in Argentina (1985) and the Falcon Fund in Jamaica (1985). Of the \$51 million approved by the IFC between 1978 and 1990, \$12 million were destined to Latin America. In addition to capitalizing PE funds, the IFC also capitalized the fund managers' themselves, as an additional step at helping create a PE industry in the region.
- 1.51 The IFC has recognized that financial returns on PE funds will take time to materialize. In a preliminary evaluation of their initial portfolio³³, they estimated that financial returns had so far been poor. While only a few of the funds had completed the investment-divestment cycle, IFC's assessment is that the earliest funds will most likely under-perform, while subsequent ones should do better as lessons from experience are incorporated in their structure. These include: (i) management is the most important ingredient of fund performance, (ii) compensation structure should provide the right incentives to managers without interfering with their performance, (iii) deal flow is often hard to generate, and (iv) exits are difficult and take longer than expected.
- 1.52 In spite of these earlier attempts at promoting VC/PE investment in the region, by the early nineties there was no organized activity in LAC. However, as the economic landscape was changing, it became fertile ground for foreign investment in general and subsequently, PE investment in particular. With VC/PE becoming increasingly popular in the US and funds flowing at ever-higher rates, the industry needed to find new and innovative ways to deploy capital. An obvious extension was to replicate the domestic experience overseas. Public equities in LAC had already been 'discovered' in the early to mid nineties and the rising trend of companies seeking their listing in the US market through ADRs added visibility to the region³⁴. Suddenly, it seemed Latin American or even US markets could also provide the proper exit mechanism, and hence LAC became a natural destination candidate for PE funds.
- 1.53 Institutional PE funds dedicated to Latin America start to appear in 1994-95, attracting significant capital to the region³⁵. Commitments went from US\$ 107 million in 1992 to a peak of US\$ 3.7 billion in 1998; overall, since 1992 these funds have raised close to US\$ 16 billion³⁶. These institutional funds targeted mainly medium and large companies, and privatization opportunities. Smaller companies were outside their radar screen and still found it hard to access capital. As a result, even though investment flows increased dramatically, most of it ended up in the largest and more established companies in the main economies. It

³³ Laurence Carter (1996), Investment Funds in Emerging Markets, Lesson of Experience Series #2, IFC.

³⁴ As recent research shows this helped companies raise their market valuations by an 10% - 15%; see "Study Finds DR Programs Boost Shareholder Value", Global Finance, July/August 2003.

³⁵ Venture Equity Latin America 2002 Year End Report (www.ve-la.com).

³⁶ These figures do not include capital raised by funds with broader mandates (e.g. Emerging Market Funds or other International Funds) that may have eventually reached the region.

is estimated that only 5% of funds raised until 2002 were directed to Small and Medium Enterprises (SMEs)³⁷. The only exception to this trend was the capital raised for “new economy” and Internet startups.

- 1.54 In this context, the Overseas Private Investment Corporation (OPIC), a US government entity, helped promote PE investments in the region by providing leverage to PE funds and thus increasing their investable resources. Regionally dedicated funds have received a total US\$340 million from OPIC, in addition to the US\$ 443 million received by non-dedicated funds for whom Latin America is part of their regional mandate.
- 1.55 In the narrower category of VC investment, the MIF has been a pioneering force in the region. Typically in partnership with the national development bank of the host country, the MIF has since 1996 committed US\$178 million to 35 initiatives. In addition, it has provided almost US\$17.3 million to 21 technical assistance projects to help promote the development of the VC industry in the region. MIF sponsored funds have made possible VC investments in smaller economies either through the creation of country-specific funds or via regional funds. In addition to its quantifiable monetary contribution to investment funds and technical assistance projects, the MIF has been at the forefront of the debate on how to structure the appropriate legal and regulatory environment for the industry to thrive in the region.
- 1.56 Governments in the region have been at different degrees involved in the promotion of VC/PE activity, mainly through their respective development banks. Brazil was perhaps the first to get involved in supporting VC/PE investing and the one where the industry is most developed. Mexico and Chile are the other two countries where governments have been making efforts to promote the VC industry.

Box 1.2: Venture Capital Promotion - Brazil

The *Banco Nacional de Desenvolvimento Econômico* (BNDES), Brazil’s development bank, has been an active participant in VC investing both through direct investments and funds. In the early seventies, the BNDES realized that loan financing had limited ability to increase the capacity of domestic companies to grow and that some form of equity financing was required. As a result, in 1974 it created three subsidiaries to capitalize private sector entities through the acquisition of temporary minority holdings; in 1982, the three were consolidated into BNDES Participações S.A. The BNDES currently has several capitalization programs specifically aimed at technology-based companies, small companies, software-development, emerging companies and investment funds.

The *Financiadora de Estudos e Projectos* (FINEP), an entity linked to the Ministry of Science and Technology, was created in 1967 to promote technological development and innovation by supporting companies and institutions investing in new products and processes. More recently (2000) the INOVAR PROJECT was launched, to help develop technology based SMEs and an institutional environment that nurtures the activity of VC in this type of companies.

On the regulatory side, only in 1986 was the framework for risk capital investments established. In 1994 the legal figure of the FMIEE was created, as the vehicle to invest in emerging companies. More recently, in 2000, a resolution was passed to allow institutional investors more flexibility with respect to their allocations to “alternative” investments.

³⁷ Holly Johnson, “Venture Capital in Latin America: A Resource for S.M.E.s?”, V Inter American Forum on Micro Enterprises, Brazil, September, 2002.

Box 1.3: Venture Capital Promotion – Mexico

The first legal entity created explicitly to help direct investments to SMEs was the *Sociedad de Inversión y Capital Anónima* (SINCA). These are listed closed-end funds established with the purpose of investing in private companies, with the ability to defer income tax on realized gains until their distribution to investors. In large part due to the significant administrative and regulatory burden imposed on them, they never took off as expected. As of 1999 there were 43 SINCA's with commitments totaling US\$ 362 million and 256 investments, most of which in real estate.

Nacional Financiera (NAFIN), Mexico's industrial development bank, has been involved in VC/PE investment since 1989. Initially as a provider of funding through the financial sector and later as a minority, medium-term investor in SMEs. Due to the high cost of monitoring individual investments, eventually NAFIN decided to channel its support through funds. NAFIN was actively involved in SINCA's, having invested in a total of 34. At the height of the industry in 1994, it was invested in 60% of the SINCA's in operation and represented 25% of the capital in those vehicles. NAFIN is still invested in 16 SINCA's, all in the process of winding down. NAFIN started investing in funds in 1995 and is currently committed with over US\$ 130 million in 15 entities.

The *Consejo Nacional de Ciencia y Tecnología* (CONACYT) has been providing support to the private sector in the area of technological innovation through a variety of programs that have evolved over the years. In its most recent programs, a total of 39 new funds have been created since 2001 in cooperation with other Public Sector entities (sectoral funds) or State and Local governments (mixed funds); an additional 15 funds are in preparation. In addition, through the newly established AVANCE program, the CONACYT is directly assisting in the conversion of new technologies into business opportunities by funding the "last mile" of implementation prior to commercial launching.

Box 1.4: Venture Capital Promotion - Chile

The legal framework for risk capital investing by funds was first established in 1989, creating what eventually became the *Fondo de Inversión y Desarrollo de Empresas* (FIDE). In practice, in spite of the great expectations they raised, FIDES were not a significant player during their first years because of the overwhelming restrictions on their operations. The laws were modified in 1994-1995, drawing increased funds into FIDES. Unfortunately, the highly publicized bankruptcy and eventual liquidation of the portfolio company of one of the FIDES resulted in a loss of confidence and the industry's subsequent stagnation. In particular, Chile's Pension Fund Administrators, a major participant in the local capital markets, stopped investing in FIDES. Further changes in the last three years have introduced more flexibility to the industry. As of 2002, there were 13 active FIDES with assets of US\$ 200 million, the majority of which are invested. Only US\$ 85 million of these are truly risk capital, as the rest is invested in real estate and other mixed funds.

The *Corporación de Fomento de la Producción* (CORFO), Chile's economic development bank, provides support to SMEs directly through its own programs and as a participant in funds. Its *Fondo de Desarrollo e Innovación* (FDI), for example, finances the creation of business incubators and carries out periodic competitions awarding funding for specific issues relating technology and industry. Its *Fondo Nacional de Desarrollo Tecnológico y Productivo* (FONTEC) supports the development of new technologies by the private sector and their incorporation into the production process. Also within CORFO, the *TodoChile* initiative subsidizes the development of small-scale investment projects outside of Santiago de Chile. Finally, *Fundación Chile*, promotes the creation of companies and clusters in specific sectors, with emphasis on the use of new technologies applied to renewable natural resources.

- 1.57 While the sequence of emerging market crises of 1997-98 did slow the pace of VC/PE capital raising in the region, Internet/Tech related stories managed to keep interest alive: in the years 1999 and 2000, a total of over US\$ 4 billion were committed to funds in the region. A cursory review of specialized publications at the time³⁸ shows how predominant were Internet/Tech related funds and incubators.
- 1.58 After NASDAQ's implosion capital became scarce: funds raised in 2002 were only US\$407 million, the lowest figure since 1993. Multilateral institutions (IFC, IIC and MIF) remained consistently involved in VC/PE funding throughout the

³⁸ For example, the monthly Latin American Private Equity Analyst and the bi-monthly Venture Equity Latin America.

- period. As private sources of funding dried up, their contribution has become even more visible. By 2002, their commitments to VC/PE represented 22.5% of all capital committed to these funds in the region. In the niche where the MIF operates, its sponsored funds probably represented the only new source of risk capital to SMEs in the region.
- 1.59 As a sign of the industry's growth, several domestic and a pan-regional VC/PE association have been formed in recent years, such as the *Associação Brasileira de capital de Risco* (ABCR) in Brazil (2000), the *Asociación Mexicana de Capital Privado* (AMEXCAP) in Mexico (2003), and the Latin American Venture Capital Association (LAVCA) in the US (2002), where the MIF is an active sponsor. In the case of Brazil, an association of "Angel" investors, the *Associação Gávea Angels*, was very recently formed. All of these provide a networking forum for local entrepreneurs and fund managers, but perhaps more importantly, help all players join forces to lobby in favor of the changes they feel are required to make their industry grow.
- 1.60 As the region saw unprecedented investment flows and VC/PE activity exploded in a very short period of time, the industry at first had to operate under the existing conditions and infrastructure. What took several decades in other places was being compressed in a period of less than 10 years. While the underlying environment has certainly evolved over the years, it is doubtful that during the nineties its evolution accompanied the speed at which capital was flowing to the region and deals were being signed.
- 1.61 An important consideration here is to bear in mind is the nature of entrepreneurship in Latin America. A large proportion of self-described entrepreneurs in the region become ones out of necessity rather than because they are trying to exploit a particular business opportunity. In other words, dissatisfied job seekers become entrepreneurs by default as they try to find ways to provide themselves a job. It is probably safe to assume that the majority of those cases are not likely to represent a significant growth opportunity or an appropriate candidate to absorb external investment.
- 1.62 Related to this, one should note that the abundance of SMEs in the region does not necessarily mean there is a high potential demand for VC investments³⁹. While it is true that most (if not all) of them have no access to resources from the financial sector, this does not mean they are all good candidates for VC funding. More work is needed to estimate the precise dimension of the effective demand for VC capital in the region.
- 1.63 On the other side of the equation, the initial cadre of managers had a more financial/legal background and thus were not necessarily the best providers of value added to local entrepreneurs. They had limited hands-on management

³⁹ See Fabre and Smith (2003). "Building an Entrepreneurial Culture in Mexico", manuscript prepared for NAFIN under a Grant from USTDA.

expertise, precisely the area where VC managers are expected to make their more important contributions.

- 1.64 The legal and regulatory framework still poses significant hurdles for an efficient flow of risk capital to VC/PE investing⁴⁰, more than likely deterring some capital from engaging in this type of activity. Whereas investors in developed economies actively use existing laws and regulations to structure their investments, legal and regulatory systems are less flexible in the region. Common ingredients in the structuring of transactions such as the use of options, agreements to vote in a particular manner, share buy-backs and effective minority shareholder protection, are not universally present in the region.
- 1.65 Tax and regulatory legislation governing investment vehicles is often overly restrictive, since no specific legislation exists to deal with the VC/PE industry. Finally, other obstacles to entrepreneurship still exist in the region. Other than the time and money required to set-up a business, there are significant compliance costs, administrative procedures, etc. to be covered once in operation.
- 1.66 For a variety of reasons, the first cohort of funds may not meet initial expectations. First, the industry tried to replicate in a short period of time what took decades to achieve in the US. Second, facing a different environment and playing field, there was a need to adapt the US model to local circumstances, something that was not recognized right away⁴¹. Third, the industry came to being in a period of high volatility in the region: all three of the largest economies faced serious crises in the decade. Fourth, the boom to bust cycle in NASDAQ allowed only a few companies of the region to successfully list their shares, but then the exit doors were literally shut, leaving behind a much larger number of candidates. Finally, with shallow capital markets and wealth heavily concentrated, the pool of potential buyers of VC/PE sponsored companies is relatively small.

F. A Note on VC/PE Returns and the Importance of Fund Managers

- 1.67 The financial attraction of VC investing resides in it being a high risk / high return activity. Recent experience in the US seems to corroborate this view.

Table 1.1: Investment Horizon Performance as of 12/31/2002

	1 Yr	3 Yr	5 Yr	10 Yr	20 Yr
Venture Capital	-23.3	-6.8	28.3	26.3	16.6
Nasdaq	-31.6	-31.0	-3.2	7.0	7.1

Source: Thomson Venture Economics / National Venture Capital Association.

⁴⁰ See for example: Morrison & Foerster LLP (February, 2001). "Impediments to Risk Capital in Argentina, Brazil, Chile, El Salvador and Mexico", Multilateral Investment Fund, Inter-American Development Bank. It is important to note that through this type of publications and its own experience, the MIF has been playing a very active role in trying to educate regional governments on these issues. See for example Donald Terry's presentation at "Partnership for Prosperity Venture Capital Panel", San Francisco, June, 2003.

⁴¹ See Leeds and Sunderland (2002), "Private Equity in Emerging Markets: Rethinking the Approach", SAIS.

- 1.68 In spite of the significant decline post-2000, published VC returns in the last 5 and 10 years are high and significantly above those of NASDAQ. However, as the time horizon expands to 20 years, VC returns drop significantly. Have managers become better investors over the years or is there something else at play?
- 1.69 The problem in measuring VC returns is that we tend to observe ‘valuation events’ (IPOs, additional rounds, buyouts) in cases where companies have been relatively more successful and therefore more likely to have increased in value. For the rest, we rely on the manager’s own valuation of his portfolio, which includes eventual failures⁴². As a result, unless carefully adjusted, measured returns tend to be higher than their true underlying value.
- 1.70 In a detailed study of individual VC investments⁴³ it was found how significant this effect can be. The average yearly return in his sample was 108% with a standard deviation of 135%, i.e. high risk / high return. However, properly adjusting for selectivity bias, these figures become 15% and 89%, respectively. In other words, while there is still a great dispersion in returns, there may not be enough winners to justify the risk. An average return in the mid-teens is consistent both with this analysis as well as the longer-term figures presented above.
- 1.71 Are those returns worth the risk? Is all hope lost? Not necessarily. As VC/PE funds operate in an environment with very imperfect information, there is ample room for managers to add value (see Table 1.2). While the median return for PE managers is again in the mid-teens, the spread between the top and bottom managers is much wider than for listed equities or fixed income. That is, successful managers are able to add significant value in the PE arena, whereas for managers of listed equity or fixed income it is harder to outperform their peers.

Table 1.2: Return Distribution by Asset Class: US 1980 - 1995

	Private Equity	Listed Equity	Fixed Income
Upper 75%	21.9%	17.0%	12.6%
Median	14.0%	15.9%	12.0%
Lower 25%	6.9%	14.8%	11.5%
Spread: 75%-25%	15.0%	2.2%	1.1%

Source: Teresa Barger, “Issues in Private Equity Funds” (www.ifc.org).

- 1.72 Similar statistics about the heterogeneity of returns relating specifically to VC investing are presented in a separate study⁴⁴. Further, it is shown there that high

⁴² ‘Selectivity Bias’ arises because the group on which we base our measurements is not representative of the whole population. A classic example is when failed investments are taken out of the sample and we base our measures only on the survivors.

⁴³ John Cochrane (2003), “The Risk and Return of Venture Capital”, University of Chicago. His sample included 16,613 financing rounds from 1987 to June 2000, involving 7,765 companies and \$112 billion raised.

⁴⁴ Kaplan and Schoar (2003). “Private Equity Performance: Returns, Persistence and Capital Flows”, NBER Working Paper # 9807

persistence is evident in the returns of individual funds raised by the same partnership, i.e. better performing funds are likely to be followed by better performing funds, and vice-versa. There are indeed very high return opportunities in VC/PE investing, but only a few managers are able to take advantage of them.

G. Summary and Conclusions

1.73 The international experience in VC investing is rich and complex. There are many unique factors in each country but a number of common threats can be identified:

- a) The industry does not grow overnight, by itself or in a vacuum. The process is measured in decades and not in years. The conditions have to be created so that VC can thrive in a context where policies and incentives foster entrepreneurship. A supportive legal, regulatory, tax, financial, etc. framework has to be in place.
- b) VC investing requires specific skills. The ability to identify, nurture, grow and divest firms is a talent that needs to be honed and developed with experience. The presence of a large number of VC investors is also a catalyst for the industry. It lowers the cost of doing business in many dimensions and establishes a group of stakeholders that will promote change favorable to this activity.
- c) The VC industry requires clustering and critical mass, supported by the appropriate infrastructure. To gain size there is the need of a large base of entrepreneurs, scientists and skilled personnel, assisted by a network of service providers. If they are not there, they have to be created. This process requires patience and significant financial commitment by public or quasi-public institutions.
- d) Growth in the industry requires success stories. This generates a virtuous circle whereby resources move into VC investing, critical mass is attained faster and more entrepreneurs are willing to take risks. Supply and demand move to a higher level at a faster pace.
- e) Of all exit possibilities, a booming stock market supports the highest valuations and generates visible success stories. When episodes of stock market buoyancy occur is when the industry has the best opportunity to leap forward. This is not a factor that can be controlled by policy, but one that has to be taken advantage of when it materializes. Patience and flexibility is required to time the appropriate exit.

1.74 The VC/PE industry in Latin America is still in its infancy. Only a few of funds have gone through the whole investment-exit cycle. In the coming years, as their statutory lives come to an end, we should see significant efforts to divest from holdings; only then will we know for a fact how well this first generation has fared.

II. MIF VENTURE CAPITAL DEVELOPMENT STRATEGY

2.1 This Chapter summarizes MIF strategy in the Venture Capital Development (VCD) area. The analysis of the projects under this area include all of those approved under the Facility III-B or Small Enterprise Investment Fund (SEIF) and their associated technical assistance components, with the exception of those projects and investments directed to investment in Microfinance entities which were already evaluated in a specific report prepared by OVE in 2002 and approved by the Donors Committee.

A. The Evolution of MIF Strategic Intent in Venture Capital Funds (1993-2000)

2.2 The Agreement Establishing the MIF indicates that its general objectives are “to promote the development and the implementation of the reforms in the investment regimes and facilitate a significant increase in private investment...” and “to promote micro, small enterprise and other types of entrepreneurial activities”..., “increasing participation of small enterprises in the national economy...”, supporting “environmentally sound economic development”. The Agreement includes the creation of the three main facilities for MIF operations, including within the third one devoted to “Small Enterprise Development” a reimbursable fund (SEIF) that could be used “to provide loans, make investments in equity and quasi equity of small enterprises and in Non-Governmental Organizations (NGO), and Financial Institutions that would establish and increase services to micro and small enterprises”, authorizing the Donors Committee “to establish basic terms and conditions of those loans and investments”.

2.3 In the area of Equity Funds, the MIF started operation in 1995 with three main categories: (i) “Venture” Capital Funds, which sought to maximize the rate of return on investment; (ii) “Active” Capital Funds, whose aim was to take a more nurturing role in the growth of the companies they financed; and (iii) “Development” Capital Funds, which brought a socially oriented criteria to the selection of the firms they financed. In practice the difference between “Active” and “Development” funds was not clear since in both types of interventions the MIF was willing to receive below- market returns, added significant components of non-reimbursable technical assistance to support the firms and the administration of the funds, and targeted a smaller size of businesses than in the “Venture” category.

2.4 The Perry Report noted the broad general nature of the MIF strategy as described in its founding Agreement and believed it was insufficiently focused and could not serve as an effective guide for moving the MIF forward. Perry noted that the Agreement was silent on the allocation of resources among eligible countries and projects. The Perry Report sought to focus MIF strategy so that it could be an instrument for innovation and simultaneously meet the current development agenda of the IDB and the countries in the region.

- 2.5 The Perry Report also gave priority to the initial area of VC Funds and developed indicative guidelines for MIF participation⁴⁵. The key aspects of those guidelines are: (i) a limit of 50% in the MIF's participation in a VC Fund and, looking for higher leverage of the investment, a maximum of 50% of the VC Funds in the individual companies invested; (ii) the MIF should be the investor of last resort and the projects should justify a catalytic effect on the mobilization of additional resources with respect to other financial mechanisms; (iii) the key success factors are fund managers, and they should have a commercial mentality, solid private sector experience, local presence, a network of entrepreneurial contacts and resources for technical assistance; (iv) the incentives and payment of managers should be associated with performance, and for "development" funds special budget assignments would be needed to cover part of the cost of fund management; (v) MIF participation in VC funds should not surpass 10 years and include contractual exit mechanisms; (vi) individual investments made by the funds in companies should not be beyond US\$1,5 million and averaging US\$1 million; (vii) expected profitability should be from break even point for "development" funds to "normal market rate of return" for those funds more commercial (using benchmarks similar to those of the IIC and LIBOR); and (viii) technical assistance could be added as a limited subsidized component of the MIF, preferably revolving.
- 2.6 In 1999, the MIF Office commissioned a "Review of the First Five Years"⁴⁶. The Program's review underscores the importance of the demonstration effect searched by the MIF in this area. It indicated that "by showing that equity can be a development tool, the MIF aims to demonstrate to equity investors that profits can be made in small businesses"; "whatever the impact of the program, the final success of the initiative will be determined by the degree to which it promotes a general improvement in access to funding for small businesses", and "any verdict on the success of equity as an instrument of economic development will depend on the outcome of the funds themselves". Additionally it highlights the importance of more general financial sector reform to improve the access to finance for all small business ventures in the future.
- 2.7 The Review of the Funds of 1999 indicated that the term "demonstration effect" was very general and needed clearer delineation. In that regard it indicated that demonstration effect can be counted by: (i) showing banks and private equity investors that small businesses in general are good investments and should be supported; (ii) encouraging more lending by other financial institutions; (iii) showing other development agencies that some types of funds which yield less than market returns are worth supporting. The review indicates that at the time it was still premature to answer the first question; the second implied reforms in other areas well beyond VC (e.g. secured transactions); and for the third, it found

⁴⁵ "Indicative Guidelines for the constitution of Venture Capital Funds", Annex III, MIF GN-41 Rev, September, 1996.

⁴⁶ Holden, Paul, "MIF Equity Funds: A Review of the First Five Years", July, 1999. At that time the MIF approved since 1995 over US\$52 million of the SEIF.

no evidence at the time of a difference in failure rates in more “commercial” and “development” funds where the MIF participated.

- 2.8 The review finally recommended: (i) a change in the classifications of funds, into only two basic types (“commercial” and “development”); (ii) the MIF should focus more heavily on “commercial” funds; (iii) in the case of “development” funds, the MIF should perform detailed cost-benefit analysis, include the cost of technical assistance when calculating returns, concentrate in small business approach rather than environment fund which focus on start-ups, use internet based methods to provide low cost management assistance to companies; (iv) success indicators used for company performance(number of employees, foreign exchange earned, and taxes paid) should be changed for indicators such as job creation and net value added as the primary indicators; (v) more emphasis should be placed in the monitoring, evaluation, and dissemination of more detailed measures of “demonstration effects” to demonstrate that VC funds are good business; (vi) complementary interventions should be taken in policy issues that affect VC development; (vii) keep company size limits of funds reflecting the particularities of each country; and (viii) capture the lessons form the direct experience of emerging companies for concrete efforts to improve business environment.
- 2.9 In 2000, the Working Group had a number of recommendations to retain the best of what the MIF had accomplished in the past, but to increase the efficiency of project implementation in the future. The Group proposed the concept of “project clusters” comprised of a group of related projects that could be supported by a technical expert and would mitigate many of the design and implementation problems encountered in MIF projects. It was pointed out that specialized expertise in financial and capital markets was especially important to effective project design and implementation. This new concept was, in fact, well under way already at that time by the VCD projects of the MIF since they were conceptualized, designed and monitored by an “Investment Unit” in the MIF with some support form the Interamerican Investment Corporation (IIC).

B. The Strategy in Venture Capital Development 2001-2005

- 2.10 In 2001, after the Working Group Report, the MIF prepared a 5-year strategy for the VCD area which took into consideration many aspects of the background review and recommendations of that Report. The strategy established the need to consolidate its experience in small business finance, drawing lessons from its early activities, publicizing these lessons in effort to have a demonstration effect, and adapting its programs to the specific needs of the different countries and environments in which it operates. With a substantial number of investments already in place by 2000, the MIF proposed to be more selective in identifying its new operations, choosing those that have the highest potential for replication.
- 2.11 The main areas of activities identified included for Equity Funds were: (i) expansion of the role as a business accelerator, targeting the needs of new

entrepreneurs in the region in new emerging businesses such as information technology, which have the greatest potential to demonstrate attractive financial returns; (ii) creation of innovative approaches for developmentally oriented funds, focusing in new designs for countries or sectors, which were still far from commercial, but where the developmental benefits and impact were compelling; (iii) consolidation work on reducing transaction costs for investment and venture capital funds, including initiatives to create on-line networks; training for local management companies, the use of “value-added” entrepreneurs to mentor companies, and a continued emphasis on sector funds, where specialization was supposed to create efficiencies.

- 2.12 Additionally, the strategy proposed for Non-Investment Small Business Support Activities: (i) promotion mechanisms to improve the environment for small business creation and finance, such as promotion of improvements to the framework for secured transactions, simplify legal requirements for incorporation and adopt the appropriate regulations for the creation of investment funds.; (ii) support the creation of institutions to improve the flow of information on small businesses to the capital markets (e.g. credit bureaus and private rating agencies); (iii) finance and publish research related to small business investment instruments and exit mechanisms.

C. The Division of Tasks between IIC and MIF in the area of Venture Capital

- 2.13 In 1998, the MIF also took decisive steps to clarify the division of tasks with the IIC in the area of VCD, attempting to establish complementary roles between these institutions. The IIC and the MIF both have a mandate to increase the availability of equity capital in the region, with the IIC focusing on SMEs and the MIF focusing on smaller businesses and microfinance institutions. Because of the importance of active management when investing in SME’s, the preferred vehicle for investing is through specialized funds, managed by experienced third parties, that can provide on-site, specialized technical assistance and support, while also actively working with the businesses to achieve the ultimate exit of the fund’s investment.
- 2.14 The basic structure, approach and operation of the MIF and IIC investment vehicles are therefore very similar, while the target market, risk and return characteristics were indicated in a Report submitted to the Donors Committee⁴⁷ to be “very different and mutually exclusive”. It was even highlighted that “there is no overlap in the equity activities carried out by each institution, although joint action may occasionally be considered when the target is small companies in C or D countries”. However the only Funds that received joint financing were based in the Caribbean and Chile.

⁴⁷ MIF/GN-49 “Equity Financing by the MIF and the IIC”, September 1998.

Table 2.1: Comparison of Equity activities carried out by MIF and IIC

	MIF	IIC
Nature of activity	Indirect through intermediaries	Directly to beneficiaries and indirectly through intermediaries
Target market	Micro and small (generally, businesses with less than \$3mm in sales and 100 employees)	Small and medium (up to \$30mm in sales/assets and 750 employees)
Risk appetite	Early stage, small venture capital, seed capital, development capital	Later stage expansions, which have growth potential and the probability of being listed over a relatively short time horizon or otherwise sold.
Return objective	Varies based on objective of fund (see attached table) ; at minimum, a positive real rate of return (i.e. 3%, but generally closer to 10-15%)	At least 15%; Investments designed to ensure continued profitability of IIC, preservation of shareholders' equity and growth of retained earnings to support expansion of operations.
Technical assistance	MIF may provide grant component or accept lower return to pay for technical assistance.	None, usually larger beneficiaries that can pay for required t.a.
Risk Analysis	Same as IIC	Commercial approach to due diligence, valuation, legal issues, etc.

2.15 Both institutions have in common the main objective of obtaining “demonstration effect” in their VC interventions. Through MIF and IIC support, local fund managers are expected to begin to learn the industry of private equity/venture capital management, and also the sound results anticipated by these funds are supposed to stimulate local and international investors to provide new capital to this area and deepen the market. As indicated in the table above, the MIF and the IIC equity activities, in theory, do not overlap, as they are each in different segments of this relatively high-risk market.

D. The Allocation of MIF Resources in VCD

2.16 Until the end of 2002, the MIF had approved 35 projects in the areas of VCD. Approximately US\$178 million of MIF funding were committed to Funds and US\$17.3 millions to 21 associated Technical Assistance components. A small group of those technical assistance projects (9 projects totaling US\$12.9 million) emerged with a strategic focus to develop new enterprises (i.e. Business Incubators), particularly in more technologically-related areas, as well as interventions to improve the legal and institutional framework for VCD.

2.17 As it can be observed the allocation of resources was consistent with the strategic intent declared in its basic and specific documents, emerging a revealed preference in the last three years for more “commercial” VC Funds and interventions that would support to improve the climate for a more friendly development of the VC industry in LAC, in consistency with some of the key recommendations of the background review of the Working Group Report of 2000.

2.18 MIF VC Fund participation averaged US\$5.1 million. In the case of more commercial funds that amount was US\$5.3, and represented 37% of the total VC Fund in average, meanwhile in more developmental funds the amount was

US\$4.07 millions which represented the biggest participation in this funds (43.6%). Technical Cooperations associated with the Funds varied greatly with a range from US\$15,000 directed towards evaluation and monitoring in later projects, to larger amounts such as US\$3.5 million in initial projects with a more “developmental focus”.

E. MIF Fund Classification

- 2.19 The classification of MIF funds evolved from three initial types to the proposed developmental / commercial distinction. The criteria to separate these two types is laid out in MIF (1999) as follows:
- a) Target rate of return: commercial funds target higher rates of return than developmental funds.
 - b) Manager: developmental funds are managed by NGOs or other not-for-profit organizations, while commercial funds are managed by profit-seeking entities.
 - c) Incentives: developmental funds do not have a carried interest for the fund manager but sometimes have higher fixed fees (or higher allowable expenses), while commercial funds include a carry between 20% and 30%.
- 2.20 The current classification system is not internally consistent and it does not capture the program’s evolution. Regarding consistency, the MIF classifies 13 funds as “developmental” and 22 as “commercial”. If we take the rate of return criteria, only two developmental funds have target returns that are significantly lower than the “commercial” targets. The other 11 “developmental” funds have target returns that are equal or higher than some of the low-target “commercial” funds. If we take the other criteria, 6 funds would be classified as “developmental” according to (b) while 9 would be classified as such under (c).
- 2.21 A typology used in this evaluation that better reflects the experience and range of activities undertaken by the MIF is presented in the table below which puts forward three types of funds: technology-based, environmental/renewable energy, and SME funds. This typology responds partly to the self-evident sector focus that many funds have. Beyond that, the type of enterprise and entrepreneur, as well as other key characteristics of the funds and the issues that each face determine the classification.
- 2.22 The program shows some trends. First, it has tended to de-emphasize environment-related funds, possibly due to their lack of success and frequent problems. Approvals went from about two funds per year at the beginning of the program, down to an average of one during the last few years. Second, technology-based funds have increased their importance going from an average of one approval per year, to the current average of two funds per year. The bulk (two thirds) of these funds are relatively new and hold some promise. There have been few obvious problem cases in this area. Third, the cornerstone of the program have been the SME funds, whose number and dollar value are much

higher than any of the other two groups. In terms of average size, the MIF's contribution to both SME and environmental funds run at an average of US\$5.5 million per fund, while technology-based are smaller at US\$4.4 million. In total terms, SME funds received US\$105 million (58%) in capital commitments from the MIF, compared to US\$38.4 (22%) and US\$34.8 million (20%) for environmental and technology-based funds, respectively. In aggregate terms, the program has settled at an average level of US\$27 million in commitments for the last three years.

Table 2.2: OVE Fund Classification

	Technology Funds	Environmental/Renewable Energy Funds	SME Funds
Sector Focus	Technology-based enterprises.	Enterprises that promote products or processes that are environmentally friendly, substitute renewable for non-renewable resources, and/or promote energy conservation.	May have sector/geographic mandate, but often does not necessarily have particular focus.
Typical Profile	Highly skilled/highly educated entrepreneur or scientist. Strongly motivated by profit motive and growth potential. Seeking capital for proof of technological or business concept, complete development stage and/or expansion.	Specialized entrepreneur. Business may rely on cooperative (s) or local communities for supply of product, or part of the process. May be associated with NGO organization in some aspect of the business. Not exclusively driven by profit motive but open to broader set of goals. Seeking capital for proof of business concept/expansion.	In many cases family-owned business. Entrepreneur may or may not have attained a high level of formal education. Driven by profit motive. Business has low technology content, low barriers to entry, potential competition from the informal sector or similar producers. Seeking capital to expand production capacity/increase. Investment by fund is also sought to access network of contacts to increase sales/develop export markets, etc.
Main risks:	Early Stage: that the product or service can be produced.	Market: that there will be demand for the product or service.	Execution: Management execution of basic aspects of business plan, adaptation to professional management oversight, integrity.
	Execution/Market: that the product or service is scalable (or amenable to large scale production) and can be marketed effectively with limited imitation risk.	Production: That the product or service can be delivered at a reasonable cost, or at a price that will be competitive with existing substitutes.	General business risks regarding market demand fluctuations, competition, etc.
Potential Upside	High to above average	Average to below average	Average to below average
Exit	IPO or acquisition by larger firm.	Management/shareholder buyout.	Management/shareholder buyout.
Preferred Instruments	Equity or convertible equity. Normally no assets to post collateral.	Equity, convertible debt and straight debt. There are assets that can be used as collateral (e.g. land) but liquidation may be difficult.	Equity, convertible debt and straight debt. There may be assets that can be used as collateral.
Main legal/regulatory issues	Intellectual property rights. General capital market legislation issues. Lack of well developed legislation/markets on options, patent licensing, etc.	Enforcement of environmental legislation. Interfuel relative prices. Product certification. General capital market legislation issues.	Enforcement of tax and labor legislation on “informal” operators. Enforcement/limitations on put/call option contracts. General capital market legislation issues.

III. EVALUATION OF VENTURE CAPITAL FUNDS PROGRAM

3.1 This Chapter summarizes the results of an in-depth evaluation of the MIF equity funds program (Annex III contains a detailed description). For evaluation purposes, the “universe” comprises 35 funds where a contract has been signed. This universe is quite diverse as the table below indicates.

Table 3.1: MIF Venture Capital Portfolio

According to Inv Period (Main Classification)	Time Indicators		MIF Commitment (Millions)	OVE Classification			
	# Funds	Relevant Time Indicator for the Category		# Funds	Env.	Tecno	SME
Approved (Not in Investment Period)	8	More than 20 months since approval	2	\$ 49.0	1	3	4
		Less than 10 months since approval	6				
In Investment Period (without investment)	6	Less than 25% of Investment Period elapsed	3	\$ 12.5		1	2
		Between 25% and 50% of Investment Period elapsed	0	\$ -			
		Between 50% and 75% of Investment Period elapsed	1	\$ 5.0			1
		More than 75% of Investments period elapsed	2	\$ 11.0			2
		Les than 25% of investment period elapsed	3	\$ 18.0	1	1	1
In Investment Period (with investments)	16	Between 25% and 50% of Investment Period elapsed	3	\$ 11.4		1	2
		Between 50% and 75% of Investments Period Elapsed	6	\$ 33.7		2	4
		More than 75% of Investments period elapsed	4	\$ 21.0	2		2
Investment Period concluded	5	12 Months to go until the end of Fund's life	1	\$ 16.9	3	1	1
		Between 36 and 48 months to go until the end of Fund's life	4				
Fund's Life concluded	0						
Total	35		35	\$ 178.5	7	9	19

3.2 To capture the issues and lessons of this rich and complex experience, the evaluation utilizes three sets of data. First, general statistics on “the universe”, as defined above. Second, to concentrate on the analysis of performance, the evaluation focused on the 14 funds more mature funds. The main criteria used to include the funds within that group was the achievement of “early maturity” status, as per the guidelines of the MDB-ECG, since they have been approved more than 5 years ago. Eleven funds fell in that category. Other funds with high level of disbursements (more than 50%) were added to complete the group of 14

to adequately resemble the overall MIF allocation of resources⁴⁸ according by typology of funds and by country. This Group represents approximately 30% of the capital committed and 90% of the companies where investments were made. Third, to gain insights on the issues that arise at different levels of implementation, or that evolved over time, the evaluation team visited a cross section of 17 funds that are in varying degrees of implementation. These comprise more than 40% of the capital committed in this program and range from funds created in the initial years of the program to funds approved at the end of 2002. In these cases, extensive interviews with managers, investee firms and/or other participants were undertaken.

- 3.3 The evaluation also included a detailed questionnaire sent to 25 fund managers.⁴⁹ MIF documentation such as Donors Memoranda, management contracts, specific investment committee proposals, special reports, correspondence, annual reports, interim MIF evaluations and audited financial statements of funds were also reviewed. In addition, general portfolio and company statistics have been compiled to serve as quantitative benchmarks. Due to the particular nature of the program, where pertinent, the analysis is carried out both at the level of the funds and at the level of the firms where funds are invested. The evaluation also takes into account the MDB-ECG guidelines.
- 3.4 The results have been compiled using a standardized methodology that measures projects against seven dimensions that OVE and the MIF agreed were important benchmarks against which to assess projects. These are: relevance, effectiveness, efficiency, innovation, additionality, sustainability and evaluability. Adjustments in the application of the methodology developed by OVE to evaluate MIF projects was done to be applied in equity funds, consistently with ECG-MDB criteria, as illustrated in Appendix 1.

A. Relevance

- 3.5 MIF ex-ante project relevance was defined as the extent to which the equity funds program identified and addressed a significant need in the development of SMEs: (i) in the countries or regions where the funds' mandate was concentrated; or (ii) in the specific sectors (technology, energy, etc.) targeted for investment focus.
- 3.6 In all cases, the premise was that: (i) there was a significant opportunity for firms to thrive in the area chosen for the funds' activities; (ii) the main constraint for growth was access to risk capital as well as support in other complementary areas⁵⁰; and (iii) the activities of the program would have a catalytic or demonstration effect. The latter was expected to result either in the creation of

⁴⁸ Of the total resources committed to this Group, 64% were SME Funds, 16% Environmental, and 19% Technology Funds.

⁴⁹ Some Funds in the universe were not included because they are undergoing cancellation or restructuring.

⁵⁰ Many funds were also geared to promote technology transfer, professional management, access to export markets and/or financial techniques lacking in SMEs.

- new funds with similar purpose or in the participation of more actors once the concept proved to be financially attractive.
- 3.7 Ex-ante analysis of relevance is not an easy task. Essentially, the preparatory documents should demonstrate that there are opportunities that justify the particular type of fund being created. In general, it is clear that SMEs abound in the region, and their access to formal sources of capital is restricted or expensive. Most of the analyses in Donors Memoranda stress these points, and they are true, but not necessarily useful to predict relevance of fund intervention. The key questions to determine ex-ante relevance are whether there are enough quality opportunities to invest in the particular areas targeted by the funds, and whether the rest of the ingredients necessary for success are present (as discussed in Chapter I).
- 3.8 The majority of the projects in the equity funds program included an indicative pipeline (77%), but almost a quarter of the funds had none (i.e. no clearly identified opportunities). The projects were backed up by an analysis included as an Annex in the Donors Memorandum (14% of the funds), or by special sector or other studies (17% of the funds). In 68% of the cases, however, the analysis is limited to a few paragraphs in the Memoranda, reference to opportunities identified by the prospective fund managers, or there is no analysis. In other words, the ex-ante analysis of relevance was limited.
- 3.9 During execution, overall relevance of the funds can be qualified as low to mixed. In some cases it is clear that the sectors targeted were relevant, due to the fact that there is a significant, concentrated pool of opportunities. In contrast, in the majority of other cases, Funds seem to have targeted sectors where opportunities were lacking or very limited, and the mandate became a constraint to invest (examples are presented in Annex III).

Box 3.1: Contrasting Analysis of Relevance

The General Case: Most of the documents reviewed present the relevance of the fund's focus through general statements with limited or no backup of the preliminary pipeline. A typical example is: "Market conditions and opportunities vary widely across countries, but several trends are occurring in many of the emerging market economies, which are increasing the demand for the use of clean technologies and energy efficiency...."

Manager Assessment: In a few cases specific market needs were determined by prospective Fund managers – a potential conflict of interest. For example: "The Fund Manager estimates that over 60% of Central America's businesses fall within the MIF criteria. *The Manager* has already identified a preliminary pipeline of about 80 businesses, evenly distributed geographically throughout the region, which could be potential investment opportunities. The companies are in a variety of industries, but with a concentration in the agri-business, food products and light manufacturing/assembly areas." In this case, the Fund's original investment period expired with only 3 investments representing less than 10% of the committed capital; two of the three investments are internet service providers.

The Specific Case: An exception to the prevalence of general analyses is the case of a Brazilian Fund, where the preparatory work included visits to eight potential "representative" companies and more detailed analysis of four transactions. It is interesting to note, however, that after one year of the first disbursement, only one of the potential deals identified during the preparatory stage has materialized. To date, the Fund has made only three investments, of which only the one identified in the preparatory stage can be characterized as a close fit to the spirit of the original mandate.

- 3.10 To support the conclusions derived from interviews and examples, the responses sent by fund managers to the evaluation questionnaire lend additional insight. More than 60% of questionnaires responded find that one of the biggest problems to invest is the inability to find attractive opportunities within the eligibility criteria set by the fund. Similarly, 46% of the managers find that size limitation of investee companies was a constraint to find attractive opportunities⁵¹. Conversely, in some cases where investments eventually ramped up, they diverged significantly from the originally intended focus.⁵² In sum, even though many funds are still within their investment period, based on questionnaires to managers, interviews in the field and disbursement analysis, it is estimated that less than 50% of the funds had a relevant mandate.
- 3.11 The problems regarding relevance revealed at execution may be explained by a number of factors. First, there were few detailed market studies to support specific fund mandates. Second, there is a wide gap between the number of firms in the size-class pursued by the MIF and the number of real investment opportunities. Third, a complicating factor that determined whether any particular funds' focus was relevant to market needs was the quality and dedication of the investment manager. About 30% of the Funds had significant problems with their manager. In 10 out of the 35 funds the manager or management company was changed; and in 70% of these cases the management company was replaced. Moreover, 90% of the cases where there was a change in management, it occurred on average about two years after the first disbursement, which meant half or more of the investment period had elapsed. Thus, even if these funds focused on relevant opportunities, the quality of the original manager and the time it took to address this issue precluded any success in terms of having a relevant intervention. One should also note that 43% of the mature funds have had changes in management (compared to 19% for the rest). Since management changes occur usually after two years of activity, there may be more management turnover looming in the future.
- 3.12 Relevance in terms of developing a significant niche in the capital markets is scant. The only notable exception is perhaps Brazil, where the MIF and a number of public or semi-public institutions are supporting VC investments, trying to showcase their merits as a "bona fide", attractive asset class. In this case, there is a significant community of participants around technology VC activities complementary to the funds, and the MIF has been unquestionably one of the main actors through its presence in the equity funds business and its participation in the INOVAR program (see Box 3.4 for more information).

⁵¹ During interviews to managers it becomes clear that "company size" represents a composite of characteristics such as lack of minimum bookkeeping standards, poor information, informality, unreliability of management, lack of understanding of the funds' role, no business plans, etc.

⁵² For example, the Development of Small Technology-Based Companies fund, approved in August 1998 was intended to "support the development of small technology-based enterprises, with stress on biotechnology." (Project Memorandum, MIF/AT-196, page 2). To date, the fund has only one investment in biotechnology representing about 2.5% of its committed capital and roughly 6% of its portfolio at cost.

- 3.13 In other countries the evaluation found no evidence that the funds or associated technical assistance activities had a demonstration effect resulting in additional funds in VC/SMEs activities. They were generally not part of a wider effort to promote this market and remain isolated experiences. As the international experience shows, unless the effort is part of a wider, coordinated plan to fund a number of activities for a few decades, the relevance in terms of capital market development is bound to be weak. Also, as Chapter I shows and the MIF strategy intent of “demonstration effect”, there have to be obvious success stories to attract more capital and generate a virtuous growth cycle for the industry. This sort of success has so far been lacking.
- 3.14 From the point of view of the beneficiary firms, the fund investment (or loan) had a very high degree of relevance, i.e. a financial infusion was badly needed. In virtually all the firms visited during the evaluation, the view was that the fund provided essential resources without which they would have been unable to execute their business plan, or would have done so at a very slow pace. Also, in most of the firms interviewed the view was that the fund brought benefits in terms of better administrative and financial practices, improvements in the formulation of key strategic decisions, and/or access to a wider network of business opportunities. It bears stressing that this response was fairly consistent across the board, with few significant exceptions.⁵³ Thus, the funds were addressing a relevant need of the beneficiary firms, but there were either fewer real opportunities than initially envisaged and/or the managers in charge of doing the path breaking effort were not adequate to validate the relevance of the concept.

B. Effectiveness

- 3.15 Effectiveness measures the extent to which stated project goals were actually achieved. It does not assess the degree to which project goals were reasonable or over-ambitious. Effectiveness starts with risk analysis and planned mitigation measures before projects are initiated. During execution, flexibility, risk control and supervision are key factors that will affect the outcome. Finally, the ultimate measure of effectiveness is the actual achievement of goals. In the case of the equity funds program, one can also look at the effectiveness of the MIF as well as the fund managers.
- 3.16 Risks were widely identified by the MIF during preparation. Documents recognized in many cases the risks involved in tackling an extremely novel form of intervention. Some funds were launched with full disclosure that the program was embarking into “uncharted” territory. We have classified risks identified ex-ante into three categories: (i) investment strategy risk; (ii) risks related to the fund manager or the establishment of the fund; and (iii) country risks.
- 3.17 Investment strategy risks were identified in 97% of the projects in the universe. Foremost was exit risk (71%), followed by profitability or business risks (43%),

⁵³ The exceptions are analyzed in section G regarding additionality.

- lack of adequate pipeline of opportunities (41%) and risks associated with sector concentration (31%). Typical mitigation measures included put options (34%), special exposure/diversification criteria (46%), fund manager experience (43%), or mixing investment instruments (debt and equity) with different levels of risk (23%).
- 3.18 Risks related to the fund manager were present in 89% of the project documents. Management experience in running small company equity funds was the most frequently stated risk (66%), followed by problems in finding other investors to raise capital (40%) and potential conflicts of interest (29%). The most important mitigation factor cited was the track record and reputation of the managers in previous endeavors (34%), since the majority had never ran an investment vehicle with MIF's characteristics. Other mitigation factors were the establishment of minimum closing capital requirements (14%) and support from an international partner (14%). Indeed, some funds were either managed or supervised by a foreign partner usually based in the US.
- 3.19 Finally, country risks are mentioned in 83% of the universe of projects. The most important was devaluation risk (69%) followed by the possibility of macroeconomic or political instability (46%). Lack of a developed capital market features as a distant third (20%), even though it is probably one of the most important problems since it limits exit possibilities. Mitigation factors included the concentration of investments in export-oriented firms (34%) or in firms where a medium or long-term horizon in a fast growing entity would outweigh currency or economic cycle risks (40%).
- 3.20 Although risks were extensively flagged in the analysis, the execution did not necessarily follow the prescribed mitigation factors. For example, although devaluation risk is mentioned in more than two thirds of the operations along with the investment in exporters as a mitigating factor, most funds did not concentrate on export-oriented ventures. In addition, some of the intended solutions are more theoretical than real. For instance, the use of put options to solve the "exit" problem. Put options work as a protection against moral hazard, not liquidity issues: if investee companies fail to grow, it will be difficult to execute any put options. Conversely, if the business grows as planned, the firm will be able to substitute debt for equity.
- 3.21 It would be more effective to identify which risks can be controlled (by the MIF or the managers) and what are the precise mechanisms that will be applied to do so. If devaluation is a risk that is taken seriously, it would make sense to define a minimum percentage of assets to be invested in exporting firms (and enforce it). If doubts about the competence of the fund manager are a real concern, specific guidelines and action rules should be in place to monitor management performance and if necessary make changes expeditiously. In those cases it would also make sense to endow the MIF staff with a more active role in monitoring the fund's activities.

- 3.22 To evaluate project effectiveness, it is necessary to review the goals as stated in the official project documents. Goals were framed in Donors Memoranda in two ways. First a general goal is stated, usually in terms of financial performance (“capital appreciation”), often including specific rates of return. Second, a number of “specific” goals are stated, normally associated with developmental objectives. As mentioned in Chapter 2, for certain funds the original concept was that the development objectives would be as important as the financial returns, but in all cases it is expected that the funds will at least break even. Amongst the developmental goals, the key ones are: (i) having a catalytic or demonstration effect; (ii) promoting a number of measurable goals that are assumed to represent developmental indicators (i.e. employment, sales, taxes paid and exports); and (iii) broadening the financing options to SMEs.
- 3.23 Analysis of the evolution of the financial target of the funds according to the MIF classification of commercial and developmental shows that the target rates of return converge over time. Commercial funds start with ambitious goals that get tempered over time. Conversely, developmental funds aim higher after the initial two years of the program. This is consistent with the demise of the promotion of “developmental” funds without market-based returns.
- 3.24 No Fund has culminated its divestment period and few have even sold relevant portions of their portfolio. Strictly speaking therefore, the final financial results are not out yet. It is possible, however, to look at different metrics to determine where the funds stand, and to hazard a forecast regarding where things are likely to be headed. This task is approached from a number of directions.
- 3.25 First, we look at the “mature” funds (see 3.2) to assess the probability of capital gain. In this sample, the return on equity averaged –49% in 2002. If we exclude two outliers (one positive and one negative) the average improves to –19.4%. The most recent (end 2002) ratio of equity to paid-in capital is 65%, which means that the value of the existing companies would first have to appreciate by about 57% just to break even.⁵⁴ If we exclude outliers the ratio of equity to paid in capital reaches almost 67%, meaning that the portfolio value would almost have to double to break even. Based on the sample of “mature” funds, the goal of capital appreciation does not appear likely to be attained.⁵⁵
- 3.26 A second set of metrics is derived from the analysis of 106 companies in the “mature” portfolios. This information was compiled from the questionnaires submitted to the fund managers for this evaluation, complemented with direct inquiries to complete missing information.

⁵⁴ To break even in US dollar terms the appreciation would have to be even higher.

⁵⁵ Valuation principles are not the same for all funds. Analysis of audited financial statements shows that valuation was done in one of several ways: a) at the discretion of the investment manager, based on a number of considerations; b) using the equity method (i.e. tracking changes in the book value of the companies based mostly on yearly earnings); and c) periodic valuation assessments. Thus, the equity to paid-in-capital ratio may be lower than indicated here.

- 3.27 Results are not good. Taking the latest full-year (2002) we report three indicators: profits, working capital and cash flow from operations. Regarding profits, 40% of the companies do not report income statements, 45% report losses and only 15% report profits. Working capital is not reported by 29% of the companies and those that reported a full balance sheet are evenly distributed between positive and negative working capital (roughly 35% each). Cash flow from operations is apparently neither followed nor reported since 81% of the companies show no cash flow statement information. When questioned about this alarming fact, managers response was that this statement was either unavailable or inaccurate. Companies that do report cash flow statements are divided between 14% with negative cash flow from operations and 5% with positive cash flow from operations.
- 3.28 Beyond the results, the limited amount of information is not comforting, particularly with respect to cash flows. Since most of the companies have limited access to bank credit, they live and die by their cash flow, the cash raised by the Fund investment, and any working capital “cushion” they may have stored. Based on the information on burn rates and cash balances submitted by the companies that are cash flow negative, it is estimated that these have about 9 months to survive. Unless there is a dramatic turnaround on performance, on average, within the next few months these companies will disappear unless they raise new capital or debt, or downsize drastically.
- 3.29 The evaluation exercise has not done a formal valuation of each company in the portfolio, but unless a substantial improvement is expected, the traditionally accepted valuation methods would not result in substantial value to companies with negative earnings. It is unlikely that the money-making ventures, being relatively few, outweigh the rest. In sum, for the overwhelming majority of the Funds that are in a more advanced stage, it appears difficult that they will break-even, let alone result in capital gains.⁵⁶
- 3.30 A final set of metrics for the analysis of effectiveness refers to the assessment of the portfolio companies by their fund managers. According to questionnaires, 54% of the investments are under restructuring, are likely to result in a loss, or have already resulted in a loss. In the case of funds focused on environmental or renewable energy activities, the cases regarded as losses and restructuring rises to 61% (representing 69% of the capital invested). In the entire universe of respondents comprising 82 different investments, only one firm is considered by the manager to be doing much better than was expected by the business plan.⁵⁷
- 3.31 Comparing managers’ assessments in the funds located in Brazil, it is interesting to note that for older funds the condition of the investments tends to worsen (See Box 3.2 in Annex III). This is somewhat problematic. Obviously, “young” funds

⁵⁶ This assessment does not even go into the liquidity of the funds’ positions (i.e. whether the positions held will be saleable), a problem frequently cited by all fund managers.

⁵⁷ Note that these results refer only to the “mature” funds that responded to the evaluation questionnaire.

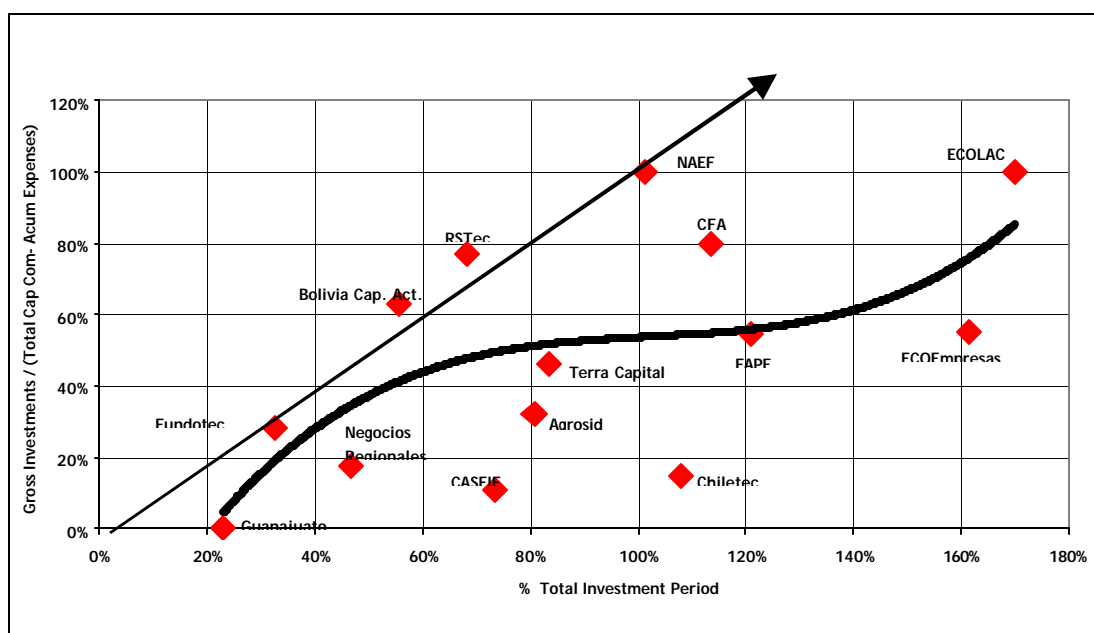
- classify their companies as in “normal” condition. What is distressing is that over time, as funds grow older, we do not see a pattern where some companies are doing better than expected and some are doing worse than expected. No company is doing better than expected, and the percentage of problem companies has a tendency to grow over time.
- 3.32 To summarize, based on the existing investment portfolio, the evaluation finds that the goal of capital appreciation is unlikely to be attained. Segmenting this observation by type of fund, the “environmental” funds are likely to fare worse as a group, with losses in the majority of cases. SME funds are likely to show more variance and it is difficult to form a coherent impression at this point. Technology-based funds hold some future promise on the basis of very few innovative companies which may become true outperformers. This is the normal pattern. However, several companies in the portfolio are facing a liquidity crunch and managers (and the MIF) are likely to face recapitalization decisions in the coming months. It makes sense to be selective and support the likely winners. Based on current financial performance most of the companies could not be liquidated at MIF’s cost.
- 3.33 As a catalyst for new investments or funds, one of the paramount developmental goals, the program has had so far almost no success in fostering the growth of risk capital markets for the segment of companies targeted by the funds program (the only possible exception being Brazil). There has not been a positive demonstration effect due to many factors. First, VC investing is a slow maturing endeavor. Second, results so far have not been good, so there is no reason for other participants to rush into this market. Third, the relatively difficult capital market context is not conducive to experiment in a new, riskier asset class with no visible upside. Thus, it is no surprise at this stage that no “market” has evolved out of the MIF’s program.
- 3.34 Other development objectives not necessarily stated in the Donors Memoranda, but monitored by the MIF refer to employment and exports. The questionnaires sent to the funds show that these goals take the back seat. There are large gaps in the information and most firms do not report even basic financial data.
- 3.35 A final objective in the realm of risk capital development was the broadening of the financing options to the firms (additional debt or equity). Questionnaires sent to the “mature” funds cast a mixed, but in some cases positive picture in this area. About 64% of the funds do not report or did not obtain additional debt or equity for investee companies. However, for 36% that report additional funding, the resources mobilized represent (on average) 158% of their investment in the company or 23% of committed capital. There is a fairly wide dispersion between funds, with five funds obtaining resources representing close to 100% or more of their original investment in the companies, and three funds reporting below 15% of additional resources. It would be fair to conclude that few funds managed to obtain additional resources for the investee companies, but those who did raised rather significant amounts relative to their own investment.

C. Efficiency

- 3.36 Efficiency deals with the input-output relationship. That is, the amount of inputs, financial or otherwise, deployed to achieve a particular level of outputs. This dimension was measure essentially in terms of two indicators: expense ratios and duration/delays in execution. We also look into the use of technical cooperation activities geared to support or assist in the fund's activities. These were additional resources available to improve the output. In overall terms the program did not do well in all three dimensions.
- 3.37 The expense ratio measures the percentage of capital devoted to run a fund; this is a resource not directly deployed in the portfolio companies. The main portion of this expense is the managers' compensation, but it is by no means the only one. Although these are generally between 2% to 3% of committed capital, there is wide variance regarding other expenses to be covered by a Fund. For example, in some Funds there is a two-tier management fee structure where an international company and its local subsidiary (or a local partner) charge superimposing fees. In other funds, on top of the management fee, there are allowances for extra expenses charged to the fund.
- 3.38 Another efficiency measure related to expenses is the ratio of expenses to capital effectively invested. This measure is important because a fund that only invests half of its committed capital has an effective expense ratio twice as high as one that invests all its committed capital.
- 3.39 Expense ratios of the funds have been high. Taking the subset of "mature" funds, average yearly expenses over committed capital reach practically 7%. At the end of 2002, the ratio of accumulated expenses over gross investments averaged 57%. Over the lifetime of each fund, these expenses can cut over 50% of the committed capital – assuming most of the capital is invested and cancellations are limited. Obviously, with less capital to deploy, invest results have to be significantly better than average for the Fund to break even, let alone produce capital gains.
- 3.40 To assess the MIF's responsiveness to project requests, one metric developed is the time between each request is officially logged onto the Bank's system and the approval by the Donor Committee. This period averaged about 8 months. The period between approval and signature lasts on average 10 months, between signature and first disbursement 5 months and between first disbursement and first investment by the fund another 7 months. This means that a fund under preparation, which identified a pipeline of opportunities prior to approval had to wait two years before the resources were available to invest. This is obviously too long.
- 3.41 Among the most frequent reasons for delay, as cited by managers, are "negotiations with the MIF", "issues in local capital market (or tax) regulation" and "securing capital commitments from other investors". What can be done about these?

- 3.42 Regulatory/legal issues are being ironed out, although in some countries they are still perceived as a factor that slows down the industry and the structuring of funds. While change has been slower than expected, the MIF has been very active in identifying and lobbying for rational changes in legislation – and this is an extremely valuable contribution of the program.
- 3.43 Delays in securing co-investors are difficult, if not impossible, to control. The structuring of the funds does not follow the pattern of private sector funds where a road show is followed by a fixed closing date. This is not the typical case of MIF funds, where the structuring of a fund is often a prolonged negotiation with no clear rules and no fixed closing date. This process should be formalized and tracked to introduce a sense of urgency.
- 3.44 Time negotiating with the MIF may be controllable. In this respect, managers cite long turnaround period for legal documents as one of the main causes of delays. The MIF investment unit does not have staff exclusively dedicated to the legal structuring of the funds, and this results in delays. Once the Funds were up and running, the view from the managers is that the MIF was flexible and agile in making changes and in participating in decisions where they were needed. Administrative matters were not a source of delays.

Graph 3.1: Execution Period (as of December 2002)



- 3.45 Another efficiency metric was developed to assess the progress of the funds towards becoming invested within their investment period, which ranges between 3 and 5 years. Investment efficiency is measured taking into account the capital available after expenses, since each fund has a different expense structure. The following graph shows capital invested as a percentage of available investable capital *vis-à-vis* the percentage of the investment period that has elapsed. The straight arrow indicates a “linear” progress towards the goal, that is, investments

advancing in the same proportion as the investment period. The curved line tries to “fit” the observations. The results indicate that most Funds are behind schedule: of the six funds where the investment period expired, only two invested all their available capital.

- 3.46 The use of complementary inputs, mostly technical cooperations, and the funds’ activities was generally poor. In most of the cases visited during the evaluation the fund and the technical cooperation activities ran parallel courses without communication (see Box 3.2).

D. Innovation

- 3.47 The degree of innovation of a project is defined in terms of the delivery of a new product or service, or the improvement in the process or method of delivery. Innovation is also gauged by the amount of attention and imitation that the project itself or portfolio firms attract from outsiders.
- 3.48 Ex-ante, the program was extremely innovative both in conceptual or practical terms. In some cases the funds created were the first of their kind, or the first in the specific country. It is clear that the equity funds program was a pioneering effort, experimenting with novel approaches in many areas (see Annex III, Box 3.5). The approach of pairing technical cooperation activities with parallel fund activities, was very innovative and in theory very attractive. In these cases, the premise was that funding technical research, applied research and/or technology application activities was needed. In addition, to ensure that good ideas did not die for lack of risk capital, the most promising concepts could be funded by the equity funds window (although there was no obligation to do so). Another interesting concept was the use of “international” firms to import the fund management technology to the region.
- 3.49 There were few innovations in terms of process or structuring of the equity funds internally. Most followed established practices in the industry, with few exceptions.⁵⁸ The procedures adopted in the program are considered good, except with respect to governance and monitoring of the funds. The MIF is normally the largest investor, yet it chooses not to have an active role on the Fund’s investment committee.⁵⁹ Its role at the Board is normally passive – unless things deteriorate. When activities look like they are headed the wrong way, usually the MIF leads the impetus for change. The advantages of participating more actively are several: (i) more intimate knowledge of the portfolio companies; (ii) improved steering of the fund towards the intended goals (financial and non-financial); (iii) faster reaction to negative changes in the fund manager’s or the companies’

⁵⁸ For example, one of the vehicles is not really a fund but more of a separate account. In another one, the management contract is limited to the first three years. Another unusual feature is the lack of pre-established closing dates. Finally, few managers are required to invest their own capital in the fund they manage, unlike the 1.5% minimum investment in US-based funds.

⁵⁹ This practice has changed recently in a few specific cases (5 funds) where it is felt that MIF participation is needed either because of special expertise at the MIF or because of concerns about the funds’ direction.

performance; and (iv) better first-hand knowledge of what works and what does not work in the business, opening the possibility for cross-fertilization between funds.

Box 3.2: The Connection of the Technical Assistance and VC Programs

The MIF regularly included parallel TC financing with its Venture Capital operations. The total amount of TC financed in this fashion was US\$17.3 million in 21 operations. Of the 35 VC Funds approved, 20 had an associated TC component (58%). There are two main types of TC operations. Those smaller in size (less than US\$300,000) and focused in monitoring, evaluation, training of fund managers and fund promotions, totaling US\$0.9 million and 11 operations (average US\$82,000). A second group, totaling US\$12.9 million and 9 operations (average US\$1,43 million), was focused in business development, i.e. the generation of a pipeline of dynamic business opportunities which could be subject to equity investments by the parallel VC fund financed.

Some of the TCs of the second group were executed by different agencies, which were selected because of their complementarities with the VC financing and experience in the provision of business development services for entrepreneurs. In some cases, the main issue in this second group was that, although they were in general part of the same MIF program, their execution followed diverging paths and did not materialize the synergies expected when the program was designed. One cause of these diverging paths was found in the different dynamics of the projects. Some of the funds faced long delays in obtaining all their commitments and others suffered some delaying legal and regulatory issues. Another cause is the different “culture” or “incentives” of the executing agencies. TC executing agencies are less focused on results since they get reimbursed for their expenditures; their only concern is their reputation. Equity Funds are clearly more profit oriented since their main source of income is the upside from the businesses where they invest. These cultural problems seem also to be critical in terms of the personal relationships between the two types of agencies, an issue that requires strong support from the MIF. An additional source of friction is the way these programs are monitored in the IDB Group. There are formally different supervision responsibilities even within the MIF and the Bank: the TC normally falls under the field Office Specialist in charge of MIF projects in the respective Field Office, while the VC funds are monitored by the MIF Investment Unit.

Even if TC projects to “incubate” entrepreneurs were perfectly coordinated with VC Funds, the main issue remains that these efforts have to be massive, with a high dose of “seed money” funding a large number of business opportunities and entrepreneurial ideas. As the international experience demonstrates, these requirements probably go beyond the MIF’s capabilities and require strong support from the Bank and the individual countries.

Nevertheless, a more productive and synergistic process can be envisioned, where VC Funds help guide in the selection of businesses to be incubated or even refer good entrepreneurs (not yet ready to receive an investment from their Fund) to the incubator. A program that integrates remarkably well all the efforts of years of investment in technology and innovation, business support services, institutional fund managers and others is INOVAR (financed by the MIF in Brazil). There the MIF helps set-up the institutional mechanisms for the sharing of experiences and the promotion of the VC industry, pulling together different efforts through the executing agency FINEP and thus facilitating the creation of a “virtuous circle” to promote the VC industry.

- 3.50 If the MIF were to adopt this change, it would necessarily have to increase its staff or outsource supervision. Even at this point there is a strain on resources, which will grow larger as the old generation of funds runs into divestment decisions/problems, and the new generation builds its portfolio.
- 3.51 Another possible innovation in structure that should be analyzed is the explicit tranching of second or even third round investments in the most successful companies. These are discussed in more detail in Chapter IV.
- 3.52 Conceptualization and ex-ante design were clearly innovative, but unfortunately execution of the most innovative products was not successful. For example, the cases where technical cooperation and a fund facility were explicitly paired to achieve better results did not work well. Both activities ran parallel courses

without evidence of cross-fertilization or support. Another innovative design that failed is the use of “international” managers. Finally, the environmental/renewable energy funds were also very innovative ex-ante but, as we have seen in section B, ultimately could not translate into viable businesses.

- 3.53 Failure at execution should be put in proper context, however. The MIF was breaking new ground in many directions as it tried to respond to a number of mandates (i.e. promotion of SMEs, commercially viable environment-oriented businesses, technology VC, etc.). In doing so it confronted (and still does) a number of legal/regulatory barriers, lack of local managers and in many cases scarce investment opportunities for specific program mandates. Trial and error were inevitable.
- 3.54 Diffusion or ex-post institutionalization of the equity funds approach to VC or SME investing in Latin America has not taken place. The only exception is Brazil. The reasons have to do with success of the program and the presence of more public support to this endeavor. This is analyzed in section F below.
- 3.55 Looking at the portfolio companies, there is an outstanding degree of innovation, even in funds that are not necessarily geared to that end. Funds geared towards technology naturally show some companies with novel products or services. But also funds nominally geared to the environment, for example, show novel financial structuring arrangements.

Box 3.3: Company Innovation

Nano Endoluminal: is a high-tech medical devices company based in Santa Catarina, Brazil, specializes in building devices to treat peripheral cardiological ailments through minimally invasive procedures. The main product line is a self-expanding endovascular prothesis made out of a nickel-titanium (NiTi) with expanded polytetrafluorethylene (e-Ptfe) coating. The prothesis can be inserted in the central circulatory system allowing a minimally invasive treatment to aneurisms in the abdominal aorta, the thoracic aorta and the iliac arteries.

The company originated by the merger of Empresa Nano Precision Ltda. (a startup housed in the Centro de Laboraço de Tecnologias Avançadas – CELTA) and a group of researchers from the department of Angiology and Heart Surgery of the Santa Catarina State University. In 1998 the first bifurcated endoprothesis was successfully implanted to treat an abdominal aneurism. Since inception, the company utilized cutting edge materials procured in the best laboratories in the world, and decided to specialize its development of devices for endovascular applications. The ministry of health in Brazil approved their first device for commercial use in 2000, and in 2001 thanks to the investment of a MIF sponsored fund the company built its industrial manufacturing facilities in Florianopolis. They launched APOLO, their first line of endovascular stents the same year.

International Syst S/A: is a software company based in the state of Minas Gerais. The company has developed three different product lines, each is structured as an independent subsidiary, and each has the potential to develop into a separate company. Perhaps the most interesting and innovative of the three is Metasys. This company developed software that allows simultaneous access to Windows and Linux in any client machine on a network. Each user can seamlessly choose to use simultaneously the applications that best suit the specific needs, regardless of operating environment. Moreover, several services such as file sharing, web access, authentication, etc. are also integrated. The system can be managed online via web and results in substantial cost savings and efficiency. The company claims overall cost reductions of 35% to 50%, depending on the exact configuration.

Water Capital: Water Capital has developed a very specialized niche, brokering and financings operating leases for water treatment equipment in Mexico. The company does not have its own sales force; instead, it has developed a web-based interface that allows the sales force of equipment manufacturers to analyze leasing alternatives in real time, input their clients financial information and obtain credit “grades” online. Once a transaction is closed, Water Capital discounts the lease contract with a financial institution, locking the spread between the cost of funds and the discount rate.

E. Sustainability

- 3.58 Sustainability is the ability to continue with the provision of goods or services after MIF funding ceases. In the equity funds program, it can be analyzed at two levels. First, at the industry level, we face the question of whether the management companies will survive beyond the liquidation date of the MIF funds. Second, at the company level, the question is the fate of the investees: will they survive, grow and thrive without further assistance from the Funds?
- 3.59 At the industry level the evaluation found no evidence that fund management companies would survive without additional non-commercial funding⁶⁰. The only exception is Brazil, where there are some incipient signs of interest from private parties in VC investing. In terms of non-commercial funding, as pointed out in Chapter I, the large countries do have a number of sources that will further support efforts to develop the industry. For the rest of the countries or market segments (i.e. environmental funds, SME funds) if the MIF were to withdraw its support it is unlikely that there would be any continuity. The main reasons for this situation are that most countries do not appear to have a significant policy commitment or a strong stakeholder to support these efforts, and fund returns so far have been poor.
- 3.60 The problem with sustainability is rooted in performance. Three elements are worth pointing out. First, fund sizes are too low relative to required expenses. With yearly expenses regularly consuming about 6% to 7% of capital per year, it is difficult to show great returns to investors. By the end of its entire ten-year cycle, the average fund may have spent 50% of its capital merely covering its running costs.⁶¹ To earn a return that would attract private capital (i.e. 20%-25%, net to investors), the fund requires a gross return on every investment roughly between 28% and 33% per year. For investments done during the first year of any hypothetical fund, this requires an appreciation between 9 and 13 times. If we compare these requirements to the historical evidence for the US presented in Chapter I (where the median return is 14% and only the upper 75% reach 21.9% compounded returns), the enormity of the task at hand becomes evident.
- 3.61 Funds require a minimum structure to operate. It is estimated that, based on industry standard fees and normal fund expenses, the minimum size of any fund should be between US\$ 25-40 million, depending on the country and scope of investment focus. At present 94% of the approved funds have capital commitments below US\$ 25 million.
- 3.62 The second element is management quality. As seen in Chapter I in the case of developed VC markets, good managers are a key value driver in VC/PE Funds,

⁶⁰ This obviously excludes management companies or groups that are part of larger financial or consulting entities that generate income from other sources.

⁶¹ The exact number on terminal expense ratios will vary according to: a) specific fund contracts with more or less latitude to charge costs to the fund; b) the amount of actual disbursements/cancellations and their timing; c) the timing of investments; and d) interest earned on cash balances.

- where variance in returns is much higher than in other types of investments. Unfortunately, it is not easy to identify winners. Some of the elements are a successful track record in the same or similar business, and experience in operating companies (as opposed to experience in financial firms or NGO activities). Track record and successful experience should be verified through audited returns or audited financial statements. Proven records would avoid selection based on impressionistic criteria.
- 3.63 In the case of the program, very few managers had any experience running VC/SME funds since these were new activities in the region. Managers were drawn from the financial community or NGOs. The choice of a good manager in a virgin field is a trial and error process; this was inevitable and the MIF had to experience the “growing pains” of the process.
- 3.64 In some cases the MIF’s administration tried to overcome the lack of proven native managers by pairing international firms with local managers, or simply by hiring international managers. This idea, while theoretically attractive, turned out to be counterproductive. Most of the international partners did not work well and the majority was replaced over time or basically abandoned the endeavor. Either the specific international managers chosen were not adequate, or lack of good local knowledge precluded their sourcing and managing good investment opportunities in the field. The small size of the funds may have not attracted the best in the business, and there is no evidence that there was an active process of open scouting for the best talent in the international investment field.
- 3.65 The third factor to success is the exit. Appropriate timing of divestments is a determining element of performance in the international VC/PE experience. There is no reason to believe it would be any different in Latin America. Divestment is obviously difficult to control. It may be partly controlled by the manager’s instincts as to when it is a good opportunity to sell, as well as some flexibility of the shareholders on the funds’ ultimate liquidation date. In contrast to the US market, in Latin America timing may be more a function of the domestic economic cycle than the condition of the local equity market. This is because the size characteristics of the firms in the MIF funds’ portfolio make divestment more likely to take place through an acquisition by a larger company or by a buyout from the majority shareholders, rather than an IPO.

F. Additionality

- 3.66 Additionality measures the degree to which MIF resources promoted the funds throughout the region and leveraged MIF’s capital. Another dimension of additionality is the role of the Funds *vis-à-vis* the investee companies. In this regard, there are two questions. First, could the companies have survived or executed their business plans without the participation of the Fund? Second, did the “soft capital” contribution of the fund manager (e.g. management skills or market development) improve the companies’ performance?

- 3.67 There is a high degree of additionality in the equity program. Since its inception, the MIF has been the leading player in the region and its presence helped mobilize a significant amount of resources that may not have been otherwise deployed. Considering the “universe” of funds, it is estimated that MIF’s commitment of US\$ 178.5 million mobilizes about US\$ 315.8 million in additional resources. This figure may be on the high side, since it assumes all estimated commitments to newer funds from other investors do materialize. But even assuming that the new funds do not attract other investors, the capital commitments from non-MIF investors would reach about US\$ 260 million.
- 3.68 At the level of investee firms there is also a high level of additionality. Both Fund managers and company owners interviewed argue strongly that without the fund’s participation it would have been difficult, and in some cases impossible, to implement their business plans. The participation of the funds on the equity of investee companies ranges from 5% to 70%, with an average of 34%.⁶² In some companies the funds contributed with both debt and equity, thus supporting a large portion of the capital structure. Finally, as mentioned before (see 3.35), in addition to the Funds’ direct contribution, in 38% of the cases additional funding was obtained for investee companies representing, on average, 158% of the Fund’s investment in the firm.
- 3.69 “Soft Capital” additionality appears generally strong, but is more difficult to evaluate in quantitative terms. This conclusion is based on extensive interviews with company executives.⁶³ Paradoxically, there appears to be a contrast between local and international managers. The former have been more successful in nurturing companies than the more “experienced” international managers.
- 3.70 In terms of future, ex-post effects of the equity program on additionality, there is no evidence of a catalytic effect in the vast majority of cases. With the only possible exceptions of Brazil and Chile the experience has not stimulated imitation in the form of new VC/SME funds, or new public programs to support entrepreneurship. This is a function of the lack of success stories that would have stimulated other initiatives by the private sector, but is also a function of limited public sector interest in this area. The latter aspect should be stressed because any successful effort will require large-scale, prolonged and savvy direct and/or indirect public support -- as all relevant international experience demonstrates.

⁶² The funds by-laws normally do not allow for control positions, but in some cases due to financial difficulties (e.g. capitalization of debt that could not be paid) control positions became difficult to avoid. The evaluation found that in 13% of the firms that reported ownership information the fund owns more than 50% of the equity (10 firms out of 77).

⁶³ Interviews were conducted with 25 different companies in various portfolios.

Box 3.4: “Soft Capital” Additionality: Local vs. Foreign Managers

CRP is the oldest SME/VC manager in Brazil, founded in 1980 by a group of local financial institutions and a holding company backed by private investors. It initiated investment activities in the state of Rio Grande do Sul, and since then has participated in four additional funds (two with MIF and one with IIC/IFC capital contributions). Interviews with the controlling shareholders of several investee companies universally acknowledge that their interest in partnering with CRP-managed funds was not simply the financial contribution. Their management style was one of the main factors that contributed to their appeal. Some of the attributes cited include:...”guidance without arrogance”..., “total commitment to participate in company life in good and bad times”...”hard work and strong ethic values”...”fair partners”. Indeed, company owners generally feel they learn and benefit from the experience of sharing strategic and sometimes administrative decision-making with CRP as a partner. To boost potential synergies between portfolio companies, CRP organizes regular meetings, training and brainstorming sessions with personnel from the companies. While no commercial opportunity has evolved out of these meetings yet, CEOs perceive them as a useful and relevant part of their professional growth. The flip side of this equation is that CRP shows a clear talent in identifying good partners. The owners interviewed are enthusiastic, committed to make their businesses prosper, appear to have high ethical standards and in most cases have interesting products or novel services to offer.

Since local SME/VC management was absent in most countries, the MIF sponsored a number of funds where international managers were brought in to fill the gap. This sound idea that worked well in the experience of Israel’s VC industry, did not work well in the MIF’s practice. Half of the funds managed by an international institution had a change in management company.

In one of the first Funds created by the program, technical support to develop or improve export market penetration (among other services) was supposed to be given by the (foreign) fund manager. This was a fee service contracted with all investee companies. Results were poor and resulted in tensions between some investee companies and the manager, who was eventually removed for various performance-related issues. Unfortunately, in the process of discovering its shortcomings, this institution was chosen to manage another Fund in the program, with disappointing results.

In another case, an international manager was chosen to manage a Fund set up to pursue environmentally-based opportunities. In this case, the fund has invested all its capital in four companies (violating any reasonable risk diversification rule), one of which has about 40% of the Funds’ resources. Due to its alleged technology expertise it was subsequently hired to manage two additional Funds in other countries. In the first one, they never took management responsibilities (although they were enlisted as the manager according to the Donors Memorandum) and a local manager took the helm after approval. On the second one, after a long period without any investment activity, the management of the fund was handed over to a local asset manager. In this case, the causes for failure were the limited resources devoted to build up the business, a lack of networking contacts in the country, and their attempt to replicate a model which worked in their country but did not work locally.

G. Evaluability

3.71 Ex-ante project objectives fell into two categories: financial objectives and development objectives. In some cases, the objectives are also presented as general and specific. The financial objective is straightforward and presented as a rate of return. This is eminently measurable. The definition of developmental objectives is a mixed bag, alternatively vague, self-fulfilling or very general. In terms of measurement, objectives are either very clear and easy to measure (e.g. the creation of the fund itself) or very general and difficult to gauge in quantitative terms (i.e. ...to contribute to the economic development of...). Examples are presented in Appendix III, Box 3.8.

3.72 Monitoring the progress towards the financial objectives is done through a number of reports following common practices of the industry and requiring audited financial statements in all funds, at a minimum, on a yearly basis.

Starting in 2000, fund managers report the condition of the underlying companies with so-called “Fact Sheets”. These are organized with a format and grading system for each firm in the portfolio. The grading is done by the fund manager, but is ultimately approved or modified by MIF staff. Initially prepared every six months, it is now done on a yearly basis. Grades range from 1 (probable capital gain) to 6 (write-off). In addition, an annual development report, a portfolio activity report and a report on company indicators are prepared. There are also numerous investment committee reports dealing with prospective, new and existing investments. Depending on the manager, these can be rich in detail. Finally, some funds report on a quarterly basis using their own formats. These reports are reviewed by the MIF staff, but vary in depth and content since they do not follow a standard format. Consequently, they are not consolidated in a way that can be readily accessible, compared or reviewed.

- 3.73 The use of audited financial statements is necessary, but is unfortunately inadequate to understand the portfolio’s health. First, the criteria to value the investment portfolio is not uniform across funds. Some use the equity method, some carry investments at cost with periodic impairment testing, and others value the investments according to a mixed set of criteria. Thus, comparisons across funds are not appropriate and, depending on the method chosen, there may be wide latitude for management’s discretion and potential error. Second, conventional fund statements provide an accurate performance picture for funds with publicly traded securities whose business is to trade them. However, in the case of long-term investments and/or illiquid SME/VC companies (such as the MIF funds) it may make more sense to treat each fund as a holding company with a number of controlled entities. Results of all companies can be consolidated on the basis of the pro-rata share of the fund. While this is not US GAAP for fund reporting, it gives a better insight into the underlying performance and health of the portfolio. An example using real data is included in Appendix 1.
- 3.74 A good example of a creative adaptation of accounting conventions to monitor the underlying performance and health of a portfolio is Berkshire Hathaway, the well-known investment vehicle of Warren Buffet. Although the company is for all practical purposes a giant mutual fund, it presents financial statements based on the consolidation of the companies in their portfolio using the concept of “look-through” earnings. (See Box 3.5). In this connection also, it would be very useful to report consolidated cash-flow statements on the basis suggested above to track cash generation, liquidity and burn-rates in the portfolios. Since many portfolio firms lack adequate access to credit, liquidity problems are hard, binding constraints. Thus, it is very important to detect any liquidity issues as early as possible. Obviously, in addition to the consolidated statements for the entire portfolio, it is essential that complete financial statements are tracked on a quarterly basis for every single company in each fund.
- 3.75 The grading system in the reports currently submitted on an annual basis is an interesting tool that provides more color on the condition of the investees. The grading system for a group of 28 firms in 5 funds was reviewed, to assess the

degree of coincidence between managers'/MIF classification and OVE's independent evaluation. Two findings are noted. First, the managers' and OVE's grading is not dissimilar, although the managers' grading is consistently higher (more positive) than the OVE's assessment.⁶⁴ Second, in many cases where companies' "grades" deteriorate, the change is rapid and. A sample of companies in two funds with complete information showed that 31% experienced changes of 2 or more units from one year to the next. These changes are dramatic and signal very significant deterioration.

Box 3.5: "Look-Through" Earnings – Berkshire Hathaway's Perspective

"Reported earnings are a poor measure of economic progress at Berkshire, in part because the numbers shown in the table presented include only the dividends we receive from investees - though these dividends typically represent only a small fraction of the earnings attributable to our ownership. Not that we mind this division of money, since on balance we regard the undistributed earnings of investees as more valuable to us than the portion paid out. The reason is simple: Our investees often have the opportunity to reinvest earnings at high rates of return. So why should we want them paid out?"

"To depict something closer to economic reality at Berkshire than reported earnings, though, we employ the concept of "look-through" earnings. As we calculate these, they consist of: (1) the operating earnings reported in the previous section, plus; (2) our share of the retained operating earnings of major investees that, under GAAP accounting, are not reflected in our profits, less; (3) an allowance for the tax that would be paid by Berkshire if these retained earnings of investees had instead been distributed to us. When tabulating "operating earnings" here, we exclude purchase-accounting adjustments as well as capital gains and other major non-recurring items ." Berkshire Hathaway Inc. Chairman's Letter. Annual Report 1996.

3.76 The point intended by this exercise is to signal a number of issues at work. First, either the reporting frequency is not high enough to track the portfolio's condition adequately, or the system captures problems too late. Second, drastic changes may also reflect that the initial expectations on several companies were excessively optimistic; this is consistent with a review of investment committee proposals, which finds them almost always overly optimistic⁶⁵. To sum up this point, there are indicators and reports to monitor the performance of the financial objectives, but the system can be improved significantly. The annual report ("Fact Sheets") seems to operate more like a record keeping tool rather than a management, proactive tool. The system would benefit with a formal classification criteria, which would include standard company financial indicators⁶⁶ and a more rigorous application and standardized reporting.

⁶⁴ The evaluation compared the last grades available with OVE's assessment based on company visits and/or recent financial statements. On average, the difference between the managers' and the evaluation classification was roughly between 3.3 and a 4.2. This is the difference between investments considered performing but needing close monitoring and investments where some loss is expected.

⁶⁵ Over twenty investment committee proposals of funded investments were reviewed. In most, if not all cases, financial projections are too optimistic. Companies are projected to pay dividends the second or third year after the initial investment. An extreme case was a company where cash flow is projected to be so strong that the investment by the fund was, strictly speaking, redundant.

⁶⁶ Other than sales, expenses and earnings, the system should track cash flow from operations, cash and working capital. Deterioration in the latter three are often leading indicators that signal problems and need for intervention. Ideally, these numbers should be reviewed on a monthly basis.

- 3.77 Some funds developed their own monitoring systems to keep track of deal flow at various stages. Likewise, the evaluation found examples of highly creative and elaborate systems designed to track the progress of business plans and financial performance. There is considerable room for cross-learning and information exchange between funds in these areas.
- 3.78 Development objectives are supposed to be tracked for the overall program in terms of four indicators: sales, employment, taxes paid and exports. A review commissioned by the MIF in 1999 recommended tracking value added as a superior indicator, but this suggestion has not been implemented. According to that review environmental funds were supposed to track a number of indicators related to their practical success in promoting sound environmental practices, but in practice this evaluation did not find a consistent tracking of these objectives.
- 3.79 Development objectives had no specific targets in the Donors Memoranda or other documents. During execution a small number of indicators were selected and reported. But in the absence of targets or benchmarks, they have no practical use. Tracking the changes in values over time is also of limited use since the number of firms is in flux, reports do not necessarily include all firms in the portfolio nor the same firms every year. Averages per firm or per dollar invested would have been more useful to compare development results over time. But even these indicators are not adequate if quantified for the program as a whole.
- 3.80 Slightly less than half of the funds included monitoring or evaluation requirements. In some cases, evaluations were included for projects that were considered extremely innovative or risky. In total, evaluations have been planned for 14 projects. To date, only 7 funds have had evaluations, of which 2 were planned and 5 unplanned. The latter occur when there seems to be trouble in the fund. In 4 cases they led to a change in management. The percentage of planned evaluations is below what is considered “best practice” and should be increased to include all funds, with at least a basic format for all cases and a more in-depth report on a selective basis.⁶⁷ Additionally, the responsibility for contracting should be retained by MIF management.

Table 3.2: Planned Evaluations According to Year of Approval

	1996	1997	1998	1999	2000	2001	2002
No	2	2	3	5	5	2	2
	50%	100%	60%	63%	100%	40%	33%
Yes	2	0	2	3	0	3	4
	50%	0%	40%	38%	0%	60%	67%

- 3.81 The quality of the evaluations reviewed is generally good, but follow-up is often limited, enforcement of the recommendations is weak and/or implementation is slow. It is true that in all cases the MIF is only one (albeit the largest)

⁶⁷ See chapter IV on evaluation recommendations.

shareholder, so changes cannot be implemented unilaterally. However, it is desirable to have a more proactive role and push for faster changes as soon as problems are detected.

H. Summary of Fund Performance

- 3.82 The following table summarizes the results of this evaluation by type of fund according to the classification used by OVE. The summary is schematic and is backed by the detailed evaluation of the funds.
- 3.83 Technology-Based Funds: Financial results are weak so far, but investments in many cases have a reasonable chance for success.⁶⁸ A very small number of investments have the potential for high appreciation in the long-term, or after another round of equity infusions. The vast majority of companies report high degree of financial and “soft”(non-financial) additionality. This is the only sector that has begun attracting some private sector capital, hence there is hope for sustainability. Funding for technology-based companies is worth continued support if it is part of a cluster of activities with strong domestic stakeholders (like in Brazil and Chile). In other cases, it is necessary to identify or even assist in the “creation” of stakeholders before embarking directly into fund activities, for instance facilitating partnerships with companies of developed markets. From the outset, it should be clear that the effort involves decades and is not a year-long affair.
- 3.84 SME-Funds: This group of funds includes a mix of different types of operations. It contains funds with a focus on regional, agro industrial, export-oriented activities, as well a “plain vanilla” SMEs. Results of the more “mature” in the group look generally poor. Some show little investment activity due to difficulties identifying investment opportunities. The best prospects appear to be the cases where loan operations were structured. Financial information in this group is generally incomplete and poor. Innovation is not a high feature. Like the others, financial additionality is high. There is little chance that activities in this group will become sustainable. Beyond compliance with formal financial statements of fund activities, the fund managers in these group showed more deficiencies in terms of not reporting complete information of performance of their investee companies.
- 3.85 Environmental Funds: Financial results have generally been very poor and it is expected that most will result in significant losses. This is one typology of funds that already has been almost discontinued based on the poor performance observed and the institutional learning of MIF. In some cases difficulties in finding attractive investment opportunities were reported. The evaluation recommends that this type of fund be discontinued. The MIF’s experience with six funds shows that the only good stories occur when: a) managers stretched the

⁶⁸ The only important exceptions are the investments done under the spell of the “internet mania”. Most of these are struggling and a few are likely to turn out average investments from a financial point of view.

concept to do investments that make sense but have little “environmental” content; and/or b) the fund concentrated on credit operations (as opposed to equity) with relatively conventional projects. The intent to support this sector it could be better served by a different program using other more appropriate financing instruments. In the course of the evaluation interesting commercial environmental opportunities, but they would require the technical support to develop new financial instruments and markets⁶⁹. It does not contribute to positive demonstration effects on the VC/SME funds program. Good environmental projects would be eligible investments for the new types of funds proposed by this evaluation, as explained below. Innovation is mixed in this group and the fund activity has very low chances of being sustainable, unless subsidized by not-for-profit entities. Additionality has been the big positive, but with generally poor results the resources could have been used better elsewhere. Evaluation and monitoring have been weak. “Developmental” impact, a frequently used word in connection to these funds, cannot be verified due to lack of follow-up on indicators and basic data.

- 3.86 Continuation of SME funds (other than technology-based) should start by making a clear distinction between companies that are small and likely to remain substantially that way, and SMEs that have high growth potential. The first group has a ceiling on growth explained by many reasons: competitive markets, low product differentiation, lack of economies of scale, volatility in prices/supply, weather vulnerability, non-innovative business model, etc. In addition, corporate governance can show deficiencies. For instance, the lack of a VC “culture” in LAC is reflected when entrepreneurs appear to consider minority equity investments as zero interest loans without collateral. While it is true that most SMEs have limited access to resources from the financial sector, this does not mean the VC is the right instrument to support them. Other products such as leasing, factoring, supply chain financing, and specialized credit trust funds, could be a better fit for SMEs. MIF could explore the support to develop a viable business model for institutions that could obtain low-transaction cost in the provision of other financial services for SMEs, as successfully done in microfinance.
- 3.87 High growth SMEs will certainly be difficult to identify, but they exist. In the last decades, the region has witnessed a number of cases where there has been a radical transformation in the business model of certain sectors, particularly services. There are companies that were small or nonexistent two decades ago, and are now medium to large concerns. For these an equity approach would be desirable and appropriate. The focus should therefore be in good opportunities, often startups, with an innovative, scalable business model that can show high growth regardless of the sector.

⁶⁹ OVE is producing a thematic evaluation of MIF environmental projects which expand these possibilities and the environmental side of this type of VC funds.

Table 3.3: Summary of Fund Evaluation by Type

	Environmental	Tech	SMEs
Relevance	Ex ante: Low or at least not analyzed systematically. Execution: medium to low. Future: low.	Ex ante: Medium to High Execution: Medium to High. Future: Can be high if implemented correctly and in the proper environment.	Ex ante: Unclear, no in-depth studies focused on opportunities as opposed to general statistics. Execution: Generally mixed to low Future: In the majority of cases it appears that the needs should be tackled through a different set of instruments and previous work to improve VC environment. High growth SME cases should be part of new recommended funds.
Effectiveness: Financial Objective	Ex ante: Risk mitigation probably underestimated management problems and lack of profitable opportunities for equity investments. Execution: Very low. No success stories, except perhaps one fund which has concentrated on lending operations. Exit will be very difficult.	Ex ante: Risk mitigation analyzed relevant risks, but mitigation factors are not consistent with risk or not consistently applied. Execution: For now it is low. Financial objectives have not been fulfilled yet. Parts of the portfolios in liquidity crunch. Need for additional funding.	Ex ante: risk mitigation probably underestimated management problems and lack of profitable opportunities. Execution: Low to very low. Exit will be a very difficult issue in many cases.
Effectiveness: Capital market objectives	Nil	Medium. Funds have attracted attention and there are new ones with some private sector participation. Perhaps in the future effectiveness will be high provided financial results are good and support continues.	Low
Efficiency	Low	Low	Low
Innovation	Ex Ante: High Execution: Mixed	Ex Ante: High/Very High Execution: High/Very High	Ex Ante: Mixed/High Execution: Mixed
Sustainability	Nil	Medium to low	Nil
Additionality: Financial	High	High	High
Additionality: “Soft Capital”	Low	High	Mixed/High
Evaluability	Low		
Monitoring	Low		

IV. CONCLUSIONS AND AREAS OF OPPORTUNITY

- 4.1 The MIF's fund program is probably one of the most ambitious and challenging programs that the institution has tried to tackle to date. The point of departure for this evaluation was to look at the international experience in SME/VC development and the benefits that this dynamic segment can bring to the economy as a whole. This report highlighted that the process of creating a VC industry is very long process and its success should be measure in decades. This long-term process demands considerable financial and institutional support, can only occur in an environment where a number of conditions have already created a critical mass of opportunities and experienced agents, will only flourish where legal, tax and regulatory conditions are stable and do not discriminate against this type of endeavour, and requires (or will be greatly facilitated by) a dynamic capital market. All these conditions underline that the task at hand is complex and difficult as the international experience demonstrates.
- 4.2 The MIF embarked in the development of the VC industry mainly using the instrument of equity funds when they were virtually non-existent in the region. For all practical purposes, there were no experienced managers and no local success stories or models to emulate. The program started with a favorable macroeconomic backdrop and reasonably buoyant capital markets. Both conditions deteriorated at the turn of the century, in particular the ebullience of equity markets worldwide. Perhaps another handicap to the program was the relative dispersion in the mandate and lack of precision in the objectives to be pursued. Indeed, the program tried to foster technology-based enterprises, prove that environmentally-oriented firms could be good businesses, support the use equity funds as a profit-making community development tool (in some regional funds) and promote the notion that equity and "modern" management support could unlock a dynamic process in small enterprises (all generic SME funds). The only common thread is the size of the firm. Additionally the reliance, particularly until 2000, in the funds as the main instruments to develop the industry, without connecting for other efforts in the countries and MIF interventions, proved to be a limitation to address such a big task.
- 4.3 These difficult and complicated tasks were undertaken with a lot of enthusiasm, experimentation and innovation. Trial and error were inevitable in this context and learning was observed in the evolution of the type and scope of interventions. The material is organized by first looking at the strengths, weaknesses, opportunities and potential threats looming on the program. Recommendations are then organized into thematic areas. In some instances, this evaluation poses questions that need to be addressed by the Donors, and does not attempt to provide answers. As it will become apparent, this is because a number of strategic decisions as well as non-marginal resource commitment decisions need to be made.

A. Strengths

- 4.4 The program has exhibited high marks on innovation and additionality. The MIF has been the leading actor in the region and is recognized as such. The MIF investment unit has evolved into a group that has a high degree of professionalism and commitment to the program. Over time it has learned to act more decisively when managers made mistakes, or when funds were floundering due to lack of management commitment. It has also learned from its own mistakes improving newer operations.
- 4.5 Although financial results of the “mature” portfolio are likely to be poor, there may be some success stories in the making. In particular, the cluster of activities, funds, regulatory changes and institutional development achieved in Brazil is a model worth strengthening and showcasing. The demonstration effect of this case is important given the size and visibility of Brazil in the region and worldwide. It shows a consistent and coherent strategy where both VC entrepreneurs and public or semi-public institutions have become important stakeholders.
- 4.6 A program that integrates remarkably well in a platform all the efforts of years of investment in technology and innovation, business support services, institutional fund managers and others is INOVAR, a program the financed by the MIF in Brazil. There the MIF helped to set-up the institutional mechanisms for the sharing of experiences and the promotion of the VC industry, pulling together different efforts through the executing agency FINEP and thus facilitating the creation of a “virtuous circle” to promote the VC industry.
- 4.7 MIF interventions are showing initial indication of creating a VC industry in Brazil, and great improvements are being made in Chile, where MIF has been a key actor and supported the development a more appropriate regulatory framework. A VC culture and modern VC mechanisms (i.e. technology clusters, incubators, VC/entrepreneur events, etc.) are clearly evolving and look like they are here to stay. If the benefits do not show up in the next few years, this evaluation is of the opinion that they are highly likely to show up in the future, provided patience and persistence prevail. Transplanting this type of experience to other countries in the region will not be easy, will take time and significant commitment from public and/or semi-public stakeholders would be a pre-requisite to replicate this success stories.
- 4.8 As a sign of the industry’s growth, several domestic and a pan-regional VC/PE associations have been formed in recent years, such as the *Associação Brasileira de capital de Risco* (ABCR) in Brazil (2000), the *Asociación Mexicana de Capital Privado* (AMEXCAP) in Mexico (2003), and the Latin American Venture Capital Association (LAVCA) in the US (2002), where the MIF is an active sponsor. In the case of Brazil, an association of “Angel” investors, the *Associação Gávea Angels*, was very recently formed. All of these provide a networking forum for local entrepreneurs and fund managers, but perhaps more importantly, help all

- players join forces to lobby in favor of the changes they feel are required to make their industry grow.
- 4.9 Another important success story that should be pursued further is the compilation of legal/tax/institutional barriers that run against the development of the VC industry in the region. The funds program has been an invaluable source of information on these issues and in some cases has been a material agent for positive change, like in the case of Chile and Brazil. The MIF has been playing a very active role educating governments on the barriers imposed by the legal and regulatory framework. This contribution was done with studies, conferences, and particularly forcing through concrete investment situations where funds faced restrictions. These situations and policy dialogue then retrofitted into reform processes to create a friendlier environment for the VC industry.
 - 4.10 There are many opportunities that could be taken further using this pilot MIF experience and introducing Bank leverage given that the regulatory framework and the basic conditions for high grow companies are lacking in many countries. However there are still significant hurdles in many countries for an efficient flow of risk capital to VC/PE investing, more than likely deterring some capital from engaging in this type of activity. Whereas investors in developed economies actively use existing laws and regulations to structure their investments, legal and regulatory systems are less flexible in the region. Common ingredients in the structuring of transactions such as the use of options, agreements to vote in a particular manner, share buy-backs and effective minority shareholder protection, are not universally present in the region.
 - 4.11 The pioneering work of the MIF, opening the way for the VC Industry in a few key countries could be taken further and facilitated by the IDB Group. Particularly the Bank, through the Regional Financial Divisions and the support of the central Departments, could leverage these efforts supporting the consolidation of these initial successful interventions. The use the “know-how” of MIF VCD programs could be beneficial to improve the entrepreneurial orientation of Technological Development Programs, for example incorporating in the VC fund managers in panels for business innovation grants, which could also be latter investors in the successful SMEs. Other linkages and synergies could be established with other private sector development initiatives.
 - 4.12 Additionally the direct linkage with the real economy, given by the MIF as “partner” of now 100 and in the near future 300 companies, could prove an invaluable source if information on barriers to growth, specific talents, needs and other key factors that could help to improve the Bank and the countries knowledge to promote the “entrepreneurial spirit” and conditions to grow in the region. This needs a programmatic effort of improvement in the way company and entrepreneurial information is collected and analyzed, and technical assistance could be directed to generate and expand the use of a wealth of information for entrepreneurial support and policy actions. For example, one of

the most profound empirical systematic pieces of research on entrepreneurship has been done by analyzing a group of 500 private high growth companies.

B. Weaknesses

- 4.13 Effectiveness, efficiency, evaluation and monitoring are low and could be greatly improved.
- 4.14 Effectiveness, in terms of the ability to deliver the intended fund results, is probably the most elusive goal, and the absence of a clear mandate made matters harder. A key element is management selection, which requires improvement. There has been considerable management turnover (30%) and generally poor results with “international” managers. There are also a number of structural elements that could be taken as opportunities to improve performance, as detailed below.
- 4.15 One form to improve efficiency could be seeking a larger average size of fund, which could be done for effectiveness reasons as well. The administration and support needed to nurture VC in SMEs is highly costly and would benefit greatly by improving economies of scale. In addition, to capture fully the success of outperforming companies, larger funds could increase their investment in consecutive rounds to accompany the successful firms over a longer period of time. According to analysis performed, fund sizes could target to grow from the actual US\$10-15 million level to go to US\$25 and US\$40 million, depending in the timing and market conditions to raise capital.
- 4.16 Another controllable cause of inefficiency relates to the “closing” process and the legal structuring of the funds. The “closing” process should be formalized and restricted to a shorter period of time. It may be necessary to sacrifice some additionality for the sake of efficiency. The legal structuring of the funds is slow. An attempt should be made to develop uniform procedures and standard terms to lower the costs and time to negotiate, structure and set up each fund. The MIF also requires more resources in this area.
- 4.17 Evaluation and monitoring are similar but separate activities. Both require considerably more attention and resources than deployed today. To improve evaluation the first task is to introduce the good practice guidelines of the MDB-ECG. Initial steps are being taken, but a clearly defined program requires setting up in the short-term. The most important omission, as per those guidelines, is the lack of a systematic expanded annual supervision reports (XASR). The detailed evaluation work produced during this evaluation (Case Studies, see example Appendix I) for the more “mature” funds helps to set-up the analytical base for that process.
- 4.18 Monitoring requires a revamping of the current “Fact-Sheet” system used once a year, including the development of a rigorous risk-assessment system. It also requires a more active participation of the MIF in the affairs of the Investment

Committee and the Board. This will demand either more staff or a larger budget to utilize consultants/advisors. Monitoring will present additional problems in the near future. As the newer funds begin their investments, this task will grow exponentially (at some point during the next year or two there could be over 300 firms in the various portfolios from approximately 100 now).

C. Threats

- 4.19 One of the biggest threats that could affect the program “demonstration effect” is the monitoring and management of the portfolio of funds as the new cohort invests in new companies and the old cohort enters into uncharted divestment difficulties. Without adequate preparation today the process can become messy and lower further the financial effectiveness, affecting the reputation of the VC industry as a viable financing tool. Confronting this threat may require closing funds or disengaging managers in a more speedy fashion. The MIF has been working in several instances managing workouts and complicated situations, particularly in the last two years. However, since the information system and risk assessment are relatively weak, conditions could be worse than they seem. It is essential to revamp these systems to take stock of the current situation and position the MIF to the growing challenge of a higher number of firms in the portfolios. The negative demonstration that a few funds may cause to the budding regional VC industry may be more than the positive effect of the ones that are likely to be successful.

D. Opportunities and Possible Next Steps

- 4.20 The MIF has a unique position in the region to continue leading the industry giving its specific mandate and the specialization achieved in this subject. This is not only because of its “first mover advantage” or its level of resources, but also because of its relationship to the Bank. As exemplified in the previous section, this linkage could be utilized and be a source of leverage in the future. In particular, since it is clear that the development of the VC industry will require a set of complementary interventions to pave the way for the VC industry (and not just money through funds). The MIF and the Bank could explore strategic synergies, by using the MIF programs as pioneers and learning instruments that allows further mainstreaming or streamlining other set of interventions.
- 4.21 Another set of opportunities derives from the potential to restructure and rebrand the activities of the program. At present the bulk of the program virtually has only one instrument and one name: equity funds. The result of this evaluation indicates that equity funds are not a good fit or the most sensible instrument for all countries and circumstances. It is a tool that should be applied very selectively and only once a specific set of conditions and prerequisites are in place. The MIF VC strategy recognizes these needs, but more interventions are demanded in this type preparatory work before investments in equity are launched in certain countries. Now is the opportunity to develop a menu of instruments and a set of

guidelines to match instruments with need and/or requests depending on the conditions and situation of the any specific country.

- 4.22 Through its stake in the equity funds, the MIF has potential access to a pool of knowledge that should be put to use to the development of the private sector. In particular, if the MIF participates more directly in the live of the funds, it will quickly develop a direct, grounded knowledge on the dynamics of private business and the barriers to entrepreneurial development. This first hand knowledge of more than 100 SMEs and entrepreneurs can be systematized and retrofitted to the Bank's programs on competitiveness, technological development, credit and modernization of the state (i.e. simplification of administrative processes, collateral execution, guarantee programs, testing of new ideas, etc.).
- 4.23 In this final section, a set of short tem and medium terms actions are specified to facilitate the implementation of possible next steps in the program.

1. Short Term Actions

- 4.24 Formalizing management selection process: Managers' selection should be formalized into a clearer and more open process. Two non-exclusive recommendations are:
- a) to introduce a "contest" process, as is done by the INOVAR program supported by the MIF. In this case, the best fund ideas/groups are selected on a quarterly, bi-annual or yearly basis by the MIF staff and a panel of recognized experts in the field; and/or
 - b) to call for open, international bids to manage new vehicles through a widely circulated notice that would attract a broader pool of potential managers. Two essential criteria to introduce are the track record in managing investment vehicles (audited), and experience in operating businesses (as opposed to financial expertise alone).
- 4.25 Revamping monitoring and evaluation system: This is an urgent task. The new monitoring system would need to include quarterly reports (by the fund managers) with at least:
- a) full financial statements for all companies (particularly cash flow statements) with company by company and consolidated reviews;
 - b) a risk assessment system with quantitative financial indicators;
 - c) a summary of the completion of objectives and main events in the quarter, including any material change (firm, sector or country) that may affect the portfolio.
- 4.26 The evaluation system could be upgraded to follow the guidelines in the MDB-ECG. The first tasks could be to:
- a) make an inventory of current evaluation requirements in the funds;

- b) review the progress made to date in those funds that call for evaluations and recommend the indicators to be tracked, as needed;
- c) propose a mechanisms to incorporate the funds which have no planned evaluations, along with guidelines on indicators and methodology; and
- d) propose a detailed work plan to incorporate other features recommended in the MDB-ECG guidelines.

4.27 Assessing underperforming funds/companies within funds: It would be important to devote special organizational resources to coordinate and lead this process within the MIF to strengthen ongoing efforts to deal with problematic funds and those headed in that direction. As indicated above this action could allow to contain the threat to take care of the most important intangible that this programs looks for: the “demonstration” effect that the VC is a viable model. Similarly, each manager could do the same exercise in the existing portfolio of firms. It would be worthwhile in some funds to concentrate the resources (management and financial) to salvage or enhance the position of likely winners. This would improve the effectiveness (results) of the fund. The evaluation found a number of cases where good companies need second or third investments in order to survive or move forward. Similarly, there are companies where it may be better to convert the equity to debt or liquidate the investment and move forward. This task will only grow bigger over time.

2. Medium Term Actions and Strategic Decisions

4.28 Increasing direct participation on funds’ activities: The MIF is the leading investor in all funds, but has no management responsibilities. While this is correct, it is also true that the incipient and experimental nature of the industry in the region usually requires close participation to obtain better results and to control possible damage to the “demonstration” effect. A higher degree of MIF’s participation at the Board and Investment Committee level is a strategic decision that would increase costs (staff/resources) and will entail some risks. The likely benefits are:

- a) more intimate knowledge of the portfolio companies;
- b) improved steering of the fund towards the intended goals (financial and non-financial);
- c) faster reaction time to changes in managers’ or companies’ performance; and
- d) better first-hand knowledge of what works and what does not work in the business, opening the possibility for cross-fertilization between funds and between new and old operations.

4.29 Defining precise mechanisms of collaboration with Bank Group: The development of a dynamic VC industry requires more than funds. Depending on the country, it may require sizeable investment in technology, human capital for

management or other areas. It may call for a significant overhaul of certain tax, regulatory or enforcement systems. The scale and nature of this effort goes beyond the MIF's resources. Three possible examples of collaboration are:

- a) the use of the technology development programs as a tool to create a pool of technology-based entrepreneurs, managers and firms.
- b) joint/coordinated lobbying with the Bank on tax/legal/regulatory matters that affect the industry. Again, the MIF's input and pilot demonstrative examples could be integrated to the country dialogue on these matters; and
- c) identification and nurturing of strong domestic stakeholders for the VC industry through institutional development programs in the technology, private sector and financial areas.

4.30 Developing criteria and menu of options for MIF's intervention and optimize activities other than funds: The MIF has been introducing other important interventions beyond equity funds. At this point it should assess their effectiveness, determine the optimal way of undertaking each of them and define a set of criteria to determine which options make sense in which context. Some of the most relevant interventions identified for further action in the future are:

- a) training for VC managers and entrepreneurs and support of trade associations (i.e. national VC groups);
- b) funding the application of technology for commercial purposes through grants and system of contests with an independent panel of experts;
- c) systematic review of legal/tax/capital market barriers;
- d) dissemination of information on VC or high growth SME investing through contests, seminars, publications, etc.; and
- e) in-depth feasibility or relevance studies on a country or regional basis for a fund-type intervention.

4.31 Fewer, more selective funds with a larger target size, more open mandate, and more flexibility to support/abandon investments: Formation of new funds should be extremely selective, from none to two or three per year. The current size of the funds would benefit by a more flexible possibility of growth in size, and was found too small and deterred participation from some talented VC managers in the past. The expense ratio of the current funds is also a major impediment to their financial success. Higher target size funds, would also allow to accompany investment needs of successful ventures, and would enhance the capacity of management company to hire the mix of expertise required, including more sales and marketing experts currently absent. A target size of US\$25 million to US\$40 million is suggested growing from the actual US\$10-15 million. In addition, there are a number of structural features that could be changed, such as:

- a) Funds could be as open as possible to invest in a variety of sectors and in a broader range of firm sizes. Extreme targeting should be avoided to actually benefit the access of smaller SMEs. The most difficult task is to

find opportunities with all the ingredients (i.e. good manager, sound business plan, technical expertise, high work ethic and ethical standards, etc.). Limitations on sectors or geographical areas have not worked well. New funds should be allowed to invest across sectors and in firms larger than the current limit. This would help to dilute costs, introduce possible synergies/demonstration effects between smaller and larger entities (including merger possibilities), diversify portfolio risk, etc. This change would also allow the funds to support firms at their various growth stages. The key size criteria to change would be sales, which should be increased to US\$5 million.

- b) To avoid possible investment concentration on larger firms, the funds could use an incentive system that gives higher rewards to outstanding performance in smaller firms. For example, after returning principal and the hurdle rate of return, managers could earn, say 30% of profits on investments in smaller firms and only 10% on medium-sized firms.
- c) The funds should explicitly target two or three investment tranches, increasing the investment exposure to the likely winners. The initial target should be 15-20 firms, the second tranche should include only 5-7 firms, and the last tranche should only fund 1-3 investments. The purpose of this change is twofold. First it introduces a strong element of competition between firms (access to more resources). Second, it improves the chances of achieving a high financial return (a positive demonstration effect).
- d) A new fund structure would require more flexibility to sell investments that are likely to be winners and rigidity in divesting out of underperforming assets. While the divestment period for the likely winners should be lengthened, the sale of likely losers should be accelerated. An option to force discipline into this process is to shorten the divestment period for some of the investments. For example, if the initial group is 15-20 investees, half of them should be sold by the first six years (or the equity converted to debt), as opposed to the current ten-year period. For likely winners, size limitations should be abandoned for second/third round investments in portfolio companies.
- e) The restriction on control investments should be eliminated. The majority of PE investors in the region argue that control is necessary to attain desired results. This evaluation does not advocate that control should be pursued, but rather that the taboo against it be lifted. There are several instances in which control has *de facto* occurred in the MIF funds. This always occurred for the wrong reasons (i.e. some form of business failure). This may have been avoided if the manager had enjoyed the control from the beginning.