

The Venture Capital Revolution

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The first true venture capital firm was American research and Development (ARD) established in 1946 by MIT President, Karl Compton and General Georges Doriot, a HBS professor. ARD is best known for its \$ 70,000 investment in Digital equipment in 1957. This grew to \$ 355 million.

ARD was structured as a closed end fund. So ARD had the flexibility to invest in illiquid assets, without being worried about investors withdrawing funds. But the closed end structure later created problems. Shares were sold in the market to elderly investors for whom high current income was more important than long term capital gains. These investors vented their frustration on VCs.

The first limited partnership VC was Draper, Gaither and Anderson formed in 1958. Limited partnerships were exempt from securities regulations but they had to raise their funds from a restricted set of investors- mostly institutions and high net worth individuals. Unlike closed end funds with indefinite lives, the partnerships were expected to return the assets to investors within a set period. VCs allocated shares in the company to investors, who could choose when to book the capital gains. In the 1960s and 1970s, limited partnerships became more common but they still accounted for only a small portion of the total VC funding.

Activity in the VC industry picked up in the late 1970s and early 1980s. Pension funds began to account for an increasing share of the pool of funds. The VC industry came to be concentrated in high technology industries and in California and Massachusetts.

Returns on venture capital funds declined in the mid-1980s, apparently because of over investments in various industries and the entry of inexperienced VCs. From 1987 to 1991, fund raising steadily declined. This pattern reversed in the 1990s. The explosion of activity in the IPO market and the exit of many inexperienced VCs led to increasing VC returns. New capital commitments rose twenty-fold between 1991 and 2000.

Corporate investments in VC also increased substantially in the 1990s. The success of companies like eBay and Yahoo was one trigger. But corporations were also taking a relook at the way they managed the process of innovation. Companies like Cisco began to rely on acquisitions of start-ups rather than internal R&D for the bulk of their new ideas. With the rise of the internet and ecommerce, corporate venturing was a useful approach to understand new

technologies and their implications. VCs and corporates also began to collaborate with each other.

The limited partnership structure continues to dominate the industry. But the 1990s have also seen the revival of the publicly traded venture fund. The renewed appeal of public venture funds, despite increased regulatory scrutiny is probably due to the desire of individual investors to put their money in VC and the inaccessibility of traditional VC investments to these investors.

The health of the VC market is closely tied to the IPO market. In the 1970s, few firms went public and very little VC was raised. The growth of the VC industry in the early 1980s, decline in the late 80s and the unprecedented growth in the 90s, were marked by a rise, fall and then, again a rise in IPO activities.

Compensation in the case of the older and larger VC firms is more closely linked to performance than in the case of newer companies. A new VC may work hard without explicit pay for performance incentives. Once the firm establishes its reputation, it can demand performance linked compensation in later investments.

Various covenants and restrictions may be used to limit the conflicts between the investors and the VCs. This may include preventing the VC from: floating another fund till the current fund is completely invested, making investments in areas where the VC is not an expert and making investments in companies where one of the VC's earlier funds had invested.

Young firms, particularly in high tech industries are characterized by uncertainty and informational asymmetries. If external equity is raised, it may result in wasteful spending by managers. Too much debt may raise risk to unacceptable levels. In view of the uncertainties, it would be quite difficult to write a comprehensive contract to ensure proper governance of the firm. Entrepreneurs often pursue strategies that have high personal returns (prestige, recognition and satisfaction) but with low monetary pay offs for shareholders.

VCs can address the information asymmetry problem in various ways. VCs scrutinize the firm more intensively before providing capital and monitor the firm closely afterwards. VCs provide funds in small doses over time, syndicate investments with other VC firms and take seats on the board.

Staged capital infusion may be the most powerful tool employed by a VC. Firms that go public receive more funding and a greater number of rounds than other firms. Early stage firms receive significantly less money per round. Increases in

asset tangibility increase the financing duration and reduce the intensity of monitoring. Higher market to book value firms are refinanced more frequently.

By syndicating investments, a VC firm can invest in more projects and diversify away the firm specific risk. Involving other VC firms also provides a second or third opinion on the investment opportunity and reduces the probability of bad deals being funded. Experienced VCs tend to syndicate only with VCs having similar experience.

VCs are closely involved in the running of the firm. The advice and support provided by VCs to start-ups is seen in their role on the board. VC Directors are likely to be residing not far from where the company is. This enables them to make frequent visits and to be closely involved in the affairs of the start-up.

VCs often insist that managers and critical employees receive a substantial portion of their compensation in the form of shares or stock options which should vest over a long period of time. The VC can also significantly dilute the entrepreneur's stake in subsequent financings if the firm does not meet its targets.

When too much money is chasing too few deals, VCs may focus more on later stage companies which can accept larger blocks of financing. In such circumstances, VCs may also syndicate less and there could be greater competition among the VCs. Between 1985 and 1990, there was a surge of VC funds, which exceeded the productive projects to be financed. That is why returns were low for VC funds.

The most profitable exit opportunity for a VC is usually an IPO. VCs hold significant stakes in the firms they take public. They continue to hold their equity positions in the year after the IPO. The typical VC backed firm is not profitable at the time of the IPO. Venture backed IPOs also tend to give less positive returns on the first day of trading. This implies that investors need less of a discount to purchase these shares as the VC has certified the quality of the offering. As VCs repeatedly bring firms to the market, they can use their reputation to convey that the firms they are taking public are not overvalued. The under-pricing of a VC backed IPO is significantly less than that of comparable non-VC IPOs. Underwriters of venture backed IPOs tend to be more experienced and charge lower fees, compared to non-VC IPOs.

Experienced VCs take firms public at market peaks, relying on private financings when valuations are lower. In contrast, younger VC firms tend to grandstand, i.e. take actions that signal their ability to potential investors. Specifically, young VC firms tend to go public earlier, in an effort to establish

their reputation and raise capital for new funds. This typically leads to a greater degree of under-pricing.

The typical VC firm does not sell its equity stake at the time of the IPO as it would send a negative signal. Most investment banks have a requirement that VCs should not sell their stake for at least 6 months.

VC funding does have a strong positive impact on innovation. On an average, a dollar of VC capital appears to be 3-4 times more effective in stimulating patenting than a dollar of traditional corporate R&D. Though VC funding averaged less than 3% of corporate R&D from 1983 to 1992, it was responsible for perhaps 10% of US industrial innovations during the decade