

# **SIGNALLING AND EXCESS RETURNS FROM VENTURE CAPITAL BACKED FLOTATIONS**

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## **ABSTRACT**

This paper examines the UK Venture Capital market with particular focus on the experiences of venture capitalist backed flotations. Management buyouts are focused upon in particular to attempt to determine if recent evidence of superior returns to investing in MBO backed flotations is evidenced by their share price performance in the immediate aftermarket. No such evidence is found in the study conducted but evidence points to a strong 'signalling' effect given by the involvement of venture capitalists in corporate flotations.

# **SIGNALLING AND EXCESS RETURNS FROM VENTURE CAPITAL BACKED FLOTATIONS**

## **1. INTRODUCTION**

The purpose of this paper is to discuss the UK venture capital market with particular reference to venture capital backed stock market flotations. Empirical evidence from a number of sources including HSBC James Capel<sup>1</sup> and the Centre for Management Buyout Research at the University of Nottingham<sup>2</sup> indicate that venture capital backed firms produce superior stock market returns when compared to the broad universe of all new issues floating on the stock market.

This study will attempt to test this phenomenon for the data set available. The organisation of the paper is as follows. Section two introduces the venture capital industry in general. Section three provides more detail on management buy-outs in particular while Section four discusses the recent findings in the area of MBO research in more detail. Section five contains the methodology for the study undertaken and the empirical results while Section six presents the conclusions of the work.

## **2. VENTURE CAPITAL**

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<sup>1</sup> 'New Issue Overload', HSBC James Capel, London, 1995

<sup>2</sup> Center for Management Buyout Research, Spring Quarterly 1996, University of Nottingham

Venture capital is a method of financing the start-up, development, expansion or purchase of a company. In following the process the venture capitalist acquires an equity stake of the company in return for providing the funds.

It is an equity based financial instrument which may be very relevant for external funding of some categories of new, growing or established businesses. However, it is not always appropriate, particularly if the business cannot demonstrate the potential for dynamic growth. Consequently, it is crucial to correctly identify exactly when venture capital is an appropriate source of finding. Using venture capital funds in an inappropriate situation can have serious consequences.

Deciding whether or not venture capital may complement or substitute for other sources of finance available to a business is not complicated but does require the involvement of a number of professional advisers.

As shareholders in the business, venture capitalists receive their return through participation in increasing levels of profits and on the eventual sale of the investment. This can be achieved by selling their shares to management, by means of a trade sale, or by the company achieving a listing on the Stock Exchange.

Venture capital has different characteristics to other sources of finance. The main difference between borrowed money and venture capital equity relates to asset security. Bankers are rewarded by interest and capital repayment and the amounts borrowed are usually secured either on the business assets or the individual shareholder directors' personal assets. As a last resort, a bank can bankrupt a business if the business defaults.

Venture capital financing is not secured and venture capitalists take the risk of failure just like other shareholders. Because of the risk, venture capitalists require an appropriately high rate of return. Consequently, venture favour financially sound investee companies led by managers of proven ability.

The investment period is usually between three and five years but can exceed ten years. The amounts invested tend to be over £100,000 averaging just over £1 million in 1994<sup>3</sup>.

An investment by a venture capitalist into a growing company will impose greater discipline on the investee company. Its likely that areas such as the provision of management information and Board procedures will come in for particular attention. A venture capital funding structure can allow substantial returns to management if it performs successfully. The expectation of management is that their reduced holding in the company will produce a greater capital gain than would have been possible if the funding had been obtained from other sources. This return will be through capital growth.

A popular means of tying managements ultimate reward to that of the venture capitalist and other equity investors is via a ratchet mechanism which increases managements' equity stake depending on company performance. Performance targets can relate to profitability, exit price or a target annual rate of return achieved by the institutional investor. Obviously, management needs to consider carefully the extent to which they will have control over achieving these targets.

One of the protections required by the venture capitalist will be that investee management remuneration levels are appropriate to the company's performance. This provides an extra incentive for managers to ensure that targets are reached.

Venture capital flunking allows a company to remain in private hands, thereby avoiding the regulation and public scrutiny associated with a stock exchange listing. The presence of a venture capitalist as a shareholder will lend credibility to the business and raise its profile.

## **2.1 Raising Venture Capital Funding**

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<sup>3</sup> Venture Capital in the UK: A Report and Guide to the Venture Capital Industry, HMSO, London 1996 p1

Although venture capitalists claim equity is available for businesses requiring from as little as a few tens of thousands of pounds up to hundreds of millions of pounds, small amounts are very difficult to raise, particularly from institutional investors who provide most of the financing involved. This is personified in the 'equity funding' gap in the UK.

A properly structured venture capital arrangement should be put together in such a way as to obtain a capital gain for both the investor and the investee that should outweigh any measurable costs. Such costs include the shareholding and corresponding partial control over operations that is given up to the venture capitalist in return for funding. These may broadly be described as 'agency' costs.

Venture capital is relatively expensive because it involves a high degree of risk for the lender. As a function of the risk profile, a venture capital provider will require a substantial rate of return (often in excess of 25% per annum) on the amount invested. This return will usually consist of a running yield in the form of dividends and capital growth achieved on the sale or flotation of the company.

The precise return sought by the venture capitalist is governed by the quality and track record of the management team and the risks associated with the nature and size of the business. Higher returns are sought from early-stage businesses because they represent a greater risk. Few institutions are therefore willing to provide finance of less than £100,000. Institutional financing is most readily available for established businesses seeking equity funding of over £500,000<sup>4</sup>

It is exceptionally difficult for entrepreneurs and businessmen to acquire venture capital funding if their potential investee company or start-up project does not have the characteristics and the type of management team that attract venture capital providers.

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<sup>4</sup> HMSO Report *ibid* p2

One of the key factors that providers consider is the 'entry level' of the investment required, that is, the stage of development or evolution of the investee company and consequently the amount of funding it requires.

In general venture capitalists are keener to finance expansions, management buyouts and buy-ins (so-called 'development capital') than they are to finance seedcorn, start-ups and other early stage companies. This is due largely to the additional risk that is associated with early stage ventures and the time and costs involved in financing smaller deals compared with the benefits. In essence, it may be that venture capitalists are more willing to provide development capital than venture capital.

## **2.2 The Various Stages of Venture Capital Investment**

There are a number of different stages of investment which characterise the venture capital market. They can be summarized as follows:

### **Seedcorn**

This concerns the research and development of a business idea before it is actually launched on the market. It may involve producing a prototype a product or the design of a package for a service industry. It may also include initial research in order to assess the size and scope of potential markets.

Such early stage development projects require a certain level of funding. This may vary considerably according to the nature of the underlying product or service - involved and the amount of research and length of time that is needed to develop and test it fully. However, it is generally assumed that projects of this kind call for relatively small sums of money, with a possible maximum of £100,000.

It is in the nature of this development stage that the risk profile for the investor is particularly high. In contrast with a well established company with a developed product and share of its given market, it cannot be assumed at seedcorn stage that the product or service will achieve acceptance or win any market share at all. In addition, if the entrepreneur or managers do not have the right kind of experience and a proven

track record in business development, the risk for the potential funding partner rises still further. Consequently, many venture capitalists avoid such early stage financing.

### **Start-Up**

It is at the start-up stage that the product or service is initially marketed commercially. A new operating company may need to be set up and staff recruited, while the company's premises may also need to be equipped and a distribution network established.

As in the case of seedcorn investment, it is unlikely that either the product or the company can be assumed to have proven itself commercially. Consequently, the risk for the investor is a high one and many venture capital providers prefer to avoid start-up projects.

### **Other Early Stage**

The British Venture Capital Association (BVCA) defines this stage as one at which the product has passed its development stage and requires further funding in order to develop both production and sales. Although the product or service may already have been launched, it is assumed that it is not yet generating profits.

Like the seedcorn and start-up stages, this is not popular with the mainstream venture capital providers since it still involves an essentially unproven product or company. It is regarded as a high risk area for investment.

### **Expansion Funding**

This stage involves the expansion of a company which is already established and at least breaking even in financial terms. It may, according to the BVCA, also be growing profits. However, its aim in seeking venture capital funding is to expand its production capacity, recruit extra staff; extend its marketing or product development programme or acquire additional working capital.

The company and/or the product is already well established and the company's management can be assumed to have at least an adequate level of experience. This kind of investment is therefore considered to be significantly less risky than the earlier

stages and, as such, it attracts venture capital much more easily. It is most probably also much larger.

### **Development Capital**

Development capital is widely regarded as forming a separate category in terms of entry levels. Here, financing is required to develop an alternative product or to expand by acquiring one or more already established companies. If a company in this position has a good performance record, a project of this kind will be regarded by venture capitalists as being on a par with expansion funding as far as risk is concerned.

### **Management Buyout (MBO)**

In a management buyout, funding is sought to enable the existing operating management, and possibly also investors, to acquire a business that is already established and working. As an established business, such a project is regarded as a relatively low risk in venture capital terms and MBOs have in fact been growing in popularity among venture capitalists in recent years. This rise to prominence has at least in part been driven by business refocusing and subsequent divestment by large organisations.

### **Management Buyin (MBI)**

In this case funding is sought to enable an external manager or group of managers to buy in to an existing company. Again, the business can be assumed to be well established and the management wishing to buy it to have an appropriate level of operating experience.

MBIs are also generally regarded as a relatively low risk proposition by venture capitalists. However, given that the management group wishing to acquire a company is obviously less familiar with it than are managers bidding for a MBO, their project may be regarded by venture capitalists as a less attractive proposition than a MBO.

### **Secondary Purchase**

The BVCA defines a secondary purchase as the purchases of shares in a company from a venture capital firm or, alternatively, from its existing shareholders. This is also assumed to involve an established company with an experienced management, proven products and a good performance track record. To the extent that this is the case, it will be regarded as a relatively low risk potential investment by the venture capitalists.

### **2.3 Venture Capitalists Approach to Different Entry Levels**

In 1994, some 68% of the number of financing made by BVCA members went into the expansion stage, 18% went into MBOs and MBIs and 14% into early stage including start-ups. However, 68% of total funds went into MBOs and MBIs, 28% into expansion and 5% into early stage investments<sup>5</sup>

The way Venture Capitalists approach the various different entry levels may be usefully examined by looking at them in terms of the amount of funding owners or entrepreneurs require for their projects.

The diagram below provides a rough guide to the situation faced by company and investor alike.

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<sup>5</sup> HMSO Report ibid p8

**Table 1**  
**Entry Levels Preferred by Funding Providers<sup>6</sup>**

Funding Required £	Seed	No Track Record	With Track Record	MBO/MBI	Development Funding
5,000-100,000	PP	PP	PP	PP	PP
100,000-250,000	PP	PP	PG	PG	PG
250,000-500,000	PP	PP	PG	PE	PE
500,000-10m	PN	PP	PG	PE	PE
10m+	PN	PP	PG	PE	PE

The P score represents the prospects of securing funding through the venture capital industry for the ‘range of funding’ for the stated categories

PN-Prospects Nil

PP-Prospects Poor

PG-Prospects Good

PE-Prospects Excellent

The diagram presents two main points. Firstly, that there are very few institutional investors interested in seed funding, start-ups and involvement in funding in general below £100,000. Secondly, the substantial majority of institutional venture capital funds prefer to back management teams and companies who require equity funding in excess of £250,000. This size focus indicates the concentration of interest on development capital.

It is clear that the most difficult end of the venture capital funding spectrum in terms of attracting funding is the bottom end. Basically, the smaller the amount of finance required, the harder it is to raise. This gives rise to the previously mentioned ‘equity funding’ gap. This relates to the gap in the number of venture capitalists prepared to

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<sup>6</sup> HMSO Report *ibid* p8

get involved in high risk (and smaller) equity funding. Simply, there is enough business available offering lower risk and high enough potential returns for the venture capitalists to ignore the high risk part of the market completely. However, it may be that this situation changes as the UK venture capital market becomes more competitive and mature.

Some venture capital funds seek to specialise in certain industry sectors such as biotechnology, computer related and other high-tech areas. Others actively avoid sectors such as property or film production. In general however apart from a few 'niche' players, venture capitalists are prepared to consider most industrial sectors. The quality of the management team and whether there is a proven product in an expanding market is of more concern.

In 1994<sup>7</sup> the general industrials sector (engineering, electronics, building construction, chemicals, paper, textiles etc.) represented the largest industry sector of investment by BVCA members in terms of number of companies financed. The services category (leisure, hotels, transport and distribution, retail, media etc.) represented the largest sector by amount invested.

The amount of investment varies greatly with the stage of investment. Start-up and other early stage investments are almost without exception lesser in amount than expansion and MBO/MBI investments. In general few investments of less than £100,000 are made by the industry unless there is a good opportunity for a second round of financing.

In 1994 the average overall size of investment by BVCA members across categories was £1.3 million, with £429,000 for early stage, £565,000 for expansion and £4.9 million for MBO/MBI investments<sup>8</sup>.

For investments of less than £100,000 (the 'equity gap') there are various seed capital funds available, both independent, government sponsored and part of larger venture

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<sup>7</sup> HMSO Report *ibid* p9

<sup>8</sup> HMSO Report *ibid* p9

capital organisations. 'Business angels'<sup>9</sup> are perhaps the current largest source of smaller amounts of equity financing. Business Links (one-stop shops offering advice and help to small and medium-size businesses) and Training and Enterprise Councils (TECs) also maintain information about the availability of smaller amounts of seed capital and of private individuals seeking investment.

In 1995 Venture Capital Trusts (VCTs) were introduced. These are specially designed to assist companies looking to raise under £1 million.

When seeking venture capital funding, company owner shareholder management must be prepared to invest some of their own capital in order to demonstrate personal financial commitment to the venture. As a rule of thumb the executive directors should be willing to invest one years salary into the venture or about 10%<sup>10</sup> of the equity capital.

## **2.4 Due Diligence**

Due diligence is a vital part of the venture capital investment decision and extensive work will be undertaken by the potential venture capital provider regardless of what stage of financing is sought.

Venture capital due diligence is conventionally defined as the process of discovery, confirmation and clarification of the key essentials of a business in the mind of a venture capitalist. On this basis he will decide whether or not to invest and, if so, on what terms. Consequently, as commonly stated by venture capitalists, due diligence 'begins at the first meeting'.

Due diligence is crucial to the venture capital process. This is somewhat disingenuous as the venture capitalist will typically invest multi-million pound sums into unquoted businesses about which he may initially know very little, which are not readily marketable and where the prospect of any recovery on a winding-up will be remote.

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<sup>9</sup> These are high net worth individuals who place capital with small growing companies

<sup>10</sup> HMSO Report *ibid* p10

When properly undertaken, venture capital due diligence should be all-encompassing, detailed and searching. IT can also take considerable time. Indeed, in the words of one distinguished corporate financier [ref], the main difference between transactions led by venture capitalists and those arranged by corporate financiers lies not so much in the source of money, but in the way the due diligence is handled. Corporate financiers tend to rely on others for their assessment of an acquisition: the venture capitalist does it himself'.

In overview, the venture capitalist will be concerned with all aspects of the target business, both those aspects verified by specialists such as patent agents and when due diligence is performed in-house.

Perhaps the most critical issue for the venture capitalist in the evaluation process will be the quality of management. In the words of one US venture capitalist, 'there is no question that irrespective of the horse (product), horse race (market), or odds (financial criteria), it is the jockey (entrepreneur) who fundamentally determines whether the venture capitalist will place a bet at all'.

A key part of the venture capitalist's analysis will be to take references on management. These can vary from the use of enquiry agents to informal social conversations with friends or acquaintances. Typically, combined with trade references, and in some cases taken without management's knowledge. This process can be unpleasant and unnerving for the entrepreneur. It is, however, essential and be informative, as this type of third party endorsement will provide the venture capitalist with in many ways his best evidence that he is about to make a good investment.

## **2.5 Different Types of Funding Provider**

The prospective investee company must realise that there are a number of different types of venture capital provider and each essentially has a slightly different s agenda depending on what type they are.

Some suppliers of capital are independent companies which invest funds raised principally from institutions such as pension funds and insurance companies. Others are subsidiaries of banks which draw on the parent's resources for the funds they invest. Others again are investment trusts which take in funds from both institutions and private individuals. The investment decisions of all types of providers depend on the extent of their funding resources and their own particular targets and strategies at any given time.

Like all types of investors, individual venture capital providers have their own areas of interest and it is often possible for an investee company's management team to shop around for the right investment package. In order to find a provider who is prepared to accommodate their particular needs, it is therefore important that such managers study the investment strategies of prospective investors.

Essentially venture capital providers base their investment criteria on the entry level, size and value of the project, the industrial sector involved and the region in which it is located.

For example, some are unlikely to invest in start-ups or to provide growth capital but may instead concentrate on MBOs. Some focus on a single region of the country or on specific industrial sectors.

Investors also vary in terms of their philosophy towards their relationship with investee companies. Some may wish to appoint one of their own executives to the investee company Board, while others take a more detached, 'hands-off' approach. However, all providers will wish to monitor the investment project regularly throughout its life.

## **2.6 Different Funding Schemes**

As well as there being a wide variety of different venture capital funding providers, there are also a variety of different ways in which the venture capital financing package can be constructed. Different situations call for different financial packages to be constructed and in particular the proportions of equity to debt.

The proportion of debt to equity will clearly depend on the investors own investment strategy but it will also be closely related to the nature of the business. A cash-generative business can carry a lot of debt because the debt can be serviced out of profits. A young high-tech company, on the other hand, may show no profits for several years and what will attract investors is the prospect of eventual, longer term capital gains. In such cases the investor will obviously look for a substantial equity stake.

In most cases the venture capital provider seeks to be a minority shareholder in the investee company. For instance, for a moderate-sized MBO it can be possible for the management team to hold perhaps 60% of the equity assuring them of control of the company while the investor holds, say, 40%. At the same time, the equity would be geared up with debt to meet the purchase price. In other words the managers, whose personal resources are probably reasonably modest, will have become owners of a sizeable business.

In large MBOs the managers will hold much less of the equity, and the majority of the ordinary shares will be in the hands of a syndicate of investors. No single investor likes to hold a minority of the shares, since this concentrates the risk in the hands of a single organisation. It is also likely to be a disincentive for the management to perform well.

Investors also expect managers to make a substantial personal commitment to the project in terms of investment made from their own resources. This demonstrates their faith in the business and also provides a real financial incentive to make the business a success. On the other hand, investors recognise that the really important contribution which manager bring to the party is so much money, but rather skill and talent. Because of this fluid mix, the structure can be quite flexible. Investors vary considerably, however, in how much they involve the managers in the construction of the package. This underlines the importance of checking the particular interests of the prospective venture capital funding provider. In addition to the preferences over the

funding structure, the prospective investee company may want to consider the business preferences of the venture capitalists under consideration.

## **2.7 Formulating an Exit Plan**

A crucial decision in investment strategy relates to time-scale, and the question of the investor's 'exit'. This depends crucially on the life of the venture capital fund. For instance, some funds have a life of ten years or more. Given this, some investors have longer time horizons than others and are prepared to allow investment projects to develop over a period of some years before they realise their capital gains (e.g., 3i). Others invest over relatively short periods. Some venture capitalists, being funded by limited life partnerships (e.g., Candover), will seek a sale of the business at between three and seven years from the date of their investment. It is likely that the equity funding structure will reflect this timescale and failure to exit can result in onerous cash dividend payments being paid to the venture capitalists, possibly to the detriment of the business.

Again, the nature of an exit may be important determinant in persuading a venture capitalists to invest. Many providers will only invest in businesses which have a clear exit strategy, that is, a plan by which management will grow the business to the point where it can be sold or floated within a given time limit.

However, some are not concerned with the manner in which they eventually exit from the investment project but are only concerned with its profitability and with the extent of their own gains.

Despite agreeing objectives at the time of investment, it is not uncommon for conflicts to arise between a management team and its institutional shareholders over the most appropriate time to sell. The venture capitalist is answerable to its underlying investors and is focused on the need to provide the highest overall return per annum.

## **2.8 Different Exit Routes**

There are a number of different exit routes available to the venture capitalist and the investee company. Obviously, both have to agree on the chosen method of realising the exit. The choices the face are discussed in this section.

For management teams who have received an injection of development capital or carried out a management buy-out or management buy-in backed by venture capitalists, assessment of available exit routes from the project would seem to be a relatively straightforward exercise.

However, different venture capitalists may well have different expectations of their investments, particularly with regard to exit. The majority of venture capitalists manage third party funds or are organisations linked to such funds. As a result their performance is closely watched by the outside fund providers. Invariably their performance is measured by the average annual percentage increase in the value of the money invested in a particular company, which is more commonly known as the internal rate of return (IRR). In a competitive market those venture capitalists which achieve above average IRR's are more likely to attract further outside funds in the future.

The very nature of the IRR calculation means that cash flows to venture capitalists in the early years, through dividend yields, early redemption of loan capital or preference shares and, most importantly, early capital realisations which can have a large and favourable impact on the fund's overall IRR performance.

If a management team can realistically foresee and exit within three to five years then a relatively short term independent fund with agreed exit horizons may well offer management the best deal. However, any management team should bear in mind that management teams do not sell or float within the stated time-frame. In order not to create a conflict of aspirations at the outset of the deal, management should determine realistically the likely exit route and the most realistic timescale and ensure that their aspirations and expectations are shared by their financial backers.

A low yield, exit-driven structure which includes financial incentives (for example, a ratchet to reward the management team for an early exit) may well offer the management team the best deal in the marketplace with regard to equity participation but its implications should be understood. The need for an exit may become an overriding requirement and a management team that wished to remain independent and become a public company could find itself being required to pursue a trade sale in order to preserve the deal which was originally negotiated by them.

Investment houses which are prepared to take a longer term view with regard to exits and which place more emphasis on a running yield over time will still make assumptions with regard to a likely exit route and the value which is realistically achievable at that time. Again, the management team should be comfortable with the assumptions that are being made.

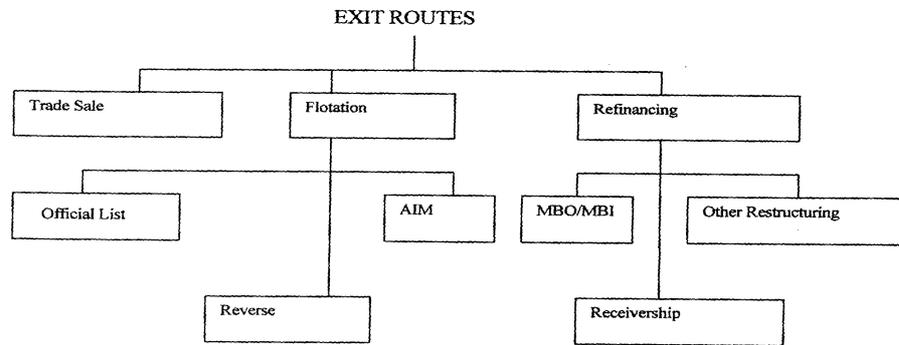
Certainly a trade sale or flotation are the most common exit routes and it should be that the earlier an exit is achieved the higher will be the likely rates of return to those involved. It is probably fair to say that management are encouraged to seek an early exit. This is a little simplistic. It disguises a complex issue which should be given detailed consideration prior to the initial investment. Furthermore, statistics show that the majority of investments do not achieve an exit within five years.

Two alternative exit routes to a trade sale or flotation are worth mentioning briefly. One potential option is refinancing, whereby the same or a new team of venture capitalists provide finance to acquire the shares of some or all of the existing management team and/or of the original financial backers. The other is the purchase by the company of its own shares.

The diagram below shows some of the different routes available

**Table 2**

Figure 1: Exit Routes



Source - HMSO Report ibid p48

### **Trade sale**

A trade sale will normally be managed by a financial adviser who understands the unquoted market and has both credibility and experience in selling companies.

Depending on the size of the business the financial adviser may be a merchant bank, a specialist boutique or a firm of accountants. The financial adviser would be expected to have contacts within the specific market sector in which the business operates and, if the size of the business makes it possible that a foreign buyer may be considered.

The financial adviser would normally assist in the preparation of an information memorandum on the company which would provide information to potential purchasers. This would enable them to put forward their best price, while preserving the confidentiality of commercially sensitive material, as some potential purchasers

may also be competitors. In conjunction with the company, the financial adviser would draw up a short-list of the most likely potential buyers together with a reserve list.

A tightly controlled auction involving a limited number of serious potential buyers is invariably the best way of maximising the exit value. Potential buyers on the reserve list would not normally be contacted unless insufficient interest was forthcoming from

the initial list or price expectations were not being met. The auction process is likely to last three to four months and negotiations will usually be led by the financial adviser. Tight control of the process is crucial.

After a second round involving perhaps two or three of the highest bidders, a preferred bidder will be chosen with whom final negotiations will be conducted. The financial adviser should ensure that significant concessions are not lost during the final negotiations, particularly in the areas of warranties and indemnities, or through last minute manoeuvres by the purchaser to reduce the purchase price.

The following diagram outlines the advantages and disadvantages of the trade sale.

**Table 3**  
**Advantages and Disadvantages of the Trade Sale**

<b>Advantages</b>	<b>Disadvantages</b>
Management and investors may sell their entire shareholding	Management may lose independence
Trade sale can be sacrires out for any size of company	Further retains unlikely unless partial sale deal

Quality of management is not critical	Business may face restructuring at the hands of the trade buyer
The track record and prospects can be variable	
Timing is flexible	
Weaknesses in the business can be dealt with	
A buyer can rectify commercial management problems	
Contractual arrangements can cover specific difficulties	
Trade sales can command higher values if a specific buyer places a high value on the business	
No ongoing worries	

Source - HMSO Report ibid p49

### **Flotation**

A public flotation is a wholly different transaction from a trade sale. In this case the financial adviser is co-ordinating and managing the whole process of bringing the company to a public market and, as sponsor, is fulfilling on behalf of future shareholders many of the responsibilities that a corporate buyer would undertake himself. The complexities of a flotation actually mean that it is a longer process than a trade sale, typically lasting some six to seven months. The public liabilities associated with the issue of prospectus are substantial and onerous.

Much attention will be focused during the flotation process on the suitability of the company for a public listing and indeed the process is unlikely to be initiated unless the financial adviser has already reached the preliminary conclusion that the company is suitable. The financial adviser should consider the following criteria.

The quality and continuity of management; history and profit record over at least a three year period; prospects and, in particular, likely developments in markets and products and commitment of existing shareholders.

Management should ensure that their expectations and aspirations are not at odds with the preferred exit route.

If management finds itself uncertain as to which exit route to take it is best to follow one's instincts in the face of such doubts!

The following table outlines the advantages and disadvantages of a flotation.

**Table 4**  
**Advantages and Disadvantages of a Flotation**

<b>Advantages</b>	<b>Disadvantages</b>
Management retain independence	Management and investors may only be able to sell a proportion of the investment
Access to new/cheaper sources of finance	Price will depend on market conditions

to fund growth	
Liquid market for company shares	Timing may not be flexible
Continuing incentives/motivation	Exit transaction likely to be more difficult and costly
Prospects for enhanced investment value	Flotation may only be available to larger companies
Increased status and public recognition for the company	Quality of business and management are essential and any problems are likely to preclude floating the business
	There are significant regulatory requirements and commitments

Source - HMSO Report *ibid* p50

### **Refinancing**

Secondary refinancing or secondary buy-outs are becoming more common, although they still account for a relatively small percentage of exits. This method of exit may be attractive as a method of passing on ownership of the business to the next generation of management. It may be necessary because of the age profile of the management team or the emergence of an able and ambitious lower management tier. Alternatively, it may be that one or two members of the management team, who have an interest in the original transaction, would also be involved in the refinancing. This can lead to an interesting conflict of interests during negotiations and great reliance being placed on the skills of the financial advisers involved.

### **Purchase of Own Shares**

The achievement of an exit for a financial investor by the target company purchasing its own shares from the investor is relatively rare. The increase in the value of the business over time is always likely to be greater than its ability to fund an acquisition of its own shares if it meets the financial investors' required rates of return. It may, therefore, be largely ignored as an exit route for the purposes of this discussion, as it is likely to be encountered only in circumstances where the business has not performed well and the exit is not being made voluntarily.

## 2.9 Trade-Offs in the Investment Decisions of European Venture Capitalists

Venture capitalists are relative outsiders to the business and the management team and consequently have to use other criteria when assessing the viability of the investment. Numerous studies have been conducted in the USA but relatively little work has been carried out in the Europe. Studies have sought to identify which decision criteria venture capital investors feel are most important. Zopounidis<sup>11</sup> concludes that there are ‘..great diversity of evaluation criteria and their relative importance from one study to another..’ but ‘..the criterion of the management team is considered predominant...’.

Hence there are a number of questions that remain unanswered from the perspective of venture capital investment in the UK and Europe.

1. What are the key investment factors used by European venture capitalists in evaluating potential investments?
2. Are the factors consistently applied by venture capitalists throughout Europe.
3. Are there clusters or groupings of venture capitalists based on the decision criteria applied?

Indeed, these very questions were posed by Muzyka, Birley and Leleux<sup>12</sup>. They conducted a survey to examine the issues facing European venture capitalists and how they dealt with the issues raised in the questions outlined above.

The authors examined their data using co-joint analysis. This method was chosen as it would measure quantitatively the relative importance of a list of attributes set against each other. The method is based on requesting the decision maker to make a series of paired trade-offs determining which of two given factors, all else being equal, is the more important.

A review of the literature produced 35 key evaluation criteria which could be grouped into the following seven categories.

1. Financial Criteria - related to the apparent financial aspects of the investment.

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<sup>11</sup> Zopounidis, C. 1994, ‘Venture Capital Modelling: Evaluating Criteria for the Appraisal of Investments’, *The Financier* ACMT 1(2) May : p54-64

<sup>12</sup> D. Muzyka, S. Birley and B. Leleux, ‘Trade Offs in the Investment Decisions of European Venture Capitalists’, Paper presented for publication in the *Journal of Business Venturing* 1995

2. Product-Market Criteria - related to market size, maturity and growth.
3. Strategic-Competitive Criteria - related to strategic positioning of the investment in the marketplace.
4. Fund Criteria - related to the constraints of the investment fund.
5. Management Team Criteria - related to the potential track record of the lead entrepreneur and the management team.
6. Management Competence Criteria - related to the competencies and/or capabilities of the management team in important functional areas.
7. Deal Criteria - related to the stage and nature of the investment deal.

Using these 35 criteria a questionnaire was developed which required the respondent to make 53 trade-offs between pairs of independent criteria. The collected data was then transferred into the conjoint model in order to compute the relative rankings of the investment decision criteria. The rankings by individual were then correlated to test for similarity among respondents and as input to an unweighted pairwise cluster analysis algorithm. The cluster analysis would show whether any groupings of venture capitalists based on decision criteria existed.

73 institutions across Europe from a broad range of backgrounds completed the work. The results of the ranking of factors were as below.

**Table 5**

<b>Criteria</b>	<b>Final Rank</b>
<b>Financial Criteria</b>	
Time to break even	12
Time to payback	20
Expected rate of return	11
Ability to cash-out	9
<b>Product-Market Criteria</b>	
Degree mkt. already established	19
Market size	29
Seasonality of product markets	33
Sensitivity to economic cycles	30

Market growth and attractiveness	18
Uniqueness of product / technology	17
National location of business	27
Degree of product / market understanding	10
<b>Strategic - Competitive Criteria</b>	
Ease of market entry	24
Ability to create post entry barriers	14
Sustained share competitive advantage	6
Nature and degree of competition	26
Strength of suppliers and distribution	25
<b>Fund Criteria</b>	
Business meets fund constraints	15
Business and product fit within fund portfolio	28
Ability of investors to influence business	21
Location of business relative to fund	35
<b>Table 5 (contd)</b>	
<b>Management Team Criteria</b>	
Leadership potential of mgmt. team	2
Leadership potential of lead entrepreneur	1
Recognised industry experience in team	3
Track record of lead entrepreneur	4
Track record of management team	5
<b>Management Competence Criteria</b>	
Marketing/Sales capabilities of team	7
Organisational / administrative capabilities of team	16
Financial/Accounting abilities of team	8
<b>Deal Criteria</b>	13
Stage of investment required	23
Number and nature of deal co-investors	32
Ability to syndicate deal	31

Scale and chance of later funding rounds	34
Importance of unclear assumptions	22

Source - Muzyka et al, ibid, p20

What is immediately obvious from the table above is the importance attached to the management of the company.

Overall, the venture capitalists surveyed exhibited a great deal of consistency in the relative importance they attached to the decision criteria considered in selection of investments. The table below shows the relative number of criteria from each of the seven groups that appeared in each quintile of the overall rankings for the individual factor rankings given above.

**Table 6**

	Top Quintile	Second 20%	Third 20%	Fourth 20%	Bottom 20%
<b>Mgmt Team</b>	5				
<b>Mgmt Comp.</b>	1	2	1		
<b>Strat - Comp.</b>	1	1		3	
<b>Financial</b>		3	1		
<b>Product - Mkt</b>		1	3	1	3
<b>Fund</b>			2	1	1
<b>Deal</b>				2	3

Source - Muzyka et al, ibid, p19

The pattern is worthy of note. While the relative importance of the management team is not a surprise, the lowly importance of the Product - Market grouping may be seen as surprising.

The findings suggest that venture capitalists as a group prefer to select an opportunity which offers a good management team and reasonable financial product and product-

market characteristics, even if the opportunity does not meet the overall fund and deal requirements. This is interesting in terms of the implications for IPOs. If venture capitalists are doing deals which are not ideal fits with their funds then their propensity to unwind from them should be high.

In empirical work carried out in the USA by Barry, Muscarella and Vetsuypens<sup>13</sup> the relationship between venture capital investment and levels of aftermarket underpricing is examined. The authors find no difference in the mean level of underpricing between venture capital backed firms and those which are not venture capital backed. This is contra to the evidence presented in the UK.

### **3. MANAGEMENT BUY-OUTS AND MANAGEMENT BUY-INS**

The main topic of this chapter relates to MBOs and their close relation, the MBI. Consequently, in this section the subjects are discussed in more detail. The management buy-out (or MBO) is now an accepted and established feature of the financial market. The modern MBO was imported from the United States in the late 1970s and early 1980s. The number of transactions completed increased rapidly following the general relaxation of some of the legal complexities surrounding the deals. Venture capitalists have reacted positively to buy-outs and as the market has grown, a whole industry, consisting of buy-out funds, mezzanine and senior debt lenders, financial advisers, accountants and lawyers specialising in buy-outs has been built up around it.

The first MBOs were small with the average transaction size less than £2 million. The market itself totalled less than £100 million<sup>14</sup>. The major source of dealflow at this stage was recession hit companies divesting non-core businesses. Finance was provided primarily in the form of equity from the small number of venture capitalists

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<sup>13</sup> C.B. Barry, C. J. Muscarella and M. R. Vetsuypens, 'Venture Capital and Initial Public Offerings' Unpublished working paper, Southern Methodist University, Dallas, Tx, 1988

<sup>14</sup> HMSO Report *ibid* p77

established at that time. The companies that survived the recession in the early 1980s were either sold or achieved a flotation on the stock market.

As a result of this early success the MBO market took off in the middle 1980s. Many well known names went through the buy-out process during this period including Woolworth, Parker Pen and Premier Brands. During the height of the Thatcher years managers became millionaires, with a number of venture capitalists following suit through their investment schemes.

Following the rapid growth of buy-outs during 1989 and 1990 newspaper headlines such as 'Buy-out and Burn-out heralded the demise of MBOs. A few high profile failures in the UK and the collapse of the junk bond market in the US prompted David Owen to remark that 'the growth of leverage buy-outs is a good example of doctrinaire free enterprise shooting itself in the foot. A diagram showing the number of companies using venture capital in the UK over the years is included in the graph pack with this chapter.

### **3.1 The Current State of the UK MBO Market**

In practice, the difficulties of the late 1980s and the early 1990s served to regulate the market. Structures became less geared and business plans more conservative. The volume and size of transactions has since grown steadily. The buy-out market has stabilised at around £3 billion<sup>15</sup>.

Graph 2 in the graph pack charts the total transaction value of UK buy-outs for the period 1990 to 1994. The value of transactions has increased as the country recovered from recession and the funds dedicated to MBOs have increased. The average size of transaction has also increased over the period. 1994 saw an even higher level than 1989 with some £3.7 billion of MBOs completed. To put the MBO market size in context, in 1994 the total market for corporate control in the UK was £9.9 billion. MBOs represented approximately one third of this number<sup>16</sup>. The buyout market is therefore an important part of the UK mergers and acquisition market.

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<sup>15</sup> HMSO Report *ibid* p77

<sup>16</sup> HMSO Report *ibid* p79

Graph 3 in the graph pack charts the total estimated number of UK buy-outs and the total number of UK merger and acquisition transactions for the period 1990 to 1994. This shows that the number of MBOs fluctuate between 500 and 600 in number. This represents on average 50% of the merger and acquisition market. By comparison in 1984 the estimated total number of buyouts completed was 250 which represented 30% of the mergers and acquisition market. So not only have buyouts increased in number, but they have also grown as a proportion of all corporate sanctions. Clearly, the management buy-out is growing in popularity as a method for disposing of subsidiary businesses.

The reasons for the increasing trend quite are clear. It is now widely recognised that giving management a stake in a business is an important motivating factor. Management teams usually have a strong desire to run their own business and to make more money as shareholders than they could merely as employees. At the same time, parent companies often like to sell to local management to ensure continuity of the business. To those companies Seeking the highest price, management teams are generally still able to compete effectively, using in depth knowledge gained in the business over many years.

### **3.2 Sources of Buy-outs in the United Kingdom**

The buyout companies themselves can come from all possible sources including UK listed and unlisted parent companies, overseas parent companies, privatisation and receiverships. Whole listed companies have also been subject to buy-outs by management.

The largest single source of MBOs in the UK is divestment from parent companies, representing just over half of the total deals transacted in 1994. In the early eighties such divestments were an even more important source of deal flow and up to 65% of

deals came from this source. Buy-outs from foreign parents represent between 10% and 15% of the total<sup>17</sup>.

The next most important source is buyouts from family ownership, which now account for 24% of all MBOs. It is this source of deal flow that has always been claimed as the most important source in Continental Europe. The commonly advanced explanation for this goes as follows.

Many businesses were formed across Western Europe at the end of the second world war by entrepreneurs who have now reached retirement age and are intending to live off the fruits of their past labour. Their family may be unable to continue with the business, a trade sale may be unattractive and managers themselves often need an incentive to progress the business further. Selling to the existing management is therefore a good solution.

However, this argument is not entirely convincing. While buyout statistics in Continental Europe are not as well developed as in the UK, those that do exist show that this source has still to be proved as important as was once forecast.

A third source is buyouts from receivership. In 1992 these grew to nearly 20% of the total. By 1994, however, they had fallen to 5%, showing that this source fluctuates with the economic cycle.

The number of privatisation buyouts has declined as the Government disposal program has progressed. However, the rail privatisation and continued port and bus sell-offs have ensured continued activity in this sector.

The number of buy-outs of listed companies has been a relatively small but constant source of transactions. However, they have generated considerable interest due to their size and particularly to a perceived conflict of interest. For example, the utilities' role as service providers may conflict with their new, commercial aim of profit maximisation. Public buyouts will probably continue as before, although a lot depends on relative pricing in the quoted and unquoted markets.

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<sup>17</sup> HMSO Report *ibid* p79

### **3.3 Recent Trends in Buy-out Funding**

The structure of buy-outs has evolved since the 1980s. Early buyouts were financed primarily with equity, but during the late 1980s financing became more geared. Partly in response to the difficulties experienced by highly-g geared buy-outs and partly due to the difficulties in obtaining senior debt from the banks, gearing has declined significantly in the 1990s.

Despite a number banks returning to the MBO market in the last two years structures have remained similar to the early 1990s with senior debt was scarce.

New venture capital funds have been raised, no doubt enticed by the high returns achieved by venture backed buyouts, particularly following good exits as the Stock Market recovered from 1993 onwards. However, as the proportion of debt is decreased and equity increased, the reduced leverage tends to cut the overall return to the equity investors. To some extent mezzanine has filled the gap left by the reduced amounts of available senior debt and this is a more cost effective option than using venture capital.

Increasing use of vendor finance has also been a feature of the buy-out market recently. It may be that this is at the expense of mezzanine finance, although this has only been the case in one or two particular deals. A more likely answer is that it is a good way to accommodate the gap in price expectations between vendors and acquirers. The gap can be bridged by including in the financing an element which, for various reasons, the vendor and acquirer value differently. Thus, the acquirer gets an effective price reduction while the vendor achieves his expected price for the disposal.

### **3.4 Management Buy-ins**

Whereas buy-outs depend being in the right place at the right time, management buy-ins add additional flexibility to the market in order to help achieve deals which might otherwise not take place.

Financially, buy-ins work in the same way as buy-outs, the only difference being that management are brought in from outside to fill gaps in the management team or provide a completely new team able to develop the business in a different way. The dividing line between buy-outs and buy-ins is not a distinct one, but the Centre for Management Buy-out Research has identified 145 buy-ins in 1994, the number having risen from 30 in 1985 to a peak of 148 in 1989.

Buy-ins frequently arise from family-owned businesses where there is no clear line of management succession and the owner wishes to retire. Other typical sources include receiverships and sales of divisions of larger companies which lack the complete management team required for the division to trade as a stand alone business. The other notable feature of management buy-ins is that they are higher risk than straightforward buy-outs. They involve management teams which are new to the particular business concerned and so lack the intimate and detailed knowledge of the company, its strengths, weaknesses and future potential. The individuals may not have worked together as a team before so are an untried combination with no guarantee of success.

### **3.5 Recent Developments in Favoured Exits**

Trade sale is the most popular form of exit which, while showing a decrease in time of recession, continues as an exit source. Flotation is the next most regularly used but is far more cyclical in nature. Between 1990 and 1992 this source fell to almost nothing whilst receivership rose during this period. Since 1993 flotations of buyouts have increased while receivership has men. For instance, in 1994 34% of all flotations (including MBOs and others) were venture backed companies<sup>18</sup>.

It should also be noted that of all the buyouts, even early ones in 1982, 40% have been 'recorded as not having obtained an exit

### **3.6 Conclusions**

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<sup>18</sup> HMSO Report ibid p82

As economic conditions have changed over the past five years, the buyout industry and financing structures have also evolved. New financing instruments such as mezzanine have found an important role and the market continues to innovate. The buyout industry has weathered the last recession well. Transaction size and numbers are increasing and future prospects look relatively rosy providing there is not a return to the highly geared deals of the late eighties.

## **4. MBO FLOTATIONS - RECENT EVIDENCE**

The aim of this chapter is to examine MBO companies which subsequently realise an exit by floating on the Stock Exchange. This section presents some recent evidence on the phenomenon.

### **4.1 Recent Developments in the UK MBO Market**

The press and institutional investors themselves are sceptical about MBO managements and their backers using flotations to get rich quick. Development Capitalists have been accused of floating companies which are not ready for flotation. There have certainly been cases of this but the fact remains that MBO flotations do, in general, outperform the stock market even if there are one or two flotations which in the recent past have gone badly wrong.

In the period from the first of January 1993 to the first of January 1995 there were 130 flotations in the UK. Of those 130, 75 were venture capital backed. In aggregate these companies had a market capitalisation of some 7.7 billion pounds sterling and a sum of 3.6 billion pounds sterling was raised. Overall, these venture capital backed floats, which include MBO's, have outperformed the FT-All Share index by 6.3% and their

respective sectors by 9.5%. This sets their performance comfortably ahead of the universe of IPOs as a whole.

HSBC James Capel<sup>19</sup> continue to favour MBO flotation candidates as they usually bear the following traits. They have detailed 'due-diligence' undertaken at the time of the MBO and consequently tend to be solid businesses. They tend to be completely focused on one business area and consequently often perform better than their competitors. They have an advanced understanding of the value of cash and working capital management, often having had to bear heavy debt and the associated banking covenants of the buy-out structure. Partly as a consequence of the last point, they tend to have high quality and prompt financial reporting systems. Finally, the agency problem is mitigated to an extent due to the often significant equity ownership by the management.

A point frequently overlooked by institutions is that not all venture capitalists are the same. The behaviour of the different interest groups at flotation and in the aftermarket can be very different. If an investee company is floated, Limited Partnerships tend by statute to be required to distribute the shares in the buy-out company in specie to their limited partners. The residual shareholders are often overseas investors who are not natural holders of the equity. Consequently they often sell quickly in the aftermarket. Buyout investors such as CINVen are not required to distribute in this way. They are measured in a 'cash in versus cash out' basis and consequently can add and do hold on to their residual shareholdings for some time after the float only releasing their position when they feel the time most appropriate. Similarly, 3i the largest venture capital player in the UK market is not forced to sell stock on flotation nor is it obliged to sell before a certain period into the aftermarket. Insurance company venture capital departments do not have to sell and very frequently pass the stock on to the quoted sides. The clearing bank buy-out departments are generally sellers because it's how they best refresh their funds available for new buyout opportunities.

The number of buyout and buy-ins floats during 1995, twenty nine, was significantly down on the forty nine of the previous year and thirty six of 1993. The period to

flotation of buyouts increased from the level of around three years nine months which had been sustained for the previous three years to 4 years, 8 months<sup>20</sup>.

There was a sharp decline in the importance of flotation as a means of giving employees the opportunity to own shares.

First year price performance of 1995 buy-out floats was the best of the period 1992-1995, with an actual average price improvement of over a third (35.5 percent) and a relative price improvement of over a quarter (25.5 percent). Relative long term out performance has also been achieved in the CMBOR Index (sponsored by River & Mercantile). By the end of March 1996 this had outperformed the Hoare Govett Small Companies Index by 40.1 percentage points since its base date.

## **4.2 Current Trends**

Recent times have seen a considerable reduction in the level of buyout and buy-in flotation activity compared to 1993 and 1994. While, overall, the number of new issues on the Official Market has fallen, sentiment towards buy-out and buy-in flotations was adversely affected by several large flotations in 1994 which subsequently performed very badly.

The number of buy-out and buy-ins floats during 1995, twenty nine, was significantly down on the forty nine of the previous year and the thirty six of 1993. Of the total buy-out and buy-ins floating, almost a third (nine) were management buy-ins, a record number.

Not only was the total number of buy-out floats considerably lower than the previous year, but their average size, £54.9 m, was also much reduced. Consequently their initial total market capitalisation was little more than two fifths of the previous year's level. In contrast the average buy-in was larger than both that achieved the previous year and that of 1995 buy-out floats. The total market capitalisation of buy-ins floating almost doubled to £74 m<sup>21</sup>.

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<sup>19</sup> 'New Issue Overload', HSBC James Capel, London 1995

<sup>20</sup> CMBOR Quarterly Review p27

<sup>21</sup> CMBOR ibid p28

Some of the key characteristics of Buyout and Buyin flotations in the period from 1992-1994 are listed in the table below.

**Table 7**

**Key Characteristics of Buyout and Buyin Flotations**

	<b>MBO</b>	<b>MBO</b>	<b>MBO</b>	<b>MBI</b>	<b>MBI</b>	<b>MBI</b>
	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>
Mkt Cap. - Total	1941.3	2665.6	1097.2	365.8	328.0	740.6
Mkt Cap. - Average	64.7	62.0	54.9	73.2	65.6	82.3
Net Funds Raised - Total	597.5	778.9	191.1	103.0	96.3	266.5
Net Funds Raised - Average	19.9	18.5	11.9	25.7	19.3	29.6
% share cap. offered	48.2	49.6	31.7	57.7	50.1	44.5
Ave. P/E	15.8	13.5	14.8	13.7	22.8	14.3
Ave. Yield	3.7	4.1	3.3	4.6	3.5	3.7
Period from VC inv. to float	3.9	3.9	4.8	3.9	4.2	3.1
Number floated	30	43	20	5	5	9

Source - CMBOR ibid p28

Similar trends were also seen in the amount of funds raised at float with substantial reductions from buy-outs but increases for buy-ins. The more difficult conditions for new issues were perhaps reflected in the percentage of the enlarged share capital being offered at the time of float decreasing significantly, particularly for buy-outs. This level was the lowest since the late 1980s.

Average PE ratios moved in opposite directions for buyouts and buy-ins. Despite the problems of flotation, but perhaps reflecting the overall high stock market indices for part of the year, the average PE ratio of buy-outs increased. Those of buy-ins declined from the unusual levels of the previous years.

The period to flotation of buy-outs increased from the level of around three years nine months which had been sustained from the previous three years as a group of early and mid 1980s buy-outs came to market. In contrast several buy-ins floated only a very short time after float.

### 4.3 Characteristics of Recent Management Buy-out Companies

Although two of the floated buy-outs and buy-ins could trace their origins back to the eighteenth century, those floated were on average post-war rather than pre-war as in the past two years. Some of the details of the Buyout and Buyin firms floated in 1993-1995 are listed in the table below.

**Table 8**

	<b>1993</b>	<b>1994</b>	<b>1995</b>
Year Founded	1939	1934	1947
Value at Buyout	35.1	38.1	32.8
Capitalisation at Float	65.9	62.4	63.4
Turnover in year pre float	64.7	58.2	46.0
Operating profit in year before float	5.3	6.0	4.4
Pre-tax profit in year before float	3.6	4.3	3.0
Post-tax profit in year before float	2.5	2.4	1.6

Net Borrowings in year pre float	12.8	15.9	9.3
Net Assets in year pre-float	9.0	5.1	8.5
No. of employees	1337	986	578

Source-CMBOR ibid p29

The average market capitalisation on float of buy-outs and buy-ins together was marginally up on the previous year reflecting the number of larger buy-ins. This was despite the inclusion of AIM market stocks.

The longer period between buy-out and float is likely to be one of the main factors behind both the broad maintenance of market capitalisation levels, despite the companies on average having a smaller valuation at the time of buy-out or buy-in, and the increase in the average net assets of the companies in the year before flotation.

There was also a considerable reduction in the average net borrowings of the companies in the year before flotation.

The average size of company in terms of average number of employees was substantially reduced, with only six of the floated buy-outs and buy-ins employing more than one thousand full time employees.

There were major variations in the profitability of the companies, with five making pre-tax losses and four operating losses in the year before flotation.

Examination of the original sources of all buyouts and buy-ins which exited in 1994 and 1995 shows that those which were originally divestment's from a UK parent were by far the most likely to exit through a flotation. In contrast, those bought from family or private shareholders were very unlikely to exit through a float despite their importance as a source in the overall buyout and buy-in market

The details on sources of floated MBOs are listed in the table below.

**Table 9**

	<b>Float</b>	<b>Float</b>	<b>Trade Sale</b>	<b>Trade Sale</b>	<b>Rec.ship</b>	<b>Rec.ship</b>
	<b>1994</b>	<b>1995</b>	<b>1994</b>	<b>1995</b>	<b>1994</b>	<b>1995</b>
Rec.ship	8.3	14.3	5.7	11.7	14.6	17.2
UK Parent	58.3	57.2	36.8	40.4	43.8	40.6
Foreign Parent	10.4	7.1	12.6	9.6	14.6	5.1
Private	10.4	7.1	20.7	27.6	20.8	29.7
Priv-ation	6.3	14.3	23.0	9.6	20.1	1.6
Going Pvt	6.3	0.0	1.3	1.1	4.1	7.8
Total	100	100	100	100	100	100
Sample	48	28	87	48	48	64

Source-CMBOR ibid p29

The CMBOR examined new issue prospectuses to determine the reasons stated for flotation. The results of their study are shown in the table below.

**Table 10**

<b>Reason</b>	<b>Total Number</b>	<b>Total %</b>
Pay-off buyout loans - personal	19	65.5
Pay-off buyout loans - company	24	82.8
Realise part of VC	19	65.5

investment		
Expansion - General	26	89.7
Expansion - WC	9	31.0
Expansion - Fixed Capital	3	10.3
Expansion - Acquisition	13	44.8
Status	19	65.5
Employee share ownership	10	34.5

Source-CMBOR ibid p30

Clearly, reasons may be influenced by advisers suggesting a set pattern of responses. Nevertheless some important changes were noted compared to the same classifications for 1994 flotations. The two most important reasons stated (although in reverse order from 1994) were for general expansion purposes and to pay off buyout loans taken on by the company.

Flotation also gives the opportunity for management and venture capital providers to sell some of their holdings at the time of flotation. There was significantly less inclination to do this during 1995, reflecting the concerns of the market as to the long term commitment of previous stockholders following the disappointing performance of several floated buy-outs in 1994. Indeed there were a number of cases where no shares were sold at all and several where directors increased their holdings.

Previous studies suggest that the extent of share ownership both at the time of buyout or buy-in and following a subsequent flotation may be closely associated with performance. Traditionally employee participation at the time of flotation has been given priority. Evidence shown above indicates a sharp decline in the importance of flotation as a means of giving employees the opportunity to own shares. just over a third of new issue particulars suggested this compared to nearly two thirds the previous year.

Further support for declining involvement of the wider employee body was seen in the arrangements made for employees to obtain shares at the time of float. This fell significantly to under three fifths of buyout and buy-in flotations. There was little

change in the percentage of companies having general share option schemes although there was, surprisingly, a decline in the incidence of executive schemes.

After float the percentage of equity held by directors and management, 24.7 percent, was higher than in the previous year (21.9 percent). This may reflect the smaller original value of transactions and the larger number of 1980's buy-outs, where management equity holdings were larger than more recently completed deals, as well as the smaller overall percentage of the enlarged share capital being sold at the time of flotation. There were large variations in insider share ownership between companies; some 17 percent of companies, a similar level to 1994, had management stakes of at least 40 percent.

In line with the reduction in buy-outs and buy-ins floating in 1995, the number of buyout float millionaires declined from seventy five in 1994 to fifty, five in 1995. There was however an increase in the percentage of managers having an initial flotation stake of between £1m and £2m. While considerable publicity is given to the millionaires, it is interesting to note that just over a quarter of executive directors, a similar proportion to 1994, have share stakes worth less than £0.25m on flotation. Among other post flotation stake holders, there was a slight increase in venture capital share of the equity to 29.2 percent. With the lower amount of equity being offered, only two fifths (39.7 percent) emerged in public ownership immediately after flotation<sup>22</sup>.

The extent to which individual venture capital firms may seek to exit their investee companies through flotation rather than other forms of exit may to some extent reflect different preferences and funding sources.

#### **4.4 Stock Market Performance of Recently Floated MBOs/MBIs**

This section contains detail on the main features of individual company performance in 1995. Unlike the very varied individual performance of buyout and buy-in flotations seen during 1994, 1995s' new issues had an overall more satisfactory price

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<sup>22</sup> CMBOR ibid p31

performance as measured both in terms of actual share price movements and relative to the FT-All Share Index.

On this basis the ten best performing floated buyouts and buy-ins, or 34.5 percent of the number coming to market in 1995, had a relative share price out-performance of at least three tenths with five of at least 50 percent. In comparison with last year, four of this year's floats outperformed on a relative basis the best of the 1994 floats<sup>23</sup>. Only three of this year's floats performed worse than 10 percent below the Pr-All Share Index compared with nine (18.8 percent) the previous year.

First year price performance of 1995 buy-out floats was the best of the period 1992-1995 with an actual average price improvement of over a third (35.5 percent) and a relative price improvement of over a quarter (25.5 percent). These figures include reverse-in stocks and AIM flotations<sup>24</sup>.

This improvement was particularly marked in comparison with the initial performance of 1994 buy-out and buy-in floats where there was only a very marginal price improvement. During 1995 there was a marked improvement in the actual share price of 1994 floats reflecting general stock price improvements; the overall relative performance worsened slightly.

The performance recorded is shown in the table below.

**Table 11**

<b>Year</b>		<b>Average Price Change</b>	<b>Average Relative Change %</b>
1992 Floats	to 31.12.92	+23.8	+10.5
	to 31.12.93	+70.4	+24.0
	to 31.12.94	+62.5	+31.3
	to 31.12.95	+70.0	+16.9
1993 Floats	to 31.12.93	+28.2	+2.1

<sup>23</sup> CMBOR ibid p33

<sup>24</sup> CMBOR ibid p33

	to 31.12.94	+3.2	-4.5
	to 31.12.95	+28.2	-1.4
1994 Floats	to 31.12.94	+0.9	+3.0
	to 31.12.95	+15.3	-0.7
1995 Floats	to 31.12.95	+35.5	+25.5

Source-CMBOR ibid p34

Looking at performance characteristics, the best performers (as in 1993) have been medium sized buy-out and buy-in companies- those where the original buy-out or buy-in value was between £10m and £30m. Clearly, successful deals of this size will have increased their market capitalisation considerably by the time of float, which explains the better performance of buy-outs and buy-ins in 1995 which had an initial market capitalisation of over £30m.

As noted earlier, the average period to float was considerably longer in 1995 than in the previous few years. In 1992 and 1993, although not 1994, the best performers were buy-outs and buy-ins which had taken three or four years to float. This period again produced good performance with companies outperforming relative to the FT-All Share Index by almost a third (31.7 percent).

In both 1992 and 1994 floats where less than 50 percent of the enlarged share capital was offered for sale had performed more satisfactorily than those where more than 50 percent had been offered. This was again the case in 1995.

The increase in buy-ins being floated was accompanied by a sharp reversal of their performance relative to buy-Outs. Whereas in 1992/94 buy-ins had outperformed buy-outs, they had a disappointing overall performance in 1995.

**Table 12**

	1993 floats Price Ch.	1993 floats Rel. Ch.	1994 floats Price Ch.	1994 floats Rel. Ch.	1995 floats Price Ch.	1995 floats Rel. Ch.
MBO Value						
<£10m	+22.0	+6.5	+5.3	+7.5	+23.8	+11.7
£10m- £30m	+45.8	+0.3	+2.9	+4.9	+76.9	+63.0
£30m+	+22.2	+6.0	-4.4	-2.2	+11.2	+5.7
Mkt Cap. on Float						
<£30m	+25.5	+4.3	+3.1	+3.9	+18.5	+7.7
£30m+	+28.9	+1.4	+0.1	+2.7	+46.5	+37.1
Period to float						
<3yr	+26.9	+9.7	-5.7	-2.9	+32.4	+24.4
3/4 yr	+25.1	+9.5	-0.7	-0.3	+44.9	+31.7
5yr+	+37.1	-28.2	+11.9	+14.7	+24.5	+17.3
% sh. cap. offered						
<50%	+17.1	-0.2	+2.4	+4.2	+39.8	+29.5
>50%	+39.1	+2.2	-0.9	+1.7	+19.8	+11.0
MBO?	+31.3	+12.3	+17.0	+20.1	+7.5	+2.5
MBI?	+27.7	+0.4	-1.0	+1.0	+46.7	+34.7

Source-CMBOR ibid p35

The debate over the longer term performance of floated buy-outs and buy-ins has led to the establishment of an index, the CMBOR Index of buy-out and buy-in floats. This has been sponsored by River & Mercantile.

The CMBOR Index comprises those companies listed on the London Stock Exchange which have previously been subject to a buy-out or buy-in as defined by CMBOR. Companies included are revised daily to include new flotations and to take off companies which have subsequently been subject to some form of second exit. The base date for the CMBOR Index is end 1990 and the Index includes all buyout and buy-in floats which were quoted at that date. The Index has been calculated since July 1995, and on a daily basis since January 1996. Recent results from the index are reported in table form below.

**Table 13**

	31/12/90 - 31/3/96	31/12/94 - 31/3/96	31/12/94 - 31/12/95	31/12/95 - 31/3/96
CMBOR Index	+118.7	+28.7	+20.1	+7.2
FTSE All Share	+78.6	+21.2	+18.5	+2.3
FTSE Mid 250	+104.8	+23.6	+14.8	+7.6
Hoar Govett Small Cap Index	+79.0	+17.8	+9.7	+7.4

Source-CMBOR ibid p35

As is shown in graph 4 in the graph pack, relative price out-performance has been achieved by the Index since its formation. Between its base date and the end of March 1996, the out-performance relative to the FT All Share Index has been 40.1 percentage points and against the Hoare Govett Smaller Companies Index 39.7 percentage points. For the fifteen months to March 1996, the Index increased by 28.7 percent compared to 17.8 percent for the Hoare Govett Smaller Companies Index

## **5. STUDY METHODOLOGY AND DATA**

### **5.1 The Study Data**

The data used in this study is concerned with initial public offerings made on the Main Market and the Unlisted Securities Market of the London Stock Exchange. The study period spans six years from July 1989 to June 1995.

The dataset was constructed in the following manner. Data on companies floating was obtained from KPMG Corporate Finance, London. The information provided included financial information on floating companies and information on the relevant professional advisors. This information was cross-referenced against information provided by the Quality of Markets Department at the London Stock Exchange for accuracy. Pricing data for the IPO companies was obtained from DataStream International and cross-referenced against a second source courtesy of FactSet Ltd. The initial dataset containing pricing data included some 302 companies.

The final sample consists of 175 companies. The average level of excess return achieved by the sample constituents was on the first day of trading was 7.9%. This level represents the index adjusted return from the floatation price to the mid-market price at the end of the first day's trading. All flotation methods are considered in the analysis. but as indicated in the Keasey and Short<sup>25</sup> study, the placing method is that most favoured by companies.

The following table indicates the flotation methods chosen by companies.

Method	Number
Placing	109
Placing / Offer for Sale	31
Placing / Intermediaries Offer	33
Offer for Sale	1
Others	1
Total	175

## 5.2 Model and Variables

In the analysis to follow, the level of underpricing is defined as:

$$EXRTN_i = [(P_{it}/I_t)/(P_{i0}/I_0)] - 1$$

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<sup>25</sup> Keasey and Short, *ibid*

Where  $P_{it}$  = share price at the close of the  $t$  th day of trading

$P_{i0}$  = offer price

$I_t$  = FT All Share Index level at the close of the  $t$  th day of trading

$I_0$  = FT All Share Index level at flotation

Measuring excess returns in this level assumes that the betas of the IPO firms is the same as that of the market as a whole. As previously discussed, this is a strong assumption, but one which has been used previously in the literature.

For the purposes of the study, the immediate excess return was focused upon. To that end the dependent variable is constructed to show excess return on the first day of trading.

For the current sample of 175 firms, the average underpricing on the initial day of trading was 7.9% as indicated. However, the standard deviation of 15.2% is illustrative of the variation in underpricing across the individual firms. The level of 7.9% is lower than reported in recent studies. This may in part be reflected in the relatively large number of sizeable flotations undertaken in the period. (such as the privatisation of the water and regional electricity companies). Over the other periods which were examined (days 5,10,15 and 20) the level of underpricing and standard deviation of returns were broadly similar.

The relevant statistics are shown in the table below.

	Day 1	Day 5	Day 10	Day 15	Day 20
Average Return	7.89%	8.55%	8.05%	8.34%	8.34%
Std. Deviation	15.24%	14.61%	15.22%	14.45%	15.59%

The variables used are shown in the model below.

$$\text{EXRTN} = B_0 + B_1.\text{BIG} + B_2.\text{MBO} + B_3.\text{PBV} + B_4.\text{PSAL} + B_5.\text{TURNOVER} + B_6.\text{NAV} + B_7.\text{PRE} + B_8.\text{FUNDS} + B_9.\text{RETAINED}$$

Where the variables are defined as follows

Dependent Variable	Description
EXRTN	Level of excess return
Independent Variables	
BIG	Dummy variable coded 1 if the company was a government privatisation issue
MBO	Dummy variable coded 1 if the new issue was an MBO
PBV	Share price to Book value ratio
PSAL	Share price to sales ratio
TURNOVER	Turnover in the period immediately pre float
NAV	Nav in the period immediately pre float
PRE	Pre-tax profit in the period immediately pre float
FUNDS	Funds raised in the flotation
RETAINED	Percentage of equity retained by shareholders in the float

The focus of this study is to determine any differentiation between the returns produced by MBO firms in the initial post issue period and in addition to determine whether any effect, if indeed one exists, persists for a period of time into the post issue period. For that purpose each study was conducted for a number of different time periods.

The variable BIG was included in the model to see whether any differential effects in underpricing existed for those much larger government privatisation issue and in addition to see whether this effect persisted through time. MBO is a dummy variable used to separate the MBOs from the other firms in the dataset. PSAL is a variable which relates the market value of the company to its turnover. The notion behind including this variable is to see whether those companies which have a lower price to

sales ratio (and hence may present better ‘value’) produce higher excess returns. Similarly, the PBV variable relates the market value of the company to its asset value. The notion here is to test whether lower price to book value companies have positive valuation characteristics which produce higher excess returns. TURNOVER, NAV and PRE variables measure sales, assets and profitability of the firms. The inclusion of these variables seeks to show if any relation between these variables and the level of excess returns exists. FUNDS measures the amount of funds raised in the flotation. The idea here is to determine if floats which raise less funds are potentially less risky and hence may exhibit lower degrees of excess returns. RETAINED measures the percentage of funds retained in the company post flotation. The notion here is that less risky firms (which should produce lower excess returns) have high retention levels.

### **5.3 Empirical Methods**

The empirical analysis conducted was that of an ordinary least squares regression (OLS) with excess return as dependent variable and the explanatory variables as indicated in the previous section. The models were run on the MicroFit 4 econometrics package.

The model was found to suffer from a heteroscedasticity problem. In the models run where the explanatory variable was excess return 15 and 20 days after flotation, the model was found to suffer from a heteroscedasticity problem. The result of the existence of this problem was that while the parameter estimates were linear and unbiased they were not minimum variance in the class of all unbiased estimators. The absence of the minimum variance criterion places a question on the validity of any inference which can be drawn from the model. As a result, the heteroscedasticity problem had to be solved in some way. The traditional method of solving such a problem is to determine which of the independent variables is causing the variances to be non-constant and then to ‘scale’ the regression equation to resolve the problem. Unfortunately, in this case such a procedure would be very difficult to accomplish effectively due to the number of independent variables. However, the same result can be achieved by the use of White’s heteroscedasticity consistent standard errors. This approach does not attempt to identify the specific cause of the problem but makes an algebraic manipulation to cure the problem. Heteroscedasticity consistent parameters

are shown for all the models but as intimated, they are only strictly relevant to the last two studies.

## 5.4 Model Results

The regression results are shown below.

	Day 1	Day 5	Day 10	Day 15	Day 20
R Squared	0.075	0.114	0.095	0.070	0.0811
F Statistic	1.476	2.363 *	1.919**	1.3378	1.6186

\* - significant at the 5% level

\*\* - significant at the 10% level

The results of the model estimation procedure reveals that both R squared values and F statistics are low. This is not entirely unexpected as high R squared values would mean that it were possible to forecast which stocks would produce high excess returns. Nevertheless, the low values do mean that the level of security which can be attached to inference from the parameter estimates is modest. The individual parameter results are discussed below.

### Parameter Results

Regressor	Day 1	Day 5	Day 10	Day 15	Day 20
BIG	NO	NO	NO	NO	YES (10%)
MBO	YES (10%)	YES (5%)	NO	NO	NO
PBV	NO	YES (10%)	YES (10%)	YES (5%)	YES (10%)
PSAL	NO	NO	NO	NO	NO
TURNOVER	NO	NO	NO	NO	NO
NAV	NO	YES (10%)	NO	NO	NO
PRE	NO	NO	NO	NO	NO
FUNDS	NO	NO	NO	NO	NO

RETAINED	NO	YES (5%)	NO	NO	NO
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## 5.5 Discussion of Results

From the panel of results as presented above the following conclusions can be drawn. The results with respect to the MBO variable are most interesting. The variable is significant over the first two observation periods but is in fact signed negatively. This is indicative of MBOs exhibiting lower levels of excess return in the immediate aftermarket. The variable ceases to have any significance over other time scales.

This result would seem to stack up against the earlier anecdotal evidence that MBO firms outperform the universe of other flotations. However, in this context it must be noted that even though the time frame of the study extends to twenty days of trading into the after-market, this in itself is not that long a time window. It may well be that the MBOs do outperform over longer (six months) time periods but this effect is not captured by the dataset used in this study.

Interestingly, MBOs are appearing to exhibit lower excess return in the immediate aftermarket. This phenomenon may well be explainable in terms of the signalling literature discussed earlier in this thesis.

As mentioned in the preceding sections of this chapter, venture capitalists spend a great deal of time vetting potential investments before actually committing funds. In that sense they may, by investing in the first place, be sending a credible signal to the equity investors who subsequently invest in the MBO on listing that the investment is of 'high' quality. In the same way that using a high reputation sponsor is purported to act as a signal of potential investment quality (and hence lower excess return), being a former MBO may produce the same net effect. This postulation would explain the results as found.

To discuss the other findings in brief, the most prevalent finding is that the PBV variable is significant over a number of time periods. This would point to shares with a higher asset backing producing a higher level of excess returns. This would be consistent with investments which exhibit better 'value' characteristics producing larger excess returns in the aftermarket. The fact that the first day result was negative may point to the gradual buying interest in these stocks increasing over time. The final result to comment upon relates to the fact the the dummy variable representing the government privatisation issues produced a statistically positive result for the last time period in the study. This indicates abnormal excess returns from such stocks, but only after some time.

## **6. CONCLUSION**

This paper has sought to examine the venture capital market in the UK with particular emphasis on MBO flotations. The results in section four do not square entirely with the evidence introduced earlier. The phenomenon of outperformance from venture capital backed flotations was not evidenced by the results. This may be due to the relatively short time period examined but nevertheless, the results stand.

The reasons for this result may have to do with the 'signalling' of underlying IPO quality alluded to in earlier work. What is interesting to note is that while the presence of a venture capitalists via his/her involvement in an MBO acts as a positive signal to investors by apparently reducing uncertainty over the prospects for the business and the associated level of excess return, the use of a highly reputable sponsor appears to have no such effect.

The evidence presented from work into longer term returns from MBOs (and indeed MBIs) indicates that they do produce excess returns relative to other asset classes. This in fact does tie in with the scenario outlined. It would be consistent for 'high quality' IPOs to produce low immediate excess returns in accordance with the signalling effect but for these investments to produce better long term returns as a function of their higher quality.

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