THESIS WORK

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Venture Capital Effect: The Effects of Venture Capital Programs on The Hungarian Economy

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1. Introduction

The present paper examines whether the JEREMIE program had a good effect on the Hungarian venture capital (VC) market and therefore on the Hungarian economy. Another main topic of this paper is the effects of this program on the Hungarian start-up ecosystem. JEREMIE program was tended to be a milestone for the Hungarian venture capital market, and hence for the innovative ideas. This is one of the reasons to choose this program as the leading topic of this paper.

Although, JEREMIE was a program for the whole EU, Hungary has been chosen to be analyzed, for several reasons. Firstly, one of the biggest amounts of VC has been dedicated to Hungary in the Central and Eastern European (CEE) region, however the amounts compared to the Western-European VC amount are small and it is interesting, how it affected the Hungarian venture capital market and start-up life so far. “Venture capital and private equity are essential for the innovation of an economy” as it is written in Dr. Judit Karsai, JEREMIE will boost innovation (2008) article, published by HVCA, therefore it was chosen to be highlighted from the instruments of the JEREMIE program.

JEREMIE program was expected to boost the venture capital market and the innovative firms, to create more competitive corporations. As most of the programs it has aims, that will turn out later in the analysis of the interview, however apart of the support of innovations, the creation of workplaces has been determined as one of the biggest aims of the JEREMIE program. By now, JEREMIE has started 5 rounds in Hungary with different conditions. Most of them have been dedicated to countryside investments and only a small portion of the first round have been dedicated to Central-Hungarian projects.

As for the structure of this thesis, some of the main parts and focuses will be determined in the introduction.

The first part of this thesis work is providing the theoretical background for the practical problem. As for the theoretical background, the different, most commonly used general financing methods have been chosen that will be written in the “pecking order”. All the different options are clarified in terms of what they mean, what types of companies use them and what basic advantages and disadvantages they have. As it was already mentioned, the order of the financing options has been defined based on the order suggested in The Pecking Order theory by Myers, (1984). After defining all the different
options, the theory used to define the order will be explained. To have a broader view on
the topic of capital structure decision making, another theory will be explained, that is
usually mentioned together with The Pecking Order Theory, the so-called Trade-off
theory. To know the most usual capital structure decision making theories, another theory,
The Miller-Modigliani Theorem will also emerge, however it will not be expressed in
detail.

The second part of this thesis will be about the methodologies that have been used
in the analysis. The two methods excel analysis and interview will both be defined and
expressed in terms of why these two methods have been chosen in this paper. To confirm
the points, why these methods were chosen, the advantages and disadvantages of the two
methods will be given. Furthermore, in some cases, explanation was necessary to be given
to understand the analysis and why certain things were done the way they were, and these
explanations are also given in the methodology part under each of the two methods.

In the third part of the thesis the results of the conducted analysis will be described
and the interrelations between the two analysis will be highlighted. The first analysis
conducted was the excel analysis. First, some words about the JEREMIE program will be
written and after that comes the deeper analysis on its effects on the Hungarian economy.
Within the analysis, Hungary’s situation within the CEE region will be explained,
comparing the amount of venture capital injected to some of the chosen countries,
Hungary, Poland, Bulgaria and Slovenia. After that, the analysis will be focused more on
the VC investments in Hungary, and how they have changed in the analyzed periods. To
see the efficiency of the investments, the next topic in the analysis is about the number of
exits and the distribution of exits by industry, to see what the most well-prospering
industries in the analyzed period were. The next part of the analysis is about the results
of the interviews conducted. In that part, the analyzed parts are based on the questions
that have been asked from the interviewees. The beginning of that analysis unveils the
current situation of venture capital market in Hungary, including the operating segments
within the market, the ongoing programs etc. After that the efficiency of the JEREMIE
and other inflowing venture capital will be analyzed. There will be words about the
efficiency of the investments and the problems with the ongoing programs. Some of the
more important problems will be highlighted and mentioned more, than the other, simply
because they are more essential for the thesis. Some words will be written about the
culture of the Hungarian venture capital market and about what should be improved about that. In the last part of the analysis, the new initiations the most usual ways of exits will be explained.

Finally, in the last part of this paper, some conclusions will be given with respect to the analyzed topics. The results of the tests of the two hypotheses will be given, whether JEREMIE program had a good effect on the Hungarian venture capital market and whether venture capital is the best to finance a start-up in the beginning of the company’ life. After the conclusion, there will be some words about the limitations of this paper and about the further analysis that could be conducted with respect to the topic.

The main goal of this paper is to prove, that JEREMIE program had a positive influence on the Hungarian VC market and the companies in the beginning of their life should use venture capital to develop.

2. Theoretical background

In this part, the theoretical basis for the main topics of this paper -the venture capital effect- will be clarified. For this purpose, this paper describes the most commonly used financing opportunities. The order for describing the different financing options is going to be determined by The Pecking Order Theory, that is about what type of financing firms choose first: internal equity, debt or external equity.

Firstly, the different types of financing options will be discussed, then the definition of The Pecking Order Theory will be clarified, and finally another relevant theory will be discovered that is in link with the previously mentioned Pecking Order, the Trade-off Theory. The following financial opportunities will be discussed: Internal equity financing (retained earnings), as for debt financing: bond issue, bank loan and private placements and finally for external equity financing: venture capital, Initial Public Offering (IPO), business angels and crowdfunding. These financing options are the most basic and wide-spread around the world and therefore these options are going to be described out of all the possible options. These financing opportunities will be investigated in terms of multiple perspectives: the core idea behind them, their advantages and disadvantages, the types of companies usually use them and in which phase of a company’ life these opportunities are usually taken.
2.1 The financing opportunities

There are three broad categories within the financing opportunities, the equity, the debt and the hybrid financing. Each of them has their own characteristics and firstly the general meaning of these categories will be clarified.

2.1.1. Equity financing

As for equity financing, it can be separated into internal and external equity financing as it is written in Myers (1984). Only external equity financing will be explained here, since internal equity will have a separate part later in the theoretical background. The external equity financing is when a company sells a portion of itself in return for capital as it is mentioned in Drover et al. (2017). There are several opportunities within equity financing, like venture capital, business angel or crowdfunding etc. (Drover et al., 2017).

2.1.2. Debt financing

The other main category of financing options is debt financing. In this case the company does not give away any direct control over the company, but it takes on payout obligations. In case of debt, the company must pay the promised interests regularly for the investors (Berk-DeMarzo, 2016). By taking on leverage the firm also has to bear the risks and costs of financial distress, if they cannot set the optimal level of debt, as it is also written in the Trade-off Theory by Myers (1984). Myers (1984) also states, in the Trade-off Theory, that apart of the increasing chance of financial distress, companies that take on debt can make advantage of it by interest tax shields to reduce their taxes. As Nikolaev (2015) explains, debtholders have a higher priority in case of bankruptcy, than what equity holders have.

2.1.3. Hybrid financing

As for hybrid financing, it is the combination of debt and equity financing in terms of its characteristics.
2.2 Debt financing and internal equity financing

2.2.1. Internal equity financing

According to the Pecking Order Theory, internal financing is the first option companies usually take on when they are about to make financing decisions for investments (Myers, 1984). The reason for that is that companies do not want to take on any unnecessary financial risk. They will not get into liabilities or obligations, and they also do not give out any voting rights to external people or organizations, unless it is necessary, but they rather choose an option, where they can fully control and finance their own investments (Myers, 1984). As for internal financing, companies can use internal equity or internal debt financing, but in this paper only the internal equity financing will be elaborated on, since The Pecking Order Theory focuses on internal equity, rather than on the internal debts.

So internal equity financing means, if the company uses its own resources to finance their projects without using any external source of financing. Although the fact that financial wise this source of financing is good for the company, there are several issues with it. As it is mentioned in The Capital Structure Puzzle (Myers, 1984, p.582): “professional managers avoid relying on external finance because it would subject them to the discipline of the capital market”, however shareholders may be worse off using internal sources, due to the fact that it is getting more difficult to discipline their managers and a principal-agent issue may arise (Myers, 1984). In this case, agency costs may incur, so at the end, the company can lose more by using their internal funds for projects, than if they have raised capital from other external sources.

Basically, every company can use this financing option, but it is not usually in the SME sector, due to their limited capital supply, as it is also confirmed in Szóka et al. (2017). However, as for the phase they are at when companies can use internal funds to invest, those companies are suitable that have generated enough cash and/or profits that they could retain within the company and is enough to finance their desired projects. These companies are generally not SME or recently started companies, but companies that have already generated cash from their main activities or other previous investments and so they can use it as a source of financing (Szóka et al., 2017).
2.2.2. Bank loan financing

According to the “pecking order”, the second financing option firms tend to undertake is debt financing (Myers, 1984). Within debt financing there are several ways to borrow money from investors and in this paper bank loans, bond issuance and private placements will be highlighted. Bank loan is a private debt instrument as it is written in Berk-DeMarzo, (2016).

This section starts with the clarification of bank loans. Bank loan is a very popular type of financing a business, due to its wide availability. As popular as according to World Bank Group’s enterprise surveys, 33.7% of all firms around the world has a bank loan (Enterprisesurveys, 2018). As for bank loans, they are one type of private debts and can be done by a single bank or a syndicate. In case of syndicates more than one bank put together the desired amount of loan in order to share the risk or simply because the amount is too large to be borrowed from only one bank as written in Lin et al., (2012) or in Berk-DeMarzo, (2016). Syndicates are usually used in case of tremendous amounts for large companies. In the other case firms can borrow from one bank and with that they undertake some obligations that are going to be discussed in the disadvantages of bank loan financing paragraph. There are loans where collaterals are necessary and there are non-collateralized loans as well, but most of them are secured (Rajan-Winton, 1995). So, if a company has a collateralized loan, then they have to make the bank sure of that they have sufficient amount of assets (tangible or intangible) that can be used as collateral for the borrowing and it will be security for the bank for their claims. (Rajan-Winton, 1995). Collaterals are usually asked by the banks to secure their loans, so in case of not being able to pay the interest the firm can liquidate those assets and can pay for the loan or the bank will get those assets (e.g. office buildings) (Bencheikh-Taktak, 2017). To get a bank loan is not an easy procedure. At first, a business plan is needed, where the bank can be assured that the idea is feasible and can come over every possible risk (Grzywacz, 2016). Then the creditworthiness of the company is also assessed by the banks to assure they can get their money back, and based on that analysis creditors can decide on the amount of interest that has to be paid by the borrower and outside lenders can also gain information about that company that the borrowing company might not even be able to pay for their first loan, so they should not get more capital or only with higher interest payments (Rajan-Winton, 1995). After these steps, the deal can be constructed.
Banks, as they are debtholders, have a priority in case of bankruptcy, so they are paid before the equity holders, and are protected by different provisions as it is written in Nikolaev, (2015).

Bank loan has several advantages and disadvantages. One of its biggest advantages comes from its nature, as debt interest is tax deductible (ACCA, 2018), reducing the taxable income and so the taxes as well. As compared to any equity finance, bank loan as a debt instrument does not get any voting rights in the company, so the control remains in the shareholders’ hands, however it has some power over the management, since banks have fixed claims companies have to pay, otherwise they go bankrupt (Nikolaev, 2015). The administrative and legal costs of bank loan financing is lower compared to those instruments that have to be registered, as written in Berk-DeMarzo, (2016). The last feature that is important to mention here is that, bank loans are available for small firms as well, as it turns out in Berger-Udell, (1995).

As about the disadvantages of bank loans, as it is a debt instrument- by its nature it increases the chance of default and so the financial distress costs, as it is stated in the Trade-off Theory in Myers, (1984). Usually, some collateral and other provisions are also necessary in order to get a loan as written in Bencheikh-Taktak, (2017) and in Nikolaev, (2015). The last big drawback for bank loans that should be mentioned here is that firms commit to future payments until the end of the maturity of the contract (Nguyen-Volla-Wong, 2017).

As it was already mentioned in the advantages part, bank loans are available for small firms as well, not only for the big ones. Most of the small companies use bank loans to finance their projects, simply because apart of internal financing this has the lowest costs, and so this is what is available for them at an affordable price (Berger-Udell, 1995).

Start-ups also regularly use bank loans for long-term purchases and also as start-up capital to be able to start their operations (ACCA, 2018).

2.2.3. Private Placements
Private placements are the second type of private debts that is going to be discussed. Private placements are bond issues that are generally sold to a small group of investors, instead of being sold to the public as written in Nguyen-Volla-Wong, (2017) or Berk-DeMarzo (2016).
Private placements have some important differences from publicly traded bonds. The main differences are with respect to the restrictive covenants, the credit monitoring, the information publicity and finally the customizability (Kwan-Carleton, 2010). As for private placements we can say that investors usually require more restrictive covenants, - like audited financial information or maintaining their (collateral) assets in a good condition- since they have to put a large amount of money into the projects and so they want to know that they are not exposed to information asymmetry or other moral hazards, that might end up in agency cost (Blackwell-Kidwell, 1988). So, this can be mentioned as a disadvantage for private placements as well, that there can be a lot of restrictive covenants. As for a difference from public debts, in private placement the lenders will do the credit monitoring, resulting in little or no free-rider problem, because investors are professional in credit monitoring, so they can get rid of the free rider problem, when no lender monitors (Kwan-Carleton, 2010). The next aspect that is going to be investigated is one of the main reasons why companies tend to use private placements instead of public bond issues, that is they do not have to publish any information to the wide public, but only to the few investors they will have an agreement with (Kale-Meneghetti, 2010). Finally, the customizability is also one of its advantages and main characteristics, since in a private placement, the lending agreement can be custom-tailored to the business and is easier to renegotiate the terms of the contract (Kwan-Carleton, 2010). So we can say it is more flexible and can be more professional as well, because the lenders usually add to the contract and at the end they can achieve a commonly acceptable agreement, whilst this is more difficult if a firm goes to the public -like an IPO, because it is a case when there is a fix price and there are fix terms for everyone that they can choose to buy in or not (Kwan-Carleton, 2010).

As for the companies, who use this type of financing form, most of them are medium-sized companies that want long-term borrowing at a fixed-rate or larger companies that want to issue bonds with non-usual terms (Carey et al., 1993). Small firms have low access to the private placement market; however, they can use the banks from the private sector (Carey et al., 1993). Most of these firms have information problems, why they cannot go to the public market (Carey et al., 1993).
2.2.4. Public bond issue

The next financing opportunity that is going to be discussed is the only public debt instrument, that will be defined in this thesis work is the public bond issue. Public bond issues are similar to IPO’s from the external equity financing.

The way a public bond is issued has more steps and the most important steps and actions that have to be taken by the borrowing company are going to be listed in the following rows. After recognizing, how much the company needs, they have to select an underwriter to help in the further steps. Then they need to make a registration statement with certified financial statements for SEC (Securities and Exchange Commission) (Kalle-Meneghetti, 2010). This is one of the disadvantages of public debt compared to private debt, since to be able to provide these data it is really expensive in comparison with the bank loan where banks can less costly get the necessary information to give the loan (Berk-DeMarzo, 2016). The next big step is that firms with the help of underwriters have to produce prospectus, where companies state some important and adequate information to the potential investors (Berk-DeMarzo, 2016). The prospectus has to include an indenture, that is a written agreement between the borrower and a trust company where the company declares terms of the bond issue (annual coupon, maturity etc.) (Berk-DeMarzo, 2016). The last step is when the bond gets issued to the public.

Some of the characteristics of public bond issues have already been discussed in the previous parts of this essay and now some of the advantages and disadvantages will be explained. A big disadvantage for public issues is that they are difficult or even not possible to be negotiated with respect to the terms stated in the indenture. This is bad for the company, because when it comes to financial distress they will have no ability to reschedule the repayments or rewrite maturity that can make them end up in bankruptcy (Kwan-Carleton, 2010). For this reason, companies use to set up so called sinking funds, that are funds where companies leave their money to provide extra protection for the bondholders that they will be able to pay for their bond coupons and principals and also, they can use it to retire some bonds earlier (Berk-DeMarzo, 2016). This is bad for the companies, because that money they cannot touch so they are not able to make new investments from it. Bond covenants are used in case of public bond issue, to have an indirect control over the company that borrows (Zhang-Zhou, 2018). As for most of the debt instruments, interest payments are tax deductible that is a good feature for a company to use debt financing, that are called interest tax shields (Myers, 1984). As for a last
disadvantage, companies who use this method to finance themselves have to publicize information that they might want to keep confidential (Kale, Meneghetti, 2010).

As for the companies, in general companies with lower degree of information asymmetry borrow from the public (Denis-Mihov, 2003). According to Rajan (1992) high-quality firms will be indifferent between bank debt and arm’s length (public) debt, and then transaction costs may determine the choice of financing (Rajan, 1992). However for high-quality firms it also states that they found bank debt more oppressive (Rajan, 1992), so we can say as a conclusion that they would rather use public debt. As for medium-quality projects Rajan (1992) predicts that bank debt financing is the better option. However, for low-quality firms public debt becomes better, due to the high costs of relative underprovision at low levels of effort (Rajan, 1992). As for the characteristics of firms that usually use public debts, the study made by Denis, Mihov, (2003) has been used. They found that most of the firms having public debt differ in many aspects compared to those who rely primarily on bank financing. They say that firms having public debt “are larger, more profitable, are more highly levered, and have a higher proportion of fixed assets relative to total assets, longer-maturity debt, and fewer growth opportunities, than firms that that rely primarily on bank financing” (Denis-Mihov, 2003, p. 14.).

2.3 Equity financing options

2.3.1 Venture capital financing

The first external equity financing option that will be elaborated on will be the Venture Capital (VC). Venture capital will be expressed in detail, even in more details than the previous ones, because this is fundamental for the later analysis to know what venture capital investment is about.

The first venture capital firms have emerged in the US at the beginning of the XX. Century (Becsky-Nagy et al., 2017). There are different definitions regarding Venture Capital, but to summarize, Venture Capital firms are providing capital for innovative firms, to help them overcome the growing stage, before they are getting large enough to go public (Szerb, 2006) and (Colombo et al. 2014).

However, they are not only giving the capital, but also giving strategic and other relevant supports for the companies that are chosen to invest into (Colombo et al., 2014). It also deals with one of the biggest issues of financing and investment decisions that is
the information asymmetry where the investor knows less than those who are seeking for the investments and so they get to a disadvantageous situation (Colombo et al., 2014). Venture Capitals can overcome these issues by scrutinizing the companies they invest in and putting effort into developing the company in a totally monitored way (Colombo et al., 2014).

There are 5 main steps of the investment process. First, it starts with the enrollment or so-called deal origination (Tyebjee-Bruno, 1984), when firms can apply for the capital offered by the fund by filling out a questionnaire about the main idea of the project to be investing money to (Hiventures, 2018). Then they look through the admissions to decide on whether they want to see the full business plan of the project or not, so they can reduce the amount of project that they have to fully screen in depth (Tyebjee-Bruno, 1984). The third step is deal evaluation, that is about estimating the possible risks and expectable return on investment in order to decide whether it worth investing the company (Tyebjee-Bruno, 1984). The following step, if a project has passed the previous steps, then the venture capitalist invites the founder of the project for deal negotiation, where they can contract on how much money will be invested in the project and how much ownership the venture capitalist wants in return (Tyebjee-Bruno, 1984). The last step is the post-investment activities that is about to find the proper helping and assisting people for the company, to set some future milestone dates that the company has to reach the and to create a strategy that will make the financed company reach the desired value, to let the venture capitalist exit with the desired return on their investment (Tyebjee-Bruno, 1984). After the financed company has reached the desired value, then the VC companies are about to exit from the corporation through several methods, for example, through IPO, by the founders buying out the shares of the VC company or even by selling to a third party etc. (Colombo et al., 2014). The success of the investment is usually defined by the revenue generated by the company and at the end the share proportion the VC investor has in the company, when the exit happens.

There are two specific stages of financing. The two main categories for stages are early stage financing and late stage financing. (Hellmann- Thiele, 2015). Early stage financing is when there is an investment into a project that needs funding to develop the idea and to make some prototypes of the product, in order to show that it is worth investing more money to that project. Late stage financing is more about to take the
developed product to the market, because that usually requires additional follow-up money (Hellmann-Thiele, 2015). Within these big categories there are several big categories, but only the two most commonly used VC investment stages will be clarified, seed financing and expansion capital. To refer back to early stage financing it is more likely to be done by angel investors according to (Hellmann-Thiele, 2015) and expansion capital is more for VC companies simply because of the amount of money needed for the investments, however nowadays there is always more seed investments conducted by VC funds (Hellmann-Thiele, 2015).

Seed financing is the most widespread early stage financing type. Venture Capitalists use it for funding newly founded companies that have projects with high future potential, but also high risk and it is used to fund the research for the initial product and the development of the first prototypes. For the VC fund it is useful to evaluate the project in depth and to assess its validity on the market as it is written in (Jeng-Wells, 2000).

Expansion capital is more likely to be done by a VC fund, than a business angel, because these amounts are way bigger, than seed or any early-stage financing amounts, that some business angels simply cannot afford (Hellmann-Thiele, 2015). Expansion capital can be obtained, when a firm already has the product and a marketplace to sell, but it needs extra capital to grow (Jeng-Wells, 2000).

One of the biggest advantages of VC financing is that even new companies that have only a little own capital, but a good idea they would like to undertake, will have the chance to take their product to the market. (Jeng-Wells, 2000). The second biggest advantage comes together with the first, because it is that firms at the seed phase get professional help from the VC investor’s consultants to help the management develop the company and make good decisions, but these professionals are also good to monitor the venture (Szerb, 2006).

A big disadvantage is, since these investments are risky investments, the VC funds need to have a proper control on these funded companies, so the monitoring is very strict (Szerb, 2006). Another disadvantage from the company’s (to be financed) point of view is that these VC companies usually require a high yield on their risky investment and professional advisory (Szerb, 2006).
2.3.2. Angel Investment

As for angel investors, only a shorter description will be given, since it is very similar to VC investments, apart from some differences. The really big difference between VC and angel financing is that, angel investors are usually individuals, while VC investors are funds or other institutions who give the money (Chemmanur-Chen, 2014). As it is discussed in (Chemmanur-Chen, 2014), business angels only give the money and do not give additional services like advisory team, that VC funds usually give. The last thing that should be mentioned here is that, as angel investors are wealthy individuals, in the later stages of the investments they also require other VC investments to be involved as an expansion capital in order to make the investments successful and to expand the business, so the order of investments is most regularly that VC investments come after angel investments, meaning that angel capital is used for seed capital and VC capital is more for expansion (Hellmann-Schure-Vo, 2013). However, the discussion paper by Hellmann-Schure-Vo, (2017) came to the conclusion, that angel investors tend to fund different companies, than VC investors, so companies financed by angel investors are less likely to swap to VC funding afterwards.

2.3.3. Initial Public Offering

The essence of Initial Public Offering (or IPO) will be explained in this section. IPO is very similar in nature to the public bond issue; therefore, the main similarities will be signed in this section. Firstly, the definition of IPO can be described as “selling stock to the public for the first time” as it is written in Berk-DeMarzo, (2016) on page 872.

Similarly to public bond issue, firms decide on the amount they need to collect and then they go to an underwriter and from that on the procedure is almost the same, as they have to create a registration statement for SEC and a prospectus -that is part of the registration statement- for the public to be able to evaluate the offer and finally, after the company agreed on the price with the underwriter, the underwriter sells the stocks at the predetermined price (Berk, DeMarzo, 2016).

Usually large and successful companies do this type of financing and those who have good potential to grow even bigger (Tirole, 2006). Some of the advantages of IPO, is that a huge amount of capital can be collected to grow. It also provides opportunity for exits for shareholders who would like to diversify and so their claims are becoming more liquid, however this might be a disadvantage, because without ownership concentration, investors will have less ability to monitor the management (Tirole, 2006) and (Berk-
DeMarzo, 2016). The other big issue with IPO is the chance of underpricing, where the set price (set by the underwriter) is low, to make sure that they can sell all the shares, and then the company ends up with less money, since the stock is cheaper, than what the market would pay for it.

2.3.4 Crowdfunding
Crowdfunding is a quite new way of financing a company. The essence of that is that firms can collect capital from non-professional individuals (Schwienbacher-Larralde, 2010). Investment levels are therefore low. At the really beginning, equity was given for the investors, however after a change in the regulations, some crowdfunding pages started to offer the own products of the companies looking for investment in return for the invested capital (Berk-DeMarzo, 2016).

One of the biggest advantages, crowdfunding has is that firms can collect capital and at the same time they can somewhat advertise their products and its newness, so it is also a signaling to the market about the new product to be launched (Schwienbacher-Larralde, 2010). Also, important, that the information that should be provided should not be that detailed information that is a good feature for the company. Maybe one of the biggest disadvantages it has is that the amount that can be collected are usually low, however the large number of people might have a lot of skills together and if they can be encouraged to be active participants in the company, a lot of problems can be sold and plenty of new ideas can be implemented (Schwienbacher-Larralde, 2010).

2.4 Theories of capital structure decisions
Some of the most relevant theories related to capital structure decision making will be listed, to create a background for the order of investment options. Two of them will be explained in detail, those that the best fit to the topics of this paper and that are usually handled together. The theories that will be discussed in detail, are The Trade-off Theory and The Pecking Order Theory. Another theory that is also related to capital structure decision making, but is not going to be detailed, is The Miller-Modigliani Theory.

2.4.1. The Pecking Order Theory of capital structure
The pecking order theory states the order of financing that firms prefer to use (Myers, 1984). It says that companies’ most preferred funding option is the internal equity financing, that is basically financing an investment with the retained earnings of the
company. If an external source of financing is necessary for the company then they rely on the safest security first, that is debt (Myers, 1984). After that, if that is still not enough to take on the investment plan, they use hybrids, such as convertible bond or preferred stock and finally, if all the other sources of financing have been undertaken, then they turn to equity financing as their last opportunity to raise sufficient amount of money (Myers, 1984). Although this theory relates to capital structure puzzle, here “there is no well-defined target debt-equity mix” (Myers, 1984, p. 581), simply because there is internal and external equity and one of them is on the top and the other is on the bottom of the pecking order (Myers, 1984).

The last main theoretical idea behind The Pecking Order Theory is the problem of asymmetric information. Asymmetric information means that companies have a better knowledge, than investors about how much their own assets worth and about what is the net present value (NPV) of their new investment opportunity. Fulghieri et al., (2015) states -based on the study by Myers, (1984)-, that the value of debt -as it is a senior security-, might be less affected by the differences in the amount of private information known by the creditor.

2.4.2. The Trade-off Theory

Another important theory will be determined within the topic of financial decision making, that is the Trade-off Theory. The Pecking Order Theory that has just been defined is usually compared with the Trade-off Theory, because this is another theory that is about making a financing decision, however the Trade-off theory determines what debt-equity mix is appropriate for the company.

The main idea of the theory is that the optimal debt ratio of an organization defined by the tradeoff between the financial distress cost the borrowing generates and the actual benefits that can be derived from it, holding the assets of the firm and future investment plans constant (Myers, 1984). So the two main components of theory that has to be taken into consideration are the financial distress costs and the advantages of borrowing. By financial distress costs, we mean that the more debt the company takes on, the bigger the chance will be to end up in bankruptcy or in other financial difficulties (Myers, 1984). As for the benefits, the biggest advantage for taking on debt is usually the interest tax shields, by which they can lower their taxable incomes and so their taxes (Myers, 1984).
In the figure below, the determination of optimal debt level can be seen. The figure shows the firm value if it is full equity financed and after that it takes into consideration the benefits coming from debt instruments, that are usually interest tax shields. After that the figure takes the cost of financial distress and by the merger of the two it determines the optimal debt level of a company. The optimal debt level is at the point where the firm value is at the highest level with the benefits and costs together.

![Figure 1. The optimal level of debt (Myers, 1984, p.577)](image)

2.4.3. Why the Pecking Order was chosen to be followed?

Apart of the fact, that it is known that the Pecking Order Theory does not set an optimal debt-equity mix, but for the topic this paper is going to write about, -the basic financing ideas- it is better to do it in the Pecking Order. The Trade-off theory only handles with debts and does not give a specific order to follow. In this thesis, the most commonly used financing options will be mentioned, to have a background for the topic of this thesis work. It is also good to see all the most commonly used, available options when we are investigating the efficiency of VC investments and the preference of start-up companies about VC. The “pecking order” is a good way to follow, because except for internal debt financing it goes through all the other forms of financing and provides a good structure how to build up the theoretical background.

3. Methodology

The detailed explanation of the practical problem and the method that is going to be used to do the analysis will be defined in this section. Apart of the introduction of the two analyzing tools that will be used in the analysis part, the reasons will also be unveiled
why those methods are the best tools to discover the facts for the practical problem of this paper.

Firstly, the practical problem is going to be introduced, that will be analyzed later. There are two main topics to discover, that this paper is searching the answers for. The first is to prove that the best way to develop and build a start-up company with high potential is venture capital. The second topic of this paper is about to investigate the effects of the JEREMIE program, on the Hungarian economy. To be more precise about the second topic it is going to focus on the venture capital injections within the JEREMIE instead of focusing on the whole program with other financial instruments. The topic about the general effects of JEREMIE will be the practical problem, the paper is going to put more emphasis on in the analysis.

After describing the practical problem itself, it will be clarified why these two topics were chosen to be analyzed. The first reason is that, the author supposes that one of the main focuses of venture capital investments is and should be start-up companies to create more competitive firms, and the paper would like to confirm this with facts and numbers to see whether it is true or not. For the second topic, the author believes that JEREMIE funds are a big opportunity for the Hungarian economy and for Hungarian SME ecosystem, so the author was curious about whether how much it really affected the Hungarian economy and whether it did encourage start-ups and other SMEs to develop and to try to go public and even go to foreign countries to strengthen the international economic position of Hungary. International economic position means here, that whether there is an increasing number of Hungarian corporations doing business in foreign countries and there is an increasing number of companies going public even in other countries’ stock exchanges. The analysis of JEREMIE rounds is also an important topic, because in the Hungarian venture capital market it was a milestone and it is a big chance for Hungarian innovative companies to grow. So, it is interesting to see whether what Hungary could have taken out of this opportunity and it is also exciting to see where is Hungary’s position in its region: Central and Eastern-Europe (CEE).

The two methods are going to be introduced that are going to be used in the analysis. In the analysis both qualitative and quantitative method will be conducted to have a better overall picture of the topics to be explored. The first method that will be conducted will be the excel analysis method to get general information about the current
situation of Hungarian venture capital market and to see the amount Hungary has now and how the efficiency of investments looks like until now. The second method that was chosen to be conducted, is a semi-structured in-depth interview to get a general picture on the topics of this paper from different points of view of different people in the venture capital market.

Also, data will be collected and analyzed confirm the hypothesis of this paper about the preference of start-ups for venture capital and about whether it is the best way to finance themselves.

3.1 The excel analysis

As for the first analyzing method, excel analysis has been chosen to be conducted in order to dig deeper in the main topics of this paper. In this section the way the method is conducted will be clarified, then the areas this analysis has its focus on. Finally, the advantages and the disadvantages will be detailed to understand the main reasons behind, why this method was chosen for the analysis.

As it was mentioned in the text before, there will be a quantitative method conducted in the analysis. This quantitative method is called a excel analysis of data. In this method excel tables and other excel tools will be used to arrange data and to do the necessary calculations for the data analysis. Data will be collected from different sources, including other papers, Hungarian or other country’ official sites or other organization’ official websites, like HVCA etc. In the process, the collected data will be summarized in tables in excel to be able to do the calculations, necessary for the further analysis. If it seems useful, some visualizing tools will also be used to make the numbers more interpretable in the analysis. Finally, the collected, summarized and visualized data will be analyzed at the end of the thesis.

The focus points of this analyzing tool will be detailed to understand the later analysis better. Firstly, data about Hungary’s situation in the Central and Eastern European region will be explored. It is important to first see Hungary from a bigger perspective to be able to look at the scale of the amounts Hungary got and to look at the opportunities compared to some other neighboring countries within the region. For this purpose, in the analysis Hungary will be analyzed together with Poland, Bulgaria and Slovenia. When the countries have been chosen the Central and Eastern European region was in focus, because Hungary is also in that region as it was already mentioned. Within
this region countries have been chosen with different industrial development level to have basis for comparison. Hungary is of course between the 4 countries, since that is the country to be analyzed in this thesis work. Poland was chosen, because within the CEE region it has the biggest power especially regarding their economic situation and so their stock exchange is quite liquid, that is important for the exit strategies related to companies financed by venture capital. Slovenia is in the four countries that have been chosen, because it is adjacent to Hungary and is a smaller, but better-prospering economy. Although their economy works better to Hungary, their stock exchange is less attractive and it is interesting to observe differences. Finally, Bulgaria was chosen, because that is a country with worse economic situation as compared to Hungary or Poland and their industrial development level is also somewhat different to the others and also their stock exchange is the least attractive from the chosen countries. The following focus will be more on the JEREMIE capital obtained by Hungary, and also about the amounts invested in Hungary including the JEREMIE rounds as well. To analyze the efficiency of the venture capital spent and its effects on the economy, the exits by now will be analyzed to see how many successful investments have been recognized since JEREMIE has begun in Hungary. Some of the data about JEREMIE rounds is not available after 2015, but only venture capital plus private equity data together so in some cases they will be handled together. As for the exits, since the industry standard holding period is about 5 years, significant number of exits were expected to come in the 2017-2019 period as it is written in HVCA 2014 by András Szombati in the commentary section. However, exit data from 2014 might also be important, since the first investments have been made in 2010 so some of the investments may have a result, so in the analysis of this paper exits are going to be analyzed from 2014 to 2017.

Finally, some of the advantages and disadvantages should be mentioned to clarify, why this method has been chosen for the analysis. One of the big advantages that excel analysis has is that a big number of data can be arranged and summarized in excel tables to be more understandable and more easily interpretable. There are also specific tools in excel that helps visualization of the selected data to help the understanding of the summary tables and this helps the analysis a lot. Excel analysis is also useful to do the calculations even within the summary tables to easily calculate the necessary numbers for the analysis and in addition with functions, multiple calculations can be quickly done. Some of the disadvantages is that it takes time to collect the necessary data and to
summarize them in a structured way. It can also be a drawback, that summary tables have to be customized in a way that it is not too big or not too small, to be meaningful for everyone who looks at it. However, it is also an advantage that all the tables can be custom-tailored for the selected data and only the necessary information is arranged in the table.

The main conclusions, suggestions and the results of the test of the hypotheses will be elaborated on in a separate section, under conclusions.

3.2 The interview

The second chosen method will be explained that has been used in the analysis. As it was already mentioned before, there will be both qualitative and quantitative methods done. The qualitative method will be discovered in this section, that is a semi-structured in-depth interview. After that the way the interview have been conducted and the people the interviews have been done with will be discovered. In the following paragraph there will be some words about the focus points of the questions to better understand what those questions were for. Then some of the relevant advantages and disadvantages will be explained of this method to see why this tool is one of the two that was chosen to do the analysis.

Semi-structured in-depth interview is a qualitative method that is about to ask professionals in certain fields to explore certain areas of that specific field. Semi-structured means, if there are prepared questions written, but when the interview goes on some more questions arises that is asked from the interviewee (those questions may differ person by person) (Gill et al., 2008). It was chosen to be semi-structured, because in such a complex issue like the efficiency of a European-wide program in Hungary there can be a lot of interesting questions coming up, while talking with the interviewed professional. To see the full picture and the real opinion of the interviewee, the interviewing person should interact and ask the interviewee to put more emphasis on more interesting things and the best way to do it is by asking more questions during the time of the interview.

To do the interview, personal meeting have been arranged with the interviewee, because it was important to meet face to face to ask those questions that were not written before the interview and to be able to listen to his stories, that he cannot write down in e-mail or it is not easy to do it through phone conversations. It took about an hour to do the face-to-face interview. So, it is better to listen to them in live and to capture important
data or information from them that might be relevant in the future analysis. Unfortunately, not all the interviews could have been done in face-to-face, because there was no opportunity to meet, so e-mail interview have also been conducted. As for the people that have been asked. Different people from different positions in the field of venture capital have been asked. Altogether 2 interviews will be analyzed, one with a Board member of a Hungarian venture capital fund, called Tamás Petheő and one with the project director at MNKH, called László Süveges-Szabó, to see different viewpoints about this topic and to have a complex view about this topic that will also help the quantitative analysis of this paper.

The main focus points will be highlighted of the questions that have been made to somewhat see the overall topic of VC market and also the specific topics this paper was about. Most of the questions in the interview focuses on the venture capital market in Hungary and the behavior of venture capital funds with the companies applying for investment capital. The interview also consists of questions more specifically about the JEREMIE rounds and about personal experiences of those professionals about some JEREMIE investments. There is also a direct question about the effects of venture capital on the Hungarian VC ecosystem. To have a complex view, questions about the comparison of the past and present VC situation have also been asked to be able to draw conclusions about the changes after JEREMIE came in to Hungary. When the interview questions have been made, it was also an important point to have questions about the venture capital market in general and how it actually performs to see the big picture about the situation in Hungary.

To see the reasons, why the in-depth interview was one of the methods that has been chosen for the interview, there are some relevant advantages and disadvantages that must be clarified. The first advantage that should be mentioned about such an interview has already been mentioned before, that is the complex view that can be derived from the different stories of different people with different perspectives on the same topic (Seidman, 2006). It means that the same story can be told many different ways, and so at the end the interviewer can get to a complex conclusion, mixing together the different answers on the same question. This is one of the most important features of in-depth interviews and was an important viewpoint to choose this method as one of the analyzing tools for the analysis. As compared to for example a survey, in face-to-face interviews
questions and stories may arise that are important for the analysis, and so a more complex analysis can be made, and this is also an advantageous feature of interviews. It contributes to the complexity of the answers and the conclusion that can be drawn from that. In the stories of the asked professionals, the interviewer can hear exciting personal experiences that can be useful to understand the whole topic that should be discovered through the interview and to make the analysis more interesting (Seidman, 2006). It is also an advantage that it can be filtered who to ask the questions from, unlike in a survey where basically anybody can answer those questions and so that answers might be misleading. Furthermore, questions can be more custom-tailored for the people to be asked and so the interview will be more complete, and people can answer the questions that they are expert at and not every question that was written for the interview. Apart of the important disadvantages, interviews also have some disadvantages that might influence the outcomes of the analysis that will be made or just makes difficult to make the analysis. One of the big disadvantages an interview has, is that it takes a lot of time to prepare for a professional interview, to make an interview with someone face-to-face and to find the appropriate people to ask (Seidman, 2006). This makes it complicated and time-consuming method to conduct (Seidman, 2006). Another drawback of an interview is that the answers given by the interviewees might be biased. This bias can be derived from the fact, that the asked people might have feelings and personal experiences about specific topics that may influence the answers they give in the interview. With respect to the analysis that is made, it can be really misleading to get biased information about certain things and bad conclusions might be drawn at the end based on that information that were in the interviews. Unfortunately, sometimes interviewees do not want to ask certain questions for some reason or they simply cannot answer them, or they are even not allowed to answer those questions that means that some of the questions might not be unveiled. It can also be a problem that is sometimes difficult to determine the best people to ask and not only to choose those people, but to get in touch with them and to get them to give interviews, especially in topics that are somewhat sensitive.

All in all, interviewing method is a good way to analyze the problematic issues handled in this paper, because of the custom-tailored questions to the selected professionals who have been chosen to be asked about a certain topic.
4. Analysis

4.1. The excel analysis
To start the analysis with, the two hypotheses of this paper will be stated to know what the analysis is searching the answers for. This paper has two hypotheses, the first is that the JEREMIE program had a positive effect on the Hungarian venture capital market. The second hypothesis to test is that, venture capital is the best financing method for start-up companies in their beginning phase. These two hypotheses will be tested and explored with the two analysis methods.

4.1.1. Introduction to the analysis
First, it would be clarified, why this paper puts the emphasis on the JEREMIE program in the analysis within the broad topic of venture capital in Hungary.

The main reason for that was, that JEREMIE program was and is a milestone for the Hungarian venture capital market and economy. It is a big chance for the Hungarian -and many other countries’- SME companies to develop and to create great innovations and increase the number of competitive firms. JEREMIE not only includes venture capital, but also micro loans, guarantees, etc., but as much as the data collected allows, the focus of the analysis will be on the effects of the venture capital injections on the Hungarian economy and on the efficiency of those investments.

4.1.2. What is JEREMIE?
JEREMIE (Joint European Resources for Micro to Medium Enterprises) is a program initiated by the European Commission (EC) and the European Investment Fund (EIF) in 2007, that provides capital for EU structural funds to fund SMEs through several ways (e.g. venture capital, loan) and to enhance the development of SME ecosystem (EIF Europa, 2012).

4.1.3. JEREMIE in Hungary
In this section, the JEREMIE program will be analyzed in Hungary. To have a better picture of the capital amounts, Hungary will be compared to some other countries in the region where Hungary is, the CEE region. The countries to compare Hungary with in this relation have been chosen in a way that is written in the methodology part.

4.1.4. The situation of Hungary in the region
The Hungarian venture capital market and investments will be analyzed in terms of what effects it had or could have on the Hungarian economy. Also, data from one of the biggest milestones of the Hungarian venture capital field -the JEREMIE program-
will be analyzed. However, firstly the situation of Hungary will be explored within the region regarding the venture capital (VC) amounts they got under the JEREMIE program. A comparison table will be analyzed first with VC amounts that were dedicated to Hungary compared to some other countries’ VC inflows in the same region, the Central and Eastern-European region. Three other countries have been picked from the CEE region to compare the Hungarian amounts with: Bulgaria, Poland and Slovenia. The countries were selected in a way that is explained in the methodology part of this paper. In figure 5 (see in appendices), data about the inflowing JEREMIE capital to the selected countries is summarized in between 2007-2013.

From figure 5 in the appendices, it is easily visible that there is a huge gap between the amounts that were dedicated to Bulgaria, Poland or Slovenia and the amount that was offered to Hungary. This means a significant advantage for Hungary in the competition to develop SMEs and to boost the venture capital industry in Hungary. Furthermore, Hungary got even more money in the next rounds of JEREMIE to use for risky investments as venture capital, so much as it achieved the 300 million-euro (92.7 billion HUF) level. Although, within the CEE region these numbers are huge and the venture capital amounts inflowed to Hungary are way bigger, than the other countries in the region that were selected, the amounts are still below the scale of VC investments in the Western-European countries, in the US or for example in China where the invested amount are multiple times Hungary has got as it was confirmed in the interview with Tamás Petheő, that will be expressed in the interview analysis later in the thesis work.

Poland is the biggest economy from the chosen countries and one of the biggest in the CEE region. For this reason, it seems strange that Hungary got a greater amount as venture capital, than Poland, although Poland has the biggest market by far in the region and the Warsaw Stock Exchange (WSE) is more attractive and more active, than the Hungarian, Budapest Stock Exchange (BSE), that is important, -as it is also mentioned in Karsai Judit’ “JEREMIE will boost innovation” article (2008) – because with respect to exit strategies, a well-prospering and actively used stock exchange is significant. To confirm this point, a table was made about the shares capitalization of the chosen countries’ stock exchanges (figure 6 in appendicies) and more importantly about the daily turnovers of each of the stock exchanges.
Figure 2. Turnover of share trade of the selected countries’ stock exchanges. Source: Own adjustment based on data from BÉT, GPW, BSE-Sofia and LSE.

From figure 6 in the appendix, it can be observed that the Warsaw Stock Exchange with its almost 90.5 billion HUF worth shares capitalization is the biggest from the chosen countries, as compared to the second biggest from this four that is Hungary it is more, than 12 times bigger in equity market capitalization. Not to compare it only from one viewpoint, from figure 2 above, we can easily observe that by far the biggest turnover is made in the Warsaw Stock Exchange, almost 8 times bigger, as in the Hungarian BÉT. This shows us that the activity of the polish stock exchange is much better, than some of the CEE countries. The more the daily activity on a stock exchange is, the better the liquidity that stock exchange has, meaning that there is a better market for the shares traded on that stock exchange. From exit perspective it is important for VC companies, because IPO exit is an important way of exit and a liquid market is essential for that. Apart of all of these facts, Hungary still got more venture capital in the JEREMIE, compared to Poland and the other selected countries.

The reason for that might be that the usage of private equity in Hungary is much lower, than as it is in Poland, since Poland may be more attractive for private equity investments and so they need less venture capital to boost their VC market, but to be sure about this idea further analysis should be conducted on this idea. However, this idea might be a valid reason, because from the interview with Tamás Petheő it turned out that the activity of private equity is very low in Hungary. Another reason may be that it should be taken into consideration, that for a start-up company it is easier to get listed in the Hungarian stock exchange (BÉT) in a later-stage, than in a way bigger Polish one, but a deeper analysis would be necessary to confirm this supposition. If the Hungarian funds use the money efficiently, it means a huge competitive advantage as compared to the other funded or not-funded countries. This is one of the big questions that this paper is searching the answer for, whether the way Hungarian funds allocated the money was a good way to develop the SME ecosystem and the whole Hungarian economy.
4.1.5. The analysis of the venture capital industry in Hungary

Data will be analyzed about the venture capital market in Hungary in this part of the analysis. As one of the big questions of this paper is about the effects the JEREMIE program had/has on Hungary, data about the specific rounds will be analyzed first. In figure 7 (see in appendices) the characteristics of the specific JEREMIE rounds are illustrated. From that figure we can see that within JEREMIE, the only program that was partly focused on the Central-Hungarian region was JEREMIE I. Co-investment fund program and it was the smallest amount from all the other JEREMIE rounds, that shows the obvious aims JEREMIE program has with respect to the development of countryside companies in Hungary. It is not a surprise, since as it turns out from the interview with Tamás Petheő the main target of JEREMIE -apart of the countryside development- is the creation of workplaces and the economy on the countryside should be made to catch up with the Central-Hungarian region. However, as it will be explained later, according to professionals in this field this is a huge problem with JEREMIE to focus the investments only on the peripheral and not on the Central-Hungarian region and also JEREMIE’s aim with the reduction of unemployment would suggest to invest more to Budapest, where unemployment rate is pretty high with 2,9% in 2018 Q2 (KSH, 2018).

If figure 7 is further analyzed, it is conspicuous that the second smallest amount in the table has been allocated for seed capital. From the characteristics it is visible, that the companies listed under this category are most probably start-up or other SME companies, because of the small number of years of operation and the relatively small revenue limits set in the program. Companies like these are important in every economy to develop, since most of the innovations and new ideas are usually in companies like these. As we know, innovation was an important target of the JEREMIE capitals so more money should have been allocated for this purpose. However, on the other hand Szerb L. (2006) illustrates, that in the start-up and seed phase of a company business angels, family and friends should finance the projects. A possible conclusion from this can be that Hungary is lack of business angels and therefore some of the venture capital is dedicated as seed capital, but further analysis would be necessary to confirm this idea. Although this money in JEREMIE II. was a good initiation to boost the early-stage venture capital market in Hungary, but if we take a look at the amounts (150 thousand EUR) that can be given to companies, we can see that they are not enough to be able to start off a new venture and to take it to a next phase in the life cycle, that is confirmed in the interview
that has been made with Tamás Petheő, but this topic will be elaborated on later in the interview analysis. Not enough here means, that it gets spent in less than a year, and so they cannot generate enough money to survive until they get the other 150 000 EUR loan and if they can survive, they are not able to generate enough to pay for that loan, so the chances of surviving will decrease until the expansion capital. In one sentence, they are running out of business before they had the chance to get new investments. This idea has been expressed by Tamás Petheő as well in the interview, therefore this will be examined in the interview analysis as well.

Now, the number of investments will be discovered, both that has been made in the JEREMIE program and the aggregate number of investments including venture capital and private equity investments. As it is also mentioned in the methodology part, some of the data was not accessible in case of JEREMIE rounds, but data in between 2010-2015 are going to be analyzed here.

If we take a look at the investment tendency in JEREMIE that can be seen in figure 8 in the appendices, we can see that the number of deals has been increasing over the years (year by year), except for 1 year between 2014 and 2015, but we can also observe that between 2013-2014 there has been a tremendous increase in the number of transactions.

To better see the whole tendency of the investments, an illustration of the average amount of deals per year have been made. On this illustration in figure 3 above, it can be observed that, although the number of transactions has been increasing, the average amount invested has been decreasing over time, meaning that the amount of investments per deals have shown a decreasing tendency. As it can be seen, the biggest investments on average
have been made in 2011, with almost 100 million HUF more per deal as in the year where the second biggest average amounts can be observed in 2012. The average of the amounts per transaction in the observed period was 334 585 831 HUF. The average amounts per transaction in the first three years were above the average, however after 2012 it went below the average amount, although the number of transactions has been increasing.

On the figures 9 and 10 (see in the appendices), the number of venture capital investments in Hungary in between 2010-2017 can be seen, that includes the private equity investments as well. It is important to know that the JEREMIE venture capital investments dominated in this period, so a big portion of the investments were made from JEREMIE capital. The number of venture capital backed companies shows an increasing tendency, except for the years between 2013 and 2015 where there has been a slight decrease compared to the previous year, that is well illustrated in figure 10. In between 2010-2017 altogether 439 companies have been financed by venture capital and/or by private equity based on the data from HVCA, 2017. To make it more meaningful with respect to the effects of venture capital and to somewhat see the effects of JEREMIE on the Hungarian economy, the number of exits between 2014-2017 should also be illustrated. As it is mentioned in the methodology part, the analysis of the exits will be focused on the 2014-2017 period, simply because the average holding period of funds is 5 years according to András Szombati (Board member at HVCA) -as written in HVCA 2014-, so exits are also valid to be analyzed at least 4-5 years after JEREMIE has arrived to Hungary. Altogether, 50 exits have been reported in the venture capital and private equity overview of HVCA in between 2014-2017, 8 exits in 2014, 15 exits in 2015, 16 exits in 2016 and finally 11 exits in 2017. 2018 data is not yet reported on HVCA. As we can see in between 2014-2016 the number of exits has been increasing, however in 2017 the exits reported were less as it was in 2016 or 2015. In order to show the most prospering industries, a table has been made that illustrates the number of exits between 2014 and 2017 per industry in each year. From the illustration (figure 4) below, it is visible that most of the exits have been reported in the business and industrial products and services category, where 15 exits happened in the analyzed time period. Another prospering category was consumer goods/services & retail, where all in all 12 divestments have been reported. If we take a look at figure 4, we can see that the distribution of the exits is focused on only a few industries instead of equal distribution. This can be, because those
projects might be longer term investments and the divestments come later on in the close future, but to be sure about this, further analysis should be conducted on this topic.

![Figure 4. The Distribution of Exits Across Industries (by number of exits). Source: Own edit based on data from: HVCA 2017, HVCA 2016, HVCA 2014](image)

To summarize, the number of divestments is low, that might be due to several reasons. Those possible issues will be mentioned in the analysis of the interview, when the problems with the program and the Hungarian VC industry will be explained.

### 4.2 The analysis of the interviews

In this part of the analysis, the current situation of the Hungarian venture capital market, the present VC programs, limitations of the programs and the venture capital market will be explained. Two interviews will be analyzed here, one with Tamás Petheő, who is one of the Board members at GB&Partners Kockázati Tőkealap–Kezelő Zrt. and the second one was László Süveges-Szabó, who is a project director at MNKH Zrt., responsible for projects in Asia and Middle East.

#### 4.2.1. The general situation of VC market in Hungary

To start the analysis with, the general situation with the Hungarian economy will be elaborated on. As it was described in one sentence in the interview with Tamás Pehteő, “the situation of venture capital in Hungary is hectic”. It consists of 3 main elements, EU capital, state plus EU capital or private equity (PE), however the PE activity in Hungary
is low and as it was mentioned in the excel analysis, it can be a reason for that Hungary got so much capital in JEREMIE, dedicated as venture capital. So, in Hungary the most common forms of venture capital are EU or state plus EU venture capitals. This structure is used to boost the venture capital activity in Hungary, as it also helped in Israel many years before and now they have a well-prospering VC activity as it was mentioned by Tamás Petheő in the interview. In addition, in the interview with László Süveges-Szabó it is written that from 2020 on the number of EU capital may decrease and the state and private equity might increase instead. From this the positive effect of JEREMIE can be concluded, since it means that JEREMIE could set up a VC culture in Hungary that is ready to develop. Although in today’s Hungarian economy, the venture capital market is dominated by the JEREMIE program, as for a good result of the programs initiated by the EU, some initiations have also been launched in Hungary, launched by Hiventures for example, with the capital offered by MFB invest. This program has some of the features that corrects some of the mistakes done by JEREMIE, that will be explored later on in the analysis. This new Hiventures program has start-up, seed and expansion programs as well and some of the investments can be done in the Central-Hungarian region that is an important feature. From the interview with Tamás Petheő, it turns out that this program might be more successful program, than the programs going on now, because it has less limitation towards the investments, however this program cannot yet be evaluated, since it only has started 1.5 years ago and the end results cannot yet be seen. All in all, the Hungarian VC market is under development and is on the way to create an own Hungarian VC culture.

4.2.2. The basic issues with VC investments in Hungary

To elaborate on this topic, a question has been asked in the interviews from both the interviewees, whether there is a problem with the Hungarian venture capital investments or not and if yes, what are those issues? Different answers have been given for the questions. In László Süveges-Szabó’ interview, no general problems have been mentioned, but only problems with the companies to invest in, since he mentioned that they are not well-prepared with investment offer and for this reason some deals do not even get to the investment phase. Another problem mentioned there, that is correlating to what Tamás Petheő has also mentioned with respect to the risk-bearing of the investors. They both say that Hungarian investors focus too much on security even in case of venture capital, where a bigger risk-bearing behavior would be more beneficial. As opposed to
the few issues, László Süveges-Szabó has mentioned, Tamás Petheő believes: “This problem is complex”. Different problems have been mentioned here. One of the main issues mentioned was about the limitations of the programs going on in Hungary nowadays. JEREMIE program for example has a lot of these limitations that might have an influence on the efficiency of the investments. One of the biggest problems with JEREMIE is with its focus. JEREMIE program focuses on companies on the countryside and exclude enterprises in the Central-Hungarian region and more importantly opportunities in the capital city, Budapest. This has also been mentioned in the excel analysis, that this fact can be derived from figure 7 as well, that only the first round of JEREMIE gave the chance for investments in the Central-Hungarian region. With respect to this problem he said that: “the features of Hungary determine, that investments should be made with focus on Budapest firms in terms of innovation”. This simply means that there should be good projects in Central-Hungary that could be financed and could even go to foreign markets, however the restrictions made in the program instantly exclude those opportunities, and this can lead to a less efficient investment portfolio. In addition in the interview, Tamás Petheő has mentioned, that for a company on the countryside, it is more difficult to penetrate to a foreign market or even have an IPO on BÉT, as compared to an enterprise in Budapest. He said that based on his experiences, companies in the Central-Hungarian region are more likely to develop as much as they are able to go to other markets. To summarize this issue, this limitation takes the chance from Central-Hungarian big potential companies and gives it to enterprises on the countryside that might not be ready for generating the expected yields. The next limitation that might be a barrier for a better investment efficiency is the industrial focus of the JEREMIE program. This is an important issue due to the fact, that there are not so many potential projects in Hungary and if there is a focus on some industries, it ends up in even fewer potential projects money can be invested into, by excluding potentially prospering projects from other industries that are not in focus. However, this might be an advantage as well, since if the VC funds need to focus on some industries, then they can increase the number of field professionals for the given industry. These more focused funds could make better investments decisions and could help the funded companies more, than without enough field professionals, that would end up in a more efficient investment portfolio. A good example for this type of VC market where funds are focused on industries can be the US or even China, where there is a well-prospering VC market, as
mentioned in the interview. However, a big difference that makes this focused fund idea more difficult in Hungary is the size of the market, since in Hungary the market is small and there is a smaller number of investment opportunities within an industry as compared to such huge companies like US or China. With respect to the problem with the not-focused funds, Tamás Petheő highlighted that professionals in the separate funds are knowledgeable at many things, but they know nothing perfectly as opposed to focused funds where professionals have complete knowledge about a certain industry.

The next issue mentioned in the interview is related to this market size problem. This other issue is in line with the size of some amounts offered in some JEREMIE rounds. The size of the market here means a problem, due to the fact that some companies funded in seed phase in Hungary and who go out to the Hungarian market, sometimes cannot generate enough revenue to survive until a next round capital investment. In addition to this, possibly because of the small market and small number of potential start-ups, business angels are present in a low number, although they should do the investments in the beginning phase of a start-up as it is mentioned in the theoretical background and in Szerb (2006). To elaborate on this problem, let’s take for example the seed capital program within the second round of JEREMIE. In this case 150 000 EUR was dedicated as seed capital and a following 150 000 EUR loan could have been given to seed phase corporation as it can be seen in figure 7 in the appendices and as it was mentioned in the interview. In addition to the small amount considered as seed capital, the companies that are suitable for the investment, are out of Central-Hungarian region according to the program description. As it was expressed by Tamás Petheő in the interview, according to his experiences, this amount is not enough for a company to make a real product/service from the idea they had, and to start the sales activity as well. So, it is difficult for them to penetrate to the Hungarian or any other market and generate enough cash to survive until the next round capital injection will be accessible for them. Even if they can reach that development level to be suitable for expansion capital, if there is no tendered expansion capital to apply for, they have to survive even further only with the seed capital injections plus the money generated from operation. It is even more difficult for the enterprises on the countryside as according to what Tamás Petheő has mentioned in the interview.
During the interview with Tamás Petheő, the question arose that: apart of the regionally large VC amounts that was dedicated to Hungary, is it still difficult to increase the efficiency of the investments?

In his answer for this question, he mentioned that he agrees that the amounts Hungary got was regionally high, but in comparison with Western-European countries the venture capital amount coming -even to the whole CEE region- are really low, so basically more capital should be invested into more companies to get higher yields from investment portfolios.

Separately from the previously mentioned issues with the programs Tamás Petheő stated, that the attitude of the management of the companies to be financed is quite important regarding the efficiency of the investment. In addition, he said that regarding this issue, it is essential how the money invested into a company is officially called. For example, in case of the JEREMIE program, the money amounts are called aids, where for instance in the program done by Exim bank they call that money, (invested) capital. The difference in the names of the invested money has a meaning. In case of JEREMIE, aid refers to the compliance to the program requirements of the JEREMIE program and this means this is the aim of the whole investment program. Within the compliance to the requirements, the main focus is to create workplaces and invest into innovation. On the other hand, in case of Exim bank, capital refers to the fact that at the end they want to achieve the expected yields, so it sounds more like an investment requirement. Based on the experiences of the interviewee, these names have tremendous influence on the attitude of the management of the funded companies and in case of capital they are more about to generate the required yields.

At this point in the interview it was asked from Tamás Petheő, that what are the usual yield requirements in his experiences?

He told, that it is usually 20% yield per year, however in addition he said that the investors try to be cautious with the expected yields, due to the small market and the given opportunities.

To summarize this section, there are some barriers for better efficiency in the Hungarian economy that should be corrected in the future, if Hungary wants a more
efficient venture capital market, however the program has started to push the Hungarian VC market to a good track to develop and to be able to improve further itself.

4.2.3. Efficiency of the ongoing VC programs in Hungary

The present venture capital programs will be analyzed in terms of efficiency, based on the answers in the interviews. In the interview with Tamás Petheő, he said that the capital flowing in to Hungary was not spent the most efficient way possible, since there are only a few success stories to come up with, that have been funded by capital coming from these European programs. In addition he said, what he also highlighted in a previous question, that the amount that were injected to the Hungarian economy through these EU initiated programs were not that big amount, compared to more developed economies in the EU, especially in the Western-European countries. If more significant amounts would have been dedicated to Hungary as venture capital, more enterprises could have been funded so there would be a bigger chance of having some companies, from which the funds can make such huge exits from as it could cover all the money invested into other not very well-prospering projects. Apart of these, some abusesments have happened in the VC industry since 2010, but most of them have been investigated and punished by the responsible authorities of MNB. As it was also mentioned in the previous section, a barrier to the more efficient investment portfolio was that funds are not able to focus on one or only a few industries, but they should focus on many more, that decreases the efficiency of the investments and makes it more difficult to evaluate an idea company or any other company with short or even no years of operation. It also makes it difficult for VC funds to operate spend their capital efficiently, because the fact that Hungary is a relatively small country, somewhat limits the number of possible projects to invest money into and also the special industrial focus of some programs tightens the number of possible options even further, as expressed by Tamás Petheő. He believes, that the healthy development would be if companies after investments could penetrate foreign markets as well, however it is not so usual in case of Hungary. On the other hand, there are some counterexample who could reach this goal and could go to foreign markets and there is also example for companies that could go and get listed on foreign stock exchange like WizzAir who used Hungarian PE to develop besides the foreign investments. Some other examples could be, Prezi or even Nanushka International, who is one of the biggest success stories of the JEREMIE program. As for a final reason for not efficient investment portfolios, it was mentioned in both interviews that investors in Hungary are lack of risk-
bearing behavior and so they try to be secured, even with the capital that is dedicated spend on risky investments in return for higher yields. Finally, it also came up at another question that in Hungary, the culture of VC investments has not yet evolved, and so in some points it differs from other countries with more developed VC markets. One of these things is the ownership focus, that also can be a reason of less good projects, since those original owners who really believe in their idea and who think indeed that their idea will be a success, and a fund wants too much proportion of their enterprise, then it might be a conflict of interests, since the original owners might lose their interest and so the cooperation will not work. However, as it turns out from the interviews, if a fund gets a big proportion of a company, at the end when the company gets to the market, it will set the ownership structure of the company, because the market will require that. On the other hand, Tamás Petheő told in the interview, that “it is nothing better to have a lot of shares in a company that is bad”.

4.2.4. Changes in the Hungarian economy with JEREMIE program

There have been some changes in the economy and VC life, after the JEREMIE program came in to Hungary, that are important to discover. As it has turned out in the interview with László Süveges-Szabó, JEREMIE has fundamental significance, especially on the venture capital market and on the start-up and SME ecosystem. On the one hand, JEREMIE program has increased the amount of capital to be invested in the Hungarian market. It was also good, since the traditional VC investors have the chance to share the risk with this program financed by the EU. JEREMIE also had a significant role in the deal structuring, from the beginning until the exits, that is fundamental to develop the Hungarian VC culture as well. Other features of JEREMIE have been expressed by Tamás Petheő, who said that the number of companies have been increased, especially the start-up and SME companies, so we can say it could boost the number of projects and so it had an influence on the Hungarian economy. Although there have been more companies in the economy, but the number of competitive companies has not changed in parallel with the number of companies. He highlighted that the number of companies that is suitable for an IPO exit is low in Hungary.

4.2.5. The main ways of exits

Since we cannot yet talk about a lot of exits it is not meaningful to say exact distribution numbers, but in both interviews, it turned out that the most regular way of VC exits in Hungary is through management buyout. László Süveges-Szabó has
mentioned in the interview that based on his experiences 95% of the exits have been through management buyouts. Tamás Petheő said that in case of some companies they started to evaluate whether they are ready for a Hungarian or a foreign IPO, because there are some companies that are about to develop enough for that, but in addition he said that a more liquid Hungarian Stock Exchange (BÉT) would help a lot for these companies to exit there.

5. Conclusions

Venture capital plays an important role in the world economy and it is getting more important in Europe. As it can be seen in the analysis in some countries, such like in Hungary the venture capital culture has not yet been developed. Therefore, it was important to analyze the ongoing venture capital programs in Hungary, whether it had a good effect on the Hungarian venture capital market and economy or not. There are two hypotheses that have been tested, that both link to the venture capital market and venture capital programs in Hungary. The results of the tests on the hypotheses will be explained in this section.

As for the first hypothesis, the paper has been searching the answer for, whether the JEREMIE program had a positive effect on the Hungarian venture capital market. As it turns out from the analysis that has been made, this hypothesis is true, although it also came out in the analysis that JEREMIE also had some bad points that did not have a boosting effect on the Hungarian economy. Regarding the hypothesis, JEREMIE did have a positive effect on the Hungarian venture capital market, because of several reasons. Most of the reasons, why it is stated that this program positively affected the Hungarian economy and VC life are indirect effects and some of them are direct. First of all, as it can be derived from the interview analysis, when JEREMIE came in after the tremendous economic crisis in 2008, this program could increase the capital supply and gave the chance for traditional venture capital investors to share the risk and invest into big potential projects. It is even more important, because in the Hungarian VC culture, investors go for relatively safety and their risk-bearing -even in case of venture capital- is low. This is possibly the biggest direct positive effect of this specific program. This is really a good point besides the program, since it has started to boost the venture capital investments in Hungary. Another feature of the program was, that the not yet developed Hungarian venture capital investment culture has started to develop. At some point, this
can be thanked to the problems that have been made by the JEREMIE program that were explored in the analysis before. Some programs have also been mentioned like what Hiventures has or another program initiated by SZTA that are about to correct the mistakes that has been made once in the JEREMIE rounds and by these programs, the Hungarian venture capital market might go to the right track and later on more IPOs and more competitive companies can emerge. One of the big issues of the JEREMIE program has been corrected by Hiventures, that the focus of the investments has been broaden to not only countryside investments, but Central-Hungarian investments as well. A correction has also been started in two other ways, that are also explained in Kovács-Vajay, (2015), where they say, that either Central-Hungarian firms establish their firms in the peripheral region or the seat of the company is being changed from a Central-Hungarian to a place out of that region. These new programs initiated in Hungary and the other alternatives to correct mistakes, made by the JEREMIE show that the JEREMIE program was an important milestone for the development of the Hungarian VC culture. As it turns out from the interview with Tamás Petheő, an increase in the number of business angels could also help the Hungarian venture capital market, because some of the programs, like the seed capital program in JEREMIE II could have been more efficient with more angel investors, since the first investments should be done in early stage by those angel investors as it is written in the theoretical part and in Szerb, (2006) as well.

The paper had not only one, but two hypotheses to test and the second one was the following: venture capital is the best financing method to fund start-up companies in the beginning. This statement has been confuted numerous times in the thesis work, however there has been some possible confirmations as well. Let’s start from the beginning, this hypothesis was first confuted in the beginning of this paper in the theoretical background. It is mentioned there, when there is a description about venture capital and business angel financing, that in a start-up’s or any other company’s life who are in the beginning of their life cycle the best is to be financed by family, friends or business angels and not by venture capital, because VC should only come into the investment cycle when it has started early growth, that is confirmed in Szerb, (2006). On the other hand, according to The Pecking Order Theory -explained in Myers, (1984)- (after internal equity) firms should choose debt -even loan from family and friends- first, that is the safest security and they only should choose any type of equity investment as a last financing resort. However, in the further analysis of this question, in the interview we
could see new initiations that might be a sign for, that venture capital can be the best way to develop a start-up enterprise. In the interviews, it turned out that there are some programs launched by Hungarian funds, such as Hiventures or SZTA programs that have been dedicating capital to start-up corporations as well and are successful in investing into start-ups, although the final results are not yet able to be seen, since this program is quite recent yet. A possible reason, why those might be so successful is, that there is money also dedicated to seed and expansion capital -that are the other big steps of company life cycle as it is written in Szerb (2006)-. In addition to this, in Tirole (2006) it is stated that venture capital is a possible option to finance start-ups, especially in high-tech industries. To summarize the ideas, the hypothesis that venture capital is the best financing opportunity for start-up companies is not completely right, however venture capital is an opportunity for start-ups that sometimes can be more beneficial for them with good conditions, than other financing forms.

The conclusions of the thesis will be summarized in this section. When testing the analysis, it turned out that one of the hypotheses is true, but the other hypothesis is only partly right. All in all, the programs that are going on in Hungary have a good effect on the Hungarian venture capital market and have started to boost the economy and increased the number of firms, financed by VC. Unfortunately, the increase in the number of competitive firms are not in parallel with the increase in the number of firms, however the results are not yet able to be analyzed, since some of the programs have still ongoing projects that might be successful that could change this statement. As for the second hypothesis about the role of venture capital in start-up financing, it has been somewhat confuted in the analysis and in the theoretical background, but there are also signs that venture capital might be good for start-ups from the beginning of their operation.

6. Limitations and directions for future research

There are some limitations of the research of this thesis work and therefore there are some possible ways to conduct new researches. Some of these limitations will be elaborated here.

First of all, there are some data accessibility constraints that have already been mentioned in the text. Some of the data that has not yet been reported about the exits or investments, so obviously they could influence the analysis, however they are not available yet, so they could not be involved in this research. One way to do further
analysis on the topic this paper has, would be if those data would be available and could
be included in the data set and so a more complex analysis could be achieved on the
effects of the JEREMIE program.

There were also other emerging points that would require further analysis that
have been mentioned during the analysis. Some of them have been reasoning about the
emerging questions like why Hungary got more venture capital, than Poland etc. For most
of these questions, possible reasons have been given in the analysis, however some deeper
analysis should be conducted on those points to be confirmed.

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8. Appendices

Appendix I.

Figures

Figure 1. The optimal level of debt (Myers, 1984, p. 577)

Figure 2. Turnover of share trade of the selected countries' stock exchanges. Source: Own adjustment based on data from (BÉT, 2018), (GPW, 2018), (BSE-Sofia, 2018) and (LSE, 2018).

<table>
<thead>
<tr>
<th>Country</th>
<th>Stock exchange of the country</th>
<th>Turnover of share trade in HUF</th>
<th>Turnover of share trade in Foreign currency</th>
<th>Foreign currency/HUF 2018.09.21.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hungary</td>
<td>Budapest Stock Exchange (BSE) (BÉT)</td>
<td>10 759 853 257</td>
<td>-</td>
<td>1 HUF</td>
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<tr>
<td>Bulgaria</td>
<td>Bulgarian Stock Exchange-Sofia (BSE-Sofia)</td>
<td>178 574 064</td>
<td>1 079 715 BGN</td>
<td>165,39 HUF</td>
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<td>Poland</td>
<td>Warsaw Stock Exchange (WSE) (GPW)</td>
<td>78 715 232 000</td>
<td>1 044 800 000 PLN</td>
<td>75,34 HUF</td>
</tr>
<tr>
<td>Slovenia</td>
<td>Ljubljana Stock Exchange (LSE)</td>
<td>183 247 363</td>
<td>566 540 EUR</td>
<td>323,45 HUF</td>
</tr>
</tbody>
</table>
Figure 3. Average amount invested into one company in JEREMIE program between 2010-2015. Source: Own edit, based on data from Deloitte (2016) pg. 270., Fontium database, closing date: 2015.12.04.

Figure 4. The Distribution of Exits Across Industries (by number of exits). Source: Own edit based on data from: HVCA 2017, HVCA 2016, HVCA 2014
<table>
<thead>
<tr>
<th>Country</th>
<th>Amount dedicated to venture capital (In Euro)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hungary</td>
<td>100 000 000</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>35 000 000</td>
</tr>
<tr>
<td>Poland</td>
<td>30 000 000</td>
</tr>
<tr>
<td>Slovenia</td>
<td>20 000 000</td>
</tr>
</tbody>
</table>

Figure 5. The Distribution of (first round) JEREMIE venture capital in some Central and Eastern European countries (rounded numbers) Source: Own edit based on data from: (Farkas, 2015), (JEREMIE Bulgaria, 2012), (Stefanova, 2015)

<table>
<thead>
<tr>
<th>Country</th>
<th>Stock exchange of the country</th>
<th>Shares capitalization (in HUF)</th>
<th>Shares capitalization in Foreign currency</th>
<th>Foreign currency/HUF 2018-09-21</th>
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<tbody>
<tr>
<td>Hungary</td>
<td>Budapest Stock Exchange (BSE) (BÉT)</td>
<td>7 412 000 000 000</td>
<td>-</td>
<td>1 HUF</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>Bulgarian Stock Exchange-Sofia (BSE-Sofia)</td>
<td>1 304 282 463 888</td>
<td>7 886 067 147 BGN</td>
<td>165,39 HUF</td>
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<tr>
<td>Poland</td>
<td>Warsaw Stock Exchange (WSE) (GPW)</td>
<td>90 413 816 199 000</td>
<td>1 200 710 400 000 PLN</td>
<td>75,34 HUF</td>
</tr>
<tr>
<td>Slovenia</td>
<td>Ljubljana Stock Exchange (LSE)</td>
<td>1 027 815 950 000</td>
<td>5 651 000 000 EUR</td>
<td>323,45 HUF</td>
</tr>
</tbody>
</table>

Figure 6. Shares capitalization of the selected countries’ stock exchanges. Source: (BÉT, 2018), (BSE-Sofia, 2018), (GPW, 2018), (LSE, 2018)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rounds</td>
<td>JEREMIE I.</td>
<td>JEREMIE II.</td>
<td>JEREMIE III.</td>
<td>JEREMIE IV.</td>
</tr>
<tr>
<td>Structure</td>
<td>Co-Investment</td>
<td>Joint Fund</td>
<td>Joint fund seed</td>
<td>Joint Fund Expansion</td>
</tr>
<tr>
<td>Number of funds</td>
<td>1</td>
<td>7</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Capital (billion HUF)</td>
<td>7,1</td>
<td>40,9</td>
<td>8,56</td>
<td>32,1</td>
</tr>
<tr>
<td>Focus</td>
<td>Central-Hungarian Region</td>
<td>out of Central-Hungarian Region</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age of the firm</td>
<td>&lt; 5 years</td>
<td>&lt; 5 years</td>
<td>&lt; 3 years</td>
<td>&lt; 5 years</td>
</tr>
<tr>
<td>Revenue (billion HUF)</td>
<td>&lt; 1,5</td>
<td>&lt; 1,5</td>
<td>&lt; 0,2</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Max. size of investment</td>
<td>1,5 million EUR in a 12 month period for no more than 3 consecutive years (max. 4,5 million EUR/company)</td>
<td>150 thousand EUR in a 12 month period followed by a 150 thousand EUR loan (max. 300 million EUR/company)</td>
<td>2,5 million EUR in a 12 month period</td>
<td></td>
</tr>
</tbody>
</table>

Figure 7. The characteristics of the JEREMIE rounds. Source: (Fazekas, 2014, p. 888.)
<table>
<thead>
<tr>
<th>Year</th>
<th>Number of investments</th>
<th>Invested resources (HUF)</th>
<th>Average amount/investment (in HUF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>17</td>
<td>6 700 000 000</td>
<td>394 117 647</td>
</tr>
<tr>
<td>2011</td>
<td>27</td>
<td>13 300 000 000</td>
<td>492 592 593</td>
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<tr>
<td>2012</td>
<td>29</td>
<td>11 400 000 000</td>
<td>393 103 448</td>
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<td>2013</td>
<td>35</td>
<td>8 100 000 000</td>
<td>231 428 571</td>
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<td>2015</td>
<td>44</td>
<td>11 100 000 000</td>
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</tr>
<tr>
<td>Summary</td>
<td></td>
<td>75 000 000 000</td>
<td>297 619 048</td>
</tr>
</tbody>
</table>

Figure 8. The number of deals in JEREMIE program/year between 2010-2015. Source: Deloitte (2016) pg. 270., Fontium database, closing date: 2015.12.04.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of funded companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
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<tr>
<td>2011</td>
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<tr>
<td>2012</td>
<td>47</td>
</tr>
<tr>
<td>2013</td>
<td>43</td>
</tr>
<tr>
<td>2014</td>
<td>68</td>
</tr>
<tr>
<td>2015</td>
<td>57</td>
</tr>
<tr>
<td>2016</td>
<td>80</td>
</tr>
<tr>
<td>2017</td>
<td>95</td>
</tr>
<tr>
<td>Summary</td>
<td>439</td>
</tr>
</tbody>
</table>

Figure 9. The number of funded companies (by the number of companies). Source: Own edit, based on data from HVCA, 2017.

Figure 10. The tendency in the number of funded companies. Source: Own edit based on data from HVCA, 2017.
Appendix II

Interviews

Original interview with Tamás Petheő

Ez az interjú Petheő Tamással, a GB&Partners egyik igazgatósi tagjával készült.

Mit gondol a magyarországi kockázatitőke befektetések általános helyzetéről?

Petheő Tamás véleménye szerint egy mondatban megfogalmazva: „A kockázati tőke jelenléte hektikus”. A magyarországi kockázatitőke szektort 3 fő szegmensre osztaná: állami, uniós+magán, illetve minimális létszámú jelenlévő priváttőke alapra. Az uniós forrásokon belül a JEREMIE programot emelte ki. A priváttőkealapok közül kevés indított kockázati tőke alapokat pl. Exim bank. Ez a 3 szegmens alkoja a kockázati tőke piacot ma Magyarországon, de ezen belül is általában EU-s vagy állami+EU-s kockázati tőke források a jellemzőek. Kiemelt példaként Izraelt említené, amelynél a hasonlóan felépített kockázati tőke piacot felélénkítő rendszer jól bevált és mai napig jól működő kockázati tőke piaca van. Ugyanakkor hozzátette, hogy a Magyarországon működő programok eltérnek az Izraelben működőktől valamennyiben, ami miatt kevessé lehetnek sikeresek az itthon működő programok egyelőre. Egyes magyarországi programok esetében a kapcsolati tőkének nagy szerepe van a kiírt pályázatok győzteseinek meghirdetésekor, ami más országokban is megvan, de hatással lehet a program sikereségére.

A mai kockázati tőke helyzetének kifejtésekor, a „közelmúlt újdonságaként” említette a Hiventures nevezetű alap egyik új programját, amely kb. másfél éve indult, amelyben 3 különböző programot indítottak el: az ötlet start-upot 9 milliós keretig, a seed programot 150 millióig, illetve a növekedési tőke programot 500 millióig. Ezek 100%-osan állami MFB invest tőkének számítanak. Azért fontosak ezek a programok, mert néhány JEREMIE körrel ellentétben vannak olyan kiírásaik, amelyek budapesti vállalatokba való
befektetésre is lehetőséget adnak és nem csak a perifériák, illetve peremterületeken lévő vállaltok nyerhetik el a befektetéseket: Ez azért fontos, mert Petheő Tamás véleménye szerint „Magyarország adottságai azt determinálják, hogy budapesti centrum központú befektetések kellenének az innováció szempontjából.”

Hozzátette, hogy „vidéken egy start-up vállalkozás felépítése nehézkes”, ami az exitek szempontjából érdekes, mivel nehezben tud kiemelkedni olyan szintre egy vidéki vállalkozás, hogy az aztán jelentős, pozitív exit-tel záruljon. Petheő Tamás szavaival élve „ez a Hiventures program egy erős lőket a magyar start-up kultúrának”. A programmal kapcsolatban, hosszú távra még nincs kilátás, de jelenleg is sok befektetés zajlik, kb 120 db tranzakció. Petheő Tamás szerint a fővárosi főkuszon kívül, ami ennek a programnak az eredményességét fokozhatja még az az, hogy kevesebb megkötése/korlátozása volt, mint a többi meglévő programnak, pl.: JEREMIE.

Ön szerint milyen alapvető problémák vannak a magyarországi kockázatitőke befektetésekkel, amiket fejleszteni kellene a nagyobb hatékonyság érdekében, amennyiben van ilyen?

Petheő Tamás azt nyilatkozta, hogy a probléma rendkívül összetett. Az egyik legjelentősebb probléma az a Magyarországra érkező programok limitáltságában rejlik. Vegyük például a JEREMIE programot. Először is, a programok jelentős része a vidéki SME és start-up vállalatokra fókuszált, holott ahogy azt már az első kérdésnél is említette Magyarország adottságai azt diktálják, hogy azok a vállalatok, amik olyan szintú fejlődésre alkalmasak, hogy az megterülést eredményezzen, a fővárosban és a közép-magyarországi régióban találhatóak és nem pedig a peremterületek és más fejlődő területek környékén. Ez egy olyan limitáció, amely elveszi a lehetőséget a fővárosi innovatív ötletektől és lehetőséget ad olyan projekteknek, amelyek nem feltétlenül alkalmasak az elvárt hozamok teljesítésére. Ezen kívül az iparági főkusz is egy olyan leszűkítése a programnak/programoknak, ami csökkenti a potenciális vállalatok számát a
befektetésekre, ezzel limitálva a jó befektetések számát. Egy tágabb iparági fókusz sokat jelenthetne a magyar piacokon. Ez a probléma összefügg egy másik jelentős, az ország adottságaiból eredeztethető problémára, ami a piac nagyságának problémája. A magyar piac kicsi, ami több problémát von maga után. Először is az alapok nem tudják fókuszálni magukat egy-egy iparágra, mert kevés cég van, aki abba az iparágba tartozó innovatív cég, tehát nem tudják összpontosítani a szakértelmet egy adott területre, ez azt eredményezi Petheő Tamás véleménye szerint, hogy sok mindenhez értének az alapok, de semmihez se igazán. Tehát nem tudnak segíteni minden vállalkozásnak, amibe befektetnek management tekintetében és nem tudnak minden beérkező projektet megfelelően felértékelni, szimplán azért, mert nincs hozzá megfelelő szakemberűk. A kicsi piac problémájából adódik még, hogy a meghatározott pénzösszegek egyes meghirdetett körökönél például a JEREMIE-n belül alacsonyok. Ha megnézzük a JEREMIE II seed capital programját, az összeghatárt a kisvállalatoknál, illetve start-up vállalatoknál nagyon alacsony. 150 000 euró általában kevés ahhoz, hogy egy induló ötletet, terméket, szolgáltatást olyan szintre fejlesszenek, hogy az később alkalmasság legyen a növekedési programra, szimplán azért, mert mire a cég életszakasztában arra szintre jutna, hogy növekedési tőkere lenne szüksége addig nem tud megmaradni a 150 000 eurós támogatásból. Ehhez hozzájön még az is, hogy a JEREMIE II már vidéki fókuszú támogatás volt és vidéki cégeket kellett volna ebből az összegből egy sikeres jól fejlődő vállalkozássá alakítani. Ez gyakorlatilag azt a problémát veti fel a programmal kapcsolatban, hogy a más, nagyobb gazdaságokban lévő életciklusok egy része kimarad egyes vállalkozásoknál és ha azt nem élők túl akkor a támogatás haszontalanul került elköltésre, ha pedig a cég túléli ezt a szakaszt, akkor egy ciklust átlépve a következőbe kerül és folytatni tudja működését, amennyiben addigra olyan program kerül kiírásra, amelyben befektethetővé válik az adott cég.

A regionálisan kimagasló kockázati összegek ellenére is nehéz jól működő cégekbe fektetni a pénzt és növelni a befektetések hatékonyságát?

Petheő Tamás erre azt nyilatkozta, hogy azt leszámítva, hogy regionális szinten magas összegeket kaptunk a kockázati tőkét tekintve, de Nyugat-Európával összehasonlítható nagyon alacsony összegekről beszélhetünk itthon.
Az előzőektől különálló problémaként felvetette, hogy a „befektetést igénylő cég hozzáállása nagyon sokat számít a program/projekt sikerességét illetően”. Ehhez hozzátette meglátását arról, hogy egyes programoknál, hogyan nevezik a befektetni kívánt pénzt. Ha megnézzük a JEREMIE program keretein belül támogatásról, míg az például az Exim bank esetében tőkéről beszélhetünk. Ez azért is nagyon jelentős, mert tapasztalatai szerint azok a befektetést igénylő cégek máshogy teljesítenek, akkor, ha támogatásnak veszik a tőkét és máskor, ha azt befektetett tőkének titulálják. De ha mélyebben megnézzük ezt a problémát, akkor azt is láthatjuk, hogy a „JEREMIE program az EU programkövetelményeinek való megfelelést, illetve ezen belül is a munkahelyteremtést tűzte ki céljául, míg az Exim bank befektetésként fogja fel ezt a tőkét és inkább a hozamelvárásokra koncentrál, amely nagyban befolyásolja a pénzt igénylő management hozzáállását a pénz elköltéséhez és a közös együttműködéshez”, mondta Petheő Tamás.

Milyen hozamelvárások vannak átlagosan az egyes alapok részéről a befektetést igénylő cég irányába?

„Általában az éves 20%-os hozamelvárás a megszokott, de hazai cégektől óvatosak a hozamelvárások a piac szükössége és az adott lehetőségek miatt”. „Ugyanakkor volt néhány olyan cég, amely túl tudott haladni a magyar piacon és külföldi piacokra került vagy akár külföldi tőzsdén is bejegyezték. Ilyen, a magyar piacot megugró cégek például a Nanushka, a WizzAir vagy akár a prezi, akik egy részről magyar más részről külföldi kockázati tőkével törtek ki és futottaak be más országokban is.”

Összegezve a kérdésre adott válaszokat, Petheő Tamás válaszából kiderül, hogy több probléma is felmerül a program kiírásával és az azokból eredő korlátozásokkal kapcsolatban. Emellett az ország kicsi piaca is befolyásolhatja az egyes kockázati tőkés befektetések sikerét, emellett egyes hírekben olvashatunk politikai visszaélésekről is, ami befolyásolhatja a programok sikerét, de mondhatjuk, hogy ha ez így is van, akkor is elenyésző a többi probléma mellett.
Gondolja, hogy a Magyarországra injektált tőke a lehető leghatékonyabban került befektetésre? Ha nem, miért nem?

Petheő Tamás erre a kérdésére adott válaszában kiderül, hogy a pénzek felhasználása nem volt hatékony, mivel kevés sikertörténetről lehet beszámolni, amely ezekből a programokból származtatható tőkéből eredeztethetőek. Hozzátette, hogy nem is jelent meg „óriási” tőke a piacon, viszonyítva egyes fejlettebb európai országokhoz képest. „Amennyiben magasabb összegek kerültek volna az országba, akkor azokat több helyre szét lehetett volna osztani és a sok nem megtérülő befektetés megtérült volna az egy-két nagyon magas fejlődést és hozamokat produkáló néhány cégeből, való befektetések ből”, nyilatkozta Petheő Tamás. Amellett, hogy lehet hallani egyes fajta visszaélésekről, a problémás alapok nagy részét megbüntették a felelős hatóságok, jelen esetben az MNB.

Ahogy azt már a problémák feltárásánál is említette, az egyes alapok szakosodnak a fejlettebb, nagyobb országokban, amely komolyabb szakmai háttérrel jár az egyes specifikus alapoknál. Ez íthon nem lehetséges vagy elgalábbis nagyon nehéz az ország nagyságából adódó kis mennyiségű projekt számát megvalósítani. Petheő Tamás véleménye szerint, „kevés a jó projekt, amely a programok szükített fókusza miatt is lehetséges”. Szerinte a nemzetközi piacra lépés lenne az egészséges a befektetéseket követően, amely gyakran nem valósul meg a magyarországi befektetések esetében. Léteznek ellenpéldák is pl.: az előzőekben már említett Nanushka, ami egy sikertörténet a magyarországi befektetések közül.

A hatékonyságnál kiemelte még, hogy a kockázatvállalási hajlandóság hiányzik a magyar alapokból és magántőkebefektetőkből, ami szintén korlátozhatja a befektetések hatékonyságát.

Hogyan látja a magyarországi befektetési alapok tulajdonhányaddal kapcsolatos politikáját?

Petheő Tamás az erre a kérésre adott válaszában kitért arra, hogy a magyarországi kockázati tőkebefektetések kultúrája más, mint Nyugat-Európában. Ennek a kulturális
különbségnek az egyik eleme a tulajdonhányyaddal kapcsolatos politikája az egyes kockázati tőke alapoknak. A magyar kockázati tőkealapoknak általában nagyobb a tulajdonihányad igénye, mint mást nyugat-európai alapoké. Ez problémás lehet egyes befektetési ügyeknél, mivel van hogy előfordul, hogy olyan magas tulajdoni hányadot szeretnénak az alapok, hogy az eredeti tulajdonos érdeke csökken, ezáltal a hozzáállása is csökken a befektetéshez, amely gátja lehet egy közös együttműködésnek vagy akár az egész befektetésnek. Ugyanakkor az egyes idea company-nál nehéz előre felbecsülni az értéküket, ezért nehéz belőni mekkora tulajdoni hányad kell ahhoz, hogy később megtérülhessen a befektetés és hogy mennyi befektetés szükséges. Ehhez Petheő Tamás az interjúban hozzátette, hogy „semmivel nem jár jobban egy alap, ha sok tulajdona van egy rossz cégben”. Hozzátette még azt is, hogy hiába magasak az elején az egyes alapok igényes a tulajdonihányadot tekintve, amikor piacra kerül a cég, „a piackomfort megköveteli, hogy rendeződjene a tulajdonosi viszonyok”, vagyis a piac a végén úgyis megköveteli az alacsonyabb tulajdoni hányadot az alapok részéről.

Elméletben, a kockázatitőke befektetések fő célja, hogy átsegítsék a cégeket az összes fázison, egészen a piacra vezetéséig. Az ön gyakorlatában hogyan oszlottak meg az exit-ek? Tőzsdei, eladás 3. félnek, alapítói kivásárlás, egyéb. Adjon meg egy becsült megoszlási arányt.

Petheő Tamás, válaszában kifejtette, hogy mivel jelenleg nem túl sok kiszállásról lehet beszélni ezért pontos arányokat ne is tud és nem is érdemes mondani, mert a befektetések egy jelentős része még folyamatban van, de hogyha meg kellene mondania miből volt eddig a legtöbb, akkor a legjellemzőbb egyelőre az alapítói kivásárlás volt. Emellett a most folyamatban lévő befektetésekknél néhánynál vizsgálják, hogy ha teljesíti az elvárt számokat, akkor alkalmas lenne egy magyarországi tőzsdei kibocsátásra BÉT-en illetve beszámolt arról is, hogy van potenciális projektjük a külföldi tőzsdére való kivezetéshez is. Hozzátette még, hogy egy aktívvabb és likvidebb BÉT jót tenne a potenciális exiteknek.
Mit gondol, mik az alapvető különbségek a kockázatítóke befektetések között a JEREMIE alapok megalakítása előtt és a megalapításukat követő időszakban? (Pl.: több start-up keresi ezt a finanszírozási lehetőséget, több külföldi cégekkel is versenyképes magyar vállalat van, több cégnek van esélye a tőzsdere vezetésre?)

Az interjúban Petheő Tamás röviden összefoglalta a különbsékeket, amik a következőkben figyelhetőek meg: Lényegesen több start-up cég alakult és próbálkozott kockázati tőkét igényelni, mondván hogy hátha sikerül egy kis támogatásra szert tennünk és beindítani a vállalkozásokat, de ez nem eredményezett jóval több versenyképes és sikeres SME vállalkozást illetve start-upot. Emellett kiemelte, hogy kevés a tőzsdei kivezetésre alkalmas vállalat is a programok bejövetele után is.

A JEREMIE alapok második körét a magvető befektetésekre szánták, mit gondol pozitív hatással voltak a magyar start-up (innovációs) ökoszisztémára a befektetések? Ha igen, ez miben nyilvánult meg?

Ebben a körben valóban bejött az első JEREMIE ami a seed capitalra (magvető tőke) koncentrált, de megvoltak a maga problémái a programnak. A vidéki fókuszon kívül a legjelentősebb problémát, a már korábban is említett alacsony összeghatárok jelentették, amely azt eredményezte, hogy több cég nem jutott el a következő körös tőkéig, mert ekkora (150 000 eurós) limitből nem volt eléggé tőke beindítani annyira a vállalkozásokat, hogy abból jelentős forgalom legyen, ami eléggé a következő körös növekedési tőke programhoz. De ugyanakkor igaz az is, hogy felélénkítette a magyarországi start-upokat és egyre többet alapítottak és próbáltak megfinanszírozatni, amelyek között innovatív és jó projektek is szerepeltek.

Milyen célokra szánták az egyes JEREMIE köröket és ez mennyire korrelált a valósággal?

Főleg vidékfejlesztési és vidéki vállalkozásfejlesztési programokról beszélhetünk a JEREMIE körein belül, amelyek egy részben korreláltak a valósággal, de olvashattunk vagy hallhattunk olyan cikkekről és eseményekről is, amelyekben visszaélések és más jogtalanul felhasznált támogatásokról van szó, amelyek egy jelentős része az MNB
felügyelete alatt kivizsgálásra került és azon alapok egy jelentős része pedig felfüggesztésre került.

Mennyire volt szűk az iparági fókusz az egyes JEREMIE körökbél és mit gondol mennyire befolyásolta ez a befektetések hatékonyságát?

Az új jeremie kiírásban van erősen lefókuszálva az iparági fókusz. Valamekkora teret hagy az iparági eltéréstől, de nagyon be van szűkítve egy bizonyos szektorra. Valamilyen szinten, az amúgy is kicsi piacon leszűkíteni az iparági fókuszt az gátja lehet a potenciálisan jó befektetéseknek, de ugyanakkor a szakértelmedet pedig tudod egy irányba összpontosítani (field professionals), ami pedig nagyon hasznos egy nagyobb piac esetében a befektetések hatékonyságának növelése végett. Nagyobb piacokon egy szakosodás jobban működik, például: USA vagy Kína.

**Translated interview with Tamás Petheő**

This interview has been made with Tamás Petheő, a Board member of GB&Partners.

What do you think about the Hungarian venture capital investments in general?

To summarize in one sentence, according to Tamás Petheő: “The presence of venture capital in Hungary is hectic.” He says that the Hungarian venture capital sector is made up of three main segments: state VC, union+private equity, and a small number of private equity funds. Within the union resources, he highlighted the JEREMIE program. He says that from the private equity funds, only a few have launched venture capital programs, an example is the Exim bank. The Hungarian VC market consists of these 3 segments, but within that EU and state+EU resources are the most common in Hungary.

As for a good example, he mentioned Israel, where several years ago they have started a similar VC program that has boosted the VC market in Israel and it is still working. However, in addition he said that the ongoing Hungarian endeavours are working differently in some point to the Israeli ones, so these in Hungary could not get that successful yet. In some cases, human capital has a significant role in venture capital tenders, however this works the same way in other countries as well, although it can influence the efficiency of the investments.
When he was expressing the current situation on venture capital market in Hungary, he mentioned the new program Hiventures has as a “recent novelty”: This program has been launched about 1.5 years ago and is made up of 3 different programs: the first is start-up capital up to 9 million HUF, seed capital up to 150 million HUF, and finally expansion capital until 500 million HUF. These are 100% state venture capital offered by MFB Invest. These programs are important, because as opposed to JEREMIE it allows in some cases to invest in Central-Hungarian enterprises and not only invest in firms on the countryside. This is so important, because according to Tamás Petheő: “the features of Hungary determine, that investments should be made with focus on Budapest firms in terms of innovation”. Furthermore, he said that “it is difficult to build up a start-up in the countryside”, that is important regarding the exits, since it is more difficult for a company at the countryside to develop as much as the investors can achieve a positive exit at the end. As Tamás Petheő has mentioned “this Hiventure program is a strong push to the Hungarian start-up culture”. Related to the program, there is yet no long-term view on how it will accomplish, but there are many ongoing investments, approximately 120 transactions. Tamás Petheő states, that apart of the focus on the capital city, it also can boost the efficiency of this program, that is has less limitations and restrictions, than other ongoing programs like JEREMIE.

What type of problems does the Hungarian venture capital investments have, that should be improved for better efficiency, if there is any?

Tamás Petheő in the interview, has stated that the problem with VC efficiency is really complex. One of the biggest issues with that is the limitations of the programs arriving to Hungary. Let’s take for example the JEREMIE program. First of all, a significant portion of the investments is dedicated to start-ups and SMEs on the countryside, however as he mentioned for a previous question, the attributes of Hungary would suggest that the investments should be focused to the capital city of Hungary to achieve positive exits and the expected development level, instead of investing a lot of capital into the countryside companies and other developing parts of Hungary. This is a limitation, that takes the place from innovative projects in the capital city and gives the opportunity to projects that are not necessarily suitable to make the expected yields. Apart of this the tightened industrial focus is also a restriction of the program that decreases the
amount of potential companies to invest the money into. A broader industrial focus would be significant in the Hungarian market. This issue can be linked to another tremendous problem, that can be derived from the attributes of the country, that is the issue with the small and narrow market in Hungary. The Hungarian market is small that makes a lot of other issues that can be originated from the small market issue. Firstly, the different funds in the country cannot focus themselves to a specific industry, simply because there are not enough companies who are innovative and can be listed below that certain industry. This results in, that companies cannot focus their knowledge and their professionals into one industry and according to Tamás Petheő it ends up in a situation that funds have knowledge about most of the industries but are not professional at either of the industries. This problem makes another one, that the VC company will not have the capabilities to help all the funded ventures with delegated professionals and they also will not be able to evaluate all the firms properly, simply because they do not have the professionals for that certain industry. Another issue that can be derived from the issue with the small market of Hungary, is that the dedicated capitals in some rounds of some programs are not enough, such like in JEREMIE II seed capital program. In that case the offered capital is 150 000 euros that is too small for an SME or a start-up company to overcome the stages until the expansion capital will be available for them. They are not able to generate enough money from that 150 000-euro aid in the small Hungarian market to reach the development level where they can apply for expansion capital and also it is not even enough sometimes to survive. In addition to this JEREMIE II seed capital program was for firms at the countryside and for them it was indeed not enough capital to go to other markets and to develop up to a level where they are suitable for expansion capital. This ends up in the fact that in case of Hungary, there are some companies where some of the life cycle stages is missed and so they have to come over those stages by their own power and for most of the companies it could not work and the invested money went to loss and for those who could survive, will have the chance to apply for expansion capital is there is a tender for it, if not then the company will also be running out of business.

Is it still difficult to spend the VC efficiently, apart of the fact that the amounts Hungary got are huge compared to the region?
For this question, Tamás Petheő answered that apart of the fact that compared to the region Hungary got more capital to invest, but as compared to countries in Western-Europe we have to say that the Hungarian and CEE amounts are much lower, than what they have as venture capital.

As for a separate problem, he mentioned that “the attitude of the company to be financed does really count with respect to the final success of the whole program”. In addition to this he said his viewpoint about the differences in how the money to be invested is called in certain programs. If we take a look at the JEREMIE program it says aid for the money to be invested, as compared to for example what Exim bank has, they say its capital. This is an important information, because based on his experiences, those companies who consider the invested money as capital perform better in real life, than those who consider it as an aid for their companies. However, if we are really looking deeply into it, we can observe that “the JEREMIE program want to correspond to the expectations of the program and within that, the workplace creation is the focus, as long as Exim bank considers as it an investment and focuses on the expected yields of the projects, that really influences the attitude of the management of the company to be funded when it comes to cooperation and spending” said by Tamás Petheő.

What are the expected yields from the funds?

“On average a 20% yield per year is the most usual, but the yield expectations are cautious towards Hungarian ventures, because of the narrow market and the given opportunities.” “However there have been some companies, that could come over the Hungarian market and could penetrate to foreign markets as well or could even get listed on foreign stock exchanges. An example for that can be Nanushka, WizzAir or Prezi, who could do this with Hungarian VC or with the help of foreign VC.”

To summarize the answer, it turns out from the answers of Tamás Petheő, that there are more problems with respect to the program and the restrictions of the program. Apart of that, the narrow market in Hungary can also block the efficiency of the
investments and so we can also read about some political abusements, that might influence the success of the VC programs, but this issue is really insignificant compared to the aforementioned issues.

Do you think that the capital injected to the country was spent the most efficiently possible? If not, why?

From the answer of Tamás Petheő on this question, it turns out that the use of the inflowing capital was not efficient, since there are only a few success stories now that can be mentioned, that can be derived from the capitals of these programs. Furthermore, he said that the money flowing in to Hungary is not as big as capital being injected to other more developed -mostly Western-European- countries. “If bigger amounts would have been injected to Hungary, it could have been better allocated into more companies and many investments that did not show a return could have been more easily recovered by investments into very well prospering companies that show a huge amount of return” said Tamás Petheő. Apart of the fact, that there are rumours about abusements with VC investments, most of them have been investigated by MNB and got punished or suspended by them. As it was already mentioned by Tamás Petheő at the expression of the problems, some funds can be specified to some industries in some more developed countries with bigger economies, that comes with a better professional background at these industry-specific funds. Here in Hungary it is impossible or really difficult to do, because of the small number of possible projects to be invested. According to Tamás Petheő: “there are only a few good projects, that might be because of the restricted focus of the programs”. He says that “after the investments, it would be healthy, if companies would penetrate to foreign markets as well, however in Hungary it is not the way it works usually”. There are also counterexamples, where Hungarian companies could go to foreign markets, like Nanushka, that is a success story from the investments of the ongoing programs. With respect to efficiency, he highlighted that the risk bearing of Hungarian funds and private equity investors is missing, that can bring limits to the efficiency.

What do you think about the view of venture capital investors about ownership (focus) in Hungary?
In his answer on this question he said, that the culture of the Hungarian VC investors is different to the other VC investors in the Western-European (WE) countries. Part of this cultural difference is the politics about ownership of funds in Hungary. Hungarian venture funds usually require a higher proportion of ownership in the companies they invest money into, compared to the WE countries. It can be an issue in case of investment into some companies, since it can decrease the interest of the original owners of the company and can change their attitude to the cooperation and the whole investment. However, in case of some idea companies, it is really difficult to evaluate the companies how much it worth, and how much money should be invested into it, in order to see a good return at the end. In addition to this, Tamás Petheő said that “It worth nothing more to have a lot of ownership in a bad company”. He also told, that ownership might be high at the beginning, but when the firm goes public “the market comfort will require to have a rescheduled ownership structure”, so at the end the owner has to give up on their ownership when the firm gets to the market.

In theory, the main purpose of venture capital is to help firms come over the stages before going public. How the exits have been divided up in your practice? Through IPO, sold to 3rd party, buyout of the owners, other. Please, give an estimated distribution (ratio).

Tamás Petheő expressed in the interview, that we cannot yet talk about too many exits yet, so exact ratios on exit distributions cannot yet be described, since most of the investment are still going on, but if he has to mention an exit method that used to be the most common, it would be the owner buyout. He also mentioned, that they have some ongoing investments where they are investigating, whether when those companies are getting suitable for going public through the Hungarian stock exchange and they also have ventures that might be suitable for an IPO in foreign stock exchanges. He added to this that a more liquid BÉT would be beneficial regarding the Hungarian exits and efficiency.

What do you think, what is the main difference between the venture capital market before and after the JEREMIE funds have been implemented in Hungary? (E.g. More start-ups are looking for this type of financing, more companies are competitive with other foreign companies? more companies have the chance for an IPO?)
In the interview Tamás Petheő has briefly summarized the main differences, that can be observed in the following: There are significantly more start-up companies that are applying for investment to launch their businesses, however this does not end up in more competitive and successful SMEs and Start-ups. Apart of this, he highlighted that the number of suitable companies to do an IPO even on BÉT is negligible even after the JEREMIE and other similar programmes.

The second round of JEREMIE has been dedicated to seed investments, did it have a positive impact on Hungarian start-up life? If yes, how did it manifest?

In the second round of JEREMIE seed capital programs indeed have been launched, but it had its own problems. Apart of its focus on the countryside investments, the biggest problems were that the limit amounts (150 000 EUR) for seed capital were really low, resulting in that some companies could not survive until they could have got the expansion capital. This amount was not enough for companies to achieve a stage where they generate enough money to survive until the next round of capital investments. However, it is still true, that there were increasing number of start-ups established, and there have been some really good innovative projects amongst them.

For what targets have the JEREMIE rounds been dedicated to and how much has it been correlated to the reality?

Within JEREMIE, most of the rounds have been dedicated to projects that are countryside development, that have been correlated to the reality to a certain point, but we could have heard about some cases when it did not happen, but most of those cases have been investigated by MNB and the big portion of those funds have got their punishment for that, even a suspension or some money fee.

How narrow the industrial focus of the certain JEREMIE rounds were, and what do you think how much it has influenced the efficiency of the investments?

The narrowest industrial focus has been done in the last tendered round of JEREMIE. It gives a minimal flexibility in deviation from the focused industries, but it is
pretty strict with the industries to invest the money into. To a certain point, the tightening of the industrial focus in a market that is small anyway, it can be a barrier for good and well prospering investments, however at the same time the fund can focus their professionals to a certain industry, that is really important even in case of a bigger market to improve efficiency of the investments. This field focus works better at bigger economies like the US or China.

Original interview with László Süveges-Szabó

Mit gondol a magyarországi kockázatitőke befektetések általános helyzetéről?

Általánosan jó a tőkeellátottság, minden szereplő jelen van, az „Angel Investor”-tól a portfolió befektetőig mindenki. Jellemzően versenyezni kell a EU vissza nem térítendő forrásokkal, de ez a helyzet 2020 után megváltozhat.

 Ön szerint milyen alapvető problémák vannak a magyarországi kockázatitőke befektetésekkel, amiket fejleszteni kellene a nagyobb hatékonyság érdekében, amennyiben van ilyen?

Nem látk alapvető problémákat, a magyar KKV szektor adottságai mellet ugyan sokszor nincs megfelelően előkészített befektetési ajánlat a cégek részéről, emiatt sokszor nem jut el még a kezdeti szakaszához sem az ügylet tárgyalása. Az állami részvétel jelentős, de a kockázatok kezelése konzervatív módon történik még itt is, sokszor jelentősen túl akarja biztosítani magát a befektető és ezért nehezen növekszik a kihelyezett tőke nagysága, bár az utóbbi 5 évben ebben azért van elmozdulás.

Gondolja, hogy a Magyarországra injektált tőke a lehető leghatékonyabban került befektetésre? Ha nem, miért nem?

A befektetett tőke mindig a befektető döntése, ebben a tekintetben nem értelmezhető a kérdés, hiszen privát befektetőkről van szó.
Hogyan látja a magyarországi befektetési alapok tulajdonhányaddal kapcsolatos politikáját?

Változó, de minden esetben management jogok járnak a befektetőnek, a tulajdoni hányad mellé, még akkor is, ha kisebbségi tulajdonrész szerez a befektető. Nincs igazán kialakult Magyarországra specifikus gyakorlat, ügylet és szektor függő a kérdés.

Elméletben, a kockázatitőke befektetések fő célja, hogy átsegítsék a cégeket az összes fázison, egészen a piacra vezetéséig. Az ön gyakorlatában hogyan oszloztak meg az exit-ek? Tőzsdei, eladás 3. félnek, alapítói kivásárlás, egyéb. Adj meg egy becsült megoszlási arányt.

Leggyakrabban szakmai befektetőkhöz került a tulajdonrész egésze, illetve a „management buy-out” volt az esetek 95%-ban a jellemző exit. A tőzsdei bevezetés egy esetben valósult meg a gyakorlatomban a Magyar Telekom privatizációja során.

Mit gondol, mik az alapvető különbségek a kockázatitőke befektetések között a JEREMIE alapok megalakítása előtti és a megalapításukat követő időszakban? (Pl.: több start-up keresi ezt a finanszírozási lehetőséget, több külföldi cégekkel is versenyképes magyar vállalat van, több cégnek van esélye a tőzsdére vegzetésre?)

A JEREMIE alapok alapvetően jelentőségűek voltak, egyrészt bővítették a tőke kínálatot, másrészt a klasszikus Venture Capital befektetőkkel meg tudták osztani a kockázatot, sok esetben könnyítették az ügyletekben a befektetési struktúrák kialakítását (deal structuring) egészen a kezdeti lépésektől a lehetséges exit pozíciók definiálásáig, A kockázat vállalási hajlandóság növelése dinamizálta a befektetői kedvet.

Milyen célokra szánták az egyes JEREMIE köröket és ez mennyire korrelált a valósággal?

Nem tudok erre válaszolni, nincs róla statisztikai adatom.

Mennyire volt szűk az iparági fókusz az egyes JEREMIE köröknél és mit gondol mennyire befolyásolta ez a befektetések hatékonyságát?

Nincs rálátásom ilyen mértékben a témára.
Translated interview with László Süveges-Szabó

What do you think about the Hungarian venture capital investments in general?

In general, the money supply level is good, and all the player in the industry is present from the angel investor to portfolio investor. It is typical that there is a competition with the non-refundable EU aids, but it might change after 2020.

What type of problems does the Hungarian venture capital investments have, that should be improved for better efficiency, if there is any?

I don’t see any fundamental problem. There is no appropriately written investment offer from the companies’ side in the SME sector, therefore in some cases the negotiation of the deal does not even get started. The participation of the state is significant; however, the treatment of risk is conservative. Many times, investors deal too much with their own investment security, and so the size of capital supply increases difficultly. However, in the last 5 years it started to change.

Do you think that the capital injected to the country was spent the most efficiently possible? If not, why?

The invested capital and what to invest in is always the decision of the investor, so in this context the question is uninterpretable, since we are talking about private investors.

What do you think about the view of venture capital investors about ownership (focus) in Hungary?

It is variable, but the management rights are always part of the rights the investor has together with the ownership rights, even if there is only a minority ownership from the investor’ side. There is not specific practice in Hungary. The question depends on the deal and the sector.

In theory, the main purpose of venture capital is to help firms come over the stages before going public. How the exits have been divided up in your practice? Through IPO, sold to 3rd party, buyout of the owners, other. Please, give an estimated distribution (ratio).

Most regularly management professional 3rd party buyouts and in about 95% of the cases management buyout was the way the exit has been done. In my practice, IPO has only happened once when Magyar Telekom was privatized.
What do you think, what is the main difference between the venture capital market before and after the JEREMIE funds have been implemented in Hungary? (E.g. More start-ups are looking for this type of financing, more companies are competitive with other foreign companies? more companies have the chance for an IPO?)

JEREMIE funds were significant, on the one hand they increased the capital supply, on the other hand the classic VC investors could share the risk with this JEREMIE capital. In many cases, they made deal structuring easier, from the first steps, to the definition of the exit position. The willingness to bear risk has been increased by the program and the made the investors more interested in investing.

For what targets have the JEREMIE rounds been dedicated to and how much has it been correlated to the reality?

I cannot answer this question, because I do not have statistical data on that.

How narrow the industrial focus of the certain JEREMIE rounds were, and what do you think how much it has influenced the efficiency of the investments?

I am into this topic enough to answer this question.