1. Introduction

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Introduction

Venture capital is typically defined as the investment by professional investors of long-term, unquoted, risk equity finance in new firms where the primary reward is an eventual capital gain, supplemented by dividend yield. An analysis of the US industry by Bygrave and Timmons in 1992 argued that traditional venture capital was now at a crossroads. Similarly, Murray's (1995) analysis of the UK venture capital industry considered the issues to be faced by a mature industry. These previous studies were undertaken at the time of a recession. As we move towards the millennium, venture capital markets generally face changing conditions which are likely to shape the future of the industry.

Although venture capital is typically associated, especially in the US, with investments in early stage ventures, the activity and performance of venture capital firms is increasingly expected to focus on later stage investments undergoing radical restructuring, such as buy-outs. Early stage and start-up funds account on average for only about 6.5 per cent of the annual value of European venture capital investments (EVCA, 1995 and Chapter 3), with management buy-outs and buy-ins accounting for about 44.5 per cent of funds invested. There has hitherto been a general neglect of the broader issues raised by firms involved in buy-outs and buy-ins which go well beyond those usually encompassed by the term venture capital. Given the growing importance of these enterprises to venture capital industries internationally it is appropriate to bring together contributions which address the new issues they raise. Different markets internationally also display varying levels of development and differ in their operation of the various stages of the investment screening and monitoring process. Awareness of these differences is important for the development of the strategic entry of venture capital firms into non-domestic markets.

The importance of buy-outs as an investment vehicle for private equity has been highlighted by recent studies in a number of countries of the performance of venture capital firms (see Chapter 3). Buy-outs and other late stage investments which account for the majority of deal activity in the UK, for example, are found to earn superior returns to start-ups and early stage investments traditionally seen as the focus of venture capital. These studies therefore raise questions about the risk–reward trade-offs of different types of venture capital investment. In the context of these returns, there has been increasing pressure on venture capitalists from their institutional funds providers to enhance performance in an environment of transparency of comparative performance. This has major implications for the behaviour of venture capital firms and for the restructuring of venture capital industries. Indeed, the recession of the early 1990s provoked rationalization and strategic reorientation within the industry which still continues. In some countries, such as the US and the UK, greater availability of funds in the mid-1990s has contributed towards greater competition among venture capital firms to find attractive investments and/or new markets beyond their domestic ones.

Venture capital firms also face increasing pressure in some segments of their market from competing sources of funds as banks develop closer monitoring relationships, one of the main strengths of venture capital, with their clients. Although the leveraged buy-out (LBO) market, especially in the US, has focused on high levels of debt, there is growing recognition of the role of private equity in such transactions. Informal venture capitalists also increasingly offer both competition for and complementarity with formal venture capitalists.

In the light of all these emerging issues it is timely to examine new developments in this area and their implications for both venture capital practitioners and researchers. This chapter outlines a framework for the analysis of a venture capital market which provides a context for the main body of the book. The chapter analyses the issues involved in venture capital at two interrelated levels, that is, from the industry/market level and the venture capital firm level (Figure 1.1). Accordingly, the chapter is structured as follows. The first section reviews the literature at the industry and market level. This involves issues concerning the structure and interaction of venture capital competitors, the power of suppliers of funds to the industry, the power of customers in demanding and searching for venture capital, the importance of substitute products (especially informal venture capital, LBO associations and banks), and the role of new entrants. The second section reviews existing literature at the firm level. This section focuses on the governance of venture capital firms by their funds providers and the process of venture capital investment in investee companies. The latter raises issues concerning deal generation, initial and second screening (pre-contracting problems), deal valuation and due diligence, deal approval and structuring, post-contractual (general and restructuring and failure), investment realization and entrepreneurs' exit and assessment by venture capitalists and post-exit monitoring and recontracting. The final section presents conclusions. The analysis in this chapter and in the main body of this volume encompasses the range of investment stage activities undertaken by venture capitalists, which includes development and replacement capital, management buy-outs (MBOs) and management buy-ins as well as early stage investments.

Industry and market level

From major initial developments in the US, there has been a diffusion of venture capital market growth first to the UK and then throughout Europe and beyond.1 Tyebjee and Vickery (1988) note the variation in maturity of different venture capital markets in Europe, while Roure, Keeley and van der Heyden (1990), Ooghe, Manigart and Fassin (1991) and Murray (1995) argue that market development is likely to be associated with greater competition, reduced rates of return and a shift to later stage investments.

Developed capital markets face a number of challenges relating to their ability to generate high returns, to identify attractive new investments, pressure to focus on later stage and buy-out investments, their ability to add value to transactions, and so on. In Chapter 2, Bygrave and Timmons, authors of a major book in this area, revisit the principal issues they raised at the beginning of the 1990s concerning the future of venture capital. They examine first the development of primarily the US market since the early 1990s and consider to what extent the issues they raised then have been addressed. Second, they look forward, considering the prospects for the venture capital industry to the year 2000 and beyond. In Chapter 3, Robbie and Wright review trends in the development of venture capital and buy-out markets in both the UK and Europe. The emerging markets of Central and Eastern Europe (CEE) present a number of problems for the development and operation of a venture capital market. Using the framework outlined in this chapter, Karsai, Wright, Dudzinski and Morovic in Chapter 4 examine the issues concerning the development of a venture capital market in CEE in general and provide evidence of the operation of such markets in the cases of Hungary and Poland, two of the most developed markets currently in CEE, and Slovakia, a less well-developed market. Using original research by the authors, the chapter highlights issues that need to be addressed for the development of a venture capital market to be achieved in such circumstances and draws contrasts and comparisons with developed 'Western' markets. Bruno (1986) shows that Porter's (1980) competitive forces model provides a framework for reviewing industry level issues as it directly analyses the ability of an industry to sustain long-term profitability by reference to the degree of inter-firm rivalry, the power and roles of customers and suppliers, new entrants and providers of substitute products and services. The following subsections review industry level issues following this framework (see Figure 1.1).

Rivalry between firms

In analysing competition between formal venture capitalists it is important to consider the investment stages they target since this provides an important segmentation of the industry. In terms of investment stages, it has been suggested that late-stage investors, especially investing in smaller buy-outs, should not be considered venture capitalists (for example, Bygrave and Timmons, 1992), though given that many such venture-backed transactions can involve considerable product and organizational innovation this argument seems debatable (Wright, Robbie and Ennew, 1997). There is growing recognition of the need to consider the portfolio mix of investment stages adopted by venture capitalists (see, for example, Elango et al., 1995), a point to which we return below. Moreover, industry statistics encompass in the term venture capital all stages of investment. While some venture capitalists do invest across the range of investment stages, others only invest in later stage projects. In 1996 later stage financings represented 95 per cent of the total value of investments and 82 per cent of the total number of financings made in that year by members of the British Venture Capital Association (BVCA, 1997).

Power of suppliers

Sourcing of funds used by venture capitalists can be divided into two principal areas. 'Captive' venture capitalists, which are part of banks or insurance companies, do not have to raise capital from third parties (Abbott and Hay, 1995). In the UK they are often viewed as investing primarily in later stage projects such as development capital and management buy-outs and buy-ins. 'Independent' firms tend to be seen as the more traditional type of venture capitalist, though in the UK at least many of these may only engage in later stage transactions. They are typically funded through limited-life closed-end funds, with funding coming from pension funds, foreign investors, and so on, and are more committed than captives to generating a return for investors through realizing a capital gain within a more clearly specified period of time; the latter are more likely to place a higher emphasis on the income stream from their investments. In 1996 independent venture capitalists accounted for 63 per cent of new funds invested, a sharp increase on the 47 per cent recorded the previous year (BVCA, 1997). Murray (1995) notes the increasing power of funds providers in a maturing market as evidence becomes available on the nature of the performance of venture capitalists in investing previous funds (we return to the evidence on performance in chapter 3). Recent funding developments, however, have meant that traditional captive institutions have become more hybrid (or semi-captive) as they source funds from outside to add to those provided by their parent bank or insurance company.

McNally (1994) provides an analysis of the role of corporations both as direct (that is, through corporate venturing) and indirect (that is, through funds) investors in venture capital and suggests that problems relating to mis-matches in expectations between corporations and other parties in relation to investment timescale and control mechanisms in particular have resulted in major difficulties in the development of this source of finance.

Power of customers

There has been relatively little attention to demand side issues although Bruno and Tyebjee (1985) refer to the cost to the entrepreneur of the equity relinquished, the effects of the long time that may be taken to raise venture capital finance and the chances of raising venture capital from another supplier when rejected by an initial venture capital firm. An important area is the potential role of intermediaries. Hustedde and Pulver (1992) examined the role of different types of intermediaries in securing venture funds for their entrepreneurial clients. Their results showed that entrepreneurs who failed to seek advice were more likely to be less successful in acquiring equity finance, but that those using bankers or public agencies were likely to increase their chances of failure. While providing interesting insights, the study focused primarily on entrepreneurs seeking finance for early stage projects.

Evidence from Murray et al. (1995), relating to management buy-outs shows that management generally takes the dominant role in the venture capital identification process and, particularly, the final choice decision. Given the considerable uncertainty of the process and the acknowledged inexperience of most managers in respect of obtaining venture finance, it is surprising that most managers in smaller deals (but not in larger ones) only involve their key advisers late in the process, if at all.

These findings provide interesting insights into the relative power of customers and have clear implications for both industry and, as will be seen below, firm levels since they suggest an asymmetry in bargaining to the advantage of the venture capitalist in respect of smaller transactions.2 A further issue is raised in the particular context of venture capital backed management buy-outs of divisions of larger firms where the divestor is seeking to obtain the maximum price for the disposal through an auction process.3 In such circumstances, incumbent managers may or may not be able to exercise power over the venture capitalist, depending on their specific contribution to the firm and the skills the venture capitalist possesses in being able to replace them if necessary. These issues link to the firm-level problems concerning deal generation and screening to be considered below.

Threat of new entrants

Manigart (1994) finds support for a population ecology approach to the entry of firms into venture capital markets, with the major influences on the overall founding rate being the density of the industry. Interestingly, institutional changes were not found to be influential. Wright, Thompson and Robbie (1992) in examining the MBO sector of the overall venture capital market suggest that institutional changes are important at least in the initial stages of market development, but that subsequently new entrants are encouraged by evidence that attractive returns are being earned. Roure, Keeley and van der Heyden (1990) also show that greater market maturity is associated with entry by a greater variety of funds providers, especially by pension funds and insurance companies. Ooghe, Manigart and Fassin (1991) support this view and in addition find that public sector funds providers are more likely to exit.

Relatively little attention has been directly addressed to the influences on new entrants to markets from other countries. However, Wright, Thompson and Robbie (1992) and Murray (1995) find evidence from UK venture capitalists that they are attracted to enter new markets in other countries because of declining opportunities in their original market, their accumulated expertise and perceived comparative advantage over domestic competitors in new markets in seeking out and taking advantage of emerging opportunities. These authors also consider the appropriateness of differing entry strategies and suggest that a major problem is insufficient attention to developing an understanding of the workings of new markets with, in particular, little regard to the need to recruit local executives with the necessary market expertise. There is, however, little systematic evidence as yet as to whether entrants' behaviour is dynamic in the sense that they adapt their entry strategies according to previous experience and differing market conditions.

Threat of substitutes

In addition to the comparisons between mutual funds and venture capitalists seen in the previous section, three other competing funders are of particular interest, informal venture capitalists (or business angels), LBO associations, and banks.

(i) *Informal venture capitalists* Informal venture capitalists, or 'business angels' are individuals who seek to invest a part of their personal wealth in, typically, a minority equity stake in an entrepreneurial venture.4 Evidence by Landstrom (1993) shows that there are marked international differences between the involvement of informal investors in their investee companies. In terms of transaction screening, investors in the UK devote little attention whereas in the US it is moderately high and in Sweden high. Post-transaction in the UK, such investors are generally passive, in Sweden they are generally active, whilst in the US they are active and highly involved in day-to-day activities. US informal investors take the highest risk in their portfolio of investments. Contrary to views that informal investors are less constrained by the need to earn returns in a specified period, Landstrom finds their exit horizons were usually less than five years. There is also some evidence that informal venture capital markets are inefficient in terms of the communications channels between investors and entrepreneurs (Harrison and Mason, 1992; Freear and Wetzel, 1990).5

There has been little systematic empirical analysis in the informal venture capital literature surrounding the process of investment rather than the outcomes of that process. Dibben, Harrison and Mason in Chapter 5 aim to address these gaps in the literature. First, they develop a framework for the elucidation of the concepts of swift trust and swift cooperation and in so doing develop the generally passing references to trust in the entrepreneurship and venture capital literatures. Second, they derive an operational framework for analysing trust and cooperation which is applied to the informal investment decision process. Using verbal protocol analysis they examine the role of trust and cooperation in the investors' initial screening of potential investment opportunities.

An important theoretical issue concerns the extent to which agency theory applies as well to informal as it does to formal venture capitalists. Landstrom (1992), finds little evidence that the involvement of business angels in monitoring their investments will vary according to the level of agency risk and suggests that the agency framework is inappropriate. He argues that the assumptions applicable in agency theory which concern rational economic maximizing behaviour, asymmetric information and conflicting objectives are not valid in the case of informal investors since they are more motivated by non-economic factors, have a desire to make a value-added contribution and are able to mitigate asymmetric information problems through the prior relationships and close involvement in the business.

However, it is necessary to understand the differing approaches of the two types of venture capitalists towards two types of risk. Fiet (1995b) finds that formal venture capitalists attach more importance to market risk than agency risk and vice versa and argues that formal venture capitalists are less concerned about agency risk because they protect themselves from it through stringent contracting which enables them to replace underperforming entrepreneurs. Informal venture capitalists who screen very few deals per year have access to comparatively limited information and place more emphasis on agency risk, that is finding the 'right' entrepreneur who will be able to address market risk. Fiet (1995a) also shows that formal venture capitalists make greater use of formal informant networks and that they prefer their own due diligence to reliance on informal networks.6

There is also evidence (Ehrlich et al., 1994) of significant differences between formal and informal venture capitalists in respect of investee monitoring, with the former providing more difficult targets and greater feedback and involvement in monitoring, especially when the firm is experiencing problems. These differences may arise because private investors neither have the time, expertise nor flexibility to engage in close monitoring, so that formal venture capitalists may be more appropriate for entrepreneurs with high technical but low managerial skills, and vice versa for private investors. These arguments suggest that agency theory is also of importance for informal investors, but that greater emphasis is placed on ex ante rather than ex post issues. To trust an investee entrepreneur to manage market risk, the informal investor will have had to develop skills for dealing with adverse selection problems. In the absence of these skills business angels may react by not investing ('virgin angels') despite screening large numbers of potential investments.

(ii) *LBO associations* There is some considerable degree of overlap between specialist providers of funds to buy-outs (LBO associations, Jensen, 1993) and venture capitalists (Sahlman, 1990). Both invest funds on behalf of other institutions and although there is a degree of heterogeneity in the forms they take, both are often, especially in the US, organized as limited partnerships. Both cases involve relationship investment with management, managerial compensation is oriented towards equity and there are likely to be severe penalties for under-performance. The principal differences concern the nature of the relationship between investor and investee and that in investments by LBO associations most of the funding required to finance an acquisition is through debt. Sahlman (1990) in comparing LBO associations with venture capital firms notes that executives in the former may typically assume control of the board of directors but are generally less likely than venture capitalists to assume operational control. Investments by venture capitalists, which especially in Europe may also involve buy-outs as well as start-ups and development capital, make greater use of equity and quasi-equity.7 These differing relationships and financing instruments may be used to perform similar functions in different types of enterprise, so widening the applicability of the active investor concept within the Anglo-American system of corporate governance (Wright et al., 1994).

Covenants attached to the debt in MBOs provide an additional monitoring mechanism for the providers of finance to add to the monitoring by equity providers. While these mechanisms may be an important means by which financiers can initiate bankruptcy proceedings, they also offer the potential for a flexible range of actions according to differing levels of financial distress of the investee company. Baker and Wruck's (1989) detailed case study shows that breaches of covenants may lead to renegotiation of the terms of the loan or waiver where such a breach is not the result of a financial problem. Citron and colleagues in Chapter 7 examine the operation of debt covenants as a monitoring device in management buy-outs using evidence from the authors' surveys in the UK and Holland. The evidence is that MBO loan agreements contain more covenants than general purpose corporate lending agreements, monthly management accounts and telephone communication are more frequent first indicators of distress than are accounting based covenant breaches, lenders with specialist MBO lending units are more likely to waive covenant breaches and less likely to recall loans in default than those without such units, and relationships between MBO lenders and customers appear to be closer in the UK than in Holland.

(iii) *Banks* While the overall need of small and growing firms to have bank finance has been widely researched, Chan, Siegel and Thakor (1990) raise the issue of the need to explore the conditions which lead to the simultaneous existence of banks and venture capitalists.8 They suggest that venture capitalists may have advantages over banks in providing finance in settings where entrepreneurial skills are highly uncertain at the outset and the role of close monitoring is potentially significant. As banks begin to develop close long-term relationships involving detailed information flows with their corporate customers (Ennew and Binks, 1995; Holland, 1994), there would appear to be increasing convergence with the approach adopted by venture capitalists. Moreover, the problems faced by venture capitalists in respect of adverse selection and their response in terms of increased price versus refusal to fund is analogous to issues concerning the so-called finance gap (De Meza and Webb, 1987).

While collateral is a means of counteracting the information asymmetries which lead to credit rationing, the development of a close working relationship is an important means of enhancing the flow of information. Binks and Ennew in Chapter 6 examine the nature of the banking relationship, paying particular attention to the idea of relationship participation and the benefits which accrue to both parties as a result of participation. Using data from over 3000 UK small firms, it is possible to identify four broad relationship types based on the degree to which the bank and business participate in the relationship. A comparison across different relationship types suggests that there are considerable benefits associated with more participative relationships.

New and smaller firms may face particular problems in obtaining longer-term forms of finance, especially that provided by venture capitalists. For these firms, trade credit is an important source of funds. Its use has been the subject of vigorous policy debate concerning the cash flow problems caused by the late payment if commercial debt. Empirical evidence that isolates the factors determining the demand for trade credit and other forms of short-term finance is scarce but will have an important bearing on the credit rationing debate. In Chapter 8, Wilson, Singleton and Summers use evidence from a study of small owner-managed businesses in order to model the demand for trade credit. The chapter suggests that trade credit is often used as a premium-priced source of short-term finance for small and growing firms that are rationed by institutional lenders.

Firm level

In examining firm-level issues, venture capitalists and funders of buy-outs can be viewed as facing a two-level principal–agent relationship between themselves and their providers of capital and between themselves and the managers of the companies in which they invest (Sahlman, 1990). First, in respect of the relations between venture capital firms and their funds providers, the previous section has shown that venture capital firms obtain their funding from a range of sources each with their own objectives. However, the availability of alternative outlets for funds and evidence from performance with previous tranches of funds provides a measure of power in the dynamic context where venture capital firms need to raise second and subsequent rounds of funds to invest in further projects. Not only does this raise issues as to whether or not funds providers will extend funds, it also raises issues concerning their governance of venture capital firms in order to help ensure that their objectives are met. Hence, as agents, venture capital firms may be faced with the risk that if they do not perform satisfactorily they will fail to attract further funding. Second, venture capital firms as principals face problems in screening potential investments due to both uncertainty and adverse selection problems and moral hazard problems in the post-investment monitoring of their investee companies. Reid, Terry and Smith (1995) show that venture capitalists attempt to manage the risks involved in their activities, first, through fine filters on proposals, high hurdle rates of return and being strongly resistant to downside risk exposure to address adverse selection, and second, through tight monitoring and an unwillingness to bear all the risk in order to address moral hazard issues. Each of these two firm-level aspects is considered in turn.

Governance of venture capital firms

A pioneering study by Sahlman (1990) examines the nature of the principal-agent relationship between funds providers and the venture capitalist and identifies the mechanisms used to help minimize these problems, which include incentives for mutual gain, the specific prohibition of certain acts on the part of the venture capitalist which would cause conflicts of interest, limited life agreements, mechanisms to ensure gains are distributed to investors, expenditure of resources on monitoring the venture capitalist and the regular provision of specific information to the funds providers by the venture capitalist. The terms of the contract both communicate the expectations of funds providers and filter out those venture capitalists who are unable to meet these requirements. Venture capitalists' remuneration is typically based on an annual management fee plus some percentage of the realized profits ('carried interest') from the fund. Sahlman points out that good venture capitalists by accepting a finite funding life and performance dependent compensation are signalling their quality in relation to weak ones, but that the funds provider has to invest in intensive screening in order to guard against false signalling.

Gompers and Lerner (1996) find evidence that the use of covenants in the contracts between funds providers and venture capital firms is both a means of dealing with agency problems but also a reflection of supply and demand conditions in the industry.

Robbie, Wright and Chiplin in Chapter 9 examine the changing nature of the monitoring of venture capital firms by their funds providers. The chapter draws on evidence from the authors' survey of venture capital firms to examine the nature of the monitoring role of funds providers; the targets they set venture capitalists; the type, extent and frequency of information reporting they require for monitoring purposes; and the nature of the monitoring actions they undertake.

A significant agency problem may also arise in the valuation of investments for the purposes of reporting to providers of funds. It is venture capitalists as agents who are responsible for such valuations and on which their performance will be judged (Fried and Hisrich, 1994). However, since it may take many years for a venture capital investment to come to fruition, considerable subjectivity surrounds the valuation of investments in any particular year before the investment is realized. In the absence of clear and 'complete' rules, management may have the scope and incentive to report biased interim investment values. The valuation rules used by venture capital firms in the UK are discussed in Chapter 3.

The deal process

The stages in the venture capital and buy-out funding, assessment and monitoring process have been analyzed in a number of studies (for example, Bygrave and Timmons, 1992; Fried and Hisrich, 1994; MacMillan, Siegel and Subbanarasimha 1985; Tyebjee and Bruno, 1984; Sweeting, 1991b; Sahlman, 1990). These stages have been identified from direct analysis of the operation of venture capitalist's operations and have been based on approaches which have sought to develop an understanding of what it is that venture capitalists and funders of buy-outs do (Figure 1.1). The following subsections review evidence relating to each stage in the deal process in turn.

(i) *Deal generation* At the beginning of the process it is crucial to obtain access to viable projects which can be funded at entry prices which will generate target rates of return. The difficulties faced by venture capitalists because of entrepreneurs' search and decision processes, and increases in competition between venture capitalists noted earlier, serve to highlight the importance of a deal generation strategy. While there has been attention to these issues by practitioners, there has been relatively little academic research.

Deal generation is closely linked at the strategic level to venture capitalists' preferences with respect to investment stages and deal size, as well as to the availability of information and the recruitment of venture capitalist executives with the specific skills to seek out transactions (Murray, 1995; Bygrave and Timmons, 1992). There is some evidence from both the US and the UK which draws attention to the implications for deal generation of differences between the regional locations of venture capitalists and those of potential investees (Murray et al., 1995). As seen earlier, problems here link back to an understanding of the dynamics of the power of customers in differing segments of the market. Operationally, issues are raised which concern the comparative net benefits of proactive versus reactive approaches. In an environment of increasing competition

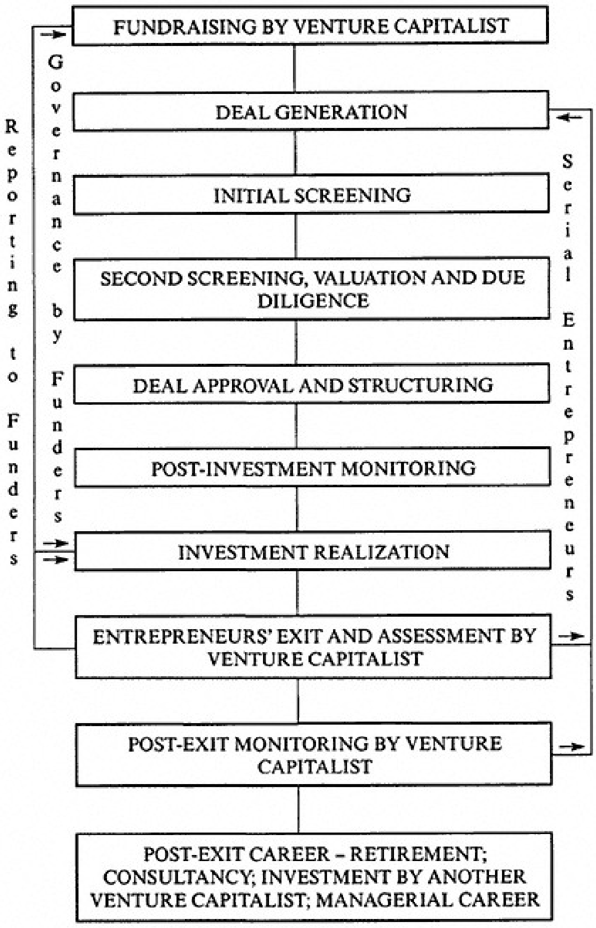

Figure 1.1 Venture capitalist fundraising, deal appraisal monitoring and serial entrepreneurs

for deals there appears to be a move towards more proactive approaches, even though this involves increased costs and may require greater technical as well as financial skills, which may only be possessed by certain segments of the market.

In the case of buy-outs, agency cost problems in corporations quoted on stock markets have been identified as a major antecedent to the generation of such transactions (for example, Jensen, 1993). The ability to reduce agency cost problems through the introduction of performance enhancing governance and incentive mechanisms is argued to be a major factor in the creation of buy-outs. However, the agency cost perspective offers a rather restrictive view of the factors influencing the generation of buy-out deals. Wright, Dial and Hoskisson (1997) argue that a number of theoretical perspectives help explain the generation of buy-out transactions, including agency theory, environmental change and adaptation, transactions cost economics, resource dependency theory, entrepreneurship theory, leadership succession and employee motivation. Environmental change factors relevant to the generation of buy-outs predominantly involve capital market innovations and taxation incentives. Shleifer and Vishny (1992) argue that increased liquidity in the market for corporate assets in the 1980s helped increase debt capacity and made many highly leveraged transactions possible; the decline in the market in the late 1980s being attributable to a combination of exogenous factors and investor concerns that asset markets would become less liquid. The introduction of new financial instruments, notably ‘junk bonds’, made it possible to fund more highly leveraged and riskier transactions than previously (Kaplan and Stein, 1993). The possibility for taxation savings to be achieved from the financing of corporations with debt as opposed to equity are also argued to have had an important influence on the generation of buy-outs of quoted companies in particular (Lowenstein, 1985). Divestment buy-outs are often considered to be generated where there are control problems and underperformance relating to peripheral subsidiaries in conglomerate firms. However, where trading relationships exist, the parent may prefer a buy-out over selling to a competitor or supplier, especially where the former subsidiary is more heavily dependent on its former parent than vice versa (Wright, 1986).

Buy-outs may also be generated following the perception by incumbent managers of unexploited entrepreneurial opportunities (Wright and Coyne, 1985). Concerns that incumbent management who take such initiatives may be exploiting informational advantages *vis-à-vis* existing owners has led to the introduction of auctions and other mechanisms aimed at establishing performance-contingent prices (see, for example, Jones and Hunt, 1991; Wright, Thompson and Robbie, 1993 for discussion). Leadership succession problems (Kets de Vries, 1977) may be particularly important in the generation of buy-outs of family/privately owned businesses. The need to introduce direct equity ownership to gain employees agreement to a transfer of ownership and to motivate them afterwards are important influences on the generation of employee buy-outs (Long, 1978; Bradley and Nejad, 1989; Pendleton, Wilson and Wright, 1997). Employee ownership in buy-outs has been a particularly important feature of transactions generated by governmental privatisation programmes (Wright, Thompson and Robbie, 1993).

Management buy-outs arising on divestment developed as attractive investments for venture capitalists as they provided risk–return trade-offs that were often better than could be obtained from investing in earlier stage transactions. Increasing competitive pressure on venture capitalists has led them to become proactive in identifying potential divestment candidates, rather than reacting to proposals brought to them from divisional management or intermediaries. At the same time, corporate divestors have become reluctant to give preference to incumbent management when subsidiaries are divested because of concerns about their exploitation of asymmetric information advantages. The development of investor-led buy-outs (IBOs) is one important recent innovation in the market which has resulted from these influences (Wright and Robbie, 1996b). To effect such actions has meant an increasing need on the part of venture capitalists and buy-out specialists to understand the divestment process. In Chapter 10, Thompson, Wright and Haynes contribute to this understanding through an examination of the characteristics of refocusing firms with particular emphasis on the divestment process. Using divestment data, the study examines the importance of internal governance mechanisms, firm profitability, firm size, diversification strategy and leverage on corporate refocusing. The results indicate that firms with high leverage and poor performance are more likely to divest. Firm size and diversification strategy are positively correlated with divestment activity, while board composition, management equity interests and a change in top management have no effect on the divestment decision.

(ii) *Initial and second screening—pre-contracting problems* At the time that a venture capital investment is being considered, institutions are faced with a potential adverse selection problem in that they are unable to gauge the manager's performance in the enterprise prior to deal completion (Amit, Glosten and Muller, 1990b). Adverse selection issues also raise crucial problems in the potential effectiveness of post-transaction monitoring by institutional investors (Stiglitz and Weiss, 1981). To the extent that these problems lead investors to misjudge the situation, a deal and accompanying financial structure may be agreed which is inappropriate and possibly unviable. As a result, the control mechanism introduced by the commitment to meet the cost of servicing external finance may lead to suboptimal decisions.

Amit, Glosten and Muller (1990a) develop a model which examines the nature of the adverse selection problem for venture capitalists. The general assumption is made that the entrepreneur knows his own ability level, whereas the venture capitalist does not. In an initial case it is assumed that the entrepreneur is risk neutral and no new investment is needed. In such conditions, only entrepreneurs with below average ability will choose to involve a venture capitalist who, because of the absence of information, makes a bid to fund a project on the basis of the average ability level. This will result in a negative net present value investment and because of the severity of the adverse selection problem the market breaks down. Relaxing this assumption to allow for risk averse entrepreneurs may still mean that only low-ability entrepreneurs accept the venture capitalists' bid while the high ability ones develop ventures on their own.9 This model may go some way to explaining the phenomenon that subsequently successful ventures may initially have been refused venture capital finance, together with the relatively low amounts of venture capital funding of early stage investments where information asymmetry problems are most serious.

Sweeting (1991b) points out that venture capitalists have been particularly proactive in deal generation in an attempt to reduce adverse selection problems by becoming more involved with entrepreneurs at an earlier stage. The nature of the adverse selection problem may not be constant with all entrepreneurial ventures, but may vary with the stage and sector of an investment. In a buy-out, investing institutions may be guided by the incumbent management's experience in the post and their knowledge of the business, though management may have an incentive not to reveal full information in an attempt to obtain the most favourable terms. In a buy-in, as the entrepreneur comes from outside there may be problems of asymmetric information, both in relation to their true skills and an inability to observe the manager in post ex ante (Robbie and Wright, 1996). In development capital situations it may be difficult to judge whether the entrepreneur's previous performance will continue in the future where his/her equity stake is diluted by the introduction of venture capital. The informational asymmetry problems may also be more intractable in the case of complex high-tech ventures than for more straightforward ventures using existing technology, which raise issues concerning the specialist skills of both the entrepreneur and the venture capitalist.

Empirical studies examining venture capitalist investment criteria have evolved from descriptive studies of the variables taken into account to those which attempt to identify the relative importance of various criteria using a variety of rating and ranking scales and principally focused on start-ups (for example, Bruno and Tyebjee, 1985; MacMillan, Siegel and Subbanarasimha, 1985; MacMillan, Zemann and Subbanarasimha, 1987; Hall and Hofer, 1993; Rah, Jung and Lee, 1994).

MacMillan, Zemann and Subbanarasimha (1987) show that the most important criteria used by venture capitalists in screening investment proposals were entrepreneurial personality and experience, with lesser dependence being placed on market, product and strategy. In a replication study, Fried, Hisrich and Polonchek (1993), show that six years on venture capitalists were more concerned with market acceptance and less demanding of high potential rates of return and quick exit, which these authors see as a more realistic view of venture potential. Fried and Hisrich (1994) suggest that venture capitalists use three generic criteria for screening investments—the viability and novelty of the project; the integrity, track record and leadership skills of management; and the possibility for high returns and an exit—before proceeding to detailed evaluation. The focus on management raises important issues concerning the different characteristics and motivations of the entrepreneurs involved with investment projects at different stages and the link between these factors and performance. Woo et al. (1991) discuss typologies of entrepreneurs, while Ennew et al. (1994) show that although entrepreneurs display heterogeneous characteristics, there are significant differences between the mean attributes of novice start-up entrepreneurs, buy-out entrepreneurs and buy-in entrepreneurs. Buy-out entrepreneurs on average appear to be less opportunistic than either buy-in or start-up entrepreneurs. Muzyka et al. (1995) emphasize that venture capitalists have to make trade-offs between various criteria in their screening of investments, and that previous approaches fail to take this into account. Using conjoint analysis, Muzyka, Birley and Leleux (1995), conclude that venture capitalists would prefer to select an opportunity which offers a good management team and reasonable financial and product market characteristics, even if the opportunity does not meet the overall fund and deal requirements.

These last results are consistent with Wright and Robbie (1996a) who show that venture capitalists place considerable emphasis on the specific attributes of a potential investee company both in relation to assessment of its value and the rate of return to be expected from it. While accounting information is an important element in deal screening and in arriving at a valuation and a target rate of return, venture capitalists place most emphasis on very detailed scrutiny of all aspects of a business, typically including sensitivity analysis of financial information, discussions with personnel and accessing considerably more information of an unpublished and subjective kind. There is some debate in the US literature about the extent to which the use of non-accounting information varies between stage of investment (Elango et al., 1995; Fried and Hisrich, 1994). There appears to be greater consensus that later stage investors will be more interested in market acceptance of a product. Early stage investors emphasize a range of product strength and market growth characteristics, particularly as early stage transactions are technology based with little available data on market acceptance.

(iii) *Valuation and due diligence* Discounted cash flow (DCF) and discounted dividend yield methods whilst theoretically correct (Brealey and Myers, 1996) pose particular problems in a venture capital investment context. With the DCF approach it is difficult to forecast future cash flows in the typically highly uncertain environment of a start-up, so that the expected error of the forecast will increase. It may be difficult to apply the dividend yield method to early stage investments which rarely pay significant dividends.

Evidence suggests that venture capital projects are typically valued by applying one or more valuation techniques to the financial and accounting information relating to the potential investee typically contained in the business plan submitted by management to the venture capitalist (Wright and Robbie, 1996a). Similarly, DeAngelo (1990) shows that in the case of arriving at fair valuation opinions in LBOs/MBOs investment banks typically use a variety of techniques, including DCF methods, asset and earnings-based methods, comparisons with transaction prices in the same sector, and so on, to establish a range of valuations. Forward looking information in the business plan may be subject to sensitivity analysis both by management and their advisers and by the venture capitalist according to the expected influence on future performance of other information. Most importance appears to be attached to price–earnings multiples-based valuation methods (Wright and Robbie, 1996a), particularly among later stage investors. The process is likely to involve several iterations based on assumptions about the future trend in performance to test the robustness of the point at which the proposed venture meets an acceptable internal rate of return (IRR), the most common measure of performance used in the industry (Murray, 1991). Dixon (1991) using data relating to the buoyant economic conditions of the late 1980s suggests that little scrutiny of information to assess risk and adjust target IRRs takes place. However, Wright and Robbie (1996a) indicate that by the early-mid 1990s venture capitalists were undertaking widespread assessment of risk. Moreover, Murray and Lott (1995) show that venture capitalists perceive technology-based projects to be more risky than alternative later stage projects and use a higher target rate of return in assessing them, but also that the stage of financing is significantly more important in determining project risk than the state of technology involved.

It has been argued that the valuation of venture capital and buy-out investments may not be independent of the relative buoyancy of these markets. Gompers and Lerner (1997) examine the valuation of investments by venture capital funds in the US and find that the growth in money committed to new venture funds is associated with an increase in the price paid by venture investors. They argue that these findings are consistent with suggestions that competition for a limited number of good investments may be responsible for rising prices. In respect of US buy-outs, Kaplan and Stein (1993) find evidence of price rises between the early and late 1980s consistent with overheating in the buy-out market. A similar picture emerges with UK buy-outs and buy-ins (Wright, Thompson and Robbie, 1996). Years in which higher prices are paid for apparently more marginal transactions subsequently result in significantly greater failure rates (see below). These findings have implications for the buoyant venture capital and buy-out market conditions which emerged again in the late 1990s, notably that if previous behaviour patterns are repeated, funds which harvest their investments in the next millennium are likely to display reduced performance.

Approaches to valuation may also be expected to vary according to the nature of the economic system in different countries as well as the stage of development of different venture capital markets. In Chapter 11, Manigart and colleagues examine the issues concerning the valuation of investment projects using the authors' evidence from the US and Europe.

A variety of issues broadly categorised as time restrictions, cost constraints and situational factors, may directly impact the level of due diligence during an acquisition process (Harvey and Lusch, 1995). Evidence from buy-ins (Robbie and Wright, 1996) identifies a major problem related to the ability to obtain adequate up to date information concerning the target company. While due diligence is expected to be undertaken in a thorough manner, its cost in relation to transaction value in smaller buy-ins and time constraints in negotiations, meant that this ideal was difficult to achieve. There are indications that venture capitalists have adapted to such asymmetric problems through recent developments involving hybrid inside and outside management and investor buy-outs, where there is direct negotiation between vendors and venture capitalists.

(iv) *Deal approval and structuring* Appropriate structuring of venture capital investments has important implications for the ability of venture capitalists to earn their target rates of return. Sahlman (1990) shows that venture capitalists use various mechanisms to encourage entrepreneurs both to perform and to reveal accurate information.10 These mechanisms include staging of the commitment of investment funds, convertible financial instruments ('equity ratchets') which may give financiers control under certain conditions, basing compensation on value created, preserving mechanisms to force agents to distribute capital and profits, and powers written into Articles of Association which require approval for certain actions to be sought from the investor(s). Theoretical work by Chan, Siegel and Thakor (1990) provides a two-period agency model to explain the nature of these venture capitalist contracts.

An important feature of many venture capital investments, especially early stage ones, is the staggering of financing into several rounds. Staging of investments, however, can lead to myopia and over-investment where initially entrepreneurs and subsequently first round venture capitalists as insiders present misleading information to outsiders in an attempt to persuade them to invest.

An important issue arises which concerns how contracts are to be structured under these conditions of multi-stage investment decisions (Cooper and Carleton, 1979; Admati and Pfleiderer, 1994). Analysis by Admati and Pfleiderer (1994) shows that a contract in which venture capitalists continue to maintain the same fraction of equity in the various rounds of financing a project can neutralize a venture capitalist's incentive to mislead. With entrepreneur-led financing this situation does not hold as there does not exist a fully revealing signalling equilibrium which would resolve asymmetric information problems. Relaxing the assumption of risk neutrality in the case of venture capital financing requires the contract design to address risk-sharing issues.

Syndication in the first stage of the project can also be a means of sharing risk; the lead venture capitalist as inside investor being given a fixed-fraction contract and making the continuation decisions, while syndicate members are given securities which reduce the risk of the entrepreneur. Admati and Pfleiderer argue that this analysis is consistent with the notion that venture capitalists often form syndicates with different types of contracts and different responsibilities with respect to monitoring for different capital providers. Bygrave (1988) finds that an important reason for syndication is to share information to reduce uncertainty and that this may be as important, if not more important, than the spreading of financial risk. Lerner (1994a) also finds support for this view and for the argument that typical later-round syndication involves less experienced venture capitalists investing in a deal begun by established organizations. Given issues relating to effecting post-contractual monitoring, to which we return below, the extent and nature of syndication may be dynamic. Venture capitalists may in effect search over time for a network of syndicate partners with whom they are able both to complete transactions and undertake effective monitoring. Since monitoring is costly and cannot be performed continuously the venture capitalist will periodically check the project's status and preserve the option to abandon at each stage. An examination of the factors influencing syndication in UK buy-outs and buy-ins (Chiplin, Robbie and Wright, 1997) identifies investee risk characteristics, venture capital firm and control factors which influence the syndication decision.

Gompers (1995) and Gompers and Lerner (1996) examine agency and monitoring costs in the staging of venture capital investments. They find evidence to support the view that the monitoring process provides valuable information which enables the venture capitalist to cut off new financing in the light of negative information about future returns and provide more financing and a greater number of rounds of financing in the more successful transactions. However, they also note that though venture capitalists periodically check up on entrepreneurs between capital infusions, entrepreneurs still have private information about the projects they manage. Hence, the nature and effectiveness of the monitoring process, which we examine below, is of considerable importance.

Little attention has been devoted to the range of financial instruments used by venture capitalists. Norton and Tenenbaum (1992) find that venture capitalists favoured the use of preference shares regardless of the presence or absence of deal specific influences, and that the use of debt was consequent on expectations that the investment would shortly generate taxable income, would have collat–eralizable assets, would have products resistant to the economic cycle and that the investment was more likely to be later stage. A follow-up study (Norton and Tennenbaum, 1993b) examines the link between financing structures, financing stages and venture capitalists' characteristics. They find that smaller less diversified venture capitalists make greater use of ordinary equity instruments, but the use of preference shares did not increase in higher risk (early) stage investments nor did investors who were subject to greater amounts of unsystematic risk make greater use of preferred instruments.

The importance of innovations in financing structures and financial instruments has been highlighted in discussions of buy-outs (Jensen, 1993), notably the use of vertical strip financing and 'junk bonds'. The unbundling of assets post-buy-out in order to pay down debt which cannot be serviced from cash flow is also an important feature of buy-out financial structures. The difficulties faced by many highly leveraged transactions resulting from excessive leveraging of marginal transactions, problems in disposing of assets at predicated prices and problems in servicing debt when apparently stable cash flow became adversely affected by recessionary conditions (Shleifer and Vishny, 1992; Kaplan and Stein, 1993) have led to a reassessment in practice of the degree of leverage in buy-outs and the reliance on the disposal of assets to reduce debt. However, there are concerns that the resurgence in the buy-out market from the late 1990s onwards may lead to similar problems as before. Although there is some evidence that buy-out financiers are aware of and anxious to avoid these problems (CMBOR, 1997), the continuing incentives and pressures on them to complete transactions may mean that such difficulties become inevitable.

The importance of debt in buy-out structures emphasizes the need for financing structures to include different and more comprehensive debt covenants than are found in general lending. As noted earlier these issues are discussed in Chapter 7. The different risk characteristics of buy-outs and buy-ins noted earlier raise issues concerning the effects on financial structures. Evidence suggests that although the financial structures of buy-ins have on average slightly lower leverage than in buy-outs this is not statistically significant (Wright, Thompson and Robbie, 1996). Similarly, the extent and tightness of debt covenants also appears to be the same in both types of transaction (Citron, Robbie and Wright, 1997).

A particular theoretical and practical problem in buy-out and venture capital investments concerns the consequences of the financial backer and the entrepreneur failing to agree on the degree to which the venture will be profitable, with consequent implications for the split between the equity stake attributable to each. Such differences may arise because of differing views of an uncertain situation and because of the agency cost problem when entrepreneurs own less than all the equity (Jensen and Meckling, 1976). Chua and Woodward (1993) suggest that this problem can be addressed through the use of stock options in the financing structure which provides entrepreneurs with an incentive to perform since they increase the cost to the entrepreneur of excessive consumption of perks. Similar devices have been used extensively in practice, termed 'equity ratchets' in the UK. Available evidence from UK buy-outs, where such instruments are widespread, suggests that they may pose major problems in terms of specifying (relatively) complete contracts concerning the definition of financial performance to be used, manipulation of information by managers and the timing of their crystallization11 (Thompson and Wright, 1991). These problems may lead to major relationship difficulties between the venture capitalist and the entrepreneur.

(v) *Post-contractual monitoring—general* As noted above, post-contractual asymmetric information problems have major implications for the nature and effectiveness of venture capitalists' monitoring of investments. The agency theory perspective adopted above focused on the contractual structures involved in monitoring. However, an important aspect of monitoring concerns the relative roles of contractual mechanisms and processes.

Barney et al. (1989) examine the influences on the degree to which elaborate governance mechanisms are used by venture capitalists and find that high agency risks and business risks were associated with more elaborate governance structures. In a complementary paper, Sapienza and Gupta (1994) focus on the processes of monitoring by venture capitalists. In an important and innovative study, which used matched pairs of lead venture capitalists and Chief Executive Officers (CEOs) of investee companies, they find using US data that the frequency of interaction between the two parties depends on the extent of the CEOs' new venture experience, the venture's stage of development, the degree of technological innovation being pursued and the extent of goal congruence between the CEO and the venture capitalist. Contrary to expectations they find that the degree of management ownership had no impact on the frequency of interaction. This study's findings are of interest since it shows that even with goal congruence, in an uncertain new business environment, signals regarding the appropriate course of action may be weak, leading to expectations of disagreements between investors and investees and a need for greater exchange of information to identify the appropriate course of action. Moreover, the finding concerning the effect of management ownership suggests that where a high level of managerial ownership is present, there is little reason to expect incentive-related shirking so that further adjustments to incentive mechanisms may be ineffective. The need for interaction is emphasized as the idiosyncratic knowledge possessed by the venture's founders may be virtually irreplaceable (we return to this issue in the next subsection). A subsequent four country study which included the US data plus data from the UK, France and the Netherlands suggests that some of these results may be country specific (Sapienza, Manigart and Vermeir, 1996), thus emphasizing the need to understand the interlinkages between the nature of the venture capital environment and appropriate monitoring mechanisms and processes.

A number of other studies have examined the links between the process of monitoring and the choice of the venture capitalist, the demands of a particular investment situation, the skills level of venture capitalists and the stage of the investment.

MacMillan, Kulow and Khoylian (1989) show that differing levels of involvement in venture capital investments were not related to the nature of the operating business but to the choice exercised by the venture capital firm itself as to the general style it wished to adopt. Sapienza (1992) provides evidence that there is less involvement by venture capitalists in monitoring activities which are more developed and presumably less risky. Elango et al. (1995) identify three levels of assistance by venture capitalists in their investees, but surprisingly, they find that this involvement is not primarily related to the stage of investment.

Sweeting (1991a) and Mitchell, Reid and Terry (1995) show that part of the contractual measures adopted by venture capitalists are accounting information demands which are designed to deal with moral hazard and information asymmetry problems and provide safeguards through bonding arrangements. Accounting information flows were typically required on a more regular and more detailed basis than are statutory requirements for quoted companies. In general, there has been relatively little attention to the changes in the information systems of venture-backed firms. Mitchell, Reid and Terry in Chapter 12, examine the origins and characteristics of developments in the accounting information systems (AIS) of firms which are in receipt of venture capital funds. The consequences of venture capital intervention for the entrepreneurial firm are explored using matched investor–investee cases ('dyads'). The study finds evidence of extensive changes in accounting information systems (AIS).

MacMillan, Kulow and Khoylian (1989) find no significant differences in the performance of businesses subject to differing levels of venture capitalist involvement. However, there are major variations in the amount of time spent and severity of actions taken by different venture capitalists on problem investees (Elango et al., 1995). Barry (1994) cites evidence that venture capitalists intensify their monitoring activities as the need dictates. Venture capitalist representation on the board is found to increase around the time of chief executive turnover, while the number of other outsiders remains constant, according to evidence from the bio-technology industry, that is, an early stage sector (Lerner, 1995).

Rosenstein, et al. (1993) find that the value added by venture capitalists on the investee's board was not rated significantly higher by CEOs than that of other board members and that entrepreneurs valued venture capitalists with operating experience more than those with purely financial expertise. However, Murray (1994a) shows that finance was the only area where venture capitalists skills were judged by entrepreneurs to be greater than those of other parties. Indications are that the general type of skills possessed by venture capital executives varies between types of venture capitalist, with those employed by captive funds tending to be more financial skills oriented whilst those employed by independents tend to have greater industrial skills (Beecroft, 1994).

Sweeting (1991a) and Hatherly et al. (1994) for the UK and Fried and Hisrich (1995) for the US provide evidence of the importance of flexibility through personal relationships in the governance of venture capital and buy-out investments and that formal power needs to be used sparingly and almost only when things go wrong to be effective. However, this may be because of inertia rather than a deliberate policy. While venture capitalists may take control when things go seriously wrong, such action has to be exercised with care since to act precipitously may destroy carefully nurtured relationships and commit the venture capitalists to unknown amounts of time to put matters right. We return to the issues in dealing with problem investments below.

Similarities but also differences emerge in the operation of active investor governance in venture-backed buy-outs and buy-ins. UK evidence from both buy-outs and buy-ins shows that board representation is the most popular method of monitoring investee companies with venture capitalists also requiring regular provision of accounts (Robbie, Wright and Thompson, 1992), but that there is a greater degree of control exercised by institutions over management buy-ins than for buy-outs especially in the form of greater requirement for regular financial reports and greater use of equity ratchets. Evidence from smaller buy-ins suggests that even where they have non-executive directors institutions may not be as active in responding to signals about adverse performance as might have been expected (Robbie and Wright, 1996) and that relationships between entrepreneurs and investors had not developed to the extent that potential crises could be identified and understood by the venture capitalist. These problems reflect the high cost of monitoring and control in relation to the value of investments. In larger buy-ins there is evidence of extensive and repeated active monitoring (see Wright et al., 1994). This difference illustrates the comparative cost–effort–reward trade-offs involved in the active monitoring of large and small investments.

Evidence from buy-outs has examined the effectiveness of the differing mechanisms used to enhance performance. Comparisons of leveraged recapitalizations, which simply substitute debt for equity in publicly traded companies, and buy-outs show that the greater increases in shareholder value found in the latter result from the increase in managerial equity ownership active investor involvement which they encompass but which are not found in the former (Denis, 1994). Insider management's equity holdings in buy-outs are found to have a greater positive impact on performance than enhanced commitments to service debt (Thompson, Wright and Robbie, 1992; Phan and Hill, 1995). Moreover, the performance of inside management in buy-outs is generally significantly greater than that of incoming management (Robbie and Wright, 1996; Kaplan, 1991; Lichtenberg and Siegel, 1990; Harlow and Howe, 1993).

A major remaining issue concerns the appropriate theoretical lens through which to examine monitoring issues. There is now some debate about the extent to which agency theory is the most appropriate theoretical tool for understanding the monitoring relationships between entrepreneurs and venture capitalists, or whether it requires some adaptation given the particular conditions of venture capital investments. In general, legal forms are able to facilitate exchange relationships. Thus contract law specifies a general set of arrangements under which goods and services are exchanged for money. The universal recognition of these norms, backed up by sanctions, economizes on the costs of writing complex contracts. A potential complementary development to principal–agent theory associated with contracting problems is offered by procedural justice theory (Korsgaard, Schweiger and Sapienza, 1995). Procedural justice is concerned with exchange relationships in which one party does not have control over decisions. The essential argument is that regardless of the outcome of decisions, individuals react more favourably when they feel the procedure used to make them was fair. The theory has clear parallels to the situation faced by the indirect involvement by venture capitalists in the operations of investee firms. Though venture capitalists may make considerable contributions to investee firms through the presence of non-executive directors and other monitoring devices, it is the entrepreneurs who control the way in which funds are used, who develop the strategies to achieve the returns that venture capitalists are seeking and who possess intimate inside information on the operation of the business. The venture capitalist seen as a principal may not therefore be in a position to control the nature and level of governance over the entrepreneur as agent.

Procedural justice can also be viewed as an important influence on the development of trust and commitment in relations between venture capitalists and entrepreneurs. This perspective links to agency theory in that the development of relationships may reduce uncertainty and ameliorate the need for costly monitoring as it reduces the need for formal mechanisms in the management of exchange relationships and may also reduce the perceived need to scrutinize data offered openly. This relationship may be considered in the context of the timeliness of information flows from an entrepreneur to the venture capital monitor. An absence or a persistent delay in the provision of information may be perceived by the venture capitalist as an unfair violation of an investment agreement and to undermine the investor's trust in the entrepreneur. Sapienza and Korsgaard (1996) use a procedural justice perspective to examine the impact of entrepreneurs' management of information flows on entrepreneur–investor relations. They find that the more entrepreneurs share information, the more likely are investors to eschew monitoring, to trust that the entrepreneurs will be honest, to support the entrepreneurs' decisions and be more willing to reinvest.

A procedural justice approach goes some way to overcoming some of the oversimplified assumptions of formal theoretical models which address agency problems, such as perfectly revealed information or no information. However, procedural justice theory focuses on the process of monitoring, not the outcome.12 There may be considerable trust, but performance may be suboptimal. In addition, evidence from agency theory perspectives concerning the link between perceptions about entrepreneurs' skills and the nature of monitoring have so far been omitted from procedural justice approaches.

A further critique of the agency cost approach to modelling entrepreneur–venture capitalist relationships is provided by Cable and Shane (1997) who point out that such an approach is unduly restrictive given the potential for opportunistic, non-cooperative actions by both parties. Adopting a game-theoretic framework they argue that the probability of cooperative entrepreneur–venture capitalist relationships will increase with: increased time pressure; increased pay-offs from cooperation; greater quality and frequency of communication; the existence of a previous positive social or business relationship; demographic similarities, work value congruence and perceived power equality; the posting of bonds by both parties; multiple stage performance evaluation; the degree of generosity shown by one party toward the other; and the use of penalties against non-cooperative behaviour.

In the light of this discussion there appears to be scope for multi-theoretic perspectives on the nature of the venture capitalist–investee monitoring process. A possible way forward is suggested in an interesting and insightful study by Fiet et al. (1997) which investigated venture capitalists' dismissal of new venture team members and found that agency theory, procedural justice theory and power theory offer complementary perspectives into the roles of venture capitalists.

Restructuring and failure

Particular importance has been attached to the governance role of active investors in cases where venture capital investments require restructuring. Ruhnka, Feldman and Dean. (1992) find that 'living dead' investments, that is, investments which are viable but fail to achieve adequate growth and returns, arise usually because of problems with management and markets. Ruhnka, et al. find that successful turnaround, which occurs in only 56 per cent of cases is influenced by the nature of the problem and the ability of venture capitalists to control them.

Subsequent research (Wright et al., 1993) has distinguished between 'Living Dead' and 'Good Rump' investments, where the former essentially involve enterprises where the business collapses with little prospect of turnaround and the latter are capable of being turned round, but the effects of restructuring have yet to be seen. A problem of enforcing restructuring is that it may be difficult to obtain consensus with other parties, both entrepreneurs and co-investors, as to what form it should take. In smaller investments, since management are usually important majority shareholders great care is needed in taking action. If institutions are a controlling shareholder, as is usually the case in larger buy-outs and buy-ins, making changes is theoretically straightforward. However, in cases with large syndicates of financiers, restructuring may be delayed or take a particular direction because of differences in the attitudes of syndicate numbers.13

Problems in the screening and control of venture capital investments may be expected to be closely associated with business failure. The influences on likelihood of failure in buy-outs in the UK was examined by Wright et al. (1996) who found that while positive managerial motives for buy-outs and greater levels of restructuring undertaken expeditiously at buy-out are associated with survival, direct investor monitoring *per se* was found not to be significant. Kaplan and Stein (1993) in the US and Wright, Thompson and Robbie (1996) in the UK also find that overpricing of buy-out type transactions in over-heated market conditions are significantly associated with failure.

(i) *Investment realization* Issues surrounding the exit or realization of venture capital and buy-out investments concern the timing and nature of such actions. As regards venture capital, different investment stages are generally seen to have differing life-cycles. In respect of buy-outs, there is considerable debate as to whether they are a long-term (Jensen, 1993) or transitory (Rappaport, 1990) form of organization. Realization may be through initial public offering (IPO), full or partial sale to a third party, secondary buy-out/buy-in or receivership, with there being considerable variance around the mean period of investment in a venture capital project. Buy-outs are also found to have a heterogeneous life-cycle, with some, especially larger ones, changing their ownership structure within a short period while most last for periods in excess of six years (Kaplan, 1991; Wright et al., 1995; Wright et al., 1994; Wright et al., 1993).

An important point to emerge is that the timing and form of realization of venture capital investments requires the objectives of all parties to be satisfied (Relander, Syrjanen and Miettinen, 1994; Wright et.al., 1994). Barry et al. (1990) indicate that venture capitalists have several mechanisms to ensure firms go public at times perceived to be optimal, including board seats and informal advice. Wright et al. (1994) writing in the context of venture backed management buy-outs suggest that institutions' desire for realization in order to achieve their returns, may influence the nature of corporate governance to achieve a timely exit. In order to achieve timely exit, institutions are more likely to engage in closer monitoring of their buy-out investments and to use exit-related equity-ratchets on management's equity stakes (Wright et al., 1995). Both quantitative and case study evidence suggests that the greater the conflicts in the objectives of the parties which had to be suppressed at the time of the transaction, the more the governance structure has to be able to respond and be flexible. Even so, exit arrangements will largely be influenced by the relative bargaining power between venture capitalists and entrepreneurs.

In the context of venture capital investments generally, most attention has focused on exit through IPO. Barry et al. (1990) show that successful timing of a venture-backed IPO provides significant benefits to venture capitalists in that taking companies public when equity values are high minimizes the dilution of the venture investor's ownership stake. Barry (1994) cites evidence that venture capitalists' governance may be biased where they have incentives to offer bad advice to their investees in the matter of premature IPO timing. Such a potential reverse principal–agent conflict may arise where venture capitalists seek a premature IPO in order to gain profile and report prior performance in the raising of new funds.14 Lerner (1994) shows that seasoned venture capitalists appear to be particularly good at taking companies public near market peaks, though of course this does not necessarily mean that such timing is appropriate from the point of view of the company itself (Wright et al., 1994).15

While there is evidence that unseasoned IPOs generally result in significant underpricing (see, for example, Ibbotson, Sindelar and Ritter, 1988 for a review), Megginson and Weiss (1991), however, do show that there is less underpricing in venture-backed IPOs, a finding consistent with a recognized role for venture capitalists as monitors.16 Moreover, Jain and Kini (1995) whilst supporting this evidence, go further and show that venture capitalist-backed IPO firms have superior post-issue operating performance compared to non-venture capital backed IPO firms over a three year post-issue period. Importantly, they also show that the extent of superior performance is positively associated with the quality of venture capitalists' monitoring.

The valuation of venture capital investments at the time of exit may be particularly problematic since as Lam (1991) has shown, a venture capitalist may not be able fully to realize the value of an investment in a low information environment because of the existence of estimation risk, that is the incremental variation in the predictive return distribution that is attributable to investors' ignorance of the parameters of its true return distribution.17 Estimation risk may be expected to decline as more information becomes known about the firm's performance. Thus, if part of the estimation risk is transitory and can be dissipated in the aftermarket following IPO then it is worthwhile for the venture capitalist to adopt a graduated policy towards the realization of cash gains.

European secondary markets appear to have failed as providers of capital for emerging growth companies. Conventional explanations focus on the supply side of the market, blaming over-regulation, complex listing requirements, the absence of an equity culture, weak competition between national markets and a shortage of growth companies for the failure. In Chapter 13, Leleux and Muzyka highlight significant underperformance in long-term IPO returns in European markets, possibly affecting demand by investors. Alternative demand-side factors, such as constraints on institutional investments in small cap stocks and the lack of supporting analysts are also discussed.

Despite the emphasis on realization through IPO, venture capitalists maintain a flexible approach to the timing and form of exit (Wright et al., 1993; Relander, Syrjanen and Miettinen, 1994). Sale to a third party is often the most commonly preferred and actual form of exit. Relander et al., using European evidence, show that although in principle IPOs may be the preferred realization route, in practice sale to a third party is the most common form used, principally because a threshold for an IPO is not reached or because an attractive but unforeseen acquisition proposal is received. Wright et.al. (1993) show that venture capitalists' attitudes to exit are not homogeneous between European countries.18 Petty, Bygrave and Shulman (1994) examine trade sales as an exit route for US venture capitalists and find that although it provides more immediate full liquidity of an investment than is possible in an IPO, the objectives of the entrepreneur may not be satisfied. Murray (1994a) in a study of exit possibilities from early stage investments shows that venture capitalists rank trade sale as their preferred route with IPO third. Exit by sale to a next stage venture capitalist was ranked only fourth, despite early stage investors' expressed preference for such a form of finance. Murray expresses concern that young, growing firms may be faced by a second equity gap. Such companies may represent rather small acquisitions for trading groups seeking to obtain economies of scale and/or scope, though they may be attractive where purchasers are seeking to gain access to new technology or product innovations.

(ii) *Entrepreneurs' exit and serial recontracting* The existence of entrepreneurs who are exiting from venture capitalists' own portfolios raises interesting theoretical and empirical issues concerning recontracting. To date, the available literature has not addressed this dynamic aspect of venture capital investment. Although the screening literature in section (ii) above refers to previous entrepreneurial experience, it has not directly examined the problems faced by venture capitalists in assessing entrepreneurs who have exited from their own (and indeed others portfolios). As venture capital markets mature, and increasing realization of investments is likely to be followed by exits by entrepreneurs, this would appear to be an area of growing importance.

Studies which have specifically examined cases of habitual entrepreneurship, for example, Birley and Westhead (1994) and Kolvereid and Bullvag (1993) generally find little difference in characteristics and performance between novice and experienced entrepreneurs. Starr and Bygrave (1991) suggest that although there is a danger that experienced entrepreneurs may become fixated on repeating past behaviour, the positive experience of previous entrepreneurial ventures should make it easier to raise start-up financing *per se* and in larger amounts. At the initial investment stage, venture capitalists may be able to negotiate relatively advantageous terms compared to entrepreneurs who are inexperienced in dealing with such situations, using their screening expertise as discussed earlier.19

In recontracting with entrepreneurs who have exited from their own portfolio, venture capitalists are potentially faced with a situation in which the entrepreneur is more aware of the effectiveness of the venture capitalist's monitoring and of how (dis)advantageous was the initial contract. Though the skills of the entrepreneur have been revealed to the venture capitalist, at least more so than in the first venture, assumptions about the nature of the entrepreneur's objective function (for example, risk neutral/risk averse) may need to be amended since the outcome of the first project may affect the entrepreneur's motivations about subsequent ones. There is essentially a multi-period game whereby serial entrepreneurs and venture capitalists will seek to change either the invest/not invest decision and/or the nature of the contract in the light of information which has been revealed in the first project. As a result, venture capitalists may be cautious about reinvesting in entrepreneurs from their own portfolios.

Empirical evidence on recontracting with exited entrepreneurs presented by Wright, Robbie and Ennew in Chapter 14 shows that venture capitalists do indeed identify major differences between novice and serial entrepreneurs in the negotiation process as a result of their experience with the venture capital process. With respect to entrepreneurs who have exited from other venture capitalists' portfolios, the contracting problem is more complicated as the entrepreneur now has knowledge about the venture capital negotiating process in general, though not of the venture capitalist to whom an approach is being made for the first time. While venture capitalists may know the entrepreneurs who have exited from their own portfolios, they are still faced by potential adverse selection problems in respect of entrepreneurs exiting from others' portfolios. Hence, venture capitalists may be more cautious about investing in such entrepreneurs because of both contracting problems relating to asymmetric information and the entrepreneur's knowledge of the negotiation process. In general, there would appear to be scope for further theoretical modelling of the recontracting process where venture capitalists are considering reinvestment in serial entrepreneurs.

An understanding of why entrepreneurs may cease to be entrepreneurs also has important implications for venture capitalist's strategies to monitor entrepreneurs post-exit. Ronstadt (1986, 1988) specifically cites evidence which suggests that at least some may have the potential for undertaking further ventures. Whilst this provides general evidence of the reasons for entrepreneurial exit, there is a need to examine more directly the implications for venture capitalists.

Conclusions

This introductory chapter has emphasized the need, as we move into the next millennium, to examine the wider range of investment activities undertaken by venture capital firms which covers early stage through to buy-out type transactions. The chapter has presented an integrated framework for analysing both industry/market and firm levels issues in order to provide a fuller understanding of the full spectrum of venture capital markets.

The discussion presented in the chapter has implications for further research. Although there is considerable work on various aspects of the venture capital process, there is relatively little work at the industry/market level. In this context, further research which analyses aspects of competing and complementary sources of finance appears warranted. There has also been relatively little attention to explicit examination of the inter-linkages between the industry/market and the firm level issues.

There has been considerable focus on venture capitalists' screening processes and on the nature of venture capitalist–investee relationships. However, particular gaps where further research could make an important contribution concern, for example, the modelling of perfect versus imperfect revelation of information at the screening and post-contractual monitoring stages, the costs of information search by the venture capitalist, the development of appropriate forms of managerial and financial control systems, the development and testing of approaches to the valuation of venture capital investment, the use of performance contingent contracts as a means of dealing with asymmetric information, the consequences of venture capitalists not being able to control production if the entrepreneur is replaced, and the development and testing of bargaining models of contract negotiation.

The literature reviewed in this chapter also signals the beginnings of a broadening out of the conceptual underpinnings of both venture capital and buy-outs which emphasizes the restrictiveness of the principal-agent approach. The recent development of procedural justice and game theoretic-based approaches provide potentially important additions to the theoretical framework for analysing the role of venture capitalists. Similarly, the application of entrepreneurial and transactions cost-based theories to the study of buy-outs provides insights which are not available from a principal–agent perspective. Further research is required which both develops the differences and complementarities between various theoretical insights and also provides empirical tests of the relative explanatory power of these approaches.

Three particular features of current developments in practice also stand out as having important implications for the next millennium. First, changing pressures on funds providers and transparency of evidence on venture capital returns have important implications for the future monitoring of venture capital firms by their funds providers. Second, changes in funding availability and other aspects of the behaviour of venture capital firms have important implications for the syndication of financing in venture capital investments. Third, the dynamic and maturing nature of venture capital markets introduces issues concerning recontracting by venture capitalists with entrepreneurs in whom they have previously invested. Although some research is beginning to appear in these areas, none of these aspects of venture capital markets is as yet well understood.

Consideration of the above issues appears to be an important aspect of the future research agenda given the dynamic nature of venture capital markets and the implications for the behaviour of venture capital firms. Differences between venture capital markets in individual countries also stress the future importance of international comparative studies. The contributions in this volume represent initial attempts to address a number of these issues facing practitioners in both developed and developing venture capital markets.

Notes

1. Prior to this more recent substantial market growth it needs to be borne in mind that the world's largest venture capital institution, 3i, based in the UK has, however, been investing since the mid-1940s (Coopey and Clarke, 1995) whilst Charterhouse and other banks provided venture capital at least a decade earlier.

2. This can lead, for example, to an overemphasis on equity stakes by entrepreneurs with the venture capitalist making counter-balancing adjustments in other aspects of the contract that an inexperienced entrepreneur may not fully appreciate, and to insufficient search on the part of the entrepreneur for an appropriate venture capitalist. This is consistent with notions that entrepreneurs finding themselves in unfamiliar situations under-search for information as they fail to appreciate fully the issues involved or their complexity.

3. This is particularly an issue in the recent development of investor-led buy-outs (IBOs) where venture capitalists are proactive in seeking and completing deals. While this may to some extent reduce the power of incumbent entrepreneurs/managers in obtaining large equity stakes from the venture capitalist, venture capitalists are faced with potential problems arising from paying higher prices to invest and asymmetric information problems where they may have full unbiased information on the investee (see Wright and Robbie, 1996b for discussion).

4. Different types of business angels can be identified according to their behaviour and characteristics (see, for example, Harrison and Mason, 1992).

5. It is not clear, however, how representative these studies are. For example, 'more informed' informal investors may utilize their links with banks to identify investment opportunities rather

than using ‘marriage bureaux’ and such entrepreneurs may therefore not be fully represented in these studies.

6. Wright and Robbie (1996a) who examined only formal venture capitalists also find a high degree of importance is attached to own due diligence.

7. Though the LBO industry in the US is typically seen to be distinct from the venture capital industry, venture capitalists are extensively involved in funding buy-outs especially smaller ones (see, for example, Malone, 1989). In the UK, there is probably much greater overlap between venture capitalists and what may be seen as LBO Associations (Wright, Thompson and Robbie, 1996). Moreover, although there has been some reference to the rehabilitation of the US LBO post the problems of the late 1980s this has been a much stronger and persistent feature of the UK buy-out market where venture capitalists play a significant role. Venture capital widens the emerging literature on corporate restructuring which has hitherto tended to focus on debt forms of finance (Jensen, 1993), in particular in relation to the balance between the reduction of agency costs and the stimulation of growth and entrepreneurial actions. Although the corporate restructuring debate has tended to emphasize the former, there is evidence that a large number of management buy-outs in both the US and the UK make extensive use of venture capital and engage in significant R&D and investment expenditure (see, for example, Zahra, 1995; Wright, Thompson and Robbie, 1992).

8. For example, in the UK management buy-out market, venture capitalists are involved in funding around a half of smaller transactions, with banks fully funding the rest (Wright and Robbie, 1995).

9. Hustedde and Pulver (1992) examine the important roles of different types of intermediaries in securing venture capital funds for their clients and finds that entrepreneurs who failed to seek advice had a significantly lower chance of success.

10. In this respect, venture capital has an important contribution to make to the corporate governance debate as the involvement of venture capitalists in investee companies has implications for both performance and accountability simultaneously (Lorenz, 1989). Sykes (1994) also draws attention to the contribution that active investors in MBOs may have to the corporate governance debate.

11. Performance may be in terms of profits over a given period, market value on flotation, and so on. Flotation at a date prior to that expected in the ratchet contract may provoke disputes about the extra amount of equity to which management are entitled where a sliding scale operates.

12. This parallels other behavioural research relating to the link between job satisfaction and performance.

13. See Lerner (1994a) for discussion of syndication of venture capital investments.

14. This issue also raises further governance problems in relation to conflicts between venture capitalists and their investors.

15. Evidence from IPOs of buy-outs in the UK also indicates a marked increase in activity at times of market buoyancy (see Wright and Robbie, 1995).

16. Parallel evidence from reverse LBOs (DeGeorge and Zeckhauser, 1993) shows they outperform comparable firms in terms of operating profitability pre-flotation but not post; a finding consistent with the view that managers and their institutional supporters wait for a good year before coming to market. However, evidence that despite this change in relative performance reverse LBOs do not underperform the share price of non-LBOs suggests that the market anticipates such a change.

17. Estimation risk has transitory and permanent components. The former may be eliminated as more information becomes available while the latter is due to the random nature of asset return parameters.

18. However, it is worth emphasizing that 40 per cent of IPOs in the UK in the period 7/92 to 12/95 were venture capital-financed companies according to the British Venture Capital Association.

19. Although some entrepreneurs mitigate this problem with the use of intermediaries, there is evidence to suggest that intermediaries become involved at a late stage, especially in smaller transactions (Murray et al., 1995).

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