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Internet Capital raising: the perfect match?

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INTERNET & CAPITAL RAISING: THE PERFECT MATCH?

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Introduction

One of the most important revolutions in the field of communication technology was the introduction of the Internet and the World Wide Web. Originally intended to allow US authorities to communicate successfully even after a nuclear war¹, the internet has become the biggest library in the world, allowing people to access billions of websites, streaming media and communicating very fast and cheap with people around the world. These characteristics give the Internet the gigantic potential to change the way the world works. Its basic principle of allowing computers of all kinds to communicate with each other, combined with software that becomes more user-friendly every month and the possibility to get in touch with people around the globe for the price of a local phone call, allows a very heterogeneous group of people to access and use it.

The financial world has discovered the advantages of the Internet immediately. Financial services lend themselves perfectly to electronic media since they do not involve the movement of physical things to achieve clearance and settlement². The need for fast and up to date information has pushed financial institutions to continuously improve the way they transfer data. The dawn of the Internet has not only accelerated this, it has also made these communication channels available to individual investors and family men. The best examples of this are the thousands of websites that allow to “play” on the stock markets all over the world in real time. Individuals can place their orders directly without having to contact their banker. The more advanced individuals quit their jobs and become day-traders, inputting their orders directly into the market system and using the same Reuters screens as the big institutional players.

In short, the Internet allows companies and people to do the things themselves, to bypass the traditional institutions and to do things differently. As a consequence, this will affect all aspects of the financial world: some will only face minor changes; others will change drastically with other rules and players. This research paper will discuss the relation between the Internet and the process of collecting capital. The aim of the paper is to make a thorough analysis of the influence of the Internet on this aspect of the financial world

¹ A Brief History of the Internet (<http://www.isoc.org/internet/history/brief.shtml>).

² Unger L.S. (2001), *Raising capital on the internet*, Speech at the 2001 Corporate Law Symposium at University of Cincinnati School of Law (09/03/2001).

and to see whether the birth of the Internet has put the evolution of this process in a different direction.

Companies need capital to make the necessary investments, to make the firm profitable. Even the most basic production functions, e.g. Cobb-Douglas, show that without capital there is no company. The composition of the capital can differ largely between different firms: some of them are entirely funded with share capital; others have huge amounts of borrowed capital. The guideline mostly given to an average company is to compose its capital out of 1/3 share capital and 2/3 borrowed capital. For some companies, this guideline is an impossible target: start-ups with growth potential, often in the high-tech sector, have difficulties raising capital when they make an appeal to the traditional providers of capital. This is because they need time to grow and to develop before becoming successful, that is if they ever become successful.

The focus in this paper lies on young firms that either need capital to start up their business or either already survived the first months or years of their existence³. These existing firms become in need of extra capital because only a capital injection allows them to continue growing and/or keep the firm alive (e.g. when a lot of research or effort is required before the company can start producing or becoming profitable). Collecting this capital has always been a difficult process. The question for companies or start-ups in need for capital then is: where can we find alternative providers of capital? At that moment, they can call on the Internet to find the necessary capital. In this paper three ways of doing this will be discussed: finding one or more venture capitalists, a direct public offering (DPO) and going public by doing an initial public offering (IPO).

The first option is mainly an optimisation of the traditional financing by venture funds: the Internet allows entrepreneurs and venture capitalists to find each other more easily. The next two possibilities are more revolutionary ways of collecting capital: a DPO or IPO carried out over the internet differs in a great way from a traditional one with as biggest difference the exclusion of a number of intermediaries. This forces the financial institutions to look at their own business and see they can do things differently.

³ The discussion on online IPOs is also applicable on larger and/or more mature firms. The focus lies on younger firms as venture capital and DPOs are typical finance vehicles used by these kind of firms.

In the first part of this paper the relation between venture capital and the Internet will be discussed. The second part will be dealing with private placements or direct public offerings. The final part will take a closer look into IPOs and the way the Internet changes the traditional outline of an IPO. Every part will give an overview of the advantages and disadvantages of doing them over the Internet and will be concluded with the potential the Internet holds for the future.

Internet & Capital Raising: The Perfect Match?

1. Venture capital & the internet: new ways of raising money

In September 1999, Dennis Deegan was looking for capital to buy his old employer Warner Power. The month before he had signed a letter of intent with Mike Foster, the chairman of the WPI group, who owned Warner Power. Dennis had tried commercial banks and local venture capitalists but despite Warner's solid track record and long history, financing the acquisition was more difficult than the team anticipated. So one day, he typed "venture capital" in the search box of an internet search engine and found the answer to his prayers: Capital.com decided to invest almost three times as much money as Dennis was hoping for, making the management buyout successful.

The story of Warner Power is just one of the few: raising capital, using the power of the Internet, is the new way of doing business. A lot of venture capitalists have changed their ways and are willing to do things differently. Entrepreneurs often complain about the lack of access to investors, which makes collecting capital a slow and difficult process. They discovered the advantages of the Internet quickly: getting in front of a large number of investors quickly and efficiently. Gradually, the venture capitalists followed this example and started using the Internet to look for potential investments.

1.1 A short introduction to venture capital

Venture capital is a description for funds that provide risk capital to companies that offer high potential returns. These funds are typically active investors who try to add value through ongoing long-term involvement with continuing business development⁴. The investment cycle from the point of view of the venture capitalist consists of five steps⁵. First of all there is sourcing: collecting the capital to inject in a new company. The next step is screening: checking which start-ups have the potential to become a market leader.

⁴ Barry et al. (1990), *The Role of Venture Capital in the Creation of Public Companies*, Journal of Financial Economics, Oct90, Vol. 27 Issue 2, p447.

⁵ Lecture by Mr. A. Brabers (GIMV), *Turning a business plan into a solid company: the perspective of a Venture Capitalist* (14/10/2003).

Once a suitable start-up has been found or chosen, the venture capitalist and the entrepreneur engage in negotiations. This step is called deal making. The fourth step is the most important one, namely business building. Once the start-up has the necessary capital at its disposal it can start growing. The purpose of business building is creating value for the shareholders and a sustainable inflow of money and resources into the company.

The final step in the investment cycle of a venture capitalist is the exit in the form of an IPO or a takeover. At this point, the venture capitalist can finally cash in his investment. Therefore the exit is an important condition for the venture capitalist in deciding whether or not he will invest in the company: if there isn't a good chance that the company can be sold or go public when it is successful, the Venture Capitalist will not participate.

There are two main differences between venture capitalists and other capital providers. First of all, venture capitalists provide capital to small companies or start-ups to have to potential to become an industry leader but face high uncertainty. Venture capital can therefore be defined as follows: to put long term (usually seven to ten years) risk capital at the disposal of small, growing companies⁶. Venture capitalists have to be very careful in choosing their investments, as there is a reasonable probability they lose the whole investment. There is no guarantee that the new founded company will be successful, high tech companies are always more risky and they can only cash in their investment after several years.

In order to reduce the risk, venture capitalists will screen potential investments thoroughly. The venture capital business is profitable thanks to the high returns they generate on the companies that do become industry leaders on the one hand, and the feeling and expertise they have for selecting the right investments on the other hand.

The second characteristic that makes venture capitalists different from the traditional channels for collecting capital is their involvement in the company: venture capitalists often participate directly in the management of the companies they invest in. A venture capital provider often chooses one or more industries in which he has a certain expertise. He then uses this expertise and contacts to help the company recruit key employees, to

⁶ *Europese Financiële Steunfaciliteiten*, Kamer van Koophandel en Nijverheid van Antwerpen (1992), pp 39.

assist in production, to line up suppliers and to develop customer relations⁷. The venture capitalist also assists in professionalising the way the company works, in creating a healthy balance sheet and giving management support.

1.2 Problems related with the traditional ways of finding venture capital

The story about Warner Power in the introduction of this chapter shows immediately some of the problems companies or entrepreneurs are faced with when searching for venture capital. Providers of venture capital have learned (the hard way or from the mistakes of others) that they cannot give money to every managers that comes in their office, telling he has got an amazing idea or business concept. The burst of the technology bubble has drastically decreased the amount of money available to these venture funds on the one hand, and the number of remaining venture capital providers on the other hand.

Before the burst, all investors wanted to put their money in venture capital. The boost that could be seen in the amount of new funds raised in that period was caused by the creation of growth markets for high-tech companies (e.g. Nasdaq, Easdaq, A.I.M. London, Nouveau Marché, Neuer Markt). Those alternative markets made it possible for high-tech companies to go public, even when they were still growing and not making any profits at all. This resulted in an important increase of the returns of venture capital: from 12,9% in 1995 to 27,2% in 1996. The possibility of going public before being an established company made a lot of the investments made in the past suddenly profitable, some even very profitable (with returns of over 1000%)⁸. These returns kept increasing until March 2000 when the market started going down. This resulted in a steep fall in the number of IPOs. The amount of new funds raised also went down⁹.

The venture capitalist that survived the problems have learned their lesson and make sure to think twice when they decide to invest in new start-ups. Not only the idea is important, new start-ups have to show they work professionally and have a good chance of success. They have learned that only by carefully selecting the investments they make, they can

⁷ Wayne K. (1988), *Risk and Industry Characteristics of Venture Capital Investments*.

⁸ Cochrane J. (2001), *The Risk and Return of Venture Capital*, working paper.

⁹ Lecture by Dr. J. Peeters (Capricorn Venture Partners), *Key developments and drives in European Venture Capital* (16/10/2003).

generate enough return on their investments, which is the only way to survive in the venture capital business.

This off course makes the world a whole different place for entrepreneurs: they suddenly found themselves in a place where having potential is not enough any more. An entrepreneur can have the best idea, with the best conceivable business plan and still face rejection from the venture capitalist. The reason for this is the changed behaviour from venture capitalists when it comes to composing their investment portfolio: they became more careful in selecting the right investments to compose a portfolio that fully reflects and supports their strategy.

This change in investment portfolio management is not new: during the technology boom in the 1990s venture capitalists had also changed their behaviour by selecting only dot-com investments. The burst that followed the boom made them see the importance of a well-balanced investment portfolio. Nowadays, if the proposed investment does not fit, the deal is off. This results in projects with a lot of potential finding not the necessary capital to exploit the opportunities. The company discussed in the example at the beginning of this chapter is an excellent example of this: even though the company had been in existence since 1948 and had a solid track record, financing the acquisition turned out a lot more difficult than the management buyout team anticipated.

As we can see, the main problem for an entrepreneur is finding a venture capitalist who is excited about the entrepreneur's project and sees the potential, and believes the project fits in his investment portfolio. But how can a company find the right match? A first way is contacting a specialized broker or consultant who than screens the market. A second, and definitely much cheaper, way is using the power of the Internet. How this works will be discussed below.

1.3 How the internet improves the process of finding venture capital

By using the Internet, entrepreneurs can contact venture capitalists all over the world, liberating them from the limitations of regional venture funds. Every venture capitalist has after all his own strategy. Therefore, a company may not collect the necessary funding only because local venture capital providers think its does not fit in their portfolio. The

Internet solves this problem: specialised sites list the websites of lots of providers of venture capital. These special websites not only open doors to capital resources, they also solve the problem of finding the right match.

By surfing to the venture capitalist's website, entrepreneurs can find what sort of investments the fund prefers. This allows them to make the right match. So by using the Internet, entrepreneurs not only find more venture capitalists, they also find specific information regarding the portfolios of the venture funds. These characteristics increase the efficiency of the entrepreneurs in the capital raising process.

1.4 Conclusion

Venture capital performs a necessary function in an economy where innovations and new ideas and developments stay important. The previous parts have shown that at both sides, companies and venture capital providers, there are enough players willing to make a deal. The main problem of the traditional way of looking for venture capital was the investment strategy used by the venture capitalists: a project not only has to be promising, it also has to fit in the investment portfolio. The Internet solves this problem by helping both parties to get in touch with each other. It also helps by spreading information about the venture capitalists strategy. This way, entrepreneurs can easily find contact information of venture capitalists that might be interested in their project. In short, the Internet increases drastically the efficiency of the entrepreneurs' search for venture capital.

All this looks positive at first sight. In reality however, the picture is not that perfect. A quick look on the Internet learns that intermediary sites do not live a long life and give few information. A further more thorough look shows that the range of venture capital providers is scattered over a lot of different websites. Those sites try to make money by delivering information in exchange for an annual or monthly fee, or by asking a fixed fee for contact information of potential investors. As a consequence, they only care about attracting as much subscribers as possible. Whether or not those subscribers find a good match seems irrelevant and sometimes even not the point: the longer people search for the right partner, the longer they stay subscribed to the service.

Therefore, to increase efficiency, there is a need for a reliable source to diffuse information: a source that understands entrepreneurs and helps them in finding interested venture capitalists. Composing a database of all venture capital providers could do this. To increase efficiency, this database will contain structured information, which allows performing queries on it. Structured information stands for information such as the amount of money the venture capitalist wants to invest, the portfolio composition, the sector and industry he prefers... In other words, the information that now already can be found on the website of every venture capitalist. So the data is available but scattered.

The database will have to be made available over the Internet, as this is the fastest and most accessible way. The company behind all this will probably have to be one with a good reputation and credibility such as an investment banker or one of the leading information distributors (e.g. Reuters). The reason for this need for a good reputation is trust: such a database can only be successful if it has a lot of users and data entries (network benefits). To generate these network benefits, people need the trust the company that will manage the information. Therefore, reputation and credibility will improve the chances of success of such a project.

2. Private placement or direct public offerings

2.1 An introduction to Direct Public Offerings

Direct public offerings (DPOs) are an important new opportunity for companies collecting capital. In contrast to the improved ways of locating venture capital discussed above, DPOs have a potential bigger impact because they involve a whole new way of raising capital. When a company does a private placement, shares are offered directly to investors that show interest. By offering the shares directly, the traditional underwriters are bypassed. While a DPO seems to be the perfect solution as it cuts out the middleman, it is not the right answer for every company: a DPO is most suitable for smaller business that cannot attract an underwriter or bank.

The first company to offer its securities to the public via the Internet was Spring Street Brewing Co. in 1995¹⁰. Without the assistance of an underwriter, the company raised 1.6 million dollars from 3500 individual online investors. By going directly to the investors, companies in need of capital can eliminate traditional intermediaries and make the dissemination of information more effective. Eliminating traditional intermediaries and replacing them with more specialised and cost effective alternatives is called technological disintermediation. These alternatives do not underwrite the shares but bring together companies and investors.

2.2 The advantages of Internet DPOs

Internet DPOs can have a number of advantages¹¹. The most important ones are: an increased availability of capital, elimination or reduction of underwriting fees, an increase in the effectiveness of the dissemination of information, faster and cheaper dissemination of information, to locate all information on one central web server and to add value by

¹⁰ Unger L.S. (2001), *Raising capital on the internet*, Speech at the 2001 Corporate Law Symposium at University of Cincinnati School of Law (09/03/2001).

¹¹ Raising Capital on the Internet: The Sec Adjusts to Internet Public Offerings and Virtual Securities Markets, *Stroock Capital Markets* July 1999, Vol. 1 No. 2.

being more versatile than a traditional paper-based prospectus. Of these advantages, the reduced cost of distributing information is the most important one¹².

2.2.1 Improved availability of capital

The first advantage of a DPO is the improved availability of capital: small and medium sized businesses have historically found it difficult to raise sufficient equity capital through the traditional channels. The financing difficulties result from two sources: regulatory compliance and the reluctance of established investment banks to underwrite small business public offerings¹³.

A first reason why small firms have a tough time finding enough equity capital is regulatory compliance and the costs associated with this. The costs of creating a prospectus and mailing information to potential investors is relatively fixed, regardless of the size of the offering. In other words, the cost per dollar equity raised generally decreases marginally as the size of the offering increases, but small companies have usually smaller IPOs¹⁴. Further, many small companies have to restructure to access public finance, which increases the costs even more. A DPO solves this problem by reducing the costs related with the dissemination of information.

The costs of underwriters is not always the biggest problem: in some cases the investment bank is reluctant to underwrite small business public offerings because they lack a proven history. Because of this, the company will have a lot of trouble selling its stock. Investment banks dislike underwriting shares of small firms because of three reasons. The first reason is the commissions earned on the small amount of money generated by a small business raising capital are not high enough for an investment banker with a good reputation. The bank knows it can make more money by focusing on large clients, so why would they settle for small caps. Secondly, small firms raising equity capital are riskier as their name is not as established as that of a large company. A failed IPO has a negative

¹² The reduced cost of distributing information is the most important advantage of performing a DPO over the internet compared with doing a traditional DPO (see also 2.2.2).

¹³ Sinclair, *Internet Direct Public Offerings: New Opportunities for Small Business Capital Finance*, Manitoba Law Journal, Vol. 27 No. 3.

¹⁴ Olson J.F., Nelson D.W. (1999), *What makes a company a good candidate for going public? Criteria, advantages, and disadvantages related to going public*, American Law Institute-American Bar Association Continuing Legal Education, 7/1999, pp. 591-593.

effect on the reputation of the investment banker. Reputation is very important to investment bankers as this determines the quality of their clients. Therefore, established investment bankers will avoid small caps as this might damage their carefully built up reputation. There is also a third reason why small companies face a lot of difficulties when looking for an investment banker that wants to help them in the IPO process: entrepreneurs don't like losing part of their control to an investment bank, making it difficult to create a contract that appeals to both sides of the table.

A DPO solves this problem of not finding an underwriter by eliminating the intermediate. Related with this is the fact that retail investors often have difficulties accessing the vast majority of IPOs. Underwriters tend to restrict IPOs to institutional investors and preferred retail investors (see 3.3.3)¹⁵. The explanation usually given is that those investors also participate in the stock that is less "hot", a moment when the retail investors is usually nowhere to be seen. Nevertheless, small investors do show interest in IPOs but have no access to it. Small companies are looking for capital but cannot access it because of market barriers. DPOs bring both parties together by eliminating the barriers created by the traditional investment banks¹⁶.

2.2.2 *Elimination or reduction of underwriting fees and commissions.*

The elimination of the underwriting fees is generated by offering the shares directly to the investors. In a DPO a company uses, in contrast to an IPO, no underwriter(s). This means that the traditional high commissions are avoided. Wall Street bankers have a tradition of asking a fee equal to a fixed percentage of 7% of the collected capital¹⁷. Next to this, there are a number of costs that are made by the investment banker which are fixed, no matter what size the company that wants to raise capital has. These costs can be too high for a small company. Therefore, by excluding these fees and going directly to the investors, more of the collected capital can actually be used for investment projects, rather than to pay the intermediaries.

¹⁵ Siconolfi M. (1997), *Underwriters set aside IPO stock for the officials of potential customers*, Wall Street Journal 12/11/1997.

¹⁶ Sinclair, *Internet Direct Public Offerings: New Opportunities for Small Business Capital Finance*, Manitoba Law Journal, Vol. 27 No. 3.

¹⁷ Chen H., Ritter J. (2000), *The Seven Percent Solution*, Journal of Finance 55, pp. 1105-1131.

The money saved in this way is by far the most important advantage of a DPO. In the introduction however, the savings on printing and distribution were mentioned as being the most important. The reason for this is the fact that the elimination of fees is also realised in DPOs that are not performed over the Internet. Therefore, this elimination is not a specific advantage for an Internet DPO. In reality however few DPOs nowadays take place without using the Internet, making the elimination of fees and commissions worth mentioning.

2.2.3 *More effective dissemination of information*

An Internet DPO gives the company the ability to reach potential investors worldwide. It allows targeting a very broad or a very narrow audience of potential investors. This number depends on the kind of shareholders the company prefers: if the company prefers a heterogeneous group of shareholders, the internet allows it to reach a large number of potential investors without the costs and reporting requirements of a registered offering.

A company can also prefer to send its information to a very narrow audience: many DPOs have been marketed to selected groups of potential investors who have some affinity for the issuer or one of the products of the issuer. Some companies believe this results in more faith and support from the stockholders. All this results in a more effective dissemination of information: by sending information only to a specific targeted group or a large group of potentially interested investors, the company avoids bothering uninterested investors and reduces the dissemination costs.

Another aspect in the more effective dissemination of information is the ability to present the data in the prospectus in an alternative way. The company no longer is limited by the paper distribution but can integrate multi-media in its presentation (e.g. video technology)¹⁸.

¹⁸ Sinclair, *Internet Direct Public Offerings: New Opportunities for Small Business Capital Finance*, Manitoba Law Journal, Vol. 27 No. 3.

2.2.4 *Faster and cheaper dissemination of information and offering materials*

The Internet allows realizing a significant reduction in the cost of distributing information. It has the ability to transmit information virtually instantaneously from one central web site to any person who has access the World Wide Web. Distribution of offering materials via the Internet is a lot less expensive than printing those same materials and distributing them by mail. Current securities legislation requires that the prospectus be amended to reflect material changes, which can cost the issuer substantial amount of money¹⁹. On top of this, electronic distribution of the prospectus can be done almost in real time, whereas sending it by mail would take at least a day (“snail mail”)²⁰.

2.3 Problems related with DPOs performed on the internet

A DPO may look like the ultimate finance vehicle: lower costs, faster dissemination of information, improved availability of capital... However, there are also some disadvantages to this setup. The most important disadvantages are lack of certification of information, higher cost of thorough analysis, problems of adverse selection, regulations regarding the inclusion of the different state laws in a country, a lack of liquidity, possible failure of the DPO and the bad reputation of DPOs.

2.3.1 *Lack of certification of information*

Traditionally, underwriters act as gatekeepers: they conduct due diligence about the issuer and the offering, participate in preparing the registration statement, make pricing decisions and provide research and aftermarket support. Without such a gatekeeper, the issuer will carry out these tasks. He also is responsible for information that is made public. The main reason for working with conventional investment banks and other intermediaries has always been trust: investors need a guarantee that the information, which is made public, is true and accurate as companies easily are tempted to hide certain bits of information. Potential investors will be very careful and ask for an objective analysis. If this is done by

¹⁹ Gregg S. (1997), *Regulation “A” initial public offerings on the Internet: a new opportunity for small businesses?*, Journal of Small and Emerging Business 50, pp. 417-433.

²⁰ A courier service could also make the delivery in a few hours, but apart from a few important investors it would be too expensive using such a service to distribute the prospectus.

an underwriter the market will have believe it has more reliable information. This guarantee of correct information is called the certification hypothesis²¹.

2.3.2 *Higher cost of analysis for prospectus*

As mentioned above, investors will need a prospectus and an analysis of the company before to determine whether or not they will buy stocks. Compiling such an analysis is not an easy task and most financial managers are not familiar with these kind of complex financial transactions. This is mostly the case for small and middle-sized firms: larger firms try to internalise knowledge about these processes to eliminate intermediaries²².

When the firm raises capital with a DPO it has the option to make the analysis by itself or it can give this task to an investment bank. The second option not only solves the certification hypothesis problem (see above), but also realises cost advantages: financial intermediaries have comparative advantages in the production of financial services²³. Thus, an investment bank will have lower costs when analysing the company.

An important remark here is the following: the difference in the cost of making the analysis is not comparable with the high fees and commissions charged by underwriters. Nevertheless, a company that performs a DPO should always make sure the information it distributes is objective and accurate. The cost advantage therefore can be an argument for outsourcing the analysis of the company to an intermediary with a good reputation²⁴.

2.3.3 *Problems of adverse selection and higher underpricing*

The company also advocates the importance of means to value the quality of the information published: problems of adverse selection prevent high-quality issuers from receiving a fair price for their stock because of the high liquidity and risk premium. By

²¹ Booth J., Smith R. (1986), *Capital raising, underwriting and the certification hypothesis*, Journal of Finance 15, pp. 261-281.

²² Welles C. (1990), *The future of Wall Street: why our financial system will never be the same*, Business Week November 5 1990, pp. 43-50.

²³ Benston G., Smith C. (1976), *A transactions cost approach to the theory of financial intermediation*, Journal of Finance 31, pp. 218-231.

²⁴ This intermediary is preferable an online investment bank as their costs are lower and they are more experienced when it comes to online DPOs.

outsourcing the analysis assignment to an intermediary with a good reputation, this problem can be partially solved (see above).

Some people however do not agree with this²⁵. They feel investment bankers use the problems of adverse selection partly as an excuse to rationalize underpricing. This underpricing than is used to reward other clients and make sure the IPO is a success. Therefore, systems that place shares by using a dutch auction on the Internet could become more popular in the future: these auctions claim to value the shares more correctly. We will discuss this topic more elaborately in the last chapter of this research paper, which talks about companies using the Internet to conduct an Initial Public Offering.

2.3.4 Regulations regarding differences in state laws

One of the biggest hurdles for an online private placement is taking into account the different laws. In Belgium this is not so much of a problem as the regulation regarding IPOs and DPOs is a federal issue. In the United States however, this process of spelling out all different state laws can be fairly complex. Because the Internet can be accessed from anywhere in the country, companies in the US that perform a DPO are subject to all state laws. Therefore, all these different laws have to be inserted in the prospectus²⁶.

2.3.5 Lack of liquidity

Investors in DPOs often face a lack of liquidity for various reasons. Lack of liquidity means that the number of shares being traded is not large enough, leaving investors that are willing to buy or sell the stock without a counter party²⁷. Also, most shares issued with DPOs are not traded on a stock market, making it very difficult to find an interested counter party and to determine the objective value. Research showed investors will demand a premium for this illiquidity, raising the cost of capital of the company. It also

²⁵ Ackman D. (2002), *A better, more honest IPO*, Forbes, 17/10/2002.

²⁶ McCafferty J. (1998), *Uncorking the Internet for capital*, CFO Jun98, Vol. 14 Issue 6.

²⁷ A trade will in most cases still be possible of the investor is prepared to pay (receive) a higher (lower) price.

endangers future capital raising by the firm. All things together, lack of liquidity will lower the value of the company²⁸.

The reasons DPOs and lack of liquidity go hand in hand is the fact that no or only a few analysts follow the stock, there is usually not a market maker and the offerings are generally small (resulting automatically in a small float of stock)²⁹.

2.3.6 Possibly unrealistically high stock price

When the introduction price of the stock is determined by an auction, prices can become unreasonably high. This will be the case when demands exceeds supply, raising the introduction price because of the higher bids investors will place to manage to get some of the “hot” stock. The increase in the introduction price becomes problematic when the price does not correspond any more with the real value calculated with the traditional valuation methods (e.g. net present value of the future dividends). When this happens, investors will loose money, which reduces the amount of money available when other companies try to perform a DPO.

2.3.7 Possible failure of the DPO

One of the main characteristics of a DPO is the exclusion of the traditional intermediaries. By excluding them the firm realizes an important reduction in the cost of capital raising. One of the important tasks of an investment bank is underwriting the stocks that will be sold. This means the company sells the stock to the bank, which in turn sells them to the investors. So, the company knows in advance how much capital it collects: the negotiated transfer price times the number of stocks.

With a DPO, the company has no guarantees: it offers the stock and can only hope it has made enough publicity and tried to persuade enough investors. Only after the private placement, the company knows for sure the amount of capital collected. When this

²⁸ Amihud Y., Mendelson H. (1986), *Asset pricing and the bid-ask spread*, Journal of Financial Economics 17, pp. 223-249.

²⁹ *Raising Capital on the Internet: The Sec Adjusts to Internet Public Offerings and Virtual Securities Markets*, Stroock Capital Markets July 1999, Vol. 1 No. 2.

amount is lower than the amount the company was hoping for, it will have to continue its search for capital, which will off course become a lot more difficult after a failed DPO.

2.3.8 Bad reputation of DPOs

Related with the problems of a failed DPO is the bad reputation of DPOs. Offering stocks without placing them on the stock market has often been viewed as the option of last resort for companies that are not good enough to obtain more traditional forms of financing (a commercial loan or an IPO). Therefore, DPOs are best suited for small companies of which investors understand they can only raise money this way because they are not deemed to be eligible for traditional capital raising processes. A bigger company will only be frowned upon and get a lot of suspicion, even if nothing is wrong. This will result in a failed DPO or a high rate of under pricing of the stocks.

2.4 Specific regulations for internet DPOs

When a company uses a DPO to raise capital, it has to follow the regulations regarding this financing vehicle. Some of these rules become more important if the DPO is performed over the Internet³⁰. First of all, unless the information concerning the DPO is only send to investors who agreed with an electronic delivery, a paper-based delivery will have to be made available on demand. If an investor already has agreed with an electronic delivery, he can still decide to revoke an electronic delivery and ask for a hardcopy of the information.

A second regulation to keep in mind when doing an internet DPO is the prohibition on posting certain types of promotional information on the company's website. This can be considered as a preliminary solicitation of interest if the information is posted before the filing of the registration statement and an illegal prospectus if the information is posted shortly after the company has filed the registration statement.

Another regulation is the necessity to include the different state laws (if the country has differences in laws regarding IPOs in its different states, e.g. United States) regarding

³⁰ Raising Capital on the Internet: The Sec Adjusts to Internet Public Offerings and Virtual Securities Markets, Stroock Capital Markets July 1999, Vol. 1 No. 2.

DPOs. This is required as people from all over the country can see the information and can be interested in this DPO (see also 2.2.3.3). It is at this moment still unclear which procedures should be followed regarding foreign laws (as the internet is global, foreigners possibly are also interested in investing in the firm).

2.5 Conclusion

Direct Public Offerings are an important new way for raising capital. The Internet drastically increases the potential of such an offering: investors all over the country or even all over the world can invest their money in small, growing companies in need of capital. Online DPOs allow these firms to reach more investors than they ever could before. The possibilities of the Internet to spread information fast and cheap allows even the smallest firms to use this way of collecting capital. The absence of underwriters or traditional intermediaries brings along problems of adverse selection and lack of certification. As a consequence, firms considering a DPO should ask themselves the following questions: What is the amount of money we want to raise? To what degree do we suffer from problems of adverse selection?

By answering these two questions a company knows whether or not a DPO is the right answer to its capital needs. If the amount of money is high compared to average IPO sizes, the company should take into account the consequences of a failed DPO. Because of these consequences, IPOs are a more suitable way for raising high amounts of capital. The second question looks into the degree of adverse selection sensitivity. If the company raising capital is characterized as uncertain (small company, high-tech company,...), problems of adverse selection will always matter, even if there is an underwriter. Therefore, for these firms the influence of an underwriter is limited (and the cost of such an underwriter too high compared with the advantages), making a DPO an interesting way for raising capital.

3. Initial Public Offerings

3.1 A short introduction to IPOs

An Initial Public Offering or IPO is one of the important milestones in the life story of a company. It is a sign that the company has reached certain goals and predicts for itself a bright future. The decision to go public cannot be made without a thorough analysis, which looks whether the firm is ready for an IPO and makes sure the advantages outweigh the disadvantages³¹. People usually know the advantages but tend to forget there is also an other side to the medal.

The most important advantage of an IPO is first of all the possibility to raise new capital (“primary offering”)³². This money can be used to finance the growth of the existing activities or to diversify the activities (new investments or acquisitions). An increase in capital reduces the proportion of the debts compared to the balance total, allowing the firm to borrow more easily in the future and at a lower rate. Another advantage of an IPO is that it facilitates the expansion process. When acquiring another company, the shareholders of this company will prefer stock in your company instead of money. Such a transaction is therefore more easily for a public company, as the value of this stock is known for all economic agents³³. Other advantages of IPOs are the increased publicity (more attention from the press, better image,...) and the possibility to award employees with options in order to motivate them.

An IPO off course also has some disadvantages. For small companies, the cost of going public with an IPO is obviously the most important one: underwriting fees and commissions for investment bankers, annual costs of the stock market the share is traded on, costs related with the announcement of the IPO (e.g. prospectus),... These costs are mostly fixed and therefore possibly too high for small or middle-sized firms (see also 2.2.2 and 3.2.1)³⁴. Another disadvantage is the requirement information public on a

³¹ Only the most important advantages and disadvantages will be discussed as a more thorough analysis would lead us too far.

³² Brealey R.A., Myers S.C. (1996), *Principles of Corporate Finance*, McGraw-Hill New York, pp. 998.

³³ De Cuyper S. (2000), *Strategie en beursintroducties van familiebedrijven*, Diss. Lic. Toegep. Econ. Wet., pp. 148.

³⁴ Ritter J. (1987), *The costs of going public*, Journal of Financial Economics 19, pp. 269-282.

regular basis: not only does this increase costs (as the firm needs to assign people to collect this information and present it in the best way), it also allows competitors to detect what direction the company is heading in (which allows them to take this into account when determining their own strategy).

So it seems, an IPO is a difficult process with some important disadvantages. Therefore, only if the company is willing to accept the consequences, it can decide on going public with an IPO. Because of this, the company needs to study alternatives to an IPO, as this might not be the best way for the firm to raise capital. Possible alternatives can be borrowing, issuing a bond or a doing a DPO.

Most firms prefer going public with an IPO instead of a DPO. This is because an IPO comes with reduced uncertainty: raising capital with a DPO means the company sells its stock directly to the investors. A IPO with a firm commitment contract⁴⁰ on the other hand is sure to place a minimum number of shares. In a DPO, the firm reduces the cost of going public because there is no underwriting service. As a consequence, the firm has no guarantee that it will be able to place all shares, resulting in a lower amount of capital raised than expected. This increases the risk of going public as the amount collected might not be sufficient to realize the plans the firm had in mind when deciding on going public³⁵. The consequences of this could be disastrous as it can mean the end of the company. Also, the underwriter(s) are more experienced when it comes to advertise the new stock³⁶: their analysts can make reports, they have better relations with the institutionals, they have contacts in the media,... In other words: investment banks know how to create a hype, how to turn a regular stock offering into a hot IPO that everybody wants. Mainly because of these two reasons, risk reduction and marketing, most firms think of an IPO as a more suitable and safe way for raising capital.

³⁵ Ritter made an important remark on this in his paper on the costs of going public: the total amount of shares the investment bank is obliged to sell is only determined at the last moment (mostly the day before the first listing day). Therefore, one could argue there is not a lot of difference in risk between a DPO and an IPO. However, the expected value will be more accurate in the case of an IPO with a firm commitment contract. Also, as the first listing day approaches, more information will become available, allowing the company to abandon the whole idea if the market shows no or insufficient interest in the IPO.

³⁶ Murray A. (2002), *The rationing of IPOs encourages corruption*, Wall Street Journal, 10/09/2002.

3.2 How the Internet way differs from the Wall Street way

An online IPO is typically open for bidding about 5 weeks prior to the effective date of offering. During this period, qualified investors can place their bids³⁷. IPOs done over the Internet mostly use the reversed or dutch auction principle: the price is lowered until a buyer is found. This means the underwriter assembles the bids and compares the demand at the highest bid price with the number of shares offered. If there is no match, he looks at the second highest price.

Working from the highest to the lowest bid, the underwriter tries finding the first bid price that will sell all the offering's shares ("clearing price"). Then, the issuing company, together with its underwriter(s), determines the offering price of the shares. For this decision, the clearing price is taken as the maximum price. The company is not forced to set the offering price equal to the clearing price; it can also decide to sell at a lower price (e.g. because it feels the clearing price overvalues the company) or at a higher price (e.g. if the total amount of money raised in this case is higher).³⁸

3.3 Advantages of Internet IPOs

IPOs conducted over the Internet are still a rare breed: only few have taken this challenge. The most important example is Google. This technology company went public with a dutch auction in 2004³⁹. Only time will tell whether the market is ready for this. The reason quoted mostly by those who used the Internet for their IPO is a reduction in costs. Next to this, the increased availability of capital and the better allocation are other important advantage.

³⁷ Regulatory organizations are afraid investors with few knowledge will see this as an easy way to gain money, without taking into account the risks. Therefore, investors have to proof they know what they are doing. This can be done by looking at their investment portfolio or by requiring them to take a test on basic economic knowledge and financial markets. (*Internet Direct Public Offerings: New Opportunities for Small Business Capital Finance*, Manitoba Law Journal, Vol. 27 No. 3)

³⁸ <http://www.openipo.com>.

³⁹ <http://finance.yahoo.com>.

3.3.1 *Reduced costs of going public*

The actual cost of going public has always been a vague topic as investment bankers and companies are usually not very willing on making this information public. The information that is available usually is hard to find and expensive. Most of the research in this field focuses on the underwriting cost, which is estimated at 7% of the amount of capital raised⁴⁰. The research that is available finds that the cost of a firm commitment contract is 21.22% of the realized market value and 31.87% for best effort contracts⁴¹. This includes both investment banking fees and the cost of underwriting⁴².

By leveraging technology and by using the Internet for most communications, online IPOs can be realized at a lower cost. This is not only because of the faster and cheaper dissemination of information and offering materials (see 2.2.4), but also because of a reduction in underwriting fees: online investment banks can deviate from the 7% rule.

The main reason why prices are fixed around this 7% in the United States⁴³ is because of implicit cooperation between investment banks: if one bank deviates from the 7%, the others will follow. As a result, the banker that first lowered his price will not gain very much. On the contrary: the margin has dropped, resulting in lower future profits. Online investment banks are less sensitive to this tension as the traditional banks think of them as minor players. Thus, the other players will not adapt their prices resulting in a competitive advantage for the online investment banks.

3.3.2 *Increased availability of capital*

The Internet is worldwide, allowing companies to find investors from all over the world with this mean of communication. This can be done in an easy and cheap way: it makes no difference for the company to put its information online for one country or for the whole world as everyone can access it (making it available to different countries increases

⁴⁰ Chen H., Ritter J. (2000), *The Seven Percent Solution*, Journal of Finance 55, pp. 1105-1131.

⁴¹ Firm commitment: the investment banker commits itself to buy a fixed amount of shares from the company, which it then sells to the investors. (Thygeson (1993), *Financial markets and institutions, a managerial approach*, HarperCollinsCollegePublisher, pp. 735)

Best effort: the investment bank promises to sell as much shares as possible but guarantees no minimum number. (Brealey, Myers (1996), *Principles of corporate finance*, McGraw-Hill New York, pp.998)

⁴² Ritter J. (1987), *The costs of going public*, Journal of Financial Economics 19, pp. 269-281.

the complexity of the legal part of the prospectus, see 3.4.4). If the company on the other hand was to send hardcopies of the prospectus to investors all over the world, the shipment costs would increase drastically. Thus, companies that in the past would not have had the means to access potential investors all over the globe now have this possibility when doing their IPO on the Internet.

3.3.3 *Fair allocation and equal access*

In contrast to a traditional IPO, an online IPO allocates shares in an even-handed way. It also offers all investors equal access to bid on the IPO. Wall Street based bankers tend to offer only a part of the shares to small investors. The other shares are allocated to institutional investors and preferred clients of the investment bank. This is done because those investment groups and preferred clients bring back business (and commission) to the investment bank (e.g. some banks are accused of giving executives of firms, that are or who might become clients, access to hot IPOs)⁴⁴.

For the company this fair allocation can possibly be a better allocation: by setting an offering price based on market demand, first day returns will not be as extreme as with some traditional IPOs⁴⁵. This means, investors who buy the stock will more likely be interested in holding the stock instead of selling it after the first day(s) to make an easy profit (flipping).

3.3.4 *More flexibility for investors*

With traditional IPOs where the price is set arbitrarily, investors have few options: invest at this price or do not invest at all. This means they sometimes have to make investments they feel are not as interesting as they would like them to be by buying shares at a price they believe is too high. An auction system allows investors to bid for shares at a price they think is a correct value for the company. Because the dutch auction guarantees they never have to pay more than they bid, they are sure not to pay too much.

⁴³ In Europe this spread is about 3 to 4%.

⁴⁴ Knox N. (2002), *Lawmakers say IPOs used to attract clients*, USA Today, 03/10/2002.

⁴⁵ Traditional investment bankers argue this is not true as it is very difficult to price new issues. The existence of high first day returns therefore cannot be avoided. (Murray A. (2002), *The rationing of IPOs encourages corruption*, Wall Street Journal, 10/09/2004.

3.4 Problems related with Internet IPOs

The disadvantages of online IPOs are the limited marketing, possible overpricing of the share and problems concerning bidding strategy, problems of adverse selection, regulatory problems and possible lack of liquidity. Online investment bankers are aware of these problems and are working hard to resolve them. Unfortunately, this will take some time as the market needs to gain confidence and get to know the Internet approach to IPOs.

3.4.1 Less marketing

The most arguments of why a company should choose for a Wall Street based underwriter center around marketing. The big investment banks have efficient channels to advertise a stock. Not only do they have more analysts than online investment bankers, they also know how to turn a regular IPO into a hot stock. A hype sometimes can make the difference between a successful and unsuccessful IPO as it attracts the attention from a lot of potential investors. As the real world media will continue to have a bigger impact on the economic environment than internet media, online investment bankers will need to master to art of buzzing⁴⁶.

3.4.2 Possibly unrealistically high stock price and problems concerning bidding strategy

As with DPOs, the introduction price can become unreasonably high. Investors can start bidding very high, making sure they get some of the stock. This kind of behaviour is possible as the investor will assume not be paying the price of his high bid (as the offering price is usually close to the clearing price, which the investor hopes will be normal). However, if all investors start behaving like this, the share might be overvalued if the company decides not to deviate from the clearing price: not all companies will be able to say no to a high amount of money raised, even if they know their investors will lose most of their investment. Therefore, a dutch auction might not be the right solution for this bidding problem.

⁴⁶ Murray A. (2002), *The rationing of IPOs encourages corruption*, Wall Street Journal, 10/09/2004.

3.4.3 *Problems of adverse selection*

Online investment bankers face the problem of trust: because of their limited experience they do not have the same reputation as traditional investment bankers. Because of this, investors will require a higher liquidity premium (see 2.3.1). Investment bankers which are internet based try to build a good reputation in order to resolve this problem. The main problem is the invisible circle this generates for online investment bankers: they need more IPOs in order to build reputation, but reputation is essential to attract more business.

3.4.4 *Regulatory problems*

As with DPOs, one of the biggest hurdles for an online private placement is taking into account the different laws (see also 2.3.4). Regulations concerning IPOs and DPOs require all these different laws to be inserted in the prospectus⁴⁷.

3.4.5 *Possible lack of liquidity*

Companies that call on a traditional underwriter for their IPO have the possibility to call on the market making services of this underwriter. In the contract, the bank can commit itself to guarantee a certain level of liquidity during a certain period. Small online investment bankers usually do not have the means to perform these services.

3.5 Conclusion

During the boom of technology shares in the 1990s, online IPOs were predicted a bright future. Analysts claimed the new economy was finally replacing the old economy. The new economy would change the rules of the game and raise the world economy to new levels of efficiency and productivity. All this excitement resulted in an appetite by the media and the investors for everything that was new and smelled like high-tech.

⁴⁷ McCafferty J. (1998), *Uncorking the Internet for capital*, CFO Jun98, Vol. 14 Issue 6.

The combination of a high number of IPOs and the new economy hype made online IPOs a hot topic. The Internet would not only change the world economy, it would also become the place where capital was raised. By doing this online, high-tech companies would take away some of the power of the traditional players: after all, the Internet had no secrets for them. The opponents of the Wall Street way hoped that the evil traditional players, lurking in their palaces in lower Manhattan, would suddenly be forced to operate in a new environment, resulting in more money going to the companies instead of the greedy investment bankers.

As always, only time tells the truth, not the analysts and media. The burst of the bubble resulted in a dislike of Internet stocks, which meant an important delay in the evolution of online IPOs (as Internet companies are most likely the first ones to start doing their IPOs this way). However, as this chapter has shown, Internet IPOs have a number of interesting advantages. The important disadvantages nowadays are all related to confidence. Once online investment bankers start generating a high rate of online IPOs, their reputation will gradually grow. The first experiences show that in time the market will adapt to this new way of raising capital. These experiences also learned that this adaptation will take some time. Thus, the predictions for the online IPO future therefore stay bright; it will only take a few years for the clouds to disappear and the sun to break through.

Conclusion

Technology has always been important for financial markets. History showed a number of examples where the introduction of a new technology had tremendous and sometimes unexpected effects on the structure of financial markets⁴⁸. One of these examples is the dominance of the New York Stock Exchange (NYSE) over the Philadelphia Stock Exchange: many historians explain this primacy of the NYSE on the liquidity New York attracted from orders collected over the telegraph. Before the introduction of the telegraph, both exchanges could exist as equals. The telegraph turned this equality into a primacy of the NYSE. Thus, a global network with as much potential as the Internet is expected to have an important impact on the financial markets all over the world. The Internet already has had an impact, and is expected to have a truly transforming influence on financial markets as it matures.

This paper took a closer look at the relation between the process of raising capital and the Internet. The aim was to give an overview of the advantages and disadvantages of the different ways of raising equity capital that are most suited for the Internet. More specific, the following topics were discussed: online venture capital, online direct public offerings and online initial public offerings. The first option is mainly an optimisation of the traditional venture capital process, whereas online DPOs and IPOs are more revolutionary in the sense that there are more differences with traditional DPOs and IPOs.

Venture capital is an interesting source of capital for small firms with a lot of potential but with an uncertain future (e.g. high-tech or bio-technology companies). The main problem related with the traditional ways of finding venture capital is finding the right match. Venture capitalists all have their own specific strategy regarding their portfolio composition. Because of this, a start-up with the necessary potential must find a venture capitalist who is convinced by this potential and believes the start-up fits in his portfolio. The search for such a venture capitalist can take a long time because of this. The Internet improves this matching process: it allows entrepreneurs and venture capitalists to find

⁴⁸ Economides N. (2001), *The impact of the Internet on financial markets*, Journal of Financial Transformation, vol. 1, no. 1, pp.8-13.

each other, no matter where they are geographically located. So, by using the Internet, entrepreneurs can access more venture capitalists and find information regarding their investment strategy. This results in an increase in efficiency in the search for venture capital.

Next, online DPOs were discussed. DPOs differ from the more known IPO when it comes to intermediaries: in a DPO the traditional intermediaries are eliminated. By going directly to the investors, the company realises an important reduction in fees and commissions. DPOs are most suited for small companies that have problems collecting capital using the traditional financing channels. The advantages that are specific for Internet DPOs are an improved availability of capital and a more effective and cheaper dissemination of information and offering materials. The cons are a lack of certification of information, a higher cost of analysis for the prospectus, problems of adverse selection, regulatory differences between state laws, lack of liquidity, a possible unrealistically high stock price, the bad reputation of DPOs and the possible failure of the DPO. Most DPOs use the Internet, as this is the most efficient channel for this way of raising capital.

Venture capital and DPOs are financing channels for small and middle-sized firms. Large firms will prefer an IPO to a DPO. Therefore, the largest amounts of online capital raised in the future will be done with IPOs. There are several advantages of online IPOs compared to traditional IPOs: a reduction in costs, an increased availability of capital, a fair allocation of the shares and more flexibility for investors. The disadvantages are parallel with online DPOs: less marketing, possible lack of liquidity, problems of adverse selection, regulatory problems, problems concerning the bidding strategy and possibly unrealistically high stock price. Of these disadvantages, the lack of confidence of investors is the most important one. Investors will need to learn to trust online investment bankers before the number of online IPOs starts growing significantly.

This paper has shown that the potential is present: the Internet has the power to change the way capital raising is done. When it will happen is unclear: confidence and reputation in financial markets need to be built carefully. One thing however is sure: when it happens, the traditional players better make sure they are prepared.

Appendix

Case study: Openipo.com

1. The story behind openipo.com

Openipo.com is the portal site of a company called W.R. Hambrecht and Co. The founder William Hambrecht has a totally different vision on the whole IPO process: by using the principle of a dutch auction, money is raised in a better way (see also 3.1). Before he started the openipo project, Hambrecht was the co-founder of Hambrecht & Quist, a Silicon Valley based investment bank, which was sold to J.P. Morgan Chase⁴⁹.

W.R.Hambrecht is one of the few online IPO brokers that survived the burst of the bubble and the declining markets in the years after the burst. Other important players did not stay in the online IPO market very long: E*Offering, which first introduced the system of online IPOs, no longer exists and ipodesktop.com has limited its service to listing new IPOs. During the technology hype at the end of the 1990s, online investment bankers were predicted a bright future: by 2002, 80% of all IPO would be done online analysts said. Reality, once again, turned out to be a whole lot different.⁵⁰

2. Time series analysis of online IPOs

Since its foundation, nine firms called on openipo.com to guide their IPOs⁵¹. Below is a brief analysis of each of these companies, comparing them with market performance and average volumes of the sector they are in. From this, we will try to draw some careful⁵² conclusions regarding the performance of these shares, compared with the performance of the market they are traded on.

⁴⁹ Ackman D. (2002), *A better, more honest IPO*, Forbes, 17/10/2002.

⁵⁰ *Valuing google by reading between the lines*, Wall Street Journal, 13/5/2004.

⁵¹ <http://www.openipo.com>.

⁵² Conclusions will be based on time series only, as the number of online IPOs is too small to conduct reliable statistical analyses on these numbers. This is also the reason why it was chosen to put this analysis in appendix of the research paper.

As stated before, Openipo has guided nine firms to the stock market. Of these nine, only four are still quoted on Nasdaq: Genitope, Overstock.com, RedEnvelope and Peet's Coffee & Tea. What happened to the others?

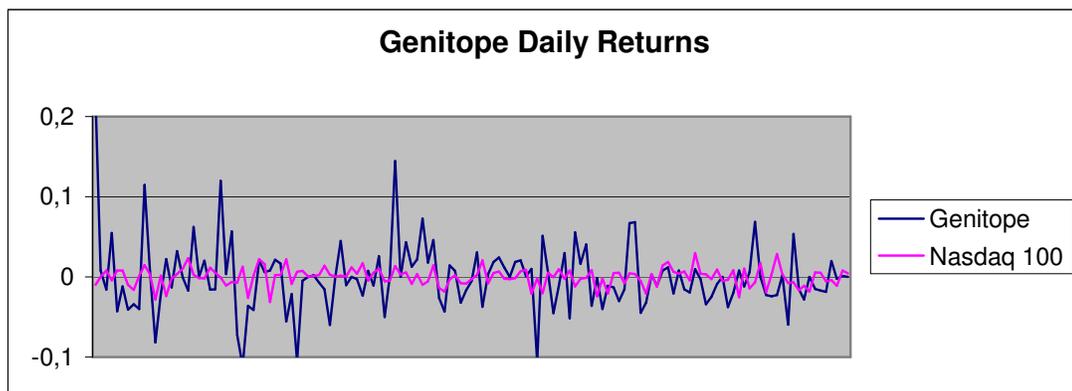
- Briazz and Salon.com have financial problems and are only traded over the counter.
- Some were by another company: Nogatech was acquired by Zopran, Andover.net was acquired by Va Software.
- Ravenswood Wineries delisted its stock because of financial problems.

Because of this, the data of these companies are no longer available; hence they will not be discussed below.

- ***Genitope Corporation***

Genitope Corporation is a biotechnology company focused on the research and development of novel immunotherapies for the treatment of cancer. Immunotherapies are treatments that utilize the immune system to combat diseases. The Company's lead product candidate, MyVax personalized immunotherapy, is a patient-specific active immunotherapy that is based on the unique genetic makeup of a patient's tumor and is designed to activate a patient's immune system to identify and attack cancer cells⁵³.

Performance:



Source: DataStream (30/10/2003 – 12/05/2004)
(Daily returns calculated in the following way: $\ln P_{t+1} - \ln P_t$)

First-day return:

Offering price: \$9

Closing price first day: \$10

⇒ 11,11%

Volume:

Data is not available on DataStream.

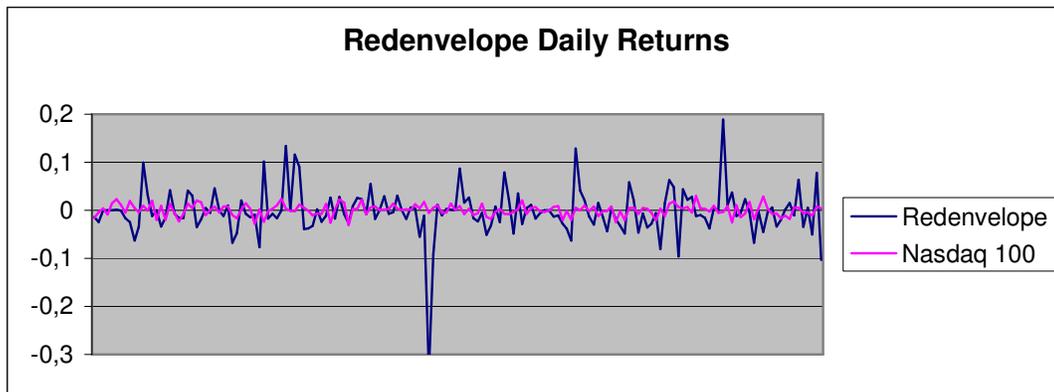
- ***Redenvelope Inc.***

RedEnvelope, Inc. is an online retailer of upscale gift items. The Company's products aim to fit every occasion, recipient, lifestyle and budget. It offers gifts from across 15 different product categories. Many of its products are designed exclusively for RedEnvelope by manufacturers worldwide. The Company's product offerings include cut flowers, jewellery, men's accessories, gift baskets, gourmet foods, personal care items, sport and game items, gadgets and tools, baby products, home and garden items, office products and bar, wine and cigar accessories. Through its Website, www.redenvelope.com, the Company's customers can search for gifts by occasion, recipient, lifestyle and price point. The Website generally features approximately 550 products, increasing to approximately 750 products during the holiday shopping season. In addition, RedEnvelope publishes a full-colour catalog several times during the year.⁵⁴

⁵³ <http://finance.yahoo.com>

⁵⁴ <http://finance.yahoo.com>

Performance:



Source: DataStream (25/09/2003 – 12/05/2004)
(Daily returns calculated in the following way: $\ln P_{t+1} - \ln P_t$)

First-day return:

Offering price: \$14

Closing price first day: \$14.55

⇒ 3.93%

Volume:

Average volume: 137.891

Float: 8.520.000

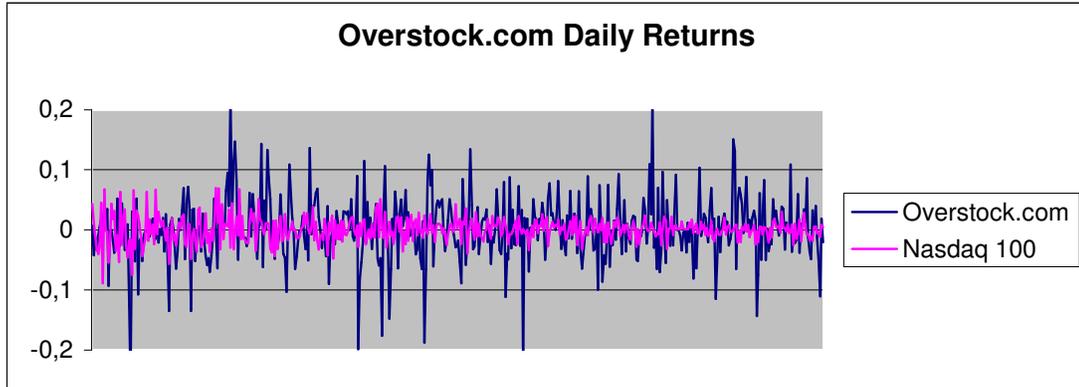
⇒ 1.62 %

- **Overstock.com**

Overstock.com, Inc. is an online closeout retailer offering discount, brand-name merchandise for sale primarily over the Internet. Its merchandise offerings include bed-and-bath goods, kitchenware, watches, jewelry, electronics, sporting goods and designer accessories. The Company also sells books, magazines, CDs, DVDs, videocassettes and video games (BMV). Overstock offers its customers an opportunity to shop for bargains conveniently, while offering its suppliers an alternative inventory liquidation distribution channel. It typically offers approximately 12,000 non-BMV products and approximately 500,000 BMV products in up to 12 departments on its Websites, www.overstock.com, www.overstockb2b.com and www.worldstock.com. The Company also offers travel

services, including airline tickets, hotel reservations and car rentals. Overstock.com has a direct business in which it buys and takes possession of excess inventory for resale.⁵⁵

Performance:



Source: DataStream (14/06/2002 – 12/05/2004)
(Daily returns calculated in the following way: $\ln P_{t+1} - \ln P_t$)

First-day return:

Offering price: \$13

Closing price first day: \$14.31

⇒ 10,07%

Volume:

Average volume: 350.000

Float: 9.300.000

⇒ 3,76%

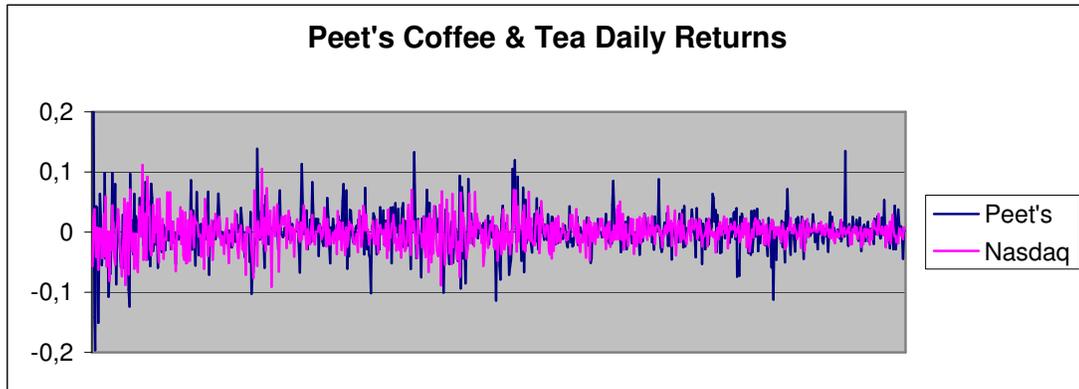
- **Peet's Coffee & Tea**

Peet's Coffee & Tea, Inc. is a specialty coffee roaster and marketer of branded fresh roasted whole bean coffee. The Company sells its fresh roasted coffee through multiple channels of distribution, including grocery stores, online and mail order, office, restaurant and foodservice accounts and 68 Company-operated stores in four states. Peet's sells approximately 32 types of coffee as regular menu items. Peet's also offers a line of hand-selected whole leaf and bagged tea. The Company purchases tea directly from importers

⁵⁵ <http://finance.yahoo.com>

and brokers and stores and packs the tea at its facility in Emeryville, California. In addition, it offers a limited line of specialty food items, such as jellies, jams and candies.⁵⁶

Performance:



Source: DataStream (25/01/2001 – 12/05/2004)
(Daily returns calculated in the following way: $\ln P_{t+1} - \ln P_t$)

First-day return:

Offering price: \$8

Closing price first day: \$9.83

⇒ 22.87%

Volume:

Average volume: 112.123

Float: 12.000.000

⇒ 0.93 %

3. Conclusion

As mentioned above, the small number of online IPOs conducted at this moment does not allow performing statistical analyses on it. The data that is available however already generates some interesting conclusions.

⁵⁶ <http://finance.yahoo.com>

- Performance:

The graphs of the daily return of the stocks and the daily returns of the Nasdaq 100 index raise the assumption that there is little similarity. The daily returns of Genitope and Redenvelope are clearly different from the Nasdaq 100 daily returns. The graphs of Overstock.com and Peet's Coffee & Tea appear to contradict this (Overstock mainly in the first part of the graph, Peet's during the entire studied period). The assumption of little similarity becomes clear when looking at the correlations in the table below:

	Nasdaq 100
Genitope	0,012
Overstock.com	0,13
Redenvelope	0,108
Peet's Coffee & Tea	0,023

For all companies there is no relation between their daily returns and the Nasdaq 100 daily returns. This indicates these shares do not follow general market tendencies but only move with company specific news. A possible explanation for this is the low liquidity (see below).

- First-day return:

As mentioned before, an offering price determined by the market demand will result in less pronounced first day returns⁵⁷. One of the consequences of this is less flipping, as investors who buy the stock will more likely be interested in holding the stock instead of selling at after the first day(s). The IPOs studied in this appendix generated the following first-day returns:

Genitope	11,11%
Overstock.com	10,07%
Redenvelope	3,93%
Peet's Coffee & Tea	22,87%

⁵⁷ <http://www.openipo.com>

According to Loughran (2003) the average first-day return for the United States between 1960 and 2001 was 18.4%⁵⁸. When compared to this average, the first-day returns tend to indicate that there is indeed less underpricing with online IPOs. Several explanations can be found for this: possibly dutch actions result in a more correct offering price. Another possible explanation is the marketing argument mentioned above (see 3.4.1): big investment banks have efficient channels to advertise a stock. Therefore, the lower degree of underpricing can be the result of a lower interest in the IPO. Further research will have to show whether Internet IPOs have consistent lower first-day returns and what forces are behind this.

- Volume:

The relation between volume and free float is calculated in order to give an indication regarding the liquidity of these shares. The percentages are summarized below:

Genitope	not available
Overstock.com	1,62%
Redenvelope	3,76%
Peet's Coffee & Tea	0,93%

The Genitope data on volume was not available on DataStream. The other stocks show a very low liquidity. This was mentioned as one of the disadvantages of online IPOs (see 3.5.1). Openipo.com seems to be unable to guarantee a minimum level of liquidity⁵⁹.

⁵⁸ Loughran, Ritter, Rydqvist (1994), *Initial Public Offerings: international insights*, Pacific-Basin Finance Journal, June 1994, vol. 2, pp. 165-199. (The updated table that was used in this paper can be found at: <http://bear.cba.ufl.edu/ritter/ipodata.htm>)

⁵⁹ No information is available whether or not Openipo offers liquidity services.