



## **Bachelor Thesis – Financial Mangement**

*‘What drives venture capital fundraising? The differences between the United States and Europe’.*

Name: Bart Schmitz  
ANR: S381105  
E-mail: [B.J.M.Schmitz@uvt.nl](mailto:B.J.M.Schmitz@uvt.nl)  
Study program: Premaster Financial Management

19<sup>th</sup> of June 2009

Supervisor: Assistant Professor J. Inkmann

## **A brief introduction**

This thesis will explain the most important difference of the venture capital markets in Europe and the United States. In the following five chapters the of the differences between these two markets will explained.

*Chapter One:* Venture capital in general. This chapter gives a short introduction in the development of venture capital and its history. Also the general culture of venture capitalists will be explained and how venture capitalists operate within a project.

*Chapter Two:* Important investment stages. The several investment stages and their importance for the European and the United States market will be explained in this chapter.

*Chapter Three:* The most popular industries to invest in. This will include which markets are the most attractive for venture capitalist to invest in. Also the difference between Europe and the United States will be explained in this chapter.

*Chapter Four:* The role of government programs. Governments have played a large role for the growth in the venture capital market, especially in Europe. In this chapter some examples will be given to explain why governments programs have helped to develop the venture capital market in general and in Europe.

*Chapter Five:* The importance of IPOs. This chapter will explain what venture capital is eventually all about, the Initial Public Offering, one of the most popular exiting strategies for venture capitalists in Europe and the United States.

*Chapter Six:* A country comparison of venture capital investments. In this chapter it will be explained why there is such a great difference between venture capital in Europe and the United States.

The eventual conclusion will give a total overview of the paper and will explain the major differences between the European and the United States venture capital markets.

## Chapter 1: Venture capital in general

Venture capital is the term that is used for the financing of companies with a high risk factor, usually these are start-up companies with new innovative ideas. With venture capital these start-up companies get a 'playing chance' in the market with the help of venture capitalists who provide the financing, that otherwise would have been difficult to attract. On the one hand these firms bear a great risk, but on the other hand they can also create a high potential profitability for the investors.

### *Main characteristics of venture capital*

A venture capitalist has five main characteristics according to Metrick (2006):

- A venture capitalist is a financial intermediary, meaning that it takes the investors' capital and invests it directly in portfolio companies;
- A venture capitalist invests only in private companies. This means that once the investments are made, the companies cannot be immediately traded on a public exchange;
- A venture capitalist takes an active role in monitoring and helping the companies in its portfolio;
- A venture capitalists primary goal is to maximize its financial return by exiting investments through a sale or an IPO;
- A venture capitalist invests to fund the internal growth of companies.

### *What do venture capitalists do?*

Venture capital activities can be broken into three main groups: investing, monitoring and exiting.

Investing begins with venture capitals prospecting for new opportunities and does not end until a contract has been signed. For every investment made, a venture capitalist may screen hundreds of possibilities. Out of these hundreds, perhaps a few dozen will be worthy of detailed attention, and fewer still will merit a preliminary offer. Preliminary offers are made with a term sheet, which outlines the proposed valuation, type of security, and proposed

control rights for investors. If this term sheet is accepted by the company, then the venture capitalist performs extensive due diligence by analyzing every aspect of the company. If the venture capitalist is satisfied by this due diligence, then all parties negotiate the final set of terms to be included in the formal set of contracts to be signed in the final closing.

Once an investment is made, the venture capitalist begins working with the company through board meetings, recruiting, and regular advice. Together, these activities comprise the monitoring group.

The final group of activities is exiting. Venture capitalists plan their exit strategies carefully, usually in consultation with investment bankers. A typical IPO underwritten by a top investment bank will sell at least \$50 million of new stock and have a total equity value of at least \$200 million. [Metrick, 2006] Historically, the IPO has been the source of the most lucrative exits. The main alternative to the IPO is a sale to a strategic buyer, usually a large corporation. Sometimes these sales can be very profitable for the venture capitalist, but only if there is significant competition for the deal, often including the possibility of an IPO.

### *History of venture capital*

The search for the cradle of venture capital brings us to the United States in the 19<sup>th</sup> and early 20<sup>th</sup> century. The first people who started to organize investing came from members of wealthy American families (Rockefeller, Bessemer and Whitney). In the 1930s and '40s they hired professional managers to seek out investment opportunities in promising young, mostly high-tech, firms with high-return that might otherwise have difficulty attracting financing.

The modern organizational form of venture capital dates back only to 1946. The bank set up some rules of lending money. The borrowers had to show evidence of collateral to ensure the bank that they could make timely payments of interest and principal. Most entrepreneurial firms, however, didn't meet these standards, and so they required risk capital in the form of equity. During this period there was no regular source of such capital, mostly without wealthy friends or family the entrepreneurs had little opportunity to fund their company. Because of these developments the first modern venture capital firm was formed when MIT president Karl Compton, Massachusetts Investor Trust chairman Merrill Griswold, Federal

Reserve Bank of Boston president Ralph Flanders, and Harvard Business School professor General Georges F. Doriot started American Research and Development (ARD).

The goal of the company was to finance commercial applications of technologies that were developed during World War II. ARDs staff under Doriot's direction began providing industry expertise and management experience to the companies they backed in order to increase their chances of ultimate success.

During the course of his tenure at ARD, Doriot's vision was not one of "making money" but rather financing new innovative ideas. His first investment was \$200,000 in a company named 'The Hight Voltage Engineering Company'. This investment was worth \$1.8 million only 8 years after the investment.

In 1958, the Federal government decided to play an active role in promoting small firm development by becoming a participant in and regulator of small firm financing.

The Small Business Administration was given the authority to charter new small business investment companies (SBICs). SBICs were to provide early stage financing (Venture Capital) for companies in various industries. [Gompers, P.A.,1994]

The number of SBICs increased rapidly. By the mid-1960s, 700 SBIC's controlled the majority of risk capital invested in the United States. SBICs differed markedly from ARD. SBIC's tended to provide little more than money. Most managers of SBIC's had little industry expertise and could not provide entrepreneurs with information or access to industry experts. SBICs did not monitor the firms as active investors, but instead relied on the repayment of loans to evaluate the success of a project. Problems quickly developed. In an effort to lever investment in small business, SBICs were able to borrow four government guaranteed dollars for each dollar of equity capital in the investment company.

A second major concern was the incentive problems inherent in government guarantees. As the recent s&l crisis<sup>1</sup> suggests, when the managers of certain financial institutions understand that the government will bail out the depositors if things go wrong, they have little incentive to monitor their investments closely.

---

<sup>1</sup> savings and loan crisis in the U.S. during the '80's and '90's

The implicit put option offered by the government gave individual institutions an incentive to gamble.

The IPO market of the late 1960s was extremely active, and many SBICs were able to bring a number of companies public during the boom. But the IPO "bubble" and adverse investment incentives caused by the loan guarantees led to increased investment in risky projects. The recession after the first oil embargo of 1973-1974 hit young firms particularly hard. IPO activity dropped to one-tenth its previous level and many SBIC-backed firms began losing money. SBIC-backed companies, which were often financed with debt, could not meet interest obligations.

One of the early disciples of the Doriot tradition was Don Valentine. Valentine had been marketing director at National Semiconductor. Like many other early venture capitalists, Valentine brought years of industry experience to the firms he financed. When Steven Jobs and Stephan Wozniak sought his help in 1976, Valentine knew that the two engineers needed a competent manager to head their young start-up, Apple Computer. In addition to the money he provided, Valentine cajoled A.C. Markkula, Jr., a former Intel manager, to be Apple's president. Valentine's help was typical of early venture capital financing. In addition to supplying \$91,000 of capital, Valentine brought in \$600,000 more in start-up financing by syndicating the investment with other venture capitalists. Prior to its initial public offering, Apple received \$3.5 million in venture capital money. These investments grew in value to \$271 million in December 1980, when Apple went public.

Today, venture capital is a well-established business throughout the developed world, but remains quite geographically concentrated both across and within countries, with the United States still comprising about half the venture capital activity in the world.

Venture capital has been emerging in Western-Europe since the 1980's. When venture capital first came to Europe, it was a smaller copy of the American counterpart. In Western-Europe there are many differences in venture capital between the many countries in Western-Europe itself. The cause of this is mainly the differences in innovation between countries, the way in which government regulations, culture, tax and the language barrier. Although venture capital has developed differently in each country because of all these factors, the main aspects of venture capital remain the same.

If you would compare Western-Europe to rest of the world, the innovative level of Europe is in general much higher when compared to some of the major countries in the world. However there are still many differences in innovation between the countries in Western-Europe itself. Also the connection between a high level of technological advancement and economic growth differs greatly per country.

Three indicators that measure this role are the number of patent applications, the number of engineers and technicians engaged in research and development, and the level of expenditures on research and development. All these indicators should be correlated to the total size of the technology sector, particularly in terms of the rate of innovation [T. Tyebjee and L. Vickery, Spring 1988]. When these three indicators are considered, The United Kingdom, France and Germany are the most innovative countries of Western-Europe. Second largest innovative countries are Italy, Denmark and The Netherlands.

Overall it is suggested that The United States has a higher innovative and entrepreneurial level than Europe and this is caused by some great cultural differences.

A major difference between the United States and Europe with the startup of new businesses, is the growth rate. In the United States the number of new startup businesses has been multiplied by six over the past 30 years, while in Western-Europe the number of new starting businesses has been stable over the past decades.

A typical characteristic of European venture capital has been the connection to the inventor. The investor is seen as the source of the company rather than entrepreneur. The entrepreneur is mostly seen as an intermedium to the market. In the United States the entrepreneur is seen as the source of the company. Another characteristic for cultural differences was the influence by third-party owners. This also led to undeveloped equity markets. We can conclude from this that European companies depend more on self-financing and debt capital, in comparison to The United States.

## **Chapter 2: Important investment stages**

Venture capitalists invest in a rather structured way. To get an idea about the different stages and the activities belonging to it, an overview is given.

### *1. Seed investment*

This is the first stage of venture capital funding. In this stage the entrepreneur will require capital funding for further developing his idea or invention.

### *2. Start-up*

In this second stage of venture capital funding the company receives a substantial amount of funding from venture capitalists for further product development and testing and a management team is being put together for the future production and marketing of the product. Also the marketing plan for the product is being studied to acquire a higher potential market penetration.

### *3. Expansion*

For this third stage the first generation of the product has been good enough for entering the market and the market studies have shown a high enough potential for the product to become successful. Therefore it is necessary to set up a larger manufacturing process and distribution lines for shipping the products to the costumers. In this process the company may still be unprofitable or slightly profitable and therefore the company is in need of more capital funding to acquire these goals.

### *4. Replacement*

In this stage of venture capital funding, the company is profitable enough for the venture capitalist to begin planning the buy-out of the shares of outgoing partners. This stage also requires a large amount of capital funding. In the replacement stage it can also be considered, depending on the financial health of the company, to reduce the debt / capital ratio to financially improve the company.



### *5. Management buy-out / buy-in*

In this final stage of venture capital funding the current management of the firm will buy-out the company. It is also possible for a new management team to buy-out the firm, this is called a 'management buy-in'.

### *Investment stages in Europe and the United States*

The following is based on the findings and research of Lorenz (1989), Murray (1991b) and Murray and Lott (1995).

It is most surprising that not only just new start-up firms experience the difficulties of financial constraints, it is found that also the more mature innovative firms which are creating more new patents and therefore have the need for more so called "knowledge workers" are finding themselves confronted with these financial constraints.

Venture capital both solves the problem of these financial difficulties of NTBF (New Technology Based Firms) and supplies the entrepreneur with the expertise and advise of the venture capitalist.

The United States is a great example for the success of venture capital for newly developing technology based firms. Many world-known companies received a substantial amount of venture capital funding in their start-up years. A few examples of these companies are Microsoft, Appel, IBM, Intel, Cisco and Federal Express. [Florida and Kenney, 1988]

In Europe, since the mid 1980's, the first introduction of venture capital was mostly focused on the later stages of financing. Specifically on the management buy-out stage of the financing stages. These investment bear less risk than some of the early stage investment, such as seed investments. In this stage it is still unclear how the future of the company will unfold.

The venture capitalist has to have enough experience with early stage technology investments to decrease the potential riskiness of his investment. And the possibility must be created for the venture capitalist to provide the entrepreneur with his own advise en expertise to successfully implement the new product(s) on the market.

Overall, venture capital in Europe is characterized by late-stage investment in financing small technology based firms. At the seed investment stage, the most important investment for new upcoming firms, it is a stage where the risk is the highest for investors. This is because failure of the firms at this stage in the development have a higher probability than in later investment stages of venture capital. This hesitating behavior of the European venture capitalist is a result of ‘an earlier and unsuccessful experiment by the fledgling UK VC industry to imitate its US counterpart’s successes in NTBF investments’.

In table 1 we see the distribution of the total venture capital investments made by 16 European countries from the year 1995 till 1997.

*Table 1: the values of investments in the different stages of venture capital*

| Stages of venture capital investment: | 1995           |            | 1996           |            | 1997           |            |
|---------------------------------------|----------------|------------|----------------|------------|----------------|------------|
|                                       | ECU<br>Million | %<br>Total | ECU<br>Million | %<br>Total | ECU<br>Million | %<br>Total |
| Seed                                  | 2              | 12         | 6              | 19         | 56             | 13         |
| Start-up                              | 4              | 21         | 4              | 12         | 58             | 8          |
| Expansion                             | 1              | 21         | 6              | 30         | 59             | 8          |
| Replacement                           | 2              | 17         | 4              | 18         | 61             | 9          |
| MBO/MBI                               | 5              | 18         | 7              | 21         | 56             | 12         |
| Total investment                      | 4              | 15         | 5              | 27         | 52             | 9          |

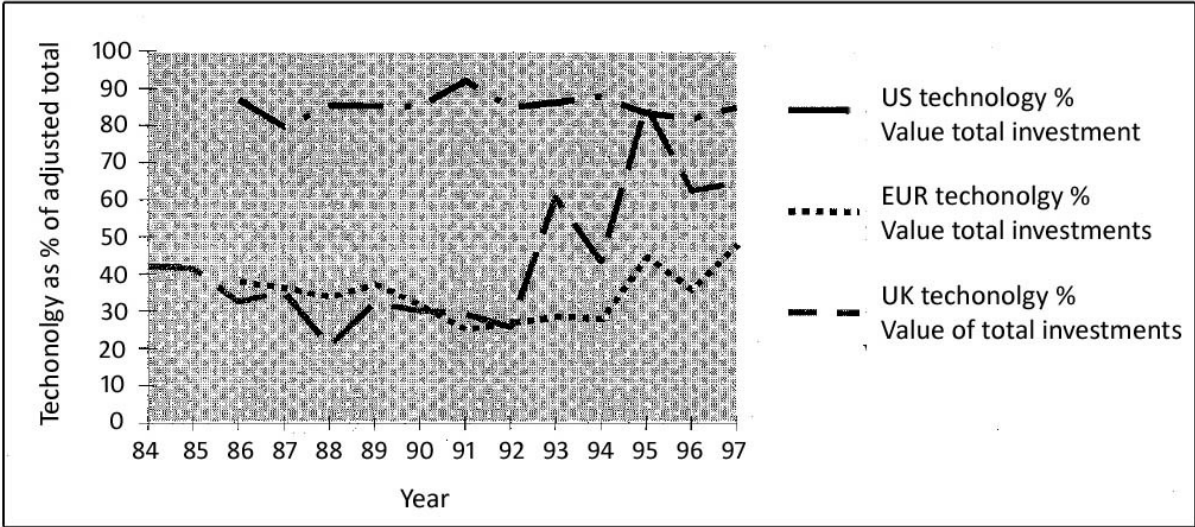
*Source: EVCA, 1998*

From these numbers it is very clear that seed investments in Europe are largely underdeveloped in contrast to the expansion and the MBO/MBI stage of venture capital funding. Although the percentage of seed investments stays constant over the years, the number of total venture capital funding is increasing with...% per year. This shows that the total market for venture capital financing in Europe is increasing and that it is following its successful predecessor, the United States.

Graph 1 is showing the investments in technology based firms as a percentage of the total value of all investments in the United States and Europe from 1984 till 1997, with special attention to the United Kingdom. The United States has always had a high investment level in technology and the United States has also been a very innovative country over the past decades.

Some examples of these have been mentioned earlier, such as the success of Intel and Microsoft. Europe however shows a lot lower level of investment in technology based firms. From 1984 till 1994 the investments stayed rather constant, but from the beginning of 1994 we see a large increase in the investment funding compared to the previous years. The United Kingdom has followed the investment trend of Europe for a couple of years, from 1984 till 1992. After that it started to show an immense increase in investment percentage nearly increasing to the same levels as the United States. It has been following that trend ever since. [Murray, 1999]

Graph 1: Technology investments as a percentage of the total venture capital investment



Source: Annual Statistics, Report on Investment Activity, British Venture Capital Association, European Venture Capital Association and National Venture Capital Association, 1998

The typical ‘seed investments’, which requires large amounts of funding in the early stages of development has been a huge trend in the United States. This is mainly the cause of the great amounts of investments which have taken place during the so called ‘internet bubble’. During that period there was a great rush in investing in internet start-up companies. The internet start-up companies needed to create new business models with new innovative findings. They also needed to hire experienced managers and other employees. These were all very speculative and expensive investments which weren’t likely to create a profit for the first couple of years.

### Chapter 3: Which type of industries are the most popular?

The types of industry in which venture capital is invested can differ to a great extent. However the type of investment mostly comes down to a technological investment.

It's easier to explain the different type of sectors in which is being invested in the United States and Europe with the use of some tables.

*Table 2: Venture capital investment destination, percent by sector*

|      | Telecom |    | Computer |    | Manufacturing |    | Biomed |    | Electronics |    | Others |    |
|------|---------|----|----------|----|---------------|----|--------|----|-------------|----|--------|----|
|      | EU      | US | EU       | US | EU            | US | EU     | US | EU          | US | EU     | US |
| 1991 | 2       | 12 | 6        | 19 | 56            | 13 | 6      | 25 | 3           | 17 | 27     | 14 |
| 1992 | 4       | 21 | 4        | 12 | 58            | 8  | 5      | 22 | 3           | 10 | 26     | 27 |
| 1993 | 1       | 21 | 6        | 30 | 59            | 8  | 6      | 21 | 4           | 7  | 24     | 13 |
| 1994 | 2       | 17 | 4        | 18 | 61            | 9  | 5      | 23 | 4           | 10 | 24     | 23 |
| 1995 | 5       | 18 | 7        | 21 | 56            | 12 | 8      | 22 | 4           | 12 | 20     | 15 |
| 1996 | 4       | 15 | 5        | 27 | 52            | 9  | 6      | 20 | 4           | 7  | 29     | 22 |
| 1997 | 6       | 16 | 7        | 30 | 51            | 8  | 7      | 27 | 5           | 8  | 24     | 11 |
| 1998 | 9       | 16 | 9        | 36 | 46            | 8  | 7      | 17 | 3           | 11 | 26     | 12 |
| 1999 | 12      | 17 | 11       | 56 | 50            | 6  | 7      | 7  | 2           | 6  | 18     | 8  |
| 2000 | 14      | 17 | 13       | 58 | 43            | 7  | 10     | 6  | 4           | 8  | 16     | 4  |

*Source: Authors' calculations on EVCA and EVCA data [Bottazzi, 2001]*

As can clearly be stated, the venture capital investments of Europe is mostly focused on the manufacturing industry. This is not the case for the United States, instead it is the opposite. The investments of venture capital in the United States, when compared to Europe, is the lowest in the manufacturing industry. All the other sectors, such as biomed and computers are the most popular in the United States.

## **Chapter 4: The Role of Government programs**

The positive effect of venture capital on the market has been recognized by many governments around Europe and this is the reason why European governments began to start venture capital funding programs to further stimulate venture capital financing for new and/or innovative firms. According to Lerner (1999), there are several benefits for creating governments support in the venture capital markets, but there are also a few disadvantages.

The private venture capital market may find interference of the government financing on venture capital. A second important disadvantage is the government's ability to screen for projects with a high potential and creating new healthy companies. There are many scepticists about this ability of the government. This is according to O'Shea (1996). The most important way in stimulating venture capital by the government is to create a legal infrastructure and tax benefits for private equity investments. Leng and Wells (1998) show that this creates growth in the venture capital market for the future.

The role of government programs for stimulating venture capital is currently the largest in Europe when compared to the United States. Because Europe is the market where governments try the hardest to stimulate venture capital in creating new and healthy companies. There are two ways in which the European governments stimulate venture capital. This is done through fiscal advantages and loss guarantees.

The French government was the first to provide specific incentives for venture capital funds when it authorized the creation of Sociétés Financières d'Innovation (SFI's, Innovation Financing Companies) in 1971 [Tyebjee and Vickery, Spring 1988]. With the creation of the SFI, the first tax advantage for investors was created. Because investors were able to write off their investments for tax purposes. In 1983, a new structure was created-the Fonds Commun de Placement à Risque (FCPR, Mutual Fund for Risk Investments), directly inspired by the U.S. venture capital partnerships [Tyebjee and Vickery, Spring 1988]. Also with the creation of the loss guarantee schemes for investors of the French government, it was becoming very attractive for new investors to start-up a new business. For example, start-up companies had a tax-holiday for the first five years and tax gains are only charged at 15% tax.

The British government had created a business start-up scheme in 1981, which has developed into the Business Expansion Scheme (BES). Under this scheme, investors may deduct up to 40,000 of their equity investments from their taxable income. Investments must be in equity held for at least five years, the underlying companies may not be managed by the investors, and certain types of asset-based companies (farming, real estate, holding companies, etc.) are excluded [Tyebjee and Vickery, Spring 1988, Bond, 2003 and Mulkay, 2001].

## **Chapter 5: The importance of IPOs**

Initial Public Offerings (IPOs) is a very attractive exit mechanism for venture capitalists and other investors to get their invested money back. There are other options to liquidate a fund, but exiting through an IPO is the most popular one for venture capitalists.

Leng and Wells (1998) show with a regression analysis that IPOs have a positive effect on venture capital. In general a high level of IPOs will lead to more venture capital investments. A between regression analysis on 'venture capital investments on IPOs, accounting standards, labor market rigidities, market capitalization and GDP growth' has been done. The outcome of this analysis showed that 'the coefficient on IPOs is positive and statistically significant for virtually all specifications'.

The statement that a high level of IPOs will lead to more venture capital can also be turned around. Because venture capital usually ends with an IPO, so in that case venture capital will lead to a high level of IPOs. With a clear examination by Leng and Wells (1998) this theory turns out to be incorrect, 'the coefficient on IPOs remains positive and significant'. Also a within regression analysis has been done for venture capital investments and IPOs. The results of this regression analysis of 'venture capital investment on IPOs, lagged IPOs, market capitalization growth and GDP growth' also show a positive result on the significance for the need and the importance of IPOs for venture capital investments.

They also stated that the results of the regression analysis on IPO's in contrast to early stage investment is significantly positive. From this can be concluded that large amounts of funding in the early stage of a project will eventually have a positive effect on the IPOs in the later stage of the projects investments. This can also conclude that IPOs are the main reasons for rapidly swinging from one investment cycle to the next. According to Ritter (2003), in general before going public, the age of the firms before an IPO are very different between the United States and Europe. This also partly confirms a statement later on in this thesis that European venture backed firms have a higher duration of funding than those of the United States. This is mostly caused by the higher value of experience and the ability to screen efficiently for good potential projects. There is one great disadvantage for a company to be going public and that is the increase of transparency to the total market, but also to tax authorities. Giudici and Paleari (2003) show that a lower tax rate encourages companies in going public and this will create higher profits than if the tax rates would stay at their normal level.

## Chapter 6: A country comparison of venture capital investments

As has become clear from the previous findings, there are many differences between Europe and the United States on the field of Venture Capital. To get a broader picture of the differences we have to start with the total amount of money that is invested in each market.

*Table 3: Venture capital funds raised and invested, Europe versus US, 1991–2000*

|      | Funds raised |               | Funds invested |               |
|------|--------------|---------------|----------------|---------------|
|      | Europe       | United States | Europe         | United States |
| 1991 | 1748         | 4743          | 3028           | 2257          |
| 1992 | 5016         | 5696          | 2832           | 3795          |
| 1993 | 4523         | 3930          | 2435           | 4560          |
| 1994 | 7624         | 8040          | 3039           | 3723          |
| 1995 | 9927         | 5845          | 2974           | 4810          |
| 1996 | 11776        | 9891          | 3744           | 9676          |
| 1997 | 17096        | 22360         | 4820           | 14931         |
| 1998 | 29410        | 22031         | 7051           | 19190         |
| 1999 | 59940        | 25919         | 11586          | 54111         |
| 2000 | 92924        | 45540         | 19516          | 100622        |

*Source: Authors' calculations on EVCA and EVCA data [Bottazzi, 2001]*

Europe include funds raised for venture capital, but also funds raised by firms which specialize in management buy-outs (MBOs). These are financing operations that enable management to buy out an existing business from its original owners. 'MBOs typically involve established companies in mature industries, and are therefore quite distinct to venture capital, which is directed to new ventures'. So it looks like an extraordinary growth but in fact it isn't. [Bottazzi and Da Rin, 2001 and Canepa and Stoneman 2002]

If you compare the columns of 'funds raised' and 'funds invested' of Europe then you will get a more realistic picture of the venture capital industry in Europe and this is far less than the numbers would show you at first sight. If we would compare the growth rate of the venture capital markets of Europe and the United States, we can see that since 1995 till the year 2000 the market has multiplied with merely 20 times in the United States. In Europe this growth has only been nearly 6 fold in those 5 years. In this way the gap between the venture capital market in Europe and the United States has increased very rapidly.



## *The success of venture capital financing in comparing the United States and Europe*

In this part the United states, a mature VC market is being compared to Europe, the new and upcoming VC market. The most important aspects for the comparison and de determination of success is brought down to the different types of exit strategies and the decisions which are made in this financing stage and the IRR (internal rates of return) of the venture backed firms.

It can be clearly states, from the data which has been collected by Hege, Palomino and Schweinbacher (2003), that the United States, when compared to European venture capital firms, appears to be more successful at both of the above mentioned aspects. An explanation for the difference in success is the differences in culture within venture capital in Europe and the United States.

Venture capitalists in the United states tend to invest more capital and monitor intensively at the early stage investments, which gives them more control on the firm in which they invested. It also has to be stated that the United states has more experience and shows better and sharper screening abilities before investing in a project or a firm, then European venture capitalists have. Hege, Palomino and Schweinbacher (2003) indicate that ‘venture capital firms in Europe are more deal makers and less active monitors; they seem to be still lagging in their capacity to select projects and add value to innovative firms’.

At the results of Hege, Palomino and Schweinbacher (2003) we can see that the total of VC investors, the total of the invested funding (in \$) and the first stage investment is obviously larger in the United states when compared to Europe. These calculations are done at the 0.1% significance level. They also shows that the projects which are done by venture capitalists of the United States are significantly larger than the size of the investments which are being done in Europe and the timing of the financing is also different. Hege, Palomino and Schweinbacher (2003), Ooghe, Hubert, Manigart, Sophie and Fassin, Yves (1991), Schweinbacher (2008) and Jeng and Wells (2000) have performed regression analyses for Europe and the United States concerning different types of contract variables which are important for the entire venture capital financing cycle for a successful return on the investment.

The outcome for European countries show at the 0.1% significant level that rate of return in more mature venture capital markets is higher than in less developed markets. With this outcome it can be concluded that the lesser developed European venture capital market has a lower rate of return than its United States counterpart.

It is also very interesting to see that the invested amount in the first stage of the VC financing as a ratio of the total investment gives a very positive result at the significance level of 0.1%. This implies that a greater part of the total financing which has been invested in the early stage of good running projects, is a key factor in the successful performance of the projects. In these results it is also very clear that the performance with these types of financing of United States VC firms is far more better than similar investments which have been made in Europe. And this also confirms that United States VC firms have better screening and monitoring abilities than those of Europe, because of the successes which have been made due to the early stage investments.

It can be said that the United States is better at screening for the good investment projects and in general do not invest in the bad investment projects. Through this, the early stage investment becomes more important. The good projects receive a great amount of financing in the early stage and as the project is developing well, the financing will become smaller in the next investment stages. From the data it can also be stated that European venture capitalists postpone a great amount of their investment to a later stage in the VC funding and this is caused by the lack of experience to notice if the quality of a project is good in the early stage. This also leads to a longer duration of the total project when compared to the United States, which is able to create success in a very short and rapid time.

According to ..... the three largest differences between Europe and the United States are firstly, the significantly positive impact of the presence of a venture capital investor due to his experience and the advisory role the venture capitalist can play for the firm or project. Secondly the average investment duration. This aspect is significantly negative for the United States and it is of total insignificance for Europe. This also explains the why the duration of the investments in the United States is relatively shorter than those in Europe and the explanation why investments with a short duration have a higher rate of success.

In Europe the duration of the investments in contrast to success play almost no role, because Europe tends to be more carefully with its investments due to lack of experience and the abilities to screen project with a high potential.

Thirdly the total duration of the investment is significantly negative for the United States, while this aspect is significantly positive for European investments. These results only confirm the previous statements that the United States has a far more advanced screening ability when compared to Europe and that the United States venture capitalists add more value to the project in which they have invested.

## Conclusion

Venture capital is a very important device for new (innovative) start-up companies or for companies that want to expand their innovative abilities. This can require large amounts of funding. For many of these companies it can be very difficult in to getting these amounts of funding from a normal bank or another financial institution. And that is where venture capital gives a helping hand. Venture capital started in the United States and has been growing there ever since and there is currently an immense venture capital market in the United States. You might think of companies like IBM, Microsoft and Apple which were small start-up companies that received an amount of venture capital funding to increase their ability to innovate and penetrate the market with their new products.

Europe on the other hand started to begin with venture capital funding in a much later stage than the United States. The first type of venture capital was a direct copy of that which was used on the United States venture capital market. Later on they started to develop a venture capital type of their own, but the basic elements have always stayed the same. The growth in European markets has been slow in the first decades of venture capital in Europe, but it has been increasing over time, especially in the United Kingdom, when compared to other European countries.

On both markets governments also created an environment for venture capitalists in which it is attractive to invest private equity in these new startup and innovative firms. Especially in Europe the governments have created several venture capital funding programs and attractive environments to stimulate the growth of the use of venture capital to help creating new healthy companies for their economies.

The United States and Europe both have their own venture capital market, but also their own way of dealing with venture capital. The United States is characterized by large investments in the early stage of the financing rounds and investing short in the next rounds and increasing the value of the company in a rapid pace. This is due to the experience that the United States venture capital market has created of the years in which they have been active in venture funding new and innovative firms. Most venture capitalists are skilled and have the knowledge how to screen for the most healthy project with the highest future potential. United States venture capitalists also create value for the company in which they invest by bringing in their own knowledge and experience in to the company. In this way they can support the entrepreneurs of the current management from information and suggestions how to operate in a certain market, in a certain way. This gives the United States venture capitalist more control over the project.

If we now look at the European venture capital market, we see a market in which the venture capitalists invest less in the early stage of the venture capital financing and invest more in the later stages. This is caused by the fact that European venture capitalists are less able to screen for healthy projects with a high future potential. Hereby the venture capitalists invest their money in a slower pace and stay with the company for a much longer time, when compared

to the United States. It is shown that, in this way, the investments turn out to be the most profitable on the European market. It can therefore also be state that the European venture capitalist is more hesitant for invest large amount at a rapid paste and rather wish to slowly and carefully increase the value of a company. Overall, it can be said that the United States venture capital market has an advantage over the European market because of its experience it has obtained over the past year in which it has been active on the venture capital market. The European market has developed at a later stage and this is noticeable in the average returns on the venture capital investments.

## References

Anand, Bharat N. 1993. "Tax Effects on Venture Capital." Unpublished working paper. Princeton University. October.

Black, Bernard S., and Ronald J. Gilson. 1998. "Venture Capital and the Structure of Capital Markets: Banks versus Stock Markets." *Journal of Financial Economics* 47 (March): 243-77.

Bond, S., D. Harhoff and J. van Reenen (2003), 'Investment, R&D and Financial Constraints in Britain and Germany', *Institute of Fiscal Studies*, Working Paper, forthcoming in *Annales d'Econométrie et de Statistique*.

Bottazzi, Laura and Marco Da Rin, 2001, Venture capital in Europe and the financing of innovative companies, *Economic policy*, v.34, 229-69

Canepa, A. and P. Stoneman (2002), 'Financial Constraints on Innovations: A European Cross Country Study', *Kiel Institute of World Economics*, Working Paper no. 02-11.

Gompers, Paul Alen, 2004, *The venture capital cycle*, MIT Press, ISBN: 026 207 25 56

Gompers, Paul Alen, 1994, *The Rise and Fall of Venture Capital*, *Business and Economic History* 23, no. 2 1-26

Gompers, Paul A., and Josh Lerner. 1999. "An Analysis of Compensation in the U.S. Venture Capital Partnership." *Journal of Financial Economics* 51 (January): 3 -44.

Gompers, P.A., and Lerner, J. (1999a), 'What drives Venture Capital Fundraising?', Cambridge, MA, NBER Working Paper No. 6906.

Hall, B.H. (2002): "The Financing of Research and Development," *Oxford Review of Economic Policy*, 18 (1), 35-51.

Jeng, A and Wells, C. (1998). 'The determinants of venture capital funding: evidence across countries'. Harvard Business School.

Metrick, Andrew, 2006, *Venture capital and the finance of innovation*, John Wiley & Sons Inc., ISBN: 13 978-0-470-07428-2

Mulkay, B., B.H. Hall and J. Mairesse (2001), 'Firm Level Investment and R&D in France and the United States'. in: Deutsche Bundesbank (ed.), *Investing Today for the World of Tomorrow*, Berlin, Springer Verlag.

Murray, G, 1999, Early-stage venture capital funds, scale economies and public support, *Venture Capital*, 1999, Vol. 1, No. 4, 351 – 384

Ooghe, Hubert, Manigart, Sophie and Fassin, Yves (1991), "Growth Patterns of the European Venture Capital Industry," *Journal of Business Venturing*, 6, pp. 381-404.

Ritter, R, 2003, 'Differences between European and American IPO Markets', University of Florida, *European Financial Management*, Vo. 9 No. 4, pp. 412-434.

Schwienbacher, Armin, *Venture capital investment practices in Europe and the United States*, 2008, *Financ Mark Portfolio Manag* (2008) 22: 195–217

Timmons, T. and W. Bygrave, 1986, Venture capital's role in financing innovation for economic growth, *Journal of Business Venturing* 1, 161-176