

Keynote Address by Dr.Y.V.Reddy, Deputy Governor, Reserve Bank of India, at the National Venture Capital Seminar Organised by Centre for Technology Development, at Bangalore, on August 2, 1998.

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Venture Capital and Technology Development in India : An Agenda for Deliberations

I thank the organisers, and in particular my senior and respected colleague Mr. Nayak, for giving me this opportunity to be with you, and deliver the keynote address at this National Venture Capital Seminar.

I am happy to observe that the Centre for Technology Development (CTD), under the guidance of its eminent Governing Board, is focussing on the development of Karnataka's technology infrastructure. I also note that the CTD has set up the National Venture Capital Forum to promote venture capital in India to ensure the development and commercial viability of its thrust areas.

What tempted me to come over here was not only the persuasive abilities of Mr. Nayak, but also the importance of financing technology development in India. I also have special interest in venture capital business in our country since I was involved in promoting venture capital funds in India - in late '80s. Honestly, I feel that the growth of venture capital business and its contribution to technology development has not been up to the expectations of some of us, who can claim to be early birds in this adventure.

I would like to join you in exploring ways of accelerating the growth of venture capital, specially in the context of technology development.

What is Venture Capital?

Venture capital financing is commonly associated with provision of equity investment for a predetermined time period in small/medium business with high growth potential and high reward but which could entail high risk. Simply stated, venture capital (VC) is high-risk, high-return investing in support of business- creation and growth. It is money provided, often by professionals, who invest alongside innovative entrepreneurs in young, rapidly growing companies that have a reasonable, though not assured, potential to develop into significantly profitable ventures. Naturally, venture capital financing is very different from traditional sources of investing such as lending and borrowing, developmental financing or stock market investing. Venture capital financing fills a void left by the traditional financial institutions in high risk, high potential and innovative ventures. In fact, venture capital business demands skills, attitudes and systems very different from those of traditional financial intermediaries.

Such ventures are mostly promoted by what I may call 'Ideas-People' and are generally in new and high technology areas. So, providers of venture capital invest money and also assist with managerial or marketing inputs which the Ideas-People usually need.

A venture capitalist often invests before there is a real product or company, though capital to start up a company in its first or second stages of development is also common. We need not rule out financing expansion of companies that are already selling their product. Some venture funds

specialise in acquisition, turnaround or recapitalisation of public and private companies that represent favourable investment opportunities.

In brief, there are in this business, clearly two pillars, viz., venture capitalist who comes forward with flexible financing arrangement and Ideas-People who come forward with high risk, potentially high-return business opportunities.

There is a third pillar also, viz., size. Large sized enterprises can internalise the risk and return. Hence, typically, this business is identified with financing of small and medium size units.

In this scenario, people can ask, what role has a fourth pillar, viz., initiative of Government or RBI policy? Simply stated, it is a facilitator role. My brief here is to focus on the facilitator role of public policy in enabling and fostering economic growth around the three pillars - venture capital, technology and size (small/medium).

Let me begin by recalling how this facilitator role was played by public policy in other countries.

International Experience in Venture Capital

The origin of the formal venture capital industry in the United States is usually traced to the formation of American Research and Development in 1946. However, funds flowing into the venture capital industry and the number of active venture organisations increased dramatically during the late 1970s and early 1980s. An important factor attributed to the increase in money flowing into the venture capital sector was the 1979 amendment to the "prudent Man" rule governing pension fund investments. Prior to 1979, the Employee Retirement Income Security Act (ERISA) limited pension funds from investing substantial amounts of money into venture capital or other high-risk asset classes. The amendment allowed pension funds to invest in high-risk assets, including venture capital. Thus, while in 1978, pension funds supplied just 15 percent of venture capital funds, currently over 50 per cent of investments in venture capital comes from institutional public and pension funds, with the balance coming from endowments, foundations, insurance companies, banks, individuals and other entities.

According to data published by VentureOne Corporation, amount invested by venture capitalists in US industry increased from \$7 billion in 1995 to \$11.5 billion in 1997. Of this, \$7.1 billion was invested in the Information Technology industry, \$2.6 billion in Health Care and \$1.7 billion in Retail and Consumer industry.

The Small Business Investment Company (SBIC) programme established in the USA in 1958 to fund private organisations that make equity and debt investments in young firms was responsible for much of the initial formation of high technology firms. Companies such as Digital Equipment Corporation, Apple, Federal Express, Compaq, Sun Microsystems, Intel and Microsoft are successful examples of companies that received venture capital early in their development.

The Israeli Government initiated two programmes to encourage venture capital funds in 1991, which led to increase in such funds from \$29 million in 1991 to \$550 million in 1997, as well as a spurt in investment in high technology companies.

Singapore aggressively began promoting venture capital funds by providing tax incentives and through other measures in 1995, which led to a dramatic rise in investment activity in high technology R & D activity.

Growth of Venture Capital in India

Now, let us see how we went about promoting this business in India. Given the virtual monopoly of public sector financial institutions and in particular Development Financial Institutions in the financial intermediation until the reform period of 1990s, the initiatives for venture capital also were taken by them. In 1975, venture capital financing was introduced by the all-India financial institutions with the inauguration of the Risk Capital Foundation (RCF) sponsored by IFCI to supplement promoters' equity as means of encouraging technologists and professionals to promote new industries. In 1976, the seed capital scheme was introduced by IDBI. Until 1984, venture capital took the form of risk capital and seed capital.

The Technology Policy statement of the Government in 1983 set the guidelines for technological self-reliance by encouraging the commercialisation and exploitation of technologies developed in the country. In 1984, ICICI decided to allocate funds for enterprises involving risk and high profit potential and in 1986, it launched a venture capital scheme to encourage new technocrats in the emerging fields of high-risk technology.

To popularise venture capital financing, the government took a formal initiative and announced the creation of a Venture Capital Fund (VCF) in December 1985. The VCF was to provide equity capital for pilot projects attempting commercial applications of indigenous technology and for adapting previously imported technology for wider domestic applications. The Fund which became operational in April 1986 is administered by IDBI. The source of finance was the cess levied on all payments made for purchase of technology from abroad.

The first attempt to frame comprehensive guidelines governing venture capital funds was made in 1988-89. Even under these guidelines, only all India financial institutions, all scheduled banks including foreign banks operating in India, and the subsidiaries of the above were eligible to set up venture capital funds/companies. In 1988, IFCI sponsored RCF was converted into the Risk Capital and Technology Finance Corporation of India Ltd. In 1989, Unit Trust of India sponsored venture capital unit schemes. State Bank of India has a venture capital scheme operated through its subsidiary SBI Caps. ICICI flagged off a new venture capital company called Technology Development and Information Company of India with the objective of encouraging new technocrats in the private sector in high-risk areas. Canara Bank has set up a separate AMC to undertake venture capital financing. The first scheme floated by Canara Bank had participation by World Bank. About the same time, two State level corporations, viz., Andhra Pradesh and Gujarat also took initiatives to promote venture capital funds and could obtain World Bank assistance. A foreign bank set up a Venture Capital Fund in 1987. In addition, other public sector banks have participated in the equity share capital of venture capital companies or invested in schemes of venture capital funds.

As reform progressed, consistent with general trends, local public sector's role was increasingly supplemented by local private initiatives in venture capital also. More important, resources from multilateral agencies like World Bank were supplemented by foreign institutional investors.

Status of Venture Capital in India

As at end-December 1996, according to Venture Capital Association of India, 14 of its members had set up 17 funds. The total pool of funds available to its members was Rs.14,019 million. In earlier years, much of venture capital financing was contributions from financial institutions followed by multilateral agencies and then the private sector. This trend has changed in the last couple of years with many offshore based funds entering this arena. Reflecting this trend, of the total funds available, 39 per cent came from all India financial institutions, 33 per cent was contributed by foreign institutional investors and over 12 per cent by multilateral agencies. Other contributors of course were banks, public and private sector organisations, insurance companies, mutual funds, etc.

As to be expected, major part of venture capital investments were in the form of equity issues. Of the total investment of Rs.6,729 million in 622 projects, about 61 per cent was in the form of equity, 21 per cent was by way of convertible instruments and 6 per cent in non-convertible debt. Redeemable preference shares and other instruments of finance including temporary and bridge loans accounted for the balance.

What is, however, somewhat surprising is that in respect of computer software or service industry in general, which are fast growing and where we have strength, venture capitalists did not find them attractive. Investment in industrial products and machinery accounted for 29 per cent of the investment, followed by 13 per cent in consumer related industry, about 8 per cent in food and food processing industry and 7 per cent in computer software and service industry. This neglect of the fastest growing high-tech sector needs some attention.

As regards participation of venture capital by stages in business cycle, majority of investments (42 per cent) was in the start-up stage, followed by over 27 per cent in later stages. Only 14 per cent of financing was in seed-stage. This is a matter for satisfaction.

Size-wise, venture capital went into small and medium units and the rest to larger units. It is necessary to recognise that what we consider to be small and medium is tiny by international standards. Incidentally, a small scale industrial unit in India is defined as a unit with an investment limit of Rs. 3 crore. In fact, as our economy is poised to be internationally competitive, our definitions, at least as venture capital is concerned, need a second look.

Venture Capital and Technology Development: International Experience

International experience with regard to venture capital financing for technology-based firms has been mixed. In the UK, the percentage of venture capital being invested in early-stage financing is small. It has a dedicated seed capital sector which is small in size and impeded by capacity constraints and funding difficulties. In the USA, the Government plays an active role in the development and financing of technology-based firms through the Small Business Administration programme which aims to increase the availability of equity capital and long-term debt to small businesses. Large critical mass makes it easier for technology-based firms to obtain appropriate finance. Institutional investors place substantial funds with venture capital funds. In Canada, both formal and informal venture capital play a very significant role in the financing of this sector, with fiscal encouragement. In Germany, it is reported that a very small proportion of venture capital goes into technology-based firms.

The Bank of England in October 1996, published a report that describes the financing environment for technology-based firms in UK and identifies the particular difficulties they face. There are a few interesting findings based on their survey conducted through interviews with directors and senior managers at 59 technology-based firms. Formal venture capital had been utilised at some stage of development by 32 per cent of the technology-based firms; 14 per cent were considering utilising the funds and 17 per cent had been refused funds. Lack of understanding of the technology by venture capital firms was cited as a sore point among many firms. Firms that had rejected the venture capital option were concerned with loss of control, high rates of return or quick exit routes expected by venture capital firms. Other relatively common criticisms were the unwillingness of venture capital firms to provide small amounts of capital and the time taken to finalise details and funding. Perhaps we should consider a similar survey in India.

Venture Capital and Technology Parks

An innovative proposal that provides significant scope for linkage between venture capital and technology-based projects is the concept of technology park. The objective is to encourage

technological research, to foster transfer of such contents to small and medium-undertakings and to stimulate the creation of new companies. Venture capital companies are usually housed in the technology park so that they can closely screen the ventures they are funding. Italy and the UK have been successful in setting up such technology parks. In Italy an Area Science Park was established in 1992 and following this an Environ Science Park was set up in 1996. A quick look at the UK models indicate that they have established three parks, viz., Cambridge Science Park in 1970, Manchester Science Park in 1984 and Oxford Science Park in 1991.

In India, it is commendable that under inspiration from Mr. Narasimham, Mr. Vaghul, Dr. Ganguly and others, ICICI has decided to establish a Knowledge Park in Andhra Pradesh with active support from the Chief Minister of Andhra Pradesh. The objective is to formally put in place a network to facilitate research in biotechnology, drug development, health care, information technology, environment and energy protection technology and advance material science. I understand that ICICI will initially invest Rs.25 crore in common infrastructure.

Informatics: An Illustration in India

At the outset, one needs to guard against assuming that venture capital is synonymous with funding high technology but the linkage is very strong. Keeping in view the current context, we can illustrate the issues relating to venture capital and technology development by analysing recent initiatives in informatics.

The Finance Minister in this year's Budget Speech stated that "The Government have set itself a target of making India a Global Information Technology Power and one of the largest generators and exporters of software in the world within ten years."

In addition to setting up a National Information Technology Task Force, the Finance Minister also announced fiscal proposals to support rapid development of this crucial sector.

The RBI constituted a Working Group under leadership of State Bank of India with a task of framing fresh guidelines for extending working capital finance to various types of software units, including units engaged in the export of software. The Working Group identified key risk factors in financing software units and these are:

First, there is an absence of tangible current assets.

Second, the fixed assets of software companies depreciate rapidly and hence obsolescence becomes a major risk factor.

Third, low initial capital requirements in software services translate into low entry barrier. This has led to multiplicity of small and medium players and consequently rates of failures are high.

Fourth, the high turnover of manpower is a major risk factor as it affects execution and completion of jobs.

Finally, there are risks in product development since the product could turn out to be non-marketable or overtaken by a similar product of a competitor.

In my personal view, these risk factors seem to be applicable for almost all venture capital activities.

The Working Group has given a number of suggestions which are being examined by the Indian Banks Association and I would not like to preempt their views by discussing the recommendations here.

However, I will highlight two recommendations of the Working Group relating directly to venture capital finance, for wider debate. Since both banks and venture capital companies encounter problems in evaluating the viability of the ventures, the Working Group has proposed that an independent agency may be set up with offices at the software activity intensive centres. The agency may be assigned the function of providing technical support to the financing institutions, including venture capital institutions. The Working Group has also recommended the establishment of a Venture Capital Institution sponsored and jointly owned by financial institutions, banks and the industry to cater exclusively to the emerging demand of the industry for venture capital funds. Such an institution may also introduce hybrid financing instruments having both debt and equity elements at the lender's option, and cross currency derivative products as a means of hedging risk.

Of course, these recommendations raise broader issues:

First, whether there should be venture capital funds exclusively dedicated to an industry. Undeniably, in my view there is a case for natural specialisation, though not a prescriptive specialisation or exclusivity.

Second, whether there should be special hedging facilities permitted to venture capital funds in general or specialist ones in particular.

Third, should we create independent agencies to evaluate viability of ventures so that banks and venture capital companies can be helped? If so, are we doubting the capabilities of our venture capital companies?

Issues Faced by Venture Capitalists in India

I solicited views informally from a variety of sources including the Indian Venture Capital Association and TDICI Ltd. on the issues being faced by venture capitalists. Let me, for record, recall some of them.

First, benefits on total income are currently available to domestic venture capital funds under Section 10 (23) F of the Income Tax Act. As it presently stands, the Act requires that investments are made by Venture Capital Funds only in equity instruments, which imposes avoidable constraints. SEBI, which regulates venture capital funds permits investment in equity and equity like instruments. All over the world, instruments such as convertible preference shares, fully and partly convertible debentures are used for financing by venture capital companies.

Second, according to the Indian Venture Capital Association, there is no regulatory framework for structuring the funds. Most of the domestic funds have been set up under the Indian Trust Act 1882. While domestic funds are required to follow SEBI guidelines, offshore funds are required to follow RBI guidelines.

Third, Venture Capital Funds are finding exit from their existing investments very difficult. Steps like company buyback will partly solve the problem.

Fourth, there is apparently an anomaly in the tax treatment between domestic and offshore funds. Offshore funds are generally registered in Mauritius and do not pay any tax whereas domestic funds have to pay maximum marginal tax. Even among domestic funds, funds settled by Unit

Trust of India are totally exempt from tax. The contention is that offshore funds which invest only in large industries are exempt from tax whereas domestic funds that invest in small and medium industry are taxed.

Fifth, again, the provisions of Section 10 (23) F restrict venture capital companies from investing in the services sector barring computer software. There is a strong opinion that telecommunication and related services, computer hardware related services, project consultancy, design and testing services, tourism related services and health related services should qualify for exemption under the Act for venture capital investment.

Sixth, there is also a view that greater flexibility should be made available to venture capital investments in unlisted securities. Interestingly, even foreign institutional investors are permitted to invest in unlisted debt instruments.

Seventh, with regard to foreign direct investment in Indian venture capital funds, there is a feeling in the industry that FIPB approval should be dispensed with in respect of investments involving quasi-equity instruments as also for any investment that results in less than 51 per cent ownership. Similarly, it has been represented that no permission from the RBI should be required for repatriation of dividends or for exit from the investment.

Eighth, public provident funds and pension funds should be permitted to invest some portion of their corpus in venture capital funds with proven track record. Similarly, mutual funds like UTI should also be permitted to invest in venture capital.

Possible Agenda for Deliberations

In the light of this overview, let us see what could be a possible agenda for deliberations in your seminar. Deliberations, I believe, would cover broader aspects such as strategies and approaches as also operational aspects.

- a. Is the growth of venture capital business in India adequate, in terms of our financial as well technological skills and with reference to other countries? If not, what exactly are the reasons and what should be done?
- b. Given the nature of venture capital business, should we not encourage more private sector participation, including large private sector corporates to enter this business?
- c. Recognising that it is difficult to distinguish between manufacturing and servicing, and our increasing technological strengths in service sector, how do we enable and encourage flow of venture capital into service sector?
- d. Should there be funds devoted to or specialising in particular technology? In any case, should the country focus on some technologies where we may have special skills, such as informatics, pharmaceuticals. If so, what are they?
- e. Should, for the purpose of technology based innovative ventures funded by venture capital, the definition of small industry be different, and if so, what are the operational details and advantages?
- f. How do we ensure a closer linkage between centres of technology such as Institute of Sciences, IITs, research laboratories be it private or public, and a large pool of NRI scientists technocrats in the UK/USA, etc. Can there be an effective network between our venture capital companies and NRIs overseas?
- g. How do we operationally ensure that the three ingredients of successful ventures are brought together, i.e., entrepreneurs, research support from universities and venture capitalists? Could the Knowledge Park concept be appropriate and could it be emulated by other States?
- h. Should venture capital companies also develop and disseminate expertise in patent regimes?

- i. Should sources of funding for venture capital be diversified to include Pension funds, etc.? Even assuming that there is no resource constraint now, could there be enabling provision for future needs?
- j. In regard to use of funds, is there a logic for putting restrictions on instruments, i.e., equity only or no unlisted securities, for income tax or other purposes? More generally, what is an ideal tax regime for promoting venture capital?
- k. What is an appropriate regulatory authority and an appropriate regulatory regime for growth of venture capital and flow of such capital for technology development?

To conclude, I have no doubt, that promoting venture capital along with strong technology is key to the growth of small and medium business, productivity, employment and overall growth of the economy. This deserves a national level focus, somewhat similar to the focus given to Information Technology by the Planning Commission.

For our part, in the RBI, we would be happy to strongly support a study of the type done by the Bank of England on financing environment for technology- based industries, to which I had referred earlier. It is for this seminar to advice us on the ways in which you would like the RBI to sponsor or be associated with such a study.

In this context, I recall what Governor, Dr. Bimal Jalan had said in his address "Science Technology and Development" delivered here in Bangalore at the Indian Institute of Science just a month ago. "In the liberal environment, let thousand ideas of science and technology bloom and let these be transcreated into innovative ventures by our entrepreneurs. India has the talent, the skills and the resources to be in the forefront of technological revolution that is taking place in the new sectors of growth in the global economy."

I wish this seminar all success.