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**Governmental Venture Capital in Financing  
SMEs**

Thesis of the doctoral dissertation

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## **1. Purpose and Hypothesis of the Dissertation**

The economic role of the venture capital investments has a comprehensive economic literature that raises the attention to the fact that this form of financing gives a solution for the niche of financing on the market of small- and middle-sized enterprises involving high risk which could be the prime mover of the economic development (Gompers és Lerner 1999). Therefore in the past decades governmental subsidization of the venture capital market has become political objective in a number of countries. The reason is that those companies in growth stage that are lack of information, business management and monitoring get capital and investors provide them more in these fields compared to the banks (Berlin 1998). Other advantage of venture capital investors is that they can cope with the disadvantages deriving from information asymmetry both between investor and fund management company and between fund management company and target companies. The strict controlling discipline and success orientated contract terms teach the business solutions to the enterprises that they will need in case of other forms of financing in the future. The structure of the capital aims the maximization of the value of the enterprise. Representatives of the fund management company ensure the adequate information exchange between the owners in the management and supervisory board, the financing is staggered by the reached milestones (Gompers és Lerner 1999). Furthermore venture capital investments affect positively the employment, innovation potential and competitiveness (Lerner 1999).

The topic of the doctoral dissertation is the governmental involvement in the venture capital market in our country. Several foreign authors have dealt with some of the aspects of this topic, studying the explanations, purposes and methods of the intervention. They have made several models to find out the most effective solution, at the same time the authors made mostly theoretical models, and they have taken some certain variables to be given, or they have ignored them (e.g. Keuschnigg and Nielsen 2002).

My dissertation had two purposes, structured around one question of research: on the one hand I wanted to model the government's intervention role, based on secondary data, during the certain company life cycles, related to the incentive of venture capital, on the other hand my purpose was to present the involvement policy of the Hungarian state in regional comparison, evaluating its negative and positive factors as well, investigating the question what kind of proven effect the Hungarian government has reached in boosting the venture capital market.

In the first chapter I am presenting my research method, my specific purpose of research and the hypothesis of the dissertation.

I structured the certain further chapters based on the following conception: first I dealt with the concept of venture capital, with definitional questions, then I got to the situation analysis of the small- and medium-sized enterprises, finally I related to all the above, some of the aspects of the government's economic involvement, which gives the spine of the dissertation. Finally I described the international and regional relations and the practice of governmental involvement.

Accordingly, the second chapter - which is based on the description of secondary data, and it synthesizes the main results of the so far published scientific literature, related to the connection between finance management of venture capital and governmental involvement - starts with the presentation of the concept of venture capital as a phenomenon and its definition. It can be defined that venture capital industry has a history of some 30-40 years, and practically during the first 20 years it only had literature in the United States. (Landström 2006). Up till today science has not made a conceptual definition on it (Osman 2006, Gompers and Lerner 1999), but many authors were trying to define at least some of its segments (Fenn et al 1997, Makra 2008). So in the followings we will be limited to operate with some of the characteristics of venture capital.

As it was important for me to find out which life phase of the company to be invested was concerned about the governmental finance management, I found it important during the analysis of the small- and medium-sized enterprises to describe the most important life cycle models in more details, which can be related to the finance management cycles as well. (I dealt in more details with the works of Adizes, Greiner and Damodaran).

In the end of the second chapter I treat the main theories also pros and contras of the governmental intervention. On this field my purpose was to explore the complete scientific literature, however I omitted from the detailed presentation those publications, which were dealing with the mathematical description of the economic theoretical models.

I also intend to present in this chapter, that the governmental intervention has a distorting effect on the market, therefore I put an emphasis on the presentation of the related scientific literature's arguments.

In the third chapter, where the purpose was to make the theoretical model of the research, I am exclusively dealing with the Hungarian venture capital market. According to the above, I divided the topic into the following main units: Hungarian situation of the small- and medium-sized enterprises, the state on the venture capital market. I took such important authors' works as basis as Judit Karsai, Péter Osman and László Szerb, who have so far served with the most significant researches and data about the Hungarian venture capital industry. From these and from the analysis of the governmental programmes published at the meantime, I was seeking the answer for whether the realized investments were really bearing the conceptual characteristics of venture capital investments?

At the same time in this depth the analysis of secondary data was not sufficient, therefore I also present in this chapter the results of my primary researches, from which I was seeking the answer for the followings:

- What kind of distinctive characteristics does the venture capital of Hungarian state background have?
- Whether it is accomplishing its set economic policy target?
- Whether it is possible to verify the *ultima ratio* of the market gap and the financing?

In order to answer these questions I made a detailed market research in the field of governmental investments already realized and I prepared the complete list of the enterprises concerning governmental venture capital (or in some cases rather development capital) based on the data of professional journals, company gazette and the annual report of the companies. Primary research was made based on this list.

In fourth chapter I was dealing with the inevitable international and regional comparison. During the financial-economic world crisis already going strong at the time of handing in the manuscript it can be more and more frequently heard that the Hungarian financial markets (stock-exchange and currency exchange rates) are moving together with the tendency of the region. In case of an industry moving such a big capital as the venture capital, it is possible neither to ignore the consequences of geographical determination. During the research I assumed that the characteristics of venture capital as an industry would mostly present similarity in the countries of the region, at the same time I was also facing the fact that the scientific literature had not mentioned any primary research referring to this. Therefore substituting and completing the regional relationships I am presenting two successful international examples related to governmental intervention. To prepare this chapter I used mostly the data from the publications analysing these, I used Karsai's work (Karsai 2008), regarding the pieces of information related to the regional market. I also completed these data with the analysis of other organisations, such as the OECD and the Deloitte. From the international success stories I selected the two most well known ones: in case of the United States' example I mostly took as a basis the Lerner-analysis (1999), known and quoted by everyone, at the same time, when presenting the Israeli governmental venture capital programme, I derived from the issued studies of Avnimelech 2000, publishing the most in this topic.

I also found necessary for the situation analysis, the brief evaluation of such a European state, which is not from the region, however its venture capital industry has only some 10 years more experience than the Hungarian one. I also find the analysis of Germany a favourable choice, because in Hungarian language so far it has been mentioned relevantly a few times, while the directions of progress (as the obstacles of progress as well) are a great deal similar to the ones experienced on the Hungarian market. In the macroeconomic circumstance such as experienced in 2008-2009 on world economic level, it has remarkable importance, which countries, which regions can attract the capital, the development capital. Considering that in the international comparisons Hungary, regarding the administrative and legal regulations, is situated in the midrange (EVCA 2007) of Europe, the further promotion of venture capital industry is reasonable.

However it has arisen as a question, whether the JEREMIE-programme can be a solution for this, the programme of the Hungarian government, passed in the beginning of 2009 for the venture capital promotion. Together with the advancement of the dissertation (of which purpose was primarily the preparation of an ex ante analysis, in consideration that at the time of the closure of the paper the programme does not have a history to be analysed) we can make predictions in respect of the future of the programme considering the data in process and the international comparisons.

## Hypothesis of the Dissertation

For analyzing the topic described in the title of the dissertation, I set out from the following research question:

*What type of characteristics do the venture capital investments, executed with the help of governmental subsidies, bear in Hungary?*

When analyzing the topic my purpose was to join the results of the researches made in the different fields (venture capital investments, promotion of the SMEs, subsidies), and to synthesize and complete them with the new aspect of government's direct involvement realized on the Hungarian venture capital market.

When starting the researches I set out from the following hypothesis:

### **H1. The government's direct involvement on the venture capital market has a distorting effect on the whole of the market.**

The international judgement of the governmental involvement is double: on the one hand there is no such researcher, who would categorically write down that the governmental involvement on the market is dispensable. However, about the form of the intervention, already serious polemics have been created, which are practically concentrated in a bottle-neck: is the government's direct intervention needed (Lerner 1999), or should we restrict ourselves to the indirect instruments (Florida and Smith 1993), within which to create the most favourable entrepreneurial and innovation circumstances (Storey and Tether 1998b).

Therefore regarding the governmental participation I primarily concentrated on the study of intervention forms. I examine in details what types of specific intervention fields do the government have, and with what kind of specific results do they influence the promotion of venture capital (Queen 2002).

Based on the published results of the international literature, I enumerate pros about why did the direct intervention achieve such results in Hungary, which we can see from today's statistics (Karsai 2008a, HVCA 2002-2008), and what kind of reasons are in favour of the indirect governmental intervention forms.

### **H2. In Hungary the government does not realize venture capital investments, but a special version of development capital.**

Although a lot of authors deal with some aspects of governmental intervention, I have not yet found such source, which would have touched upon the merits of this question. Just because we name something, does it already bear the characteristics of the concept?

I dealt with the concept of venture capital in details in the first chapter, because during my several years of investigations I got more and more to the belief that the type of governmental financing of the target companies is not similar to numerous criteria of the venture capital investments,

moreover it is contradictory with them (Murray and Marriot 1998).

Therefore the following question is arisen if the realized transactions were not venture capital investments, then what they were? In my dissertation, it is not my purpose to make a new investment category, I only intended to describe the anomalies on the Hungarian public venture capital market, that had become obvious to me, and to define the possible directions of the present system's development based on the international practice.

As it was not the topic of the dissertation to categorize the present Hungarian practice with the creation of a new scientific definition, therefore as part of the justification of the hypothesis, I had to detail and examine the concept of development capital as well.

In the empirical part of the investigation I was also examining the fact, how the companies financed with subsidies were and by this Karsai's study of 2007 got research confirmation, which considers the Hungarian phenomenon to be a kind of lending activity instead of venture capital (Karsai 2007).

### **H3. The frames created for the targets of the Hungarian venture capital programme do not fit in the sphere of international best practices.**

The Venture Capital Programme attached to the New Hungary Development Plan was created so that the Hungarian small- and medium-sized enterprises could have an access to the resources of the JEREMIE (Joint European Researches for Small and Medium Enterprises) programme, published and partly financed by the European Union. EU accepted the details of the programme, the structure of the programme was set up from the Hungarian side, it was also approved by Brussels, however during the operation, serious defects got revealed. The programme, basically determining the governmental institutions of Hungarian venture capital industry, has the features that are insufficient for the venture capital market according to the international experience.

The dissertation included an ex ante analysis in the first draft, which with the advancement of time however became a self-fulfilling prophecy, this way most of the statements remained valid, however for the question, towards which future direction the Hungarian venture capital programme will take, there is no valid answer until the closing time of the study.

During the evaluation formed this way, I am presenting what type of system the Hungarian state created for the operation of capital funds compared to the venture capital funds working on a market basis, in which form it tried to motivate the venture capital fund management. I compare the presently experienced processes with the previous scientific literature (Karsai 1999 and 2007), and with the latest international results (Keuschnigg 2008).

### **H4. The rules of governmental venture capital programme do not reflect the expectations of the market.**

Some phenomena of Hungary and generally of the Hungarian economic life can be hardly separated from the Central and Eastern European region. I found it necessary to examine whether all those phenomena that had characterized the venture capital market during the past 10-15

years, could be seen in the rest of the region's states. I set out from the assumption that the certain markets produce synchronous phenomena, mostly advancing together in time as well.

I found necessary the presentation of the venture capital past and nowadays practice of a country, which does not belong to the region, but in its curve of economic progress, parallels can be drawn with the Hungarian economy, and especially with the financial market culture. No study has been published in Hungarian language, regarding Germany's venture capital investments, therefore I also intend the parts about it for supplements.

My hypothesis is based on the results of the international practice and the requirements of the economic theories towards governmental subsidies as the programmes do not reflect the expectations.

I based the hypothesis, which I did not build on the region's phenomena but particularly on the comparison with the countries that already have venture capital practice, on the examination of historical-economic background and on the similarity of the applied methods. My method of examination was solely the analysis of secondary data. Here I would emphasize the American SBIR programme (Lerner 1999) and its conclusions, and the Israeli YOZMA programme (Modena 2001, Murray 2002) that are the most successful governmental subsidization programmes according to the analysis. However, each analyzer (e.g. Avnimelech 2009, or Gilson 2003) emphasizes that specific economic-social circumstances and the timing of the programme played an important role in becoming a successful programme.

During the analysis I touch upon the governmental intervention practice of some countries, which have enriched the practice of governmental promotion with useful experience, or their usefulness and efficiency was justified during the past years (e.g. Germany, Japan). Regarding the international results I was trying to utilize the latest data, therefore I also included in my dissertation the results of the analysis published until August 2010.

## **2. Methodology of the Research**

In case we interpret the venture capital investments narrowly, then in Hungary this industry has a past of some 10-15 years, with relatively few realized investments, that can be examined empirically, of which conditions are mostly confidential and trade secret. However if we also consider that the topic of the doctoral dissertation is the transactions in the frame of venture capital investments, realized by governmental participation, the also statistically analysable data verifies the analysis with quantitative means as well.

At the same time I have already found it important to note that it is not a usual empirical survey. Experts dealing with venture capital know and experience that the small market is only one of the elements making the research to be more difficult, but the real obstacle of the efficiency is the refusal of companies to provide even the most indifferent information. For experts who have got used to surveys based on high population sampling, the empirical analysis of a 30-people sample

might be pathetic, at the same time the historical facts must be especially considered: in the past 6 years no more than 50 investments have been realized, and no more than 33 persons were ready to reply the questions!

When selecting the method of research, I was trying to utilize the most possible methods from the options, limited by the topic and by generally the specialties of the industry, so as to make primary research as well, besides the processing of secondary data, and to get closer to the confirmation of the hypothesis both by the quantitative instruments and by the method of qualitative prospecting.

The purpose of the research, over the justification of the theoretical model was also to create such a primary research result, which was solely examining the invested companies backed by governmental venture capital. As the major part of the scientific literature is dealing primarily with investing decisions and motivations (e.g. Dimov et al. 2007), the literature published in the limited topic only presents anglo-saxon experience from the aspect of the invested companies. (Casson et al, 2008).

During the creation of the hypothesis and the theoretical model, I took into consideration **secondary data** of the Hungarian Venture Capital Association (HVCA) and the European Venture Capital and Private Equity Association (EVCA), as the two major associations dealing with private capital research and the outcomes of the Hungarian researches (Karsai 2008, Makra 2008, Ludányi 2001, Rácz 2004, Ács és Szerb 2007).

According to the theory of scientific research, before starting the quantitative research, I sought for those persons by interview, based on whose professional practice the issue of the quantitative research could be determined.

According to the secondary data of the scientific literature I assumed that 2 investorial and 2 purpose vehicle **interviews** provided those issues, which mostly covered the results of the scientific literature, but gave guiding regarding the certain fields of domestic differences. For the reason of executing the questionnaire-based research and some of its unexpected results, I got to the interview subjects twice, to be able to clarify the certain reasons of the outcome of the survey.

I put together the questionnaire with the aim of getting answer to the below questions while remaining in the defined area of research of present thesis:

- 1. Do the beneficiaries of the Hungarian governmental venture capital consider the same aspects when making an investment decision that based on foreign researches, the beneficiaries of market financing do?**

Thus, I have to define the possible answers to this question based on different foreign researches first (Cumming 2005, Eisenhardt 1989, Kaplan and Stromberg 2004, Zachariakis and Meyer 1995 and 1998). The reason why I was mainly considering foreign literature is that I was unable to find Hungarian analysis specifically referring to decision-making, on the other hand the content covered was not satisfactory (Ludányi 2001).

## **2. Is the government able to make sure that only those corporations get financed where no foreign capital investment fund raising is possible?**

Based on those sections of the thesis where I am dealing with theoretical questions, the main reason for direct market intervention of the government in the market relations is the aim of narrowing the market niches. Thus, if the respondents think that the capital obtained this way is not replaceable then the aim seems to be fulfilled.

## **3. Does the governmental intervention help the further/future involvement of the market participants in the market niches indeed?**

Based on the previously described facts there are a lot of opponents (Leleux and Surlemont 2003, Cumming 2006), but even more supporters (Kneuschnigg and Nielsen 2001, Lerner 1999) of the governmental venture capital programs, where one of the side effects is that it is not sure that during the exit phase a real market participant obtains the target corporation, or that the general awareness of the venture capital promotes the wider spread of the industry segment.

When defining the target population, I was only involving those parties in the research that already received some form of venture capital with governmental support; therefore they form the entire sample. As I have already stated in the beginning of the section, the entire sample consists of 50 target corporations, they are currently the ones that received venture capital financing from governmental source in the last 5-6 years in Hungary.

I reached these corporations based on the contact list I received from different corporations (Regional Development Holding (*Regionális Fejlesztési Holding*), Corvinus Venture Capital Management (*Corvinus Kockázati Tőkealap-kezelő*), Information Technology Venture Capital Management (*Informatikai Kockázati Tőkealap-kezelő*), Start Capital Guarantee Inc. (*Start Tőkegarancia Zrt.*, ...etc.) I only had one request when filtering the sample: I asked the providers to eliminate those corporations that though were financed, were not financed through deals linked to venture capital. That is how I ended up with the final list of 50 corporations, whose directors directly received the questionnaire and through a telephone conversation were informed about its aim and background. In all cases I requested the parties to have the questionnaire filled in by the directors themselves, and they all did so – this can be proven in the cases where responses were sent through private emails.

The response rate was 66%, which means that we received back 33 questionnaires out of 50, out of which only 30 could be evaluated (in case of 3 of them respondents gave “no” as an answer to control question number 9., meaning that they did not establish contractual relationship with any of the financing parties).

We have to mention that considering the number of deals in the past 5-8 years, (including those of market financing) the research is based on representative data, and nevertheless the low number of responses, it can be analyzed to discover the differences between the behaviour of some market participants and the governmental parties and their partners. The further analysis of these differences requires qualitative research methodologies.

During the analysis (corresponding with the hypothesis) there were differences discovered between the expected and actual answers given in relation with the market forms of venture capital. I found it important to complement the research to explain the background for this and to give an insight in the personal experiences of market participants (both on supply and demand sides). I considered the in-depth interview the optimal research method, as there are just a total of 10 financing institutes, and even less of those target corporations that have a relationship with at least 2 institutes in that depth that they could provide valuable information on the circumstances and opportunities of co-operation or could highlight the differences between different forms of financing.

The analysis of the secondary data helped me in choosing the objects of the in-depth interviews, while for the second “round” I took the results of the questionnaire as a direct approach (corresponding with the initial expectations). I contacted the head of the two most well-known financing institutes, and two corporation heads whom I considered the most well-informed and experienced. The two interviewees that answered my questions were Viktor Tóth, managing director of the Western Trans-Danubian Regional Development Holding on 10<sup>th</sup> December 2008, and Árpád Goszták, managing director of Information Technology Venture Capital Fund on 14<sup>th</sup> December 2008.

The availability of secondary data and their further study did not always seem to be enough, and the questionnaire did not provide either an answer to all the problems I raised.

At the beginning of my research the introduction of some **case studies** was also among my aims, where the rationale behind the governmental intervention, its extent and the method of risk analysis, the process of investment negotiations can be supported with exact data. During my face-to-face conversations with the above-mentioned corporations, however, I faced some bigger roadblocks than expected, as the business men refused to share specific data referring to their confidentiality. Ácsné Karsai Ilona (2004) and Karsai have also highlighted the fact of missing statistical data about the results of realized investments (2003, 2008). Therefore the single investment deals can only be evaluated based on specialized media analyses, and I am unable to take full responsibility for the validity of the same. Another interesting fact is that when I started to do some research on the Information Technology Venture Capital Management’s activities and their realized investments in the venture capital market back in 2007, they did publish at least the names of their partners. In 2009 I could not find any of these on the official website.

Nevertheless, based on publications, company releases and personal experience I included some case studies in the thesis about venture capital investment scenarios with governmental support which can be considered successful deals.

### 3. The Results of the Empirical Research

Based on the research methodology detailed above (considering the volume restrictions of present thesis) I am presenting the results of the primary research of 2008 and the results of the 2010 case studies.

The first part of the questionnaire is about basic data of companies: form, age, field of activities and some facts relevant to the topic: number of financial decision making parties, level of importance of innovation.

Out of the 30 samples received, one is a public company, there are 4 corporations and 25 limited liability companies. This proportion truly represents the actual market scenario, as most of the small- and middle-sized enterprises choose the form of Ltd. today in Hungary. The venture capital investment in Ltd.'s suggests though, that the investment does not happen in the earliest seed phase, but that the preferred companies are those in the early development phase.

This is confirmed by the answers given in relation to the age included in the below table:

*Age of enterprises*

	# of companies	Percentage	Cumulative frequency in %
1-2 year	2	6,7	6,7
3-5 year	8	26,7	33,3
5-7 year	9	30,0	63,3
8-10 year	3	10,0	73,3
10-15 year	5	16,7	90,0
Older than 15 years	3	10,0	100,0
Total	30	100,0	

From the investment perspective, the most interesting group among the respondents was the 3-7-year-old companies, keeping in mind that we raised the questions to those who received capital financing within the last 3 calendar years.

The low number of the start-up companies (1-2-years old) show that though the government aims to support the companies in early stage (seed and start up), in reality, those who are already more grown have better possibilities to receive capital.

Another aspect is the change in the **number of employees**. The percentage of micro-organizations with 1-9 employees in the sample was 63.3%, which means that the financed parties are in majority. There are only 2 medium-sized enterprises among the beneficiaries, which means that those with access to other sources are less likely to receive governmental venture capital.

If we compare this with the data of the Hungarian Venture Capital Association examining the relationship between the investment activities and the number of employees in the target companies in case of buyout financing (MKME 2008), we can see that in 8 out of 13 transactions

we analyzed the number of employees was between 0-19, in 3 cases between 20-99 and in only 2 cases it reached 1000.

With respect to the **field of activities**, half of the respondents operate in the servicing industry, only one respondent in the agriculture, 4 in the industrial production, 6 in commerce. Three from the remaining respondents are working in the real estate market and one is working in healthcare development. The ratios are similar to the statistical results of the Hungarian Venture Capital Association from 2007 that showed a dominance of the servicing industry (MKME 2008).

It is almost natural that 100% of the respondents considered the own enterprise an innovative one, a default requirement for venture capital investments (even in case of governmental financing) which states that the enterprise should be innovative by nature.

Keeping this in mind, the answers to the last questions were a little surprising. Here we expected answers that explain what the most promoting factor of these enterprises would be. Surprisingly only 23 respondents indicated that it would be important to have programs that support innovation (though all consider themselves innovative) and only ranked it as the 5<sup>th</sup> most important factor.

At the same time, in contrary to the 2007 GKM (Ministry of Economy and Transport) research, more considered the limited financials a difficulty in this matter, i.e. 83.3% of the respondents considered it an important factor with respect to the development of the enterprise. It is that much important, that the increase of financial resources is ranked 2<sup>nd</sup> most important factor by the respondents following the decrease of incidental expenses.

Answers had to be ranked in a scale of 0-7, resulting in the below - considering the entire sample size.

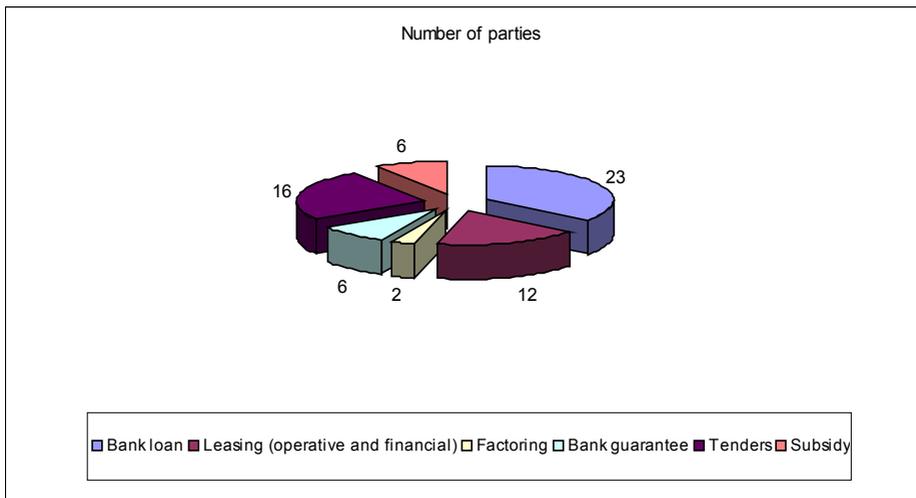
*What would help most in the development of the enterprises?*

<b>Factor</b>	<b>Number of respondents indicating the factor</b>	<b>Importance</b>	<b>Position based on all responses</b>
Training programs	20	2,4	7
More qualified employees	18	2,72	6
More financial resources	25	5,96	3
Programs supporting innovation	23	5,08	5
Tax decrease	28	5,46	2
Simplification of regulations	27	5,44	4
Decrease of incidental expenses	26	5,961	1

## The selection of capital, alternatives

The respondents used numerous other financing forms in the past 2 years apart from venture capital. The distribution of these is shown in the below chart:

*What type of financing did you take in the past 3 calendar years?*



This is an important question in the present thesis, as I had been looking for the answer to know if the government's intervention is reasonable in this field. Indeed, the specialized media unanimously states that there must be a market niche in those fields where the government intervenes.

Seen the number of different financing forms in the above chart that companies successfully apply, the government's intervention seems not to be justified.

At the same time I asked whether the companies supported with governmental venture capital had any other option, i.e. whether there was any competitive alternative they could apply for versus the source they finally used.

*Was there any competitive alternative to the governmental venture capital?*

	Number of responses	%
No response	2	6,7
Bank loan product	1	3,3
Private loan	2	6,7
Tender source	1	3,3
Other venture capital investor	4	13,3
No alternative	20	66,7
Total	30	100,0

The governmental intervention is especially questionable in those 5 cases, where there were other opportunities to get finances through a bank loan or other venture capital investors. This is exactly the crowding out effect Florida and Smith (Florida and Smith 1993) and 10 years later Leleux and Surlemont (2003) and Cumming (2006, 2008) highlighted in several of their studies. According to their view (and here we can have a look at the supporting cases proving the idea), the governmental action does not just decrease the opportunities for new investors, but even blocks them by offering better contractual terms, putting the market participants in a competitive disadvantage.

It is good to see thought that in 75% of the government-supported investments in the examined sample, this was the only possible solution.

It is an interesting fact, that though there were no other alternatives for these target companies, the absolute satisfaction rate concerning the contractual conditions is very high.

Half of the respondents were fully satisfied with the contract, whereas 36.7% said they could have preferred a more favourable solution. Two respondents stated they had no voice in the definition of the contractual conditions, and only two were dissatisfied with the final agreement. Thus, 86.7% of the sample was happy with the definition of the contractual conditions, and 100% of them would still take the same decision today. All of them would still contract the very same partner they contracted at the time of the investment decision.

The most surprising result for me was that 8 respondents, though fully satisfied, would still not contract another venture capital investor. To understand their motivations and the background of these statements, I would like to extend the research to this question and go back to the in-depth interviewing methodology.

### **Decision-making mechanisms**

Question number 11 of the questionnaire was aiming to evaluate those decision-making aspects that the target enterprises consider in the selection of the resource. The scientific literature usually examines the other side's (the supply side's) aspects, stating that certain investors very often take irrational decisions (Zacharakis and Meyer 1998, Tversky and Khaneman 1974, Shepard, Zacharakis and Baron 2003, Hall and Hofer 1993), but only few of them look at the demand side of the decision-making process (Cumming 2005b).

Remarkably, 73.3% of the respondents were looking for an investor themselves, obviously based on their own knowledge and information. Professionals should consider the fact that specialized consultants were able to support only 6.7%, and even specialized forums could only help 10% with directions on the best financing methods for the enterprises. Another interesting fact is that investors like customers knocking on their doors - only 3% of the respondents were ever approached by specialized investors directly. It is not surprising that 20% of the deals is still realized through acquaintances.

*Decision-making aspects of target enterprises when choosing an investor*

	Number of respondents	Total result considering all respondents	Total result considering actual respondents	Position comparing with all other respondents	Position comparing with actual respondents
<b>Financially less expensive solution</b>	13	3,36	7,76	6	7
<b>Solved financing difficulties in short term</b>	15	4,56	9,13	4	4
<b>Investor was appealing</b>	10	2,5	7,5	9	8
<b>I trusted the one recommending the investor</b>	10	2,4	7,2	10	9
<b>The investor has a good fame</b>	16	4,16	7,8	5	6
<b>It was an inevitable step with regards to the company's long-term strategy</b>	17	5,73	10,11	2	1
<b>It was the cheapest among the alternatives</b>	22	6,8	9,27	1	2
<b>There was no alternative</b>	12	3,16	7,91	7	5
<b>I was motivated by the fact that the government stands in the background</b>	11	2,63	7,18	8	10
<b>Postponing the decision would have cost more than the invested capital</b>	9	2,13	7,1	11	11
<b>Improve competitiveness of company</b>	15	4,66	9,3	3	3

Based on the above data we can confirm that rationally and in line with international studies entrepreneurs consider the company's long-term interest when making such decisions. Another important argument supporting the hypothesis of the thesis, besides the distortion effect of the venture capital on the market, is that entrepreneurs considered venture capital a cheap solution. The venture capital by nature, by definition is MORE EXPENSIVE than other sources. The investor is looking at the way he could maximize his yield, and whichever way it is, it is represented in the sales price.

Let us translate this to actual Hungarian experience: the most frequent way of capital investment in Hungary is the MBO, the buyout of the management where the old management group buys back the business portion, and the yield maximization requires this buying price to be the highest possible. How can the investment be cheap then? With appropriate operation - never. Since government capital funds calculate with maximized yield (broken down into years for the target companies)<sup>1</sup>, companies can easily calculate that this form of investment is indeed cheaper than the bank loans with 15-20% interest rate.

At the same time, for instance in the United States, this much of yield would not be satisfactory, it would be considered unfavourable instead. The expected yield is at 20-30% together with the non-profitable deals of venture capital investors, thus part of the profit would cover the loss of these ones (Bygrave et al, 1989, Manigart et al. 2002). When comparing with this Hungarian venture capital is considerably cheap.

By further examining the research results, on ranking 3 and 4 we can again find an expected and a surprising result. Based on specialized releases, the improvement of competitiveness is important for target companies. At the same time, venture capital can be a good form of financing in many cases, but it definitely does not solve short-term financial difficulties. In the theoretical part we mentioned a special form of financing, called turn-around financing, that aims to help enterprises with short-term financial difficulties, however, none of the respondents deals with this type of financing. This is contradictory to the answers given to the next question related to the elaboration of the exit strategy. Those respondents who think that the most important aspect would be the solution of short-term financial difficulties are seen in the second row (they gave the maximum number of points, namely 11). At the same time, 4 out of the 8 respondents with maximum points have fixed the exit method and conditions already in the contract. How can this solve short-term questions then? If the investment relation is not just a 1-2-year-long co-operation, which would, by the way, be exceptional in this industry segment... Again, it is difficult to imagine that the investor decides about the exit, which falls to such a close point in time that would suit the target enterprise as well.

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1 10-15% annual yield minus expenses

*The short-term financial solution and the plans for the investment period*

		How long do you plan to collaborate with the investor?					Total
		As defined by the contract	As long as it is favourable for me	As far as I can buy-out	As long as he will be able to provide professional support	As far as the investor does not terminate the contract	
	nv/na	5	2	3	3	2	15
How	11,00	4	1	1	1	1	8
important is	10,00	1	0	0	0	0	1
it to solve	9,00	0	0	1	0	0	1
short-term	7,00	0	0	0	2	0	2
financial	6,00	1	0	0	0	1	2
difficulties?	4,00	0	0	0	0	1	1
	Total	11	3	5	6	5	30

Those giving maximum points received the venture capital type of investment through the Regional Development Holding's subsidiaries, where contractual terms covered at least 5 years. None of these enterprises deals with short-term financial solutions.

As it turns out from the research made before the questionnaire was rolled out, the managers of Hungarian venture capital management companies themselves do question the national financing model. When defining the satisfactory rates with target companies, most of the regional managers of **Regional Development Holding** formed their responses based on the below influencing factors:

- Hungarian entrepreneurship is administratively not prepared for the international expectations. During the financing period it was difficult to deal with continuous monitoring and to respect deadlines of the submission of financial reports.
- Financing was often realized in collaboration with a banking institute. On one hand this means that these target enterprises could collaborate with banks, thus there was an alternative for financing, on the other hand these management companies say that banks were less likely to contract without the investors.
- The capital manager does not accept the maximized expected yield, saying that it makes entrepreneurs "lazy", and finds this form of financing relatively cheap for the same reason, as the expected profit often does not even reach the level of bank interest rates.
- „The Hungarian small- and middle-sized enterprises are unable to co-operate till today, talkless about joint management and risk undertaking.” The managers consider this as the reason why more than one third of the entrepreneurship deny contracting a third capital investor.

The aim of the research was to answer three questions. The first question was whether the motivations of the target companies are in line with the aspects described and analyzed by the scientific literature, in situations where the investor comes with a governmental background.

The answer can be approached from two directions. From one side, as usually seen when evaluating mid-term investments, the respondents found important aspects like the increase in the company's competitiveness, first position among the alternatives, and long-term strategies of the company.

Some other aspects were also highlighted though, which based on hypothesis number 2 can only be effects of the **Hungarian market characteristics**: the short-term solution for liquidity issues and the relatively low cost of this form of financing.

In relation with question number 2, i.e. whether there is indeed no alternative for this financial opportunity, the answer leaves us with doubts. One third of the respondents said there **was a competitive alternative for the public financing**. Considering the importance of this factor in the decision making process, the respondents only ranked it 5<sup>th</sup>. To summarize, we can state that in two-third of the cases governmental intervention was strongly justified, however in about one-third of the cases there was absolutely no reason for it.

Related to question number 3, whether the governmental participation would **support the later involvement of market participants**, the results of the research proved the crowding out effect already highlighted by several people (Cumming and MacIntosh 2006, Florida and Smith 1993). One-third of the respondents were not open towards venture capital investors, and the reason for this was discovered during the in-depth interviews: why would they choose a more expensive solution with stricter regulations when there are cheaper and more flexible opportunities in the market. In fact, the solution applied in most of the countries, meaning simpler and direct intervention in this market segment, is not too effective in Hungary, but neither is it effective in several other countries.

If we had to shortly summarize the theories and the results of researches and studies and state a prognosis for the next 10 years, it would be enough to compare the capital programme accepted by the Hungarian state with the results of international research. Gompers and Lerner (1999), Armour and Cumming (2003) DaRin and others (2006) revealed through a practical example that neither the United States, nor other European countries achieved the improvement of venture capital segment with providing direct capital to innovative small- and medium-sized enterprises. There were more successful programmes where they differentiated the taxes on capital income, favouring the owners of venture capital funds and the directors of capital fund management companies. The positive effect can be noticed at new market openings and by the favourable regulation of floatation in the stock exchange (Jeng and Wells 2000).

## **Case studies about the Hungarian venture capital market**

I would not like to give a detailed introduction of the specific governmental venture capital investment case studies in my thesis, but at the same time, we cannot judge on the governmental venture capital investment without comparing it to the market investments, thus looking for answers to the below questions:

1. How much is the governmental venture capital investment procedure different from the market investors' strategy?
2. Is the crowding out effect realized, i.e. does the governmental venture capital invest in such segments or entrepreneurships which are
  - in seed phase, start-up phase
  - innovative
  - and cannot gain capital from other sources?

Analyzing the portfolios of the previously mentioned institutes of the Hungarian venture capital market, I selected an investment from each financing party that carries at least one of the above-mentioned characteristics (judged based on publications of the entrepreneurships or independent information). Here I have to refer again back to one of the difficulties I mentioned earlier, namely the lack of information and the lack of transparency in the governmental investments. The below information is based on publications and company registration data.

I will present the investments realized with governmental support in chronological order, as mentioned earlier. Therefore I will introduce a deal of MFB Invest as direct investor, a case realized through the RFH Group, and finally one of the partially closed deals of the JEREMIE programme.

During the selection phase I was aiming to filter for the most successful deals.

*Governmental and market capital – successful deals*

	<b>Capital</b>	<b>Target Company</b>	<b>Activities</b>	<b>Type of investment</b>	<b>Capital</b>	<b>Period</b>	<b>Result</b>
<b>Governmental</b>	MFB Invest	<b>Arany Kapu Zrt.</b>	Distillery	Expansion	490 MM HUF	2003-2009	Continuous, capital redemption till 2009
	Regional Development Holding	<b>Innovation Center Gödöllő</b>	Innovation Center	Seed (spin off)	21 MM HUF	2002-2006	2-phase buy-out
	IKTA	<b>Stormregion</b>	Game software	Expansion	N/A	2004-2007	IPO, Purchase price not public
	Corvinus CELJN	<b>N-Gene</b>	Biotechnology	Classic Venture Capital	640 MM HUF	2006-	No exit yet
	Elan SBI	<b>CIG Pannónia</b>	Insurance company	Registration at stock exchange	5,6 billion HUF	2010-	Partial exit
<b>Private</b>	Euroventures – Equinox – Advent	<b>Avonmore</b>	Food industry	MBO	2,2 MM EUR	1997-1999	2,4 times yield, with MKB bank loan
	Advent – Equinox	<b>Elender</b>	Internet-provider	expansion	3,2 MM EUR	1998-1999	2,7 times yield
	Euroventures – Fast Ventures	<b>Enigma</b>	Software	Start-up	1,4 MM EUR	2002-2004	1,4 times yield
	3TS Capital Partners	<b>LogMeIn</b>	Software and services	Start-up	30 MM USD	2004-2009	100 MM USD IPO at Nasdaq

The detailed evaluation of the investments made with private financing is not in scope of present thesis; their short introduction only aims to describe the efficiency and investment characteristics of documented market participants in investments with governmental background.

Part of the case studies can be found among the ones published by EVCA in 2004 as successful East-Central European investments. Chronological order was an important factor during the selection process: I chose an IT company (Elender) and a non-IT company (Avonmore) from the period prior to the governmental interventions. I also selected two companies after the internet-boom operating in IT field: a typical example of seed-financing, and another one representing an example of successful entrance in stock exchange with foreign capital investment.

The **Avonmore** Pászto entrepreneurship, operating in the food industry, was “escaping” from the competitors and with product development and a different market strategy increased sales with 50% and in an 18-month investment period doubled its profit.

**Elender** Informatikai Ltd., founded in 1997, started with hardware-based commerce and switched to the internet provider role with venture capital investment, becoming the third biggest provider in Hungary by 1998. Grabbing the opportunities of the internet-boom and as a result of the investment, they managed to increase the number of contracted customers from 12.000 to 20.000 within 10 months, and in the exit period (10 months after the investment) Elender multiplied the profit for its owners.

**Enigma**, entrepreneurship of Balázs Inotay, was looking for venture capital funds for the introduction of the secured mobile payment system to the market. The company that time had nothing but an operating rhythm and the credit gained by the founder’s earlier successes. In this case, the investor took part in the operating activities of the company as well and appointed a new financial manager. After the 2002 investments, both venture capital corporations sold their share in 2004 to an investor.

**LogMeIn** was founded in Hungary in 2003 by the name “Remotely Anywhere”. Its international headquarter is based in Woburn close to Boston (Massachusetts), its European headquarter is in Amsterdam and has its development centres in Budapest and Szeged. 3TS Capital Partners invested in the company in 2004 as the first institutional investor. LogMeIn raised around 30 million USD venture capital, even Intel’s venture capital company obtained a 4% share in the company before the IPO after which they issued 100 million USD worth shares to Nasdaq<sup>2</sup>.

**N-Gene** is a biotechnological company founded by Hungarian researchers and entrepreneurs, financed by Corvinus Venture Capital Management Corporation. It was founded in the United States in 1997 with the aim of capitalizing on the local financing opportunities<sup>3</sup>. The company was successful in the filed of diabetes treatment, and the medical research is in the human testing phase already.

2 Stock Exchange forum: LogMeIn: successful start at Nasdaq. [http://www.tozsdeforum.hu/i-c-logmein\\_sike-res\\_start\\_a\\_nasdaq\\_on-menu-cimlap-submenu-onearticle-news\\_id-396698.html](http://www.tozsdeforum.hu/i-c-logmein_sike-res_start_a_nasdaq_on-menu-cimlap-submenu-onearticle-news_id-396698.html) and Gábor Halaska: LogMeIn: Hungarian success in the US Stock Exchange. Figyelő. <http://www.bitport.hu/trendek/logmein-magyar-siker-az-amerikai-tozsden>

3 The same objective was defined by the company publication in the same format. [http://www.ngm.gov.hu/data/cms886769/N\\_Gene\\_hatteranyag.pdf](http://www.ngm.gov.hu/data/cms886769/N_Gene_hatteranyag.pdf) Date of download: 10th Dec 2010

Biotechnology, an important sector of venture capital, did not only raise the attention of the Hungarian governmental venture capital. The American mother company also obtained venture capital investment through a company linked to György Soros. Corvinus increased the capital in the company in 2006, and gained a 42.62% share of it with a 640 million HUF investment. The exit did not happen yet, but the fact that in 2009 both Bankár Holding and Phylaxia gained shares in the company indicate success (Vitéz F. 2009).

The first Innovative Capital Fund of Corvinus realized 4 successful investments till date of present thesis. Apart from the one described above, it gained capital share in Agroinvent Zrt. of Szombathely, producer of a quality price winner agricultural tool. The association was fully owned by Corvinus by 2009, and then as the single shareholder decided on the reorganization. In April 2010 it changed the form of public company with 117 million capital to the form of Ltd. with 500.000 HUF capital.

Corvinus has an interest in Literaton Ltd. as well, which operates in the IT segment, however, based on the warrant of Budapest Court of 8<sup>th</sup> July 2010, is now under liquidation.

Another running investment is the one concerning US-owned (BIO-INNO Consulting Limited) Maggot 2006 Ltd., which is successful in wound care and decided to pursue further governmental support in 2010<sup>4</sup>.

There is a closed investment financed by the Information technology Venture Capital Fund, the **Stormregion** association, well-known game software producer in the market. They involved venture capital investors, who became owners of the company between 2004-2007, to support the expansion, when during an IPO a German software company obtained 100% of the shares. The exit was successful, but based on the agreement of the parties, purchase price was not communicated. In spite of the successful exit, the company got liquidated as the mother company became insolvent in 2008 and closed the Hungarian office.

Information Technology Venture Capital Fund invested in more companies like the Első Mobilfizetés Elszámoló Corp., Meditcom Ltd., Medisoft Ltd., Inter.net Média Ltd., Edusys Corp., ODIN Technologies, and Opticon Ltd. (further details in the appendix).

One of the direct investments of MFB (Hungarian Development Bank) realized with governmental capital is the **Arany Kapu Corp.**, leading company of processing secondary winery products. The company was founded in 1970, so we definitely cannot call it a start-up company at the time of investment. They used the capital (supplemented with governmental subsidy and GOP funds (*Operative Program for Economic Development*)) for development and market expansion. It is a success-indicator, that here is where most of EU's pálinka (*spirit*) with a protected product origin indicator is produced. MFB gained a 49% share in the company by raising the capital with a direct 600-million-loan. The exit happened with continuous capital redemption closed in 2009. Papers were redeemed by the company under capital reduction. Exact numbers on the return are

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4 Based on data of official gazette.

not known, however, based on publications it is sure that until 2009 MFB exited with around 550 million forint, and according to the official gazette, they sold the last 15% of the shares with a 60 million capital reduction in July 2009.

Central-Hungarian Development Corp., subsidiary of Regional Development Holding, established the **Gödöllő Innovációs Központ (GIK) Ltd.** (*Gödöllő Innovation Centre*) and showed a good example where the public venture capital used for innovation supports the innovative activities of a whole region by forming centres with the collaboration of market participants. The investment was realized in 2002 with the earlier name of the company (Budapest Agglomerációs Fejlesztési Kft. (*Budapest Suburban Development Ltd.*)) with the participation of Szent István University, whose successor is part of the Regional Development Holding (RFH) group. The invested capital (21 million HUF) was redeemed by the other owner of the centre in two portions between 2005 and 2006. Biopolisz Ltd. in Szeged was established based on this pattern (still part of Duna-Tisza Regional Investment Corporation's portfolio today). The formation and operation of GIK Ltd. and Biopolisz Ltd. are the best examples of financing spin-off companies formed with the collaboration of universities, and fully corresponds with the eco-political expectations of financing the market niche<sup>5</sup>.

The first investment of the new venture capital corporation called Elan SBI Capital Partners was the financing of **CIG Pannónia** Life insurance Company's flotation in the stock exchange. The 10 billion-forint investment consists of 4.4 billion capital investment and 5.6 billion subordinated debt capital. The insurance company introduced the shares with a 938 HUF price, whereas the owners and some favoured small investor groups could purchase it for a reduced price of 750 HUF<sup>6</sup>, Elan could purchase the same for 480 HUF. As a result of the stock exchange sales, the company was able to pay back the loan with the additional 500 million HUF interest in spite of the fact that right after the issue of shares prices started to tremendously decrease and are still much lower than the issue price (currently at 700 HUF).

## Evaluation of the investments

The above mentioned cases need to be evaluated considering the previously mentioned conditions, namely that the public venture capital does not have a crowding out effect providing capital to entrepreneurs that do not have a chance to obtain market financing.

The case studies (including the ones mentioned above, especially the four Corvinus investments and the eight ones of IKTA) did not result in anything significantly different from the research

<sup>5</sup> Information based on communications of GIK Ltd. and Biopolisz Ltd. Exit price was not published in accordance with the specific request of the parties.

<sup>6</sup> [http://www.privatbankar.hu/cikk/befektetes/12\\_5\\_millio\\_cig\\_reszveny\\_a\\_kisbefektetoknel\\_39445](http://www.privatbankar.hu/cikk/befektetes/12_5_millio_cig_reszveny_a_kisbefektetoknel_39445) Date of download: 10th Dec 2010.

made among the entrepreneurs. N-Gen that has received foreign venture capital investment as well, did not really have to fight with the extreme lack of resources, while for Stormregion it was probably the right business decision to decide on the public venture capital. Here we need to mention that they could have found financing on the market whose profile would have fit their field of operation. The establishment of the Innovation Centre in Gödöllő cannot be questioned from an eco-political point of view; also, it is indubitably a real venture capital investment and not just the establishment of an organization which could realize real profit after the exit of RFH. It is much easier to recognize some political reasons behind the investments of MFB Corp. and MFB Invest apart from the previously mentioned Arany Kapu Corp. (e.g. Debreceni Hús Corp., Intergas Hungária Corp., Royal Balaton Golf & Yacht Ltd.) as published in the media, rather than the intent of financing the market niche. Arany Kapu Corp. is a very good example as they received loan financing at the same time of capital increase, and they also received support from the government. This means that they indeed had alternative solutions of financing, and their 30-year-history is not really corresponding with the requirements settled either, namely that the companies should be either start-up or small-sized enterprises.

Another fact is that the First Innovative Capital Fund (*Első Innovációs Tőkealap*), managed by Corvinus, invested 20% of its capital in these very four companies since its 2005 start, out of which Agroinvent has already reported some losses, and Literaton Ltd. is currently under liquidation. Many of the investments of IKTA got political orders or were involved in such scandals (Meditcom Ltd., EME Corp.), and the number of exits is quite low at the moment. Concerning the direct governmental intervention and the political aspects, Buiges és Sekkat (2009) highlighted the followings: the governmental eco-politics and the governmental support always favoured certain lobby groups and to an extent corruption as well. Since these phenomena can be noticed in all countries in a way (Mauro 1998), we cannot state that this would be a Hungarian characteristic, but we do have to mention it in relation with the target companies.

#### **4. Evaluation of the Research and Hypothesis**

In my thesis I devised four pieces of hypothesis, verifying them I surveyed a wide range of international scientific literature in the first part of the study then I conducted a primary research for hypothesis with Hungarian relationship. The purpose of my research was to investigate what the effect of governmental participation was on the Hungarian venture capital market.

My first hypothesis was that governmental intervention in venture capital market had a distorting effect on the market with regard to its entire. In consideration of the fact that this hypothesis was not qualified merely to the Hungarian market I mainly utilized current international literature as secondary research data.

Based on this literature and Hungarian publication I stated that economic and legal experts agreed on the necessity of the governmental participation in this market but not on the form of the intervention.

During the investigation of the form of intervention, I distinguished two fields: direct and indirect forms of intervention, furthermore their impacts on venture capital market. I assumed that while everybody agreed on indirect form of intervention, the forms of direct intervention (principally launching venture capital funds, direct capital to SMEs) divided experts' opinions. However, two extremes were not rigid rejection and absolute support but rigid rejection and necessary tolerance. Even supporting economists did not state clearly that governmental capital programmes did not have side effects or phenomena that could be eliminated with the largest political economic goodwill (Gompers and Lerner 1999, Lerner 1999).

The point of view based on the secondary data is proven by the empirical research whereas the results of the survey by questionnaire and evaluation of case studies show that the major part of the investments carried out had an acceptable and available market alternative.

Based on these facts my first hypothesis (H1) is considered to be proven.

Regarding Hungarian venture capital investments I studied investment principles that were applied by public venture capital funds and their trustees. Therefore I examined their investment policy, foundation and operation principles, and I assumed that *in Hungary the government did not realize venture capital investments, but a special version of development capital (H2)*. In order to verify this hypothesis, the theory has to be proven empirically beyond studying investment policy, therefore I conducted one-on-one interviews with the managers of state-owned companies investing the highest amount of capital, based on it I prepared a survey by questionnaire among a sorted group of invested companies. The aim was to discover the background of financing business transactions concentrating on the role of the government as a financing entity.

Evaluating the survey, it was proven that a significant part – one third – of the companies had had the opportunity to choose other market financial model. During the interviews I found out that in certain cases even investments financed with venture capital were backed by banks as co-financing actor.

Despite the theory, whereas venture capital is a type of private equity capital typically provided for early-stage, high-potential, innovative companies that do not have the access to other financial sources, we have to establish that investments realized do not carry out the purpose completely. It is especially true when as the member of the European Union governmental subsidies (including capital programmes) may get green light in case of proven market niche as exception from prohibited governmental subsidies.

The government seems to deviate from the conventional venture capital finance not only in this respect but analyzing New Hungary Venture Capital Programme, minimizing losses and particularly maximizing profits principles are against the theory of venture capital.

Survey of questionnaire pointed out that governmental capital programmes crowded out market financing forms. It was proven as one third of the companies being satisfied with governmental capital were not willing to conclude a contract with other venture capital investor in the future.

Proving the fact that Hungarian venture capital investments do not comply with the concept of

venture capital investments acknowledged internationally, hypothesis (H2) is considered to be verified.

For the future both specialists and companies are looking forward to JEREMIE programme carried out with the support of the European Union. Hungary is also the participant of this programme and the programme accepted in 2007 is already in the implementation phase. In Europe member states may make decisions freely on the concrete conditions of the implementation. Third hypothesis refers to the Hungarian aspects and concerns of this programme that is *the frames created for the targets of the Hungarian venture capital programme, are insufficient for the rapid boosting of the Hungarian venture capital market (H3)*.

The aim of the programme is to finance early-stage companies that are under-represented in the venture capital market. Apart from the reform of the institutes, terms of tenders were published, winners were announced. However, on the one hand terms seem to motivate the investors to join the government as financier with minimizing losses, on the other hand the programme does not include the motivation of trustees though they are responsible for selecting and managing enterprises to be financed. As JEREMIE programme is a refundable source the extent of endorsement influences the volume of the capital to be invested in the future. However, the Hungarian programme maximizes the yield of the government, inhibits increase of capital or extra deposits which could increase the return. These measures were tested in other countries with limited result of the programme. In order to evaluate this controlling mechanism, studying the international examples, it can be stated that the venture capital programmes of the countries using solutions like JEREMIE are not successful (e.g. Germany).

If the owner of the venture capital fund gets management rights it is to be feared that other aspects become conspicuous against market and economic interests. It is especially true for the state as investor that assures intervention right in investment decisions for itself among the terms of the contract therefore it shall be rendered possible that interests of economic policy crowd out market interests (like in case of other countries, e.g. USA). It will not support, even hinder expected market effects.

Before assuming that only the Hungarian government does not execute classic placement of venture capital or that above described phenomena describe typically Hungary I find very important to examine the countries of the region and their activities on the venture capital market as a ground for comparison. I suppose in my hypothesis that *the international models of venture capital investments do not reflect either the expectations of the economic players (H4)*. In the study I used the statistical data and analysis of EVCA, the biggest European institution, a detailed study of Judit Karsai from 2008, and studies published recently that analyse and evaluate the different methods of intervention related to the governmental venture capital programmes carried out.

These data show that Hungary ranks in the average group of Europe in the field of legal and administrative terms of venture capital investments, regarding the regulation it belongs to the forefront. Every author raises the attention to the harmony of market phenomena highlighting that international fund management companies treat Central-Eastern Europe as a whole in respect of risk.

Certifying the fact that beginner countries on the venture capital market - such as Hungary today and previously Germany - have to face with similar problems, I found very important to present the example of Germany who took an advantage by increasing the liquidity of capital markets which could be a possible solution.

Among international experiences I highlighted two countries that realized successful governmental venture capital programmes therefore they could be good examples for the future.

### **Results of the research**

New scientific results of my dissertation are as follows:

- Detailed analysis of distortion effect of direct state intervention in terms of venture capital market which is proven by primary research
- Results of the research show that venture capital investments financed by the government do not comply with certain immanent principles of the definition on venture capital
- Stated specialities of Hungarian venture capital programme of which imperfect operation is reported in the scientific literature
- List of possible weak points of the Hungarian JEREMIE-programme in the future in case of unchanged implementation (in the frame of ex ante evaluation).
- Operation of the venture capital market in regional and international relation and its phenomena in the relation of governmental participation

Further topic of the research could be the monitoring of the JEREMIE-programme and the effect of indirect governmental interventions to venture capital sector. Improvement of competitiveness of the European Union is still a priority therefore the promotion of venture capital investments boosting economy and creating new workplace shall remain an issue of the Union.

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## **6. Author's Publications and Conference Presentations Relating to the Topic**

Publications:

**Kovács Balázs:** A regionális operatív programok lehetséges szervezeti modelljei 2007-13 között; Ma és Holnap, 2006. vol. VI. no. 3

**Kovács Balázs:** Regionális partnerség és együttműködés; A Falu; 2006. no. I.

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**Kovács Balázs:** Financing SME's in Hungary, with special attention on venture capital; Conference Paper, Business Sciences Symposium for young researchers, November 16, 2007, Budapest

**Kovács Balázs:** Financing SME's in the EU and in Hungary, with special attention on venture capital; Conference Paper, International Batas Conference, April 10, 2008, Zlin, Czech Republic

**Kovács Balázs:** Hungarian State on Venture Capital Market; Conference Paper, International Batas Conference, April 2, 2009, Zlin, Czech Republic

**Kovács Balázs:** A magyar állam a kockázati tőke piacán; Fial Regionalisták VI. Országos Találkozója, Győr, June 4-5, 2009

**Kovács Balázs:** Kérdések a JEREMIE Program kapcsán; Ma és Holnap, 2009. vol. IX. no. 3.

**Kovács Balázs:** Állami kockázati tőke – és magántőke – részvétel a történelmi városközpontok rehabilitációjában, Conference Paper, Savaria Urbanisztikai Nyári Egyetem, Szombathely, August 3-8, 2009

**Kovács Balázs:** Innovation financing with venture capital. Právi ROZPRAVY 2011. Evropské Právo. ISBN 978-80-904877-0-3.

**Kovács Balázs** – Glavanits Judit: Az állam részvétele a kockázati tőkefinanszírozásban. Savaria University Press, 2011 under publication

Conference presentations:

**Kovács Balázs:** Az I. Nemzeti Fejlesztési Terv felhasználásának tapasztalatai; Fial Regionalisták IV. Országos Találkozója, Győr, November 13-14, 2004

**Kovács Balázs:** Regionális partnerség és együttműködés. Út az innovatív helyi társadalom felé; Átalakulási folyamatok Közép-Európában Konferencia, Győr, December 2-3, 2005

**Kovács Balázs:** Financing SME's in the EU and in Hungary, with special attention on venture capital; International Batas Conference, April 10, 2008, Zlin, Czech Republic

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