

Venture Capital industry emergence in transition economies

– Polish experience

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Abstract

Although there is consensus on the increasing role of emerging and developing economies in global markets, the literature on the mechanisms contributing to their growth remains still limited. The research aims to contribute to knowledge by exploring and understanding the process of transformation from a centrally planned economy into a market based economy. This transformation process is analysed from the perspective of a Venture Capital industry emerging and developing in Poland. The research focuses on the dynamics of particular factors and their impact on a specific set of stakeholders.

In order to take a sufficiently broad contextual view, an organizational theory approach was employed. The Venture Capital industry was treated as a community of organizations which are connected by direct or indirect relationships. The interpretative framework was provided by two leading organizational theories: Institutional theory and Resource Dependence theory.

The research is qualitative, and is guided by a specially designed framework for collecting and analysing the data. The primary data were collected through semi structured interviews with Venture Capital industry stakeholders of different types, and with different roles in the process.

The research contributes to knowledge at three levels. Firstly, it addresses the literature gap on emergence of the Venture Capital industry in Poland. Secondly, it contributes to an understanding of the process of the emergence of a Venture Capital industry and economic transformation. Thirdly, findings may contribute to policy recommendations formulated to accelerate effective development in financial services.

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1. Chapter 1

1.1. Introduction

In terms of the economic world map, only 34 out of the 188 countries regularly monitored by the International Monetary Fund are classified as 'developed economies'. The rest, constituting a sizeable majority, are referred to as 'emerging and developing' economies (IMF, 2012). The global economic and political contributions of emerging and developing economies have been systematically increasing over the last twenty years. While the GDP growth of advanced economies was oscillating around 3 percent per year in the period of 1994 - 2008, the emerging and developing economies were routinely reaching growth levels of 7-8 per cent per year. Moreover, during the Global Financial Crisis in 2008 emerging and developing economies kept growing in contrast to the most advanced economies (IMF, 2012:190). Countries such as China or India became world class players on the global market. China's current account surplus is estimated at \$305B, whereas the United States current account deficit at the same time reached the level of \$471B (The Economist, 2012).

The emerging markets are perceived as a source of talent, capital and companies. Inhabited by 80% of the world population (The Economist, 2012) they provide globally significant sources of both workers and consumers. Due to the increase of more consumer oriented industries, and an increasing focus on innovation, they are becoming a serious competitor for western corporations (Arindam Bhattacharya, 2012) as well as an important employer for western workers. For example, in the UK, the Indian TATA group employs 50,000 workers in 19 companies¹. Five out of the

¹ TATA web page: <http://uk.tata.com/tatauk/inside.aspx?sectid=+XTJ2tXAgdE=>

twenty most innovative companies in the world, according to Forbes², originated in emerging and developing economies. In terms of financial markets' performance, the emerging economies have joined the high performing world class of financial providers. In the period of 2006 – 2010 they generated nearly 40 percent of global growth of banking assets (in absolute numbers). Also the insurance industry recorded significant growth in income through premium payments (World Economic Forum, 2012). Economic forecasts indicate this trend of the rising contribution from the emerging economies will last for several years to come (Kraemer-Eis, Lang, & Gvetadze, 2013). This suggests that the social and economic potential of those countries which grow most rapidly, will allow them to catch up quickly with the advanced economies (Ernst & Young, 2011).

Although emerging and developing economies share some characteristics: such as steady economic liberalisation as well as introducing business friendly policies and attitudes (Ernst & Young, 2011), there are also significant differences between them. In this context, the central eastern European countries form a specific category. These countries went through a multilevel transformation process in a relatively short time, i.e., circa 15 years. They changed from centrally planned socialist systems into functioning market economies. Some of them, such as Poland, Hungary, the Czech Republic and Slovakia, managed to fulfill both economic and political requirements to join international organizations alongside the developed countries. The transformation process required not only an economic shift but also fundamental societal alteration (Smallbone & Welter, 2001). These societal changes had to include new legal frameworks, which allowed and protected private ownership of the means of production, thus allowing the principle of a free market to be implemented.

² <http://www.forbes.com/innovative-companies/list/> (07.02.2013)

Additionally a set of behaviours, that cannot be simply regulated by law, but are essential for a functioning legal structure, has had to evolve.

Although there is consensus on the increasing role of emerging and developing economies on the global market (Arindam Bhattacharya, 2012; Lamy, 26 November 2012: World Economic Forum, 2012) the literature on the mechanisms contributing to their success remains still limited (Hoskisson, Eden, Lau, & Wright, 2000). This research hopes to contribute to the alleviation of this dearth of both data and analysis. It is going to concentrate on mechanisms identified at work in the group of Central Eastern European³ countries. It aims to explore and understand the process of transformation from a centrally planned economy into a market based economy. The research focuses on the dynamics of specific changes and their impact on identified stakeholders in the transforming economy. One of the fundamental needs in the transformation process is the creation of a private sector, where entrepreneurs are freely allowed (or more accurately, not frustrated in their actions) to establish their own businesses (Smallbone & Welter, 2001). However the emerging economy context in which entrepreneurs establish and run their firms differs from that of mature western economies. For the former, the economic, political and culture environment is distinguished by a high level of ambiguity, uncertainty and turbulence (Welter & Smallbone, 2011), which influences the entrepreneurial behaviour (Smallbone & Welter, 2006). Therefore, an understanding of the context is crucial for a full understanding the whole process. The focus on environment has already

³ The selection is based on political background rather than strict geography. It refers to the post-Yalta order which created a 'strong dichotomy by submitting under the label Eastern Europe all parts of historic Central, Easter-Central and South Central Europe that after 1945 came under Soviet domination.' Countries referred to as CCE Europe are: Estonia, Latvia, Lithuania, Poland, Czech Republic, Slovakia, Slovenia, Hungary, Romania and Bulgaria Berglund, S., Ekman, J., & Aarebrot, F. H. (Eds.). 2004. *The Handbook of Political Change in Eastern Europe, Second Edition*: Edward Elgar Publishing.

proved to be useful in entrepreneurship studies both referring to the advanced economies (Kenney & Burg, 1999; OECD 2009; Saxenian, 1996; Van De Ven, 1993) as well as the emerging economies (Smallbone & Welter, 2006; Welter & Smallbone, 2011).

For the purpose of the following research, two leading theories are used to provide the interpretative framework. The 'Resource Dependence' theory (Pfeffer & Salancik, 1978) and the 'Institutional' theory (North, 1990). Both of the theories concentrate on the dynamic aspects of the researched phenomena. The resource dependence theory highlights the requirements for organizational survival; the Institutional theory provides deeper insight on how those requirements are identified, constructed and managed. Use of the latter theory allows the research to bring such 'softer' contextual issues such as culture, the legal environment, tradition and history into the analysis to balance and complement the more highly specified resource centred analysis (Bruton, Ahlstrom, & Han-Lin, 2010).

Whether or not an organization will survive depends in part on its ability to obtain and maintain resources from the external environment. Although the environment is a source of constraints, effective managers are able to actively shape relationships with it. Managers' actions are led by their understanding and interpretation of their particular environment (Pfeffer & Salancik, 1978). From these assumptions, it follows that environment is 'socially constructed'. To better understand how the environment is constructed, Institutional theory is applied. According to this approach all entities operate in an 'institutional environment that defines and delimits social reality.' (Scott, 1987:507). Institutions are defined as constraints that human beings impose on human actions (North, 1990). They might be either formal, expressed as legal

rules, or informal, articulated though norms and conventions. Organizations are perceived as groups of individuals bound by the same common objective (North, 1990). According to North (1990) the existing organizations as well as their actions are influenced by the set of institutions. However institutions, as human driven entities, also change over time and space. Thus, the interaction between institutions and organizations shapes economic activities. The existing set of institutions depends on learning processes of individuals and organizations. The process of creating and reshaping institutions is incremental and path dependent (North, 1990).

Due to the character of PhD research, the scope of investigation had to be narrowed. Therefore the transformation process is analysed from a single country perspective, and Poland has been chosen as the case. Poland is the largest economy in the Central European region, and it has experienced major institutional changes in the last twenty years. Additionally, it has been the first country to start the process of transformation, and thus served, to some extent, as a blueprint for other countries in the region. By leading the wave of changes in the region, as well as experiencing a wide scope of changes, both economic and social, the Polish case is believed to provide results that are likely to be mature earlier and provide insight sooner than in the case of other countries. The study is helped by the fact that the researcher is a native Pole and is resident in Poland. However, it is hoped that the lessons learned from the Polish example may be seen as having a wider and more generic relevance than to one European country in transition both in theory and practice.

Further the transformation process is going to be observed from the perspective of one industry – that of Venture Capital. This industry has been selected as an example of organizations that were uniquely originated and developed in advanced

economies, thus are aligned with free market institutions. Venture Capital is a complex phenomena, which can be seen as a cycle that processes though the fund raising of a venture fund, selecting and supervising deals, and finally exiting the deal and returning capital to the investors (Gompers & Lerner, 2004). At each of these stages strong institutions are required for its effective operations. The research concentrates on the emergence and development of the industry, especially on the institutional aspects of this process. The principal lines of inquiry of the investigation are related to the changes in the institutional environment. Accordingly, economic and performance analyses of Venture Capital firms are only presented in outline in order to provide context. The experience of Polish Venture Capital industry is going to be contrasted with its genesis and evolution in other countries particularly the US and UK, which are seen as world leaders in this financial services sector.

1.2. Aims and objectives of the study

It was explained in the previous section how the growing importance of emerging economies in the global market justifies a close examination of specific cases in these economies, to allow existing theory to be tested, re-evaluated, and modified, where necessary. The research aims to analyse aspects of the transformation process in Central and Eastern Europe arising from the collapse of the regional hegemony of the Soviet Union. Transformation is characterised by a wide range of economic, political and social changes. The main elements of the transformation process include the creation of a private sector, liberalisation of markets, and the establishing of market institutions (Smallbone & Welter, 2001), additionally, there is a contemporaneous background of deep, and, often dislocating, social changes. The social context inherited from the soviet period affects attitudes and behaviours both of the entrepreneurs, and the society at large (Smallbone & Welter, 2001). The

research focuses on the dynamics of specific changes and their impact on a specific set of stakeholders in the transforming economy. The research applies a single country case (Poland) and concentrates on one aspect of transformation, that is, the emergence of a Venture Capital industry as a key part of the creation of a Private Sector. Venture Capital is a highly specialized intermediary that invests in technologically innovative firms. By providing both financial and managerial support to new companies Venture Capital indirectly plays a role in technological and economic development of a country (Timmons & Bygrave, 1986). Venture Capital could be seen and described as an indicator of wider economic change.

The analysis concentrates on the emergence and continuing development of the Venture Capital industry in Poland, with a principal focus on changes taking place in the institutional environment. By exploring the emergence of a Venture Capital industry it is expected that it will be possible to better understand the impact of economic transformation on specific stakeholders. The diverse academic literatures on the Venture Capital industry concentrate their analyses on issues relating to developed economies, with a primary emphasis on the functioning and evolution of the US Venture Capital Industry (Bruton, Ahlstrom, & Puky, 2009; Bygrave & Timmons, 1992; Gompers & Lerner, 2004) and, to a lesser extent, the Western European markets, particularly the UK (Bottazzi, Da Rin, & Hellmann, 2004; Bottazzi, Rin, Ours, & Berglof, 2002; Gilson, 2003, Murray and Lott, 1995). In these regions, the implications and experience of enterprise policy is well understood. However, recently the academic focus is starting to shift. Gradually more attention is given to emerging economies (David & Garry, 2006; Lingelbach, 2013; Lingelbach, De La Vina, & Asel, 2005; Scheela & Van Dinh, 2004), although very significant asymmetries still remain in the literature. Within the global trend, currently, academic

research is shifting more toward Asian Venture Capital markets, rather than Central and Eastern Europe (CEE). Treatment of the emergence of venture capital in transition economies of CEE is decidedly weak and ‘the industry development processes in these markets are not well understood’ (Klonowski, 2005:332).

The research aims to contribute to academic knowledge in the following ways. Firstly, it addresses the literature gap by supplementing the currently limited knowledge of the emergence of a contemporary Venture Capital industry in Poland. In particular, the role of Poland’s recent membership of the European Union (since 2004) in stimulating this development is considered and examined. Secondly, and more fundamentally, the research contributes to an understanding of the processes of the emergence of a Venture Capital industry in economies which undergo profound structural and economic transformation.

At the level of theory it contributes by applying a combination of Resource Dependence theory and Institutional theory as the leading frameworks for understanding the process of emergence and development of Polish Venture Capital industry. Such a combination allows the capture of multilevel perspectives as well as including the social and historical context in the research.

Pioneers in newly established industries face multiple threats, which arise both from economic trade-offs as well as from the lack of both cognitive and socio-political legitimacy for the new enterprises (Aldrich & Fiol, 1994). However, the social context may also serve as a source of opportunities for entrepreneurial activities. Due to the ‘isomorphic’ process described by DiMaggio and Powell (1983) organizations operating within the same field became more similar to each other over time. Therefore the first successful entrants may serve as a ‘blueprint’ for followers

thereby establishing what becomes a widely accepted conduct of behaviour i.e. a 'dominant design'. And thus in turn allows opportunities for radical change.

In the West, especially in the US market, Venture Capital was created by practitioners. Looking at the historical perspective, the modern Venture Capital industry developed in the 1930s and 1940s in the US from the initiative of wealthy Americans. The first professional firm, American Research & Development (ARD) was established in the 1946, with the goal of financing the commercialization of technologies that were developed during World War II. The aim of the ARD, was to add value to the companies they backed by providing industry and management expertise along with finance. ARD is believed to have established the standard Venture Capital paradigm (Gompers, 1994) which later spread across other advanced economies.

A theoretical understanding of Venture Capital behaviour arose ex post and was of interest to academics rather than Venture Capital users. In contrast to the mature Western market economies, in the transforming Central and Eastern European countries, it is proposed that Venture Capital emergence and development cannot be fully described using just the existing dominant agency theory.

For a more complete understanding of the state of knowledge about the studied phenomena we can employ two axes: a conceptual axis and a contextual axis, with the latter being the less developed. On the conceptual axis Venture Capital is already probably fully described for the Western experience, although further development may be needed to accommodate the new conditions arising from the geographical and political contexts that the research is addressing. On the contextual axis, the economic and social conditions of transitioning economies in

central Europe are very different from what was observed in the USA and Western Europe. This disparity between theory and practice may create both new threats as well as new opportunities for start ups created in Central and Eastern Europe. Consideration of the potential dynamics of the processes governing the emergence of a Venture Capital industry leads to the following research questions:

- Given the continuing legacy of their Soviet influenced histories, how effectively can Central and Eastern European economies match or exceed the development trajectory of established Western countries (particularly the USA and UK) in the formation of a successfully operating national Venture Capital industry.
- How able are countries of Central and Eastern Europe to learn from the Venture Capital industry experiences of developed Western economies in order to accelerate their industry development.
- How do the existing institutions shape the process of emergence and development of the Venture Capital industry in Poland? To what extent do the institutions constrain or foster the application of a 'Western' model of Venture Capital.
- In light of Central and Eastern Europe's history, what does the process of 'Venture Capital industry emergence' look like? What are the inhibitors to rapid implementation of a new service based sector in this transitioning economy context?

- Can existing theories on industry emergence, and the structure, conduct and performance of financial services, help illuminate the context, practice and thus opportunities in the target country (Poland).

It is believed that better understanding the process of Venture Capital industry emergence and development in Poland will provide deeper insight on the impact of institutional changes, during a transformation process, on various stakeholders in the private sector.

At the methodological level the research contributes by creating a tailored made template, eliciting and grouping the factors influencing the emergence and development of a Venture Capital industry. The template leads further data collection and analysis.

At the practical level the research findings may contribute to policy recommendations formulated to accelerate effective development in financial services in Poland and possibly in other transitional countries, which have comparable political backgrounds. This latter emphasis on pragmatic and practitioner value from academic research has become a policy focus in the UK and other countries, the new theme of evidenced based research is popular with governments because it meets the demand for more detailed justification of policies.

The research is organized in the following order. The second chapter provides a literature review on Venture Capital and indicates existing gaps. The third and fourth chapters discuss the theoretical framework used for data analysis and the applied methodology respectively. The fifth chapter presents and discusses the data collected. The report concludes with further discussion on the results of the research

and its implications both for other regions and for the wider academic study of economies in rapid transition.

2. Chapter 2

2.1. Literature review

The first chapter introduced Venture Capital industry emergence and development in Poland as the central focus of the research. Before discussing the Polish context, the second chapter provides a literature review on the Venture Capital industry in the western context. The leading perspective is through the US industry lens, as it is the best documented industry. The European Venture Capital industry is also included and when appropriate contrasted with the US one.

2.2. What is Venture Capital?

The complexity of the Venture Capital industry can be seen from the variety of different definitions present in the literature. A coherent definition is provided by Lerner (2001) and describes Venture Capital as *'independently managed, dedicated pools of capital that focus on equity or equity-linked investment in privately held, high growth companies'* (Lerner, 2009:6-7). Gilson (2003), on the other hand, highlights the intermediary role of Venture Capital defining it as *'providing a unique link between finance and innovation, providing start-up and early stage firms (...) with capital market access that is tailored to the special task of financing these high-risk, high-return activities.'* (Gilson, 2003:1068). Da Rin et. al. all indicate Venture Capital's role in the creation and of growth of innovative, entrepreneurial companies (Da Rin, Nicodano, & Sembenelli, 2006).

Despite the lack of a legal or regulatory definition (Amit, Brander, & Zott, 1998; Brander, Amit, & Antweiler, 2002; Hellmann, 2000) there are three specifying features of Venture Capital highlighted in the available definitions. Firstly, Venture Capital is professionally managed money. Venture Capitalists invest on behalf of a set of investors following a defined protocol. Secondly, the investment has got equity

or equity-like character. Thirdly, the targeted companies are at the early stage of development, high-technology oriented and with growth potential (Hellmann, 2000). It has to be highlighted that Venture Capitalists do not provide finance to commonly understood 'small business', as Hellmann (2000) indicated, they invest in 'infant giants'.

Venture Capitalists operate in an environment dominated by uncertainty, information asymmetries and agency costs (Gompers & Lerner, 2001).

Uncertainty, which should not be confused with risk, refers to the '*measure of the distribution of possible outcomes for a company or project. The greater the uncertainty, the wider distribution of potential outcomes*' (Gompers & Lerner, 2001:23). Venture Capitalists face multiple sources of uncertainty, such as towards their own development possibilities, the market, or the industry in which their portfolio companies operate.

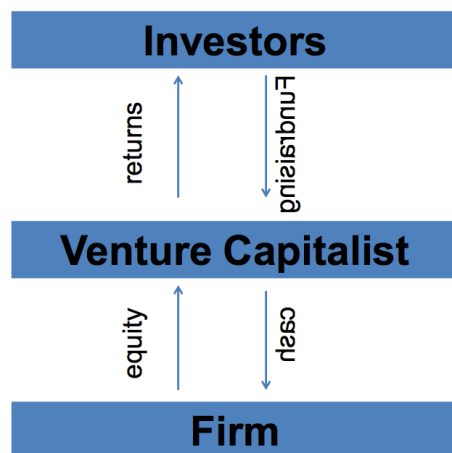
The information asymmetries represents the difference in knowledge that stockholders have about the company's internal workings and prospects, market trends and other information important for investment decisions (Gompers & Lerner, 2001). Venture Capital is particularly exposed to the problem of information asymmetries when investing in a portfolio company which is involved in cutting-edge technology (Gilson, 2003). Presence of information asymmetries encourages opportunistic behaviours and thus generates agency costs.

What distinguishes Venture Capital from other means of financing for young firms is its structure, which by combining the financial 'hard' skills with non-financial 'soft' skills allows effective management of the environmental features outlined above.

A simplified overview of the Venture Capital process is presented in Figure 1, and followed by detailed explanation.

Figure 1: An overview of the Venture Capital process

An overview of the Venture Capital process



Source: adapted from (Gompers & Lerner, 2004) p. 9

The Venture Capital process can be portrayed as a cycle. The process begins with raising funds, is followed by an investing phase, monitoring and adding value to firms. It continues with the Venture Capitalists' exit from successful deals and return of capital to their investors. The process renews itself with the Venture Capitalists raising additional funds (Gompers & Lerner, 2004).

Following the US model, within the first stage (raising funds), institutional investors, such as pension funds, insurance companies, endowments and foundations, invest into a 'Venture Capital Partnership', often referred as 'Venture Capital funds'. The

investors are passive limited partners (LP) and provide the vast majority of capital. The general partner (GP) is typically a company itself, consisting of investment professionals. The general partner contributes to the fund by providing expertise, thus its capital contribution is minimal⁴, however, it receives almost complete control of the fund. The general partners, as already pointed out, are professional firms. Those firms aim to operate on the Venture Capital market by continuously raising new funds (Gilson, 2003). The general partner receives an annual management fee for provided services and carried - interest (a specific percent of profits realized by the partnership) (Gilson, 2003).

At the later stage (the investing phase) the Venture Capital partnership enters into contracts with entrepreneurial ventures (Sahlman, 1990). However, before the particular portfolio company is chosen the Venture Capitalist employs a thorough screening and due diligence process (Gompers & Lerner, 2001). When the best deals are selected the Venture Capital fund enters the investment stage. Venture Capital funds' engagement typically takes the form of convertible preferred stock. A common practice is so called 'staged financing'. The supply of assigned funds is divided into tranches and released in stages based on receipt of new information about the project and the achievements of certain project milestones (Gompers & Lerner, 2001).

The staged financing is one of the monitoring methods applied by Venture Capitalists. Other forms of 'active' control take form of regular evaluation of financial reports, sitting at the board of directors, and shaping and recruiting the senior management. Venture Capitalists also sometimes participate in developing the

⁴ According to (Gilson 2003) the general partner contribution to the Venture Capital funds is one percent of the total capital

business plan, assisting with acquisitions, facilitating strategic relationships with other companies or designing the compensation system for employees (Kaplan & Strömberg, 2001). The intensity of monitoring is related to the expected agency costs. The higher the expected agency costs, the more intense monitoring applied. Such features as intangible assets, the higher market to book ratio and R&D intensity are expected to increase the agency costs (Gompers, 1995).

Another mechanism applied by Venture Capitalists to avoid opportunistic behaviours on behalf of all partners is a complex compensation system. For example the management teams salaries are tightly connected with the performance of the portfolio company by decreasing the level of fixed salary in favour to increasing the level of stock and option grants as a proportion of the compensation. Similarly entrepreneurs' compensation aims to encourage them to optimize performance. The stock or options received by entrepreneurs may be accompanied by a vesting schedule of three to four years, which discourages them from leaving the company for new opportunities. Additionally, contracts may contain regulations which keep the entrepreneur from performing stock splits, issuing special dividends, or selling equity to other parties at a lower price than the Venture Capitalist paid (Gompers & Lerner, 2001).

The exit phase is critical for ensuring returns for investors and raising additional capital (Gompers & Lerner, 2004). A typical limited partnership agreement terminates after 7-10 years. By this time the deals with portfolio companies have to be liquidated. The exit by the Venture Capitalist from a particular portfolio investment provides an important benchmark for the capital providers. It represents both the managerial skills of Venture Capitalist and the profitability of Venture Capital

compared to other investments (Black & Gilson, 1998). Although, the Venture Capitalist has got several options to exit a deal, such as an Initial Public Offering (IPO), acquisition, secondary sale, buy-back or write-off; the IPO and acquisitions provide the most desirable options (United Nations Economic Commission for Europe, 2007). Thus the presence of developed stock markets is perceived as one of the crucial factors for an active Venture Capital industry (Black & Gilson, 1998; Da Rin et al., 2006; Gompers & Lerner, 2004).

A successful end of one Venture Capital cycle will start a new cycle. Although, the careful design and set of techniques applied are believed to make Venture Capital particularly well suited to nurturing young companies operating in cutting-edge industries, they simultaneously slow down the industry's abilities to adjust to market changes in the supply of capital or demand for financing. The long adjustment periods required within the Venture Capital industry generate a challenge for policy makers. The introduced regulatory and policy shifts may take years to be reflected in the changes in the industry (Gompers & Lerner, 2004).

2.3. Overview of Venture Capital industry in the US and Europe

The US Venture Capital industry

The foundation for the modern Venture Capital industry was established in the United States in the 1920s and 1930s. The prototype was established by wealthy families and individuals, who invested into start-ups, some of these became famous later, such as Eastern Airlines, and Xerox (Bygrave & Timmons, 1992; Gompers & Lerner, 2001). In 1946 the MIT president together with a Harvard Business School Professor and local business leaders established American Research and

Development (ARD) with an aim to commercialize the technology developed during the Second World War. It was the first firm, in contrast to previously individual personal initiatives, providing funds for new and rapidly growing firms. ARD had the legal structure of a publicly traded closed-end fund. Although this structure had drawbacks it was determined by the preferences of institutional investors who were reluctant to invest into a different type of company. ARD can be perceived as the first professional Venture Capital firm and a blueprint for later industry development because it demonstrated the classical Venture Capital attitude. It used only equity for financing, invested for the longer term, and was prepared for accepting losers and negative cash flows in the short term (Bygrave & Timmons, 1992).

In 1958 a structure of Venture Capital Limited Partnership (LP) was introduced. The first Venture Capital Fund which applied this legal form was Draper, Gaither & Anderson. Such a structure allowed the fund to avoid security regulations and disclosure requirements. Later some funds have followed this legal construction, however, the Venture Capital Limited Partnership did not become popular until the 1970s (Gompers & Lerner, 2001).

A significant milestone in industry development is related to the creation of Small Business Investment Companies (SBIC) by the Small Business Administration (SBA) in 1958 in the US. It was a government program aimed at creating government-licensed and regulated pools of Venture Capital funds for early stage ventures. Although the funds were public, the investment decisions were left in private hands (Bygrave & Timmons, 1992). Throughout the 1960s SBICs raised significant money and boosted industry growth. Within the first five years of the program 692 SBICs licences were granted providing \$ 464 million under Venture Capital management.

Between 1958 and 1969 it supported small firms with over \$3 billion (United Nations Economic Commission for Europe, 2007). Although, there are no doubts that this project had a positive overall influence on industry development the ease of accessing government money resulted in increased number of new inexperienced entrants who underestimated the challenge of nurturing young, high-tech companies. This resulted in poor performance. By the end of the 1977 the number of SBICs fell to 276. In 1994 the program went through a deep-seated redesign which allowed earlier problems to be overcome and resulted in renewed growth (United Nations Economic Commission for Europe, 2007).

In the 1960s the yearly flow of money into Venture Capital was limited to a few hundred million dollars or less (Gompers & Lerner, 2004). The significant increase in funds raised took place in the late 1970s and early 1980s. The introduction of amendment to the 'prudent man' rule in the 1978 was indicated as the major contribution to such shift in the trend. Previously pension funds were not allowed to invest in high-risk asset classes. The introduced clarification indicated that small fractions of a pension fund portfolio might be invested into Venture Capital. Under the new rule pension funds' commitment to Venture Capital has grown from 15 percent in 1978 to more than half of all contributions eight years later (Gompers & Lerner, 2004).

During the 1980s a series of other legal changes influencing the Venture Capital industry were introduced. The Small Business Investment Incentive Act redefined the Venture Capital firms as business development companies. As result Venture Capital firms did not have to register with Securities and Exchange Commission (SEC), additionally, some of the reporting requirements were taken away. The 'Safe

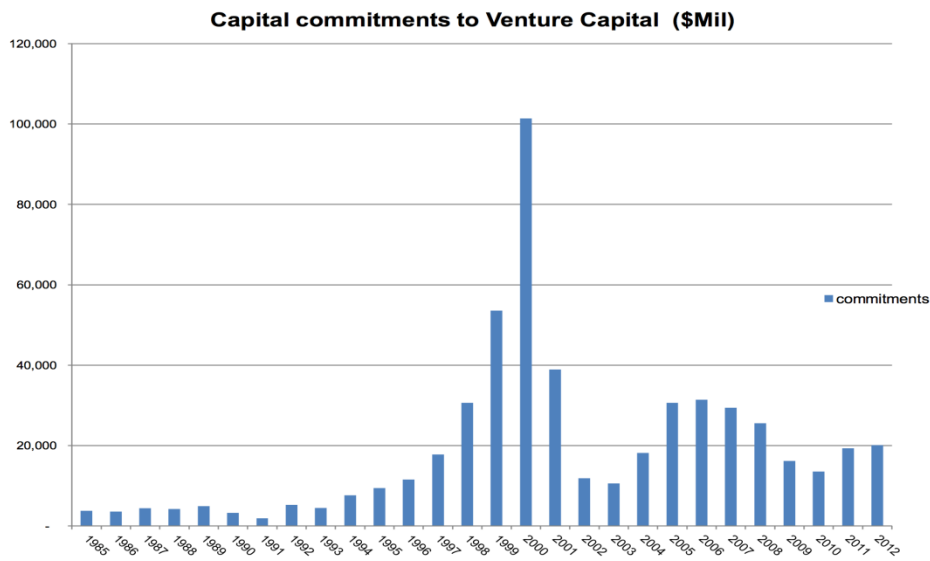
Harbour' regulation indicated that Venture Capital funds managers would not be considered fiduciaries of pension funds assets invested in the pools they managed. Both of those regulations allowed Venture Capitalists more flexibility. The later Economic Recovery Tax Act lowered capital gain tax rate paid by individuals, which resulted in increased inflow of money into the industry (Bygrave & Timmons, 1992).

Simultaneously, the role of financial advisors increased. The financial advisors, also called 'gate keepers', initially created by large institutions such as banks, pooled resources from clients, monitored progress of existing funds and evaluated potential new funds and advised about venture investments. In the 1970s -1980s almost all pension funds invested directly into Venture Capital, whereas in the 1990s almost one third of pension funds invested through advisors.

The changes introduced in 1980s resulted in growth of Venture Capital industry as well as in changes in its structure. The number and size of firms increased, and specialization in investment stage, industry and region became visible. Venture Capitalists also changed the investment strategy turning toward later stage and larger ventures (Landström, 2009).

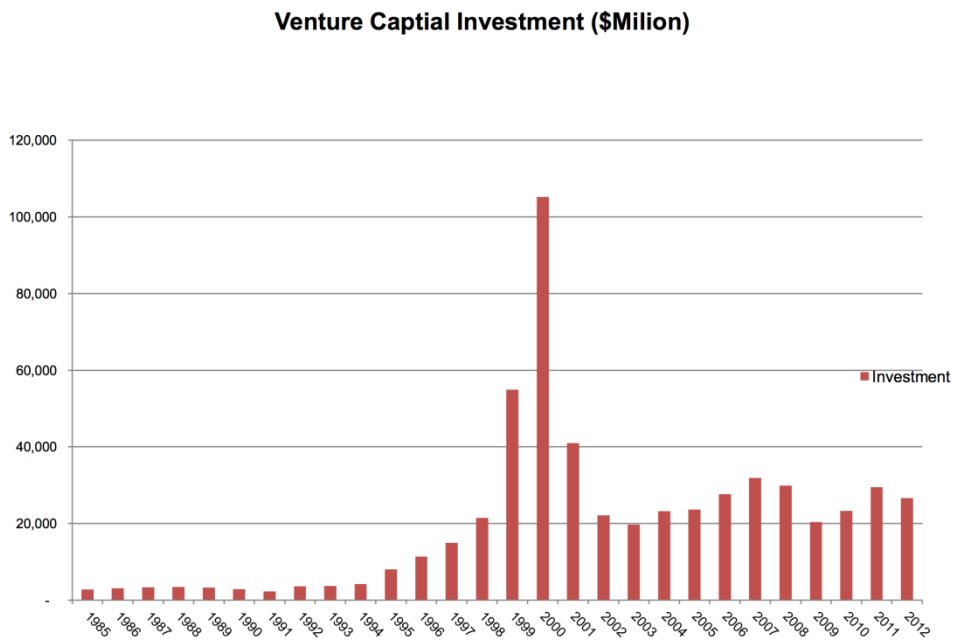
As it could be seen in the figure below, between the 1980s and 1990s the industry experienced ups and downs. The peak of activity both in the amount of raised funds and invested funds was recorded in 2000.

Figure 2: Capital commitments to Venture Capital in the US



Source: Adapted from NVCA

Figure 3: Venture Capital investment in the US



Source: Adapted from NVCA

Due to the *dot.com* crash the industry declined and did not again achieve the numbers of the peak period. Considering the data provided by the National Venture Capital Association, it can be noted that the current state of the industry is reaching about half of the peak era. The number of existing firms in 2012 was estimated at 841 compared to 1089 in the year 2002. The number of existing funds was reported at the level of 1269 in 2012 compared to 2119 in the year 2000. The industry is now dominated by a few large players which can be illustrated by the fact that the ten largest funds represented 48 percent of all the funds raised in the researched year 2012. The remaining share of funds was raised by 173 funds. Venture Capital firms now prefer later stages of financing; seed capital attracts only 3% of investments (compared to early stage – 30%; later stage – 32% and expansion – 35%). Software and biotechnology stay the most popular industries, and California is the most popular region. There were 49 exits reported via IPO (compared to 280 IPOs in 1999). However, the valuation of \$122.3 Billion gives the best result since 1986 (National Venture Capital Association, 2013).

The European Venture Capital industry

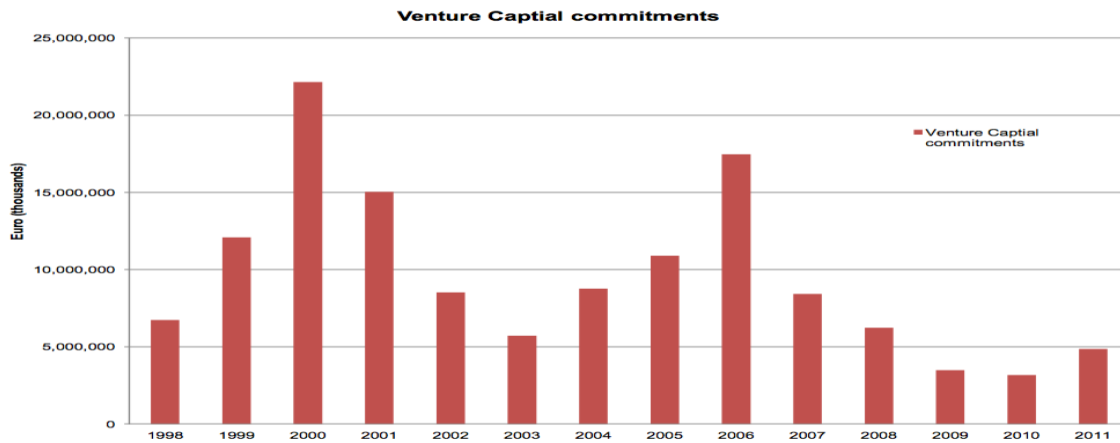
European history of modern type Venture Capital activities is much shorter compared to the US. Until the 1980s no economy except the US had an established industry (Bygrave & Timmons, 1992). Nevertheless, there were some emerging initiatives undertaken by individual companies which invested capital into unquoted firms such as 3i in the United Kingdom, Investco in Belgium or SVETAB in Sweden (Landström, 2009).

The rapid development of the European industry happened during one decade. In 1988 more capital was committed to Venture Capital pools in the UK and Europe than in the US. By the 1990 over half of the all Venture Capital under management worldwide was outside the US (Bygrave & Timmons, 1992). The rapid growth of the industry was linked to the introduction of secondary markets in many of the European countries, which allowed the Venture Capital funds to liquidate their investments through IPOs (Landström, 2009). The industry turned toward merchant capital, with a preponderance of investments into LBOs, acquisitions and expansion phases. The share PE in the years 1986-1989 reached the level of 84% of all capital whereas in the US it was at the level of 66% (Bygrave & Timmons, 1992).

Although there are some general features referring to the European Venture Capital industry it has to be highlighted that there are significant differences among countries. Those differences are even deeper and more visible while comparing the developed economies with the developing economies across Europe.

The following chart illustrates the amount of Venture Capital funds raised between 1998 and 2011. In 2011 the total fund raising, which includes both Venture Capital and Private Equity, accounted for 39.7 K Euro. The share of Venture Capital in the total funds varies across the period. At the peak period in 1999 over 47% of all funds were allocated in Venture Capital. This share has significantly decreased 7% in 2008.

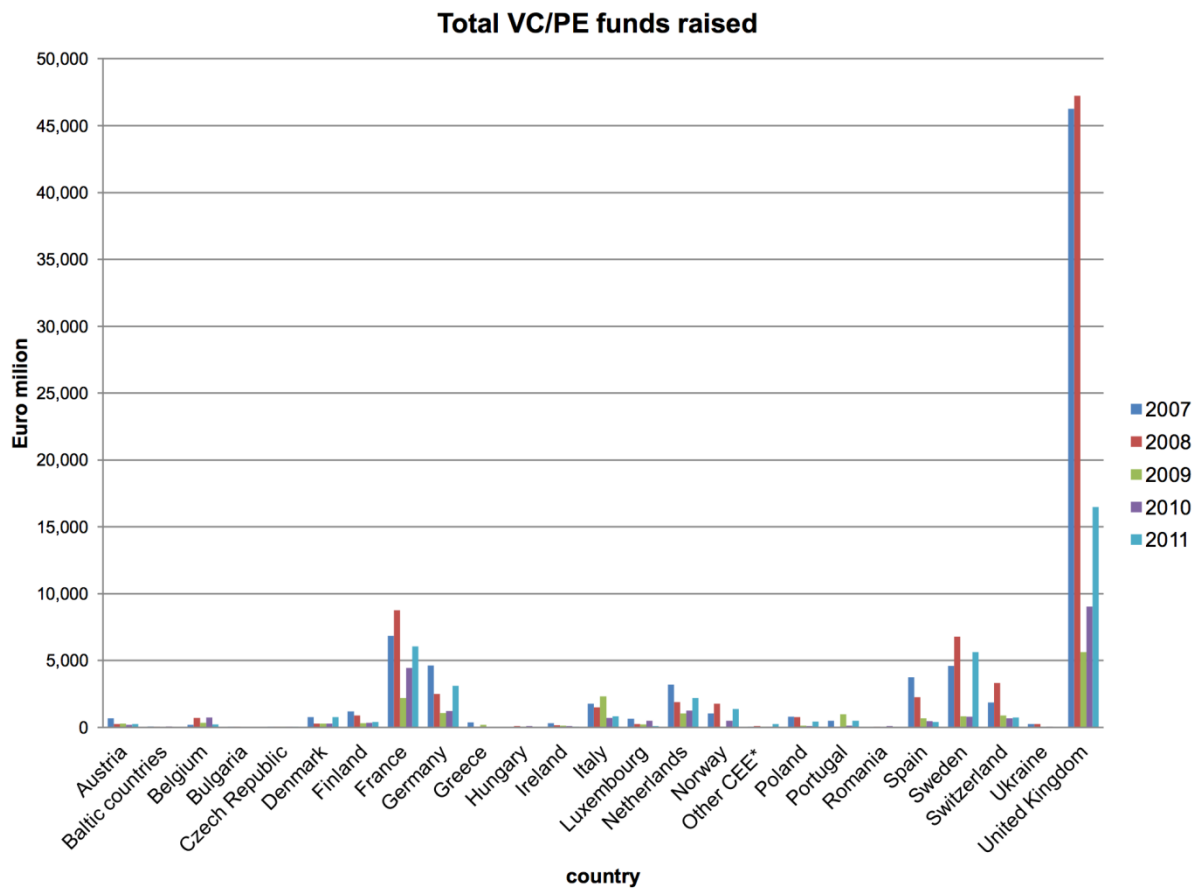
Figure 4: Venture Capital commitments



source: EVCA

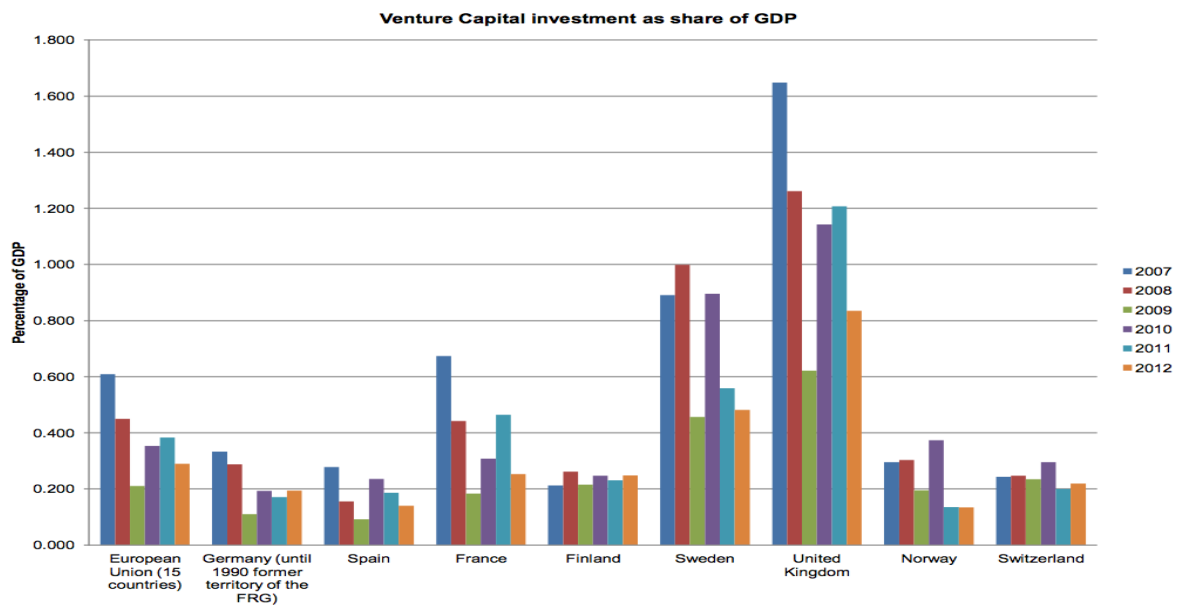
As already indicated the European Venture Capital industry is not homogeneous. While considering the amount of funds raised, as well as investment calculated as percentage of GDP, the performance of the UK industry dominates the rest of Europe. The UK, followed by Sweden, France and Germany, create the core of European industry.

Figure 5: Total Venture Capital/Private Equity raised



source: EVCA

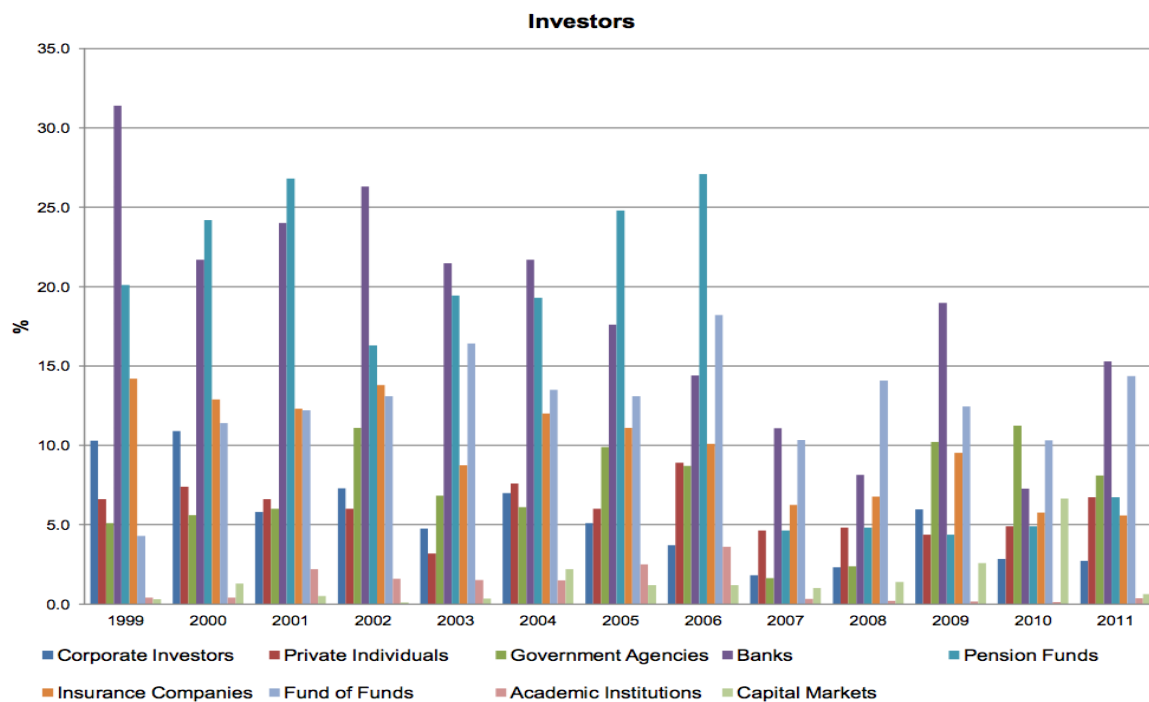
Figure 6: Venture Capital investment as share of GDP



source: EVCA

Considering the structure of investors: banks along with pension funds constitute the major source of funds for the European Venture Capital and Private Equity industries. Compared to the US industry the share of public finance is significant.

Figure 7: Investors in Venture Capital industry

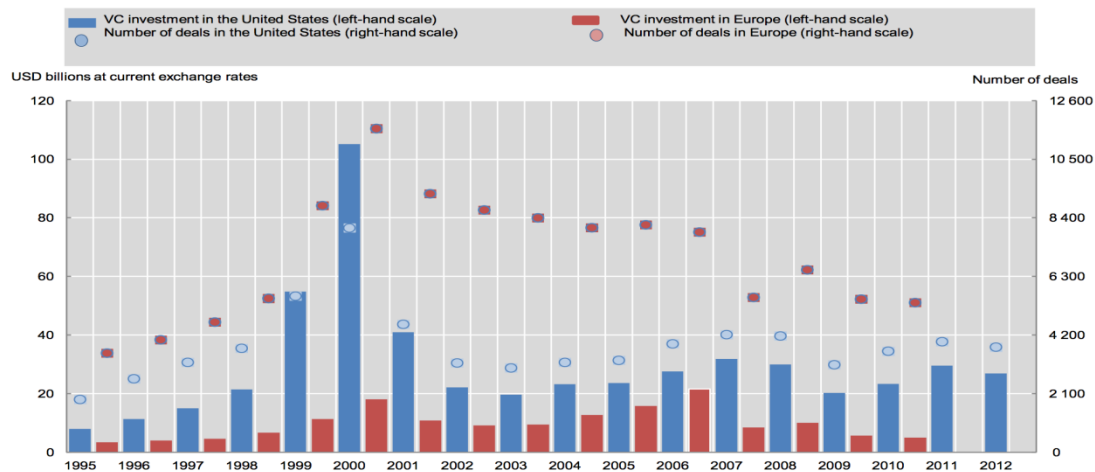


source: EVCA

In contrast to the US, where the Limited Partnership became the dominant legal form for Venture Capital, European funds use a variety of structures. Besides Limited Partnerships these can be public-type mutual funds, join-stock companies, or investment funds. Most of the legal obstacles to fund raising at the European Union level were reduced by 2003 through a set of EU directives. As result pension funds and insurance companies became more open to allocating their capital to Venture Capital. However, differences at the level of individual member nations remain (United Nations Economic Commission for Europe, 2007).

The overall investment pattern in Europe mirrors the US trend, however the amount of investment remains smaller. However, considering the number of deals, Europe exceeds the US, on average the single amount invested per deal is higher in the US than in Europe.

Figure 8: Comparison between the US and European Venture Capital



Source : OECD Science, Technology and Industry Scoreboard 2013 - © OECD 2013

Venture Capitalists continue to prefer investments into companies working in life sciences, computer and consumer electronics and communication. Due to less liquidity than US secondary markets the European Venture Capitalist choose disinvestment by trade sale as the most common exit strategy. This, however results in lower returns on investment compared to the US funds (Landström, 2009).

Moreover, Hege, Palomino, and Schvienbacher (2008) suggested that the lower return on investment recorded by the European funds are due to contracting patterns and frequency of syndication. Also, to the general lower level of sophistication and expertise performed by European Venture Capitalist. This difference between Europe and the US is also influenced by the higher specialisation of US Venture

Capital industry as well as bigger share of corporate investors in US investments. Similar conclusions were drawn by Bottazzi et al (2002) who indicated the dearth of human rather than financial resource as the main problem of the European Venture Capital industry.

Governments' attempts to shape the industry are materialized through the policies they introduce. The US approach and the European approach are different here. The US government approach to Venture Capital industry could be described as enabling the industry to grow rather than promoting it through direct intervention (Hellmann, 2000). The case of Europe is more complicated. Firstly, while considering European policy, it refers only to European Union members. Secondly, within the European Union there are significant differences between individual members. Thus the introduced policies have to be tailored to the specific conditions. Public policy has played an important role in the development of European Venture Capital. The EU level policies aim at improving the environment for early-stage financing. Venture Capital initiatives are implemented mainly through the European Investment Fund (EIF). Despite the significant scale of activities performed by European Union institutions their involvement in the Venture Capital is indirect and the final effects depend on the individual national markets.

The considerable differences in the Venture Capital industry construction and performance between the US and Europe lead to questions about the opportunities to influence and direct the development of the Venture Capital industry.

2.4. Can Venture Capital be engineered?

The acknowledged role of the Venture Capital industry in promoting innovation and growth in the US economy encouraged other governments to emulate the success of Silicon Valley or Route 128. Creation of a 'vibrant Venture Capital industry' became a priority in economic policy worldwide (Da Rin et al., 2006). Alongside the national governments' efforts to craft a vigorous and self sustainable state Venture Capital industry a question 'how to engineer, if possible, the Venture Capital industry?' arose.

The next section presents two aspects of engineering the Venture Capital industry. Firstly, it introduces the 'simultaneity problem' addressed by Gilson (2003). Secondly, presents literature discussing factors influencing the emergence and development of Venture Capital industry.

2.4.1. Simultaneity problem

A Venture Capital industry requires three components to exist simultaneously in order to function. These are:

- Entrepreneurs;
- Investors with funds, who are willing to invest in high-risk, high- return ventures;
- Specialized financial intermediaries to serve as the nexus of a set of sophisticated contracts (Gilson, 2003).

According to Gilson (2003) the problem is that *'each of these three elements will emerge if the other two are present, but none will emerge in isolation of the others'*. (Gilson, 2003:1069). Therefore, in the case when the market forces are not strong

enough to solve the simultaneity problem, when a country is seeking to develop its national Venture Capital industry, government intervention is required. He stresses that the government programs should be focused on providing seed capital and helping to create the necessary financial intermediaries, but not substitute for them. The major reason for earlier failure of government programs was attributed to the governments' efforts to serve as both capital providers and financial intermediaries. According to Gilson (2003) public Venture Capital is not able to substitute for private provision.

The model proposed by Gilson (2003), although it provides a useful guideline, has two main drawbacks for being utilized in other than advanced economies. Firstly, it is based on the assumption that the capital market is already well developed and functioning. This also indicates the need for a range of institutions and an organization supporting the entrepreneurial ecosystem before the actual engineering process starts. Secondly, it assumes that entrepreneurs are solely a function of the availability of funds and specialized intermediaries. It does not discuss in depth the need for entrepreneurial culture as a precondition for Venture Capital industry.

2.4.2. Demand and supply side of Venture Capital

An alternative perspective for analysing factors influencing emergence and development of a Venture Capital industry might be through the 'supply' and 'demand' lenses. The supply of Venture Capital is determined by the willingness of investors to provide funds to Venture Capital firms and it depends on the expected rate of return on investments. Demand is shaped by the quantity of entrepreneurs seeking Venture Capital financing that can supply a particular expected rate of return

(Gompers & Lerner, 1999). This approach allows capturing a broader perspective of components influencing the state of the Venture Capital industry in a particular economy. The same is believed to provide a better benchmark for analysing emergence and development of the Venture Capital industry in developing economies. The following section presents both empirical and theoretical literature on a wide range of factors influencing the supply and demand of Venture Capital. The performance of Venture Capital funds influences their ability to raise new funds (Gompers & Lerner, 1999) therefore determinants of Venture Capital fund performance are also presented. The factors discussed in the literature are grouped into six categories:

- Regulatory framework;
- Market conditions;
- Other organizations;
- Entrepreneurs;
- Venture Capital Fund characteristics;
- Culture

Those categories are later used as a component of a purpose built template used to analyse the Polish Venture Capital industry emergence and development. More information on the template construction is provided in the methodology chapter.

Regulatory framework

The legal system operating in a particular country establishes the fundamental platform for coexistence and cooperation between organizations and individuals. La Porta et al. (2008) points out that the existing legal rules, as well as financial institutions present in a country, are significantly influenced by the origins of the laws. Although there are no two countries with an identical legal framework, there are sufficient similarities in certain areas to allow the identification of separate 'legal families' or 'legal traditions' (LaPorta, Lopez-de-Silanes, Shleifer, & Vishny, 1998). The two broad categories of national systems are the 'Civil Law' and the 'Common Law'. 'Civil Law' is based on Roman traditions. The existing regulations are organised in form of codes and statutes. In contrast the 'Common Law' is formulated on the base of precedence. Each independent decision undertaken by a judge in individual case creates a precedent, serving as an empirical benchmark for further similar cases (LaPorta et al., 1998). Because the original source of both categories of law may be seen as a 'style of social control of economic life' (LaPorta et al., 2008) some general features, characterising each category can be identified. A 'Common Law' tradition compared to a 'Civil Law' approach is perceived as being more protective of outside investors. It represents a lower level of formalism in judicial procedures and judicial independence (LaPorta et al., 2008). Furthermore, the evidence exists that independence of judges and simplified juridical procedures are associated with better contract enforcement and stronger protection of property rights (LaPorta et al., 2008). The prevailing legal system can influence a government's response to new situations. As a generalisation, 'Civil Law' countries are more in favour of direct state control, whereas those where there is a 'Common Law' basis focus on litigation, and market supporting regulations (LaPorta et al.,

2008). The operating legal system, while influencing the existing legal regulations, has impact on the socio-economic environment of organizations. These relationships are shown in the table below:

Table 1: *Legal origins and its outcomes*

	Institution	Outcome
Legal origin	Procedural formalism	Time to collect a bounced check Time to evict non-paying tenant
	Judicial independence	Property rights
	Regulation of entry	Corruption Unofficial economy
	Labour Laws	Participation rates Unemployment
	Company law Securities law	Stock market development Firm Valuation Ownership structure Control premium
	Bankruptcy law	Private credit
	Government ownership of banks	Interest rate spread
	Government ownership of media	

source: adapted from (LaPorta et al., 2008:292)

From the Venture Capital perspective, the existing legal framework can influence strongly the shape and pace of Venture Capital industry development (Gompers, Lerner, Blair, & Hellmann, 1998; Jeng & Wells, 2000). Armour and Cumming (2006) indicated that the legal and institutional variables can have a more robust and stronger effect on a venture capital industry than economic ones.

Venture Capital operates in a complex and subtle network of cooperation with a diverse range of agents, usually during the investment process working to very fast and flexible schedules. The means and aims of the cooperation are often dominated by sophisticated and emerging technologies that generate legal novelties concerning

transfer, or sharing, of ownership and control rights. Above all, these risk capital providers operate in environments of very high risk and uncertainty as to the commercial success of the enterprises supported. These features mean that much more of the general law is relevant to the industry than just routine contract law.

The literature provides rich empirical evidence for the importance of the legal system for the development and operations of Venture Capital industry. Among features most commonly cited in the literature are property rights, corporate governance standards, 'capital gains tax' and other forms of taxation, accounting standards, bankruptcy law and labour market regulations. The following section presents only selected examples believed to portray the situation in the best way.

Analysing the broad picture Hazarika et al (2009) suggested that countries with better legal rights and protection positively influence venture capital success. Presence of better law facilitates faster deal screening and deal organization (Cumming, Schmidt, & Walz, 2010).

It has been recorded that Venture Capitalists employ different strategies for formulating contracts depending on the country's level of contract enforcement. In nations with effective legal enforcement, Venture Capitalists use sophisticated governance mechanisms, employing e.g. preferred stocks. Whereas in countries with low enforcement they have tendency to sign contracts which allow them to gain majority ownership and direct control on the board. Such a policy is employed in order to overcome the contractual protection issues. However, relying on ownership rather than contractual protection provides a lower valuation and return on investment (Lerner & Schoar, 2005). Furthermore, Cumming et al (2010) pointed out that legal origins and accounting standards influence the governance structure of

venture capital investments. High accounting standards, by impacting the reporting behaviours of managers, lead to more accurate valuation of investments (Cumming & Walz, 2010).

From the entrepreneurs perspective strong protection of intellectual property rights reassures them that the venture capitalist will not snatch their idea and encourages them to seek this form of financing (Ueda, 2004).

Analysing country specific features that makes them attractive to Venture Capital/Private Equity investments the 'Investor protection and Corporate Governance' along with developed capital markets are perceived as having the greatest influence (Groh, von Liechtenstein, & Lieser, 2010).

The tax regulations affect a Venture Capital industry both on the demand and the supply side. Gentry and Hubbard (2000) indicated that tax policy influences the entrepreneurial behaviour in particular entry decisions. They found out that progressive marginal tax discourages entry into entrepreneurship.

Gompers et al. (1998) highlight the significant influence of tax rates on the activism of the US Venture Capital industry. Decreases in capital gain tax rates are associated with greater Venture Capital commitments. A similar situation is observed in Europe where reduction of corporate tax influenced positively the share of high – tech and early stage investments (Da Rin, Nicodano, & Sembenelli, 2006).

Armour and Cumming (2006) analysed factors influencing the demand and supply for venture capital financing. They concluded that a liberal bankruptcy law stimulates entrepreneurial demand for venture capital finance.

Based on the European experience, reduction in labour regulation resulted in higher share of high – tech investments (Da Rin et al., 2006). Jeng and Wells (2000) indicated that labour market inflexibility has a negative influence on early stage venture capital investing.

Market conditions

One of the dimensions of the environment in which Venture Capital firms operate is the macro-economy. Venture Capital has a cyclical nature and responds to the changing conditions of the public markets (Lerner, 2002).

The literature indicates well developed financial markets (Gilson & Black, 1999; Jeng & Wells, 2000), growth in gross domestic product (GDP) and technological opportunities (Gompers et al., 1998; Romain & van Pottelsberghe, 2004) as the proxies for Venture Capital activity.

Gilson and Black (Gilson & Black, 1999) highlighted the crucial role of financial markets in exit strategies for Venture Capital funds. The opportunity to liquidate the Venture Capital fund's investment through initial public offering (IPO) offers advantages for all stakeholders involved in the investment process. From the investors' perspective it allows evaluation of the managerial skills of venture capitalists, thus allowing decisions on which managers to cooperate with in future. It provides assessment of the risk to return of investment ratio, which creates a basis for deciding whether to continue or withdraw investments into Venture Capital funds. Additionally it offers a benchmark for appraising the performance of the industry. The Venture Capital fund builds up its reputation, as well as being able to

maintain some control over the portfolio company after going public. The portfolio company gains credibility with third parties. Presence of well developed stock markets increases the efficiency of contracts between investors and Venture Capital funds and between Venture Capital fund and portfolio companies (Gilson & Black, 1999).

Growth in gross domestic product (GDP) is perceived as another factor influencing the Venture Capital industry. Along with the growth in GDP new opportunities arise for entrepreneurs, thus the demand for Venture Capital financing is increased (Gompers et al., 1998). Although the positive effect of GDP rates on Venture Capital flows is reduced by the degree of labour market rigidity (Romain & van Pottelsberghe, 2004).

Venture Capital activity is also influenced by the existing technology opportunities, such as the growth rate of research and development (R&D) investment, the available stock of knowledge and the number of high value patents (Romain & van Pottelsberghe, 2004). Gompers and Lerner (Gompers et al., 1998) indicates the positive relation between industrial firms' R&D spending and Venture Capital investments. Government's investments in R&D along with defence spending in general are perceived to be important factor of enabling conditions for Venture Capital industry development both in the US and Israel (Avnimelech, Kenney, & Teubal, 2004).

Other institutions

Besides the close relationships between the investor - venture capital fund – entrepreneur, there are a range of other organizations that they are each either directly or indirectly connected with. One of the most significant players is the government: which sets the major framework for Venture Capital operation by establishing a legal framework, formulating policies and creating tailor made programs dedicated to a Venture Capital industry. Its actions might both facilitate and constrain the industry (Gilson, 2003; Jeng & Wells, 2000). As Lerner (2009) highlighted, governments' efforts, in order to be successful, should focus on boosting the demand for Venture Capital financing in the first instance. These efforts should be accompanied by providing a favourable environment for both entrepreneurs and Venture Capitalists. Only at the very last stage of the process should governments shift the focus to increasing the supply of capital by directing for this to happen. Other organizations that play significant roles are the incubators and science parks as providers of corporate spin offs, university spin offs (Harding, 2002), as well as corporate laboratories as a source of R&D. The unique blend of leading–edge scientific and technological innovation provided by world class universities and corporate research laboratories with energetic and agile Venture Capital funds is believed to be the source of the US dominant position in the Venture Capital industry (Dimov & Murray, 2008). The research of Ortin – Angel and Venfrell-Herrero (2010) provides further empirical proof. The authors found out that young university spin-offs are more likely to obtain Venture Capital financing than other technological start-ups.

Business angels as a separate group play a significant role as a source of bridge finances for companies which are still too young to seek formal venture capital (Harding, 2002; Harrison & Mason, 2000).

Additionally professional associations that promote industry good practices and build networking are important, especially in situations where the institutional environment is weak (Smallbone & Welter, 2001).

Evaluating Silicon Valley, Hellmann (2000) indicated the cooperation between Venture Capital funds and certain professionals. These were investment banks, law firms, accounting firms and consulting firms. Each of those organizations is highly specialized in providing services for young companies. Investment banks, either set up their own Venture Capital funds or provide money in the later stages of investments. Cooperation with law and accounting firms allows Venture Capital funds to significantly reduce the time needed for closing the deal. Whereas consulting firms along with head-hunters help to select the most suitable staff.

Entrepreneurs

The entrepreneurs seeking Venture Capital finance for their projects generate the demand for the industry (Lerner, 2002). Thus, their presence is crucial for the industry. Becker and Hellmann (2003) indicated a dearth of high quality entrepreneurs as one of the factors responsible for the failure of the German attempt to create agile venture capital. Also Keuschnigg and Nielsen (2001) suggested management mistakes as the root of business failure, at the same time indicating the need for governments' support of entrepreneurial training.

Venture Capital funds characteristics

Venture Capital represents a distinctive form of financing for young companies compared to traditional forms of bank financing or market finance from the stock or bond market (Hellmann, 2000). Although, in case of Venture Capital, the provided capital is necessary, it is not sufficient for growth and success of the portfolio company (Sapienza, 1992). A set of individual fund characteristics influences the way it operates and performs (Dimov & Murray, 2008; Walske & Zacharakis, 2009).

Gompers (1996) argued that young Venture Capital firms take their portfolio companies public earlier compared to older Venture Capital firms. The motivation behind such behaviour was the need to establish a reputation to allow the raising of further funds. However, this tended to result in under-pricing and a lower level of development of those companies at their IPO. In addition to reputation, the age and size of a fund affect the ability of the fund to raise new capital (Gompers et al., 1998).

Following Dimov and Murray (2008) research, the fund size influences the investment patterns. With increase of available capital the likelihood, number and proportion of seed and other early-stage investment decreases.

Venture capitalists' expertise is often based on tacit knowledge, which is gained through practice, therefore the funders' experience influences the fund's performance (Walske & Zacharakis, 2009). Walske and Zacharakis (2009) indicated prior venture capital experience and senior management experience as two leading elements. Longer presence on the market eases acquisition of further funds due to established networks, proved quality, better opportunities to syndicate, and secure underwriters to take their portfolio companies public. The Venture Capital fund benefits from senior management experience in three ways. Firstly, senior managers are usually

the standards to which entrepreneurs aspire. Secondly, experienced managers have acquired the operational skills for monitoring investments. Thirdly, the extensive network in the industry they worked in previously helps them to recruit high quality personnel (Walske & Zacharakis, 2009). The earlier recorded success in nurturing portfolio companies builds social recognitions thus gives visibility to the best venture capitalists, although the reputation is usually more attached to the individual than to the particular fund (Hellmann, 2000).

The expectation of a required rate of return differs between funds depending on the stage of investment as well as whether they are privately or publicly funded. Early stage specialists require higher returns compared to those investing in later stages. Independent Venture Capital usually expects higher returns compared to captive or public ones (Manigart et al., 2002).

The investment style, whether is passive or active, depends on investor types (Bottazzi, Da Rin, & Hellmann, 2008). The prior business experience of investors usually leads to more active style of investing. The human factor is perceived as crucial to recognizing opportunities, as well as for financial intermediation (Bottazzi et al., 2008).

Clustering of Venture Capital firms in certain geographical areas, which provide unique business infrastructure, provides additional development opportunities, where such complexes as Silicon Valley or Route 128 could serve as examples. The regional advantage in such cases arises from the contiguous process of innovation and collective learning (Saxenian, 1996).

Culture

Referring to North (1990), norms and conventions create the informal incentives in the economy. The influence of culture on individual and firms actions is subtle but substantial. Entrepreneurial behaviour is neither mechanistic nor homogeneous (Welter & Smallbone, 2011) therefore culture, as a source of informal institutions, and the role of trust, as a factor shaping behaviour, are given priority in the analysis. According to the research, Venture Capital operates better in countries where entrepreneurs are given high status (Bruton, Fried, & Manigart, 2005). The corollary to this is that lack of entrepreneurial traditions and a weak work ethos is often perceived as major obstacle for Venture Capital performance (Klonowski, 2006).

Trust defined as “the subjective probability with which an agent assesses that another agent or group of agents will perform a particular action.” (Bottazzi, DaRin, & Hellmann, 2011:5) has significant effect on Venture Capital investment decisions at both the individual and organizational level (Bottazzi et al., 2011).

2.5. Gaps in the literature

Venture Capital as a research field is relatively young. Modern Venture Capital emerged in the 1940s, however, due to its fairly small size and geographical concentration was not in the main scope of scholars' interests (Landström, 2009). Only after the rapid growth of the industry and its internationalization in the 1980s Venture Capital did become a popular subject of research. Due to the character of the phenomena the research first concentrated on the US and advanced European economies. As demonstrated above, the Venture Capital process in the US and advanced economies are now well understood and documented both in managerial

and economic literature. There is a growing body of literature discussing emergence of Venture Capital in developing economies. However, so far, it concentrates mainly on large economies such as China or India (Ahlstrom, Bruton, & Yeh, 2007; Bruton & Ahlstrom, 2003; Bruton, Ahlstrom, & Puky, 2009; Lockett, Wright, Sapienza, & Pruthi, 2002), although some initial work is dedicated to the African markets (Lingelbach, 2009; Lingelbach, Murray, & Gilbert, 2009).

Against this context the post-soviet Central and Eastern European countries are neglected. Indeed, individually these are small size markets, the available data are incomplete and of questionable quality. These factors contribute to the difficulty in researching those economies. Nevertheless, given the significant proportion of new entrants into the European Union structures which originate from the post-soviet countries, their influence on the EU Venture Capital industry as whole, becomes noticeable.

Although, the literature provides a range of researched factors influencing the Venture Capital vitality in a given economy there is still a lot of unknown about the reasons for such differences between industries operating in quite similar environments.

Currently, the literature provides a body of research referring to a systematic analysis of the emergence and development process of individual industries representing a holistic approach to the phenomenon. However this again applies mainly in advanced economies. For example works of Saxenian (1996) referring to Silicon Valley and Route 128 or Avnimelech's and co-authors (Avnimelech & Teubal, 2006; Avnimelech & Schwartz, 2009) series of analyses on the Israeli economy provide understanding of local industries in a broad economic and cultural context.

Central and Eastern European Countries are still lacking such a deep and thorough analysis of their markets. The conducted research supplements this gap by adding an analysis of the emergence and development of the Polish industry. By applying the existing understanding of Venture Capital processes to an economy undergoing structural transformation, the author believes to provide the basis for further development of a more complete theoretical framework for the industry operating under such conditions.

3. Chapter 3

3.1. Theoretical Framework

Venture Capital studies is a relatively young discipline. The pioneers in the field emerged from among management scholars who were interested in external sources of financing young-technological firms. Naturally their focus was primarily the entrepreneurs' perspective. Another group of researchers analysing Venture Capital centred their interests on the Venture Capital process from investment to exit, spotlighting the investors' perspective. In the 1980s scholars from the field of finance and economics concentrated on the macro-level analysis of the Venture Capital market. They mapped flow of Venture Capital, its role in developing industries, as well as examining regional aspects. The early works were highly descriptive, mainly due to a dearth of reliable data. Pioneers relied mainly on management theories and the rational economic model, where agency theory served as a dominant theoretical framework. Along with an increase of available data during the 1990s, the focus of research became more theory oriented. At this time two main streams could be observed: the first one having roots in finance and economics, and the second one derived from management and entrepreneurial studies (Landström, 2009). The processes of internationalisation of Venture Capital triggered another branch of analysis based on institutional theory. In contrast to previous theories, institutional theory argues that the actions within a given industry may not always be the most economically efficient, but they are the responses that become accepted in the industry (Bruton, Fried, & Manigart, 2005). As Landström (2009) indicated, although the Venture Capital became a research field on its own it would still benefit if

different perspectives represented by scholars originating from varied fields entered into a dialogue.

Although the literature offers a variety of theoretical frameworks, none of them can provide a single, suitable theoretical framework, which could serve for a thorough analysis of the emergence of a specific Venture Capital industry.

The presented research follows Van de Ven's (2007) postulate for engaged scholarship. It aims on exploring the different kinds of knowledge that scholars and professionals can bring to bear on the problem, and thereby producing alternative explanations and, in this way, to add to the existing knowledge in the field.

As already has been mentioned Venture Capital industry is a sophisticated phenomenon (David & Garry, 2006). Positioning it in a setting of a transition economy adds additional layers of complexity to the analysis. This results in a situation where the multilevel construction of the research problem disqualifies a single perspective as an adequate explanation of the phenomena (Van de Ven, 2007). Accordingly, the proposed theoretical framework represents a multi-perspective approach.

Organization studies were selected as the dominant perspective for examining the emergence of the Venture Capital industry. It is believed that application of organizational studies in the context of emerging economies can bring a better insight into the processes involved, compared to the traditional approaches.

Compared to industry studies, which concentrates more on the economic side of the research phenomena, organization studies allow additional emphasis on the social and historical context, while maintaining consideration of the economic context.

Naturally, given venture capitalists' absolute and priority focus on generating capital gains, the more economics and finance based findings from industry and managerial studies' research will be incorporated when relevant.

Organization studies provide a useful framework for analysis of the emergence of an industry. By including in the analysis the role of the wider environment in the development of new organizations, and its role in the subsequent shaping of populations of such organizations, more of the complexity of the industry creation process can be examined.

The following section discusses varied perspectives describing and evaluating organizations and their environments as well as their mutual relationships. There is an ongoing discussion between various theoretical schools referring to such issues as: do organizations function in objective environments or do they create them; do they adapt to the changing conditions of their environments or are they the subject of selection; what are the factors determining organizational behaviour or selection? The tensions between schools create social science 'paradoxes': as Pool and Van de Ven (1989) refer to them. Each of the theories discussed presents well stated, well documented and researched, alternative explanations; which, when juxtaposed, sometimes present paradoxes. The proposed theoretical framework actively exploits the existence of such paradoxes in order to take different perspectives on the research phenomena. Because these so-called paradoxes are not paradoxes in a logical or literal sense their coexistence is possible. Therefore when combined they help to provide a rich picture when the temporal and special character of the social world is taken to account. The research aims to embrace different levels of analysis, and also considers the role of time and space in creating the Venture Capital

industry using complementary theoretical perspectives to built up a plausible understanding.

3.2. Venture capital industry as a social construct

People and organizations co-exist and interact with each other on daily basis. Often the existence of organizations is taken for granted (Aldrich, 1979:2). Humans create organizations to achieve objectives they cannot accomplish individually. Thus organizations are shaped by the context from which they emerge (Aldrich, 1999:6). The diversity of definitions describing the nature of organizations reflects the huge variety of human interactions. For example, the 'rational' theories point to the instrumental character of organizations. They characterise organizations as a means to achieve a goal though a designed and managed process. The 'natural' theories, on the other hand, concentrate on social and human aspects, which are neglected in the 'rational' approach (Handel, 2003: 3-4).

For the purpose of this study, the distinction between formal and informal organizations proposed by Blau and Scott (Blau & Scott, 1962) seems to provide useful insights. According to the authors' interpretation, 'social organizations' refer to human conduct which is led by social conditions rather than physiological or psychological characteristics of individuals. Social organizations emerge wherever people live together. However some of the existing organizations are created deliberately for explicit purposes. In this case the goals to be achieved, the rules to be followed by members of organization and the status structure (the organizational chart) are designated a priori. They refer to this kind of relationship as a 'formal organization'. The 'informal organizations' describe those patterns of social life that

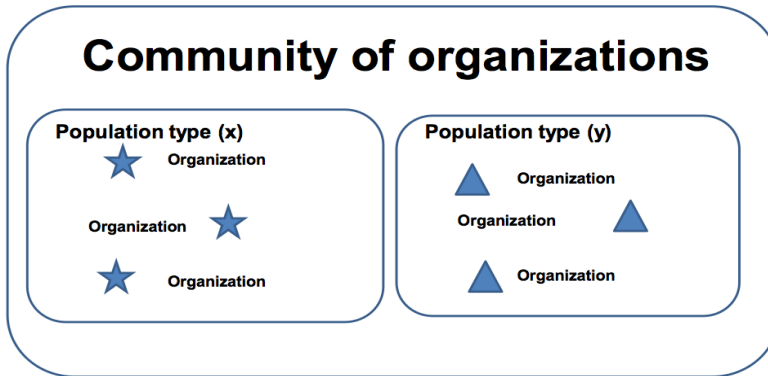
evolved within the framework of formally established organizations but which are not guided by the official blueprint. Both aspects of the organization, the formal one and the informal one, are interconnected within a single organization and have to be analysed together in order to understand an organization's dynamics (Blau & Scott, 1962:4-5).

Similarly to Blau and Scott, Aldrich distinguishes between those organizations which were formed intentionally and those which emerged spontaneously. He describes organizations as 'goal oriented, boundary-maintaining, activity systems' (Aldrich, 1979:4). The explicit goal orientation feature separates organizations from other forms of social collectives such as families or small groups. The presence of the organizational goals causes the members to act in accordance with the objectives regardless of their personal feelings. The difference in objectives and interests between organizations or individuals with whom they cooperate is a potential source of conflict, which could affect the organization's survival. The presence of boundaries distinguishes between the members and non-members of the organization as well as separating them from the external environment. Whereas the activity system indicates set of routines through which the organization is achieving its goals (Aldrich, 1999:3-4). Aldrich uses the term 'routine' in the sense of 'forms, rules, procedures, conventions, strategies and technologies around which organizations are constructed and through which they operate' in his approach, Aldrich affirms Blau and Scott's taxonomy of formal and informal organization.

Organizations take many different forms. The 'form' represents a set of characteristics that identify the organization as an individual entity, but at the same time as a member of a group of similar organizations (Freeman & Audia, 2006;

Romanelli, 1991). The distinction between forms appears at various levels. Differentiation might be embedded in the language – as a conventional classification used in example by some social scientists, or arise from abstract concepts (Hannan & Freeman, 1986). A group of organizations that share a 'certain set of characteristics' constitute the same 'organizational form'. Organizations of the same form establish populations (Hannan & Freeman, 1977). The common characteristics of organizations within a particular population make them vulnerable to environmental threats in same way (Astley & Van de Ven, 1983). Diverse populations of organizations that occupy different niches and use different mix of general and population specific routines and competencies form communities (Aldrich, 1999:223). Within the community, populations may interact with each other on the basis of competition and/or symbiosis, depending on technology orientation, normative order or regulatory regime. Competition between diverse populations arises when they have similar demands on environment, whereas symbiosis takes place when mutual dependencies occur (Aldrich, 1999: 301). The figure below illustrates the above discussed difference between population of organizations and community.

Figure 9: Organizational community



Source: adopted from: (Hannan & Freeman, 1977) and (Aldrich, 1999)

Depending on the chosen hierarchical level of observation, whether it is individual organization, population or community of organizations, different outcomes may be observed. DiMaggio and Powell (1983) suggested that strategies employed at the organizational level may not be rational when adopted by a population (DiMaggio & Powell, 1983). According to Hannan and Carroll, some factors influencing organization may be recognized only at the population level (Aldrich, 1999).

Managerial studies, as well as strategy and economic studies, often use a single industry as the major unit of analysis. Borrowing from those disciplines helps to address the problem of clarification between the meanings and usage of term industry and population as used in the following research. Traditionally 'industry' is defined as 'a group of business units producing products that are close substitutes from the buyer's perspective' (Bettis, 1998). However the recent increase in the role of information and technology in industries calls for a reassessment of the way industries' boundaries are defined (Bettis, 1998; Sampler, 1998). The proposal by Bettis and Sampler suggests replacing the perspective of product/service substitute

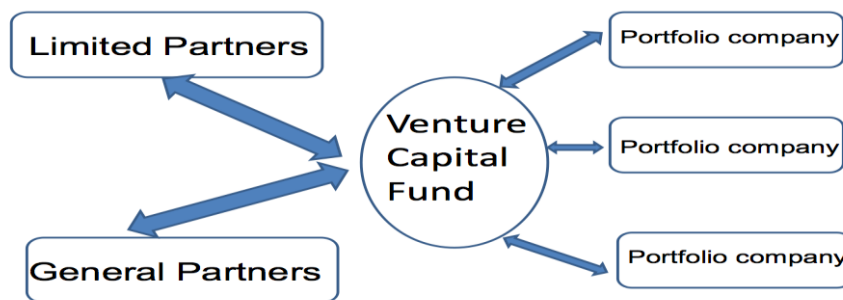
by criteria of possessing critical information or competencies. This redefinition actually moves our understanding towards the organizational approach of populations and the increasing role of services.

Carroll and Hannan (2000), based on organizational studies, indicated that industries contain a mix of populations of corporations rather than one homogenous population. They conditioned the usage of industry data as valid to the degree to which the studied population respects a clearly bounded form. Aldrich (1999) on the other hand, uses the phrases 'industry' and 'population' interchangeably. He argues that economists associate industry with consumption patterns and population ecologies with sets of potential competitors in production systems. However, in practice, both approaches use the same data sources but label them differently (Aldrich, 1999:224).

Acknowledging the above arguments, it is plausible to claim that for the purpose of this research the Venture Capital industry overlaps with the concept of population rather than community of populations. Furthermore, Venture Capital firms, being legal entities, have regulatory established boundaries. Thus, the selection between members and non-members unfolds according to formal rules. Moreover, Venture Capital adopts a specific set of competencies and routines which apply while operating. From the customer (entrepreneur) perspectives, Venture Capital provides similar services in the form of capital and advice for all new ventures. Additionally, adopting the community approach allows the linking of organizational research with other areas of scholarly inquiry due to their reciprocal relations with organizations, their structure, operating processes, human participation and strategic orientation (Freeman & Audia, 2006). Summing up the above it is believed to be reasonable to

treat the research of the Polish Venture Capital industry as a population of Venture Capital firms both sited and operating in a particular geographic area.

Figure 10: Structure of Venture Capital Limited Partners and General Partners



3.3. Organizations in an environmental context

3.3.1. Concept of environment

The following section discusses different theoretical approaches to the role of environment in shaping organizations' structures and actions. The presented standpoints illustrate both organizational and economical perspectives in order to ensure a sufficiently broad perception.

Following Selznick (1948) organizations may be seen from two perspectives, which even though from the analytical point of view are separate, remain empirically interdependent. On one hand they function as economic systems, on the other hand are adaptive social structures. In its economic aspect an organization is a system of relationships allowing the obtaining and using of scarce resources in the most effective and efficient way. However, the economic aspect is influenced by organic states, internal to the structure, which are beyond any systematic control and

delegation system. He indicates that consent cannot be separated from the control act. Thus organizations should be perceived as cooperative systems. (Selznick, 1948:26).

Looking from the historical perspective, the classic theories, such as Weber or Taylor, tend to ignore the impact of environment on organizations, they take it as a constant element. The environmental demands, even if acknowledged, along with goals, were perceived as universal across all organizations (Miles, Snow, & Pfeffer, 1974). The later incorporation of the open-system concepts and models borrowed from the natural sciences, led to the interest in the role of environment (Frishammar, 2006). The system theory concentrated on problems of relationship, structure and interdependence rather than on constant attributes of objects (Katz & Kahn, 1966:18). According to the open-system theorists this approach should not be treated as theory per se but rather as a framework for understanding and describing many kinds of relationships and levels of phenomena. Therefore, application of the concept of an open system to organizational studies bears several consequences. Firstly, organizations, likewise 'living' organisms, are dependent upon their external environment. They cannot be self sufficient or self contained because they require a supply of 'energy' from other institutions, people or material environments in order to function. Secondly, materials and human energy inflow is neither constant nor guaranteed. Thirdly, the same goal might be realized by using different methods. Finally, in order to understand the specific organizational behaviour it is necessary to study and understand the extant environmental influences (Katz & Kahn, 1966).

Since the 1950s the term 'environment' is present in a variety of theories while the proposed conceptualizations differ. Emery and Trist (1965) indicated four 'ideal

types' of causal textures of organizational environment that exist simultaneously in the real world of most of the organizations. They differentiate the environment along static and dynamic perspectives. Placid, randomized environment – is the simplest, static type, characterised by relatively unchanging goals. The second form, which is more advanced but still assumed as static is the placid, cluster environment. In the latter case, organizational survival is linked to the knowledge it has got about the environment and the strategy it adopts. The disturbed – reactive environment represents a dynamic level involving the presence of other organizations. While functioning in the above dimensions, organizations aim to improve their wellbeing by hindering competitors. The last, dynamic type is referred as turbulent field. The variances for the component organizations arise from the field itself (Emery & Trist, 1965).

Building on Emery and Trist, Aldrich (1979) added dimensions of organizational environment. According to Aldrich, environments might be analysed in terms of their capacity, homogeneity, stability, concentration, consensus and turbulence. The dimensions are summarised in the table below.

Table 2: Dimensions of environments

Environmental:	Indicates:
Capacity (rich/lean)	relative level of resources available to an organization within its environment
Homogeneity/heterogeneity	degree of similarity or differentiation between the elements of population dealt with including organizations, individuals and any social forces affecting resources.
Stability/instability	degree of turnover in the elements of the environment
Concentration/dispersion	degree to which resources are evenly distributed over range of the environment or concentrated in particular location
Consensus/discord	degree to which an organization's claim to a specific domain is disrupted or recognized by other organizations
Turbulence	extent to which environments are being disrupted by increasing environmental interconnections

Source: adapted form (Aldrich, 1979)

Each of the above characteristics has consequences for both organizational operations and ultimately survival. For example, organizations operating in rich environments have got access to more resources. But on the other hand such environments attract other organizations. Homogenous and stable environments promote standardized behaviours and routines (Aldrich, 1979) also called 'managerial paradigms'.

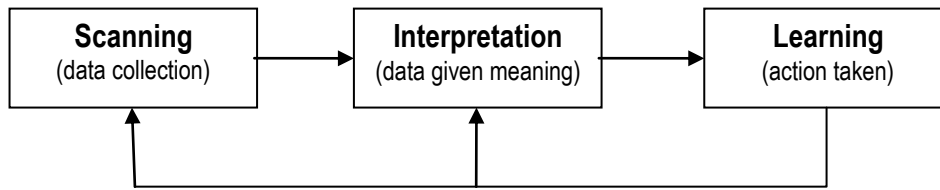
Adopting the industry approach, Porter (1980) referred to the 'initial structure', which accompanies emergence of any industry. The 'initial structure' results of a combination of underlying economic and technical characteristics of the industry, the initial constraints of small industry size and the skills and resources of the companies that are early entrants. The evolutionary path of a particular industry depends on

combination of skills, resources, technology luck and firms performance (Porter, 1980:162-163).

The above perspectives - regardless whether they originate from organizational or industry studies - perceived the environment as given and independent from the organization entity. The environment has its own characteristics. In contrary the concept of 'enacted environment' proposed by Weick (1969) dismisses the idea of the external environment as understood above. Weick claims that human actors create the environment. They do not react to it - they enact it (Weick, 1969:64). The enacted environment is interconnected with creating meaning. The meaning on the other hand is closely tied to the process of attention and time. According to this approach environments became individually interpreted entities, influenced by personal features. The environment becomes an output of organizing not an input.

Weick and Daft (1984) proposed a model of organizations as an 'interpretation system'. The authors concentrate on modes through which individual organizations perceive and interact with their environments. The model is based on the assumption that organizations must build up a system for collecting and processing information important for their survival. Although individuals are responsible for setting the organizational goals, process data and interpret the environment, there are formal and informal internal systems within the organization allowing the retention of knowledge, behaviours, mental maps and values over time (Daft & Weick, 1984:285). Moreover only the top of the organizational hierarchy is involved in the interpretation process. Therefore, the formal interpretations upon which an organization acts reflect the views and beliefs of a limited number of people.

Figure 11: *The interpretation process within an organization*



Source: adopted from (Daft & Weick, 1984:286)

The process of interpretation, presented in Figure 11, unfolds in three steps. The first one, scanning provides raw data for the organization. The form of collecting data may vary among organizations. During the second step – interpretation - data are given meanings. Throughout this stage events are given a meaning and a shared understanding and conceptual models are developed. However, as indicated earlier, this interpretation is created by the members of upper management (Daft & Weick, 1984). The last step - learning - requires new responses or actions based on the created interpretation. It might be compared to learning a new skill by an individual. The act of learning provides also new data for interpretation. Therefore the three stages are interconnected through the feedback loop. Building up on the process of interpretation the authors constructed a two-by-two matrix to explain the diverse ways by which organizations obtain knowledge about their environments. According to their model the differences in interpretations between organizations arises from two dimensions: firstly, from management’s beliefs about the analyzability of the external environment and secondly, from the extent to which organizations interfere with an environment in order to understand it. Depending on beliefs about the environment, organizations apply different strategies. If an organization considers its environment as analyzable, it assumes that environment is concrete with objective events and processes which are determined. The main role for an organization is to

discover the 'correct' interpretation. This might be achieved by using rational analysis and accurate measurements. In the contrary case, when the organization assumes that its environment cannot be analyzed, it constructs a plausible interpretation that makes previous actions sensible and suggests next steps. This sort of interpretation is more ad hoc, intuitive and individually biased.

Organizations also have different strategies toward collecting data about their environments. Some organizations actively collect data by allocating resources to the process. Those actions may also include testing or manipulating the environment with the aim of changing rules or to manipulate critical factors within the environment. This sort of experimental behaviour is especially undertaken by powerful organizations. Other organizations take passive positions avoiding interactions with the environment unless they are forced to do so by crises (Daft & Weick, 1984).

3.3.2. Role of the environment in organizations survival

If it is assumed that organizations rely on their environments for the resources they utilise, competition for resources becomes the central force in organization activities (Aldrich, 1979; Astley, 1985; Hatch, 1997). However, the question arises, how much control over resources acquisition remains on the side of the organizations. The organizational literature discussing the issue represents theoretical pluralism, which reflects the complexity of the subject (Astley & Van de Ven, 1983) although the various schools collectively provide multiple perspectives. However, when considered individually, schools usually analyse only one aspect of the phenomena utilizing an exclusive taxonomy. This inhibits dialogue between them (Astley & Van

de Ven, 1983). Following Astley and Van de Ven (1983), it is recognized that different perspectives can present different pictures of the same organizational phenomena without nullifying each other. This is achieved by employing different analytical lenses to examine opposite or contradictory sides of the same issue.

The following section discusses how different theories perceive the role of environment in shaping organizational existence. We also consider their relevance and possible limitations for answering the research questions. The dimension according which the theories are sorted is the level of analysis.

3.4. Macro level perspective in organizational theories

Population ecology focuses on organization populations as a primary unit of observation (Astley, 1985). It analysis how external conditions influence the population demographic by observing the rate of funding and mortality of organizations (Singh & Lumsden, 1990). The environment is perceived as the selection factor. If two populations use the same kind of resources from the environment and they differ in some organizational characteristic, the population which fits less well into environmental contingencies will tend to be eliminated (Hannan & Freeman, 1977).

Borrowing from the paradigm of biological evolution the process occurs through cycles of variation, selection and retention. Variation, which is understood as the creation of novel forms of organization, is assumed to happen by blind or random chance. Selection of organization occurs though competition for resources (Van de Ven & Poole, 1995). Whether an organization survives depends on the nature of environment and competitive forces (Hannan & Freeman, 1977). Retention involves

forces that perpetuate and maintain certain organizational forms. In this case variation stimulates the selection of new organizational forms whereas retention preserves previous organization forms and practices (Van de Ven & Poole, 1995). Hannan and Freeman (1977:930-931) pointed out that although adaptation processes are present within a population, those processes are limited due to existence of structural inertia. The structural inertia is generated due to various internal and external factors to the organization. Internal factors arise from sunk costs of firms, communication constraints, internal politics and norms. External factors consist of barriers to entry and exit, bounded rationality, and social legitimacy. The stronger the structural inertia affects an organization the more likely it is to favour the logic of environmental selection over adaptation.

In order to explain regularities in the growth and decline of population, Carroll and Hannan (1989) proposed the population density model. According to the model, the number of organizations constituting a population is function of social processes of legitimation and competition. With an increase in density, the legitimacy of a particular form of organization will increase. Thus the rate of organizational founding will increase while the rate of organizational death will decline. However, after reaching a certain point the competition processes will overtake the effect of increasing legitimacy which will subsequently result in a reversed situation of falling organizational founding rates and increasing organizational death rates (Carroll & Hannan, 1989). However, Delacroix et al. (1989) question the universal character of this model, suggesting it is limited to organizations which are institutionally constrained.

The limitation toward direct application of the population ecology theory for analysis of the Venture Capital industry arises from several factors. Firstly, the population ecology gives little attention to structural characteristics of organizations as a determinant of survival. Secondly, it does not distinguish between controlled and uncontrolled mortality of organizations (Betton & Dess, 1985; McKinley & Mone, 2003). Additionally, it does not provide a plausible explanation for population emergence. Further limitations arise from the general critique of this approach. The phenomenon of structural inertia is largely associated with complex organizations. Thus, it would intuitively appear that populations of small organizations should be more adaptive to environmental changes compared to a large organization. However empirical evidence does not support this proposition (Betton & Dess, 1985). Perrow (1979) points out that, although large organizations might not be adaptive to their environments, they survive better because they strive more successfully to create and control their environment. Following this argument, the environmental niches inhabited by small and large organizations are subjectively different (Betton & Dess, 1985).

In contrast to ecological approaches the Neo-institutional theory turns toward the organizational structure. The article of Meyer and Rowan (1977), in which they discussed the role of 'institutional rules' in shaping organizational structure, started the broader discussion within the Neo-institutional stream (McKinley & Mone, 2003). The discussed institutional environment refers to the pressures generated externally to the organizations via law and regulations or by the professions based on their wide spread authority (Zucker, 1987). Meyer and Rowan (1977) argued that organizations reflect their institutional environments rather than the demands of their production activities. This is due to the general acceptance of those institutions as

proper, adequate and rational. Therefore organizations must adopt those rules in order to avoid illegitimacy. Existence of strong institutions results in set of consequences for organizations. Firstly, organizations incorporate elements which are legitimated externally rather than in terms of efficiency. Secondly, they employ external criteria of assessment to define the value of structural elements. Thirdly, dependence on external fixed institutions reduces turbulence and maintains stability. Summing up: organizations which exist in highly institutionalised environments, need to become isomorphic with their environments in order to gain legitimacy and the resources allowing their survival. As a survival factor this is independent from - and more important than - the requirements of production efficiency. The success in organizational adaptation depends both on the environmental processes and on the skills of the organization leaders (Meyer & Rowan, 1977).

DiMaggio and Powell (1983), building upon the above, noticed that at the initial stages of the lifecycle of an organizational field, organizations acquire a wide range of forms and approaches, however with the increasing maturity of the field they become more similar to each other, without necessarily becoming more efficient, due to isomorphic processes. Although they show two types of isomorphism, competitive and institutional, only the institutional element is given attention in this theory.

Within the analysis the authors assume that the number of organizations in a population depends on environmental carrying capacity whereas the diversity of organizations is isomorphic with the environmental diversity (DiMaggio & Powell, 1983:149). They indicate three sources of institutional isomorphism which are located in social processes. These are coercive isomorphism, mimetic isomorphism and normative pressures.

Coercive isomorphism arises from political influences and the problem of legitimacy. Organizations operate under formal and informal pressures of other organizations they cooperate with as well as the cultural expectations of the society within which they function. In some cases, in example under new legal regulations, organizations are forced to change their behaviour, in other cases they change is voluntary.

Mimetic isomorphism represents a tendency to imitate practices of other organizations in response to existing uncertainty. Especially in the situation where the organizational technology is poorly understood, goals are ambiguous or when the environment creates symbolic uncertainty. The model organization may be unaware of being copied: also, models might be copied unintentionally.

Normative pressures stem from development of professionalization understood as collectively defined methods and conditions of work within an occupation. Formal education and development of professional networks are perceived as main sources (DiMaggio & Powell, 1983).

The Institutional theory, by stressing the symbolic aspect of organizations and their environments, adds new lenses to the possibilities for interpretation. Organizations are not perceived only as systems of production or exchange shaped by their technologies, their transactions, or the power-dependency relations growing out of such interdependencies. Additionally, the environment is not limited to the task approach: 'as stocks of resources, sources of information, or loci of competitors and exchange partners.' (Scott, 1987:507). The focus is given to idea that 'all social systems - hence, all organizations - exist in an institutional environment that defines and delimits social reality.'(Scott, 1987:507). The employment of Institutional theory is believed to provide a valuable insight into the processes of establishing and

developing strategies that ameliorate the 'constraints' influencing human behaviour (North, 1990).

Following North (1990) institutions are understood as 'constraints that human beings impose on human actions' whereas organizations are referred as 'groups of individuals bound together by some common objective.' (North, 1990:59). Thus the imposed limitations define the opportunity set in the economy. The emerging organizations will reflect this set of opportunities (North, 1990).

Institutional theories commonly agree on the fact that institutional elements influence organizations structures, although they present different explanations on how the process occurs (Scott, 1987). North argues that existing organizations reflect the pay-off structure and their investment pattern will reflect the incentive structure (North, 1990). North draws attention to two sources of economic incentives: formal and informal, which are imprinted on the institutional framework. He defines the institutional framework as 'political structure that specifies the way we develop and aggregate political choice, the property rights that defines the formal economic incentives and the social structure – the norms and conventions- that defines the informal incentives in the economy.' (North, 1990:49). March and Olsen (1984) point out that not all outcomes are the result of a conscious decision process (Scott, 1987).

Historically institutions were used by people to intentionally modify their environments in order to obtain a desired outcome with the emphasis on decreasing level of uncertainty (North, 1990:78). However, they are not universal across societies. The variety arises from differences between cultures. North argues that learning is transmitted between past and present generations via culture. Culture

shapes the way societies perceive their worlds. Thus interpretation of the world varies across cultures and results in diverse institutions (norms and conventions) leading to any particular desired behaviour. Therefore the specific learning processes of individuals and organizations are crucial for the formulation and evolution of institutions, which are incremental and path dependent (North, 1990).

Theories referring to industry studies also discuss population ecology and Institutional theory concentrates on the macro level of observations. The population of organizations as a subject of observation is replaced by the notion of an industry. An industry consists of business units producing close substitutes, with related buyers, suppliers and potential entrants (Porter, 1980). In contrary to the theories discussed earlier, industry studies highlight the economic aspects of industry operations. Such elements as mode of entrance and exit, including barriers, structure of costs and revenues as well as preferred structures and strategies are considered (Gort & Klepper, 1982; Jovanovic & MacDonald, 1994; Klepper, 1996; Klepper & Graddy, 1990).

The life cycle approach is widely utilized to explain fluctuations in the number of firms within an industry (Williamson 1975; Gort and Klepper 1982; Klepper and Graddy 1990). It assumes that a developing entity passes through a sequence of stages, which comes in a specified order where none of the might be omitted (Van de Ven & Poole, 1995). The number of stages occurring during the life cycle may differ in number or a factor that defines them. For example, Williamson (1975: 215-216) and Klepper and Graddy (1990) refer to three stages and Grot and Klepper to five (1982). However, all taxonomies stress the periodicity of the process as well as favouring economic factors as defining the survival and non-survival of a firm.

According to industry studies the structure of the market is dominantly shaped by discrete events and the flow of information among existing and potential participants of the market (Gort & Klepper, 1982). A new cycle might be triggered either by new technology or obsolescence of the product. Klepper and Graddy (1990) build a model of industry evolution concentrating on determinants of market structure. They indicated that at the point where the number of firms present on the market stabilizes the survivors are only those incumbents with sufficiently low costs or high product quality. Moreover they analysed the path of prices and output and pointed out that the rate of capacity expansion of firms will be a function of the expected profit from expansion. Due to decline in industry prices the expected profits will decline and the rate of growth of incumbents will decline over time (Klepper & Graddy, 1990). Jovanovic and MacDonald (1994) supported the first mover advantage theory pointing out that research firms, which were able to implement early, were rewarded with growth in output and value (Jovanovic & MacDonald, 1994).

Analyzing the mode of entrance into novel industries Saviotti and Pyka (2008) highlighted the role of intra – sector and inter – sector competition, presence of competent institutions and appropriate timing of entrance. The intra–sector competition refers to the level of competition within the creating sector, whereas the inter–sector competition depends on the possibility that different sectors provide comparable services. The presence of institutions capable of appropriate evaluation of the potential of new sectors along with available resources constitutes the financial availability. Financial availability combined with the size of the new market determines the number of new entrants (Saviotti & Pyka, 2008). Londregan (1990) in his model of entry and exit over the industry life cycle concluded that at different stages, different traits are strategically advantageous (Londregan, 1990). Covin and

Slevin (1990) were analysing new firms' strategic postures, structural forms and level of performance at three stages of industry development – emergence, growth and the mature stage. Their findings concluded that postures and organization structures vary over the industry life cycle as well as that firms' performance is influenced by the fit of strategic posture, organizational structure and industry life cycle. Posture was measured between conservative and entrepreneurial extremes and the structure on a continuum from organic to mechanistic. They conclude that entrepreneurial firms with organic structure are the most efficient for emerging industries, whereas more mechanistic structures are more suitable for matured industries (Covin & Slevin, 1990).

Although the industry life cycle theory originally was developed for manufactured products, some of its elements might be utilized for better understanding of the emergence and development of a venture capital industry especially in terms of assessing the level of maturity of the industry. Karaomerlioglu and Jacobsson (2000) and Klonowski (2005) utilized this approach in assessing the stage of development of national Venture Capital industries. Some potential limitations in utilizing this approach for researching development of a new industry based in services arise from two factors. Firstly the historical focus was on manufactured products. Secondly, it omits the social aspects of firms' interactions - giving little weight to the social context within which decisions on a firm's operations are embedded (Fiol & Lyles, 1985). Additionally there are voices criticising the logic of applying the life cycle approach to industry development. Porter (1980) dismisses the traditional life cycle model, assuming that industry follows an S-shaped curve crossing through stages of introduction, growth, maturity and decline. He argues that industries do not ultimately follow the standard life cycle pattern, often the duration of the stages differ

among industries, and some stages may be skipped. Additionally companies can affect the shape of the growth curve through product innovation; also, the nature of competition is different at each stage. The life cycle model does not allow predictions about under which conditions the industry will follow the pattern or not (Porter, 1980:157-158). He assumes that industries follow an evolutionary process leading from the initial structure to potential structure. The actual path taken by firms is directed by a mix of luck, skills, resources and orientation of other firms in the industry. Porter described a set of evolutionary processes which are present in one form or another in every industry (Porter, 1980:163-164).

3.5. Micro level perspectives in organizational theories

The theories classified as micro perspective, focus on a single organization or firm depending whether they weigh more towards the social or economic approach.

The Resource Dependence Theory (RDT) (Pfeffer & Salancik, 1978) assumes that although environment is a powerful constraint on organizations' actions, managers can actively shape their relationship with it (Astley & Fombrun, 1983; Hatch, 1997). Pfeffer and Salancik (1978) claim that an organization's survival depends on its ability to acquire and maintain resources from the environment. Thus, in order to understand organizational choice, it is crucial to determine the environmental context. Accordingly, it is important to document the flow of resources between organizations and environment with the respect of criticality and scarcity of resources.

Following the assumptions of Resource Dependence theory, the organizational environments are not given entities. Rather, they are constructed by organizations

through processes of attention and interpretation. Although organizational activities are constrained by economic, social and legal environments, such elements as law, social norms, values and politics reflect action taken by organizations seeking their own interests.

To understand how the environment affects organizations the Resource Dependence theory provides differentiation of the environment into three levels. At the first level environment consists of the entire system of interconnected individuals and organizations which are related to one to another and to a focal organization through the organization's transactions. The second level embraces those individuals and organizations with whom this organization directly interacts. At this level organization can experience environment, however the determination for actions is rooted elsewhere. The third level is described as the 'enacted environment' where organization's perception and representation of the environment takes place. Those three levels are related to each other. The large system (level one) can impact the set of transactions possible between the focal organization and other organization within the system. Those transactions constitute the raw material for building the enacted environment. The enacted environment influences organizational actions, whereas events in the other levels of environment may affect the outcomes (Pfeffer & Salancik, 1978:63).

Organizations are linked to environment by a variety of relations i.e by federations, associations, and customer – supplier relationships. The character of those relationships is shaped by physical realities, social norms, information and cognitive capacity as well as by personal preferences. The challenge for organizational survival arises from the changeable character of their environments demonstrated by

fluctuation in number of organizations, and following it, diversity in supply of resources. Whenever the environment changes, the organization is faced by the choice either of eventual death or modelling its behaviour in response to new conditions. The bargaining position of an organization depends on resources or capabilities it provides. The more they are desired by other organizations the more influence and control the supplying organization gains in mutual contacts. Analogously an organization's vulnerability is influenced by the extent to which it relies on particular type of exchange for its operations. Those interdependencies are neither symmetric nor balanced. The way power and the social agreement is shared, modelled and stabilized between organizations is represented by the forms of inter organizational cooperation, such as: cartels, joint ventures, advisory boards and social norms.

Organizations have to control not only their external relationships but also deal with internal conflicts. According to Resource Dependence theory, organizations exist in order to provide satisfaction to participants who support them. Thus all direct participants, and those who are affected by the organization, are eligible to evaluate it. The number and diversity of interests represented by evaluators face the management of the organization with the problem of dealing with inconsistent criteria and often competing demands.

Another challenge managers have to face is the problem of legitimacy, which is a conferred status, controlled from outside of the organization. It is bounded up with norms and values. However, many of those norms governing formal organizations are not codified in the legal system. Additionally, being a social process, it is not clear how large a proportion of the membership of a social system must approve an

organization or its practices for it to be considered legitimate (Pfeffer & Salancik, 1978).

In order to understand organizational behaviour it is necessary to analyze an organization's exposure to information, the attention paid to it, as well as strategies for searching for information about the environment. In short, the way an organization perceives and interprets its environment is given by a combination of the organizational structure, the structure of the organizational information system, and the activities of the organization.

Although originally Resource Dependence theory was formulated at the individual organization level it is believed that a parallel use at the population level may bring valuable insight into the relationships within the industry. Because the theory focuses on the process of acquiring resources (which is a theoretical innovation, going beyond earlier theories that concentrated mainly on the allocation of resources, thereby neglecting the acquisition processes) it allows inclusion of both internal and external stakeholders in the analysis. The inclusion of attention to the power distribution across all actors within the industry should make it possible to expand the analysis up to the population level.

Whereas Resource Dependence theory concentrates on interdependencies between organizations and strategies to preserve autonomy, management studies concentrate more on economic goals. The mainstream of managerial literature describes successful organizations as active and able to influence their environment, which is considered analysable. Within this approach managers are capable of creating and implementing strategies which allow the company to adjust to the changes in the environment (Frishammar, 2006). Porter, for example, indicates that

the core of competitive strategy lies in relating the company to its environment. Thus the goal for a business unit is to 'find a position in the industry where the company can best defend itself against competitive forces or can influence them in its favour.' (Porter, 1980:4) Positioning takes place through thorough examination of the environment, which in this case is perceived as the industry in which the firm operates. Interdependence of companies is identified as the central characteristic of competitions within an industry. Although the desired outcome of a competitive strategy is obtaining cost effectiveness, the analysis of environment includes elements of a limited interpretative approach. The leading idea of 'competitive advantage' presented by Porter agrees with the approach presented by the broad concept of transaction costs economics of Williamson (Williamson, 1998). The transaction cost approach turns its attention from the theory of firm as a production function into the theory of firm as a governance structure (Williamson, 1998). As Williamson himself refers to it, as 'very much an inter-temporal, adaptive managerial exercise.' (Williamson, 1998:33). However, while transaction costs economics will not be presented in detail, its assumptions about human agents' behaviour are worth considering for the purpose of this research. The first relevant assumption refers to the concept of 'bounded rationality' and the consequences of such 'bounded rationality' on contracts. The second assumption refers to 'opportunism' of economic actors.

'Bounded rationality' arises from the limitations of human perceptual and informational processing. Therefore, even though individuals intend to behave rationally they can do this only to a certain extent. Actions are based on *sufficient* knowledge rather than on *complete* knowledge (Weick, 1969; Williamson, 1998). In consequence economic actors are not able to foresee all possible actions. This is

reflected in the fact that even the most complex contracts remain incomplete (Williamson, 1998). According to Williamson human actors behave in splintered way, and the level of opportunistic behaviour is not equal among all of them (Williamson, 1998).

In more detail the issue of agent-principal relationship is discussed by agency theory. The emphasis is given to situations where individuals with different goals are engaged in cooperative actions. The theory assumes that social life consists of a series of contracts or exchanges governed by self-interest of its participants. Bounded rationality of individuals engaged in cooperation becomes a source of information asymmetry (Arthurs & Busenitz, 2003); additionally, monitoring contracts is costly and somewhat inefficient especially in organizations (Perrow, 1986), this exacerbates any asymmetry. Information is perceived as commodity with a cost at which can be purchased (Eisenhardt, 1989). Organizations may use formal and informal information systems (i.e. budgeting, the board of directors, or managerial supervision) to control agents' opportunist behaviour. Additionally agency theory looks on uncertainty from a different perspective. The inability to pre-plan earlier, perceived as a source of uncertainty, is replaced by risk/reward trade-off (Eisenhardt, 1989).

Agency theory provides a powerful insight into the principal – agent relationship in the case of goal conflict between engaged parties, when the chance of an agent's opportunistic behaviour is probable. It fails however, to explain the principal – agent relationship when their goals became similar/converge (Arthurs & Busenitz, 2003). Therefore it might be utilized effectively for evaluating the Venture Capital industry relations only under conditions of goal conflict between principals and agents. For

example there conflict how to share gains between the Limited Partners and the General Partners in the Venture Capital Fund. Moreover its utility for explaining the 'social nature of venture capital' declines outside of more developed economies (Ahlstrom & Bruton, 2006) therefore it might need further modifications in order to be applied in the case of transition economies.

3.6. Applied theoretical perspective

Researching emerging industries requires a holistic approach, often involving collaboration across several streams of macro-level entrepreneurial behaviour (Forbes & Kirsch, 2011). Additionally the analysis is longitudinal in character because it concentrates on the process of change. Therefore the emphasis on context is crucial (Pettigrew, 1990). Assuming that the process of change is neither linear nor singular, Pettigrew (1990:269) refers to three key points which should be addressed. Firstly, change should be studied in the context of interconnected levels of analysis. Secondly, temporal interconnectedness is crucial. This results in locating change in the past, present and future. Thirdly, context and actions ought to be analysed as mutually dependent elements. Highlighting at the same time that the term 'context does not refer only to stimulus environment but also *'a nested arrangement of structures and processes where the subjective interpretation of actors perceiving, comprehending, learning and remembering help to shape the process.'*(Pettigrew, 1990:270)

As mentioned earlier, in order to apply both industrial and organizational studies, Venture Capital firms are conceptualized also as equivalents of single organizations, which form a population – the venture capital industry. The population is embedded

within a community. Community is understood as a set of relationships between different organizational forms operating within a bounded geographical space. Those organizations operate interdependently with social institutions and other units of social structure. Through the exercised relationships resources as well as opportunities are channeled (Freeman & Audia, 2006).

The emergence and development of the venture capital industry in Poland will be explored primarily through Institutional theory and the Resource Dependence theory in this study. This is because in the recent circumstances of Poland, as an exemplar transition economy and society, institutional and market transformations have been central to industry development. Application of the Resource Dependence theory allows tracking the flow of resources between organizations with respect to its scarcity. The advantages of using the Resource Dependence theory approach arise from embracing all participants involved in the process as well as including the interdependencies between them. The concept of 'niche' as a combination of resources and constraints supporting a population (Aldrich, 1999:226) might be used as guidance to draw the boundaries for the researched environment.

According to Resource Dependence theory, organizations collect and interpret information from their environment and act upon those interpretations. Thus, further analysis is needed to assess the way particular organizations select which information to collect and what are the bases of their interpretations. The model of organizations as an interpretation system proposed by Daft and Weick (1984) could provide some valuable insight here.

Additionally Resource Dependence theory points out issues referring to evaluation of organizations by stakeholders and arising from it the problem of goal conflict as well

as the need for building legitimacy. The employment of Institutional theory is believed to provide a valuable insight into the processes of establishing and developing strategies that ameliorate the 'constraints' influencing human behaviour (DiMaggio & Powell, 1983; North, 1990). Moreover the role of context and path dependence is highlighted. Institutional theory claims that, depending on the background, individuals interpret the same evidence differently and thus make different choices. The particular interpretation of the surrounding world is grounded within the culture of an individual. The rules and norms accumulated within the culture of a society reflect the past beliefs, shape present actions and influence future choices (North, 1990:62). This is because the way organizations act is determined by the way they perceive their environment. The organization's understanding of its environment is usually represented by the behaviour and interactions of their key stakeholders. The stakeholders' perspective is shaped by their cultures and learning processes, which are individual and path dependent. Therefore in order to better understand the processes of an industry emergence and development it is necessary to acknowledge the role of context at the level of the stakeholders' perceptions.

The above theories stress the social aspect of organizations. However due to the nature of the venture capital industry there is a need to address the economic aspects of its operations. The insight might be provided by industry studies at the macro level and managerial studies at the micro level of analysis. The managerial perspective is believed to be useful because at the early stages of industry creation the number of organizations is limited. Thus focusing on analysis of early entrants could provide plausible explanations for further patterns of behaviour within the population.

Taking in account the theoretical background presented in this chapter it might be assumed that the Venture Capital industry in Poland will show the following features:

1. The Venture Capital industry should become more homogenous over time (normalisation);
2. Venture Capital industry emergence will unfold in set of development phases (phasing);
3. The internal structure of the Venture Capital industry will reflect the incentives present in their economic environment (Incentivisation);
4. The characteristics of the external environment for Venture Capital will change over time and at each stage will influence the shape of the industry (shaping);
5. Venture Capital operating parameters will adjust to fit the specific environment encountered (adaptation);
6. It will be necessary to understand the context of Venture Capital operations in order to understand its actions (motivation);
7. The way Venture Capitalists will react to the changes to environment characteristics will depend on the interpretation processes of the top managers and will be culturally linked (sense-making);

Based on the theoretical framework presented above, the next chapter concentrates on the methodology chosen for conducting data analysis.

4. Chapter 4

4.1. Methodology and data collection

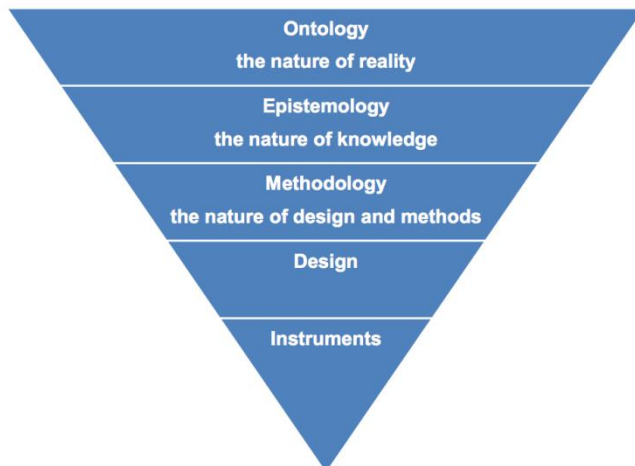
The following chapter is dedicated to methodological issues related to the conducted research. Firstly, it discusses the positioning of the research project within the broad social science domain and indicates the philosophical stance undertaken. Secondly, it presents the methodology including its limitations. Thirdly, it describes the specially designed template. Fourthly, it indicates the data collection methods and data analysis process. The chapter ends with assessment of the validity and reliability of the research project.

4.2. Philosophical approach

The term 'research philosophy' refers to the ontological and epistemological assumptions about the world which form the philosophical base of the research. Where ontology describes the nature of reality, whereas epistemology refers to the nature of knowledge (Sarantakos, 2005).

The choice of philosophical approach determines the way a project is conducted. It influences the mode of argumentation, the employed methodology, and the research design, as well as indicates the use of particular instruments.

Figure 12: Research pyramid



Source: adopted from (Sarantakos, 2005)

Discussion concerning the best way of conducting social research has been present within the philosophy of social sciences for a long time. A leading question refers to whether the social sciences should adopt a natural science approach, or whether they need to develop a special social sciences approach that would be more suitable (Scherer, 2003). As a consequence of the lack of consensus, social scientists have adopted a variety of approaches, which can be located on a continuum between two extreme positions: the 'subjectivist' approach and the 'objectivist' approach. Each of the extreme approaches exhibit clear differences in ontology, epistemology, and set of assumptions about human nature. This is reflected in clear differences in appropriate methodologies.

The subjectivist approach, in its ontological assumptions, refers to relativism. In this case, reality is known only through socially constructed meanings. Because a single shared social reality does not exist only a set of alternative social constructions is available. The epistemology following on from this assumption is referred to as interpretivism: where the researcher and the social world coexist and influence each

other. According to interpretivists, an objective and value free inquiry is impossible, nevertheless, the researcher can be transparent about his/her assumptions and their employment.

Contrary to the subjective approach, the objective approach refers to realism, which indicates the independent, verifiable existence of a reality. In one of its variants, called materialism, the distinction between the material (or physical) world and mental phenomena (such as beliefs) takes place. The material world is perceived as 'real', and mental phenomena arise from the material world. The accompanying epistemology is positivist and indicates the independence of the world from the researcher. The facts and values in a realist approach are distinct from each other, thus an objective and value free inquiry is possible (Ritchie & Lewis, 2003:16-17).

Morgan and Smircich (1980) suggested an overview of the relationships between ontology, epistemology and the specific assumptions about human nature followed within social sciences. The relationships are summarised in table below.

Table 3: Network of basic assumptions characterising the subjective – objective debate within social sciences

Subjectivist approaches to social science				Objectivist approaches to social science		
1	2	3	4	5	6	7
<i>Ontological assumption</i>	Reality as a projection of human imagination	Reality as social construction	Reality as a realm of symbolic discourse	Reality as contextual field of analysis	Reality as a concrete process	Reality as a concrete structure
<i>Assumption about human nature</i>	Man as pure spirit, consciousness being	Man as social constructor, the symbol creator	Man as an actor, symbol user	Man as information processor	Man as an adaptor	Man as a responder
<i>Epistemological stance</i>	To obtain phenomenological insight	To understand how social reality is created	To understand patterns of symbolic disclosure	To map context	To study system, processes, change	To construct a positivist science
<i>Research methods</i>	Exploration of pure subjectivity	hermeneutics	Symbolic analysis	Contextual analysis of Gestalten	Historical analysis Case study	Lab experiment, survey

Source: adapted from (Morgan & Smircich, 1980)

The two poles of the spectrum (1 and 7) represent extremely different views on the world. The subjectivist approach (1), views reality as product of individual interpretation. The main focus is given to understanding the process by which human beings construct their relationships with their world. The knowledge produced represents the scientist's individual interpretation of the surrounding reality (Morgan & Smircich, 1980). The subjective experience of individuals in the creation of a social world becomes the central focus (Burrell & Morgan, 1979). The subjective approach in its assumptions challenges fundamentally the idea of the existence of 'objective' knowledge.

Contrary to the above stance, the objective approach assumes, along with the realist assumptions, that the world exists independently of individuals' perceptions. It consists of a 'concrete structure'. Thus the relationship between the elements of the structure may be the subject of scientific investigation. It favours the 'objective' form of knowledge that uncovers 'laws, regulations and relationships among phenomena measured in terms of social facts' (Morgan & Smircich, 1980:493). Thus the researcher focuses on explaining the social world by searching for regularities and causal relationships between its consistent elements, using the methodologies present in natural sciences (Burrell & Morgan, 1979). The assumptions about human nature are also polarised between the extreme positions. The subjectivist approach perceives human beings as creators and controllers of the environment, whereas the objectivist approach perceives humans as conditioned and mechanistic in their responses to environment (Burrell & Morgan, 1979). The approaches between these two poles or extreme types represent variations on the continuum between the presented extremes. The transition between them happens gradually and often one position may incorporate insights from others (Morgan & Smircich, 1980).

An unequivocal categorisation of the presented research, based on the philosophical paradigms taxonomy described above, is problematic. Following the mainstream research does not provide a clear answer. Considering one of the leading theories, Institutional theory, a variety of approaches is seen. As Bowring (2000) and Suddaby (2010) indicated, Institutional theory has been shifting paradigms over time. A transition from an interpretative to a positivist approach has taken place. According to Suddaby (2010) this change was driven by methodological issues, mainly by the increased number of quantitative research projects within the field similarly to the case of entrepreneurship studies. In consequence, the focus on measuring organizational outcomes concealed the core interest of the Institutional theory; that is, concentration on reasons and motives. He advocates rich case study research, which will perceive organizations as interpretative mechanisms.

The second leading theory, Resource Dependence theory, provides ontological and epistemological challenges as well. The theory itself is perceived by academics as influential and one of the most comprehensive organization theories (Davis & Cobb, 2010; Hillman, Withers, & Collins, 2009). Although, it has been widely utilized among a range of disciplines such as management, sociology, education or public policy (Davis & Cobb, 2010) the empirical research has concentrated on basic tenets of the theory (Hillman et al., 2009). Resource Dependence theory has been criticised for being more an approach than a theory, and the need for further theoretical development has been widely articulated (Casciaro & Piskorski, 2005; Hillman et al., 2009).

Despite the limitations arising from these two theories, it is believed that a combination of both can provide a valuable insight into organizations. Resource

Dependence theory concentrates on the way organizations acquire and maintain the required resource by utilizing power relations, whereas the Institutional theory is able to shed light on the mode in which power is distributed.

The following research focuses on understanding the emergence and development of a national venture capital industry, which is characterised as a highly specialized financial service. Additional challenge for the analysis arises from the post socialist background of the host country. Researching emerging industries presents ontological and epistemological challenges. It requires a holistic and interdisciplinary approach, the extended use of qualitative and historical data, as well as engagement of key practitioners in the process (Forbes & Kirsch, 2011). Referring to the set of paradigms proposed by Morgan and Smircich (1980) the presented research, in its principal assumptions, tends towards the objectivist approach although it does not reach the more extreme conclusions. It represents the statements between rows 5 and 6, which following Guba and Lincoln (1994) might be also referred to as close to 'post-positivism'. It is assumed that reality exists, however due to its complexity and the nature of human intellectual mechanisms it cannot be fully understood. Reality should be widely examined in order to construct the most comprehensive picture, which however never will be perfect. While generating knowledge, the idea of objectivity remains crucial, thus emphasis is given to validation of findings. Furthermore, the replicated results are probably useful however remain always a subject to falsification. The knowledge is accumulated and serves as 'building blocks', which after reaching critical mass allows for generalizations (Guba & Lincoln, 1994).

The research questions put emphasis on the ongoing process (emergence of an industry), which is embedded in a specific historical context (i.e. post soviet economy). In order to answer the research questions the analysis is going to discuss the following issues: how the process of emergence unfolds, what are the elements/actors of the process, what are their roles, how are they related to each other, why they unfold/act in certain way, and what are the consequences of such behaviour. Also considered is how time and space shapes those processes.

Taking into account the nature of the research questions, and the characteristics of the data needed to answer them, especially the complex character of the phenomena and the extended role of human interactions, the qualitative approach is believed to provide the broadest insight. There are three major factors in favour of qualitative methods in this particular case.

- Firstly, the knowledge of the researched phenomena is limited thus exploratory research is needed (Eriksson & Kovalainen, 2008).
- Secondly, the qualitative methods provide ‘thick description’, which allow capturing the complexity of researched phenomena. They allow better understanding of aspects of the inquiry that remained unclear in quantitative studies (Eriksson & Kovalainen, 2008).
- Thirdly, following Denzin and Lincoln’s (1994), qualitative research allows the study of things in their natural settings, thus making possible attempts to interpret phenomena in terms of meanings that people bring to them.

Therefore, the proposed explanations acknowledge the context in which the research phenomenon is placed. Additionally, because there are no set preferences

toward any methodology, multiple methods and perspectives may be combined, which in consequence enriches the final picture providing the findings are consistent with each other. Qualitative methods will be also more suitable for managing and interpreting the collected data, which come from variety of sources and are not quantifiable. The collected data may be subject to different interpretations depending on the perspective taken, because they refer to reasons and motivations rather than to deterministic results. A quantitative approach is not suitable in this case, because the necessary data would not be provided readily from within the 'privacy oriented' industry, further it would not be verifiable due to privacy restrictions. And finally such data would anyway be incomplete for many stages of the industry cycle, and thus not be a credible basis for quantitative analysis. These three constraints severely limit quantitative analysis of Venture Capital both emerging and industrialised countries. The US and the UK remain exceptions in that more credible data sets are available.

Within the research, emergence of industry is going to be perceived and analysed as a process. This is defined by Pettigrew as 'a sequence of individual and collective events, actions and activities unfolding over time in contest.' (Pettigrew, 1997:338). The main supposition referring to the emergence of industry is aligned with the 'process thinking' approach which assumes that social reality is a dynamic. Within this understanding, actions drive processes. However, processes cannot be explained simply by combining individual or collective actions. Actions are embedded in context, 'which limits their information insight and influence'. The mutual interdependence between agents performing the actions and the context in which the actions take place have to be acknowledged (Pettigrew, 1997).

Within organizational studies, context is understood as surroundings associated with phenomena, which help to illuminate that phenomenon (Johns, 2001:31). These are circumstances, conditions, situations or environments that are external to the research phenomena and enable and/or constrain it (Welter, 2011:106). They provide frames for organizational behaviours as well as attitudes (Johns, 2001). The effects of context on the research results might be both subtle and powerful. According to Johns (2006), context is not sufficiently recognized and acknowledged, whereas it might be useful in providing explanation for such issues as: variation in study-to-study research findings, anomalous research findings, or 'missing linkages', that explains how individual or team activities shape organizational outcomes.

Context may be manifested in many ways. As referred to earlier, it can be considered as a set of situational opportunities for, or constraints on, particular organizational behaviours. Context might create so called 'strong situations'. A 'strong situation' is characterised by obvious norms and rigid roles, which tend to constrain the expression of individual differences. 'Weak situations' on the other hand provide more opportunities for the expression of such differences (Johns, 2006).

Acknowledging the multiple faces of context, Johns (2006) proposes a two dimensional analysis. The first dimension is referred as 'omnibus context' and draws attention to broad perspective, concentrating on such questions as: who, where, when and why. The second dimension is referred as 'discrete context' and focuses on specific situational variables that influence behaviour directly, or moderate relationships between variables; it includes tasks context, social context and physical context.

The difficulties in studies of context arise mainly due to the absence of a good taxonomy and the lack of systematic descriptive language (Johns, 2006). This present research study tries to overcome this difficulty by applying a tailor-made template, which is discussed in detail later in this chapter. This new template seeks to guide the data collection and analyses and not limit it.

Referring to the previous section, Resource Dependence theory and the Institutional theory were presented as the dominant theories for explaining the researched phenomenon. In both cases the philosophical assumptions underpinning these theories are weighted towards the objective approach, applying the taxonomy of Morgan and Smircich *op. cit.* earlier. The social world is perceived as fluid. It represents a struggle between various influences, each attempting to move toward the achievement of desired ends. Relationships can thus be described as relative rather than fixed. Humans are engaged in continuous interaction with their environment or context (Morgan & Smircich, 1980). In case of the Venture Capital industry, the actions undertaken by individual firms (i.e. general partnership) aim to generate the highest possible financial return on the managed capital and enhance General Partners' bargaining position on the market especially regarding raising of subsequent funds. The character of interactions in which Venture Capital enters with its environment (represented by other organizations and individuals) has a dual nature. Depending on the case, it might have competitive or cooperative nature or both together as do most real world industries and firms. However, it is assumed that fund managers seek to exploit their environment to enhance their performance.

4.3. Challenges for the adopted methodology

As mentioned before, the emergence of the industry is perceived as a process. The building blocks for starting the process analysis are events, sequenced chronologically. The undertaken methodology should allow organizing of the data, and a subsequent search for governing mechanisms. The mechanisms may be directly observable as well as be inferred from the context. Therefore, understanding the sequence and flow of critical events is crucial for the analysis. Additionally, the methodology should allow acknowledgement that simultaneous processes may (and indeed must) take place at different levels of observation, as well as multiple processes taking place at the same level of observation. Multiple perspectives allow the linking of these processes with a particular outcome (Pettigrew, 1997).

Considering these requirements for the methodology, a case study approach is believed to fit best. The case study, following Yin (2003) is perceived as a research strategy rather than a strict method. The case study is broadly understood as: a research project which attempts to explain holistically the dynamics of a certain period of a particular social unit (Stoecker, 1991:97-98). In more details it refers to an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life contexts, especially when the boundaries between the phenomenon and context are not clearly evident (Yin, 2003:18).

Following Cassell and Symon (2004) a case study is particularly well suited to examine social and organizational process in the emerging stages. It allows production of detailed and holistic knowledge of the researched phenomena (Eriksson & Kovalainen, 2008). Moreover, it acknowledges the role of context as an integral part of the analysis (Cassell & Symon, 2004; Eriksson & Kovalainen, 2008).

Stoecker (1991) points out that a case study has got an advantage over a statistical association arising from the fact that, although a variety of explanations can be applied, only careful analysis of the historical causal process allows us to see which theoretical perspective provides the best explanation. Additionally, application of statistical analysis will not easily capture many of the historical and idiosyncratic features of processes under investigation.

Similarly to Grounded theory, the case study provides both descriptive and exploratory approaches to the studied issues. It also acknowledges the crucial role of context and employs a wide range of data sources. However, the major reason for preferring the case study as the strategy for data analysis is the approach toward existing theories. According to Grounded theory the collected data are used to generate a theory (Collis & Hussey, 2009:84). When first approaching the research, the researcher should minimize the number of predetermined ideas. The theories set 'a priori' are perceived as imposing boundaries for the possible interpretation of gathered data (Collis & Hussey, 2009). The case study approach does not impose those restrictions. It allows both the building and testing of a theory on the base of collected evidence (Eisenhardt, 1989). Thus, for the purpose of the research, a case study approach seems to provide the best analytical tool.

The objective of the research is to construct an intensive case study, which concentrates on understanding, providing a thick, holistic and contextualized insight (Eriksson & Kovalainen, 2008) into the emergence and development of the Polish Venture Capital industry. The collection and analysis of the data is guided by a template presented below.

4.4. Framework for theory application

Organizations can be analysed at three different levels of observation. Each of those levels provides different outcomes (Aldrich, 1999; DiMaggio & Powell, 1983). Taking the most complex perspective, at the highest level of aggregation, organizations operate within communities of populations. The dynamics occur between different populations within a community, and the resulting relationships may be either based on competition or symbiosis (Aldrich, 1999). For the purpose of the following research, the community level observation refers to the interactions between the venture capital industry and the populations of other organizations having impact on it, such as i.e. banks, universities and entrepreneurs. The main focus is given to the processes taking place between the populations as collectives. The second level of observation considers the individual population, an 'industry', and processes occurring within the industry. The focal point here is the dynamics of the venture capital industry. The third level of analysis refers to the individual organizations. At this level the individual venture capital funds and their characteristics became of primary interest. Regardless of the chosen level of observation, the role of context has to be incorporated.

4.5. A Venture Capital template

4.5.1. Template - construction

In order to guide the evaluation of the interrelationships taking place within the Venture Capital community at different levels of analysis, the research developed a new template. The template utilizes existing literature to elicit environmental factors affecting the venture capital industry in developed economies. A map of the venture capital industry infrastructure is constructed. However, it should be emphasised that

because the constructed template pictures the situation in the developed economies, it is used as a guide line and reference point, not as a fixed frame. There are no intentions to limit the analysis exclusively to the elements of the initial template, and, if needed, some modifications will be introduced to accommodate the new context of transforming economies, here the Polish case.

The template borrows from existing frameworks present in the organizational literature. The key framework to be employed was originally formulated by Van de Ven and Garud (1987) to assess emergence of an industry, and was later modified by Van de Ven (1993a; 1993b) to provide a macro perspective view on developments on infrastructure for entrepreneurship. The proposed framework considers industry as a social system, which by performing a set of functions allows the conversion of a technological innovation into a 'commercially viable line of products or services delivered to customers' (Garud & Van de Ven, 1987:318). The three subsystems under consideration consisted of: the instrumental subsystem (individual firms within the industry); the resource endowments subsystem (providing material support for the instrumental subsystem); and the institutional subsystem (providing norms and regulations regulating functions of the above). The later framework adds complexity, although keeping the three pillars' structure. It consists of institutional arrangements (legitimation, governance and technology); resource endowments (scientific research, financing, human capital) and proprietary functions (technological development functions, innovation network channel activities, market creation and consumer demand).

The template created for the purpose of the following research shares the main assumptions about the nature of infrastructure creation. Firstly, the elements of

environment should not be treated as 'externalities' to the examined industry. Incorporation of these elements into the framework allows the interdependencies between them happening over time, and the resultant developing of the infrastructure, to be followed. Focusing on the inter-organizational community as a unit of analysis provides a more inclusive perspective than the traditional industrial economics. Secondly, the emergence of infrastructure requires 'accretion of numerous instrumental, resource, and proprietary events that co-produce each other over an extended period.' (Van De Ven, 1993b:212). Thirdly, the institutional arrangements along with the resource endowments facilitating the industry can both boost and hinder its development.

The framework proposed by Verheul et al. (2001), similarly to the theory presented above, concentrates on evaluation of entrepreneurship. However, it distinguishes two levels of observation - the macro-perspective and micro-perspective. While applying the macro lenses the authors isolate demand and supply factors influencing the level of entrepreneurship. The demand side consists of a combination of such features as: the stage of economic development, globalization, and the stage of technological development, which each create opportunities for entrepreneurship. The supply side is represented by the size and level of consumption (demand) of the population. The population is analysed from the age structure, population density, level of urbanization, number of immigrants, and proportion of women in the labour market. Additionally it acknowledges the micro-perspective. It points out the input of decisions made by individuals on the supply and demand size, especially the influence on individual characteristics, the risk – reward profile and the recognition of opportunities. Within both levels of analysis and in contrary to Van de Ven's

approach, the environment factors are treated as external to the phenomena of entrepreneurship.

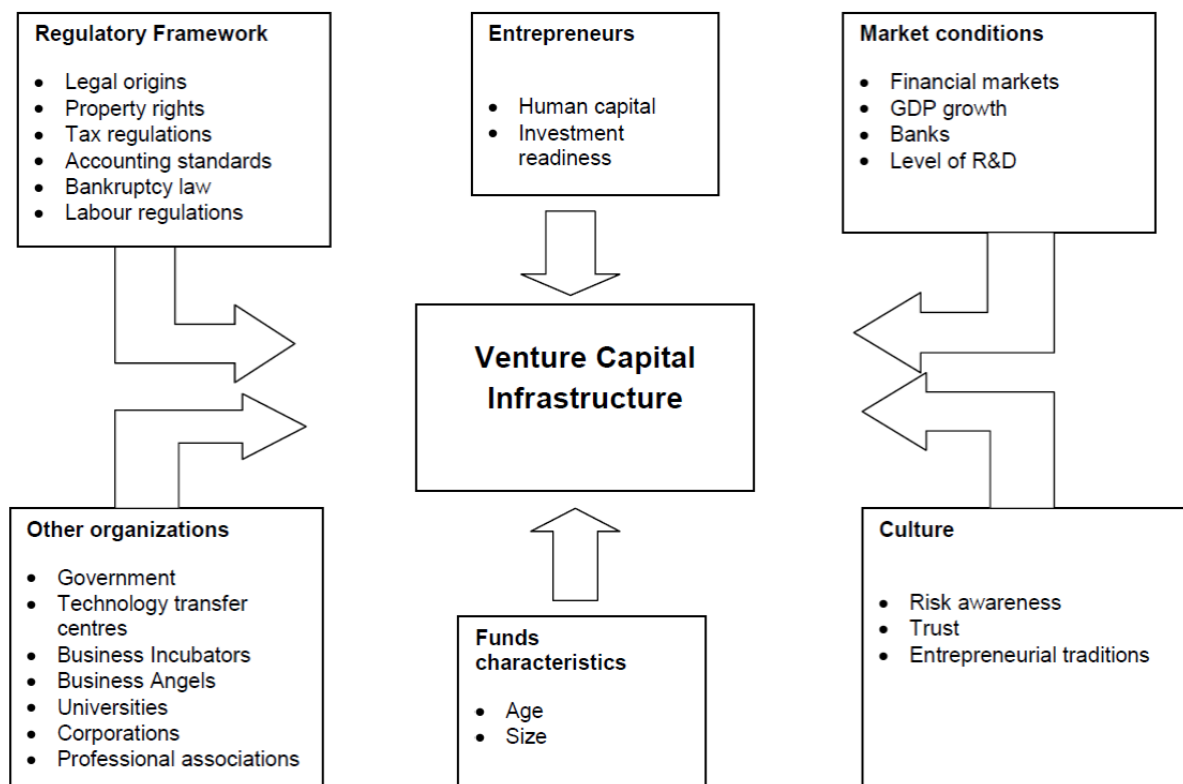
Ahmad and Hoffmann (2008) within the OECD framework addressing and measuring entrepreneurship, take a less theoretical approach compared to the ones above. Authors isolate six themes referred as 'entrepreneurship determinants'. These are: regulatory framework, market conditions, access to finance, R&D and technology, entrepreneurial capabilities and finally culture.

Although the discussed frameworks focus on entrepreneurship, not directly on venture capital, they provide a useful theoretical base. Venture Capital is usually acknowledged within those frameworks as part of 'access to finance' or 'resource endowments', depending on labelling.

In contrast to the above examples, Schoefer and Leitingner (2002) constructed a framework dedicated directly to venture capital. They used it as a theoretical basis for investigating venture capital in Central and Eastern Europe. The main focus was given to four 'dimensions' which the Authors found crucial for the emergence of venture capital investments. These were: economic environment, legal environment, social environment and entrepreneurial spirit. Later within the study they used the quantitative data to assign points for each element of the environment and ranked the CEE countries accordingly. Poland although indicated as a leader in the region, in reference to fund raising and fund investment, was ranked as the least attractive for Venture Capital investment. It was ranked 7th with (6.71) points behind the leader - Estonia (9.38) and Hungary (9.20) However, comparing the theoretical assumption of this framework to the entrepreneurship frameworks it identifies the same principles. The semantics might differ but the core stays the same.

The template created for purpose of the following study employs the theoretical roots set out above. It was constructed in two steps. During the first stage, the existing venture capital literature was reviewed and key articles discussing the venture capital environment were extracted⁵. The articles discussed either theoretical, or empirical, or both aspects. Afterwards, they were grouped according to the environmental factor discussed. Then the factors were clustered into themes. Further the data collected from the field will be confronted with this template.

Figure 13: The Venture Capital template



⁵ The articles were selected based on being published in leading academic journals e.g. the Academy of Management Journal, Venture Capital, Journal of Business Venturing, Journal of Private Equity, or Entrepreneurship, Theory and Practice.

4.5.2. Template – discussion

The template isolates and groups factors influencing the Venture Capital industry which are most frequently cited in the literature. It is intended to serve as a blue-print for further analysis. However there are challenges in implementing this template. Firstly the number of factors is high and they are all given the same weighting. This has implications especially in time needed; choice of data; what to analyse, priorities; and when to stop. Secondly, there are no straight forward indicators for assessing adequate hierarchy of factors. Thirdly, there might still exist factors, on which literature is silent, which are important for the pace or/and direction of Venture Capital industry development. Additionally, in order to produce a coherent final analysis effective data collection and management is required.

Although the six main themes are believed to provide the core factors responsible for the shape of a Venture Capital industry in developed economies, the hierarchy of factors for the researched Venture Capital industry should be revised individually and in line with the particular context. In order to emerge and operate Venture Capital requires existence of a market for its services. Therefore the first element to be taken in account is the legal infrastructure, because it affects all stakeholders in the industry and creates a common platform for exchange. The legal structure analysis is followed by mapping the relationships between stakeholders in the industry. The highlights are given to the investors and entrepreneurs as the actors most closely connected to Venture Capital firms. This sequence is aligned with the Armour and Cumming (2006) argument that the influence of legal and institutional variables is stronger than economic ones. The market conditions as the provider of opportunities is given attention next followed by characteristics of Venture Capital funds and

influence of culture. As mentioned before the influence of culture is both discrete and powerful.

It should be acknowledged that the strength of influence of particular factors is also related to the initial conditions. Each of the countries going through the transformation process started with a different set of initial conditions. Therefore, for example, the role of legal rules related to private ownership will be different in countries which had an abundance of private firms compared to those which allowed exceptions.

To provide a plausible explanation for the identified processes occurring within and between each of the key teams, one or more of the above theories can be applied. In all of the cases the Institutional theory could be used. While discussing themes (2) 'other organizations' and (3) 'entrepreneurs' the Resource Dependence theory provides further possible explanation. The theories may both challenge each other thus provide competing explanations. Conversely, different theoretical lenses may complement each other thus enriching the explanation provided by a single theory.

Figure 14: Proposed framework for theory application:

Theory/level of analysis	Community level	Population level	Individual level
<i>(A) Institutional theory</i>	x	x	x
<i>(B) Resource Dependence theory</i>	x	x	x

4.6. Case study presentation

The research is constructed as a single case study. Because the research is qualitative, the case was selected based on purposive sampling, where units are chosen because of their particular features (Ritchie & Lewis, 2003). The objective of the case is to reflect particular features, which are believed to enable exploration and understanding of central issues for the conducted research and not intended to be statistically representative (Ritchie & Lewis, 2003).

Poland has been chosen as the case study for several reasons. Firstly, it has the largest economy in the Central-Eastern Europe region. Secondly, has experienced major institutional changes in the last twenty years. Additionally, it has been the first country to start the process of transformation, and thus served, to some extent, as a blue-print for other countries in the region. Thirdly, the Polish Venture Capital industry is believed to be the most advanced in the Central – Eastern Europe region (Klonowski, 2011). In 2011 Poland invested 681 M Euro in 57 companies, compared to the second ranked Hungary which invested 195 M Euro in 37 companies. The study is helped by the fact that the researcher is a native Pole and is resident in Poland. However, it is believed that the lessons learned from the Polish example may be seen as having a wider and more generic relevance than to one European country in transition.

The time frame for the analysis is set from 1989 until the present. The year 1989 covers two major events in the genesis and development of Venture Capital in Poland. The collapse of the Communist system, which opened the road to a market economy, and the creation of the Polish American Enterprise Fund, which was the first such fund created and helped to trigger the nascent Polish Venture Capital

industry. Although the starting date of the research period is firmly set by the two catalysing events noted above, where appropriate the analyses cite critical contextual factors prior to 1989.

4.7. Data collection

Researching emerging industries requires a holistic approach, often involving collaboration across several streams of macro-level entrepreneurial behaviour, extended use of qualitative and historical data, as well as engagement of key practitioners into the process (Forbes & Kirsch, 2011). Following Van de Ven's postulate of 'engaged scholarship', the research aims to identify and investigate the different perspectives of the key stakeholders (Van de Ven, 2007) involved into Venture Capital industry.

The process of data collection in case of the Venture Capital industry is constrained by access issues. The industry is characterised by uncertainty and information asymmetries across range of operational dimensions. Effective collection and efficient information analysis creates the competitive advantage of a successful fund (Gompers & Lerner, 2001). Venture Capital firms often act as gatekeepers and share information selectively. The available statistical data should be taken with consideration for the following reasons. The data are collected by the Polish Private Equity Association on voluntary basis only among its members. The data are often incomplete and difficult to verify. Additionally, taking in account that the vast majority of the association members represent Private Equity rather than Venture Capital investors the data are biased toward large investments. According to information obtained during the interviews, it is impossible to estimate what percentage of the

market is covered by those statistics. Additionally, there is a number of funds specialising in early stage investments, which are not members of the association and do not plan to become so⁶.

These specific conditions had to be taken under consideration while planning both the sources and mode of collecting data.

In order to capture multiple perspectives, the data were collected from various sources and refer both to the Polish Venture Capital industry and its environment. The secondary data sources include legal documents, official documents published by government, funds, trade associations, public institutions, and industrial statistics published both by governmental and international sources. The primary data arise from interviews and observations. Several interviews were conducted with key public and private actors. The goal was to interview a range of actors representing different stakeholders. Despite the access constraints, described earlier, it was possible to interview 15 participants. In the case of two contributors, follow up interviews were requested and conducted. A number of the participants were selected and contacted independently. This technique was effective with public bodies however, significantly less fruitful with Venture Capitalists. Other participants were recruited by network sampling or recommendation of previous participants. The possible biases were minimized by ensuring that participants represented different stakeholders. The interview method was chosen over a standardised survey questionnaire because it allows generation of rich data (Schultze & Avital, 2011). The research focuses on 'what' and 'how' types of questions, additionally participants were experts in their professions therefore guided, open-ended question interviews were conducted.

⁶ Interview with Venture Capitalist

Following Aberbach & Rockman (2002) the open-ended questions provide better opportunity of respondents to organize their answers within their own framework, which increases the validity and is best for the exploratory research. Moreover, such approach provides better rapport because elites especially, as well as well educated people, do not like to be confronted with strict closed-end questions. The drawbacks of the selected method arise from its time consumption related to arranging and conducting the interview in first instance, and later by transcribing (Aberbach & Rockman, 2002). Also due to the amount of collected data the analysis was more difficult compared to closed-end question type of interview.

Each of the interviews took between 40 minutes and 1.5 hour. Depending on the schedule of the participant they took place either face-to-face⁷ or via phone. In order to assure ethical standards while conducting research all participants were provided with informed consent in their mother tongue before the interview. Although confidentiality was guaranteed, not all participants agreed to be recorded. In such cases only hand notes were taken. The recorded interviews were transcribed and, along with interview notes, were made anonymous.

Additionally to the conducted interviews the researcher attended meetings and conferences organized to promote Business Angels and Venture Capital financing opened for entrepreneurs. The non-participant technique of observation was practiced. In order to avoid ethical conflicts no electronic recording equipment has been used. Also the information used in analysis was publicly available.

⁷ 10 interviews were conducted face to face and 5 by phone

Table 4: Sources of data

Primary data	
<i>Interviews</i>	<i>Conferences and workshops</i>
<ul style="list-style-type: none"> • Fund managers (private – 3 interviews; co-financed with National Capital Fund – 1 interview ; hybrid public-private fund – 1 interview) • National Capital Fund (investment manager – 1 interview) • Entrepreneur – 2 interviews • Technology transfer centre/technology parks (2 interviews with Polish managers, 2 interviews with British managers) • Polish Private Equity Association (President – 1 interview, vice – President – 1 interview) • Expert – 1 interview • Layer – 1 interview <p style="text-align: right;">○ (total: 15)</p>	<ul style="list-style-type: none"> • ‘Patent na własność – jak skutecznie chronić własność intelektualną’ Pomorski Park Naukowo Technologiczny, Gdynia (26.10.2010) • ‘Z Aniołem do sukcesu w Biznesie’ – Ponadregionalna sieć Aniołów Biznesu – Innowacja, Warszawa, (14.04.2011) • ‘Giełda Produktów Finansowych – Inicjatywa JEREMIE dla Pomorza’, AmberExpo, Gdańsk (30.05.2012) • Dr. Burton Lee ‘Successful entrepreneurship – Silicon Valley Start-up culture’, Inkubator STARTER, Gdańsk (18.04.2013) <p style="text-align: right;">○ (total: 4)</p>
Secondary data	
<ul style="list-style-type: none"> • Legal documents • Official documents published by government, • Official documents published by funds, • Official documents published by associations, • Official documents published by other public institutions, • Industrial statistics; • Publications in journals, • Historical data collected by EUROSTAT and GUS 	

4.8. Data analysis

The collected data, with just a few exceptions, are qualitative in their character. Maintaining the rigour of analysis in such a situation is extremely important and at the same time challenging. There are several strategies presented in the literature, which aim to help in overcoming such problems.

The research adapts the organization theory as a leading approach to investigate the Venture Capital industry in Poland. Thus it concentrates on constructs, understood as theoretical formulations about researched phenomenon Gioia et al. (2013). However, constructs often are unable to be measured. Gioia et al. (2013) proposed a strategy, which helps maintaining the rigour of data analysis while creating a basis for further theory construction. The strict data analysis follows three steps. In the '1st-order' analysis authors create codes while holding to the terms used by informants. They call these 1st order concepts. During the second step, authors are seeking similarities and differences among the earlier categories and create '2nd-order theoretical level of themes'. The emerging themes suggest concepts that might be used to describe and explain the observed phenomena. The last stage creates aggregated dimensions. These sequential steps together create a basis for building a data structure (Gioia et al., 2013).

The presented research applies the idea of '1st order concepts' and '2nd order themes'. However, it does it in a modified way. The following section describes the process of data analysis. In order to efficiently manage and analyse the large amount of collected contextual data a computer software package was used (NVIVO version 8) throughout the whole process.

Construction of the template presented earlier required a thorough literature review. At this stage the template analysis strategy proposed by King (2004) was used. This method was chosen because it offers a flexible approach to researching multiple perspectives of various groups operating within organizational context. Moreover, due to the way template analysis is conducted, it allows the effective management of large amount of textual data.

Template analysis refers to a group of related techniques allowing the thematic organization and analysis of textual data. At the core of this approach, the researcher formulates a set of codes ('the template') representing themes identified in the textual data. The initial template is applied to analyse the text through the process of coding. Additionally, during the process of coding the template is itself modified.

In this particular case, the initial themes (the initial 'template') are derived from the existing literature on the Venture Capital industry in developed economies. At the first stage the codes represented the factors influencing Venture Capital industry activities and performance described in the literature.

Later codes are arranged in such a way that they cluster together creating a main theme thereby generating a 'higher order code'. In this case the codes were grouped and created the main labels for the template. For example, the lower-order codes such as: *legal origins, property rights, and tax regulations* were later specified under a higher-order code of *regulatory framework*.

The hierarchical arrangement of codes allows the analysis of data at different levels of specificity. The broad (higher-order) codes give the general direction and highlight

the main researched issues whereas the detailed (lower-order) codes allow the search for distinctions present within as well as between codes (King, 2004).

The data collection process was led by the initial template based on '1st order codes'. However, while constructing the semi-structured interviews the researcher was very careful not to limit the interviewees in their responses. So in case any new factors arrive they would not be omitted.

In a modification to the method presented by Gioia et al (2013), the initial codes were already given by the template derived from the literature, not from the data. The collected data at the first stage were sorted according to the broad subjects discussed (the main themes of template). At the second stage they were coded into 1st order concepts, as proposed by Gioia et al (2013). The third step required further clustering into 2nd order themes. The Table below shows examples of coding the interviews.

Table 5: coding (example)

Template (set a priori)	First order concepts within groups	2 nd order themes
Regulatory framework	No one want to be first to fight with tax authorities	Attitudes toward taxation
	Tax law is bad	
	Tax law is over-regulated	
	Would like government to tidy up legal system	Requests toward the legal system
	Need for transparency	
	Suspicious treatment from tax authorities	
	Problematic interpretation of rules	
	Registration of funds abroad	Practices to avoid taxation
	Use of tax havens	
	Ideas how to avoid double taxation	
	System is not bad	Attitudes toward legal regulations
	It was supposed to be good (but it's not)	

	Legal regulations in many cases do not apply VC funds in Poland	
	No legal obstacle	
Other organizations		
<i>Government(direct actions)</i>	No policy toward venture capital	Lack of long term policies toward Venture Capital
	It wasn't effect of detailed planning	
<i>National Capital Fund</i>	National Fund is serving its role	National Capital Fund activities in eyes of interviewees
	Flooding market with money	
	The mechanism is inefficient	
	Influence on development of the industry	
	There are technically and economically bankrupt firms	Efficiency of National Capital Fund's actions
	No exit from deals	
	We are restricted by the cap on investment	Constraining factors for National Capital Fund's portfolio funds
<i>Government (indirect actions) Structural</i>	It's much easier to spend public money	Impact of Structural programs on

<i>programs</i>	Very negative for industry	Venture Capital
	Programs didn't increase professionalization	
	Object of political game	
	Allowed people to start their own business	Impact of Structural programs on Entrepreneurs
	Good for entrepreneurs	
	Responsibility of the beneficiary is huge, for the civil servant is none	
	It's a way to earn extra money	Major weaknesses of the Structural programs
	No specifications on distribution procedures	
	Business models are not adopted to the market reality	
<i>Business Angels</i>	To be rich in Poland is difficult	Constrains toward being a Business Angel
	Many interesting projects are supported by wealthy Poles	Business Angels presence in the industry
	There are many Business Angels but they don't want to be talked about	
	A group of wealthy people/not formal	

<i>Technology Parks/Technology Transfer Centres</i>	Monthly meetings are not popular	Opinions on Technology Parks/Technology Transfer Centres
	Everyone is very pleased with the meetings	
	Technology parks are estate investments	
	Invested a lot in infrastructure and now have to fill in the space	
	No high tech firms among clients	Quality of projects supported by Technology Parks/Technology Transfer Centres
	The activities do not translate into investment activities	
<i>Universities</i>	Government wants good statistics	Policy toward universities
	Scientists are able to waste money	Researchers attitudes toward business
	There is stagnation at the university	
	Good salary compared to market	
	No motivation to change	
	Scientist have no interest in patenting	
	Universities do not understand that time is money	
	We cooperate but there is a lot of barriers	Cooperation between Universities and

	We tried twice to cooperate and failed	business
	Procedures are present	
	Developed models to share technology	
Entrepreneurs	Lack of entrepreneurs with good projects	Quality of entrepreneurial ventures
	Few good projects	
	Entrepreneurs do not engage in projects	Perceived personal characteristics
	Entrepreneurs do not understand the value of company	
Market conditions	Not reliable market	Perceived negative features of the New Connect Market
	Corrupted investors	
	High risk involvement	
	Lack of innovative firms	
	Investors will have problems	
	Problem with collecting money later	
	Lack of liquidity	

	Polish research pointless for commercialization	Opinions on Polish R&D
	Institutions which suppose to support innovation do not meet requirements of business	
	Need for exit option	Perceived positive features of the New Connect Market
	Place where demand meets supply	
	It allows learning process	
Culture	There is very little trust between citizens and the state	Mutual trust between members of the industry
	Business Angels are afraid of personal risk	
	Entrepreneurs don't want external investors because are afraid of losing their businesses	
	The fundamental difference in Poland lies in the amount of stealing	
Funds	Management teams are professional	Management team
	Management teams are weak	
	Management team background is from finance	
	Polish Venture Capital is more like Private equity	Venture Capital's offer
	Besides money do not offer any support	

	Offered only money	
	Good projects are most important for Venture Capital	Venture Capital needs
	They want too much control	Entrepreneurs' Attitudes toward Venture Capital
	There are legal possibilities to take over my company	

The secondary data collection was also guided by the template. At the first stage the data were ordered according to the heading (treated as second order codes) and subheading (treated as first order codes) of the template. Any data that could not be classified this way was treated according to the Gioia et al (2013) method.

Finally, the second order themes allowed testing of the theoretical assumptions presented in the theory chapter (the normalisation of industry; phasing; Incentivisation etc) with the empirical findings.

Employing this approach allows the researcher to keep the analysis flexible and adjusted to the needs of conducted research. At the same time, the presence of a structured template assures an organized approach toward handling large amount of textual data. This helps to produce unambiguous conclusions. As a result of applying this method data collected during interviews and secondary data are grouped thematically under headings provided by the constructed template.

The drawbacks of the discussed method arrive from two main sources. Firstly, the literature covering the methodology, when compared to e.g. grounded theory or discourse analysis, is limited. Thus, there are less available guidelines for data collection and analysis compared to the above methods. Secondly, the coding process has to be done carefully in order to avoid the situation where there are either too many or not enough codes. Only a well balanced coding structure will provide a base for thorough analysis that is neither too shallow nor too descriptive. The template used in the research is based on the existing literature. This allows the assumption that the main codes which are used for the data analysis are already verified by other researchers.

While analysing textual data, besides the above discussed template analysis strategy, the reflexive methodology proposed by Alvesson (2011) will also be applied as complementary method. This method should help in capturing the impact of the context on the research phenomena. The reflexivity focus on 'conscious and consistent effort to view subject matter from different angles, strongly avoiding the priority privileged of a favoured one, including a focus on the details of the text.' (Alvesson 2011: 106). In other words it should help to acknowledge information that is not necessary are driven by the text itself, by opening discussion on context and alternative explanations.

4.9. Generalizability, reliability and validity

The three concepts: generalizability, reliability and validity provide the basic framework for evaluation of the social sciences research (Eriksson & Kovalainen, 2008).

Generalization concerns the issue whether the research results may be applied beyond the examined study, into a wider context (Collis & Hussey, 2009). While quantitative methods use statistical tools to assure generalizability, the case study generalizes to theoretical propositions (Yin, 2003). It means that a case does not represent a 'sample' in a statistical meaning and its goal is to expand and generalize theories (Yin, 2003).

One of the methods increasing the generalizability of a case is achieved through applying theoretical sampling (Silverman, 2011). Following the advice of Silverman, the case was selected with an aim to illustrate the features and processes under investigation in-depth.

Reliability deals with replicability and refers the extent to which a measure, procedure or instrument yields to the same results on repeated trials (Eriksson & Kovalainen, 2008). As Yin (2003) highlights, the emphasis is put on replicating the same case over again, not replicating the results of one case by doing another case study. The researcher focuses on enhancing reliability by keeping the procedural and theoretical transparency (Silverman, 2011). It means that the philosophical stance, as well as the process of research design, data collection and data analysis is described fully. There is access to collected secondary data and interview transcripts if necessary.

Validity refers to the extent to which the research findings accurately reflect the phenomena under study (Collis & Hussey, 2009). The study utilized the validity criteria proposed by Yin (2003): construct validity, internal validity and external validity. Construct validity, assuring the correct operational measurements will be obtained by establishing a chain of evidence using multiple sources of evidence ordered within a case study report at the level of data collection. Internal validity will be assured at the level of data analysis by building and addressing rival explanations. External validity is assured by using theory to which findings of the study can be generalized.

Now having set out and justified the methodology used, the following chapter presents the detailed data analysis and findings

5. Chapter 5

5.1. Data analysis

The following chapter presents and discusses the collected data. The presentation is divided into two main sections. The first section concentrates on secondary data. It aims to present the historical and contemporary socio-economical context in which Polish Venture Capital emerged and developed over the last twenty years. It concentrates on the changes taking place in the environment influencing and shaping Venture Capital industry. The subsections follow the template and present: the legal system, market conditions, institutions supporting entrepreneurship, entrepreneurs and culture. The section closes with a historical overview of the Polish Venture Capital industry.

The second section is driven by primary data. The presentation of subsections follows the template as well. Each subsection begins with a presentation of participants' viewpoints. In order to enrich and validate the information provided by participants, supplementing perspectives arising from secondary data are provided.

5.2. Secondary data presentation

5.2.1. Poland the historical and socio-economical context

The research focuses on the process of change. Due to the character of change, which is neither linear nor singular, the emphasis of context is crucial (Pettigrew, 1990). Additionally both of the leading theories employed articulate the need for including context into the analysis. 'Resource Dependence Theory' indicates that organizations collect and interpret information from their environment and act upon those interpretations. 'Institutional Theory' provides

further explanation on how those interpretations emerge. Depending on their background, individuals interpret the same evidence differently and thus make different choices. The particular interpretation of the surrounding world is grounded within the culture of an individual. The rules and norms accumulated within the culture of any society reflect the past beliefs, shape the present actions, and influence future choices (North, 1990:62). Consequently, the emergence and development of a Polish Venture Capital industry cannot be fully understood without reflecting on the historical and socio – economical context of the country.

A full understanding of the context surrounding emergence and development of the Polish Venture Capital industry is crucial for a comprehensive analysis. This section provides detailed information on those elements of the Venture Capital industry, which, according to the literature, will influence its shape and thus what is specific or peculiar and what might be generic.

Over the course of history Poland has changed its political and economical system more frequently than most countries in Europe with comparable longevity. Just in the 20th century such a shift took place three times. During the mid war period Poland had a market economy and a democratic political system. The end of the Second World War brought a shift towards a communist system and a centrally planned economy. After 1989 Poland returned to its democratic roots.

The consequences of such shifts were felt in the economy and across the society. On one hand no part of the system was operating long enough to be fully developed and rooted, on the other hand the society was used to changes and was able to adapt to new situations more readily than in many comparable

countries. Also, the relatively short time between shifts allowed, at the early stages of transformation process, the adoption of some of the mechanisms used before the communist period, which were still present, at the very least, in the minds of many of the decision-makers in the population; and often in more concrete form, if dormant. For example, the Commercial Code of 1934 was restored with amendments and stayed in operation until 2001 when it was replaced by the Commercial Companies Code (Frankowski, 2005:222). The reconstruction of the Warsaw Stock exchange in 1991 was also facilitated by reference to earlier experiences. A stock exchange had existed in Poland since 1817, and operated until beginning of the Second World War.

The fact that in the case of Poland not all private ownership was confiscated by the communist system eased the transformation process. Private farming and limited number of entrepreneurs existed throughout the communist period. While the years under communist supervision had influenced the society's approach towards private ownership, the concept had not been destroyed. The later privatisation process started quickly and the in case of smaller entities went smoothly (Nellis, 2002). The Mass Privatisation Program introduced the first public investment fund.

In the case of social aspects, even during the communist period Poles kept links with the West. This happened via a strong emigrant society and their media such as Radio Free Europe⁸, which tried to break through the information isolation of The Polish people.

The current political and economic situation in Poland might be perceived as quite stable. The legal system has reached relative maturity and stability

⁸During the communist period it was illegal to listen to Radio Free Europe in Poland.

(Frankowski, 2005), however maturation was, and still is, a gradual process. Undoubtedly the decision to enter the European Union initiated serious amendments to governance and economic systems, in order to align Polish regulations with Western standards. Most of the market institutions had to be built from scratch but historical experience of Poland, and foreign assistance, helped to shorten the process. Although Poland records growing GDP since 1992, and quality of life is constantly growing, most of the economic indicators are still below the EU averages.

The historical context of the transformation process in Poland is provided in Appendix 1. The following subsection concentrates on the current social and economic situation in Poland. It takes a historical approach, indicating development milestones, which are believed to influence the current shape of Venture Capital industry.

5.2.2. Current social and economic context

During the last 30 years Poland has experienced a complex evolutionary process. Throughout this period the country not only entirely reshaped the internal political and economical systems but also became a member of international organizations, fully acquiring their rules and regulations.

The following section aims to present the contemporary social and economic situation in Poland influencing the entrepreneurial activities. The selection of discussed components is based on the conceptual framework used by GEM (Reynolds, Hay, Bygrave, Camp, & Autio, 2000:5-6) and to calculate *The Global Venture Capital and Private Equity Country Attractiveness Index* (Groh,

Liechtenstein, & Lieser, 2011). The subsections extract elements of 'general national framework conditions' and 'entrepreneurial framework conditions'. They include such aspects as the contemporary legal system, market conditions after 1989, and institutions supporting entrepreneurship well as culture.

5.2.3. Contemporary legal system

The nature of the legal environment could be perceived as one of the most fundamental enabling conditions for development of entrepreneurship as well as of the emergence of a viable Venture Capital industry. At the very minimum it provides security of property rights, which, according to most economists, are crucial for free and voluntary exchange; while at the more advanced and aggregate level, the legal structure influences efficiency and certainty of investing and doing business (Parker, 2007). A stable legal framework promotes planning, resource acquisition and coordination of businesses. Strong property rights encourage reinvestments of profits which then are crucial for employment growth and sales growth. Entrepreneurs who perceive their property rights to be insecure reinvest only 32% of their profits while entrepreneurs who perceive their rights to be the most secure right reinvest 56% (Johnson, McMillan, & Woodruff, 2000). The tax and regulatory burden may also influence productivity (Frye & Shleifer, 1997).

5.2.4. Legal tradition and legislation process

The contemporary Polish legal system, understood as a set of legal institutions, procedures and rules (Merryman & Perez-Perdomo, 2007) derives from the civil law tradition (LaPorta, Lopez-de-Silanes, & Shleifer, 2008). Similarly to other

countries following the civil law tradition the Polish legal system relies on comprehensive, continually updated legal codes. There are two categories of law: substantive acts and procedural acts. Substantive acts define the rights and duties of citizens and the state, whereas procedural acts provide rules that govern the proceedings of the court in criminal lawsuits as well as civil and administrative proceedings. Judges operate in a framework of established law. Their role is to establish the facts of the case and to apply the relevant code. Their role in shaping law is limited compared to the legislators who draft and initiate the codes.⁹

The contemporary system in Poland has reached relative maturity and stability, in the view of 'the Western Community of Nations' (Frankowski, 2005: xxii). The Polish system observes the rule of separation of powers. There is a clear distinction between executive, legislature and judiciary power. Law indicates the scope of state's power as well as providing the framework for the government's actions and policy implementation (Bertelsmann Stiftung, 2012).

The supreme law within the Polish legal system is the constitution. Although, Poland has a constitutional history dating back to 1791; the contemporary, binding constitution was adopted in April 1997. It refers to principles and values typical for modern western democracies, such as sovereignty of the Nation, independence and sovereignty of a democratic State ruled by Law (Frankowski, 2005). The Constitution provides the principle of bicameralism of the legislature. The lower chamber – Sejm, and the upper chamber – Senat, together constitute the National Assembly. Both chambers have a four-year term of office. The president is the supreme representative of the country and is elected in direct

⁹ <http://www.law.berkeley.edu/library/robbins/CommonLawCivilLawTraditions.html>

citizen vote for a five-year term. The President nominates the Prime Minister, who then proposes the manning of Council of Ministers. The President also appoints judges based on the recommendation of National Council of the Judiciary.

The Polish judicial system, besides the system of courts (regional, district, appellate courts and The Supreme Court) includes two bodies: The Constitutional Tribunal and Tribunal of State. The first one decides on constitutional matters, such as conformity of laws and international agreements with the Constitution, as well as adjudicates on complaints regarding constitutional provision. The second judges violations committed by public officials while in office. The Supreme Court along with the Constitutional Tribunal serves as an effective control to the government and the legislative branch (Bertelsmann Stiftung, 2012).

5.2.5. Legal environment influencing Venture Capital industry

The following section highlights the legal aspects of Venture Capital funds creation and operations as well as legal regulations guiding the conduct of business in Poland.

Although Venture Capital was present on the Polish market since the beginning of the transformation process, which is the early 1990s, the first national regulations were introduced much later. The first legal act referring to the Venture Capital industry was called 'On Investment Funds' and was announced on 28 August 1997¹⁰, with later changes. It referred to funds established and operating in Poland. The above act gave legal personality to the investment

¹⁰ Ustawa z dnia 28 sierpnia 1997 r. o Funduszach Inwestycyjnych (DzU 1997 Nr 139 poz. 933)

funds as well as to set out the possible kinds of funds, and the boundaries for their operations. Specialised 'closed end' funds were supposed to serve as the legal vehicle for Venture Capital. However, according to Gazeta Bankowa (31 May 2004) as late as 2004 no funds had been established based on this regulation. The failure of this regulation was a result of lack of understanding of the specific nature of Venture Capital operations, manifested by not allowing funds to invest in R&D, and neglecting corporate rights of the investors (Socha, 1999).

Further improvements to this particular legal vehicle were introduced gradually. The Polish accession to the European Union resulted in significant changes in the rules governing investment funds. As result of the legal unification process a new act was introduced: the act on investment funds¹¹ in 2004. Up to the year 2012, this document has been changed seven times. According to the new regulations only an Investment Fund Company is entitled to establish and manage investment funds. Establishing an Investment Fund Company requires the approval of the Polish Financial Supervision Authority. An authorised Company may create three possible forms of investment funds:

- open investment fund;
- specialized open investment fund;
- closed investment fund.

¹¹ Ustawa z dnia 27 maja 2004 o Funduszach Inwestycyjnych (DzU 2004 Nr 146, poz. 1546)

Such constructed investment funds, according to the tax regulations¹², do not pay income tax on revenues. The tax becomes due when revenues are distributed to investors or the fund is selling or repurchasing its certificates.

Although the legislators believed that this would be the best suited legal vehicle for venture capital investments this form is not used much. The main constraint, especially for smaller Venture Capital funds, is the high cost of such construction. In case of small funds with investment capital of 5M PLN (1,5M US) the yearly cost can reach up to 3% of capital¹³.

While equity funds may choose to operate within the above structure, the smaller ones, especially Venture Capital funds, choose other legal vehicles. Although there are no official registers of Venture Capital firms operating on the Polish market the stakeholders¹⁴ claim that majority of funds are registered abroad. Funds choose to register abroad mainly for tax advantages. Funds which are receiving any sort of public support are obliged to register in Poland thus have to use legal vehicles available in Polish law. The most popular legal forms are limited liability company (spółka z ograniczoną odpowiedzialnością) and joint-stock company (spółka akcyjna) categorized as capital companies, followed by limited liability partnership and limited joint-stock partnership,

¹² Ustawa z dnia 15 lutego 1992 r. o podatku dochodowym od osób prawnych (DzU 1992 Nr 21 poz. 86) act 6/p.10)

¹³ See: www.psic.org.pl 07-09-2012 (stanowisko w sprawie projektu zmian zasad opodatkowania spółki komandytowo akcyjnej)

¹⁴ MinisterstwoGospodarki. 2009. Raport z realizacji badań – Uproszczenie krajowych aktów prawnych „Reforma procesu stanowienia prawa i uproszczenie obowiązujących przepisów” Analiza uwarunkowań prawnych podmiotów działających na rynku Venture Capital / Private Equity. Warszawa Ministerstwo Gospodarki; interviews with expert and venture capitalists.

belonging to the partnership group. All of those forms are regulated within the Commercial Companies Code¹⁵.

The limited liability partnerships as well as joint-stock partnership are relatively new legal forms introduced in the Commercial Company Code in the year 2000. The Commercial Company Code regulates issues concerning both partnership and capital corporations as well as provides guidelines for corporate governance. The major difference between the capital companies and partnerships is the presence of legal personality. Partnerships do not have legal personality thus are perceived as 'imperfect' legal entities. Although partnerships may acquire and dispose of property and be parties to the court proceedings they do not have distinct governing bodies such as a management board. Additionally partners are liable for the obligations of the partnership with all of their personal property (Frankowski, 2005). The limited liability partnership allows partners to distribute the liability between them in such a way that there is a partner or partners who are liable to creditors with all their personal property and also partners who are liable only up to a specific sum. That information has to be specified in the National Register. A limited liability partner has neither statutory right nor statutory obligation to represent the partnership or to manage its business affairs. Although one might be given those rights by the limited partnership agreement (Frankowski, 2005).

The joint-stock partnership uses the same idea of categorising partners as the limited partnership. In this case the general partner (active partner) is personally liable and the shareholders (passive partners) are liable only to the value of their shares. Only the general partners have right to represent and manage the

¹⁵ Ustawa z dnia 15 września 2000 r. Kodeks spółek handlowych (DzU 2000 nr 94 poz. 1037) with later changes full text available: (<http://isap.sejm.gov.pl/DetailsServlet?id=WDU20000941037>)

business affairs of the partnership. However the stakeholders may act as agents of the partnership. Joint-stock partnership may trade its stock publicly. In order to protect shareholders two governing bodies may be appointed: the supervisory board (which became obligatory when the number of shareholders exceeds 25) and general meeting which is always mandatory (Frankowski, 2005).

The main difference between limited liability partnership and the joint-stock partnership is in the partnership agreement. In the case of a joint-stock partnership statute refers to all shareholders, thus a shareholder by selling his/her shares may withdraw from the partnership without agreement of the rest of the shareholders or even the general partner. In case of limited partnership the agreement is based on personal ties and refers to particular partners (Ministerstwo Gospodarki, 2009).

The joint-stock partnership became the most attractive legal form for domestic Venture Capital funds, after a recent tax interpretation published by the Minister of Finance¹⁶. According to this interpretation the shareholder's tax is due on the day of dividend payment regardless of whether the shareholder is a legal person or private person.

The capital companies forms (limited liability company and joint-stock company) are the most frequently used forms of Venture Capital fund legal vehicles. Both have legal personality and have to be registered in the National Register. The share capital may be paid either in cash or in non cash contributions. Shareholders are not liable for the company's obligations. The major difference

¹⁶ Interpretacja ogólna nr dd5/033/1/12/ksm/dd-125 Ministra finansów z dnia 11 maja 2012 r. w sprawie opodatkowania dochodów niebędącego komplementariuszem akcjonariusza spółki komandytowo-akcyjnej z tytułu udziału w zyskach spółki komandytowo-akcyjnej, Dziennik Urzędowy Ministra finansów 18/05/2012 poz 24.

between the limited liability company and the joint-stock company lies in their governance arrangements. In case of a limited liability company, appointing an advisory board or an audit committee is necessary only if the number of shareholders exceeds 25, whereas in case of joint-stock company a management board and supervisory board are always required. The limited liability company requires less capital to be established compared to a joint-stock company, (minimum 5 000PLN to minimum 100 000PLN)¹⁷ but cannot issue securities in the form of shares that can be publicly traded.

Although this form of operation is not optimal for Venture Capital funds, they choose it because firstly it allows them to limit the liability to a particular number of shares, secondly, compared to the typical investment fund this does not require extensive financial reports. The required yearly report presents highly aggregated data (Ministerstwo Gospodarki, 2009). The main disadvantage of utilizing the capital company's form is the double taxation of company's revenues. First time tax has to be paid when the Venture Capital fund exits investment in form of corporate income tax, second time tax is paid by the investor who is the stakeholder in form of personal income tax (Ministerstwo Gospodarki, 2009).

Looking from the perspective of a small or medium size Venture Capital fund, although at first sight there is a lot of choice in possible legal vehicles, none of them is tailored for its needs. The legal form of investment fund although it offers tax advantages over other forms, is too expensive and, additionally, requires detailed financial reports. The forms of capital companies, although relatively not expensive, generate double taxation. The joint-stock partnership

¹⁷ State for September 2012

currently serves as the most suitable form, however the changes in taxation procedure recently announced by the Ministry of Finance, due 1 January 2013, may easily devalue its position.

Considering conditions for conducting a business, the Polish constitution creates strong foundations for a market based economy. It declares the 'social market economy', based on the freedom of economic activity, private ownership, and solidarity, dialogue and cooperation between social partners, as the base of economic system (Art. 20)¹⁸. Guarantees for negotiations as the tool for solving social conflicts arising from participating in the economic process, indicates that everyone is equal before the law and no one may be discriminated against. Additionally the constitution provides protection of ownership, other rights and the right of succession¹⁹. Whereas the constitution provides general guidelines, the more detailed terms and conditions of running economic activities are formulated in separate documents. The detailed regulations having most impact on conducting business are presented later in this section.

The turning point in Polish legislation referring to conducting business was the Commercial Activity Act²⁰ announced by the communist government in 1988 and remaining in operation until 1 of January 2001. Although it was created when the communists were still in power it had long lasting effects for the emerging free market economy. The revolutionary character of the document was demonstrated in the following statements:

¹⁸ English translation of The Constitution of Republic of Poland, text published on the official web page of Polish Sejm: <http://www.sejm.gov.pl/prawo/konst/angielski/kon1.htm>

¹⁹ Articles: 32, 33 and 64 form The Constitution of Republic of Poland

²⁰ Ustawa z dnia 23 grudnia 1988 r. o działalności gospodarczej (Dz U 1988 nr 41 poz 324)

- ‘undertaking and running business activity is free and allowed to everyone on equal rules’ (art. 1);
- ‘business entities within their business activity may undertake any action that are not forbidden by law’ (art. 4);

It triggered rapid development of Polish small business; by the end of 1999 over 70% of employment was situated in private sector (GUS, 2000).

Currently, the fundamental legal regulation for conducting business is the Freedom of Economic Activity Act²¹. The document contains regulations for establishing, running and terminating a business. It also regulates such issues as registration and information obligations of an entrepreneur, indicates activities requiring concessions or other sorts of state control, control issues, foreign entrepreneurs, and contains a section on micro, medium and small enterprises. Compared to previously binding documents, this regulation introduces a new definition of medium and small entrepreneur as well as creates the concept of micro entrepreneur, which are aligned with European Union standards.

The literature indicates that besides the entry regulations (Dulleck, Frijters, & Winter-Ebmer, 2006) also the bankruptcy regulations influence the level of entrepreneurship in an economy (Armour & Cumming, 2008; Lee, Yamakawa, Peng, & Barney, 2011). Softer bankruptcy rules encourage experimentation by entrepreneurs and allow fresh starts (Parker, 2007).

²¹ Ustawa z dnia 2 lipca 2004 r. o swobodzie działalności gospodarczej (DzU 2004 nr 173 poz. 1807)

The Polish legal system includes bankruptcy procedures, regulated by the Act of Bankruptcy and Rehabilitation²² issued in 2003, with later amendments. The regulation, besides procedures guiding the bankruptcy process, includes also 'rehabilitation procedures', which are dedicated to business entities, which expect to become insolvent in the near future. The binding insolvency law has been assessed as of 'medium compliance' with the international standards according to (EBRD, 2010). The opinions of experts, both from the academic and professional field, realised in the PARP (2011) report are positive toward the proposed regulations. They indicate that the act serves the needs of the market and does not require any major changes in the near future. Experts highlight the use of an agreement procedure with creditors as a very positive solution. As areas of weaknesses they indicated mainly the length of the procedures, and their costs – increased by the long proceedings and the operation of trustees (PARP, 2011). The critique referred not as much to the regulations themselves as to their inefficient and therefore prolonged execution.

Taxation issues are regulated by the act Tax Ordinance²³, which was formulated in 1997 and from the beginning was heavily criticised for the extensive powers of the Ministry of Finance as well as for neglecting the experiences of tax practices (Gomułowicz & Małecki, 1998). The act regulates: conditions under which tax obligation emerges, defines taxpayers, tax authorities and indicates their duties, and sets out procedures for tax collection and tax control. The document was amended frequently, however the most important changes from the taxpayers' point of view were introduced in 2007. Along with the new regulations, any entrepreneur who received written

²² Ustawa z dnia 28 lutego 2003 r. Prawo upadłościowe i naprawcze (DzU 2003 nr 60 poz. 535)

²³ Ustawa z dnia 29 sierpnia 1997 r. - Ordynacja podatkowa (DzU 1997 nr 137 poz. 926)

interpretation of legal provision concerning public duties can rely on it. It means he/she cannot be charged or punished on the grounds of further interpretation contrary to the one he/she received²⁴.

Currently the Polish tax system contains 12 different kinds of taxes, 9 direct and 3 indirect. From the perspective of conducting a business the three most important taxes are the Private Income Tax (PIT), Capital Income Tax (CIT) and Value Added Tax (VAT). The above taxes were introduced early in the transformation process and were subject of frequent changes and intensive critique.

The PIT ²⁵ was introduced as the first tax in 1991. It refers to all physical persons, who have place of residence in Poland, or have a centre of personal or economic interests there and generate revenues, or run a business. Entrepreneurs since the year 2003 have a choice in terms of the form of tax payments. They may pay according to progressive rates or a flat rate. Until the year 2008 the progressive tax had three rates, since then only two (currently 18% and 32% - state for 2012), the flat rate is 19%. If one decides for the flat rate of 19% automatically one is not eligible for the majority of tax allowances and deductions. Physical persons whose revenue is generated from participating in partnerships are also subject to PIT as well as those who are shareholders in companies with a legal personality and who participate in companies' profits. The flat rate refers also to incomes from financial capital.

²⁴ Chałas i Wspólnicy, Kancelaria prawna, information prepared for Polish Information and Foreign Investment Agency

²⁵ Ustawa z dnia 26 lipca 1991 r. o podatku dochodowym od osób fizycznych (Dz U z 2010 r. Nr 51, poz. 307) with later changes

The Corporate Income Tax (CIT)²⁶ introduced in 1992 regulates the tax obligations of legal persons which have a site or management registered in Poland. The flat rate of 19% refers to the tax base as well as to dividends. In case of not providing the required documents the tax authority may adjust the tax due, based on similar transactions, the difference between the declared tax by the legal person and the calculated tax by the tax authority is subject to up to 50% tax. If the legal person is a subject of Polish tax payment its income is taxed despite the source or the place of generation. Certain costs might be deducted from the tax base. Losses in the previous tax year may reduce the tax base in the following 5 tax years. The deducted amount may not exceed 50% of the loss each year. The tax base might be also reduced by certain deductions made by the taxpayer during the tax year i.e. by donations for public utility purposes, and for religious purposes, as well as for obtaining new technology.

For the first time VAT was introduced in the Polish tax system in 1993 by the act on tax on goods and services and on excise tax²⁷. This document was replaced in 2004 by a new act²⁸ which is in compliance with the European Union regulations. This is one of the most frequently updated documents, for example there were 11 ordinances of the Ministry of Finance referring to VAT regulations in 2012 and 27 in the previous year, and since the document was published there have been over 200 amendments. Polish law recognizes three VAT rates, which are given as percentage value (23%; 8% and 5%).

²⁶ Ustawa z dnia 15 lutego 1992 r. o podatku dochodowym od osób prawnych (Dz U z 2011 r. Nr 74, poz. 397) with later changes

²⁷ Ustawa z dnia 8 stycznia 1993r. o podatku od towarów i usług oraz podatku akcyzowym (Dz U 1993 nr 11 poz 50) with later changes

²⁸ Ustawa z dnia 11 marca 2004 r. o podatku od towarów i usług (DzU 2004 Nr 54 poz. 535) with later changes

The OECD (2011) report evaluating Polish administration indicated the tax system as inefficient and complicated. The major weaknesses were assigned to frequent changes of regulations and high costs of compliance arising from high number of payments and time required to fill in the forms.

Whereas, the communist period could be characterised by stagnation within the intellectual property rights area, the multi dimensional changes in Polish economic and social life after 1989 required reconsideration of these regulations. Currently those rights are protected by two major documents: the act on copyrights and related rights²⁹ created in 1994 and the industrial property act³⁰ created in 2000. According to jurists these acts serve contemporary needs by taking in account the impact of recent technologies and by creating effective mechanisms and procedures for preventing unauthorised copying practices. Moreover they are fully aligned with the European Union standards (Frankowski, 2005). The copyright act specifies and protects the rights of authors. These rights refer to intangible assets, defined as a piece of creative work. The work is protected whatever its material value, form, and means of expression or usage. The act protects work that either was created or co-created by a Polish or EU citizen, was originally published in the territory of the Republic of Poland or simultaneously there and abroad, or was published for the first time in Polish. There are two groups of rights: personal copyrights and economic copyrights. The personal rights protect interests directly related to the person of the author. The economic rights on the other hand regulate issues referring to use and explanation of the work as well as regulate fees for such usage (Sieniow & Włodarczyk, 2009).

²⁹ Ustawa z dnia 4 lutego 1994r. o prawie autorskim i prawach pokrewnych (Dz U 1994, nr 24, poz. 83) with later changes

³⁰ Ustawa z dnia 30 czerwca 2000r. Prawo własności przemysłowej (DzU 2001 nr 49 poz. 508) with later changes

The industrial property act provides protection of inventions, utility models, industrial designs, trademarks, indications of origins, topographies of integrated circuits and business process designs. The act gives detailed definitions of the categories, which are protected. The protection would be provided after the Patent Office determines if the requirements are met. Patents are given for 20 years, counting from the day of applying, utility models for 10 years, industrial designs for 25 years, trademarks for 10 years, indication of origins is granted for unlimited time and topographies of integrated circuits for 10 years.

Patents are territorially limited. Within the Polish system there are three options for protection: at the national level, the European level (also referred as regional) and the international level (Pryża, 2009). The price for issuing protection documents rises with the level of protection (PPO)³¹.

Employment issues are regulated by the document called the Labour Code³². Most of the employers perceive the code as over regulating. It includes such issues as working hours and holidays, which in other western countries are usually regulated by collective labour agreements (Frankowski, 2005). The labour regulations are heavily criticised among practitioners. The Polish Confederation of Private Employers Lewiatan (PKPP Lewiatan) publishes a yearly report on barriers for entrepreneurship. Labour law has got a dedicated section in this report. The main problems arising each year are the inflexibility of the legal regulations, vague formulation of regulations, bureaucracy related to employment, constraints related to the termination of contracts, a general imbalance in terms of employer/employee rights, as well as high costs of

³¹ Polish Patent Office,
http://www.uprp.pl/uprp/_gALLERY/27/88/27881/ochrona_wlas_przem_w_pigulce_INTERNET.pdf

³² Ustawa z dnia 26 czerwca 1974 r. – Kodeks pracy (DzU z 1998 r. Nr 21, poz. 94) with later changes

employment. The OECD (2008) evaluation of the Polish economy, despite continuous improvements in general, considered the labour market as poor. It indicated that Poland has got one of the highest wage taxes in the OECD countries, despite having relatively low personal income tax. The situation is due mainly to the high rates of social security contributions paid both by the employer and the employee.

According to external evaluations the opinions on Polish legal environment are moderate. The World Bank reports Doing Business (summary Appendices 2) indicates that the business environment in Poland is quite stable since 2004. There are improvements in most of the researched areas although they are neither significant nor always maintained over time. A positive sign of decreasing costs of starting a business is not accompanied with a reduction in the number of procedures, despite the government's declarations. There are no significant positive changes in the hiring and redundancy procedures. The tax duties, except taking less time, which might be due to the introduction of electronic systems, are not easier in terms of number of payments, or less expensive for entrepreneurs. Although the government introduced a wide program aiming to change the law to more be more entrepreneur friendly Reforma Regulacji (2006) the main problems remain.

Since 2004 the European Venture Capital Association includes Poland in their report: 'Benchmarking European Tax and Legal Environments'. The aim of the report is to provide a tool enabling comparison of certain elements of European tax and legal frameworks that are particularly important for the development and operation of national Venture Capital industries (EVCA, 2006, 2008). The evaluated factors are divided into three groups: tax and legal environment for

limited partners and fund managers, the environment for investee companies and the environment for retaining talent in investee companies and management funds. Assigned scores are between 1 (more favourable) and 3 (less favourable). During the 3 periods of evaluation (2004/2006/2008) Poland scored below the European average. It has improved from the score 2.13 in 2004 to 1.95 in 2008. The tax incentives were evaluated as the weakest element constantly scoring 3. The fiscal R&D incentives were showing improvement over time. The major issues needing further improvement, mentioned in the conclusions of the 2008 report, referred to weaknesses of the dedicated fund structure, tax transparency, lack of tax incentives for investors and fund management, and lack of fiscal incentives for young innovative companies. Although there are limited fiscal incentives for businesses R&D expenditures, such areas as contracting researchers, cooperation between firms and research institutes/universities or creation of innovation firm are not subject of fiscal incentive.

5.2.6. Market conditions

The following section discusses the market conditions influencing Venture Capital industry development. There are three main groups of factors presented, the financial markets (including banks), the GDP growth rate and the level of R&D.

Financial markets

The literature agrees on the need for well developed financial markets for a Venture Capital industry to emerge and develop (Da Rin, Nicodano, &

Sembenelli, 2006; Gilson & Black, 1999; Gompers & Lerner, 2004; Jeng & Wells, 2000). Financial markets provide the exit for Venture Capital investments. A successful exit guarantees attractive returns for investors thus makes it easier to raise additional capital. As Gompers and Lerner (2004:205) indicated, although exiting is the last phase in the venture capital cycle, it is extremely important for the health of other parts of the cycle.

The following section considers two elements of the financial system, which are emphasized in the literature as well as highlighted in the collected data. These are capital markets and banks. The capital markets provide the opportunity for Venture Capital to exit their investments via IPO as well as to raise new funds, thus the more sophisticated a capital market is, the better conditions are for Venture Capital development (Groh, von Liechtenstein, & Lieser, 2010). Banks, on the other hand, when involved in Venture Capital investment have different objectives compared to independent venture capitalists (Hellmann, Lindsey, & Puri, 2004).

The Polish financial system, like most of the other elements of the modern market economy, had to be created almost from scratch. The first reforms introduced in 1989 included reforms to the financial system. The first changes applied to the National Bank of Poland (NBP) and bank law. In 1991 the act on public trading of securities and trust funds³³ was introduced along with the creation of the Securities and Exchange Commission. Later documents introduced the Bank Guarantee Fund (BFG) and specific changes required to adjust the Polish system to European standards.

³³ Ustawa z dnia 22 marca 1991 r o publicznym obrocie papierami wartościowymi i funduszach powierniczych (DzU 1991 Nr 35 poz. 155)

Stock markets

Poland has a stock exchange tradition dating back to 1817. With the beginning of World War II the sessions were suspended. Although there were attempts to reconstruct the stock exchange system after 1945, the communist regime was in opposition to this concept. The formal reactivation of the Warsaw Stock Exchange (Giełda Papierów Wartościowych w Warszawie - GPW) took place in 1991. The legislation was passed in March while the first trading took place on 16 April. It has to be stressed that the high speed of legislation and preparatory work was possible due to very close cooperation between the Polish authorities and the French Société de Bourses Françaises and Central deposit SICOVAM³⁴.

The GPW developed quickly. Initially trading sessions took place once a week. Later a second and then third trading day were introduced. By 1994 the stock exchange was working 5 days a week. In 2010 GPW became a public company and its shares were traded on the main floor³⁵.

Currently issuers and investors may choose from five different markets:

1. The Main List (operated from the very beginning), which is a regulated market; provides a trading platform for shares, bonds, pre-emptive rights, rights to shares, investment certificates, structured products, ETF's, warrants and derivatives.
2. Derivative Market (in operation since 1998);

³⁴ <http://www.gpw.pl/historia> <http://www.gpw.pl/historia>

³⁵ ibidem

3. New Connect (in operation since 2007), which is an alternative trading platform, designed for young companies. Due to its relevance for the Venture Capital industry it will be discussed in detail later in the chapter;
4. Catalyst (in operation since 2009), designed for trading debt instruments;
5. Energy market (in operation since 2010), designed to expand the GPW's operations in the commodities market; accommodating all categories of participants on the energy market (Warsaw Stock Exchange, 2012).

Changes in legal regulations introduced in the year 2001, which aimed to adjust Polish law to EU standards, eased IPO procedures. Simultaneously the GPW concentrated on supporting corporate governance practices and created a code. As a result since 2003 all listed companies are required to submit a declaration of following the official corporate governance code.

The activity of the GPW is concentrated on stock and bonds trading. The vast majority of trading (99%) takes place on the main market. Until the year 2000 the market capitalisation was constantly growing. Although the worldwide financial crises were noticeable they did not significantly affect the overall capitalisation. The EU accession in 2004 visibly triggered further development of the stock exchange until the next financial crisis in 2008. Although the global tendencies were also felt on the Polish stock exchange, the end of year capitalization was comparable with stock exchanges in Austria and Greece, which GDP is comparable to Poland's. Additionally the Warsaw stock exchange overtook the above markets in terms of number of listed companies

(Sobolewski & Tymoczko, 2010). Figure 15 illustrates capitalisation and number of companies during the period of 1999-2011.

Figure 15: Market capitalisation and number of companies listed on the Warsaw stock exchange



Source: (Warsaw Stock Exchange, 2012)

Due to its rapid development the GPW became one of the biggest markets in the CEE region. However, compared to western European markets its capitalization remains rather small. Since Poland joined the EU the trends of western stock exchanges are mirrored within the Polish pattern. The Polish Stock Exchange is characterised by a low level of liquidity³⁶, compared both to stock exchanges of the same size and to bigger ones. One of the probable causes for such a situation is the relatively high number of companies with a low capitalization. The average capitalization of a company listed on the GWP

³⁶ Liquidity measured as relation of turnover to the capitalization value

was 182,6 M USD in 2011 compared to an European average of 1 472,3 M USD. Additionally the liquidity is limited because investors, such as pension funds or strategic investors, aim for a long term investments (Sobolewski & Tymoczko, 2012b). While trading investors generally concentrate on the largest companies.

Despite the presented limitations of the stock market its presence is indicated as positive enhancement for the Venture Capital industry (Groh et al., 2011).

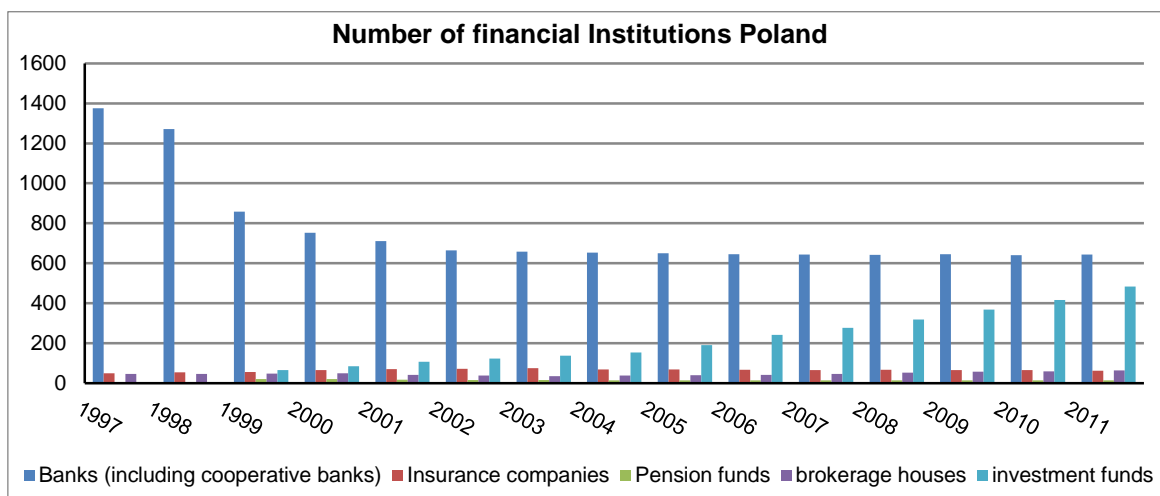
Banking system

The current situation in the banking sector is influenced by the course of reforms undertaken in the early 1990s. The reforms aimed at tidying up the relationship between the National Treasury and the banking system (NBP, 2001). The National Bank of Poland was designated as the central bank of the state, bank of banks, and issuing bank. The newly established legal framework allowed other organizations to undertake banking activities, in which way the state monopoly was removed. In the first phase nine national regional banks were separated and designated to provide credit and deposit services to the public on a commercial basis. Simultaneously new organizations were established. The first two years were characterised by intensive expansion as well as changing relationships on the market. Foreign owned banks entered the Polish market, firstly as strategic partners, later changing position into stakeholders (Kornasiewicz & Pugacewicz-Kowalska, 2002).

The Polish financial system is strongly bank oriented. Although the proportions are changing over time, still the banks dominate in the Polish economy

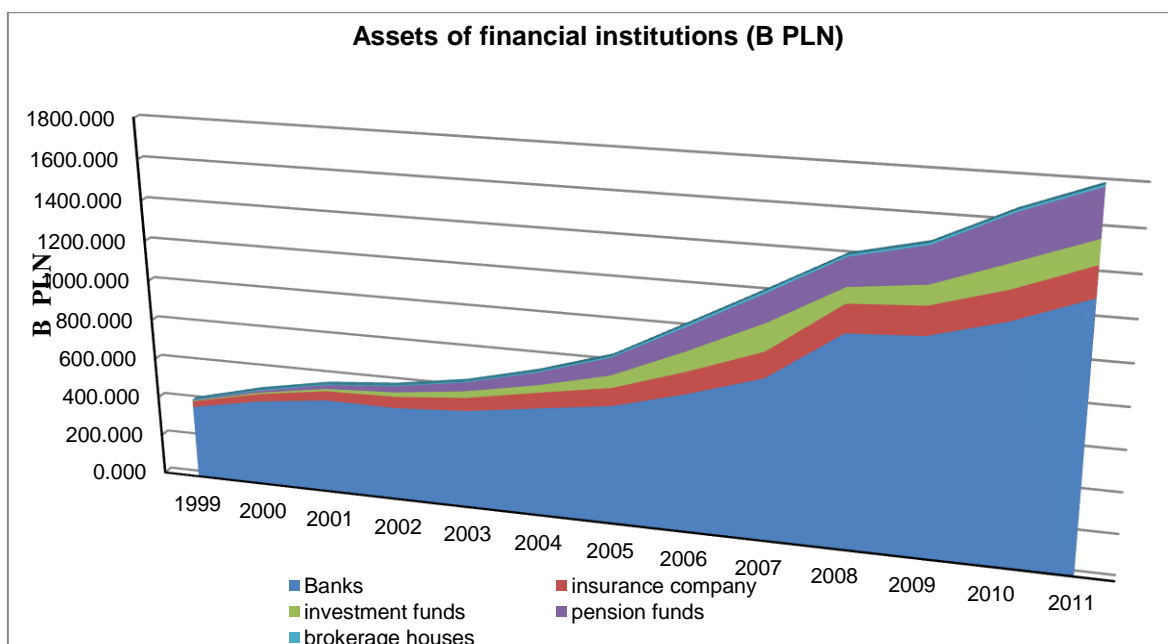
considered both in numbers and collected assets. The followed model is based on universal banking. Each bank, which meets the legal requirements, is allowed to provide all sorts of banking services. Figures 16&17 provide the overview on the dynamics in changes in number of financial institutions and their assets.

Figure 16: Number of financial institutions in Poland



Source: adapted from National Bank Reports

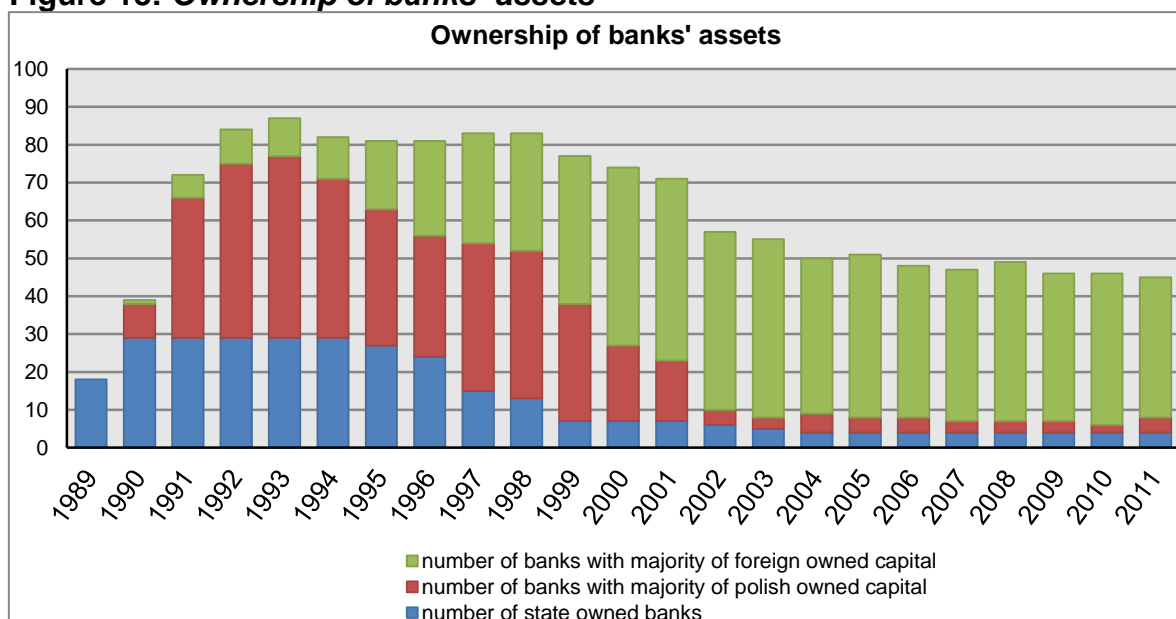
Figure 17: Assets of financial institutions (B PLN)



Source: adapted from National Bank Reports

In the early 1990s the majority of state owned banks started the privatisation process, which resulted in a very quick change in the ownership structure. The dominance of state owned banks declined in favour of those funded more by foreign capital.

Figure 18: Ownership of banks' assets



Source: combined data form (Kornasiewicz & Pugacewicz-Kowalska, 2002; Osiński, Wyczański, Tymoczko, & Grąt, 2004; Sobolewski & Tymoczko, 2012b)

In 1997 a completely new set of regulations was introduced, which according to the national and international experts, aligned Polish regulation with the requirements of the European Union (NBP, 2001). Two years later, after Poland joined the OECD, formal restrictions for opening foreign branches were removed completely (NBP, 2001).

The global bank crisis related to the collapse of Lehman Brothers led to decreased financial liquidity on the Polish money market. As a result of the global crisis the crediting criteria became stricter. Nevertheless the banks'

assets rose by 30.7% at the end of the year 2008 compared to the previous year (Sobolewski & Tymoczko, 2010). Polish banks remain universal in their character and concentrate on providing traditional services, which according to some experts makes them less vulnerable for external crises. The banking sector is characterised by a relatively low level of concentration compared to other European countries. Although banks provide a range of services designed for SMEs their major credit activities are targeted at individual clients (Sobolewski & Tymoczko, 2012a). The changes observed within the banking system during the last 3 to 4 years are not significant, which suggests a relatively stable and mature state of this sector.

GDP growth

The literature on Venture Capital does not present a consistent view on the role of GDP for the Venture Capital industry. Jeng and Wells (2000) concluded in their research that GDP growth has no significant influence on Venture Capital funding. Whereas Gompers et al. (1998) indicates that higher GDP growth leads to greater Venture Capital activity. For the purposes of the following research the argument of Gompers et al. seems to provide a better understanding of the process, because the authors present a broader perspective of Venture Capital activities. They point out that the increase in GDP growth creates more opportunities for potential and existing entrepreneurs. Thus the demand for Venture Capital funding increases.

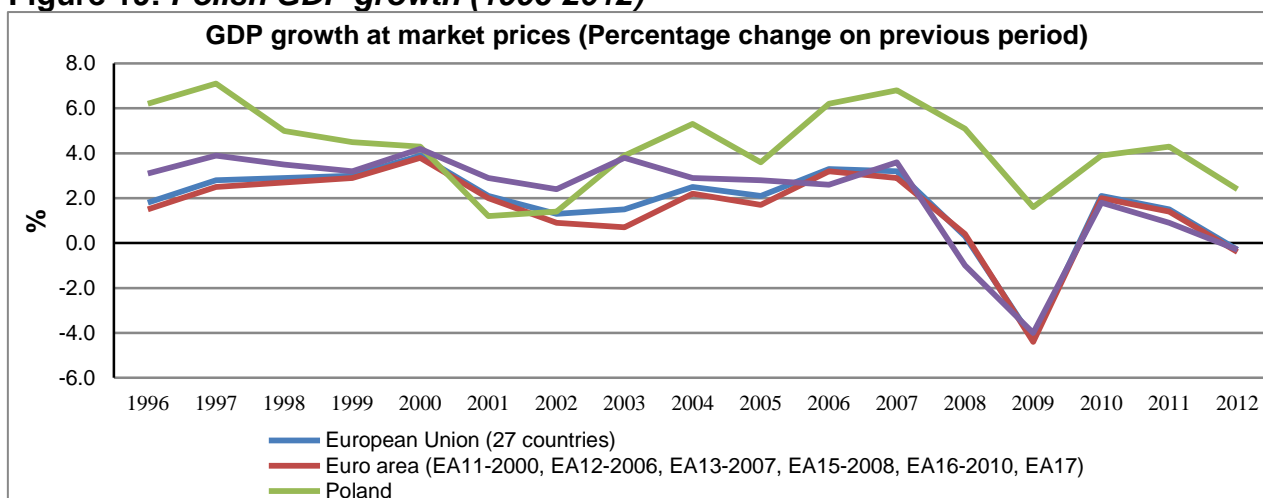
In the case of Poland the early transformation reform, although initially harsh for the society, brought quick economic benefits and consistent improvement of

living conditions. Starting in 1992 Poland records a yearly growth in GDP, even during the global economic crisis. Since then Poland has not experienced recession, although has felt the effects of global downturns. The economic slowdown in 2001-2002 was attributed the preceding crisis in Russia, in 2005 to the accession shock and the latest one in 2009 to the wider global crises (Tarnawa & Zadura-Lichota, 2012). The main factors influencing long term economic growth were within both the internal and external conditions. Especially during the first years of transformation such features as increased effectiveness of production along with changes in quality of capital and work culture, had significant impact. This was a direct effect of changing the dominant mentality from the socialist into the market oriented mode (Tarnawa & Zadura-Lichota, 2012). A significant role was played by investments, which were spurred by pre accession and later accession funds provided by the European Union. Poland received over 110 B Euro³⁷ in the form of support programs. Along with the integration processes the Polish economy became more vulnerable to changes in the EU members economies. Currently over 70% of Polish foreign trade by turnover is conducted with EU countries, also the majority of foreign investors are residents of the EU.

Although the Polish economy is perceived as stable and is complimented by foreign economists, a closer look at the statistical data shows that despite the recorded growth of economic indicators, Poland remains in the group of countries scoring below the average for EU members. According to the IMF classification it is still perceived as emerging economy.

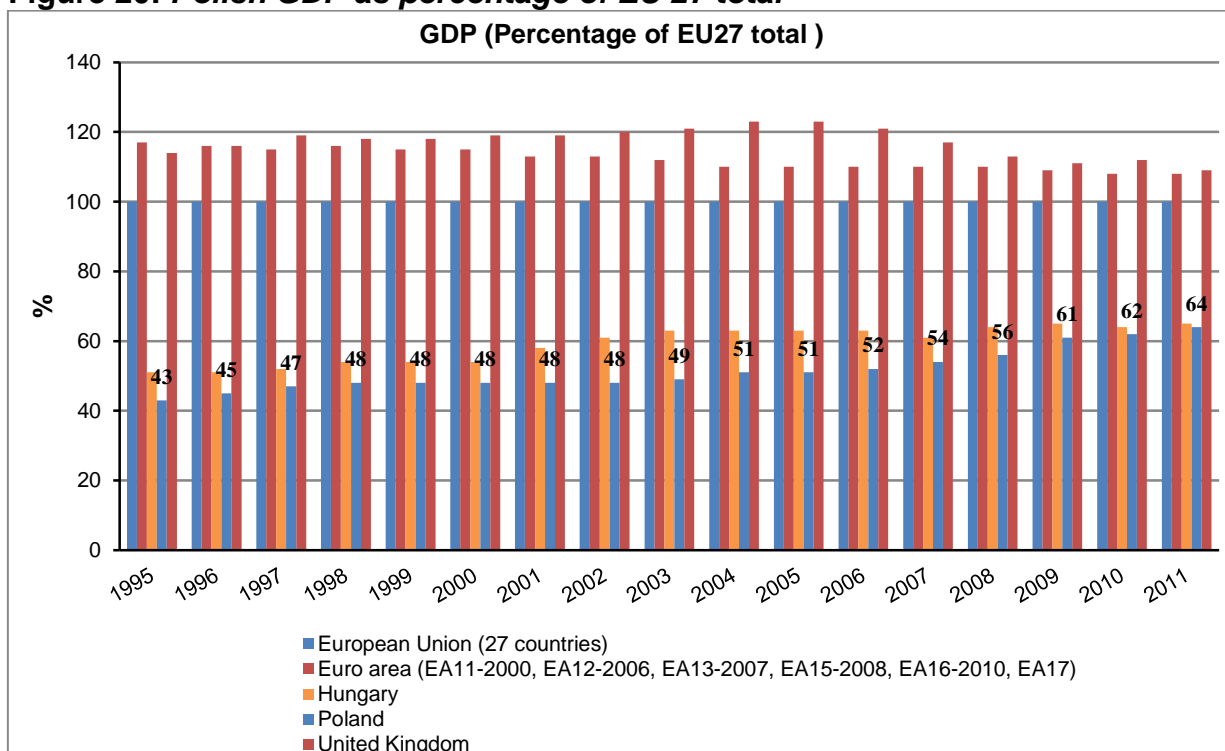
³⁷ <http://www.mapadotacji.gov.pl/>

Figure 19: Polish GDP growth (1996-2012)



Source: Eurstat

Figure 20: Polish GDP as percentage of EU 27 total



Source: Eurostat

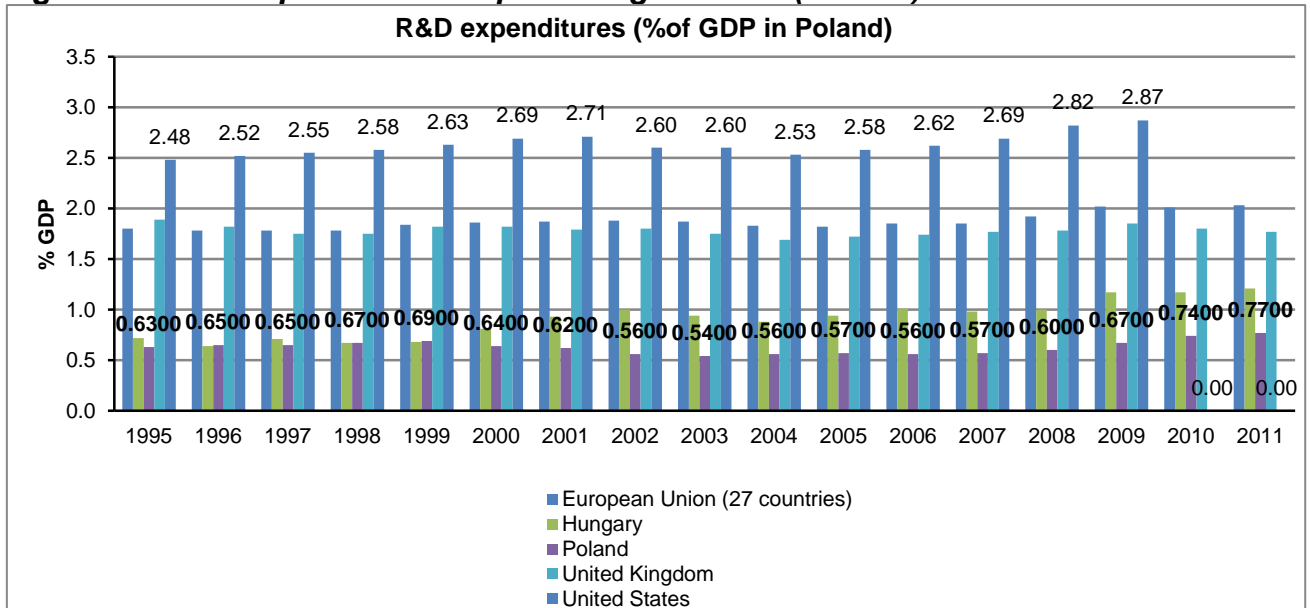
The above figure illustrates Polish GDP as percentage of EU average. The GDP has barely exceeded 50% of the EU average. Additionally the GDP count per capita still remains below the average.

One of the major problems of the Polish economy is its low level of competitiveness. The situation in this respect has not changed significantly over the last decades. Inefficient public spending, and weak infrastructure accompanied by the low quality of public institutions are believed to be the main cause for the situation (Ministerstwo Gospodarki 2006; 2011).

R&D potential

The literature indicates that existing technology opportunities influence Venture Capital activity (Gompers & Lerner, 2004; Saxenian, 1996). Analysing the expenditures for R&D activities Poland shows that it stays behind the European Union average. Total spending does not exceed 1% of GDP, whereas the EU average oscillates around 2% and the US exceeds 2% of GDP as seen in figure 21.

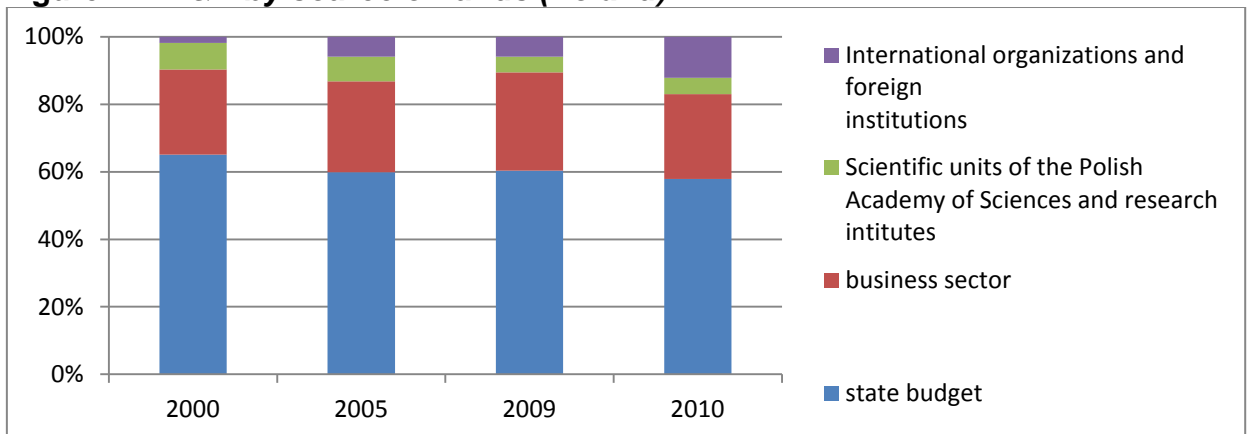
Figure 21: R&D expenditures as percentage of GDP (Poland)



Source: Eurostat

The majority of investment funds are still provided by the government. Although in recent years the role of foreign financing has significantly increased. Within 10 years the share rose from 1,8% to 11,8% of the total R&D budget.

Figure 22: R&D by source of funds (Poland)

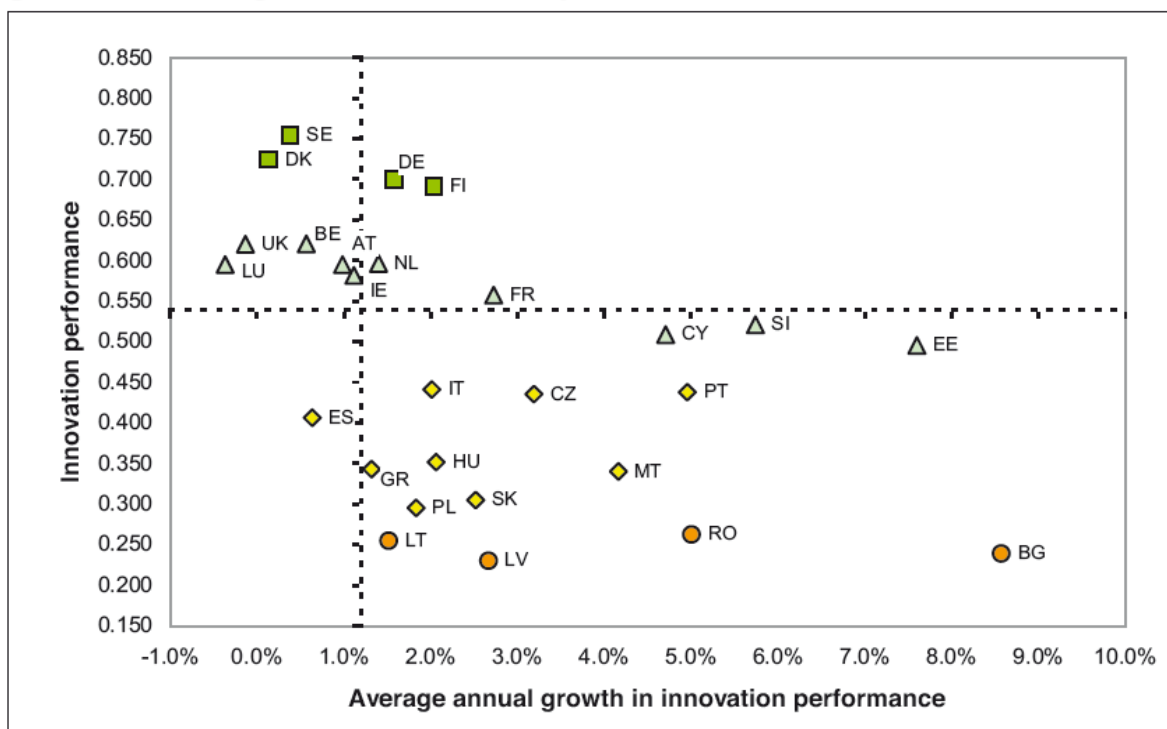


Source: Eurostat

Analysing the employment in R&D, the share of employees in the science and technology sector measured as percentage of the active population is

constantly growing. The situation is similar while narrowing observation only to scientist and engineers positions (Eurostat). According to the European Innovation Scoreboard (2008/2009/2011) Poland has upgraded from a 'catching-up country' in 2008 to a 'moderate innovator' in 2009 and 2011. However the average scores in innovation performance are still below the EU27 averages. The only exception where Poland scores above the average is the 'human resources' dimension. Among major weaknesses indicated in the reports are linkages & entrepreneurship and innovators.

Figure 23: Convergence in innovation performance



Source: Innovation Union scoreboard, 2011

In terms of the speed of innovation growth Poland is among moderate growers.

The innovation leaders, such as Denmark, Finland, Germany, Sweden and UK, are characterised by strong national research and innovation systems and outperform other countries in business activities and public private collaboration (Innovation Union scoreboard, 2011).

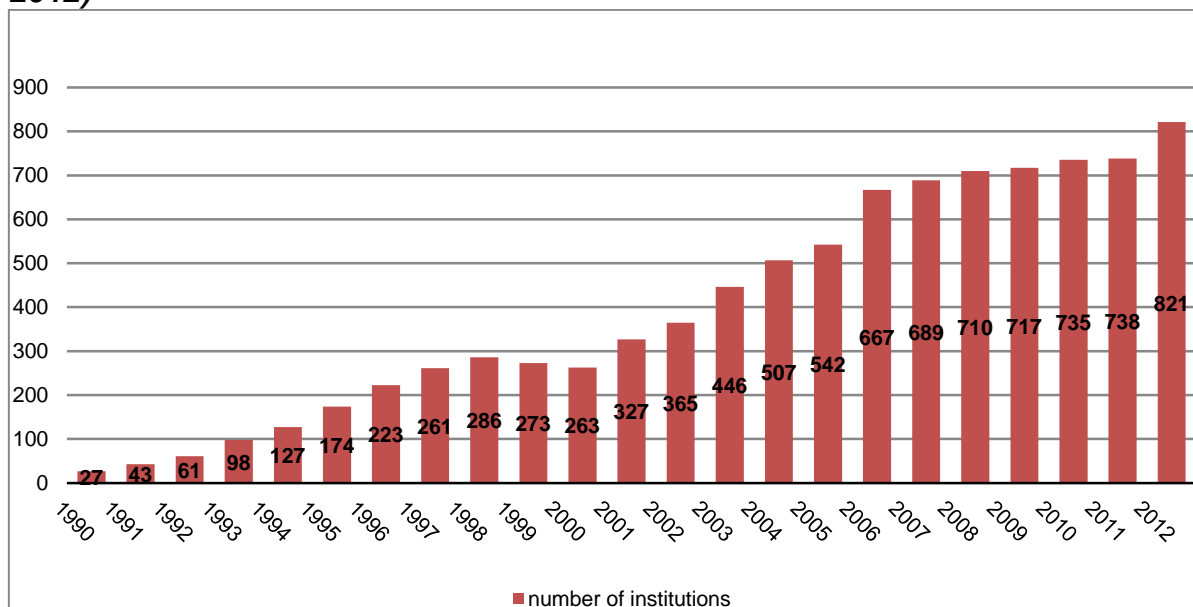
5.2.7. Institutions supporting entrepreneurship

In Poland the commonly used term 'centre for innovation and entrepreneurship' describes organizations providing active support for entrepreneurship, innovation and competitiveness (Bąkowski & Mażewska, 2012). Looking at the historical perspective, the first innovation and entrepreneurship incubators were created in 1990/1991 in big agglomerations such as Poznań, Warsaw and Gdańsk. The initiatives were undertaken by universities, research institutions and supported by local councils. Shortly after this the Polish Business and Innovation Centres Association (Stowarzyszenie Organizatorów Ośrodków Innowacji i Przedsiębiorczości w Polsce)³⁸ was established with the aim of providing a platform for knowledge and practice exchange. The association currently has 180 active members, undertakes its own research and regularly publishes reports on the state of Polish centres for innovation and entrepreneurship. It also engages in international cooperation with similar institutions abroad.

The number of organizations supporting entrepreneurship and innovation is constantly growing and the changes over the last 23 years are shown on the picture below.

³⁸ <http://www.sooipp.org.pl/en/>

Figure 24: Centres for innovation and entrepreneurship in Poland (1990-2012)



Source: adapted from: (Bąkowski & Mażewska, 2012)

In the early and mid 1990 the majority of centres were providing training and consultancy, they used mainly local financing. The transformation processes created increased demand for these sorts of services. In mid 1990 the situation has changed in favour to activities supporting innovation. The share of innovation centers, among all the institutions supporting entrepreneurship, has increased from 3.2% in 1995 up to 34.2% in 2012. Similarly to the early transformation period the trend answers the market needs.

Most commonly those organizations provide only one type of support, rarely combining two or more services on a regular basis e.g. education and financial support. Very rarely the cooperation at the regional level includes network of more than 5 organizations (Bąkowski & Mażewska, 2012).

The character of these organizations has changed significantly over time. They have transformed from individual initiatives into professional organizations. Nevertheless they have kept the idea of no-profit organizations driven by the

social goal of filling in the gap between the market mechanism and public administration. There is no single legal form they operate in. It ranges across the forms of research institutions, foundations, and associations, on up to capital companies. They are characterised by high independence which on one hand gives flexibility in operations on the other hand results in a disparate system as a whole. There is an observable positive trend of increased engagement of higher education institutions and R&D institutes as well as local self governance institutions, such as commerce chambers, in participating in these sorts of initiatives. However, the commitment of practitioners in sharing their knowledge through this sort of platform is still perceived as not sufficient (Bąkowski & Mażewska, 2012).

The European funds available in the last two programs 2004-2006 and 2007-2013 created a unique opportunity for rapid development of organizations supporting entrepreneurship and innovation. The next EU financing turn of 2014-2020 is forecast to be more selective and focused on financing directly research, innovation and technology commercialisation (Matusiak & Guliński, 2010). Although the amount of disposable funds for organizations supporting entrepreneurship and innovation increased significantly there is a side effect in the change of their budgets' structure. As a result the public financing plays an increased role which leads to financial dependency. Within a few years, when the current programs finish, those organizations will have to face the problem of finding alternative sources of funds (Bąkowski & Mażewska, 2012).

5.2.8. Entrepreneurs

The following section is going to highlight features of Polish firms, which are believed to describe their ability to serve as portfolio companies of Venture Capital funds. Most of the data comes from official statistics and government reports.

The Polish legal system separates enterprises into four groups according to their size described by number of employees, turnover and balance sheet assets. As Micro-enterprises are described those firms employing less than nine people, excluding the owner and co-owners, generating turnover of less than equivalent of 2 M Euro per year and recording less than 2 M Euro worth of assets in their balance sheet. Small – enterprises are those employing between 10 and 49 employees, with turnover less than 10 M euro per year and assets not exceeding 10 M Euro. Medium-enterprises employ from 50 up to 249 people, generating up to 50 M Euro of turnover yearly and record up to 43 M euro worth of balance sheet assets³⁹. The large companies, by elimination, are those with higher numbers in employment rate, turnover and assets. Any of the above companies is perceived as an innovative enterprise when has made an innovation within last three years where a novelty was introduced in a product or service, process, marketing or organisation (OECD, 2010).

The collapse of the communist system triggered rapid growth in the number of SMEs. Currently over 99% of all firms operating on the market can be classified as SMEs. Their role in the economy is changing, nevertheless they are perceived as the important wealth provider. In 1999 the contribution of all enterprises in GDP generation was 70.4%, where 68% of the total GDP

³⁹ art. 1 appendix I European Commission (WE) nr 800/2008 from 6 of August 2008

generation was assigned to SMEs. In 2010 the enterprises still generated around two-thirds of national product (71.6%) with a decreased contribution of SME to 47.6%. Looking at the employment structure, the number of people working for SMEs increased from 68.4% in 1999 up to 69.9% in 2010 (Dzierżanowski & Stachowiak, 2001; Tarnawa & Zadura-Lichota, 2012).

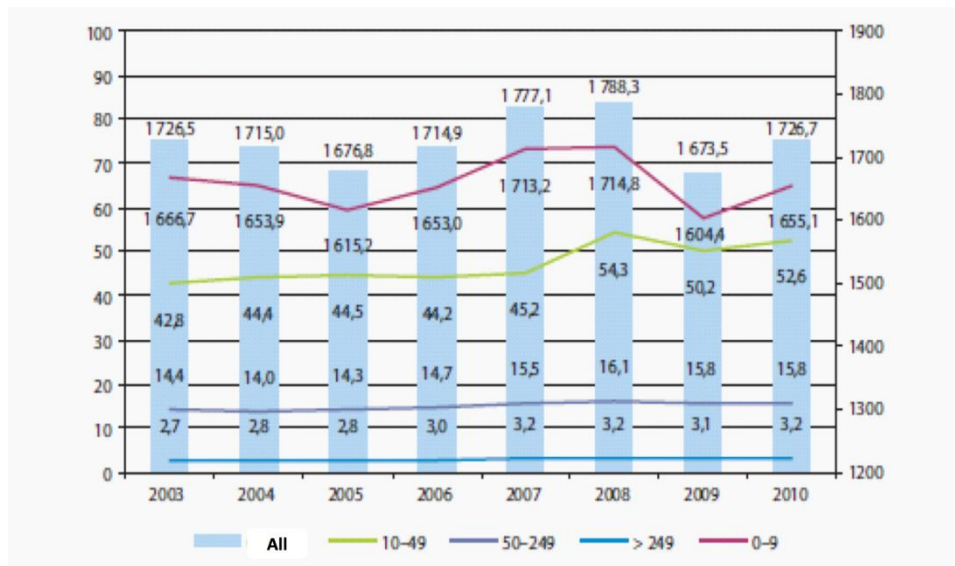
The above data consider only the official statistics, however the actual size of the sector is bigger when so called 'gray' economy is included. The numbers reported under informal (gray) economics depends heavily on definitions applied. The broader the definition the higher are the numbers. Therefore estimates are between 26% of GDP and 14% of GDP depending on sources (OECD, 2010). Informal employment is less a problem than other aspects of informality, especially those aiming at tax evasion. According to the World Bank research run in 2009, over 43% of companies did not report all sales for tax purposes. This generated the highest rate in the Central Eastern Europe (OECD, 2010).

Most of the statistics concentrate on the number of officially registered firms, however there is usually a difference between the registered and the active number of entities. The graph below illustrates the number of active enterprises, which it is believed gives a more accurate picture of the processes taking place in the SME market. As can be seen, the micro firms are outnumbering other types of firms and are followed by small enterprises. Compared to the EU average, in Poland the distribution of SMEs is heavily skewed to micro enterprises (OECD, 2010).

Analysing the dynamics of changes in the number of active firms it can be seen that the increase in numbers between the years 2005-2006 overlaps with

improving market conditions, similarly the decrease in the year 2009 might be related to the global economic crises.

Figure 25: Total number of active firms in Poland in individual size groups in years 2003 – 2010 (in K)



Source: (Tarnawa & Zadura-Lichota, 2012:23)

Considering the first year, survival rate has kept improving since 2007. In 2010 almost 80% of firms survived their first year. However the statistics are less optimistic for the survival rate in the second year, where the average is 50%, and 31% in the third year. Compared to the European average the number of closed businesses each year in Poland is higher (13% in Poland versus 10% on average in EU for 2009) nevertheless this is still better result than recorded by Portugal, Spain or Hungary (Tarnawa & Zadura-Lichota, 2012).

The performance of Polish firms varies significantly among regions. The well developed *voivodships* such as Mazowieckie or Pomorskie offer higher investment attractiveness for businesses. Along with increased competitiveness

firms operating there have better access to external financing and also more often use it, in the form of bank credit, leasing, loan guarantees or Venture Capital financing (OECD, 2010).

The Polish Confederation of Private Employer - Lewiatan runs regular research and issues yearly reports on performance of Polish SMEs. According to the latest report the most popular kind of innovation introduced by SMEs were product innovations, followed by marketing innovations. Process innovations were the least introduced.

Those who did not introduce any kind of innovation explained the decision by factors such as: no need of innovation in the sector in which they operate, too small size of the firms, surprisingly, the lack of capital was nominated as third and followed by the assumption that clients do not need innovations, and last, that there was too high a risk connected with introduction of innovations.

SMEs differ in respect to goals and long term planning. The micro-enterprises focus on short term goals such as staying in the market or increasing profit. Medium enterprises on the other had focus on increasing their share of the market and market value. In respect of goals these are very similar to large enterprises, in which planning is long term.

Also the way firms perceive their competitive advantage has significantly changed during last 3 years. Until 2004 firms perceived price as the best way to position themselves on the market. Currently the situation is changing in favour of increased role of quality of products as well as quality of client services. (Starczewska-Krzystoszek, 2011)

5.2.9. Culture

The following section is dedicated to the issues related to national culture and its relationship with entrepreneurship. Culture, in contrary to personality, is a collective phenomena. It refers to set of shared values, believes and expected behaviours. It is deeply embedded and unconscious (Hayton, George, & Zahra, 2002). Following Hofstede (2001:9) culture might be described as 'collective programming that distinguishes the members of one group or category of people from another.' Furthermore, culture is socially constructed therefore learnt not inherited.

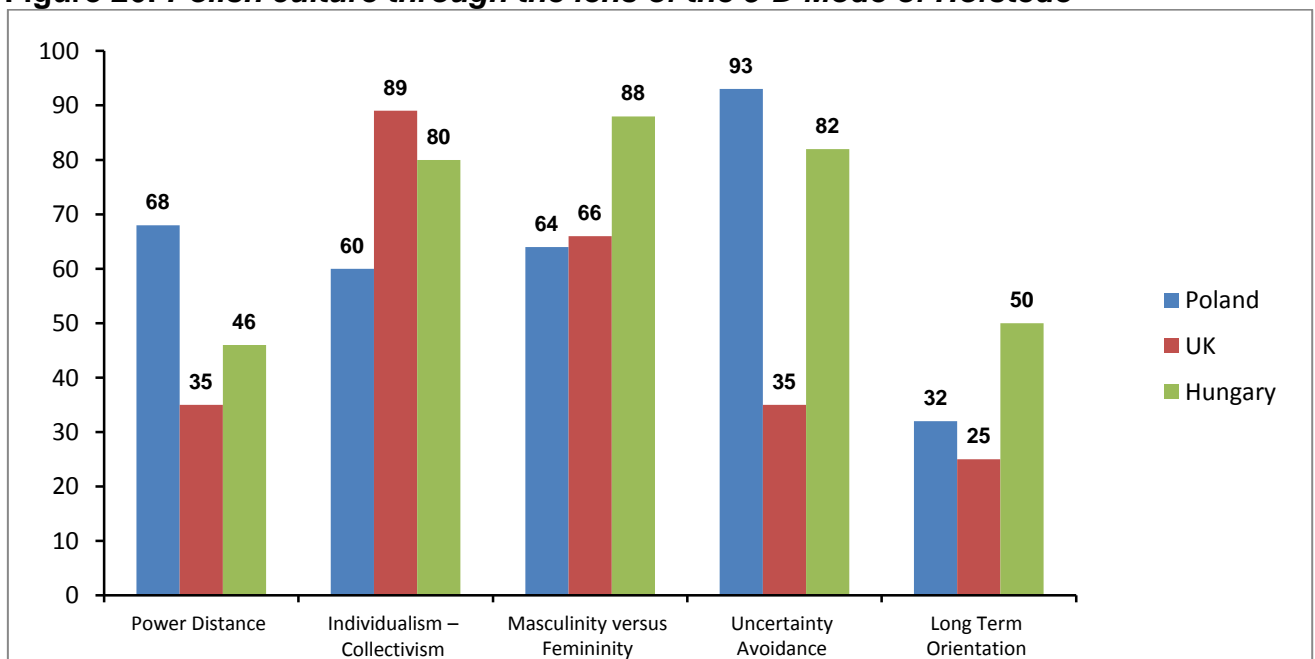
The influence of culture on entrepreneurial activities had been discussed both in the theoretical and empirical literature (Hayton et al., 2002; Urban, 2010). Hayton et al (2002), based on a comprehensive empirical literature review, suggested that culture should be perceived as a moderator between contextual factors (institutional and economic) and entrepreneurial outcome. It acts rather as catalyst than causal agent of entrepreneurial outcome.

This research follows an approach proposed by Hofstede (1983, 1984). Based on extended research the author proposed a consistent taxonomy of four cultural dimensions for explaining peoples' behavioural preferences in business organizations. A fifth dimension was added later, based on a smaller scale research. His approach has been frequently used either directly on in modified versions in empirical research (Hayton et al., 2002). The wide application of this taxonomy allows comparison between different countries and times. Although the dimensions proposed by Hofstede do not absorb all the cultural differences between nations empirical research, they have proved their correlation with management and organizational aspects. For example, power distance is

related to the way subordinates approach their bosses, the individualism/collectivism dimension influences negotiation behaviour, uncertainty avoidance is correlated with job satisfaction and masculinity/femininity relates to number of female managers (Kolman, Noorderhaven, Hofstede, & Dienes, 2003). Li and Zahra (2012) indicated that the level of uncertainty avoidance and collectivism are particularly relevant for Venture Capital investments. The authors argued that although the formal institutional framework is fundamental for Venture Capital operations both the uncertainty avoidance and collectivism seem to reduce the sensitivity of Venture Capital funding to the incentives provided by the formal institutions (Li & Zahra, 2012)

The proposed dimensions according to which national cultures might be characterised are presented below. The figure illustrates the current state of Polish national culture in comparison with the British and Hungarian.

Figure 26: Polish culture through the lens of the 5-D Mode of Hofstede



Source: adapted from the official web page of The Hofstede Centre: <http://geert-hofstede.com/poland.html> (2013)

The current values scored by Poland are contrasted with research published by Nasierawki and Mikula (1998), which applied Hofstede's criteria to evaluate Polish managers in the mid 90s. The comparison should allow trends in changes of analysed dimensions to be recognised.

The first dimension refers to Power Distance (PDI) and represents the extent to which members of a society accept that power in institutions and organizations is distributed unequally. In Large Power Distance societies, people accept hierarchical distribution of power and further justification is not required. In organizations Power Distance influences the amount of formal hierarchy and level of centralisation, influences mode of participation and decision-making (Newman & Nollen, 1996).

Poland scored 68 (compared to 72 in previous research), which indicates that it is a hierarchical society, especially in comparison to the United Kingdom. Within organizations this is reflected by centralisation and acceptance of close supervision. Managers encouraging participation might be perceived as weak or incompetent (Newman & Nollen, 1996). People will make an effort to keep a powerful image. The large Power Distance does not foster participation, commitment and work ethic. Such a combination of features forms an unfavourable environment for technology transfer (Nasierowski & Mikula, 1998). Following Nasierawki and Mikula (1998), Polish managers do not perceive themselves as practical or systematic, they reject the need for support and avoid consultations with subordinates before taking decisions. Employees, on the other hand, are afraid to disagree with their bosses and often are uncooperative. This situation might be partially assigned to the communist inheritance, when people were discouraged to think independently. Also the

research indicates, in Central Europe respect for authorities is low and rather unlikely to change in near future (Mishler & Rose, 1997; Nasierowski & Mikula, 1998).

The second dimension Individualism – Collectivism (IDV) indicates the preferences toward social framework. Societies skewed toward Individualism prefer a loosely knit social framework, where individuals are expected to take care of themselves and their immediate families only. A Collectivist approach, on the other hand, favours a tightly – knit social framework, where individuals can expect their relatives, clan or other in-group members to look after them in exchange for unquestioning loyalty (Hofstede, 1984). Within organizations individualism is manifested as autonomy, individual responsibility and individual – level rewards (Newman & Nollen, 1996).

Poland scores 60 (previously 56), which according to Hofstede, makes the society individualistic on the scale. However comparing to the UK (89) or Hungary (80) the difference is significant. In combination with Large Power Distance the individualistic approach indicates an internal ‘cultural contradiction’, which creates tensions. As Nasierawki and Mikula (1998) pointed out, while implementing changes a strong need for group support is displayed. At the same time respect or at least acceptance of the leadership is shown. However, this preference does not make Polish managers good team players. Also the earlier research indicated a lower level of individualism with simultaneous rejection of the concept of collectivism, at least in the communist version.

The Masculinity versus Femininity dimension (MAS) indicates to what extent the social gender roles are clearly distinct. Masculine societies prefer achievement,

assertiveness and material success while Feminine societies favour relationships, modesty and the quality of life (Hofstede, 1984). The perception of failure differs significantly. Masculine cultures abhor failure in contrast to feminine culture, which rates failure as less significant (Newman & Nollen, 1996).

Poland scored 64 (previously 62), which leaves it behind the UK and Hungary values, but still classifies it as a masculine society. It translates into a need for career success both for men and women. However the presence of low ethical standards and prejudices results in a limited enthusiasm toward others' individual success (Nasierowski & Mikula, 1998).

Uncertainty Avoidance (UAI) refers to the way individuals within the society deal with unknown. It relates to the level of stress caused by uncertainty and ambiguity (Hofstede, 1984). In organizations, Strong Uncertainty Avoidance is manifested in clarity of plans, policies, procedures and systems; application of which helps to reduce the uncertainty and cope with discomfort of unknown situations (Newman & Nollen, 1996). Those societies are described as intolerant toward deviant persons or ideas.

Poland scored 92 (previously 106). Compared to 35 recorded by the UK, places Poland with a very high preference for avoiding uncertainty. Considering Polish recent history this might be classified as rational behaviour. The bureaucratic system during the communist period was characterised by rules and procedures. Individuals had limited opportunities to control their destiny (Nasierowski & Mikula, 1998). However, as Poland becomes blended in the European system this attitude is slowly changing toward weaker uncertainty avoidance.

The Long Term Orientation versus Short Term Orientation (LTO) dimension was added later and was based on separate research limited to 23 countries and later extended to 93 (Hofstede & Bond, 1988; Hofstede & Minkov, 2010). This dimension relates to the country's time orientation. Long Term Oriented cultures are characterised by patience, determination and respect to elders as well as ancestors (Newman & Nollen, 1996). In organizations individuals value learning, honesty, accountability and self-discipline. The focus is given for life - long relationships, owners/managers and workers share the same values. In Short Term Orientation societies main work values are freedom, rights, achievement, and thinking for oneself. Personal loyalties vary with business needs (Hofstede & Minkov, 2010).

Poland scored 32 (earlier data not available), which categorises it as Short Term Oriented culture, although to a lesser extent than the UK. Following Short Term Orientation Poles are expected to respect tradition, have a limited tendency to save, follow current consumption trends, expecting quick results at the same time having strong concern with establishing the truth i.e. normative⁴⁰.

The changes in the dimension values recorded between mid 1990s and current state show that Poland is following trends present in Western cultures in general. Although, taking in account that cultural changes are slow, some of the characteristic features are not expected to change in the near future. Nasierowski and Mikula (1998) point out that such attributes as distrust in authority, lack of cooperative spirit, high expectations for life and low work ethic are difficult to withdraw. Additionally they indicate that the transformation process in Poland resulted in a dichotomy within the society. One group shows

⁴⁰ <http://geert-hofstede.com/poland.html> (last update: 14.03.2013)

entrepreneurial spirit, is open to new ideas and willing to take risks. The other group, usually connected with state controlled enterprises, expects government support and protection.

5.2.10. Venture Capital industry

The following section sets out the history of the Venture Capital industry in Poland. The data come mainly from secondary sources but include information collected during an interview conducted with an expert on the Polish Venture Capital industry – Piotr Tamowicz, PhD⁴¹.

The history of the Polish Venture Capital industry can usefully be seen in terms of successive phases of development. The broadest categorisation comprises two periods: before entering the European Union and after entering the European Union. Klonowski (Klonowski, 2011) proposed a more detailed classification comprising: a development stage (1990-1994); an expansion stage (1995-1997); a stagnation stage (1998-2003); and a buyout stage (2004-2009). His taxonomy was based on the fund raising, investment and exit activity of funds. Although such a classification gives clear boundaries it does not sufficiently describe the emergence and development of Venture Capital. The drawback of this classification for the purpose of this study arises from the fact that it is based on fund raising and investment values, which in most cases are generated by Private Equity; whereas, as indicated later in this chapter, Venture Capital constitutes less than 10% of the total of those numbers. Therefore an alternative approach is proposed here, which focuses on milestone events for

⁴¹ 1990-2004 worked for The Gdańsk Institute for Market Economies; now an independent market consultant. Laureate of the Educational Enterprise Foundation Prize for the best report on Polish Venture Capital Industry (2005); co-author of National Venture Capital Forum; author of publications on Venture Capital, innovation and corporate governance.

the Venture Capital industry as a whole. The turning points, identified for the first time here, are derived from the expert interviews conducted in this study.

It is proposed that the turning points in the emergence and development of the Polish Venture Capital industry can be identified as: the entrance of foreign funds, based on aid finance; joining the European Union structure, which allowed access to extensive public funds dedicated to Venture Capital funding; establishing the National Capital Fund; and finally, activation of the New Connect platform as part of the Warsaw Stock Exchange.

The economic and political changes that started in Poland in 1989 were accompanied by activation of the first Venture Capital funds. Data on the emergence of the Venture Capital industry is limited, especially for the first ten years. The European Private Equity and Venture Capital Association (EVCA) started regularly collecting data on Eastern and Central Europe in 1998; however, the first reports include only aggregated data. The Polish Private Equity Association (PSIK) was created later, in 2002. Most of the data published by the Polish Association is based on EVCA calculations. The problems of data collection as well as validation will be discussed in the methodology chapter.

The pioneers of the Polish Venture Capital industry were financed mostly by external stakeholders. Four funds established between 1989 and 1991 are believed to be the basis for the Polish Venture Capital industry (Tamowicz & Stola, 2002).

The first fund operating in Poland - The Investment Fund for Central and Eastern Europe (IØ) - was established in 1989 on the initiative of the Danish government. The initial capital was c. 114M Euro and intended to be invested

into deals between 1.2M and 7.4M Euro. The aim of this fund was the promotion of entrepreneurship and growth in the countries in the region, through cooperation between local and Danish enterprises. Although the fund operated across Central and Eastern Europe, Poland became an important area of investment (46% of all investments were located in Poland) (Świdarska, 2008:140). When Poland joined the European Union the fund stopped new investments and moved its interests towards more emerging markets; it currently invests in Belarus, Ukraine, Serbia, Bosnia and Herzegovina⁴²

The second fund, the Polish – American Enterprise Fund (PAEF), was established in 1990 with the support of the US Congress. The fund was part of a broader program initiated by the Support for East European Democracy (SEED) Act signed in 1989, which aimed to promote democratic and free market transitions in Poland and Hungary. The assistance concentrated on supporting the development of private business sectors in those nations, labour market reforms, and democratic institutions. Later the SEED Act was expanded to include five additional funds⁴³. The PAEF (operated by Enterprise Investors) was engaged in a broad range of private investment activities such as equity investments, loans, grants and technical assistance targeted at small to medium size enterprises (Polish-American Enterprise Fund, 2008). The PAEF, due to professional management and effective cooperation with entrepreneurs, became a very successful project. When liquidating the fund had 350M USD (Świdarska, 2008:141) compared to 240M USD of starting capital (Tamowicz & Stola, 2002). During 2000-2001 part of the initial capital (140M USD) was returned to the US budget. It was the first ever case of aid funds returning to the

⁴² <http://www.ifu.dk/en/Investments>

⁴³ <http://www.seedact.com/seed-act-fs-act>

US foreign aid program⁴⁴. The remaining capital supplied was transferred to the Polish-American Freedom Foundation, the mission of which is to advance democracy, civil society, economic development and social equality in Poland and other countries of Central and Eastern Europe⁴⁵. From the PAEF experience grew one of the largest firms managing private equity and venture capital funds in Poland and Central and Eastern Europe - the Enterprise Investors.

The third fund – Towarzystwo Inwestycji Społeczno-Ekonomicznych SA (TISE SA) – was established in 1991 by cooperation of the Solidarité Internationale pour le Développement et l'Investissement, Bank Inicjatyw Społeczno-Ekonomicznych (currently Bank DnD Nord Polska SA) and the Foundation for Social and Economic Initiatives (FISE). Initially TISE SA was designed as non profit organization, which aimed to invest into economic projects perceived as socially important. Therefore projects based on a local workforce and resources, as well as those which were environment friendly, were prioritised. However with time the operational profile of TISE SA has been changing into regular Venture Capital type investments (Świdarska, 2008). Currently TISE SA is owned by Crédit Coopératif Bank and provides venture capital as well as loans to non-government organizations (NGOs) and small and medium firms⁴⁶.

The fourth fund – CARESBAC– Polska SA was also established in 1991. The funders were CARE Small Business Assistance Corporation (CARESBAC), Cooperation Fund and Foundation for the Development of Polish Agriculture (FDPA) (Świdarska, 2008). The CARESBAC-Polska SA was structured as a 15

⁴⁴ <http://www.pafw.pl/fundator/>

⁴⁵ <http://www.pafw.pl/mission/>

⁴⁶ <http://www.tise.pl/O-nas/Historia-firmy/>

-year fund with committed capital of 17.9M USD. The majority of its investments were into agribusiness (43%) (SEAF, 2010). Alongside the investment activities CARESBAC–Polska SA also intended to promote and enhance cooperation with other organizations supporting entrepreneurship (Świdarska, 2008).

Smaller initiatives were undertaken with the help of the program PHARE-STRUDER, which financed two regional funds: the Regional Investment Fund in Łódź and Regional Investment Fund in Katowice. Another two regional funds were established with the support of the Polish-British Enterprise Project⁴⁷ in Lublin and Białystok (Tamowicz & Stola, 2002).

Large commercial investment funds started operating on the Polish Venture Capital market from 1992 onwards. The Polish Private Equity Fund created by Enterprise Investors entered the market with 151M USD, followed in 1994 by Poland Partners (65M USD), Poland Pioneer Fund (40M USD), Poland Investment Fund (co financed by European Bank for Reconstruction and Development (EBRD) and International Finance Corporation (IFC)), Renaissance Capital, White Eagle Industries and Poland Growth. The total increase in the value of large commercial funds in 1994 is estimated at the level of 210M USD. At the same time the segment of bank owned private equity funds started to emerge. According to the EVCA: in mid 1990 in Poland, there were twelve companies managing capital of 660M USD. The main investors were EBRD, IFC and foreign pension funds (Tamowicz & Stola, 2002). During the late 1990s the experience gained by existing funds managers resulted in new funds emerging. The Enterprise Investors created the Polish Enterprise

⁴⁷ the program aimed to replicate Enterprise Support Scheme which operated in 1989-93 Sealy, C., & Gibson, A. 1999. The Polish-British Enterprise Project: Developing A Business Consultancy Programme, Rio de Janeiro DC Conference. Rio: Department for International Development (DFID).

Fund I (in 1997) and Polish Enterprise Fund IV (in 2000). Thus becoming the leading Venture Capital fund accounting for over 80% of the total fund managed on the market (Klonowski, 2006). The successes of Poland Partners resulted in creation of Innova/98 Fund (1998) and Innova/3 (2000). This period was characterised by emergence of funds, controlling large funds, which aimed to invest in the whole of the Central and Eastern Europe region. These funds often had managing teams in several capitals of the region (AIG, Advent, Dresdner Kleinwort Capital, DBG or Raiffaisena). At the same time, the first pan-regional funds, focusing on particular sectors, entered the Polish market (3TS Venture Partners, BMP/CEEV, Baring Communications Equity) (Tamowicz & Stola, 2002).

After ten years of development of the Polish Venture Capital industry there were circa 30 professional management teams, based mainly in Warsaw. The capital under management was estimated at 3,000M Euro. While, according to EVCA, the Central and Eastern European Venture Capital market development was in a relatively early stage - Poland along with Hungary and the Czech Republic were indicated as the most advanced in the region (EVCA Central and Eastern Europe Task Force, 2005).

The most active group of funds were the private commercial funds, raising capital from individual investors, mainly abroad. The second group consisted of funds focusing on the Central and Eastern European region. The third group was of a few relatively small funds focused on supporting entrepreneurship and regional development. The two first groups were developing dynamically, whereas the third group activities were diminishing, mainly due to lack of interest and support from the government side (Tamowicz & Stola, 2002).

Despite the above, according to EVCA reports, in the year 2003 Poland recorded the highest number in seed and start up investments in the whole region (EVCA Central and Eastern Europe Task Force, 2004). The preferred investment stages among all funds were buyouts, expansion and replacement capital. Compared to other Western European countries, funds in the Central and Eastern Europe used trade sale as the exit from investment more frequently. At the same time the Warsaw stock market proved to be an efficient exit option for large funds (EVCA Central and Eastern Europe Task Force, 2005).

The figure below summarises the emergence of funds in chronological order. Some management teams established more than one fund. Funds created via the program of privatisation (NIF) are included, but only those aiming at Venture Capital investments.

Table 6: Funds created during the first ten years of Venture Capital industry development (with segmentation)

Year/ market segme nt	1990	1991	1992	1994	1995	1996	1997	1998	1999	2000
Funds based on aid sources	IØ PAEF	TISE SA CARESB AC- Polska SA			Regional Investment Fund in Białystok Regional Investment Fund in Lublin	Regional Investment Fund in Łódź Regional Investment Fund in Katowice Fundusz Górnośląski			Fundusz Północny	

Commercial funds			Polish Private Equity Fund I & II	Poland Partners Pioneer Poland Fund Poland Investment Fund PBG-FI Pomorski Fundusz Kapitałowy Wschodnie Towarzystwo Inwestycyjne Poland Growth Fund	Dolnośląska Spółka Inwestycyjna	PEKAO FK Towarzystwo Inwestycyjne Dolmel	Polish Enterprise Fund I I National Investment Fund III National Investment Fund Magna Polonia XI National Investment Fund	PBK-Inwestycje Central Poland Fund	MCI Internet Investment Fund Nova Polonia PEF	Polish Enterprise Fund IV Hals
Pan-Regional funds			Polish Private Capital Fund UNP-Holdings	Renaissance Capital Advent Private Equity Fund	Oresa Ventures Alliance Scan East Fund New Europe East Investment Fund Central Europe Trust	East European Food Fund		Innova 98 BMP/CE EV Advent CEE I&II	Technologie holding Strateg BV Environmental Investment Partners DBG Osteuropa Riverside CE	Innova 3 Renaissance II Lloyd's IT IF

Source: Private data obtained from Piotr Tamowicz

Entering the European Union in 2004 allowed Poland to participate in structural funds, which also targeted some segments of the Venture Capital and Private Equity market. The two programs directly influencing the Venture Capital industry were the Sectoral Operational Program - Improvement of the competitiveness of enterprises for years 2004 – 2006 and the Innovative Economy Programme 2007-2013.

The first program scheduled for years 2004 – 2006 recognized the need for strengthening the Polish business institutional environment, especially in the context of joining the European Union structures. The barrier to implementing high technology start-ups was attributed to low quality external financing, particularly the lack of possibilities to utilise Venture Capital. Thus measure 1.2 of the program was dedicated to 'improvement of accessibility to external financing of enterprises' investments'. The support was directed to seed funds (measure 1.2.3 – supporting the emergence of seed capital funds) as well as to other sources of finance such as loan and credit guarantee funds. The Polish Agency for Enterprise Development was in charge of coordinating the program which could cover up to 50% of qualified costs (Ministry of Regional Development, 2006).

According to the program evaluation published in 2009 (Gajewski & Szczucki) the support embraced six seed funds⁴⁸, which finalized 47 investments worth 105M PLN. The time span of those investments was estimated from 5 to 7 years. The majority of the funds managed to finalize the planned number of deals. Managers indicated the global crises of 2008 and the high risk

⁴⁸ BIB Seed Capital Sp. z o.o., Business Angel Seedfund sp. z o.o. S.K.A., IIF Seed Fund Sp. z o.o., MCI.Bio Ventures Sp. z o.o., Spółka Zarządzająca Funduszami Kapitału Zalażkowego SATUS Spółka z o.o. - Spółka komandytowa - FUNDUSZ KAPITAŁU ZALAŻKOWEGO S.K.A., Silesia Fund sp. z o.o. S.K.A.

associated with projects as the main barriers to the deal flow. Entrepreneurs expressed positive opinions on cooperation with seed capital funds. They indicated improvement in company liquidity and increased support for growth as the major benefits of risk capital engagement. From the management perspective entrepreneurs highlighted the benefits of general consultancy, followed by legal and tax advice in establishing the company provided by the Venture Capital.

The Operational Program Innovative Economy 2007-2013 aims to support innovative enterprises and the enhancement of competitiveness of the Polish economy. The priority axis 3 – Capital for innovation - is specifically dedicated to improving access to external sources of finance for innovative undertakings. The instruments supported by these actions are aimed at entrepreneurs, whose firms are characterised by innovative concepts, low book value and high potential, thus are not subjects for traditional forms of financing. Within this priority there are three sub actions:

- 3.1 addressed to organizations providing support for newly established entities i.e. incubators or technology parks. The support provided to SMEs has to be taken in two steps. The first step includes help at the incubation phase and does not involve capital engagement. The second step provides financial support for entities which proved at the incubation stage that they are able to operate in the business environment and generate future income. The capital investment at this stage cannot exceed 50% of the shares and 200K Euro. The whole budget for this action is 175M Euro
- 3.2. is dedicated exclusively to the National Capital Fund (the fund of funds) and is assigned 160M Euro for its operations.

- 3.3 is dedicated to develop and support networking between entrepreneurs and capital providers and is directed to all business environment institutions. The total budget for this activity is 35M Euro (Ministerstwo Rozwoju Regionalnego, 18 października 2012)

Currently⁴⁹ within the sub-action 3.1 there are 580M PLN (141.4M Euro) assigned to 43 incubators. Those incubators invested already into 332 start-ups. The planned number is 600. The preferred industries were ICT, biotechnology, medical science, tourism and education. Within sub-action 3.3 workshops (1100) and seminars for entrepreneurs (260) were run discussing external financing of firms' development and innovation. Additionally financial support was provided to cover the cost of preparation of the documentation required to obtain external capital. As result 71 companies obtained capital via New Connect, 57 got external private investors and 7 via the Warsaw Stock Exchange (Ulman, 2012).

The sub-action 3.2 is dedicated to support an already existing and operating institution – the National Capital Fund (NCF). The section below describes in more details the organization of National Capital Fund and its operations. The information was provided by the official web page⁵⁰ of the fund as well as collected via interviews.

Creation of the National Capital Fund constituted a milestone for the development of the Venture Capital industry in Poland. The required legislation⁵¹ creating the first Polish fund of funds was passed in March 2005. The document sets out the framework for organization and functioning of the

⁴⁹ State for November 2012

⁵⁰ <http://www.kfk.org.pl/>

⁵¹ Ustawa o KFK z dnia 4 marca 2005, Dz. U. z 2005 r. Nr 57, poz. 491 with later amendments

National Capital Fund as well as sets the terms of granting financial support to enterprises through risk capital funds.

The NCF was created by the Bank Gospodarstwa Krajowego (BGK) in a form of joint – stock company under the provision of the Commercial Code. BGK is a state owned bank, and it is the sole shareholder. The NCF has got a supervisory board, consisting of 5 members, of which one is appointed by the minister of economy and one by the minister of education. The supervisory board creates the investment committee, which advises the management board. The scope of NCF's investment is regulated by the act and is treated as public support from the legal perspective.

The act of 2005 created only the legal basis for the NCF existence, however, the document allowing the actual functioning was passed two years later in 2007. The second act: regulation of the Minister of Economy of 15 June 2007 on financial support granted by the National Capital Fund⁵², provides detailed regulation on terms of the financial support provided by NCF. Also the first money was assigned at that time, which allowed the fund's portfolio to be created.

The NCF provides financial support to Venture Capital funds, which are registered in Poland. The financing may be up to 50% of the new fund capitalization. The preferred form of NCF's capital engagement is a combination of equity (85%) and debt (15%): preferably bonds. In order to establish a new fund in cooperation with NCF a private investor (not a public entity) is required to commit 50% of the capital. New funds are usually established in the form of a

⁵² Rozporządzenie Ministra Gospodarki z dnia 15 czerwca 2007 r. w sprawie wsparcia finansowego udzielanego przez Krajowy Fundusz Kapitałowy, Dz.U.07.115.796

limited joint- stock partnership or closed - end investment fund, however other legal forms are also possible. The intended duration of the new fund is up to 10 years: in special cases the time might be prolonged up to 12 years. The investment period is set for 5 years. The funds to be supported by the NCF are selected in open competitions. NCF is declared as a passive investor but exercises its supervision duties through participation in the fund's supervision body and the investment committee. There are several restrictions for the investment portfolio of the new fund. The new fund may invest in SMEs registered in Poland, with preference given to innovative enterprises conducting R&D and those with high growth potential. Additionally their activities should be beneficial for the local economies especially in terms of creating new working places. The investment phase may be seed, start-up or expansion, with the investment limit of 1.5M Euro and 20% of project capitalisation.

While distributing revenues NCF gives preferences to private investors. The allocation of revenues is as following:

1. private investors until they receive a capital contribution equal to the invested capital;
2. the NCF up to invested capital;
3. private investors until they receive a minimal rate of return (hurdle rate);
4. the NCF until it receives a minimal rate of return (hurdle rate);

Currently the NCF gets their capital from the following sources: own capital (from BGK – 24M PLN); Polish government support (55M PLN); Operational Program Innovation Economy (650M PLN) and the Swiss- Polish Cooperation Program (155M PLN), which together calculates for 884M PLN (214.3M Euro)

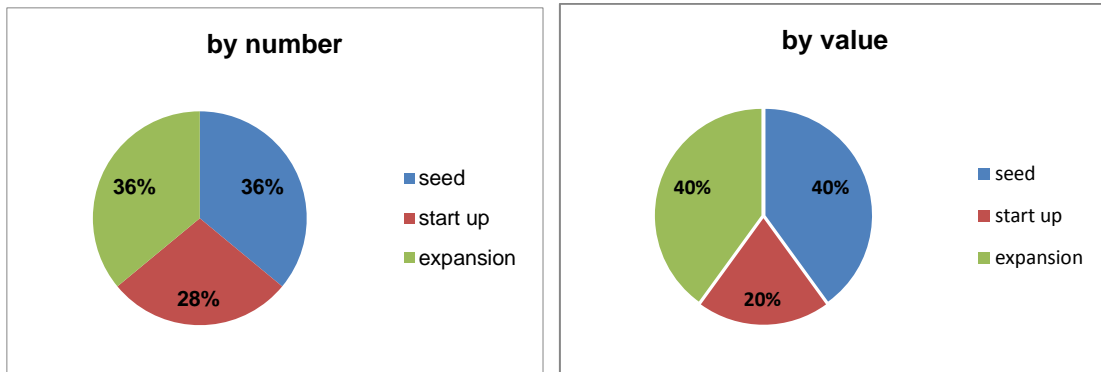
of collected capital. The portfolio consists of fourteen funds. The table below presents the funds and their investments (state for January 2013):

Table 7: National Capital Fund's portfolio

Fund's name	Capital	Number of investments
BBI Seed Fund	PLN 60 M	7
Helix Ventures Partners	PLN 40 M	6
Assets Management Black Lion	PLN 100 M	4
Innovation Nest	PLN 40 M	4
GPV I	PLN 84 M	2
Skyline Venture	PLN 40 M	2
Internet Ventures	PLN 100 M	1
Inovo Venture Fund	PLN 100 M	-
Opera Venture Capital	PLN 100 M	-
Zernike – Meta Ventures	PLN 80 M	-
Bastion Venture Fund	PLN 50 M	-
Venture Capital Satus	PLN 50 M	-
Nomad Fund	PLN 40 M	-
Adiuvo	PLN 40 M	-

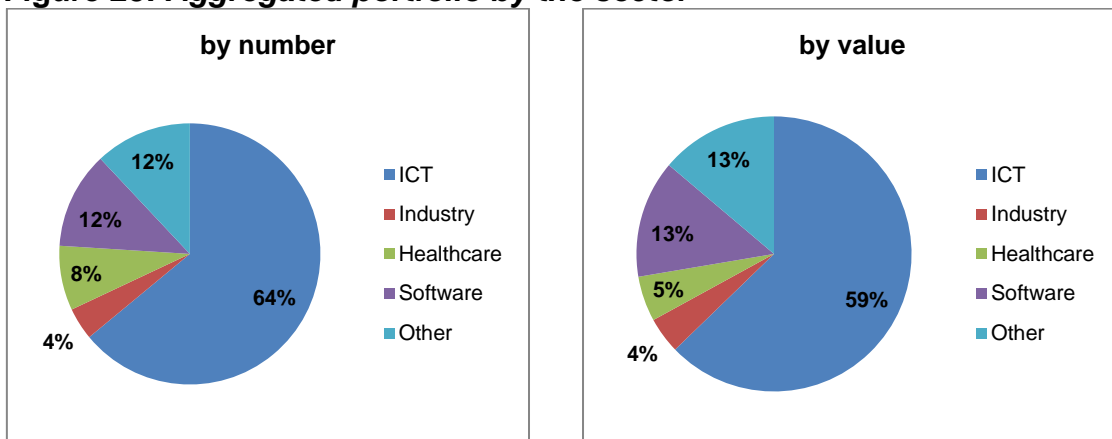
Source: NCF (http://www.kfk.org.pl/en/funds_15.01.2013)

Figure 27: Aggregated portfolio of National Capital Fund by stage of investment:



Source: adapted from: <http://www.kfk.org.pl/en/funds/statistics/investments-made-portfolio-funds>

Figure 28: Aggregated portfolio by the sector



Source: adapted from: <http://www.kfk.org.pl/en/funds/statistics/investments-made-portfolio-funds>

As seen from the statistics above the seed investments are the most preferred stage for investment, which is consistent with the guidelines of the NCF, also ICT dominates as the preferred sector for investments. Due to the short time of NCF operation, and as there are no recorded exits from investments, it is not possible to assess how efficient it is.

The next section presents the statistics on the Polish Venture Capital industry. However these numbers give only a partial picture of the actual state of the

market, for the following reasons. Firstly, the data are collected by the Polish Private Equity Association (PSIK) from its members. At the moment⁵³, there are 43 members representing Venture Capital firms, only ten of which declare an interest in early stage investments. In comparison the British Venture Capital Association has 230 members. Secondly, due to a lack of other complete records it is impossible to specify the exact number of Venture Capital firms operating in the industry in Poland. Based on the interviews it is known that many Venture Capital firms investing in early stages are not members of the Association (PSIK). Therefore those numbers should be treated rather as indication of general trends than exact reflection of the situation on the market.

Figure 29: Fund raised by Polish Venture Capital industry (2002-2011)



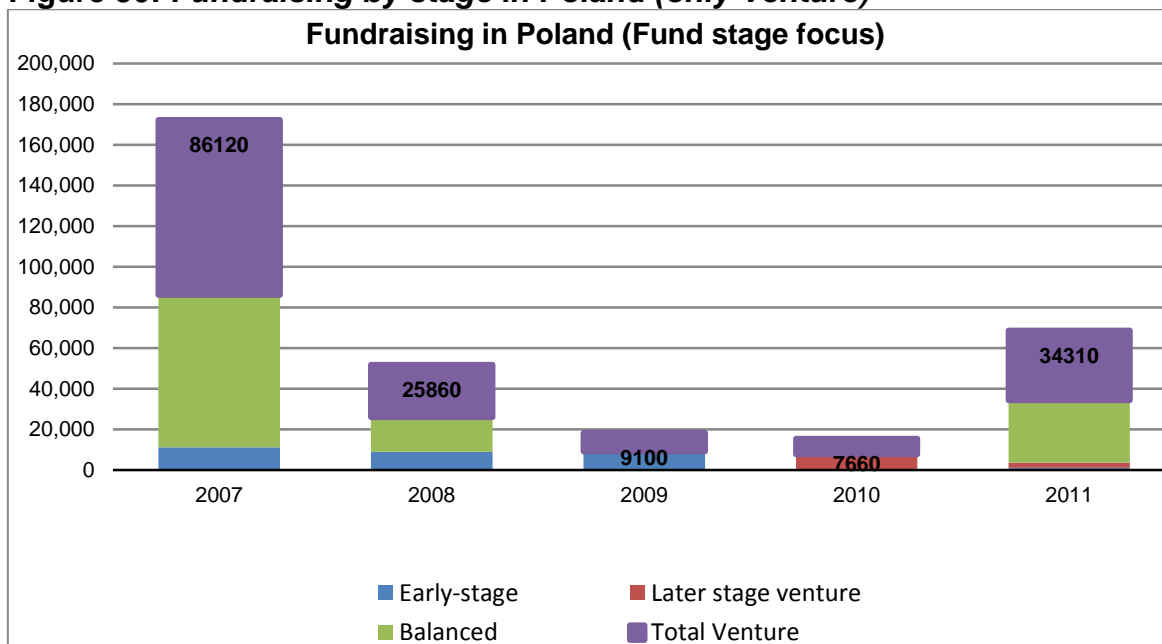
Source: EVCA

Venture Capital funds recorded increased fundraising starting from 2004, when Poland entered the European Union, until 2006, which was the high point for Poland. The later decreases in funds were attributed to the general global trend, as well as to the cyclical character of the industry. The reduced inflow of capital

⁵³ State for April 2013

between the years 2006-2008 resulted in less active fundraising in following years⁵⁴.

Figure 30: Fundraising by stage in Poland (only Venture)



Source: EVCA

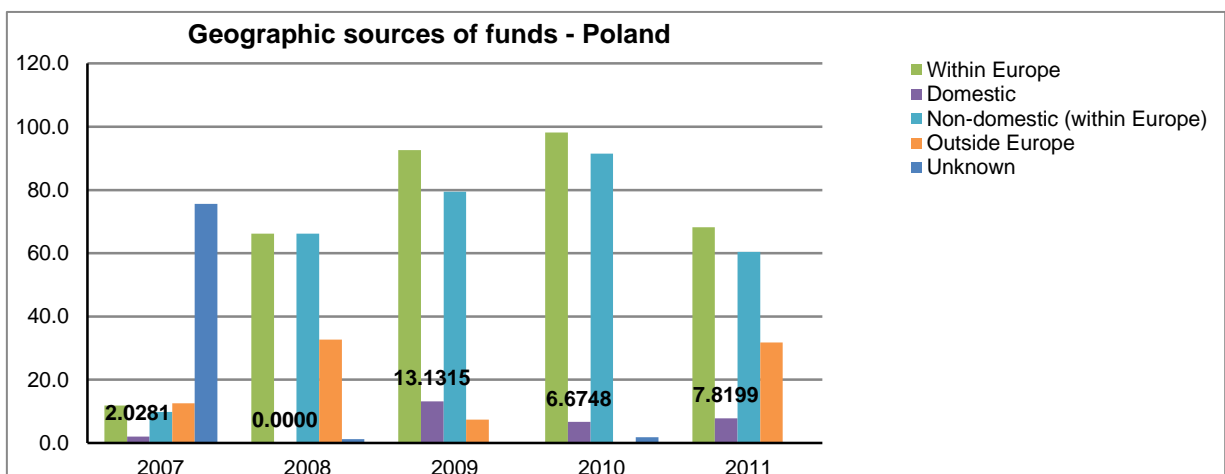
Analysing the details of the fund raising structure, it can be seen that Venture Capital funds focus either on the early or balanced stages of investment. The fund raising share dedicated to the venture segment does not exceed 10% of the total funds raised by both Venture Capital and Private equity funds.

The Polish Venture Capital market has always been dominated by foreign investors. According to the Polish Private Equity and Venture Capital Association (PSIK), in 2004 over 99% of capital raised for Venture Capital and Private Equity came from abroad. The two graphs below illustrate the percentage share of different sources of capital within the Polish market and the European market.

⁵⁴ <http://www.psik.org.pl/dane/items/rynek-private-equityventure-capital-w-polsce-w-2009-r.html>

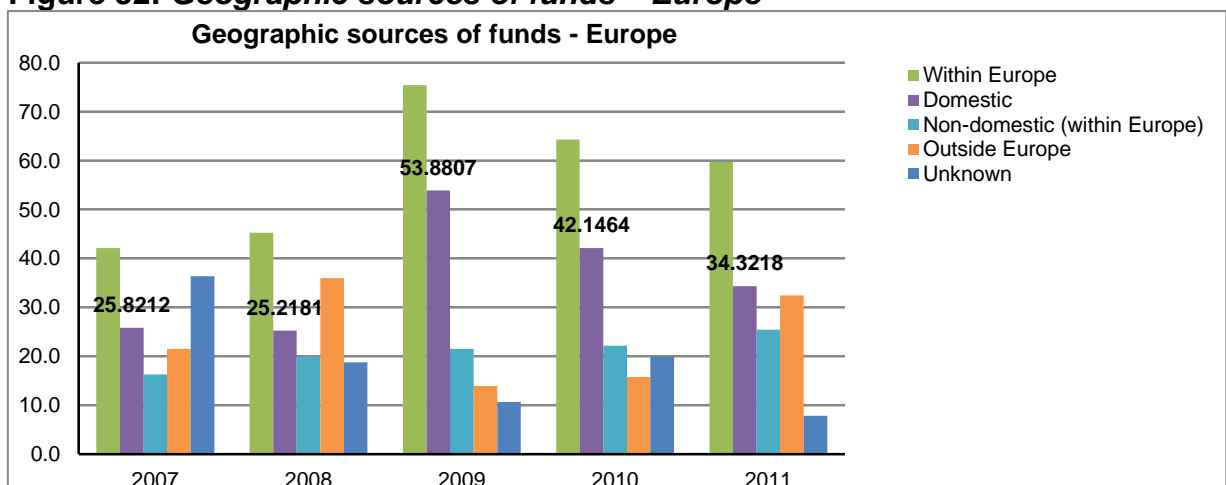
The proportion of domestic capital within Polish VC/PE industry is gradually improving and, as seen on the chart below, the domestic sources of capital are noticeable, but still behind the European averages. In 2009 the proportion was 13.1% in Poland compared to 53.9% of domestic capital registered in Europe and in 2001 7.8% compared to 34.3%. However similar to the European trends most of the capital inflows in Polish Venture Capital/Private Equity industry come from Europe.

Figure 31: Geographic sources of funds – Poland



Source: EVCA yearbook 2012

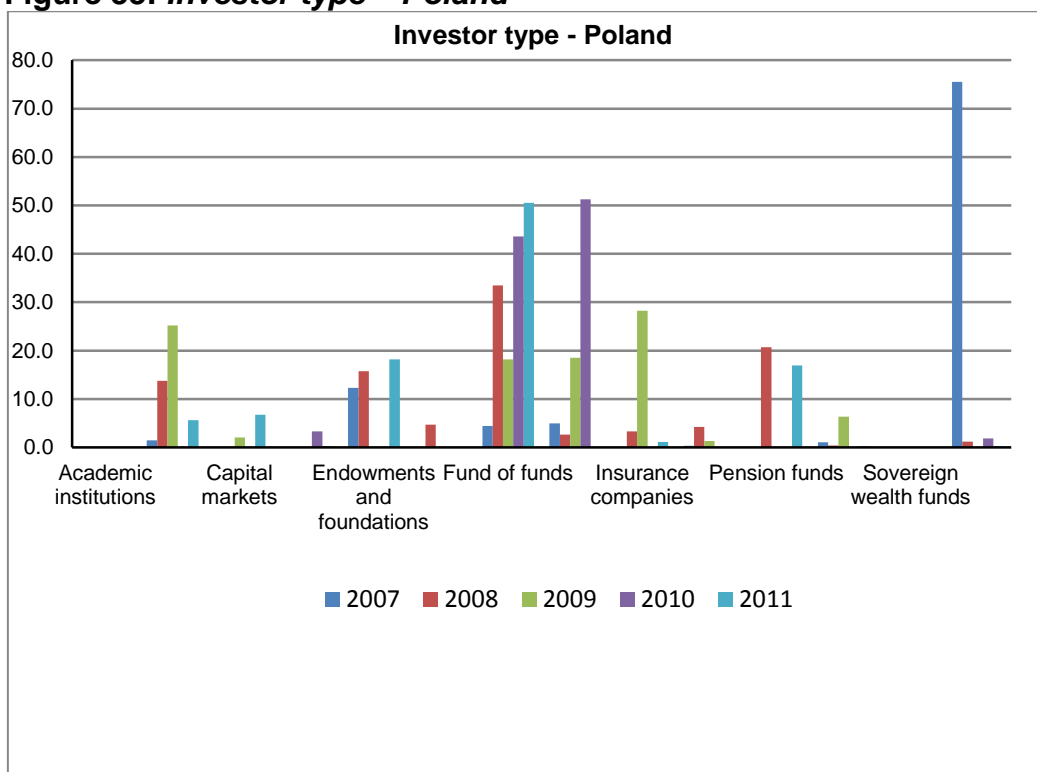
Figure 32: Geographic sources of funds – Europe



Source: EVCA yearbook 2012

The recent increase in the domestic share could be attributed to the increased role of public funding to Venture Capital through the European Union funds.

Figure 33: Investor type – Poland



Source: EVCA yearbook 2012

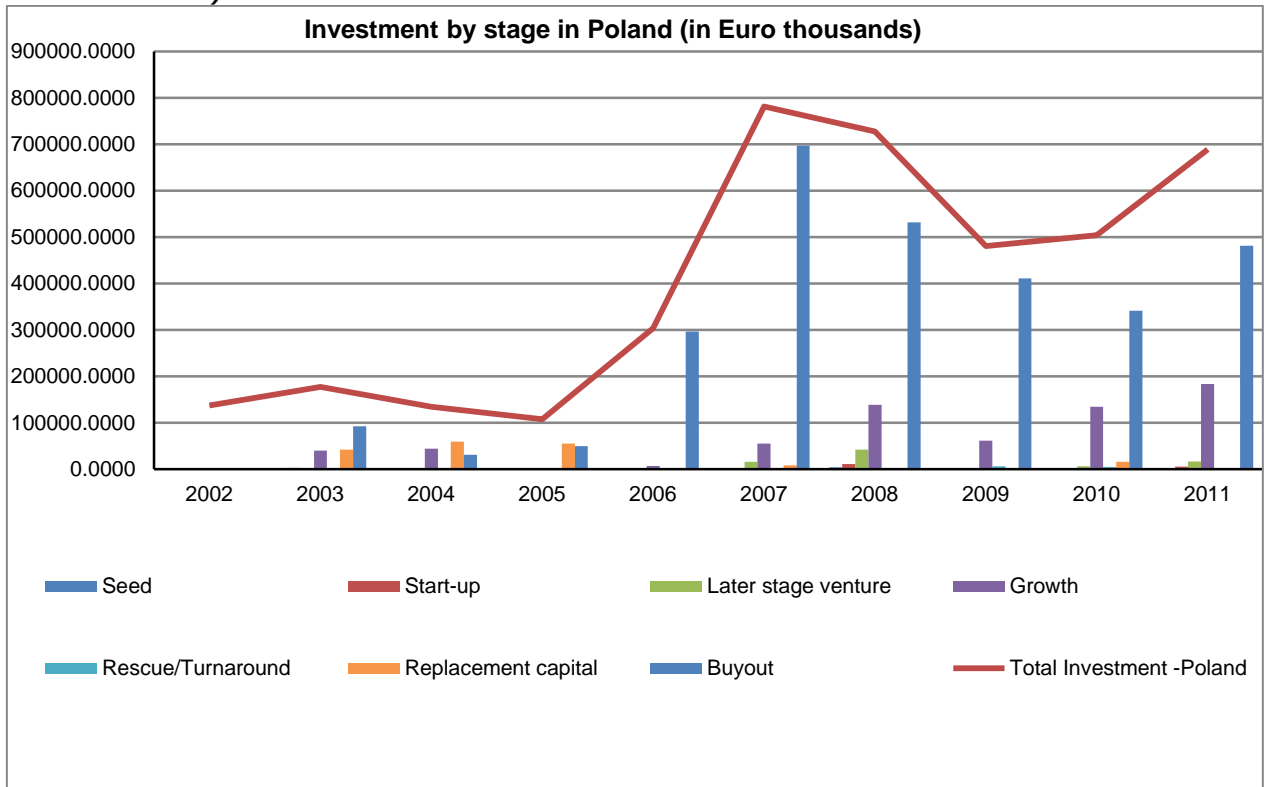
The following two graphs illustrate the percentage of different types of investors active on the local market. The dominant investors on the market are the Fund of funds and the government agencies. This is again related to the significant inflow of capital from the European structural funds. Compared to the rest of the Europe, Polish investors are relatively less diversified, also the investment proportions differ. In Europe on average the pension funds are the main suppliers of capital to the industry, whereas in Poland their role is very limited. In 2007, 2009 and 2010 EVCA has not registered any activity of Polish pension funds. A similar situation might be observed in case of insurance companies. The role of banks and capital markets as capital providers is again limited.

However, the recent development of the New Connect platform should positively influence the supply of capital from the capital markets. The New Connect platform was introduced in the earlier section of the chapter dedicated to the development of Polish capital market and will also be discussed in more detail in the data analysis chapter.

Investments

The investment pattern observed within the Polish Venture Capital industry echoes the Central Eastern Europe Region curve. A significant increase in investment activity is noticeable shortly after European Union enlargement, with a peak in 2007. The following two years recorded a decrease in investment. The first downturn between 2007 and 2008 was about 8%, whereas the second decrease was more significant and accounted for 58% decrease in 2009 compared to the previous year. For the whole period of record the Polish Venture Capital and Private Equity industry prefers later stages of investment, where buyouts are the most popular. The investment in early stages accounts between 0.3% up to 3.2% of total investment. The exceptional year was 2008 when the proportion met 7.9% of total investment.

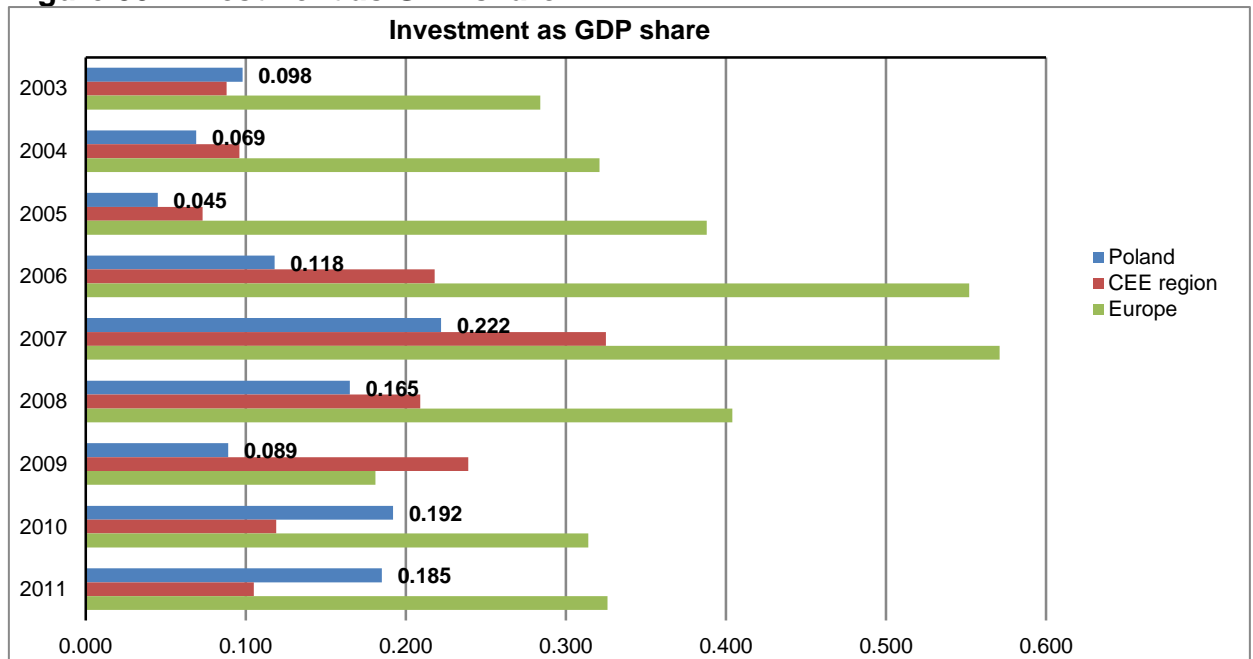
Figure 34: Total investment in VC/PE industry in Poland (including stage of investment)



Source: EVCA

Relating the Venture Capital and Private Equity industry investment to the national GDP, generally Poland scores below both the Regional and European averages. The exceptional years were 2003, 2010 and 2011. The high Regional investment rate in 2009, that exceeded even the European average, according to the EVCA, was due to activities in the Czech Venture Capital/Private Equity market. Whereas the declining rate in Poland is assigned to exaggerated expectations of entrepreneurs toward pricing their new ventures in the light of the unstable market situation.

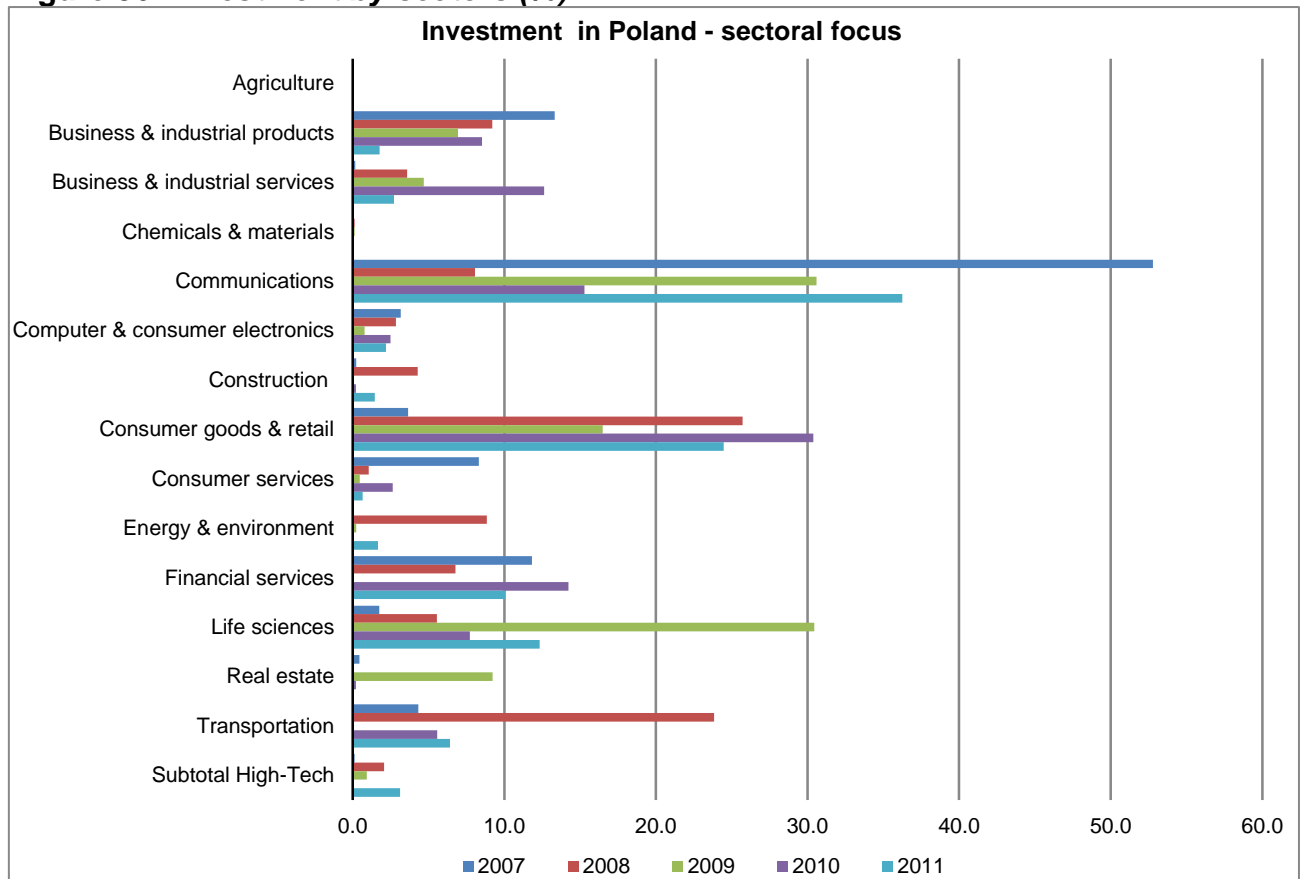
Figure 35: Investment as GDP share



Source: EVCA

Looking at the preferred investment sectors, the communication and consumer goods & retail remain dominant though the researched period. In 2004 all high-technology investments were accomplished within the telecommunication sector, in 2006 further interest in new technologies was expressed however, these kinds of investments remain limited. In 2007 there was seen a temporary change of interests toward life science technologies.

Figure 36: Investment by sectors (%)

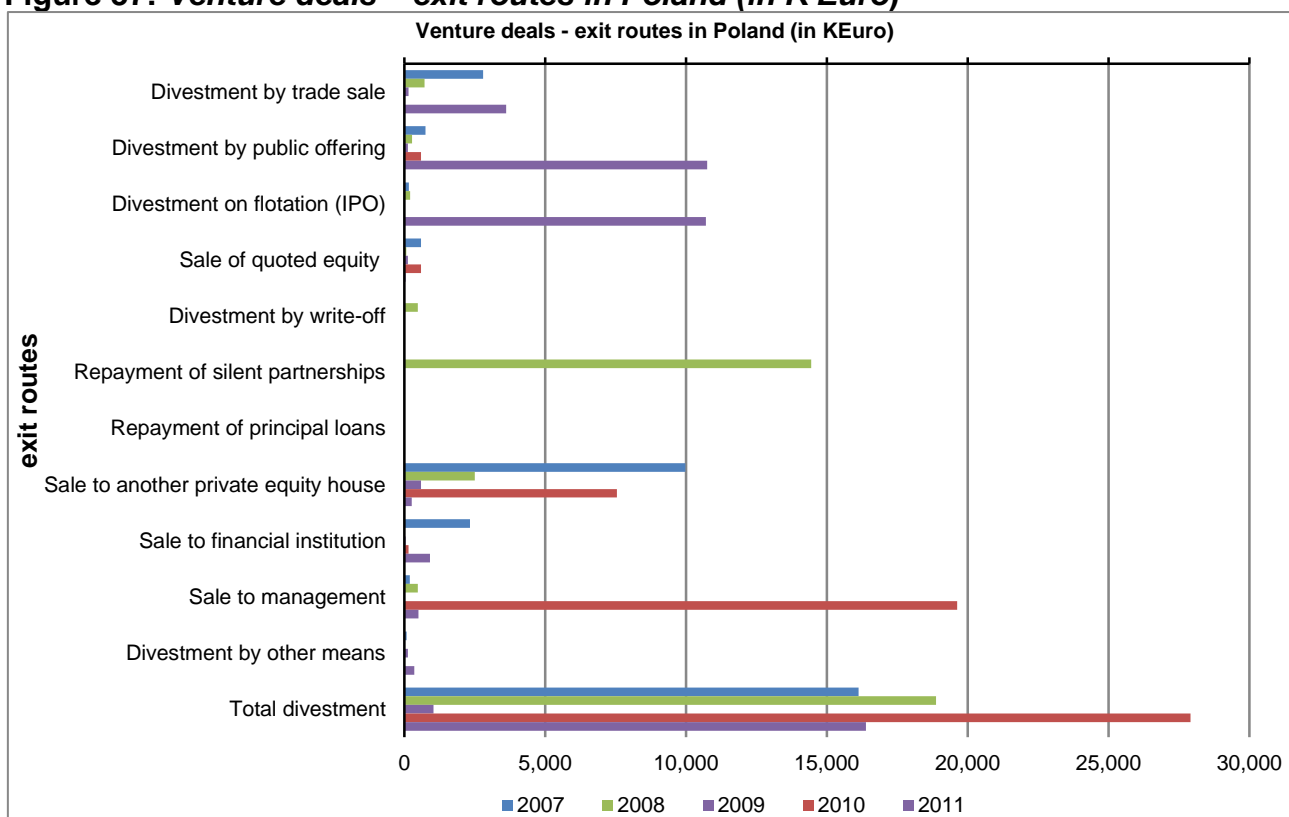


Source: EVCA yearbook 2012

Disinvestment

The two graphs below illustrate the disinvestment process, limited to Venture Capital sector with respect to value of deals and number of companies.

Figure 37: Venture deals – exit routes in Poland (in K Euro)



Source: EVCA yearbook 2012

Considering the value of disinvestment, the year 2010 registered a peak. The worst achievements were recorded in 2009, which reflected the global trend. The most popular ways of exit are though the trade sale, sale to another private equity, and public offering; and this tendency is constant throughout the history of Polish Venture Capital industry. The increasing popularity of public offering and IPO may be attributed to the introduction of the New Connect platform in 2007.

Taking into account the number of companies, the most popular exit route is via selling to another private equity house, trade sale and public offering.

Figure 38: Venture deals – exit routes in Poland (in number of companies)



Source: EVCA yearbook 2012

Following the statistics, although the numbers remain lower, the Polish Venture Capital industry is following the European trends, especially since becoming a full member of the European Union.

5.3. Primary data presentation

This section concentrates on primary data obtained during interviews and observations. The interviews were run with fifteen members of the Venture Capital industry. They represented different kinds of Venture Capital funds, entrepreneurs, and institutions supporting entrepreneurship; this group also included a lawyer and an expert. Although the sample is inevitably biased, engaging representatives of different stakeholders balances it. The social role of participants is acknowledged. In order to assure reliability of the process each interview was transcribed. If a participant did not agree to being recorded,

notes were made immediately after the meeting. Transcripts and notes are available on request.

5.3.1. Regulatory Framework

Opinions on Polish legal regulations differ among respondents. Most of the respondents perceive the legal system as not the most constraining factor for their activities.

In terms of the legal system everything is fine. One may always improve something but there is nothing like a legal obstacle. (Public Venture Capital)

However, this view might be due to the fact that only a few funds have to operate according to local regulations. This constraint applies only to those funds registered in Poland, which in practice are only the funds using public support.

Legal regulation does not apply (to the majority of Venture Capital funds – author’s clarification) because most Venture Capital funds are registered abroad. The only issue within Venture Capitals scope of interest are the double taxation agreements. (Private Venture Capital_I)

As shown in the above quotation, the issue within the law that is of interest to Venture Capital are the tax regulations given their major effect on investment returns. Respondents across the researched community agreed that taxation and tax authorities are the weak points. There are two major problems indicated. Firstly, the large number of frequently changing regulations. Secondly, problems arising while interpreting regulation by tax officers, who

have a lot of freedom in this respect. The following citations illustrate these points:

'Polish tax law for Venture Capital funds is very bad' (Private Venture Capital_I)

'The Polish tax law is overregulated.' (Lawyer)

'I would like the government to tidy the legal system, which is not transparent, especially the tax law, which is extremely opaque.' (Private Venture Capitalist_HG)

'If we apply for a VAT refund, we would have tax control straight away because everyone who is asking for tax to be returned is treated like a criminal'. (Private Venture Capitalist_HG)

'There was a problem with the tax authorities and the interpretation of regulations. No one wanted to be first and fight with the tax authorities for legal interpretations. Such case would surely end up in court.' (Expert)

An example of tax regulations which are constraining for Venture Capital was given by the manager of a public Venture Capital fund. The fund signed contracts with entrepreneurs. The new ventures were valued at 2M PLN based on the potential value of the technology. According to law, tax is due on the next day after signing the contract. The CEOs of the fund in question turned to the minister of finance asking for changes in this respect. They proposed to move the tax payment from the moment of taking the shares to the moment of selling them thus following established Venture Capital practice. Results of their actions are still unknown.

The problems with unsuitable tax regulations for Venture Capital as well as inconsistency in regulations' interpretation, which was present from the early 1990s resulted in different strategies undertaken by Venture Capital firms. The most frequently used and still practiced strategy refers to registration abroad.

'...majority (of Venture Capital funds – author's clarification) are registered, either in tax havens, or Luxembourg, London or according to the US law.' (Expert)

Other strategies included use of legal vehicles that are not directly dedicated to Venture Capital but offer better tax solutions. Often the legal constructions were very complicated and sometimes balancing at the edge of the law.

'From the investment point of view, yes (they operated like Venture Capital –author's clarification) but from the legal perspective no. A propos this legal structure, at this time a lot of ideas emerged how to avoid the problem of double taxation. For example, in the case of partnerships involving banks, they were taking loans from the parent company. The loan was granted and it was recorded in the books as cost. The service of the loan was also recorded as costs. So they tried to minimize double taxation.' (Expert)

Despite the general disappointment about taxation some positive opinions are held. However, this comment put emphasis on the level of tax which, indeed, compared to other countries is lower⁵⁵:

'Polish legal system is not bad compared to other countries. Yes, taxation is rather low' (Private/Public Venture Capital)

⁵⁵ For Poland the main corporate rate is 19% compared to France – 33%; Germany – 29% and the UK - 23%

Comparing the opinions expressed by participants with evaluations run by other institutions they are consistent. The Polish tax system is under constant criticism from the legislature, entrepreneurs and citizens. In 2004 the government in its report 'Entrepreneurship in Poland' presented establishing a simple, transparent and stable tax system as its priority. In 2007 PriceWaterhouseCoopers and PKPP Lewiatan conducted research⁵⁶ on the Polish tax system. The respondents (entrepreneurs) indicated that for their operation a stable and transparent system is more important than the level of taxation, highlighting at the same time that the Polish system is very unstable. Also the process of reporting to the tax authorities is time and cost consuming especially in reference to VAT. Later research conducted by Deloitte⁵⁷ in 2010 indicated that not much progress has been made in this area. In this research 70% of respondents declare CIT regulations as complicated, 56% perceived VAT regulations as complicated and 52% perceived PIT as complicated. Entrepreneurs questioned indicated that changes in tax regulation intending to simplify the system, in practice make it more complicated. On the positive side, 90% of respondents declared that their relations with tax authorities are at least good. The core issue is the uncertainty of taxes, which increases the risk of investment.

International bodies assess the Polish tax system with moderate enthusiasm. OECD's report (OECD, 2008) admits that the reform taking place at the beginning of the transformation process was effective and allowed Poland to avoid monetary crises of the kind that happened in neighbouring countries.

⁵⁶ „Podatki w Twojej firmie – pomóż zlikwidować bariery”
(http://pkpplewiatan.pl/dla_mediow/informacje_prasowe/1/podatki_idealne_wed321ug_przedsi28biorcow)

⁵⁷ Polski system podatkowy w opinii podatnika, raport z badań. Deloitte, 2010

However the system later experienced problems when the economy got to a more advanced stage. The report indicated that the number of exemptions, allowances and other special tax treatments generates high compliance costs especially for SMEs. The high costs combined with high level of uncertainty linked to arbitrary interpretation of tax provisions by tax authorities generate space for bribery and corruption. Additionally it has highlighted the problem, present in other evaluations, of a lack of well defined objectives and strategy while producing law.

In 2010 the Ministry of Finance published a report⁵⁸ where the available tax schemes were evaluated. According to the report there were 437 tax schemes within the system, where 195 were related to VAT. Looking at the costs generated by the economy sector the most expensive from the state point of view were CIT preferences which cost 0.44% GDP followed by VAT with costs of 0.18% GDP and PIT with costs of 0.04%. The dominant position of CIT was due to the ability to deduct losses generated in the previous year in the current tax year, as well as tax preferences for companies operating in special economic zones.

The report presented an interesting example of a scheme aiming to support first time entrepreneurs introduced in 2002 and still in operation in 2010. According to this scheme called 'credit tax' an entrepreneur who met the criteria, could postpone paying income tax during the first year of operation. The tax due could be paid within next 5 years without interest. During the whole period only 4 entrepreneurs (3 paying CIT and 1 paying PIT) used this scheme.

⁵⁸ Ministerstwo Finansów, Preferencje podatkowe w Polsce, Warszawa 2010

A similar situation is observed in case of a scheme for purchasing new technologies. Here the numbers are a bit more optimistic: in the year 2009 there were 15 PIT payers and 25 CIT payers who used it, whereas in 2010 the numbers were: 398 PIT payers and 33 CIT payers⁵⁹. The failure of the scheme is assigned to several issues. Firstly, the scheme refers only to intangible property. Therefore if an entrepreneur is purchasing a computer with software, it is not eligible for the scheme. Secondly, an entrepreneur using the flat rate tax of 19% does not meet the criteria. Thirdly, an independent research institution has to issue a certificate that the purchased technology is innovative and is in use worldwide for less than 5 years.

Additionally since the scheme refers only to purchase of technology it does not stimulate companies to create internal R&D. This is an issue of poorly aligned incentives.

The government spends large sums of money in order to support the national economy, and its actions are directed mainly toward the whole population of entrepreneurs. For the early stages of developing entrepreneurship such a policy might be effective. However at the later stages, especially when innovative companies are the target, the policies should be more selective in providing support. However, there is always a political cost to such discrimination.

Both Venture Capitalists and Entrepreneurs indicated in interviews that the frequency and the number of changes in the legal system created significant obstacles for their operations, i.e., compliance costs. Lack of stability, especially

⁵⁹www.egospodarka.pl/article/articleprint/63422/-1/65 (21/05/2012) and www.gazetaprawna.pl/drukowanie/537829 (21/05/2012)

in case of legal forms, restricted the ability for long term planning essential for survival and growth.

Additionally, actions undertaken by the government aiming at simplify the system bring opposite effects. According to the regulations all business entities have to be registered with several institutions (i.e., tax authorities, statistical evidence). In order to simplify the process in 2008 the government introduced an act allowing a system of 'one window'⁶⁰. Within the system an entrepreneur may use one window to apply for taxpayer number (NIP), statistical number (REGON) and social insurance (ZUS), which at least in theory was supposed to ease and speed the process. However the effects are not as satisfying as expected.

'There is one window now. (...) earlier was like this: there was the court, the tax office and the social insurance office, which are most important when establishing a company. So you went to the court, to the tax office and to the social insurance. Now there is one window, you go to the national registration court and leave all documents there. It was supposed to be great. Before, if you made a mistake in an application, you were getting information directly from the tax or insurance office. Now the information goes first to the court and later the court generates a letter. (...) and the days are passing somehow, such a technical issue.'
(Public Venture Capital)

Again, this citation indicates that the problem lies not in the regulations themselves but in the execution process. However, if compared with the World Bank's Doing Business Reports, Poland keeps climbing in the rank of the ease

⁶⁰ Ustawa z dnia 19 grudnia 2008 r. o zmianie ustawy o swobodzie działalności gospodarczej oraz o zmianie niektórych innych ustaw, Dz.U. 2009 nr 18 poz. 97

of starting a business since 2009 from rank 76 to rank 62 in 2012. The number of procedures as well as cost is decreasing systematically.

The problem of the quality of law and the role of interest groups in the law making process was separately researched in a project run by the Vistula University in cooperation with Bank Zachodni WBK (Rybinski, 2012). The report was based on analysis of 1366 legal documents (which constituted 37% of all relevant documents) created between the years: 1998-2011. The report concentrated on regulations referring to public finance and the business environment. The findings indicated that 40 percent of regulations during the evaluated period reduced economic freedom and only one-third of bills reduced costs for the public finances. Among the most influential interest group was the public sector (public administration, doctors, teachers, farmers and representatives of regulated professions). The political cycle was reflected in the quality of created law. During election years more bills reducing economic freedom and generating costs were passed compared to non-election years (Rybinski, 2012).

From the perspective of the following research, the most relevant conclusions were related to the legislation process and evaluation process. According to the report, the legislation process is chaotic. Many changes are introduced impulsively under public pressure, and are rarely due to a long term strategy. The consultation process, before a bill is introduced to Sejm, is vague due to the lack of a culture of professional public consultations. There is an organization - Komisja Trójstronna, which serves as the public consultancy body. However, according to the authors, it does not reflect the structure of public institutions intended to be involved in the social dialogue. The

government's policy of reform of regulation remains more an aspiration than a reality. Additionally the idea of preparing bills in a specially designed Government's Legislature Centre failed but at least is evidence of the Government trying to change. At the level of evaluation of law, most of the introduced bills lack the cost/effectiveness assessment.

Although the legal environment is not easy to manage, using the help of attorneys is not popular among entrepreneurs. Looking at the statistics the number of available attorneys is comparable with Germany and gives Poland the EU average (Choiński, 2010). The research shows that during the last 5 years (counting from 2009) only one-third of entrepreneurs decided to consult an attorney. The bigger the firm is, the greater the chances it will use legal services. Surprisingly the reason for avoiding lawyers is neither the difficulties in access nor the price of services. Although Poles highly respect the qualifications of lawyers they do not trust them. If they have to consult they usually rely on the opinions of family and friends. Such a situation is believed to arise from an immature legal consumers' culture. Those who used legal services have positive attitudes about them. Those entrepreneurs usually show more trust and confidence in legal services offered by attorneys and notaries (Choiński, 2010).

5.3.2. Market conditions

The market conditions section included three elements: financial markets, GDP growth and level of R&D. The following section is going to present data collected referring to this category. It should be indicated that during the interviews issues referring to R&D were largely discussed alongside the role of

universities. Therefore, here only matters referring to patenting or commercialization will be discussed.

Financial markets

The interviewee pointed out the role of financial market as the exit option for Venture Capital investments.

It is extremely important for a fund to have an exit option (Former Venture Capital/Entrepreneur)

One of the exit options for Venture Capital backed companies is via the New Connect market. New Connect was established in 2007 as an alternative market operating as part of the Warsaw Stock Exchange dedicated to small and medium firms, especially innovative ones. The opinions on the New Connect initiative among different stakeholders of the Venture Capital industry are polarised. The general idea of opening this sort of platform is perceived as a positive move. However when getting into more detailed solutions opinions vary.

Participants agreed that this is a highly speculative market, characterised by low liquidity.

'This market is still not reliable, they (companies-authors explanation) promise miracles. (...) They pump up the company's values. The company gets on New Connect and due to corrupted investors the price rises...' (Expert)

'Some of the companies achieved extreme prices at IPO, and now are showing no effects' (Private Venture Capital_I)

There is a high risk involved. Investors will have problems (Private/Public Venture Capital)

'...these are PR firms and other crap. You have to look up with a candle for an innovative one (firm) and if there is one, no one wants to buy it.'
(National Fund)

What is missing on the New Connect is liquidity'(...)'while getting on New Connect one needs to have buyers there already. (Former Venture Capital/Entrepreneur)

There are (on New Connect – author's clarification) small companies and low liquidity. For companies it means that although they got on the New Connect now they will have problem with collecting capital for the next financing. (Former Venture Capital/Entrepreneur)

Low liquidity was indicated as less of a problem than low credibility arising from its speculative character. Participants indicated a tendency for improvement in terms of the quality of the listed companies.

'During the first years New Connect was perceived as a trash market, where mr. M was running with a suitcase full of money. But now is better.' *(Entrepreneur_W)*

Most of the interviewed stakeholders agreed that despite the problems New Connect provides a useful platform for both companies and investors to learn

about each other. Presence of the New Connect is perceived as a required step in developing a healthy Venture Capital industry in the future.

‘New Connect is a place where demand meets supply. (...) this initiative had to emerge. We need to civilize the market and create a corridor to the main floor’ (National Capital Fund)

Among the positive aspects of New Connect is the learning process, along with the marketing advantages of being a traded company.

It’s cool to be a listed company. You don’t have to add “it’s on New connect” (Public Venture Capital)

Requirements for an IPO are in principal easier on New Connect compared to the main market. A company may choose between two options: a private placement or a traditional public share issue. In the case of private placement the offer has to be directed to less than 100 investors and is followed by simplified procedures. Authorisation is granted on the basis of the information document and the decision of an authorised adviser. Thus the procedure is less expensive and time consuming compared to the main market. In the case of the second option the company is subject to similar issuing requirements as for entry to the main market. The disclosure requirement for companies listed on New Connect are less strict compared to the main market. They have to submit current reports and semi annual reports; however the scope of reported data is narrower, limited to an annual audited report and compliance with the corporate governance applicable for these sort of companies (Warsaw Stock Exchange, 2012) is thus more liable to abuse

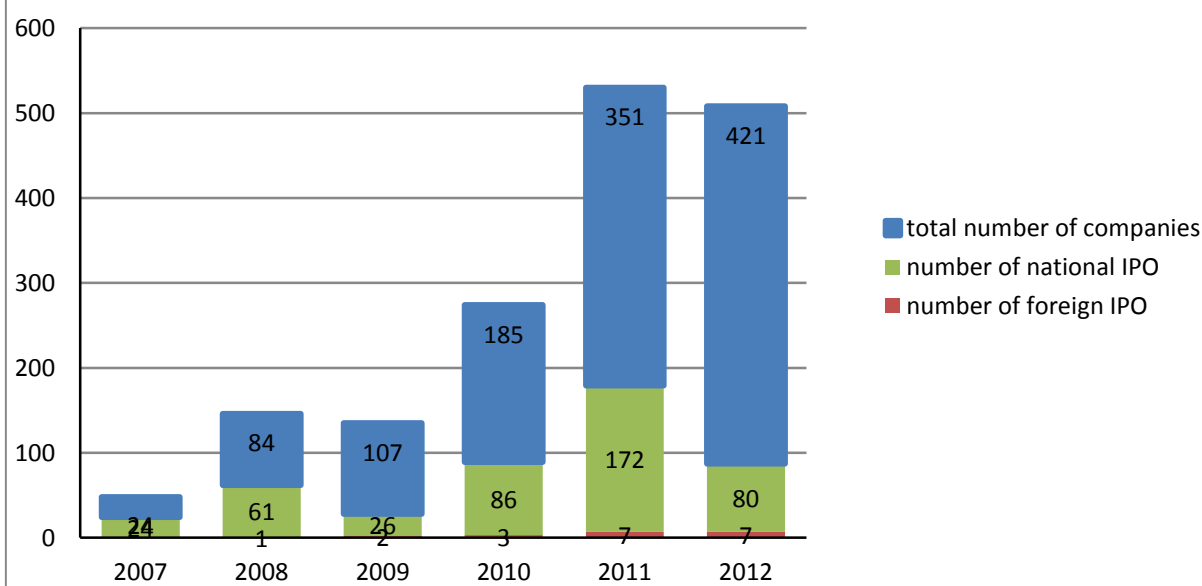
One of the companies taking part in the research is listed on New Connect. Their experience of the process was generally positive. However the time needed for all proceedings exceeded the 3 month indicated by the New Connect authorities. The processes took about half a year and required designating two full time employees for preparing the documents and to cooperate with the New Connect authorities. This may be a significant barrier but this interviewee perceived it as merely an extra cost.

From the point of view of the subject company, issuing shares on New Connect was an attractive alternative for Venture Capital financing. Before taking the decision to go public extensive negotiations with two Venture Capital funds were run. In both cases the company did not agree to the contract conditions offered by the Venture Capital funds.

According to statistical data New Connect is constantly growing in terms of the number of listed companies and capitalisation. The figure below summarises the number of companies listed as well as indicates yearly rate of IPOs.

Figure 39: *New Connect: number of companies, national IPO and foreign IPO*

New Connect number of companies



Source: adapted from: (NewConnect:
http://www.newconnect.pl/index.php?page=statystyki_ryнку_roczne)

Although turnover rises steadily, New Connect, similarly to the main market, is suffering from low liquidity. This makes it particularly vulnerable to price manipulation. This problem combined with looser disclosure requirements increases risk for potential investors. Therefore the main actors on this market remain individual risk tolerant investors (Sobolewski & Tymoczko, 2012a, b).

Presence of the New Connect trading platform, which serves as alternative source of capital for small and medium companies, breaks the monopoly of Venture Capital for these kinds of investments. On the other hand, firms which decide to omit the Venture Capital funding phase lose the learning opportunity arising from this cooperation, which results in situations where inexperienced managers are in charge of large sums of money within a short period of time. This increases the risk of failure. Nevertheless young companies have got a choice between these two forms of collecting capital, and while taking the decision have to be aware of consequences of each choice. The number of

companies financed by Venture Capital is small. According to EVCA statistics in 2011 only 27 companies in Poland was supported by Venture Capital.

GDP growth

The literature considers GDP growth as one of the factors influencing Venture Capital industry (Gompers et al., 1998; Jeng & Wells, 2000). Polish GDP characteristics and its fluctuation were discussed in detail in the second chapter. During the interviews participants did not directly refer to GDP growth. However, they indicated the growing number of wealthy people who are interested in investing either as Business Angels or Limited Partners. Venture Capitalists pointed out that the situation at the Warsaw Stock Exchange had impact on the industry.

Depending on whether the WIG20 index is at the level of 2000 or the level of 3000 the investors looks differently at the potential investment.

(...) this is connected with the economic trend (National Capital Fund)

Besides, people are getting richer. There are more and more Business Angels (Public Venture Capital Fund)

R&D potential

The rising number of institutions supporting innovation and entrepreneurship does not translate into a significant improvement in research output which could be commercialized. The problem seems to lie in the mutual relationships

between the research institutions and the business sector. There is a reciprocal lack of trust coupled with lack of clear procedures.

‘Polish research is pointless for commercial use. There is not willingness to change the mindset of researchers. The incubators and technology transfer centres do not meet the requirement of business.’ (Private Venture Capital_I)

‘Innovation happens, but despite the research not due to it’ (Private Venture Capital I)

‘There are few (universities), but all this bureaucracy which has to be done. We established one firm with a polytechnic; no it was rather with a doctoral student from a polytechnic. The polytechnic has got right to the licence, and we’re going to pay it, which all is ok. But I won’t forget the fear of the student, what’s gonna happen if his professor finds out.’
(Public Venture Capital)

An interesting initiative which may help to overcome the above problem is currently undertaken by the National Centre for Research and Development (NCBIR)⁶¹. The project is called „BRIDGE Venture Capital: Research, Development, Innovation in cooperation with Venture Capital funds”. The aim of the program is to create a public – private co-investment programme which would support commercialisation of new technologies. According to the NCBIR

⁶¹ The National Centre for Research and Development is the implementing agency of the Minister of Science and Higher Education. It operates within the area of national science, science and technology and innovation policies. Established to provide a platform of an effective dialogue between the scientific and business communities.

Director the idea of 'BRIdge VC' follows the best practices developed by the US SBIC program⁶².

The available financing is planned to be 420M PLN (102M Euro). The program assumes participation of NCBIR as well as Polish Venture Capital funds and a global Venture Capital fund. The provided services will have two components: investment and advisory. The financing will happen at three levels:

- Pre –incubation;
- Incubation;
- Post – incubation.

The pre-incubation phase, also referred as 'proof-of concept' will embrace such elements as industry research, evaluation of the commercial potential of the project, legal and environmental analysis. The maximum financing is up to 1M PLN. At this stage NCBIR is going to provide 80% of the financing (which will take the form of non-refundable support), the Polish Venture Capital will provide 15% and 5% will come from a global Venture Capital partner.

The incubation stage includes industrial research and development research. The maximum support is 7M PLN. It will be equally financed by Venture Capital funds, 15% each, and the remaining 70% of capital will be provided by NCBIR, at this stage it will be refundable.

The post incubation stage, also referred to as acceleration, will help in further development works, i.e. actions related to R&D results implementation. The

⁶² <http://www.ncbir.pl/programy-krajowe/bridge-vc/aktualnosci/art,1681,nowy-konkurs-wspierajacy-br-z-udzialem-funduszy-kapitalowych-na-420-M-zl-.html>

maximum financing is up to 15M PLN where 50% of funds will be provided by NCBIR, 35% by global Venture Capital and 15% by Polish Venture Capital.

From the organizational point of view the three financing bodies will delegate management issues to a separate management entity. This entity will be directly in charge of cooperation with a start-up company. Additionally NCBIR and Venture Capital funds will form a committee responsible for strategic decisions which will be passed to the management entity (NCBIR, 2012).

This is a pilot program: the application process for both Venture Capital funds and firms is still in progress therefore it is impossible to evaluate whether the program will be successful.

5.3.3. Other organizations

Government

The government programs, including the European Union funded programs, were described while presenting the history of Venture Capital in Poland. The following section is going to present participants' opinions on the government's policy, on the main documents shaping the government policy toward Venture Capital industry and the role of structural funds. The examined programs embrace both private Venture Capital, public Venture Capital and hybrid forms where public capital is combined with private. It has to be highlighted that the majority of entities created with help of public money are not Venture Capital funds in the traditional understanding, although according to their funders they are supposed to operate according to rules applied to Venture Capital. For this

purpose those sorts of funds should be rather called quasi-Venture Capital funds.

Strategic documents

The government attitude toward Venture Capital industry was summarized by one of the interviewers in the following way:

'(...) as one of the vice – ministers told me, what you're doing in the Venture Capital does not fit into my Excel file. These are such small numbers.' (National Capital Fund)

Interviewer: *'..... so it means that there is not planned national policy toward Venture Capital support?'*

'No, the fact we got the first 55M, when PiS was in power, was related to the great budget conditions, they need to make spending. (...) It wasn't effect of detailed planning of: now we will create Venture Capital. There was money and everyone knew that NCF was waiting for two years now, so the money came. (...) They (government – author's clarification) were very happy, we were asked to spend quickly and write reports' (National Capital Fund)

Although the fact of supplying money at the time of budgetary surplus would not be surprising itself, the attitude of the government shows lack of commitment to a long term sustained program of financing Venture Capital development. Indeed, looking closely at the official documents there is no policy dedicated

exclusively toward Venture Capital industry. Elements of programs which aim to support Venture Capital industry are incorporated into other programs, mainly those enhancing entrepreneurship and innovation.

Looking from the historical perspective one of the first documents recognizing the role of venture capital funds was published in 2001 by the National System of Preparation for Structural Funds (KSP)⁶³. The published analysis along with the institutional readiness indicated the need for creating an effective financial support system for regional development. The document recognized regional funds as one of the instruments allowing development of regions, and highlighted the needs of the commercial character of their operations. The participation of private investors along with the public ones in the regional fund was perceived as a guarantee for increased economic effectiveness of the fund (Hausner, Frączek, & Sułkowski, 2001).

Analysing the documents presenting long term government strategies, shows that government awareness of the Venture Capital industry and its role in supporting other economic priorities is gradually growing but still limited. The National Development Plan 2000-2002 (Ministerstwo Gospodarki, 1999) perceived Venture Capital as one of the instruments allowing more efficient implementation of new solutions in the national economy. Apart from an intention to create an 'environment' for development of Venture Capital investments in Poland the document does not set any other long term goal. A later document, National Reform Program 2005-2008 (Rada Ministrów, 2005), recognizes the lack of Venture Capital funds investing in small projects (up to 2 M Euro) and announces establishing a National Fund of Fund (National Capital

⁶³ KSP was a national wide concept involving networking of wide range of organizations (national, local and self governance) which aimed preparing Polish institutions for using European Union funds.

Fund) which aims to fill this gap. The Strategy for increasing the innovativeness of the economy 2007-2013 (Ministerstwo Gospodarki Departament Rozwoju Gospodarki, 2006), recognizes the equity gap and announces further support for development of a Venture Capital industry. Similarly to previous documents, it does not indicate any specific detailed goals for the industry to achieve.

Strategy for National Development 2007-2015 (Ministerstwo Rozwoju Regionalnego, 2006) in its priority goal of increasing competitiveness and innovativeness of the economy classifies Venture Capital among alternative instruments of financing SMEs, which are supposed to be supported. The two latest documents National Reforms Program – Europe 2010 (Ministerstwo Gospodarki, 2011b) and the strategy for innovativeness and effectiveness of the economy (project) (Ministerstwo Gospodarki, 2011c) aim to facilitate the Venture Capital industry by enhancing public–private co-operation in financing, providing incentives for such co-cooperation by promoting initiatives such as the Polish Fund of Funds and European funds as well as easing legal regulations in these respects.

Summarising the government documents at the strategic level, Venture Capital is recognized there as a tool for obtaining priorities related to competitiveness and innovation. However, not much more interest besides identification is given to it. There are also no suggestions to maintain financial support to this sort of initiatives alternative to the EU funds.

A more specific document dedicated directly to the capital markets: The strategy for capital market development – Agenda Warsaw City 2010 (Ministerstwo Finansów, 2004) indicates that the Venture Capital market development in Poland does not meet the preferred level thus more actions

supporting this segment of the capital market have to be done. It indicated that Venture Capital industry is not increasing its role in the economy in a sustained way. At the time of the analysis investments into technology firms were decreasing. Additionally it highlighted lack of system changes in the year 1998-2002 which could provide quantitative and qualitative changes in the Venture Capital industry. Thus the document indicated the need for assuring financing for Venture Capital from the financial institutions such as banks, investment funds, pension funds or insurance companies. However this would require changes in the investment restrictions put on them. As the long term goal to be achieved in 2010 the relation of invested funds to GDP was set at the level of 0.25%. According to the data reported by EVCA (2011) the VC/PE investment was at the level of 657 M Euro in 2010 in Poland, which is 0.192% of the national GDP.

The following paragraphs are considering specific actions aiming at enhancing the Venture Capital industry. The first part supplements the official information referring to the National Capital Fund. The second part concentrates on structural programs coordinated by the Polish authorities.

National Capital Fund

There is a consensus between the literature and participants' opinions that establishing the National Fund of Funds was a milestone in the development of the Polish Venture Capital industry. Analysing interviews with the Venture Capital industry stakeholders, all of them were very positive about the idea of

creating the Fund of funds. They indicated its role in activating the early investment funds as well as providing good practices.

The National Fund is doing a really good job (Private/Public Venture Capital)

'I think that significant influence on the development of the industry has got National Fund as well as other support programs. Generally it was difficult for those funds (Venture capital fund – author's clarification) to develop. There were no rich people who could invest as Limited Partners. (Former Venture Capital/Entrepreneur)

However, some voices of criticism have pointed to a potential weakness in the investment process. Combining the limits of 5 years for investment and the 1.5 M Euro per investment there is a potential threat of allocating funds in not the most efficient way, especially at the end of the investment period. The sector restrictions and the investment limits were also offered as constraining factors.

The limitations put on us by the UE or NF regulations are difficult for us because from time to time there might be good deals in the restricted sectors. But the most painful restriction is the cap for investment. In one project or connected project we can invest 1.3 M Euro. It means that when the company is growing and needs fuel, we have to go to other investors to raise funds. (Public/Private Venture Capital)

Analysing the interview with a manager at the National Capital Fund the following conclusions might be drawn. Firstly, National Capital Fund aims at serving a dual role. It provides financing for commercial venture capital funds as well as creates opportunity for fund managers to learn by experience. The

interlocutor put emphasis on the need for creating conditions in which both investors and managers could learn:

'At the moment NF is flooding with money a market that did not exist before. (National Capital Fund)

'Yes, they will learn (managers – author's clarification). As I said once during a conference when a politician was criticising NCF for being the most expensive MBA course. (National Capital Fund)

The National Capital Fund records a constantly increasing number of applications for each financing round. Circa 10% to 20% of which are perceived to be very good quality. Unfortunately due to limited funds not all of them can be supported. Officially there are no exits yet, but opinions on the portfolio companies are moderately optimistic.

This mechanism is inefficient. (...) Will see how these funds (co financed by NCF- author's clarification) are going to operate. At the moment they are not doing too well and it can be seen. The same can be said of NCF' (Private Venture Capital GH)

None of the funds has exited the deals yet, so nothing has succeeded or failed yet. (...) but one case is a bankruptcy. Not formally but technically, and economically it's bankrupt. (...) There is nothing up there with a global potential. (National Capital Fund)

Structural Programs

Among the structural programs financed by the European Union budget two groups are particularly relevant for the Venture Capital industry. The first group of actions aims at increasing entrepreneurship and thus influence the potential demand for Venture Capital financing. The second group aims directly at the Venture Capital industry by supporting the National Capital Fund or indirectly by supporting Business Angels and public Venture Capital type of initiatives.

The opinions of participants on both sorts of programs are polarized. There are extremely critical voices, usually expressed by the representatives of Venture Capital Funds.

Interviewer: *what was the worst occurrence for the Venture Capital industry in your opinion?*

'It's quite controversial, what I'm going to say but the EU money' (...) It's much easier to spend public money. The investor will look after each zloty, because this is his money.' (Public Venture Capital)

This was very negative for the industry, because it was giving away money (...) Flooding the market with money doesn't increase the professionalization of the industry. (...) as result the professional firms has got a squeeze on profits. (Public/Private Venture Capital)

'The EU projects were giving away money. I find this initiative very negative for the market, because that money was given away. However, this is also maturing now, and it's much more difficult to get this financing. (...) A lot of projects got financed. (...) We haven't recorded on the Venture Capital market any increase of new firms with interesting

projects or business model. De facto, the models are often not adapted to the business reality. (Private Venture Capital_HG)

Although less hostile opinions were also presented.

'Those initiatives allow people to start their own businesses (Former Venture Capital/Entrepreneur)

'The Venture capital market was weak and fragile. They (EU fund – author's clarification) might increase competition. From the entrepreneurs point of view this is good. (Expert)

As it can be seen from the above observations, Venture Capital funds perceived the European financing as competition to their services at the same time not seeing improvement in investment readiness of potential portfolio companies. The opposite opinions were expressed in reference to the ease of obtaining the support. Entrepreneurs generally perceived it as difficult money whereas Venture Capital funds as too easy money. Some voices expressed lack of discretion in dispatching funds. Such situation might be due to several factors. One of which was expressed by a representative of the National Capital Fund.

'Everyone is very much interested in the support money. This is political ice cream. You may give it to someone, or you may not, and you may use this power to threaten or guide someone. You may give it to a firm that is bankrupting but politically well located. (National Capital Fund)

The Expert gave more light on how the system is abused for political/personal reasons:

'it is perceived as venture capital fund but de facto it is an initiative of venture capital type. (...) For example: an incubator in Pcim Górny⁶⁴ gets money for realisation of a project called 'we invest in the future' and this is money placed in a separated bank account. It doesn't create a new legal entity. It's just a project but we call it seed fund for simplicity. (...) People from those institutions sit in supervisory boards or boards of directors of those start ups and this is a way to earn some extra money on the top of a regular salary i.e. as in the Agencja Rozwoju Pomorza. (Expert)

Other sources of maldistribution of funds might be assigned to imprecise procedures and lack of professionalism on the part of public servants. A Venture Capitalist described the process of project evaluation done by PARP as based on a 'first come, first served' method. After being asked to cross check some of the projects he summarised that the due diligence concentrated on looking for 'key words' such as 'innovation', not on the market value of the project. As he commented: such a situation should not be surprising when civil servants are forced to evaluate commercial projects. Lack of precision in creating procedures was demonstrated in many aspects. Starting with the planning phase:

'Majority of those firms (which received EU funds – author's clarification) can be classified as business teaching organizations. What is worse the regulation did not specify the structure of funds distribution between the incubation and the start up phase. So the money might be spent on incubation, which is not a transparent process. (Expert)

⁶⁴ Pcim Górny – refers here as metaphor for a small town situated middle of nowhere.

Finishing with the executions phase:

'Today I am working on application for the 5.1 program. Here is the instruction and here the minister's directives. They are contradictory. So, I called but nobody wanted to give me answer via phone. Now, I'm going to Warsaw, I don't know with whom I will manage to meet but I will require a written answer. But I can't be sure that when I attach this document to the application someone else won't say that it's not valid. (...) Responsibility of the beneficiary is huge, for the civil servant there is none. (Entrepreneur_L)

Structural programs seemed to be one of the most criticised factors and brought out a lot of emotions among participants. Especially entrepreneurs were critical of the procedures of applying for funds and later exercising the financing. Such issues as late payments, misclassification of costs and lack of cooperation on the part of civil servants were identified most often. It has to be highlighted that all interviewed entrepreneurs had personal experience with a range of different structural funds.

Business Angels:

The interviews highlighted several aspects of Business Angels' operations as well as culturally related features, which may have influence on the registered⁶⁵ number of Business Angels.

As the interviewee from the National Capital Fund indicated the Business Angel market is completely unrecorded and under researched in Poland. This should

⁶⁵ Joined in Business Angels Networks.

not be confused with a lack of private investment initiatives. Wealthy people are present and do invest in a range of projects, although they do not want to be publicised.

'there are cultural indications: to be rich in Poland is still difficult and is related to being badly treated in the wider society.' (National Capital Fund)

'there are many active Business Angels, although there is not much to be heard about them. Because they don't want to be talked about.' (Former Venture Capital/Entrepreneur)

You would be surprised in how many interesting projects wealthy Poles invest in. (National Capital Fund)

Also some investors do not categorise themselves as Business Angels but still invest in young companies. For example there is a group of investors that are active in the north part of Poland, where are no formal Business Angels networks.

Entrepreneur_W: '(...) this was group of private investors.'

I: Do they perceive themselves as Business Angels?

Entrepreneur_W: 'it's a good question. This is a group of wealthy people. (...) they all met around Procom⁶⁶. (...) They are not formally associated, they meet for a beer (...) they trust each other a lot.'

⁶⁶ IT company

The interviewed Venture Capital funds had contacts with Business Angels, as did the technology transfer centre and technology park; however, none created a long term relationship either with individual Business Angels or a network.

Participants indicated also that the level of Business Angels transactions is constrained by the tax system which is not promoting such initiatives⁶⁷, equally the educational/professional background of Business Angels is an inhibitor⁶⁸. The majority of Business Angels have a traditional economy background, which might constrain the industry. Those people are interested only in ICT, which is not synonymous with high-technology.

The literature supports participants' opinions that Business Angels are a very new institution in the Polish capital market and thus are still underdeveloped. Polish law does not provide special regulations for people willing to invest as Business Angels. The majority (83%) invests as private persons, using existing regulations of commercial law and civil law. As a result of a lack of special regulations referring to Business Angels the investment agreements with entrepreneurs are constructed based on civil law and following western standards, mainly British (Ministerstwo Gospodarki, 2011a). The Ministry of Economy reports shortages in both the demand and supply side of Business Angels. The supply side refers to the number of people (including successful entrepreneurs) willing to act as Business Angels. According to the report the problems lie in lower share of private companies in the society compared to Western Europe as well as in a lack of knowledge of the potential Business Angels. Many entrepreneurs, who have got both capital and experience are simply not aware of the possibility of investing into non – listed companies

⁶⁷ National Capital Fund

⁶⁸ Expert

(Ministerstwo Gospodarki, 2011a). However, there seems to be a growing potential in Polish society for recruiting Business Angels. It is estimated that currently there are about 13.6 K millionaires⁶⁹ in Poland (PAP 24.07.2012) and the forecasts show a further increase in that number (Forbes 10.10.2012). Importantly the source of wealth has changed recently. A few years ago most of the fortunes were generated on capital markets' deals, at present the wealth come from businesses and free-lance jobs.

At the demand part the above report indicated two major problems: lack of good projects (which referred both to the ideas and the preparation of documents) and the lack of trust on the entrepreneurs' side (Ministerstwo Gospodarki, 2011a).

One of the most efficient ways to overcome the problem of communication between potential Business Angels and entrepreneurs are networks. In Poland currently 10 Business Angels Networks are registered (Bąkowski & Mażewska, 2012). The map below shows the geographical concentration of them.

Figure 40: *Business Angels Networks in Poland in 2012*



Source: (Bąkowski & Mażewska, 2012:119)

⁶⁹ Refers only to those who pay income tax in Poland and report income over 1 M PLN

Business Angels operating within those networks prefer 3 – 5 year investments worth from 50K up to 5M PLN. The most desired stage of firm development for investment is start up (preferred by 29%) when the firm is already existing and passed the preliminarily market test. Most Business Angels place their money in IT, multimedia and the Internet sector, although biotechnology and pharmacy have become also popular recently (Bąkowski & Mażewska, 2012).

The majority of investors prefer to share the investment risk by syndicating either with other Angels or a Venture Capital fund, only 15% of surveyed Business Angels preferred to invest on their own. As exit strategies from the investments Business Angels prefer to sell the firm to a strategic investor or a Venture Capital fund (Bąkowski & Mażewska, 2012).

The Polish Business Angels networks are non-profit organizations. This character is forced by the wide usage of EU funds for financing their operations. Because of being non-profit organizations they do not charge their participants fees for joining the network, or charge entrepreneurs for presenting the projects in front of potential investors, or charge for training. They cut themselves off from the sources of income used by western networks. Although on average a network joins together about 77 Business Angels in fact the sizes of networks differ significantly, there are big ones with 120-160 members and a really small one gathering circa 15. (Bąkowski & Mażewska, 2012).

Business Angels play a significant role in the Venture Capital infrastructure (Harrison & Mason, 2000), the interviews with the industry stakeholders confirmed they play an active part in the Venture Capital investment process. Unfortunately the currently available data do not allow the relationships between Business Angels and other members of the Venture Capital

community to be explored in more detail. Further research would be necessary in order to provide such information.

Technology Parks/Technology Transfer Centres

In 2005 a detailed report analysing the situation of Polish innovation centres (Dzierżanowski, Szultka, Tamowicz, & Wojnicka, 2005) was published. As part of the document a set of factors influencing success of those organizations was discussed. The features seem to be still valid. The authors indicate that in order to establish a successful initiative it is crucial to have support from an academic site. Therefore the successful parks were established in strong academic regions such as Poznań, Krakow, and Wrocław. Interestingly the support does not have to be direct from the institution per se, at least at the very beginning, engagement of individual academics is sufficient (the case of Gdynia). However the single presence of an academic centre does not guarantee success. It has to be strong and energetic enough to self organize and generate academic entrepreneurship. Besides the presence of an academic background, parks have to match the industry potential in the region. From the managerial point of view they should aim to divide the management functions from the research functions as well as be able to establish effective partnerships with the local community, business and politics (Dzierżanowski et al., 2005).

As part of the field work a set of interviews were conducted with individuals both engaged in running innovation centres as well as participants in such places. The most attention was given to two organizations Uczelniane Centrum Innowacji i Transferu Technologii UAM (UCITT UAM) and Pomorski Park Naukowo–Technologiczny (PPNT) w Gdyni. The UCITT UAM is based in Poznań as part of the University. It cooperates tightly with the Poznań

Technology and Science Park, which is the oldest one in Poland. PPNT is situated in Gdynia, operates since 2001 and is one of the most dynamic organizations of its kind. Both parks, according to the benchmark research done in 2008 (Mackiewicz, 2008) belong to the group of well developed parks and to the first ranking group. Parks ranked in the first group had scored 'good' or 'very good' in all evaluated aspects such as: organization and management, infrastructure; inhabitants; offered services; technology transfer and commercialisation; efficiency; promotion and communication; and cooperation with other institutions.

Uczelniane Centrum Innowacji i Transferu Technologii UAM (UCITT UAM)

The main conclusions from the interview with UCITT UAM can be summarised as following. The main problem for development of the initiative rises from the attitudes of potential participants. There is a significant lack of cooperation between participants, which arises from recognizing only threats not opportunities.

Looking at the structure of clients, these are mainly students from a wide range of departments, with no dominant source. People with PhDs are less willing to start their own businesses. The least interested group are Professors. Although still their knowledge about running a business is very limited the level of awareness is increasing. New firms complain about a lack of sources of financing. However, in the opinion of the interviewee it is not as much the problem of a financing gap as that of a failure to search for money effectively. In the case of large agglomerations, to which Poznan belongs, availability of EU structural funds is smaller therefore firms have to turn to alternative sources such as Business Angels or Seed Funds.

The cooperation between UCITT UAM and Venture Capital had a personal character. Keeping the relationship informal was influenced by two factors: firstly UCITT is in close relationship with the Poznań Technology and Science Park, which has his own incubator and all firms eligible are directed over there. The Park on the other hand is cooperating with a seed fund. The second argument for remaining informal was based on the complicated procedures which would be required for signing such a formal document because UCITT operates as a unit of the University.

In the case of the Poznan Technology and Science Park the financial support is based on an external seed fund. The Jagiellonian Center of Innovation (based at the Jagiellonian University) has taken a different strategy and established a seed fund with the cooperation of an already financed management institution⁷⁰. In both cases the seed funds were financed with the EU funds – Innovative economy.

Pomorski Park Naukowo – Technologiczny (PPNT) in Gdynia

The Pomorski Park Naukowo–Technologiczny (PPNT) in Gdynia is one of the biggest initiatives in Poland, established by the City Council of Gdynia and Pomeranian Centre of technology. It aims to promote innovation and provides facilities in form of laboratories for R&D. As part of the park a technology incubator is run. Each firm applying for the incubator has to be accepted by the Research Committee. Additionally all firms in the incubator and the park are evaluated regularly, based on the outcome their contracts with the park are either prolonged or not⁷¹.

⁷⁰ <http://www.satus.pl/jci-Venture-sp.-z-o.-o-%28en%29.html>

⁷¹ Interview

Also it is the only technology park in the country which had the Regional Patent Information Centre situated within its structures⁷². Within the park there were also two financial institutions situated: the Business Angel Seedfund and a seed fund SCVC Inveno Sp z o.o. (Mackiewicz, 2008:100). However, currently (2012) none of these organizations reside there anymore⁷³. The interviewee was not able to give reason why those organizations moved away.

Among many services provided by the Park for its clients, one supports networking between firms in the park. Every month a meeting is organized where new joining firms have the chance to introduce themselves as well as older firms have a platform to exchange experiences and build cooperation. Comparing opinions on popularity of those meetings the results are contradictory:

'... some of them come with enthusiasm, others do not have time at that particular moment. So, you know, there are not all firms there, but maybe half of them. But everyone is very pleased with those meetings. I can see that during these meetings they (firms) start to cooperate with each other.' (Coordinator PPT)

'Park organizes monthly meetings. There are 75 of us (firms). Do you know how many comes over? 7 up to 10 show up. (...) so how to build a business relationship?(...) We are here 5th year and just only now we think of doing a business together (with firm from the park). (...) I don't know most of the new firms, although I'm coming to the meetings very often. (...) I tried to do some integration events to. I have twice organized 'birthday party of the company'. I've sent an email to all firms inviting for

⁷² <http://ppnt.pl/en.html>

⁷³ Interview

cake and coffee after work. There came 6 firms. I telling that there is something is missing with the community. But this will develop.
(Entrepreneur_L)

Also in case of more detailed research on opinion of technology parks clients the problem of networking is highlighted (Cichocki, 2011). Although parks across the country seem to provide the expected level of support, the technology transfer component is perceived as weakest. The report recommends enhancing networking activities facilitated by the parks, as one of the solutions to overcome the problem of ineffective transfer of technology.

Other participants' opinions

Most of the participants were critical about the quality of projects supported by technology parks and technology transfer centres:

Technology parks are investments in estates, performing negative selection (except the one in Gdynia' (Private Venture Capitalist_I)

The Gdynia one is well assessed. Whereas the Park in Gdansk is just a commercial office space. (Entrepreneur_W)

Parks are focused on different clients. Parks invested a lot, mainly the EU money into infrastructure and now have to fill in the space with whoever comes. (...) There is nothing to look for (from the point of Venture Capital – author' clarification). Among residents there is no high-tech. (Expert)

Majority of Technology Transfer Centres concentrate on training and coaching which does not translate into investment activities. There are few exceptions. (Expert)

Combining interviews with the technology park, resident firms and venture capital an interesting picture arises. The venture capitalist highlights the role of technology parks as an intermediary between funds and potential portfolio companies, the representative of Technology Park claims such meetings take place and the resident of the park indicates that a limited number of people attend such meetings. The situation might be summed up with the following quote:

'Everyone cooperates but nothing comes out of this cooperation' (Expert)

Universities:

Polish universities were widely criticised by all kinds of participants. The problems identified might be divided into the following groups:

Participants indicated that universities do not have intentions to be involved in business, and they have no incentives to do so. They indicate that researchers are not interested in commercialization of their research.

'... but you have to remember that universities are establishing incubators and technology transfer centres not because they believe it is needed. It's the government who wants to have good statistics for spending the European money. And as it's widely known scientists are able to waste all money.' (National Capital Fund)

'What I can see at our universities is stagnation caused by quite good salaries compared to the market. There is no motivation to change and going toward entrepreneurship' (Entrepreneur_L)

'It does not add up for researchers. They have good jobs at the university, extra hours in private colleges, the requirement to publish. They are not interested in patenting. (Expert)

Also universities as organizations are not promoting entrepreneurial behaviours. Firstly, they are perceived as organizations which do not follow market rules especially do not understand the concept of time as the critical factor for business success. Secondly, if they make attempts to commercialize, the existing rules are constraining.

'I think that university should do what they do, it's teaching and researching. The problem lies business takes universities with stride, that universities do not understand that time is money' (Former Venture Capital/Entrepreneur)

'There is no need to go out of the university and the university is not going toward entrepreneurship either.' ...'there (at the university) are no ideas of marketing, selling..' (Entrepreneur_L)

'We cooperate, but there are a lot of barriers, especially administrative ones.' (Entrepreneur_W)

'With one university it didn't work at all because signing one simple contract took 3 months. It was a pre-cooperation contract. After it had to go through the senate of the university. Luckily they signed.' (Public Venture Capital)

'We tried twice to cooperate with university and twice the same mechanism worked. The dean was afraid to either sell or take shares in the vehicle we aimed to establish. He was too afraid that he can't price the technology. If in 5 years it turns out that we have earned money on it, he will have control, so he prefers not to do anything. (Private Venture Capital HG)

Majority of participants had personal experience of cooperating with universities and all of them indicated the same problems related to lack of clear procedures which would allow transferring technology. Moreover the attitude of the university authorities does not enhance cooperation.

'They (researchers – author's clarification) don't want to be entrepreneurs, they want to be researchers. But they have developed a model of sharing their technology. (Private Venture Capital HG)

'there are procedures but there are so few cases that they can't be practiced. (Entrepreneur_L)

Additionally, according to the business representatives, universities have false idea of what business needs and venture capital is looking for.

'majority of funds will not chase researchers because fund is not looking for a researcher. Fund is looking for a motivated person for running a business. (...) there are only few people in Poland who understand the process. (Private Venture Capital HG)

'in my opinion it should be the other way round. The entrepreneurs should come to the university with a project and the university should realize it. (Entrepreneur_L)

The quality of projects emerging from universities was also highly criticised:

'I don't know any successful project coming out of university and I cooperate with universities for quite a while now. (Entrepreneur_L)

The literature evaluating universities in respect to creating commercially useful research discusses in more details problems highlighted by participants. In 2009 the Polish Agency for Entrepreneurship Development (PARP) conducted research on academic entrepreneurship, results were published in a form of a report (Banerski, Gryzik, Matusiak, Mażewska, & Stawasz, 2011). The report indicates that the general interest in running spin-off or spin-out companies is very small. On the other hand most of the academics have good opinions on the quality of the research and teaching provided by their own universities.

The research indicates that only small fractions of academics are running a spin off or spin out firm. These were 6% of all respondents. Less than 10% of those who think about establishing a company are going to take formal steps in near future. Compared to academics, students are more willing to start their own businesses but only one in five would like to run it in connection with the university. 54% of academics believe that their supervisors would be supportive toward establishing new businesses whereas 14% think that supervisors would be against such a decision (Banerski et al., 2011).

Academics judge that their universities are prepared for management of research results and are able to guard intellectual property. 75% of them indicate that universities are cooperating with businesses. On the other hand a large fraction (16%) has no idea about this kind of cooperation. The vast majority of academics (80%) are convinced that the expected results of their

research answer the needs of industry or are able to be commercialised. However the knowledge about financing these sorts of projects is minimal, only 8% recognize seed funds and 4% Business Angels (Banerki et al., 2011).

In 2006 Tamowicz (2006) conducted an extended case study of 18 Polish spin-off companies. Based on the analysis he drew the following conclusions:

- Due to lack of credible statistics it is difficult to estimate the actual number of firms that can be classified as spin-offs;
- The evaluated firms did not differ significantly in their characters from the same sort of firms in western economies; These were usually small entities, employing less than 10 people and based their operations on outsourcing;
- Although the standard barriers for enterprise development are common for spin-off and traditional firms the management abilities of the founders were indicated as the crucial factor for succeeding. Firms which were able to combine research excellence with skilful management seemed to be much better off. The second key factor deciding about the success of a firm was the size of the market. The national market is still believed to be 'too poor' and 'too small' to be able to absorb larger number of high tech companies. Therefore further development of spin-off companies has to be based on access to international markets;
- As a recommendation for enhancing spin-offs the author indicates the need for active support of Business Angels initiatives.

The picture coming out from those two studies shows that although the general interest of academics and students in running spin-off companies is not significant, those who start the businesses aim to follow the western standards.

Looking from the institutional perspective, the regulation on Higher Education (2005) in article 86 indicates that universities in order to promote their research results are allowed to run their own incubators and technology transfer centres. Via technology transfer centre the research results might be either sold or made available for free for industry. In the case of commercialisation of a new technology a university is allowed to establish a capital company which is in charge of the process. Although the legal basis exists, as seen both from the interviews with academics, entrepreneurs and venture capitalists, the more specific internal university regulations are too bureaucratic and time consuming to meet the market requirements. Additionally the human aspect, instead of smoothing the process, makes it more difficult.

The statistics do not justify the high esteem in which Polish academics are held. The number of publications in internationally recognized journal per academic staff member, the index for Poland is two – three times lower than other western European countries such as UK, France or Switzerland. Statistically a Polish academic publishes once in four years in a high quality journal. Additionally, when compared the number of citations of scientific papers authored or co-authored with a Polish academics, the numbers are three times smaller compared to Western Europe and the US (Wolszczak-Derlacz & Parteka, 2010:10).

The last 20 years of changes did not affect significantly Polish higher education and research institutions, in terms of market requirements. Their structures can be traced to the late 70s of the last century, which creates barriers for the research institutions to adapt to new situations. They are not ready to undertake commercial activities in an efficient and effective way. The increased number of

part time students, and taught post-graduate students, encouraged universities to broaden their educational services rather than be research based. In those situations where the patents or commercialisation of research has got marginal influence on an academic career there is no incentive for researchers to focus on it (Matusiak & Guliński, 2010).

Looking at the financing aspects of academic entrepreneurship there could be two main issues highlighted. The first problem is related to the European Programs. Although there is a significant amount of money assigned from the European Human Capital operational program there is a lack of coherence between the subdivisions of the program. In example the priority 6.2 (Human capital, support and promotion of entrepreneurship and self-employment) is focused on creating new firms and enhancing self-employment. In case of graduate university students who intend to run a spin off/spin out the problems arise from the fact that: firstly, there is not priority given for innovative entities, secondly they usually are outside the preferred groups. On the other hand the sub-measure 8.2.1 (Human capital - Support to cooperation of scientific environment and enterprises - call for proposals projects) provides support for doctoral students, students and graduates, however only in non-financial aspects (Matusiak & Guliński, 2010; Ministry Of Regional Development, 2009). The second problem is related to lack of ideas to provide sustainable financing for programs supporting academic entrepreneurship in the situation when European Union funds expire (Matusiak & Guliński, 2010).

5.3.4. Entrepreneurs

Entrepreneurs are an invariable element of the Venture Capital investment cycle. They provide the demand side for the Venture Capital funding. Without people willing to undertake risk and challenges embedded in establishing new businesses Venture Capitalist would not be able to create their portfolios. The following section is devoted to analysing entrepreneurship and potential entrepreneurs in Poland. The focus is given to already established entities which can be described as innovative and of high growth potential thus are in the scope of interest of Venture Capital funding as well as to individuals who are willing to undertake entrepreneurial activities in future and create the above kind of firm.

Opinions on entrepreneurs range from very positive to highly critical. Lack of good projects and an overwhelming number of bad projects were also highlighted.

In Poland there are the best entrepreneurs, because they want to work.

(Private Venture Capital_I)

There is lack of entrepreneurs with good projects (Public/Private Venture Capital)

At the moment there are relatively few good projects. There are a lot of weak projects. (Former Venture Capital/Entrepreneur)

The business models do not fit the market reality (Public/Private Venture Capital)

By some Venture capitalists they were perceived as very devoted to the business having clear goals and plan to achieve them; when others indicated

lack of long term planning as well as lack of interest and ability to build the market value of the company. Also such issues as unwillingness to share the company's ownership and neglecting to separate the company's assets from the private assets were indicated.

*'Entrepreneurs do not engage into the projects, they seem not to understand that you have to work extremely hard at the begging. (...)
They believe that if they come with a project they will get the money straight away. (Public Venture Capital)*

Entrepreneurs do not understand the value of a company. They don't create the company to increase its value with a vision of later sale. They want to have salary every month. (Public Venture Capital)

The managers at private Venture Capital funds were more favourable toward entrepreneurs compared to those operating in publicly funded. The further question, unfortunately not in the scope of this research, could follow the differences, if any, between the clientele of private and public funds as well the way the funds operate in relationship to their clients.

More moderate voices concentrated on insufficient financial education, which resulted in misunderstanding the mechanism of Venture Capital functioning. With a conclusion that on average in respect to investment readiness Polish entrepreneurs do not differ from their colleagues in western countries.

The industry stakeholders perceptions elicited through interviews, which although statistically not comprehensive enough to be significant, provide insights, including contradictions, which when set against the analysis in reports suggest some interesting further research questions.

The secondary data indicated that on average though, Polish entrepreneurs avoid using external financing and if they do, usually it is used for financing current operations rather than long term investments (Tarnawa & Zadura-Lichota, 2012). While considering the investment activities of SMEs, the larger the company is the more willing it is to invest in fixed assets (Starczewska-Krzystoszek, 2011). Looking at the dynamics of investment activities it might be seen that the 2003-2008 period of growth in investment was followed by decrease in 2009 and 2010 and then to rise again beginning with 2011.

On the other hand only 44% of firms are using their full productivity potential; the rest are able to increase production, thus sales, without the need for investment in fixed assets. Polish companies are not willing to invest in innovation either. Only 18% of manufacturing sector firms invested in innovation in the period of 2007-2008, and even less – 14% of service sector. The R&D expenditures are low, and probably would be even lower if not for the supply of EU program funds. The average business sector expenditure on R&D calculated in Euro per inhabitant was circa 20 euro in 2010, whereas in the UK it reached 221 euro. When calculated as a percentage of national GDP the rates are 0.22% in Poland versus 0.79% in the UK.

Despite the data, a positive trend can be seen, because almost one fourth of firms is planning to invest in innovation in the near future (Starczewska-Krzystoszek, 2011).

The above statements raise a range of possible areas of further and deeper research particularly on the relationship between the Venture Capital fund and entrepreneurs with respect to the maturity level of the entrepreneurs, whether it is a first time entrepreneur, serial entrepreneur or former venture capitalist.

5.3.5. Culture

Cultural issues are delicate and often are not directly referred to. Hofstede's framework of factors, widely used for assessing national cultures, was applied in detail in the context chapter discussion. Therefore the following section refers only to those elements of the culture specifically identified by participants. The second part of the section presents secondary statistical data which contributes to a broader national perspective on these issues referred to by interviewees.

From the personal observations of the researcher it was noticeable that the Polish Venture Capital industry seemed to be dominated by males. Only two interviewees out of 15 were female. Both of whom had administrative jobs (the Technology Park manager and the President of PPEA). The funds' managers and entrepreneurs were all male. Also, from the available personal data on fund managers there is seen to be an overwhelming number of male directors⁷⁴.

Although culture factors are an important influence, and the range of factors is broad, the respondents during interviews did not reflect much on this. There were only two issues referring to culture, that were commonly brought out by participants. The first one was trust between business partners and the second was the problem of dishonesty. One of the participants indicated that due to the risk generated by combination of those two factors the costs of legal protection of an investment are very high and reach about 5% of the total cost of transactions.

*'in Poland (...) I can see it also in Slovakia and Czech Republic, there is very little trust between the citizens and the state. And this is justified.(...)
If for example a person from EVCA came to an entrepreneur and started*

⁷⁴ <http://www.psyk.org.pl/funds.html>

asking questions, the entrepreneur will kick out him/her' (National Capital Fund)

*Business Angels are afraid more of personal risk than market risk. (...)
They don't want to invest because they are afraid that someone will cheat them. (Public Venture Capital)*

They (Entrepreneurs – author's clarification) don't want an external investor because they think he/she will steal their company (Public Venture Capital)

'They said (a fund co financed by National Capital Fund – author's clarification) that this is an NCF requirement. (...) so we stopped negotiations. Later it turned out that this was a lie made up by X⁷⁵ just for the negotiation purposes. (Entrepreneur_W)

The fundamental difference in Poland lies in the amount of stealing. I'm afraid that in IPO prospects of our portfolio companies will be expensive and later half of it will go to managers under the table. (National Capital Fund)

Insufficient knowledge might be indicated as one of the factors influencing the lack of trust between members of the Venture Capital community. As the manager at the technology transfer centre pointed out, many researchers are afraid of Venture Capital because they do not fully understand the mechanisms behind equity financing. The manager of the technology park, on the other

⁷⁵ Fund manager – name known to researcher

hand, observed that firms are more willing to trust public funded Venture Capital funds or Business Angel seed funds than private ones.

Lack of cooperation was indicated as constraining the everyday conduct of business, and also translates into a default mode of conducting business.

'We Poles and a compromise?(...)' (Entrepreneur_L)

According to national level research the vast majority of Poles trust their close family (96%). However, trust towards the wider family drops to 36%. In respect to business activities: over 70% of respondents declared that it is wise to be careful with business contacts, and 42% that trust in business contacts does not bring anything good. However, over the ten years of the survey there are signs of improvement. Considering institutions Poles trust most the charity organizations (78%), and the Church (76%); at the other end of the scale of trust are the Courts (44%) and public administration (42%). (Fundacja Centrum Badania Opinii Społecznej, 2010)

Although the literature indicates the role of culture in shaping the Venture Capital industry, participants seemed not to put much emphasis on this factor. There are several possible explanations: within the available time there were issues of more importance to discuss, and at this stage of industry emergence the cultural issues are not important or are too sensitive to talk about.

5.3.6. Venture Capital

Available secondary data on Venture Capital were presented in the second chapter. This section is dedicated to conclusions arising from the interviews.

A broadly discussed element of venture capital funds were the management teams. Opinions oscillated between positive and negative among fund managers.

'the Venture Capital management teams are professional. Most of them operate since 1994. They survived it means they are good. (Private Venture Capital_I)

Our managers, being objective, are weak (National Capital Fund)

The main difference between Polish and western funds are the management teams. I mean their background. In Poland members of the management team came from financial background, however it's changing now. (...) if we consider at the UK or US management teams they usually have a member with industry experience, this translates for the whole investment process. In case of Poland the Venture process is more like Private Equity. It is based on formal financial analysis not on the business itself and the ways to help it to develop. (Private Venture Capital HG)

Both Venture Capitalists and Entrepreneurs indicated that Venture Capital funds are providing only financial support. An interesting remark was made by a former Venture Capitalist who currently runs his own high tech business. While asked if he considered Venture Capital funding for his firm he replied that Venture Capital cannot provide what he is looking for, because his business needs something more than money. The other two interviewed entrepreneurs had similar experience. They turned to Venture Capital for professional help, for pure financial support they used European grants. Their statement contrasts

with the Venture Capitalists' idea of providing a unique combination of money and advice.

In Poland besides money funds do not offer any other support (Private Venture Capital_HG)

(...) and this manager sees that our discussion is heading to nowhere and says: ok I tell you honestly, we give you only money and you're going to do the business. (Entrepreneur_W)

Funds indicated that one of the challenges for the industry will be related to selecting and later supporting good projects; although most of the projects in which Venture Capital funds invest are not high-tech.

The ecosystem which is able to generate good projects is the most important for Venture Capital industry. (Former Venture Capital/Entrepreneur)

If we look closer, we'll see that for example MCI made big money on simple projects (National Capital Fund)

Poland according to one of the participants represents too small an economy for Venture Capital therefore funds are looking for projects which have export potential. Recalling that finding good projects is difficult, this becomes a further challenge.

The data published in statistics are not precise:

'Eurostat says that in Poland four early stage transactions took place this year, because someone has registered them. I can find six for this year

and none of them will be the ones mentioned in statistics. (National Capital Fund)

On the other hand entrepreneurs while referring to their personal experiences with Venture Capital funds expressed concerns on too high demands of Venture Capital for control. Some of them expressed fear against hostile takeover.

'We negotiated with MCI and Helix. We were close to sign a contract but they wanted too much control (Entrepreneur_W)

'the alertness that there are legal possibilities for them (Venture Capital) to take over my company even if I have the majority of shares. (Entrepreneur_L)

In another case the time needed for the Venture Capital to take the decision was too long for the company to wait, so the company had to find alternative sources to finance the project. Taking in account that the same company finished successfully the planned project and had an IPO few months later undermines the argument of underdevelopment of both the project and the company.

Some arrogant behaviour of Venture Capitalists was also recorded. Such a situation might be due not to the lack of professionalism but be reinforced by the monopolistic position of Venture Capital for early stage financing.

'So X arrived, put legs on the table. His assistant, Y during the whole presentation was watching movies on You Tube. I sat next to her. So

generally they behaved arrogant. (...) Besides you could see that between X and Z⁷⁶ was a conflict. (Entrepreneur_W)

The above analysis was guided by the factors set out in the template. Most of the factors were discussed by the participants; however, consideration of accounting standards, bankruptcy law, labour regulations, the role of corporations as R&D providers, and the role of professional associations did not emerge. Further discussion on the findings and their implications for policy makers is continued in the conclusion chapter.

⁷⁶ Z and X managers of Venture Capital funds (names known to the researcher)

6. Chapter 6

6.1. Conclusions

This research aims to understand the process of transformation from a centrally planned economy to a market economy. The analytical perspective was narrowed to one industry and one country. The framework was organizational theory, specifically a combination of Institutional theory and Resource Dependence theory. Analysis was guided by a template of factors derived from empirical results in the literature. Primary data was collected through semi structured interviews. Poland was chosen as the case study country, and the Venture Capital industry as the sample industry.

Venture Capital is widely perceived as a one of the main drivers for innovation and wealth creation both in the US and in other developed and developing countries (Gompers, 2001; OECD, 1996; Pierrakis, Y. 2010). The literature discussing Venture Capital processes emphasises its cyclical nature as well as its complexity (Gompers & Lerner, 2004; Gorman & Sahlman, 1989; Sahlman, 1990). The cycle starts with raising long term funds from investors, then selecting and investing in portfolio companies, and finishes with exiting the deal. At each stage of the life cycle, Venture Capital participants cooperate with different partners and face various threats and challenges. The nature of this context influences behaviours and outcomes. Therefore, to obtain a more reliable understanding of a Venture Capital industry the analysis has to go beyond the Venture Capital partnerships.

6.2. Theoretical assumptions

To obtain a broader picture of the Venture Capital industry in Poland is problematic. The application of a 'principal – agent' perspective, which is successfully used in Venture Capital research in developed western economies (Gompers, 1995; Osnabrugge, 2000; Sahlman, 1990; Sapienza & Gupta, 1994) seems to be too simplistic in the specific case of emergence and development of the Venture Capital industry in a transition economy. The principal – agent relationship, often referred to as 'agency theory', identifies hazards related to the relationship between a principal who delegates tasks and an agent who performs those tasks (Eisenhardt, 1989). In the case of Venture Capital relations, the role of principal and agent are not strictly assigned. Venture capitalists act as agents in relation to limited partners but also simultaneously as principals when cooperating with entrepreneurs (Sahlman, 1990). The potential for opportunistic behaviour may arise from uncertainty related to the project, and from information asymmetries, as well as from different risk preferences between parties (Arthurs & Busenitz, 2003; Eisenhardt, 1989a). The theory assumes roles are clearly assigned. Therefore, agency theory does not provide a robust theoretical explanation in the case when the goals of principals and agents are not fully aligned (Arthurs & Busenitz, 2003).

Following Pettigrew (1997), the emergence of a Venture Capital industry should be perceived as a process where events unfold in sequence over time, in context, and at different levels of an economy. The venture capitalist general partner operates as a highly specialised intermediary between finance and innovation (Gilson, 2003). Therefore, while aiming to understand the process of Venture Capital industry emergence and development, the analysis has to

include the analysis of the connected parties (providers of finance and providers of innovation) and not only the connector (venture capitalists).

In the case of a country undergoing a transition from a centrally planned to a market economy, the dynamics of change are profound and affect both institutions and organizations. The existing institutions change, new roles are assigned to existing organizations, and new organizations emerge. The emerging Venture Capital industry is operating in an environment very different from the one experienced in developed western economies. There are new hazards, such as an unsuitable and unstable legal system, but also new opportunities such as unexplored markets. The range of participants and their roles differ from those found in traditional developed market economies. At the level of Venture Capital firms there might be found a range of funds with different backgrounds and goals. There are foreign private funds, with established procedures and strategies, new private local funds learning the business, as well as foreign public funds; there are also local public funds, and public/private funds, which, as a consequence of being financed from public money often have wider social goals in addition to their financial goals.

The role of the state is as extensive as it was in the socialist era. As a legislative power during the protracted stage of transformation it influences all participants of the Venture Capital industry community. At the policy level, it formulates regulations and directives directly affecting the Venture Capital industry, i.e. creating a viable venture capital infrastructure. Additionally, it may act as a main investor or a co-investor in a fund.

Any Venture Capital industry, in order to generate profits, requires a supply of exceptional innovative companies. Thus the conditions for development of

innovation directly influence the pace of Venture Capital development. Unless Venture Capital is able to invest in projects which potentially are able to generate profits, the potential investors will look for alternative ways to earn profits. Investors are not a homogeneous group. Depending on their origins they differ in attitudes toward risk and expected returns. Institutional investors, such as pension funds or insurance companies, are restricted by legal regulations. The expected returns on investment also differ depending on the source of funds and stage of investment (Manigart et al., 2002). It can be assumed that the nature of potential investors will influence the pattern of investments therefore investors should get attention in any analysis of the industry.

To sum up, the Venture Capital process takes place at several levels. The main level is at the investor – Venture Capital fund – portfolio company level. Here agency theory can provide valuable insights on the relationships. The other levels of analysis are related to the investors' environment and portfolio companies' environment. The way these environments influence the relationships between investors and Venture Capital, and Venture Capital and portfolio companies, cannot be fully explained by using exclusively the agency approach.

The research presented here aimed to understand the process of Venture Capital industry emergence and development in Poland, and to ascertain if there are a number of generic factors for industry emergence in post socialist economies. In order to capture a broad perspective the organizational theory approach was employed. The Venture Capital industry is treated as a community of organizations which are connected by direct or indirect

relationships. Two leading organizational theories were applied: Institutional theory (North, 1990) and Resource Dependence theory (Pfeffer & Salancik, 1978). Both theories aim to understand how organizations operate in their environments. The core idea behind Resource Dependence theory indicates that an organization's ability to survive depends on its ability to acquire and maintain the necessary resources. In order to obtain them, organizations may use different strategies which may change according to changes in the environment. Institutional theory attends to the institutional environment and the way it influences organizations. The theory also indicates that institutions are the outcome of cultures. Thus institutions with similar purposes may differ in structure and processes when in different cultures. Using the two theories together the following predictions about the process of emergence and development of a Venture Capital industry in an emerging economy are made:

1. Normalisation: The Venture Capital industry should become more homogenous⁷⁷ over time;
2. Phasing: Venture Capital industry emergence will unfold in set of development phases;
3. Incentivisation: The internal structure of the Venture Capital industry will reflect the incentives present in their economic environment;
4. Shaping: The characteristics of the external environment for Venture Capital will change over time and at each stage will influence the shape of the industry;

⁷⁷ Over time funds will become more similar to each other but not necessarily more efficient (DiMaggio, P. J., & Powell, W. W. 1983. The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review*, 48(2): 147-160.)

5. Adaptation: Venture Capital operating parameters will adjust to fit the specific environment encountered;
6. Motivation: It will be necessary to understand the context of Venture Capital operations in order to understand its actions;
7. Sense-making: The way Venture Capitalists will react to the changes to environment characteristics will depend on the interpretation processes of the top managers which will be culturally linked;

6.3. Methodological contribution

In order to identify elements of the Venture Capital environment which influence the performance of funds, and shape the industry, a literature review was completed. Based on the available empirical evidence, a template was then constructed⁷⁸. The template reflected factors which influence the emergence and shape of a Venture Capital industry. It also served as a benchmark for further analysis of factors, which were specific to the context of transition economies.

The primary data were collected via interviews. There were 15 semi structured, interviews, using open ended questions, conducted with different representatives of the industry. The participants represented Venture Capital firms, both private and public; entrepreneurs, managers of technology parks and technology transfer centres; representative of the Polish Private Equity and Venture Capital Association; an academic expert and a lawyer. The participants were selected by the researcher and both were recommended by other

⁷⁸ See the methodology chapter for the full template description

interviewees. The interviews were analysed and data grouped using the purpose designed template. The data collected through interviews were referred against available secondary data. The collection of secondary data was also guided by the template.

The aim of the interviews was to allow participants to freely reveal factors that in their opinion, and based on their experiences, had the most effect on the contemporary shape of the Polish Venture Capital industry. Not all elements which were initially included in the template were indicated by participants. Those elements, when possible, were covered with the secondary data. Also some new factors emerged, but these were not added to the template and may be appropriate for follow on research. The following section presents and discusses the main findings.

6.4. Findings

The transformation process is complex and takes place at both the economic and social level. Depending on the strategy chosen, transformation may unfold as a set of gradually introduced reforms or take a form of a 'shock therapy' introduced by Leszek Balcerowicz and thus minimize the time to change the formal institutions. A strategy of 'shock therapy' took place in Poland. The detailed information on the kind of reforms implemented is provided in the context chapter. Nevertheless, although changes in formal regulations can be introduced 'overnight', economic and social changes need time to take place and to embed.

The research concentrated on the emergence and development of the Venture Capital industry in Poland. The early changes from a centrally planned economy to a market economy encouraged the first overseas funds to invest in Poland thus triggered the emergence of the industry. Although a Venture Capital industry would emerge naturally as a result of moving to a market economy, it is the existence and effectiveness of the entrepreneurial ecosystem which determines the pace of development of such an industry. The particulars of the entrepreneurial ecosystem⁷⁹ may accelerate or inhibit industry development, and specific environmental factors may act as either inhibitors or accelerants depending on the phase the industry is in. Acknowledging the moderating role of the environment, the research concentrated on identifying factors that had the most influence on the current shape and development trajectory of the Polish Venture Capital industry. These factors are now presented against the background of the Venture Capital process in the developed economies, with reference to each stage in the cycle.

The regulatory framework establishes a common and agreed platform for exchanges between market participants in a particular country. The legal system is cited in the literature as an important indicator of Venture Capital performance. A transition economy, by definition, experiences a dramatic shift in this area. Creation of a stable system should be a priority. In the case of Poland one of the major problems indicated by industry stakeholders was the lack of stability and lack of clarity in the legal system. This affected the ability to plan for the long term and increased the risk related to running a business and reduced potential returns. The constant changes do not help to establish well

⁷⁹ Detailed discussion on determinants of entrepreneurial success can be found in Ahmad, N., & Hoffmann, A. 2008. A Framework for Addressing and Measuring Entrepreneurship, *OECD Statistic Working Papers*, Vol. STD/DOC(2008)/2.

understood routines which could later develop into wider industry practices or paradigm. Lack of appropriate regulation, such as a suitable legal structure for Venture Capital partnership or taxation, encouraged Venture Capital funds to undertake strategies which quite often operated at the edge of legality. Such behaviour was clearly common at the early stages, but with improvement of legal structures, and increased control, those practices are now less visible. The complexity of legal regulations generates further difficulties. Complexity of the rules and the large number of regulations results in inefficient execution, which was highlighted by respondents as a constraining factor. A lot of new law is generated simply to clarify the existing law. Of note, the data highlighted a lack of applied procedures for the cost-effectiveness assessment of proposed new regulations.

Although Venture Capitalists are generally ambivalent about the extent of government involvement in the industry, the Western experience indicates that Venture Capital industries need at least some sort of assistance in order to emerge (Lerner, Moore, & Shepherd, 2005). The literature draws attention to the need to create a coherent set of policies that would support all aspects of the entrepreneurial process. The Polish experience shows only limited interest by government in policies targeted at Venture Capital. Unlike most western developed economies supporting Venture Capital, there are no tax incentives for Venture Capital or for Business Angel investments. The existing tax schemes dedicated to R&D initiatives are seen by users as inefficient.

There are some government attempts to support the Venture Capital industry. However, actions usually concentrate on the supply of funds. The National Capital Fund may serve as an example of a successful attempt by government

to copy some of the mechanisms used by Western economies. Although the project is perceived as necessary and having positively influenced the industry, it shows weaknesses when deployed in the Polish context. The weaknesses arise because of lack of coherence between the specific elements of policy which have been 'cherry-picked' from western experience.

Poland, similarly to all new members of the European Union, benefited from extensive pre-accession funds and later structural funds. The example of weak performance of current structural funds underlines the need for coordination and coherence while designing policies. The research showed that there was no consensus over the role of those funds among those interviewed. The entrepreneurs and other institutions perceived them as supporting entrepreneurship and therefore beneficial, although not free from procedural problems. The Venture Capitalists referred to them as 'spoiling the market' and pointed out the maldistribution of funds and the problem of 'crowding out' the private funds.

The Venture Capitalists invest in innovative firms, which have a potential of high growth. Without an environment supporting the creation of innovation and its later commercialization Venture Capital firms have problems with creating portfolios allowing high returns capable of realising higher investment returns.

Experience of European Countries such as the UK or the Nordic members illustrates that creation of an infrastructure for the creation and commercialisation of innovation requires a lot of time and effort. In the case of post communist countries, such as Poland, creation of such a system is even more challenging. The most natural sources of research such as universities and research institutions are frequently not interested in business activities. The

lack of interest arises from several factors. Historically universities have concentrated on research not development. This approach has not changed. Additionally, they were, and still are, very hierarchical institutions. Internal regulations serve the hierarchy. Passage through the bureaucracy takes a long time and involves dealing with many 'gatekeepers'. There are no procedures which would allow, in a quick and efficient way, universities to share with investors innovations with potential to become valuable market products. Researchers, especially those from older generations, were not encouraged to verify their work through the market and do not want to follow that path. The current system is also not improving in terms of incentives. An academic career is possible without any engagement with business. Unless the universities change their attitudes cooperation will be difficult.

The supply of public money resulted in growth in the number of organizations supporting entrepreneurship, such as business incubators, technology parks and technology transfer centres. Although the general idea followed the European model, according to Venture Capitalists those institutions do not serve as source of innovative young firms eligible for Venture Capital finance. Taking in account that the transformation process started less than 23 years ago and that entrepreneurship had to be rebuilt almost from scratch, the Polish government's focus on supporting across all types of entrepreneurs is understandable. However, a more targeted focus will be needed in order to assure the future viability of a Venture Capital industry.

Alongside the changes in the economic system, social changes have also to take place. The main challenge facing a Venture Capital industry in a transition economy is the lack of trust between members of the society. Business Angels

are afraid that entrepreneurs will behave opportunistically; entrepreneurs are anxious that Venture Capitalists will take over their business; and public authorities believe that market players will abuse all the rules. Members of the community are acting according to a scenario where the worse possible opportunistic human behaviours dominate actions and choices. Such behaviour is additionally supported by the natural tendency towards secrecy in the '*private equity*' industry. The lack of trust between parties in the Venture Capital process increases the costs of agency through a need for increased control on behalf of all parties. Lack of trust accompanied by ineffective execution of laws creates hostile environment from the Venture Capital point of view.

The reminders of the socialist system are still present. A feeling of ambivalence towards wealthy individuals might serve as an example. The commonly operating prejudice is that 'the first million is usually stolen'. Another problem is related to achieve a proper separation between the individual and the company. Entrepreneurs who established companies with Venture Capital equity still treat the company as solely owned and therefore to be treated as their private property. This has governance issues with reference to limited partnerships and investors' rights. Such behaviours are deeply rooted in the culture and will require education as well as time to change them.

All Venture Capital funds require ability to liquidate the portfolio companies at the end of the nominated fund life. Without a successful exit Venture Capital firms do not gain the investment returns or reputation required to raise a new fund. Traditionally the most desired way to exit is through an IPO. A transition economy faces more difficulties than a developed economy in providing an effective capital market. Whilst Poland was very efficient in creating the capital

market from scratch, the Warsaw Stock Exchange was opened only 2 years after the beginning of the process of transformation, it still struggles. In 2007 a New Connect market was established with the aim to provide a platform of exchange for young companies. Although, its condition is improving New Connect still suffers from low liquidity and limited liability.

The capital markets are one of the options for liquidating the investment. However it has to be remembered that Venture Capital can serve as source of finance for companies at their early stages of development. The pre-seed phases and the later stages have to be covered through other forms of financing. Without those sources of follow on funding Venture Capital will not have chance to develop dynamically.

Venture Capital, as a cyclical phenomenon, will, after completing each investment cycle (i.e. 'cash to cash'), be looking for new investor. Again the transition economies will create challenges in this respect. The communist period did not create enough wealthy individuals who could serve as individual investors. The new class is still developing and requires education and practice in this form of investment. The government with its lack of interest in long term policies toward Venture Capital does not provide adequate legislation to allow the pension funds and insurance funds to participate in the market. As result the Polish Venture Capital funds are in the majority funded with either public money or foreign funds.

Despite the challenges generated by transitioning economies, Venture Capital funds can also find exceptional opportunities. The first Venture Capital funds investing in Poland had a '*first mover*' advantage and during the first decade had an almost monopolistic position on the market. Nevertheless, those

investing later enjoyed a fruitful combination of a relatively stable political environment, fast economic growth and new markets.

The features discussed above were in the template. Nevertheless some elements included in the template did not emerge during the interviews. These were accounting standards, bankruptcy law, labour regulations, the role of corporations as R&D providers, and the role of professional associations. Absence of those elements may suggest that they are not considered to be relevant at this stage of development of the industry, or at least are not of immediate concern to the interviewees. However, it may be that they are areas which are simply too sensitive for the interviewees to talk about, or that there was not enough time in the interview process to allow them to surface.

An important factor which was not included in the template (which was derived from an examination of empirical findings in the literature), but which according to participants and secondary data played an important role in kick-starting and shaping the Polish Venture Capital industry, was the engagement of foreign public and private capital at the initial stage of industry creation.

6.5. Theoretical contribution

The research applied an organizational studies approach (the assumptions of which were discussed earlier in the chapter) based on which a set of predictions was generated.

The following table compares our earlier theoretical predictions with the empirical research findings. The (+) or (-) signs reflect an assessment of the

positive and the negative influences of the factor on the pace of development of the Venture Capital industry.

Table 8: Theoretical assumptions tested against empirical findings

		EMPIRICAL FINDINGS					
		Legal Framework	Other institutions	Market conditions	Entrepreneurs	Venture Funds	Culture
Theoretical predictions	<u>Normalisation</u> industry should become more homogenous over time;	Specific legal vehicles are now commonly used by funds (+)				Becoming homogenous, within groups (+)	
	<u>Phasing</u> industry emergence will unfold in set of development phases	Unification of the Polish legal system with European Union requirements (1991 onwards) (+)	Supply of public money from pre-accession and structural funds (1998 - 2004 –pre accession programs; 2004 onwards – structural funds) (+) Creation of the National Capital fund (2005) (+)	Creation of the New Connect market (2007) (+)		History of Polish Venture Capital industry shows turning points usually related to external factors (+)	

<p><u>Incentivisation</u></p> <p>The internal structure of the Venture Capital industry will reflect the incentives present in their economic environment</p>	<p>Lack of tax incentives for Business Angels/Venture Capital investment</p> <p>(-)</p>	<p>Lack of long term policy toward Venture Capital</p> <p>(-)</p> <p>Official disparagement for investing into Venture type projects by public institutions</p> <p>(-)</p>	<p>Lack of incentives for Universities to develop innovations that can be commercialised</p> <p>(-)</p>			<p>Negative connotations to personal wealth</p> <p>(-)</p> <p>Negative attitude toward risk and bankruptcy</p> <p>(-)</p>
<p><u>Shaping</u></p> <p>The characteristics of the external environment for Venture Capital will change over time and at each stage will influence the shape of the industry</p>	<p>Legal changes/tax regulation changes influenced behaviour both positively and negatively</p> <p>(+)(-)</p>	<p>Presence of Business Angels</p> <p>(+)</p> <p>Structural funds not targeted</p> <p>(-)</p> <p>Organizations supporting entrepreneurship are inefficient</p> <p>(-)</p>	<p>Growth of GDP</p> <p>(+)</p> <p>Development of capital market</p> <p>(+)</p>	<p>Small percentage of entrepreneurial projects are innovative</p> <p>(-)</p>		<p>Lack of trust between all actors</p> <p>(-)</p>

	<p><u>Adaptation</u></p> <p><i>It will be necessary to understand the context of Venture Capital operations in order to understand its actions;</i></p>	<p><i>Tax avoidance techniques, using foreign legal structures</i></p>	<p><i>Using personal connections</i></p>		<p><i>Substitution of Venture Capital expertise to overcome lack of skilled management</i></p>	<p><i>Response to wider investment opportunities created by privatisation</i></p>	
	<p><u>Motivation</u></p> <p><i>It will be necessary to understand the context of Venture Capital operations in order to understand its actions;</i></p>		<p><i>Political motivations dominate economic arguments</i></p> <p>(-)</p>				
	<p><u>Sense-making</u></p> <p><i>The way Venture Capitalists will react to the changes to environment characteristics, will depend on the interpretation processes of the top managers and will be culturally linked;</i></p>	<p><i>Preference not to engage with Polish structures</i></p>	<p><i>'Silo' mentality</i></p> <p>(-)</p>	<p><i>Generally supportive and engaged</i></p>	<p><i>Arrogance and commensurate lack of mutual understanding and engagement</i></p>	<p><i>Avoidance of government sponsored support other than funding</i></p>	

6.6. Practical contribution

Considering the empirical findings, issues related to trust have the most frequently mentioned negative influence on the effective functioning of the Polish Venture Capital industry. Trust cannot be managed directly by government and requires an indirect approach. The research leads us to recommend that policies should be targeted on factors in the environment which build mutual trust between stakeholders. The three most important elements would be:

- stability of the legal system;
- specifically designed incentives;
- transparent measurement of performance in terms of risk, innovation and reward.

Stability of the legal system would allow planning and reduced uncertainty thus reduces overall risk to business outcomes. Moreover, such stability enhances trust in the state as the provider of formal rules, and reduces the risk of opportunistic behaviour among business partners. A coherent system of incentives targeted at all stakeholders of the Venture Capital industry would improve their individual performance as well as collectively improving the performance of the industry. The transparent measurement of performance against outcome-centred metrics would allow disciplined and exemplary evaluation of new initiatives in terms of their trade off between the risk, degree of innovation, and expected reward.

Another major problem identified in the primary and secondary data related to the policy or even lack of policy facilitating Venture Capital industry and

supporting high-tech firms. It appears as there is a lack of comprehensiveness between different policies and programs in the entrepreneurship area, provided both by the national government and the European Union bodies. The recommendation would be to revise the existing policies and programs in terms of their coherences and compatibility. A good example of such a coordinated approach is in the UK, where efforts to encourage Business Angels investment, and university lead entrepreneurial activities, are followed by promoting Venture Capital finance at different stages of investment (United Nations Economic Commission for Europe, 2007).

An issue directly related to government programs supporting Venture Capital is sustainability. The majority of programs currently implemented in Poland are based on money provided by the EU structural funds. There is an urgent need to create a system that will allow alternative sources of money to finance these sort of initiatives.

6.7. Further research

The research proposed the application of an organizational lens, in particular a combination of Resource Dependence theory and Institutional theory, as an alternative framework for analysing emergence and development of Polish Venture Capital industry. The limitations in the research arise from the complexity of the researched subject. By providing the template it highlighted areas critical for the development of the industry. However, further analysis of each of the categories presented in the template would be useful for better understanding the whole process. In the light of the research findings, the

relationships between stakeholders involved directly into creation and commercialization of innovation should be investigated next.

On the basis of the analysis of the particular case of Poland we may speculate that the other transitioning economies, which started out in the same condition as Poland, as former communist societies with centrally planned economies, and share the same social and economic goals, may go through more or less the same development path, unless there are significant differences in context. Such differences could be expected to be found most obviously in culture and law. Providing evidence to test this hypothesis will need further research.

Based on the western experience, in all cases building an efficient Venture Capital industry will need time because there are two critical components to be grown from scratch: an infrastructure, and a population of suitably experienced actors, in all roles, in all parts of the process.

Appendix 1

Historical context

Pre-transformation period

The turning point of Polish modern history was the proclamation of renewed independence in November 1918, after 123 years of partition between Russia, Prussia and Austria. The reconstituted country was highly differentiated due to the long period of division between three different monarchies with dissimilar political and economical systems. Thus the first challenging task for the new government was to create a homogeneous national economy. Within the first few years a set of reforms were implemented, such as introduction of free trade, setting up a central bank with a national currency backed by gold, and tax reforms. As a result the Polish financial institutions became compatible with an international economy; which accompanied by conservative fiscal policies, improved Polish external creditworthiness and encouraged foreign capital inflows (Landau & Tomaszewski, 1985; Slay, 1994). However, these policies did not survive the test of global crises in 1929. The global depression damaged the country's economy seriously; the production rate fell further than the world average and the recovery was slower compared to countries of similar agriculture/industrial structures. In 1936 Poland reached 76% of its 1928 production levels whereas Hungary reached 131% and Finland 122%. Even this relatively slow recovery in Poland required an increased role of the state in the economy (Landau & Tomaszewski, 1985; Slay, 1994).

The mid war period of Polish economic history may be judged from two perspectives. On one hand, the immediate crises following the gaining of independence were overcome and the progress needed to become a sustainable economy was achieved. On the other hand, by the end of the 1930s

the Polish economy was still overwhelmingly rural in its character, and the role of the state in the economy was significant (Slay, 1994).

With the beginning of World War II the effort to unite the previously partitioned territories collapsed. Poland was split up again, this time between Germany and the Soviet Union. The country was divided into two approximately similarly sized areas with the border line along the Bug River. The German occupied part was further divided into two territories separated with a frontier. The first part - embracing the most economically advanced parts of Poland - was directly incorporated into Germany forcing legal and economical unification. The second part was designed as provisional seat of the Polish population without any national rights (Landau & Tomaszewski, 1985).

The consequences of World War II were devastating both for the economy and for human capital. German and Soviet occupation destroyed the Polish finance system and expropriated or destroyed most of the countries liquid assets (Slay, 1994). Changes introduced by the occupiers in ownership, capital, production systems and co-operative relationships resulted in the loss of self sufficiency of the national industry. Damage to the national properties reached 38 percent (Landau & Tomaszewski, 1985). Much of the national intelligentsia was exterminated (67% of dentists, 58% of lawyers, 38% of doctors, 26% of professors and scholars) (Landau & Tomaszewski, 1985:151).

The first post-World War II years (1944-1947) focused on industry recovery and determination of the political system. The emerging economy took the form of a multispectral system where state enterprises worked along with recovering pre-war private and cooperative firms. The political scene was dominated by competition between the government-in-exile in London and the Soviet

sponsored Polish Committee of National Liberalization formed by Polish Workers Party (PPR) (Slay, 1994). In 1947 PPR won the election and formed a government, which quickly transformed into 'fully-fledged' Soviet style, one party state. The efficient power went into the hands of the PPR's Political Bureau, to its First Secretary and to the privileged elite of the nomenklatura (Davies, 1986).

PPR imposed Marxism – Leninism ideology, putting increased efforts into heavy industry (Davies, 1986) and reducing private property. Pricing, taxation and regulatory policy were turned against private initiatives. Entrepreneurs who failed to meet, often contradictory, regulations were subject to fines, a 5-year jail sentence and confiscation of property without compensation. Small cooperatives were forcibly incorporated into large units with management selected by PPR. Planning became centralized, compulsory and comprehensive. Currency convertibility was not re-established after the war period. Polish alignment with the Soviet Union was progressing along with its increasing isolation on the international scene. The Polish government refused aid from the Marshall Plan and withdrew from the International Monetary Fund (Slay, 1994). Instead, in 1955 Poland became a founding member of the Warsaw Pact – the Soviet bloc's answer to NATO and the Council of Mutual Economic Assistance – the answer to the Common Market (Davies, 1986).

During the communist period the government made two significant attempts to boost the national economy, the first in the 1970s and the second in the 1980s. Each of them failed in the long run, resulting in social unrest.

In the 1970s the initial economic growth caused by earlier large scale investments into heavy industry, and absorption of labour from the rural sector,

stalled. The government recognized the need for reforms and introduced the 'New Development Strategy'. The strategy aimed at modernizing industry and raising the level of living standards by obtaining western imports of investment and consumer goods. The expenses were covered mainly by credit provided by western banks and governments (Slay, 1994). The economy was unprepared to absorb the investments therefore the modernizing strategy led to a deep balance of payment crisis, exacerbated by reduced international demand for Polish products due to the mid 1970s world recession (Lipton & Sachs, 1990). As a result of necessary adjustments, real wages and consumption per capita fell sharply (Lipton & Sachs, 1990). The social response took the form of a wave of strikes across the country with the centre in the Shipyards of Gdansk. Strikers demanded political changes, including the right to form trade unions, freedom of speech, access to official media and the right to strike. The number of strikers (c. 20 000) and the overall society support for the strike forced the ruling party to sign the agreement documents on 31 of August 1980. The attitude of the chairman of the strike committee, Lech Wałęsa, and his team, who refused to call off the strikes until all other strikes had been satisfactorily resolved, proved that the monopoly of the ruling Party was under a siege by concentrated actions across the country (Davies, 2011). As a direct consequence of the signed agreement a new self-governing trade union "Solidarność" emerged, this was an exception in the Soviet bloc at the time (Davies, 1986). Ten years later, "Solidarność" played an even more significant role on the political scene.

The economic situation was worsening constantly, during the period of 1978-1982 the real net production fell by 24%, while retail prices rose by 185% (Lane, 1992). There was a strong need for changes, to which the government

answered with a reform aimed at creating an economy that would work 'on the basis of central planning with usage of market mechanisms' (Balcerowicz, 1997). The reform took place in two phases: 1981-82 and 1987-1988. The implementation of the first stage of the reform was associated with two major issues. Firstly, even though the intended modifications in economic structure were far-reaching and ambitious they did not provide institutional guarantees that the central administration and the ruling party would obey its principles (Slay, 1994). Secondly, introduction of Martial law on December 13th, 1981, caused serious political and social disturbances. The new public order allowed for a night time curfew: curtailing all transport and travel, recording conversations, banning all social gatherings (Davies, 2011). The second stage was introduced because the first failed to meet the objectives (Lane, 1992). After implementing the second stage a moderate success was achieved. Enterprises were progressively given more autonomy over production decisions, as well as investments processes including the execution of projects. Some producer prices were released from central regulations. To improve the international trade and exchange system the government decided to reduce the overvaluation of national currency (złoty) and began to depreciate the official exchange rate. In practice however, the reform did not force discipline on the enterprises as intended, and, additionally, increased the bureaucracy (Lipton & Sachs, 1990). The reforms of the 1980s led to a situation where there was 'neither plan nor market' thus creating an economy where enterprises were neither under the control of the central planner nor disciplined by a market (Lane, 1992). Although the reforms failed to meet their objectives they eased the later transformation processes in the 1990 (Balcerowicz, 1997; Lipton & Sachs, 1990).

Transformation

The transformation process in Poland aimed to establish legal, economic, financial and administrative frameworks which would allow functioning of a market economy (Sachs & Lipton, 1990). The transformation shared common features with those taking place in other post communist countries. The scope of changes was very broad and included both the political and economic systems. Additionally those changes were interacting with a simultaneous reshaping of social structures (Balcerowicz, 1994a). The main challenge was to judge the proper sequencing of reforms. Whereas a pluralistic political system could be created in a short time, the institutional change and economic reforms required longer periods of time (Balcerowicz, 1994b; Sachs, 1992). Furthermore the success or failure of transformation relied on the initial conditions inherited after the old regime (Balcerowicz, 1994a).

When starting the transformation process the Polish economy suffered from macroeconomic imbalance. The economy was dominated by state sector. The previous reforms run during the late 1980s did not change the ownership structure significantly and still over 90% of production was under state control. Manufacturing was dominated by heavy industry, at the same time production of consumer goods and services was neglected (Sachs & Lipton, 1990). State enterprises were financed by public expenditures both directly – by subsidiaries and – indirectly – by tax reliefs. In contrast to other socialist-bloc countries, Polish farming stayed mainly in private hands (Davies, 1986). Although reforms liberalizing policy toward the private sector were introduced, in 1988 competition virtually did not exist. Additionally, lack of a strict macroeconomic policy resulted in high inflation and shortages due to price control. Absence of market institutions created additional difficulties. A real central bank, real commercial

banks and real financial markets did not exist. Export relied mainly on Russia. Human capital was characterised by a high level of general education however there was a shortage of specialists in marketing and finances, and of well trained civil servants (Balcerowicz, 1997).

The implementation of the reform program started in January 1990. It was designed as a shock therapy. The logic behind this approach came from the assumption that comprehensive and quick reforms would eliminate the uncertainty about the nature of the new economy (Sachs, 1992). This approach had both strong supporters and strong opponents. However as Jeffery Sachs indicated: 'With five years of experience of economic reform in Eastern Europe (...). The strategy seems to be winning the test of time.' (Sachs, 1994).

The introduced reforms embraced three broad categories of economic policy: macroeconomic stabilization, microeconomic stabilization, and fundamental institutional restructuring (Balcerowicz, 1994b) sometimes specified in more detail as: macroeconomic stabilization, liberalization of economic functions, establishment of a legal environment to support private property, creation of an adequate 'social security net', mobilization of international financial assistance from the IMF, London and the Paris Club (Hunter & Ryan, 2008). As the first step ten new legal acts were implemented. They referred to state owned enterprises, a national bank and bank regulations, credit constraints, wage control through tax policy, tax regulation, foreign enterprises and trade and currency regulations.

The results became apparent very quickly. Budget and monetary discipline resulted in a significant decrease in the inflation rate. Lower inflation and capital transfer from state owned enterprises, which were selling some of their assets,

allowed growth in the private sector. By the end of 1990 the budget deficit was covered with a 1.3 percent surplus. Polish currency became exchangeable. In 1991 over 90% of prices were released from the state control thus currency became a more effective tool of exchange and saving (Balcerowicz, 1997 p372-378; CIA, 2010).

After 1990 the general environment for reforms was quite difficult due to frequent changes in the government, and rising populist ideas among parties. However, regardless of the political wing of the ruling government, the core policy was continued, and the goals were gradually achieved. The yearly GDP growth during the year 1995-1997 was on average 6.5%, two thirds of exports were sold to the European Union and inflation was below 10%, investment and exports grew by 75% during 1994-1995. Within the structure of production the share of services grew; telecommunication, neglected during communist period, flourished. During the period of 1990-1993 over a million of new private enterprises were established. The financial system emerged. The supervision and regulation in banking system became more efficient. Poland managed to restore external creditworthiness and paid off in advance some of its debt to the IMF (Balcerowicz, 1997; Slay, 2000). The quality of the economy changed significantly (Balcerowicz, 1997 p 379).

One of the integral parts of the transformation, which in practice turned out to be most challenging, was the privatisation process of state owned enterprises (Sachs, 1992). Privatisation was essential to reallocate public resources to participate in the financial support of introduced reforms (Rondinelli & Yurkiewicz, 1996). The first legislation was passed in 1990, this was the Act on

the Privatisation of State-Owned Enterprises (SOE)⁸⁰. It was designed as a guiding document giving a general framework for privatisation that could be used in different strategies (Lipton, Sachs, & Summers, 1990). This was followed in 1996 by more detailed act on Commercialization and Privatisation⁸¹.

Legislation allowed a multi – track privatization, which could take an indirect or direct form. The indirect privatisation, also called capital privatisation or commercialization, of the state owned enterprise (SOE) had two conditions. Firstly it required transformation of the SOE into a sole shareholder company either a joint stock or limited liability company, owned by the state treasury. The newly established company became a capital enterprise with a legal personality, acting under the rules of the commercial code. Prior to the second stage – making shares available to third parties – the state treasury was obliged to conduct economic and financial analyses of the enterprise in order to estimate its value as well as any need for organizational, economic or technical change. The outcomes of each such evaluation were publicly available. The second stage took form of the sale, transfer, or the right of lease of shares. Foreigners were allowed to purchase shares on general terms. The second form of privatisation – direct – was designed for small and medium size enterprises. It was accomplished through selling, merger or acquisition or lease of the company (Hunter & Ryan, 2008; Kruczalak-Jankowska & Kazimerz Kruczalak, 2003).

The speed of privatization varied among enterprises. Unlike small enterprises, medium and large SOE had a very slow pace of privatization. By the end of

⁸⁰ Ustawa z dnia 13 lipca 1990 r. o prywatyzacji przedsiębiorstw państwowych (DzU 1990 nr 51, poz. 298)

⁸¹ Ustawa z dnia 30 sierpnia 1996 r.o komercjalizacji i prywatyzacji (DzU 1996 nr 171 poz. 1397)

1992 small privatization was almost completed with 82% of units: compared to 22% of medium and large SOEs after six years of privatization (Nellis, 2002), and 70% by the end of 2009⁸².

The slow pace of privatisation in the early years resulted in the introduction of a Mass Privatisation Program (MPP). In 1994 the Ministry of Treasury established 15 National Investment Funds (NIF). These funds were designed as a closed type of investment fund owned by the state treasury and intended to serve as industrialized participants on the securities market. At the same time 512 SOEs were commercialized. 60% of their shares were transferred to the NIF, 25% retained in the state treasury and the remaining 15% were reserved for the employees of the SOEs. Every eligible Pole could obtain, between November 1995 and November 1996, a Universal Share Certificate, which later might be either sold or exchanged for shares in any of the created NIFs. The NIF themselves started trading on Warsaw stock exchange in June 1997 (Hunter & Ryan, 2008; Kruczalak-Jankowska & Kazimerz Kruczalak, 2003; Nellis, 2002).

The initial concept of NFI funds was borrowed from the US Private Equity model. The newly established funds aimed to increase the value of their portfolios with the intention of later sale of shares on the capital market. The intended lifespan of those funds was 10 years. Among other economic activities allowed by law, NFIs targeted at improving management in the companies where they had a substantial shareholding, strengthening their market position and obtain new technologies (Kruczalak-Jankowska & Kazimerz Kruczalak, 2003). However, in practice, about 40% of assigned portfolio companies were

⁸² By the end of 2009; 5960 SOE were reconstructed either by commercialization, direct privatisation or liquidation from the m 8453 existing in 1990
http://prywatyzacja.msp.gov.pl/portals/pr/23/8731/Przekształcenia_wlasnosciove_przedsiębiorstw_panstwowych.html

generating losses, none of the funds had a full control over the portfolio company, and the majority of the funds' management lacked experience in corporate governance as well as in operating on capital markets (Bitner, 2012). Most of the NFI funds which managed to stay on the market were later active in private equity type of investments, whereas only a few of them were interested in the venture capital type. They have changed their names and ownership frequently during the last ten years. Those changes, accompanied with lack of credible long term data, result in the current difficulties in tracing their market activities⁸³.

The 20th century contained major turning points in Polish history. The business environment was turbulent and the institutions inconsistent. For example: the constitution of 1921 ensured freedom of economic activities by highlighting that there is 'freedom to choose any occupation and means of earning one's living as well as the freedom to transfer one's property to others.' (Frankowski, 2005:190). This concept was completely abandoned during the communist period (1945-1989) due to a shift in the economic doctrine. The supply-demand mechanism was rejected as factor regulating economic relationships and allocation of resources. The communist principle, in contradiction, assumed unity of state power and the economic system, which manifested itself in state ownership of the means of production, central economic planning and state management of the economy (Frankowski, 2005). The collapse of communism reintroduced the concept of economic freedom and protection of ownership.

Considering Polish society, despite 40 years of Soviet domination Poland never lost its bonds with the West. The Polish emigration in Europe and the US

⁸³ Interview with the expert

outnumbered those from other Soviet bloc countries. Western goods were preferred over soviet manufactured, as well as in the arts and the science Poland kept closer social relationships with the West than the Soviet Union (Davies, 2011).

Appendix 2

Summary of Polish ranks in the World Bank 'Doing Business' Report

year	2004	2005	2006	2007	2008	2009	2010	2011*	2012
Rank (general)			54	75	74	76	72	70	62
Starting a business				114	129	146	117	113	126
Procedure/days/cost	12/31/20.3	10/31/20.6	10/31/22.2	10/31/21.4	10/31/21.2	10/31/18.8	6/32/17.9	6/32/17.5	6/32/17.3
Dealing with licences				146	156				
Procedures/time(days)/cost (%of income per capita)			25/322/83.1	25/322/85.6	30/308/159.8				
Employing workers				49	78	82	76		
Difficulty of hiring index (0-100)		11	11	0	11	11	11		
Difficulty of redundancy index (0-100)		30	40	40	40	40	30		

Redundancy costs (weeks of salary)		25	25	13	13	13	13		
Registering property				86	81	84	88	86	89
Procedures/days/cost (%of value)		7/204/1.6	6/197/1.6	6/197/2.0	6/197/0.5	6/197/0.5	6/197/0.5	6/152/0.4	6/152/0.4
Getting credit				65	68	28	15	15	8
Strength of legal rights (0-10)		2	3	4	4	8	9	9	9
Depth of credit information (0-6)			4	4	4	4	4	4	5
Protecting investors				33	33	38	41	44	46
Extant of disclosure index (0-10)		4	7	7	7	7	7	7	7
Ease of shareholders suit index (0-9)			8	9	9	9	9	9	9
Strength of investor protection index (0-10)			6.3	6	6	6	6	6	6

Paying Taxes				71	125	142	151	121	128
Payment numbers per year/time in hours/tax rate % of profit			43/175/55.6	43/175/38.4	41/418/38.4	40/418/40.2	40/395/42.5	29/325/42.3	29/296/43.6
Trading across borders				102	40	41	42	49	46
Documents to export/time(days)/cost per container			6/19	6/19/2260	5/17/834	5/17/884	5/17/884	5/17/884	5/17/1050
Documents to import /time(days)/cost per container			7/26	7/26/2260	5/27/834	5/27/884	5/25/884	5/25/884	5/16/1000
Enforcing contracts				112	68	68	75	77	68
Procedures/time(days)/cost (%of estate)/recovery rate (%of claim)	18/1000/1.2	41/1000/8.7	41/980/8.7	41/980/10	38/830/10	38/830/12	38/830/12	38/830/12.0/	37/830/12.0
Closing a business				85	88	82	85	81	87
Time(years)/cost (%of estate)/recovery rate (cents on the dollar)	1.5/18	1.4/18/68.2	1/22/64	3/22/27.9	3/22/27.8	3/20/29.8	3/20/29.8	3/20/31.3	3/15/31.5

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