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I enormously appreciated the support, supervision and opportune guidance of this thesis by Dr. Adusei Jumah for what I would like to express my gratitude.

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## **Abstract**

The focus of this thesis is to review the impact of the PE/VC's sector on the European economy and especially on Poland. Apart from the positive influence of the PE/VC sector on the economy, such as the creation of approximately one million new jobs in Europe within the last 4 years, higher sales and for instance R&D expenditure; numerous Polish firms rely more on debt than on equity shares or retained earnings. This may be due to the fact that most of the PE/VC fund activities are concentrated on buyouts or replacement capital, whereas early-stage or start-ups account for only the minority of the investments. In this case, an availability of information on prospective corporate borrowers and clarification by government and financial bodies about the PE/VC sector and its positive impact on the economy must be provided to the general public to guarantee an expand of different capital sources for SMEs.

# 1. Introduction

*'N'estime l'argent ni plus ni moins qu'il ne vaut :*

*c'est un bon serviteur et un mauvais maître*

*(Value money neither more nor less than it is worth:*

*It is a good servant and a bad master) '1*

Alexandre Dumas, fils, *La Dame aux Camélias* (Préface)

## 1.1 Background

Many companies have years of experience in the risk capital investment sector. Take for example, the role performed by the Company of Indias in developing international trade in the fifteenth century.<sup>2</sup> Countries like the United Kingdom have had a long historical tradition using venture capital investments. The relatively new European Union (EU) members such as Poland still have a great backlog of supply and demand in the financial sector. Venture Capital (VC) companies have their origin in North America and were dominated by wealthy private investors and focused on electronic, medical and data-processing sectors. Two sub-industries of the private equity (PE) sector have developed in the 20<sup>th</sup> century, namely leveraged buyouts and venture capital.<sup>3</sup> In 1993 the European Venture Capital Association (EVCA) created a private equity program for Central and Eastern Europe, and at the local level the Polish Private Equity Association (PPEA), to enforce the development of these markets.<sup>4</sup> The new opportunities of the Central Eastern European (CEE) market, such as lower labor costs and an abundance of commodities, have attracted numerous investors and a large increase in the eastward movement of capital.

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<sup>1</sup> Danthine J.-P., Donaldson J. B., (2005), *Intermediate Financial Theory*, Second Edition, Elsevier Academic Press, Preface viii

<sup>2</sup> Caselli S., Gatti S., (2004), *Venture Capital, A Euro-System Approach*, Springer, p.4

<sup>3</sup> WIKIPEDIA: *History of private equity and venture capital*,  
[http://en.wikipedia.org/wiki/History\\_of\\_private\\_equity\\_and\\_venture\\_capital](http://en.wikipedia.org/wiki/History_of_private_equity_and_venture_capital), [15.11.2007],

<sup>4</sup> EVCA: *History*, <http://www.evca.eu/about/default.aspx?id=1852#firststeps>, [15.11.2007],

Contrary to short-term investors who only take advantage of market trends, the investment activity of PE/VC attempts to influence the way the underlying companies operate. Investing in PE/VC fund interests or portfolios can be done through several channels, such as by indirect investment in a funds of funds, a sale of limited partnership interest, or a sale of direct interests. When institutional investors, also called merchant bankers, are interested in PE/VC shares they are not investing directly in the firm but through a fund. PE is a part of broad asset allocation that includes, for instance, public equity and bonds. These investments, which are also called secondaries, are not correlated with other PE investments which significantly lower the investment risk.

PE houses have the bad reputation of being corporate raiders due their investment exit activities, which are realized via an initial public offering (IPO) on the stock market, merger or trade sales.<sup>5</sup> Furthermore, the return can be obtained by leveraged buyout (LBO), venture capital, growth or mezzanine capital.<sup>6</sup> While the reputation of PE houses still persists, true venture capital investments in developing countries have provided services, such as business-to-business exchanges, know-how, innovations and technology, which guarantee these countries a strong position in the global marketplace.<sup>7</sup> In countries like Poland, one of the main external financing sources for companies is the banking sector. The liberalization and privatization process has fostered the development of stock markets.<sup>8</sup> PE/VC investors can be great substitutes for Polish banks, which indicators show are lagging behind their CEEC peers.<sup>9</sup> One of the main reasons for the positive effect of private equity companies is that Polish banks may refuse to give large loans to firms without a yearlong reputation history. This should not be necessary for venture and non-venture firms with a well defined business plan that focuses on markets where they have the potential to grow. A policy target should be to give entrepreneurs the opportunity to enter their shares of market capitalization which would reinforce the role of the central bank. This would create an increase in the need for special regulations in the venture and private equity sector. Although private equity and

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<sup>5</sup> Private Equity Info: *Private Equity Article*, [http://www.privateequityinfo.com/private\\_equity\\_article.php](http://www.privateequityinfo.com/private_equity_article.php), [12.03.2008]

<sup>6</sup> Private Equity Info: *Private Equity Article*, [http://www.privateequityinfo.com/private\\_equity\\_article.php](http://www.privateequityinfo.com/private_equity_article.php), [12.03.2008]

<sup>7</sup> Lerner J., Hardymon F. and Leamon A., (2005), *Venture Capital and Private Equity*, Third Edition, John Wiley & Sons, Inc., p. 337 - 338

<sup>8</sup> Gelos G., Sahay R., (2000), *Financial Market Spillovers in Transition Economies*, IMF Working Paper, (WP/00/71), International Monetary Fund, p. 10 - 12

<sup>9</sup> *Republic of Poland: Financial Sector Assessment Program – Technical Note - Credit, Growth, and Financial Stability*, (2006), IMF Country Report (No.07/103), International Monetary Fund, p. 22



venture capital development in Europe is lagging behind North America, the huge changes in the 1990s, such as the liberalization of regulations for institutional investors, have led European private equity markets to become an influential financial player.

## **1.2 Statement of the Problem**

The main focus of this thesis is the private equity sector and its impact and link to the European economy, more precisely its influence on the Polish market. The private equity sector suffers from a bad reputation because of their hostile takeovers. However, they may also offer advantages. For example, a firm might acquire a professional and experienced investor partner who shares in the investment risk. Moreover, an increasing credit ranking of the company is an asset that cannot be ignored. The disadvantages of the private equity funds could be the influence on a firm's activities, high interest rates and the sale of a company's shares. Bank loans require an applying firm to be consistent and of a high quality, and trade investors usually take control of the acquired company. In instances where a private equity fund has invested in a company, the firm may gain an experienced partner by entering into cooperation with a private equity fund, which has broad contacts in the business world.

The most frequent bias related to private equity companies is their limited partnership, as they hold funds for only a certain period of time. After their investment goal is reached, namely the company's value is increased, PE/VC realize their investments by selling their shares at a high profit. Due to the fact that the PE/VC sector is in an emerging status in CEE, it is relatively difficult to find studies that confirm the positive effect of these investors on the economy. In this case it is highly recommended to focus on a developed country, like the United Kingdom, where EVCA surveyed positive effects on economic development. Examples comparing emerging and developed countries can be applied only sparingly because individual countries have their own historical background and development processes which are influenced by their domestic, monetary and fiscal policy. For example, the average debt-to-equity ratio and concentration ratio are far lower in Poland than in Indonesia, thus, comparing these countries has to be carefully considered.<sup>10</sup>

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<sup>10</sup> Hussain Q., Nivorozhkin E., (1997), *The Capital Structure of Listed Companies in Poland*, IMF Working Paper (WP/97/175), International Monetary Fund, p.4, p. 8- 9

The question might arise whether there may also be risks or disadvantages for private equity and venture capital investors. Indeed, these investors face risks and disadvantages as well. For example, in the case of pension funds, limited partners, namely, the investors in the PE/VC sector cannot take out invested capital while it is locked-up. Once the investment manager has realized the investment in the portfolio, they are able to reclaim their funds plus the interest it entails. Thus, limited partners are dependent on the PE/VC performance until the project is finished. It is obvious that a lot of financial institutions have already gained millions of Euros in CEE countries. Nevertheless, the barriers which they have and continue to face cannot be overlooked. The PE industry has enacted general guidelines, the IFRS and US GAAP, to name several examples, but the lack of development in this sector is highlighted by the fact that this branch is regulated on a national basis in most EU member countries with hardly any harmonized framework on the pan-European level.<sup>11</sup>

Poland has become a dynamic private equity market. The number of investments and divestments has increased. However, domestic fiscal and monetary policy face a lot of challenges such as a continuously slow credit growth, low leverage and a relatively low market capitalization. The domination of government bond and equity markets in the Polish capital market and the negligible amount of privately issued fixed-income instruments show that the Polish market is in its first stages of the development process.<sup>12</sup> In times of numerous financial instruments, firms searching for adequate investors or limited partners should not be discouraged by focusing only on the negative information published about the PE/VC sector or by the fear of losing their companies after the investment is realized. The impact of buyouts, which are one exit form of the PE/VC investments, need not be a disadvantage to the firm owner. The owner can remain one of the main shareholders after the buyout, if he or she is interested in buying back the firm's shares, with the added advantage that the employees will not lose their jobs. Several studies have confirmed that after buyouts, which count for most PE/VC activities, the primary economic effects were an increased employment rate, growing profits and an expanding enterprise, all of which point to a positive macroeconomic impact.

Although capital sources have been internationalized, people from developed or developing countries still consider corporate finance primarily in the conservative terms of financing,

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<sup>11</sup> EVCA: *Key Facts and Figures*, <http://www.evca.eu/publicandregulatoryaffairs/default.aspx?id=86>, [12.03.2008]

<sup>12</sup> *Republic of Poland: Financial Sector Assessment Program – Technical Note - Competition and Performance in the Polish Second Pillar*, (2006), IMF Country Report (No.06/104), International Monetary Fund, p. 15, p.36

namely bank loans. Young entrepreneurs and family business owners seeking the right successor should be informed about the different possibilities of attaining capital. External capital, floating the company on the public market, or attracting private equity or venture capital are such possibilities. No matter which type of corporate finance a firm finally chooses, they will have to let outsiders into their company to a certain degree. Not only does this require an understanding of different financial instruments but it also necessitates an open-minded mentality which will allow entrepreneurs to adapt quickly to changes that occur over time and use them to their advantage. Of course, theoretical suppositions are always simpler and more predictable than practice will allow. Most market participants act and react in diverse ways. External factors, such as political instability, governmental restrictions, and a lack of investigating SMEs, can delay the learning process as well as economic and stock market growth.

### **1.3 Objective**

The initial conditions in developed financial markets were different, not only from a historical but also from a macroeconomic point of view, when they were established. Most emerging markets have set up their stock markets in the last two decades. Regardless of the country or continent that is being considered, the main goal of investors for all markets is the same, namely to provide capital to companies and earn high profits. A comparison of the development processes of the market circumstances in different countries can lead to a consensus allowing for predictions for the Polish financial market and its impact on the domestic economy. The goal of this research is to highlight the theories and surveyed effects of macroeconomic variables, such as GDP growth, investment growth on market capitalization in Europe. A special focus will be placed on the development of the private equity market in Poland and its impact on economic indicators, for instance, unemployment rates.

Due to limited historical data about the private equity markets of developing and transition countries, the focus of the present research lies on the establishment of the Warsaw Stock Exchange in 1991 until the year 2007. The paper will also consider the mutual impact of macroeconomics on Poland's financial sector, more specifically the PE sector's effects on the

economy and various cross-country dependencies. In other words, the goal of this research is to summarize PE/VC activities and their consequences on the market in CEE countries, particularly in Poland. PE/VC is quite a new investment alternative, but it does have an age-old background in the United States. The research will make use of surveys published by the EVCA, which have observed the macroeconomic effects of PE/VC in Western European countries. These surveys may help to predict the influence of this sector on the Polish economy. Furthermore, the reader will be able to observe whether the high profits of the initial PE/VC activities in transition economies were caused by a low money supply. One will be able to ascertain whether greater amounts of capital will depress future returns or if this sector will develop in the same successful way as it did in the United States.

#### **1.4 Justification of the Study**

Approximately 20 years after the fall of the communist regime, trade and financial links with EU members and other third parties are affecting the current and future Polish market. For a growing economy like Poland's, it is highly recommended for market participants to initiate and respond swiftly to neighboring countries and global economic movements because they are more interrelated than ever before. Empirical studies and recent events have shown that the liquidity of major financial markets substantially varies over time. It has become clear that the unpredictability of market liquidity is an important source of risk for investors.<sup>13</sup>

The wide range of different investors in the private equity sector, like corporate funds, public pension funds, and wealthy individuals, reflect that a wide range of market participants are influenced by the PE/VC sector.<sup>14</sup> As the case with private investors, who use their private funds to invest, might suggest, producers and consumers in a given market are touched by PE/VC activities. Therefore, not only GDP growth or market capitalization, but unemployment rates, inflation and other macroeconomic factors play a significant role for investment performance. Approximately sixty private equity funds with a total of around EURO 73.8 billion in capital have been invested in Poland and other CEE countries since

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<sup>13</sup>Choi G. W., Cook D., (2005), *Stock Market Liquidity and the Macroeconomy: Evidence from Japan*, IMF Working Paper (WP/05/6), International Monetary Fund, p. 3

<sup>14</sup>Choi G. W., Cook D., (2005), *Stock Market Liquidity and the Macroeconomy: Evidence from Japan*, IMF Working Paper (WP/05/6), International Monetary Fund, p. 3

2007.<sup>15</sup> The primary and often the only way of getting capital for start-up firms and other privately held companies are either bank loans or borrowing capital from family and friends. According to EVCA, private equity investment as a percentage of GDP represented only 0.064% in the year 2005. This might not seem like a significant number, but when examined more closely it becomes apparent that the investments of private equity houses increased by 18% in the year 2005, and 70% of them were invested in Europe. This has had a positive impact on companies in the private sector. In the previous year, 5,200 European companies benefited from PE/VC funds, 85% of which had fewer than 500 employees. In the period of 2000 and 2004 European private equity and venture capital financed companies created 1 million new jobs. This compound annual growth rate of 5.4% per year is eight times the average EU25 total employment growth rate of 0.7%. All these facts make clear that this sector has a highly positive influence on the economic environment and not only disadvantages for SMEs.<sup>16</sup>

The remainder of this thesis is organized as follows: Section II draws heavily on existing theories on the link and influence between the stock market and macroeconomics. Section III describes the data on the PE/VC market in Poland and other CEE countries and how it impacts economic trends. Section IV provides the conclusion for thesis.

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<sup>15</sup> EVCA: *Key Facts and Figures*, [www.evca.eu/publicandregulatoryaffairs/default.aspx?id=86](http://www.evca.eu/publicandregulatoryaffairs/default.aspx?id=86) , [12.03.2008]

<sup>16</sup> EVCA: *Key Facts and Figures*, [www.evca.eu/publicandregulatoryaffairs/default.aspx?id=86](http://www.evca.eu/publicandregulatoryaffairs/default.aspx?id=86) , [12.03.2008]

## **2. Theoretical Considerations – Relationship between the Stock Market and Macroeconomics**

### ***2.1 The Interdependencies between the Goods Market, Financial Market and Labor Market***

Matthew Olex, the former Polish Minister of Finance (1990), described the importance of macroeconomics and the stock market as follows: “The long-term macroeconomic success for Poland depends crucially on the creation of a modern set of financial markets”<sup>17</sup>. In other words, a well-functioning stock market may expedite the development process of an emerging economy by the growth of savings, efficient allocation of investment resources, lower unemployment rate and generally by better utilization of the existing resources.<sup>18</sup> Poland’s financial market and private equity market are booming but are not at the same stage as financial markets of developed countries such as the United States, Germany or the United Kingdom. Nevertheless, an increasing number of IPOs and growing numbers of companies listed on the stock market and greater market capitalization and turnover ratios represent the enormous opportunities of the Polish market.<sup>19</sup> Poland certainly faces economic challenges, such as a lacklustre credit growth during the years 2000 and 2005, which were reflected in general weak economic activities like a lower productivity ratio. Decreased consumption and a general decrease in wealth also followed. Finding the right reasons and recommendations for the future to avoid similar problems requires an in-depth knowledge of the domestic and global market. However, even with the help of macroeconomic theorists, crises and recessions are unavoidable as the economic environment and circumstances are always changing.

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<sup>17</sup> Hussain Q., Nivorozhkin E., (1997), *The Capital Structure of Listed Companies in Poland*, IMF Working Paper (WP/97/175), International Monetary Fund, p.4

<sup>18</sup> Leigh L., (1997), *Stock Market Equilibrium and Macroeconomic Fundamentals*, IMF Working Paper (WP/97/15), International Monetary Fund, p. 5 - 6

<sup>19</sup> *Republic of Poland: Financial Sector Assessment Program – Technical Note - Competition and Performance in the Polish Second Pillar*, (2006), IMF Country Report (No.06/104), International Monetary Fund, p.37 - 38

Looking at recent financial market developments, which were initiated by the real estate collapse in the United States and which resulted in the real financial collapse of several institutions, the mutual interdependencies of the goods, labor and financial markets become apparent.. Many people have lost jobs and have little, if any, financial reserves. They are dependent on loans or other options to be able to maintain their standard of living. This is one of the effects of a shortage in money supply on the monetary policy level. The importance of the link between different markets can be attributed to the fact that investment accounts for a lower percentage of GDP than consumption, which can reach 70 percent of a GDP.<sup>20</sup> Thus, it is clear that the goods and labor market heavily influence the financial market. Before focusing on the effects of the different market development, it has to be mentioned that in macroeconomics three different time periods are considered: the short-term, the medium-run, and the long-run. Since the focus of this piece of research lies on private equity investments which are made for a period of approximately 1 to 10 years, more time will be spent discussing the short-term and medium-run and long-run will be covered only briefly.

If we start with the short-term and medium-run, the IS-LM model, which is described by Blanchard in his book 'Macroeconomics' (fourth edition, 2006), is the adequate model to understand the mutual connection of real interest rate, nominal interest and output. In other words this model helps us to understand the interactions of fiscal and monetary policy. Before explaining these two curves in relation to each other the different formulas for the two curves should be mentioned separately. The Investment Saving (IS) curve is adequate for investment observation which depend on the real interest rate and furthermore, on the goods and labor market. Moreover, the IS relation can be used for interpreting and forecasting the effects of changes in current and expected spending, income and taxes. This formula stands for the assumption that when the goods market is in equilibrium, the supply of goods must be equal to the demand for goods. In other words, the demand for goods is positively correlated with the consumers' disposable income, investment and government spending.<sup>21</sup>

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<sup>20</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p.46

<sup>21</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p.89 – 95

The IS formula describes the goods market as follows:

$$Y = C(Y - T) + I(Y, i) + G \quad (1)$$

Y... Production

$C(Y - T) + I(Y, i) + G$  ... Demand for goods

C... Consumption

$(Y - T)$  ... disposable income

I ... Investment

i ... interest rate

G ... Government Spending

Contrary to this the Liquidity Money (LM) curve reflects the movements of the nominal interest rate and output which are important for the financial market. The LM equation stands for the assumption that if the financial market is in equilibrium, the real money supply is equal to the real money demand.<sup>22</sup>

The LM formula describes the financial market as follows:

$$\frac{M}{P} = Y L(i) \quad (2)$$

M ... Nominal money

P ... Price level

$\frac{M}{P}$  ... Real money stock

Y ... Real Income

i ... interest rate

The graph shown below illustrates these two curves together, what is called the IS-LM model. Point “A” gives us the equilibrium conditions in the goods and the financial market. Equilibrium in the goods market implies that an increase in the interest rate leads to a decrease in output. Whereas vice versa, equilibrium in the financial markets implies that an increase in output leads to an increase in the interest rate.<sup>23</sup>

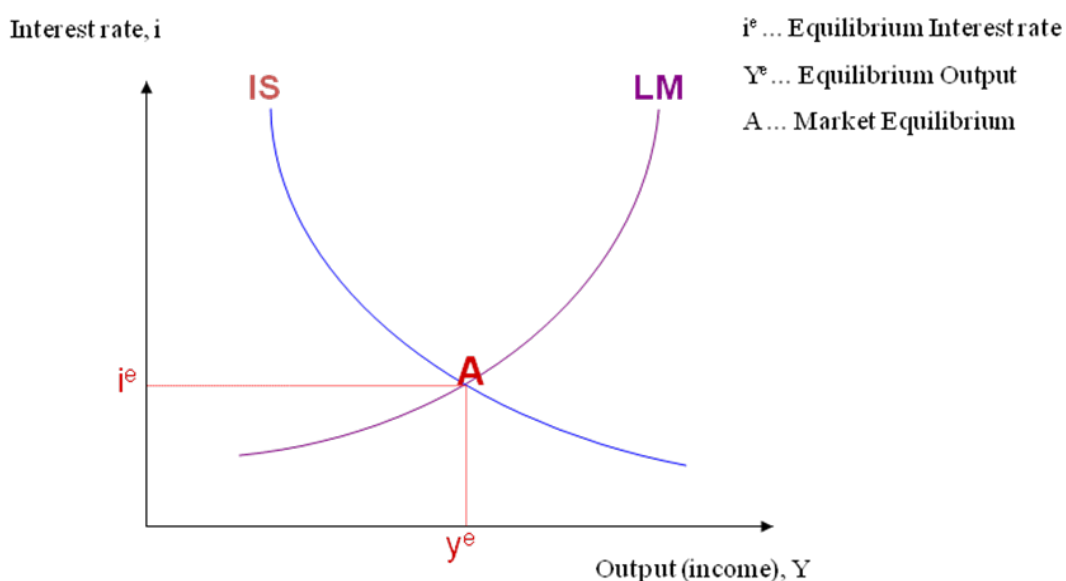
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<sup>22</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p.95 – 98

<sup>23</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p.98



**Figure 1: IS-LM Model**



Source: Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall p. 98

As private equity companies are not only investors but actively influence the business development and processes, their concentration on profits of the investments are affected by more non-typical financial instruments than one would expect. As described by many macroeconomic theories, investment depends on both current profit and the present value of expected profits. Furthermore, movements in profit are closely related to movements in output and many other factors. In general profits are dependent on the level of sales and the existing capital stock, but as the main focus of this thesis is not the internal organization of private equity firms this would exceed the topic.<sup>24</sup> As already mentioned, private equity companies are, in general, facing middle-run investments, thus factors such as monetary growth are always one of the main macroeconomic movements that are observed and interpreted by professionals. Describing the actual and future monetary growth requires the understanding of the relationship between inflation, unemployment and output growth. The effect of output growth on changes in unemployment rate is described by Okun's law. The mechanism of Okun's law is as follows, if the output growth is above the normal level, unemployment rate decreases and vice versa, in case the output growth is below the normal level, unemployment rate is growing.<sup>25</sup>

<sup>24</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p.341 - 351

<sup>25</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p.185 - 188

$$u_t - u_{t-1} = -\beta (g_{yt} - \bar{g}_y) \quad (3)$$

$u$  ... Unemployment rate

$\beta$  ... Coefficient that measures the effect of output growth above normal on the change in the unemployment rate

$\bar{g}_y$  ... Normal output growth rate

To understand the correlation between the inflation rate and the unemployment rate the Phillip's curve is relevant. The formula stands for the fact that if the unemployment rate is below the natural level, inflation increases. In other words, when less people are without work, consumption increases and furthermore, prices and inflation rise. In case the unemployment rate is above the natural level, consumption decreases, prices fall and so does the inflation.<sup>26</sup>

$$\pi - \pi_{t-1} = -\alpha(u_t - u_n) \quad (4)$$

$\pi$  ... Inflation

$\alpha$  ... Coefficient that gives the effect of unemployment on the change in inflation

$u$  ... Unemployment rate

## **2.2 Financial Markets: Expectations and the Impact of Monetary and Fiscal Policy**

For private equity funds the effects of monetary and fiscal policy, as well as the administration of public revenues and public spending have a significant impact on the decision making process. In case of an increase of public spending, for example in form of subsidies, more firms can enhance their market power and thus get new private equity partners, employ more people and in an indirect way, lower the unemployment rate. The impact of monetary policy on output is reflected on how movements in the nominal interest rate affect movements in the real interest rate, or in other words affect the expected inflation and further the purchasing power of the consumers. Generally the goals that the monetary

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<sup>26</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall. 188 - 190

policy pursues are high employment, economic growth, price stability, interest rate stability, stability of financial markets and stability in foreign exchange markets.<sup>27</sup> Central banks have three instruments to affect the interest rate, namely the reserve requirements, the lending to banks and open-market operations as selling and buying bonds.<sup>28</sup> In the actual global financial crisis for instance, all central banks are increasing money supply to raise the liquidity of several financial institutions. The value of the money supply depends beside other factors on the status quo of the interest rate and its impact on stock prices, investment and consumption. Generally changes in the money supply affect the short-term nominal interest rate. Furthermore, changes in the short-term nominal interest rate affect the current and expected real interest rate. These days, the financial crisis has also influenced the fiscal policy as the budget deficits of affected countries are expected to increase because of the explosively high subsidies for numerous institutions with essential liquidity problems. Thus, the answer if the economy will rehabilitate from this crisis fast is influenced by expectation factors as credibility of the programs run by monetary and fiscal policy, the timing of the program and the state of government finances. The best case scenario for financial markets would be to reach the equilibrium in financial markets which can be done if the proportional increase in prices is equal to the proportional increase in the nominal money stock and thus the inflation will not increase rapidly to avoid even more economic trouble and political instability.<sup>29</sup>

Before an investment activity is undertaken, private equity investors have to define the status quo of the domestic economy. The theory distinguishes here between two economy situations, namely expansionary and contraction phases that have to be analyzed separately when we would like to estimate the effects of the monetary or the fiscal policy. Expansionary monetary policy is given when the central bank buys bonds for which they pay with reserves and the money supply increases. To make bonds attractive for market participants, the bond price increases and the interest rate decreases, which can lead to a growing investment rate. In case the expansion is carried out not by the monetary but by the fiscal policy the effects are to a certain degree different. Government spending increases, taxes fall, and the budget deficit increases what furthermore, leads to the same effect as the monetary expansion namely a higher investment. Contrary a contraction monetary policy operation to decreasing money supply as the central bank sells bonds at a lower bond price and higher interest rate and thus

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<sup>27</sup> Mishkin F.S., Eakins S.G., (2000), *Financial Markets and Institutions*, Third Edition, Addison Wesley Longman, p. 221

<sup>28</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p. 546 - 548

<sup>29</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p. 355 - 368

investment rates can decline. In times of fiscal contraction, governments decide to reduce budget deficit by for instance increasing taxes, lowering government spending what can lead to a lower investment. To achieve the desired economic goal, government bodies use a mixture of policies as Clinton and Greenspan have done it in past. They used two policies in opposite direction for reducing budget deficit. On the one hand they used fiscal contraction to reduce the budget deficit and on the other hand a monetary expansion to guarantee that the demand and output remained high and money supply increases.<sup>30</sup>

In summary, monetary expansion leads to an increase in money supply, and monetary contraction leads to a decrease in money supply. Moreover, a fall in money supply leads to a higher interest rate, what is caused by the fact that money demand is greater than money supply. Following the effect of increased money supply, the income grows, interest rate falls and investments increase as well. As mentioned in the previous chapter when analyzing macroeconomics the effects in the different time frames have to be handled separately as they differ between the periods. Short-term effects of a higher money supply are growing real money supply, what is caused by the fact that the price level does not increase immediately and the domestic interest rate decreases, what hence, leads to higher expected return on domestic currency. When the central bank faces long run goals as a lower unemployment rate and hence, increases the money supply, the effects are different. The price level increases, exchange rate falls as the domestic currency is expected to appreciate and the expected return on foreign currency increases.<sup>31</sup> Of course the affects of these mutual changes do not become visible over night. As mentioned in the book 'Macroeconomics' by Blanchard (fourth edition, 2006), in general it takes around two years for monetary policy to have its full effect on production and thus to have a tangible impact on the consumer.<sup>32</sup>

Not only the considered time frame but also the intensity of the shift of the curve has a great impact on the effects of business expansion. In the chart below the supply curve is shifted to a greater degree and hence, the result is a lower price and higher interest rate. The effect is that businesses are willing to borrow more money what automatically leads to a growing investment rate. These effects are reflected in the figure by a rightward shift of the bond

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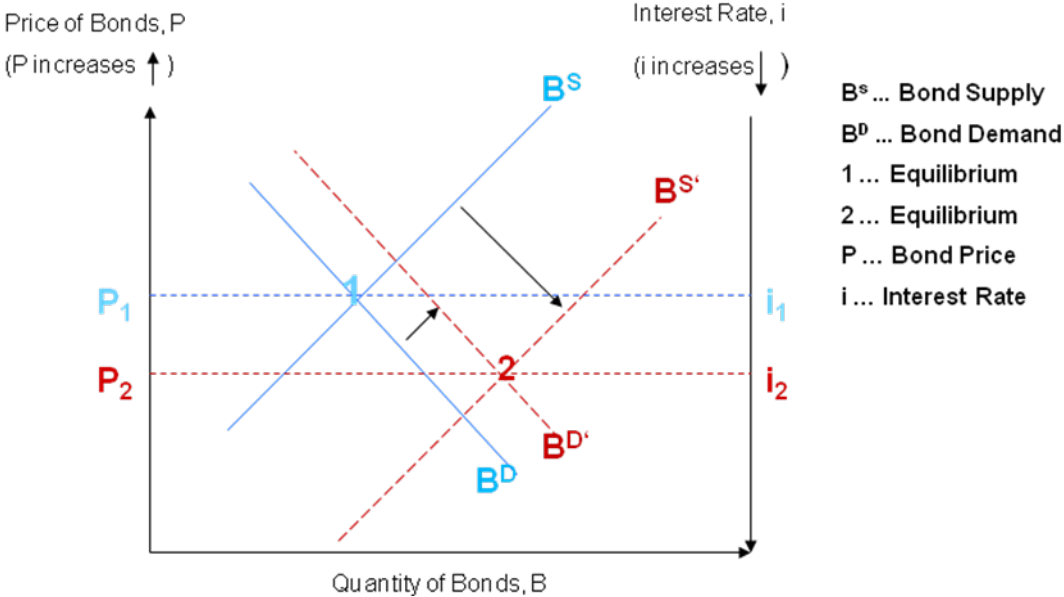
<sup>30</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p. 99 - 103

<sup>31</sup> Mishkin F.S., Eakins S.G., (2000), *Financial Markets and Institutions*, Third Edition, Addison Wesley Longman, p. 352

<sup>32</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p. 103- 109

supply curve and an upward move of the bond demand curve. This means that when the bond market goes up the bond price increases, and the interest rate falls down.<sup>33</sup>

**Figure 2: Business Cycle Expansion**



Source: Mishkin F.S., Eakins S.G., (2000), *Financial Markets and Institutions*, Third Edition, Addison Wesley Longman, p.98

A company’s decision to invest in another company is based on current and future payment estimates. These are positively correlated with the present value as well as estimates of current and expected future interest. The latter is negatively correlated with the present value. Moreover, the interest rate is influenced by inflation, taxes and other factors, which reflects the interdependencies of macroeconomics very well. Firms are heavily affected by interest rate and inflation changes, especially increases, which are influenced by central bank activities. Most central banks, including the Polish central bank NBP (Narodowy Bank Polski), have adopted an inflation rate target which they are trying to achieve by adjusting the nominal interest rate. The Fisher Effect is an adequate way to determine the changes in expected inflation in the medium-run. It represents the assumption that in the medium-run, changes in inflation are reflected one by one in changes in the nominal interest rate.<sup>34</sup> Thus, the Fisher equation can be used for interpreting movements in the domestic interest rate. The interest rate can change due to a change in the real interest rate or changes in the expected inflation. If the real interest rate increases, the domestic currency appreciates. Likewise, if the

<sup>33</sup> Mishkin F.S., Eakins S.G., (2000), *Financial Markets and Institutions*, Third Edition, Addison Wesley Longman, p. 97 - 99

<sup>34</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p. 305 - 309

expected inflation increases, the domestic currency depreciates.<sup>35</sup> As given by the Fisher equation, the real interest rate is equal to the nominal interest rate minus the expected inflation. As inflation is nearly always positive, the higher the expected rate of inflation, the lower the real interest rate.<sup>36</sup>

$$i_r = i - \pi^e \quad (5)$$

$i_r$  ... Real interest rate

$i$  ... Nominal interest rate

$\pi^e$  ... Expected inflation

The positive relationship between inflation and the nominal interest rate is given below. It is obvious that if the expected inflation increases, the interest rate increases as well. In cases of this sort, the change on the supply side (that of the lenders) is that the real cost of borrowing is declining. This makes the bond supply curve shift to the right. Because expected returns on bonds compared to real assets fall, the bond demand curve moves down.<sup>37</sup>

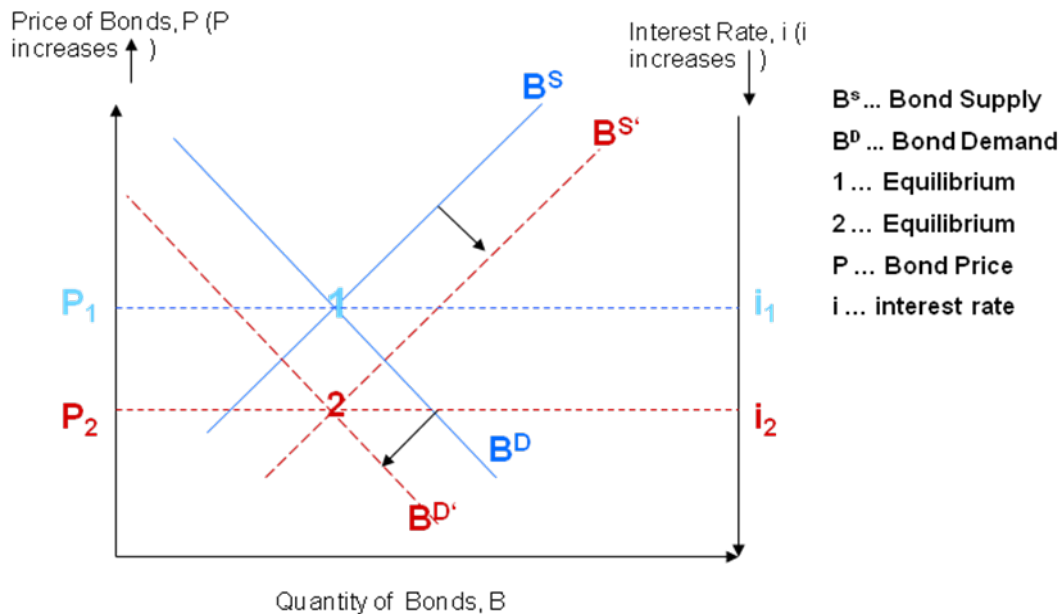
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<sup>35</sup> Mishkin F.S., Eakins S.G., (2000), *Financial Markets and Institutions*, Third Edition, Addison Wesley Longman, p. 351 – 352

<sup>36</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p. 305 - 309

<sup>37</sup> Mishkin F.S., Eakins S.G., (2000), *Financial Markets and Institutions*, Third Edition, Addison Wesley Longman, p. 96 - 97

**Figure 3: The Fisher Effect**



Source: Mishkin F.S., Eakins S.G., (2000), *Financial Markets and Institutions*, Third Edition, Addison Wesley Longman, p. 97

In analyzing Poland's transactions with the rest of the world, its balance of payments has to be observed. This provides information on what trade balance situation the country is in as well as information about the investment rate of the country. Global private equity investors in particular are focusing on macroeconomic factors such as domestic and foreign interest rates, especially in cases of different currencies on the exchange rate. For the private equity sector in Poland, exchange rates play an important role because many financial institutions are foreign and invest their foreign currency in Poland using the Polish Złoty. The relation between the domestic interest rate, the foreign interest rate and the expected exchange rate is set by the interest rate parity that is defining the current exchange rate. An increase in the domestic interest rate leads to an increase in the exchange rate. Conversely, an increase in the foreign interest rate leads to a decrease in the exchange rate. The interest-parity condition implies a negative relation between the domestic interest rate and the exchange rate.<sup>38</sup> For example the real appreciation of the Polish ZL against the Euro has led to higher prices of Polish goods in relation to European goods.

<sup>38</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p.389; p.424

$$E = \frac{1+i}{1+i^*} \bar{E}^e \quad (6)$$

$E$  ... Exchange rate

$i$  ... Domestic interest rate

$i^*$  ... Foreign interest rate

$\bar{E}^e$  ... Expected exchange rate

As the example mentioned earlier illustrates, the exchange rate not only affects financial markets but the goods market as well. In extending the IS formula, one will note that the goods-market equilibrium implies that output depends on, among other factors, the interest rate and the exchange rate. An increasing interest rate has two effects, the direct decreasing effect on investment and output and the indirect effect through the exchange rate which causes a lower output rate.<sup>39</sup>

$$Y = C(Y - T) + I(Y, i) + G + NX \left( Y, Y^*, \frac{1+i}{1+i} \bar{E}^e \right) \quad (7)$$

$Y$  ... Output

$C$  ... Consumption

$T$  ... Taxes

$i$  ... Interest rate

$G$  ... Government spending

$NX$  ... Net export are dependent on

$\left( Y, Y^*, \frac{1+i}{1+i} \bar{E}^e \right)$  ... Exchange rate

Contrary to the IS relation, the LM relation remains unchanged. It describes the effect that, given the real money stock, an increase in output leads to an increase in the demand for money, and to an increase in the equilibrium interest rate.<sup>40</sup>

$$\frac{M}{P} = Y L(i) \quad (8)$$

<sup>39</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p.422 - 427

<sup>40</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p.423 - 426



The exchange rate is therefore an important instrument for central banks which can help to rescue the domestic currency from a fall in value. This could be observed in the recent past when several central banks engaged in international transactions increased money supply to rescue financial institutions from bankruptcy. This has already had a heavy impact on actual exchange rates. Three considerations play an important role when acting in the global financial market: the direct impact of the foreign exchange market on money supply, the balance-of-payments consideration and the exchange rate. Every market participant, whether they are from the U.S. or from Europe, has been affected by the recent devaluation of the USD. Domestic goods in Austria, for example, have become more expensive and foreign goods, especially imports from the U.S., have become cheaper. Thus, it is clear that exchange rates have an impact on the relative price for domestic and foreign goods.<sup>41</sup>

Nevertheless, these theories have to be adopted carefully and sometimes with several conditions. For instance, the interest parity condition is only applicable to a world where capital is mobile and where foreign and domestic deposits are perfect substitutes. This is not an accurate picture, however, as defining foreign and domestic deposits as perfect substitutes does not work for all countries. EURO deposits will not actually be perfect substitutes for USD deposits. Another more obvious example is that EURO deposits cannot be used as perfect substitutes to Mexican PESO deposits. In cases where firms run businesses in emerging countries they also have to take heed of the volatility of exchange rates. The exchange rate could lead to a devaluation of the domestic currency. Firms can mitigate this risk by entering into currency swaps, purchasing options based on relative currency prices, or purchasing forward currency. In emerging stock markets, for instance, the use of derivative instruments has bolstered foreign investors in hedging risks.<sup>42</sup> Another solution has been the foundation of the European Monetary System (EMS) in which EU countries have agreed to fix their exchange rates vis-à-vis one another to float jointly against USD.

To avoid bureaucratic problems with the exchange rates and to enhance the European market, the EU has adapted the common currency, EURO. Compared to other central banks around the globe, the European Central Bank is the youngest but most independent, because its

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<sup>41</sup> Mishkin F.S., Eakins S.G., (2000), *Financial Markets and Institutions*, Third Edition, Addison Wesley Longman, p. 382 - 384

<sup>42</sup> Leigh L., (1997), *Stock Market Equilibrium and Macroeconomic Fundamentals*, IMF Working Paper (WP/97/15), International Monetary Fund, p. 6

charter cannot be changed by legislation but only by revision of the Maastricht Treaty.<sup>43</sup> Before a country can be part of the EURO zone, the Maastricht treaty, which includes three main conditions for joining the EMU, has to be fulfilled. The conditions are low inflation, a budget deficit below 3%, and a public debt below 60%. As undertaken by the previous EMU countries, Poland has to adapt a short-term fixed exchange rate at which people will change their Złoty into Euros. Although at first sight a common currency and a fixed exchange rate seem to be preferable when a group of countries is already tightly integrated, there are also problems which can occur. The EURO has been frequently criticized, like the following theory made by Mundell-Fleming (Blanchard, 2006), who has defined the requirements for the optimal currency area, suggests. The first part of the theory warrants that countries have to experience similar shocks, for which they would have chosen roughly the same monetary policy. They must have a high factor of mobility, which was the case for the EU in its early stages. However, the recent financial crisis, which has affected every country on the globe, especially countries in Europe, and the fact that the central banks are adopting similar monetary policies, the criticism of Mundell-Fleming might not be up-to-date. Conversely, there are big advantages for having fixed exchange rates if a central bank cannot be trusted to follow a responsible monetary policy under flexible exchange rates. This has been the case in former communist countries and other countries where there is a relatively high rate of state corruption.<sup>44</sup>

Although private equity investors are not specialists in long-run investments, where growth factors dominate, this period is used to make observations regarding what effects the private equity sector might have on domestic macroeconomics. During this period, the effects of capital accumulation on output are taken into account as higher investment leads to a higher capital stock and, thus, to a higher level of output.<sup>45</sup> Looking closely at the saving rate, it is clear that it cannot permanently increase the growth rate of output but rather sustain a higher level of output. Even if the saving rate does not permanently affect the growth rate, it does affect the level of output for some time, and will eventually lead to a higher standard of living in the country that is measured by the Purchasing Power Parity (PPP). As all macroeconomic factors are affecting each other directly or indirectly, the level of output depends on the amount of capital available. Further capital accumulation depends on the level of output,

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<sup>43</sup> Mishkin F.S., Eakins S.G., (2000), *Financial Markets and Institutions*, Third Edition, Addison Wesley Longman, p. 198

<sup>44</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p. 455 - 457

<sup>45</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p. 365

which in return determines savings and investment. These interactions between capital and output imply that, starting with any level of capital, an economy converges in the long-run to a steady-state level of capital. This steady level depends positively on the saving rate, whereas a higher saving rate leads to a higher steady-state level of output. In most countries an increase in the saving rate leads to an initial decrease in consumption followed by an increase in consumption in the long-run.<sup>46</sup> Thus, when the saving rate of the market in which the firm wants to invest in is high, investors can be optimistic about their future returns.

As mentioned above, before specializing in the stock market the political and economic status quo of the countries concerned should be defined. This means defining the integration of the domestic economy into the world economy, which plays an important role in today's globalized world. Therefore, cross-country, financial co-movements and their mutual impact should be observed. After the collapse of the communist regimes in Eastern Europe in 1989-1991, trade links among these countries diminished dramatically in importance. In cases of emerging countries, indirect linkages should be observed as the export quota to the European Union has grown rapidly.<sup>47</sup> The trade balance and the ratios of the GDP deflator that indicates the price indexes for the set of goods and services produced in the economy, gives the investors important information as they reflect on the difference between exports and imports. It defines if the market has a trade surplus or a trade deficit and thus highlights the opportunities of the market.<sup>48</sup> Beside exports and imports, foreign economic and political crises influence the domestic financial market as well. Looking back on the last months, it is clear how enormous the influence of the U.S stock market is on the European stock market. The stock market crash has also heavily influenced Europe traded stocks, which further influenced exchange rates and to an extent, the real economy. Therefore, changes occurring in the United States and in other influential markets such as Asia or Russia may be expected to have an impact on stock market developments in Europe, including Poland.<sup>49</sup>

People react very fast to news published in magazines, newspapers or on the TV, and their expectations play a significant role in how the market will develop in the future. In general, it appears as though stock returns respond positively to positive news regarding business

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<sup>46</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p. 224 - 234

<sup>47</sup> Gelos G., Sahay R., (2000), *Financial Market Spillovers in Transition Economies*, IMF Working Paper, (WP/00/71), International Monetary Fund, p. 8

<sup>48</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p. 376 - 378

<sup>49</sup> Funke N., Matsuda A., (2002), *Macroeconomic News and Stock Returns in the United States and Germany*, IMF Working Paper (WP/02/239), International Monetary Fund, p.19-23

consumer confidence and negatively to higher-than-expected inflation rates.<sup>50</sup> This provides a good reason for why the stability of financial markets should be one of the main goals of a central bank and the World Bank so future financial crises can be avoided and their negative consequences dampened. This is highlighted by the fact that interest rate fluctuations pose particularly severe problems for savings and loan associations and mutual savings banks.<sup>51</sup> Ignoring global factors will lead to severe consequences such as the attribution of the origin of the financial turbulence to the country that is affected most strongly by the common shock.<sup>52</sup> It has been shown that country portfolios tend to be slightly more positively skewed than industry portfolios while returns on the global portfolio are not skewed at all.<sup>53</sup> Catão and Timmerman, authors of the IMF working paper (2003), have made the suggestion that if global and industry-specific volatility are both in a high state, investors benefit more from diversifying across industries than along country lines.<sup>54</sup>

### **2.3 The Stock Market**

Because product markets were integrated before capital markets, Dvořák and Podpiera rely on the assumption that the degree of co-movements of returns is determined in the product markets. They argue that capital market integration is not expected to have an effect on covariance or on betas.<sup>55</sup> The stock market is affected by current and future movements in output and stock prices influence spending and output. Thus, stock prices in general have a great impact on our economy, and the previously mentioned assumption cannot be completely true. If, for instance, output changes, the effects on stock prices depend on the origin market expectation and on the shocks which caused this change in output. One of the main activities which market participants react to, is the central bank's actions regarding the change in

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<sup>50</sup> Funke N., Matsuda A., (2002), *Macroeconomic News and Stock Returns in the United States and Germany*, IMF Working Paper (WP/02/239), International Monetary Fund, . 9

<sup>51</sup> Mishkin F.S., Eakins S.G., (2000), *Financial Markets and Institutions*, Third Edition, Addison Wesley Longman, p. 221 – 224

<sup>52</sup> Gelos G., Sahay R., (2000), *Financial Market Spillovers in Transition Economies*, IMF Working Paper, (WP/00/71), International Monetary Fund, p. 6

<sup>53</sup> Catão L., Timmerman A., (2003), *Country and Industry Dynamics in Stock Returns*, IMF Working Paper (WP/03/52), International Monetary Fund, p. 14

<sup>54</sup> Catão L., Timmerman A., (2003), *Country and Industry Dynamics in Stock Returns*, IMF Working Paper (WP/03/52), International Monetary Fund, p. 29

<sup>55</sup> Dvořák T., Podpiera R., (2005), *European Union Enlargement and Equity Markets in Accession Countries*, IMF Working Paper (WP/05/182), International Monetary Fund, p. 17

output.<sup>56</sup> A recent example of changes in stock prices is the dramatic increase in the candidate countries which occurred after European Union (EU) enlargement in November 2001. Numerous theories have been developed to explain these high stock prices. One theory is related to the re-pricing of firms' systematic risk and the upward revision of expected earnings. Another theory focuses on the difference between stocks' local and world betas. Dvořák and Podpiera (2005) argue that changes in expected earnings are related to changes in stock prices. Thus, increasing earnings automatically leads to increasing stock prices as consumption and returns increase. In their consideration of betas, they argue that stocks which have a high local beta but low world beta experience a higher price increase than other stocks.<sup>57</sup>

Generally, we can say that investment depends on both output and interest rates.<sup>58</sup> More precisely, investments depend indirectly on current and expected future output movements. Firms that anticipate a long output expansion and long sequences of high profits will invest. Unexpected movements in output will have only a small effect on investment. There is a popular saying in economics that "it is a sign of a well-functioning stock market that movements in stock prices are unpredictable". This is also referred to as the Random-Walk theory of stock prices. It entails that factors such as consumer spending have a positive impact on the stock market and can help to estimate further development of the stock market.<sup>59</sup> As mentioned above, market participant's expectations play a significant role and affect demand and output. When bad news is published, it has obvious effects the next day on market participant reactions. Changes in expected future output or in the expected future real interest rate lead to changes in spending and in output today.<sup>60</sup> Moreover, the effects on expectations of future output and real interest rates are influenced by the actual policy effects on spending and output.<sup>61</sup>

As most of us focus mainly on sources such as TV or newspapers to hear news about the economy news about stock returns may give important information about future output growth and the behavior of the financial market as well. Of course these sources of

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<sup>56</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p.326

<sup>57</sup> Dvořák T., Podpiera R., (2005), *European Union Enlargement and Equity Markets in Accession Countries*, IMF Working Paper (WP/05/182), International Monetary Fund, p. 16

<sup>58</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p. 426

<sup>59</sup> Mishkin F.S., Eakins S.G., (2000), *Financial Markets and Institutions*, Third Edition, Addison Wesley Longman, p. 167 - 168

<sup>60</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p. 356 - 368

<sup>61</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p. 356

information concerning macroeconomics, represent only one type of news. Political news and company related information also have an important effect on stock prices. Funke and Matsuda (2002) drafted five hypotheses about the impact of macroeconomic news on stock returns. They distinguish the effects of various types of news, which, for instance, might be related to GDP growth expectations. The impact of news varies according to the type of stock, the situation of the economy in the business cycle, the influence of foreign news on stock prices, and the time it takes for the news to make an impact. For example, during economic boom periods, higher-than-expected GDP growth may result in fears that the economy is overheating and that interest rates may rise and dampen stock prices. If we face times of strong economic development, news as higher-than-expected federal funds rate may lead to lower stock prices. Conversely, when the economy is in a recession, a higher-than-expected federal fund rate has a positive effect and increases the stock prices.

Not only the type of the news but also the type of stocks plays an important role when we observe the effects of macroeconomic news on the stock market. Small cap stocks are less sensitive to macroeconomic news than large cap stocks. Thus, in the PE/VC sector start-up firms should not be directly influenced by macroeconomic news as the GDP growth. Nonetheless GDP growth has an indirect influence on start-up firms, as lower GDP growth may lead to lower productivity, lower amounts of investment, and less financial opportunities for these firms. Ignoring this macroeconomic variable might lead to misunderstandings of the domestic market. Other types of stocks, like cyclical stocks, which represent, for example, the transport sector, tend to be more sensitive to fluctuations in macroeconomic growth. Therefore, news related to GDP growth expectations could have a stronger impact on them. Additionally, they are expected to be more closely linked to real economic developments than non-cyclical stocks, such as consumer goods like food.<sup>62</sup> This statement suggests that private equity companies have to make distinctions within the sector in which they want to invest. Different macroeconomics may have different impact intensity on different industry sectors. As European and developing countries do not have a private equity market which is focused on specific sectors, these investors have to observe market development in general.

As mentioned above bad news from foreign markets also has effects on the domestic market.

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<sup>62</sup> Funke N., Matsuda A., (2002), *Macroeconomic News and Stock Returns in the United States and Germany*, IMF Working Paper (WP/02/239), International Monetary Fund, p.5 - 23

If news programming announces that exchange rates will decrease and foreign currency is depreciating, this can result in lower export returns. It can also result in the increasing of domestic treasuries and lower values of domestic stocks. It is worthwhile to mention that financial market-specific reports, published by investment advisers, will not necessarily lead to abnormal profits, that is to say, outperform the market. The reason for the low probability that such news will lead to an abnormal profit, is that stock prices reflect publicly available information. Therefore, investors will only react to announcements when the information is new and unexpected, which is often not the case.

As every market participant knows, it is relatively difficult to estimate how the stock market is going to change within the next few months. Thus, forecasts are made based on estimated expectations which play a significant role in the stock market. The positive relation between changes in the way that the variable moves and the way expectations of this variable are formed has been proven by the efficient market theory. This theory also warrants that forecast errors of expectations are unpredictable. Nevertheless, some reactions can be estimated. In cases where the market participants fully anticipated the reaction, nothing will change. However, if this movement was unexpected, stock prices will increase because expected monetary policy implies lower interest rates, higher output and higher dividends. The theory of efficient capital markets, which is also the theory of rational expectations in financial markets, focuses on the reasons why changes in stock prices are unpredictable and why listening to a stock broker's hot tips may not be a good idea.<sup>63</sup> Rational expectation is the assumption that people, firms and participants in financial markets form expectations about the future by assessing the course of future policy and then working out the implications for future output, future interest rates, etc.<sup>64</sup> The main criticism of this theory is that few financial market players keep their eyes open for unexploited profit opportunities. Thus, they will eliminate profit opportunities.<sup>65</sup> This may be the case in the private equity market, as venture and non-venture companies, especially in CEE countries, often have a huge social network which sometimes provides them with insider information about an interesting investment opportunity. Of course, the subject "insider trading" has to be mentioned with care, as in the stock market, advisors seldom beat the market because insider trading is forbidden. The main criticism about the efficient market theory is that one investment is as good as any other,

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<sup>63</sup> Mishkin F.S., Eakins S.G., (2000), *Financial Markets and Institutions*, Third Edition, Addison Wesley Longman, p. 157 - 176

<sup>64</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p. 363 - 368

<sup>65</sup> Mishkin F.S., Eakins S.G., (2000), *Financial Markets and Institutions*, Third Edition, Addison Wesley Longman, p. 164

because security prices are correct and reflect all available information about the intrinsic value of the security. This assumption should be adapted carefully as it will not be adequate for all securities. Furthermore, the efficient market theory implies that future changes in exchange rates should follow random walks. From the central bank's perspective this cannot be absolutely true as they have the power and instruments to influence exchange rates.<sup>66</sup>

All these theories confirm that it is not sufficient to observe only specific financial markets to make the right investment decision. The general behavior of other markets, for instance, the labor market and the consumer market, should also be observed to estimate if the desired investment will result in profits. All these theories reflect that in the supplementary to monetary policy of the central bank, the interactions of the economic policy and the social policy should be coordinated to receive optimal results. Not surprisingly, different policies often have contradictory targets. In the case of monetary policy, one of the chief tasks is exchange rate stability; for fiscal policy, GDP growth and social policy indicators such as the unemployment rate. Following the theory of bureaucratic behavior, which suggests that the objective of a bureaucracy is to maximize its own welfare, politicians are unlikely to focus on long-run objectives. More often than not, they seek short-term solutions to problems, like high interest rates.<sup>67</sup> Thus, finding the perfect policy mix for the actual economic situation is a great challenge for governmental bodies. All emerging countries have young financial markets, and they may face similar problems, but the economic circumstances of each nation are sometimes very different. Thus, despite existing theories and studies, every country has to implement an adequate mix of theoretical sources and try to adopt them in an appropriate manner.

### **3. The Case for Poland**

#### ***3.1 Historical Background and Macroeconomic Data: 1991 - 2008***

This chapter highlights the reasons why the Polish market has become attractive for investors, and highlights opportunities and challenges which they have to handle. Poland has the

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<sup>66</sup> Mishkin F.S., Eakins S.G., (2000), *Financial Markets and Institutions*, Third Edition, Addison Wesley Longman, p. 169 - 176

<sup>67</sup> Mishkin F.S., Eakins S.G., (2000), *Financial Markets and Institutions*, Third Edition, Addison Wesley Longman, p. 198 - 200



advantageous geographical position of bordering markets such as Russia, Ukraine, Germany, Scandinavia and the North Sea ports. It has a population of approximately forty million people, which accounts for 8.3 percent of the EU population, and represents one of the most promising markets in Central Eastern Europe.<sup>68</sup> As published by PAIZ and PWC, Poles are one of the youngest nations in the EU, with almost 50% of their population being younger than 35 years old. This indicates the excellent prospects for the country's labor market and explains the growing saving rate. Notably, many Poles live in foreign countries like Ireland, the UK, Australia, Israel, Brazil, Canada, and the U.S., which accounts for approximately 10 million people. With a stable democracy and being a member of NATO, the EU, WTO and OECD, Poland guarantees open market flexibility. By entering the Schengen zone in the year 2007, international trade with open borders to Germany, Czech Republic, Slovakia and Lithuania has been made possible. In comparing Poland's economic development to Western Europe's, one will note that Poland's is developing much faster. The promising opportunities set forth by the Polish market are confirmed by the fact that the Polish market is as big as all the Central European markets together. Not only does Poland have stable GDP growth but also a stable currency and low inflation, facts that has motivated a lot of foreign investors to set up their businesses in this country. These days, approximately 17,000 enterprises do business in Poland and operate from Polish bases throughout Europe and other continents.<sup>69</sup>

Looking back in the past one will note that Poland went through quite a lot of alterations and improvements. After the privatization process at the end of communism in 1989, there was the so called shock therapy of the Balcerowicz Program, which was heavily influenced by the IMF and the World Bank in 1990.<sup>70</sup> Another important alteration was Poland's entrance into the European Union in May 2004. The planned adoption of the EURO in year 2012 is another of these much awaited improvements. New opportunities have been opened in the employment sector and in the financial sector as well. The first stock exchange in Poland was established on 12 May 1817.<sup>71 72</sup> According to UNIDO (2006), during this time mostly bonds and other debt instruments were traded. After the end of communism in 1989, Poland adopted

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<sup>68</sup> UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823), [http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf), [14.11.2007], p. 9 - 140

<sup>69</sup> PWC: *Investing in Poland 2008*, [www.pwc.com/pl/eng/guide/index.html](http://www.pwc.com/pl/eng/guide/index.html), [14.11.2007]

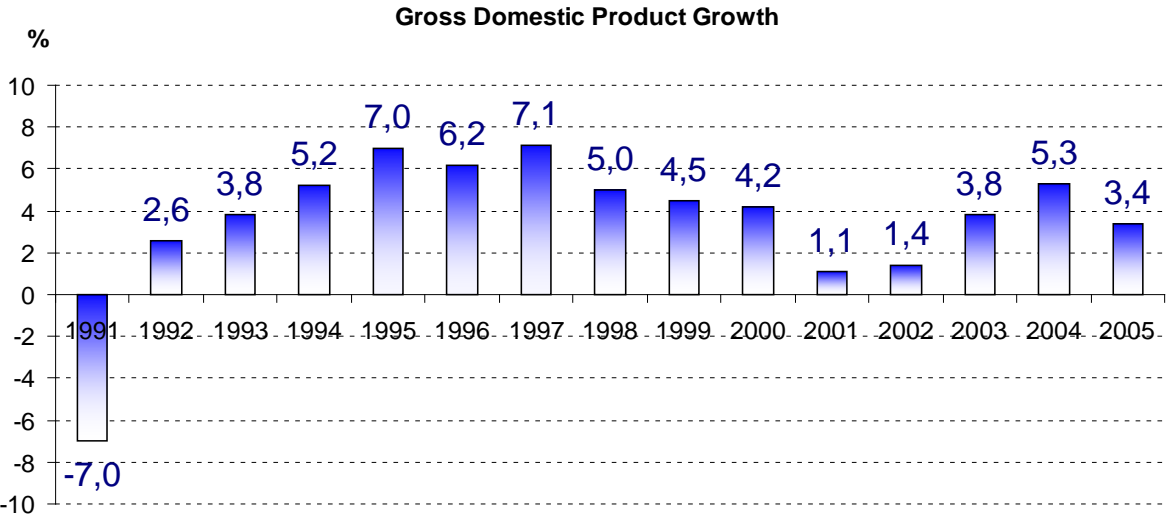
<sup>70</sup> Morita K., *Economic Reforms and Capital Markets in Central Europe*, (2004), Hiroshima University, Japan, ASHGATE, MPG Books Ltd, Bodmin, Cornwall, p. 73 - 76

<sup>71</sup> UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823), [http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf), [14.11.2007], p.14, p. 100,

<sup>72</sup> WSE: *About the Exchange*, [www.gpw.pl/gpw.asp?cel=e\\_ogieldzie&sky=1&i=index&nagnaz=About%20the%20Exchange](http://www.gpw.pl/gpw.asp?cel=e_ogieldzie&sky=1&i=index&nagnaz=About%20the%20Exchange), [10.03.2008]

the Act on Public Trading in Securities and Trust Funds. Two years later in 1991 the Warsaw Stock Exchange (WSE) was established by the State Treasury, whose transition process was based on the French experience.<sup>73</sup> These days, approximately 20 years after the fall of communism, with an average GDP per capita of \$12,700, a total GDP accounting for \$554.5 billion, Poland has been classified by the World Bank as an upper-middle income economy. After Germany, France, the UK, Italy, Spain and the Netherlands, this data marks this market as the fifth to sixth largest economy in the EU. Comparing the macroeconomic development of the EU average with Poland, it is clear that in Poland the GDP growth is twice as high, and the unemployment rate and inflation are lower than the average. Moreover, GDP growth is over 6% which is fuelled mainly by increasing exports and investments. The current account is low at 2.3% of GDP, wage growth is still moderate and CPI (Consumer Price Index) inflation is below 3%. These facts led to a high level of growth of investments, exports and industrial production.<sup>74</sup>

**Figure 4: Gross Domestic Product Growth**

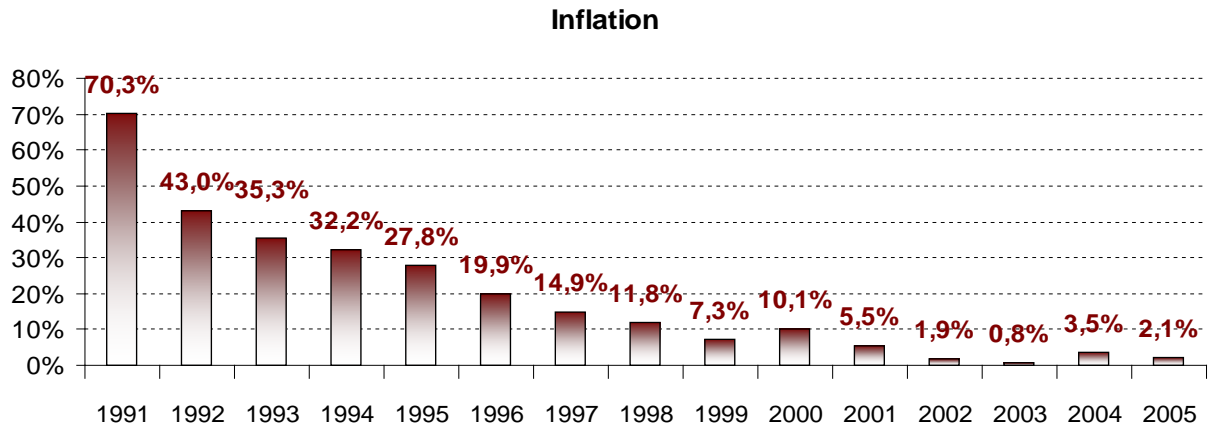


Source: UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823), [http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf), [14.11.2007], p. 20

<sup>73</sup>UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823), [http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf) [14.11.2007], p. 100

<sup>74</sup> PWC: *Poland: Economic data and outlook*, [www.pwc.com/pl/eng/guide/introduction/in\\_economic\\_data.html](http://www.pwc.com/pl/eng/guide/introduction/in_economic_data.html), [14.11.2007]

**Figure 5: Inflation 1991 - 2005**

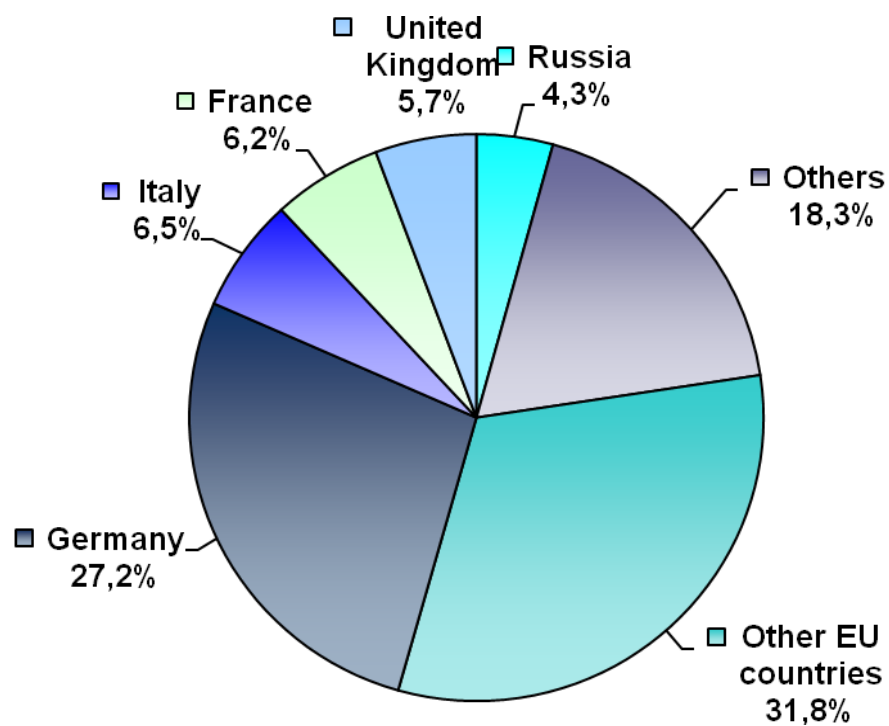


Source: UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823), [http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf), [14.11.2007], p. 19

In analyzing the international trade of Poland, which is closely linked to markets of EU members, 93% of Polish exports went to EU markets, where 60% were generated by foreign participation. Exports are significantly influencing the GDP, where one of the main trading partners is Germany. This accounts for just less than one quarter of Poland's imports and over one quarter of its exports. Other EU countries accounted for a 79.2 percent share in Poland's exports and 68.3 percent in its imports, whereby imports were dominated by raw materials and components.<sup>75</sup>

<sup>75</sup> UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823), [http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf), [14.11.2007], p. 71 - 80

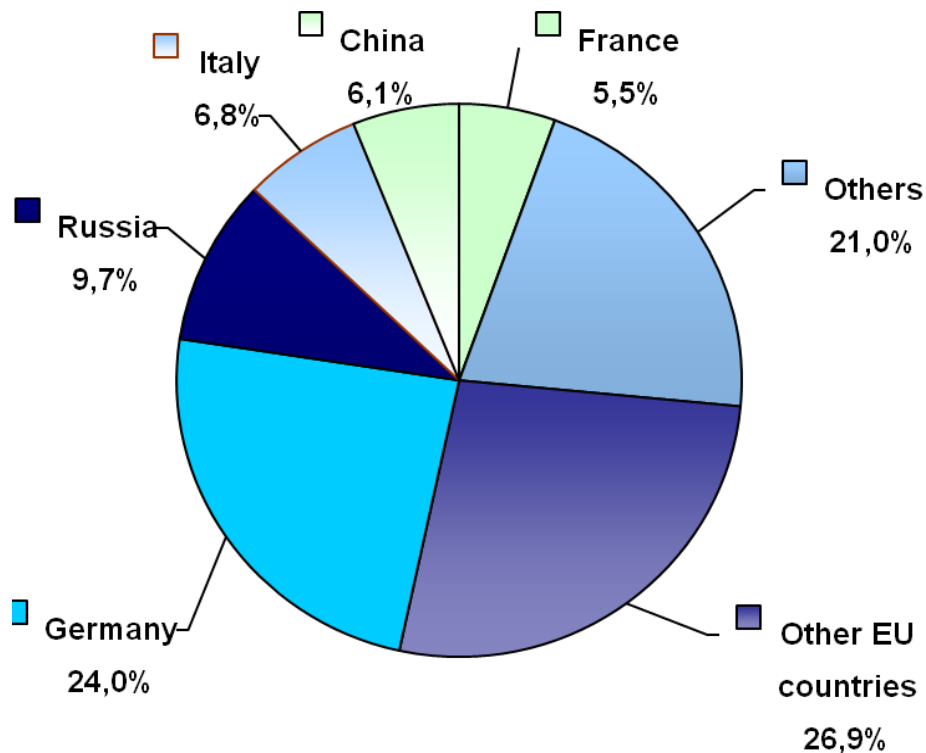
**Figure 6: Principal Export Markets 2006**



Source: PWC: *Poland: International trade*, (2007)

[www.pwc.com/pl/eng/guide/introduction/in\\_international\\_trade.html](http://www.pwc.com/pl/eng/guide/introduction/in_international_trade.html), [14.11.2007]

**Figure 7: Principal Import Markets 2006**



Source: PWC : *Poland: International trade*, (2007), [www.pwc.com/pl/eng/guide/introduction/in\\_international\\_trade.html](http://www.pwc.com/pl/eng/guide/introduction/in_international_trade.html), [14.11.2007]

The expanding private sector, which is already dominated by foreign trade, accounted for 83 percent of industrial output. Moreover, this sector was responsible for 90.2 percent of imports and 87.3 percent of exports in the year 2005. The agriculture, retailing, wholesale trade and consumption sectors were ca. 98 percent in private hands in 2005. Generally industrial production saw stagnation. There was a steady increase in the processing industry's share, including the share of the mining and quarrying sector and the power, gas and water production. Food and related products, especially beverages and tobacco articles, accounted for over a fifth of total production. Additionally, manufacturing sectors, such as the automotive industry; the chemical industry; the coke and refined petroleum products sector; the electrical engineering industry; and the metalworking industry, had a significant impact on the industry growth in the year 2005.<sup>76</sup>

Even though a lot of positive developments could be registered and Poland was one of the fastest developing countries in CEE, according to the IMF Country Report 'Staff Report for the 2006 Article IV Consultation' (2006), after 1991 the development process had started to

<sup>76</sup> UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823), [http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf), [14.11.2007], p. 28

lag behind other developing countries.<sup>77</sup> The consequences were new restructuring programs like export-oriented manufacturing, job destruction and wage moderation. Problems, such as scepticism to foreign trade and slow growth in trading caused by governmental activities, made it difficult to boost economic development. Furthermore, the sizable state ownership and slow developing legal system were responsible for the low-productivity of the farming sector. Competition was generally stifled by the country's continuously poor infrastructure.<sup>78</sup>

Following these developments critically and from an international point of view, Polish exports are similar to those of much smaller countries of the region, like the Czech Republic. As published by UNIDO (2006), the ratio of exports to the GDP amounted to 29.5 percent, while in Hungary or the Czech Republic it was two to three times higher. Furthermore, the exports per capita reached 2,340 USD in 2004, between half and one-third of the Czech, Slovak, or Hungarian level, while in a majority of OECD countries these ratios are several times higher. However, the current account balance of payments is negative, and the account deficit is constantly being reduced from one year to another. The main goals and achievements of the privatization process was a remaining public ownership of 10 to 20 percent. Most of the assets that were privatised were the electric energy, gas, fuel and oil, steel, defence, hard coal mining, transportation, shipbuilding, pharmaceutical, and publishing sectors. Privatisation revenues from 1991 to 2005 amounted to USD 25.5 billion whereas half of the revenue had been generated by foreign investors.<sup>79</sup> These facts highlight the enormous investment opportunities for the PE/VC sector which is dominated by foreign houses.

The main targets of the privatization program in 2006 were the social security system reform, the restructuring of the defence industry and the modernization of the Polish Army. The revenues of the privatization program in the year 2006 accounted for approximately one percent of GDP. UNIDO (2006) pointed out that, according to IMF, the most difficult challenges are a stabilization of the ratio of public debt to GDP while reducing the share of government spending in GDP. Furthermore, they cite as challenging: the protection of the strength of financial institutions and the removal of impediments to entrepreneurs' and

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<sup>77</sup> IMF, (2006) *Republic of Poland, Staff Report for the 2006 Article IV Consultation*, IMF Country Report (No.06/391), International Monetary Fund, p. 4

<sup>78</sup> IMF, (2006) *Republic of Poland, Staff Report for the 2006 Article IV Consultation*, IMF Country Report (No.06/391), International Monetary Fund, p. 4 - 9

<sup>79</sup> UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823), [http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf), [14.11.2007], p. 83 - 90

employees' responsiveness to economic opportunities.<sup>80</sup> However, Poland has grown rapidly and changed significantly due to economic fluctuations which are often caused not only by the domestic but by foreign markets. It is clear though that the country still has a long development process to undergo before it reaches the macroeconomic level of developed countries.

### **3.2 The Development of the Polish Financial Market**

As mentioned in the paper "How to do Business in Poland" by the UNIDO (2006), advantages to be realized when investing in Poland are economic growth prospects, size of the market, and low labor costs. In 2006, for instance, foreign direct investment accounted for USD 75.8 billion, whereas over 54 thousand companies with foreign participation were located in Poland. The most popular sectors for investments were the insurance sector, the car industry, and the hotel and restaurant business. Nevertheless, Poland still belongs to the emerging markets and has few Polish investments abroad. The financial market has also undergone numerous reforms as in the case of the central bank, where state-owned banks were transformed into joint stock companies. In 1991 the European Bank for Reconstruction and Development (EBRD) was established to finance development projects that foster the transition to a market economy in Eastern and Central Europe. The positive correlation between monetary and fiscal policy is confirmed by the fact that without the help and support of multinational organizations and institutions, the International Finance Corporation (IFC). The setting up process of private equity markets in emerging countries would be confronted with even more problems than it already had to handle.<sup>81</sup>

Another very influential program was the Mass Privatization Program (MPP) in 1992 whose goals were to restructure medium-sized state-owned companies which represented 10 percent of the domestic industry. At first fifteen National Investment Funds (NIFs) were established to acquire shares of those firms, which are traded on the WSE since 1997. Due to market consolidation processes the number of these stocks has fallen to 13 NIFs in the year 2006. To

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<sup>80</sup>UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823), [http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf), [14.11.2007], p. 63, p. 89

<sup>81</sup> Lerner J., Hardymon F. and Leamon A., (2005), *Venture Capital and Private Equity*, Third Edition ,John Wiley & Sons, Inc., p. 340

guarantee a faster transition period the Polish Agency for Enterprise Development (PARP) was founded in 2001 to support and enhance the development process of medium- and small enterprises, the growth of exports, regional development, human resource development etc., To stimulate the inflow of foreign direct investment into Poland, the Polish Information and Foreign Investment Agency (PALiIZ) was established in 2003. PALiIZ focuses on providing comprehensive services to foreign investors in Poland, to offer individually-tailored information about the Polish economy and to support exports by promoting a positive image of Polish goods and services.<sup>82</sup> Although all these reforms have been implemented, the backlog of privately issued fixed-income instruments such as mortgage-related securities which are still negligible, amounting to less than 1% of GDP each, reflects the fact that the Polish financial market requires a lot of work and improvements to reach the standard of developed financial markets.<sup>83</sup>

When we look at the banking sector in Poland in 2005, 642 operating banks were located in the country, including 53 commercial banks in the form of joint-stock companies, one state-bank, 588 co-operative banks and additionally, 7 credit institutes. Of these 588 co-operatives only one was fully independent, Krakowski Bank Spółdzielczy w Krakowie. Other co-operative banks were associated with the following three bodies: Mazowiecki Bank Regionalny S.A., including 80 banks; Gospodarczy Bank Wielkopolski S.A. with 153 banks and Bank Polskiej Spółdzielczości S.A. counting 354 banks. The co-operative sector is very important for the domestic agriculture; The shares of the latter sector in banking services increased in 2005. In the same year they granted 7.6 percent of loans to the non-financial sector. In summary, their total assets increased by 5.8 percent of the total assets of the whole banking sector in 2005. Generally, the very fast growing banking network influenced a rapidly growing competition and very fast increase in the number of ATMs (Automatic Teller Machines) used.<sup>84</sup> According to IMF (2006), the soundness of Polish banks in recent years has been positively correlated with economic growth, real interest rates, and bank profitability. Beside positive economic development, bank efficiency, measured by the cost-to-income ratio and real interest rates, weakened in 2001 to 2004 compared to 1994 to 2000.<sup>85</sup>

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<sup>82</sup> UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823),

[http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf), [14.11.2007], p. 98 - 235

<sup>83</sup> *Republic of Poland: Financial Sector Assessment Program – Technical Note - Competition and Performance in the Polish Second Pillar*, (2006), IMF Country Report (No.06/104), International Monetary Fund, p. 15

<sup>84</sup> UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823),

[http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf), [14.11.2007], p. 40 - 41

<sup>85</sup> *Republic of Poland: Financial Sector Assessment Program – Technical Note - Credit, Growth, and Financial Stability*, (2006), IMF Country Report (No.07/103), International Monetary Fund, p. 12



In the following years from 2001 to 2004, bank soundness seems to have had a positive and statistically significant impact on credit growth in Poland which highlights that the banking sector in Poland has to be supported by financial instruments in its development process if a faster economic development is to be guaranteed.<sup>86</sup> To get a general overview, the table below reflects the number of banks and their share in total banking sector.<sup>87</sup>

**Table 1: Number of Banks and Their Share in Total Banking Sector Assets (%)**

Number of Banks and Their Share in Total Banking Sector Assets (%)

	<b>Number</b>	<b>%Share</b>
<b>Banks controlled by the State Treasury:</b>	4	20.3
- directly	2	18.6
- indirectly	2	1.7
<b>Banks controlled by the private sector:</b>	50	73.0
- with majority Polish equity	7	4.0
- with majority foreign equity	43	69.0

Source: UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823), [http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf), [14.11.2007], p. 41

In the year 2005, the positive effects of the modernization of Polish banks was reflected in data such as gross earnings reported by banking sector which grew by 40 percent amounting to PLN 11.1 billion, while net earnings reached PLN 9.2 billion, what led to ROE reaching 20.8 percent. Furthermore, total assets of the banking sector grew by 9.0 percent, amounting to PLN 587 billion, the ratio of banking sector assets to GDP amounted to 59.0 percent. In the same year household lending increased by 41 percent and consumer loans by 26 percent. 13 of the 54 operating commercial banks in Poland were listed on the WSE and their share amounted to 29.9 percent in 2005. The modernization process also led to an increasing presence of foreign investors in the domestic banking sector. In 2005, 69 percent of the total banking sector assets were controlled by foreign investors, 0.9 percent accounted to foreign branches of credit institutions. The figures below represent the Polish banking sector as of 31 December 2005. At the end of 2005, 43 of 54 commercial banks operating in Poland were

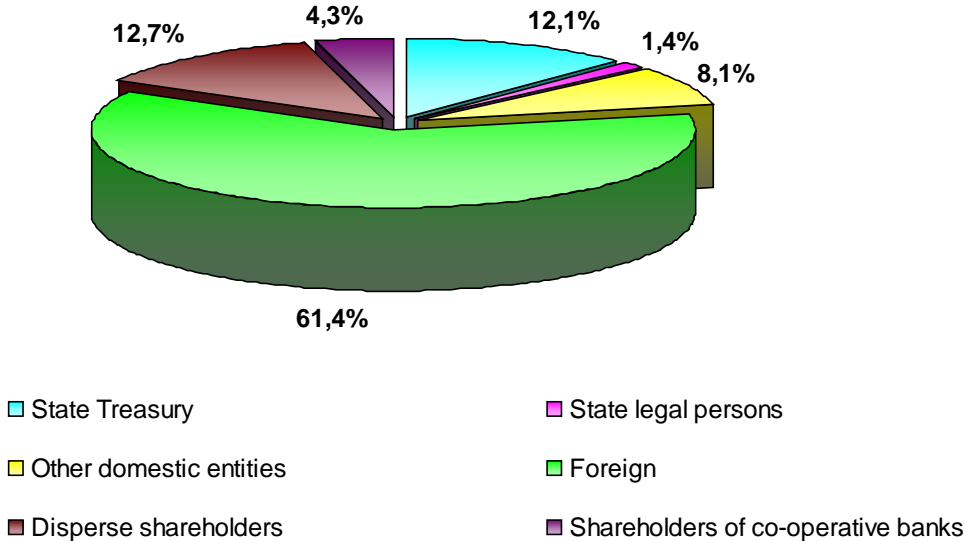
<sup>86</sup> *Republic of Poland: Financial Sector Assessment Program – Technical Note - Credit, Growth, and Financial Stability*, (2006), IMF Country Report (No.07/103), International Monetary Fund, (2006), p. 15

<sup>87</sup> UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823), [http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf), [14.11.2007], p. 41

controlled by foreign shareholders. 23 of them were joint-stock companies with 100 percent foreign shareholders. The main investors were from Italy, Germany, the Netherlands, America and Belgium.<sup>88</sup>

**Figure 8: Ownership Structure of the Banking Sector as of 31 December 2005**

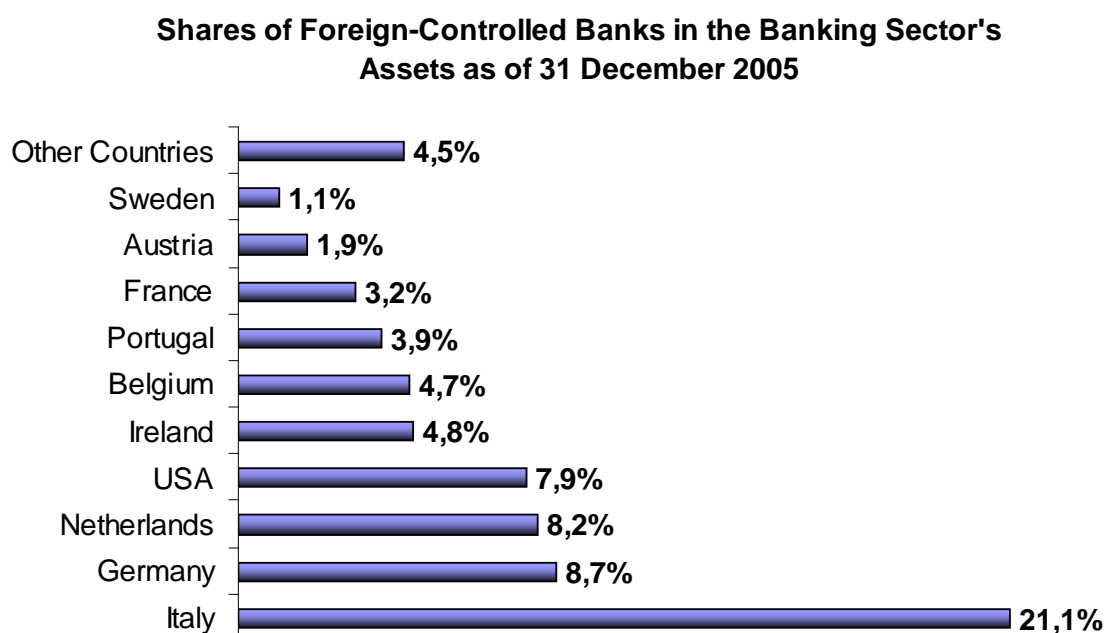
**Ownership Structure of the Banking Sector as of 31 December 2005**



Source: UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823), [http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf), [14.11.2007], p. 43

<sup>88</sup> UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823), [http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf), [14.11.2007], p. 43

**Figure 9: Share of Foreign-Controlled Banks in the Banking Sector's Assets as of 31 December 2005**



Source: UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823),

[http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf) [14.11.2007], p. 43

It must be mentioned that the Polish stock market has grown at a remarkable pace, becoming the most liquid market (with 0.5 million investors) in Central Europe and the fastest growing stock market in the world in 1993, increasing by more than 1,000 percent in US dollar terms during that year alone. The banking stocks with manufacturing stocks constitute the largest share of all listed stocks on the WSE. The WSE includes approximately 60,000 registered shares of 700 Zlotys each, where the treasury holds the largest stake with 99 percent. These days, the number of listed companies is around 321 and the market value of listed shares is approximately 301.86 billion USD.<sup>89</sup> Shares of Polish companies account for approximately 321 billion USD. Some of the fourteen indices which are listed on the WSE are WIG, WIG20, WIG40, and WIG-Pl. The WIG index that was the first exchange index and has been calculated since 1991 includes all companies listed on the main market, beside foreign companies and investment funds. The WIG-PL index participants are exclusively Polish companies. The WIG20 is the index including the twenty major and most liquid companies on the WSE. The WSE includes also sectoral subindices such as the WIG-banking, the WIG-construction, the WIG-developers, the WIG-IT, the WIG-media, the WIG-oil&gas, the WIG-

<sup>89</sup> WIKIPEDIA: [http://en.wikipedia.org/wiki/Warsaw\\_Stock\\_Exchange](http://en.wikipedia.org/wiki/Warsaw_Stock_Exchange) , [01.10.2008]

food and the WIG-telecom. The values of sub-indices allow the evaluation of the efficiency of investments into businesses in various sectors of the economy.<sup>90</sup>

**Table 2: Sectoral Market Indicators (end of 2007)**

Macrosector / Sector	Number of companies	Market capitalization		Share in 2007 turnover (%)	P/BV	P/E	Dividend Yield (%)
		million PLN	(%)				
<b>Industry</b>							
Food	21	15 513	1.4	1.45	3.57	18.0	2.5
Light	12	2 838	0.3	2.89	2.51	44.9	--
Wood & Paper	8	7 931	0.7	1.13	3.26	16.9	4.2
Chemicals	19	18 702	1.7	5.28	2.18	15.4	1.0
Oil & Gas	6	98 894	9.2	10.44	1.73	15.0	1.8
Building Materials	15	9 307	0.9	1.86	3.67	32.2	0.1
Construction	29	21 345	2.0	6.30	4.37	39.6	0.1
Electroengineering	23	11 267	1.0	1.66	2.52	14.9	0.3
Metals	18	33 113	3.1	10.76	2.62	7.8	10.7
Others	4	708	0.1	0.38	1.88	31.5	--
<b>Finance</b>							
Banking	17	582 510	53.9	23.17	2.48	12.7	1.2
Developers	16	32 373	3.0	5.88	2.62	11.7	0.2
Insurance	1	1 024	0.1	0.00	4.27	15.8	--
Others	23	27 969	2.6	3.53	0.93	11.1	0.1
<b>Services</b>							
Retails	22	16 942	1.6	1.94	5.91	35.4	0.7
Wholesale	27	13 922	1.3	2.26	3.02	24.4	0.4
IT	32	12 520	1.2	3.55	2.35	22.2	0.8
Telecom	8	35 532	3.3	10.11	1.76	x	5.5
Media	14	16 909	1.6	3.42	4.35	36.8	1.4
Power	5	110 577	10.2	1.23	4.45	22.4	1.5
Hotel & Restaurants	8	7 720	0.7	0.99	2.94	31.5	0.7
Others	14	2 640	0.2	1.78	2.68	x	0.2
<b>Total</b>	<b>342</b>	<b>1 080 258</b>	<b>100.0</b>	<b>100.0</b>	<b>2.45</b>	<b>14.8</b>	<b>1.6</b>

Source: WSE : *Fact Book*, (2008), [www.gpw.pl/zrodla/gpw/rocznik2008/WSEfactbook2008.pdf](http://www.gpw.pl/zrodla/gpw/rocznik2008/WSEfactbook2008.pdf) , [01.10.2008], p. 64

<sup>90</sup> WIKIPEDIA: [http://en.wikipedia.org/wiki/Warsaw\\_Stock\\_Exchange](http://en.wikipedia.org/wiki/Warsaw_Stock_Exchange) , [01.10.2008]

Because of one of several exit forms for private equity companies is an IPO, the criteria for entering a company on a list of index participants which are defined below must be fulfilled. When entering the shares on for instance the WIG20 index, the IPO must have a capitalization in free float accounting to at least 5% of capitalization in free float of all companies in WIG20 ranking at such date. In case that index participants have merged or were split into two or more companies, the weightings of these participants will be changed.<sup>91</sup> A fundamental strength for interest in WSE is the greater liquidity and better accounting transparency compared to other CEE markets.<sup>92</sup> The junk bond market has recovered since its low in 1990 and continues to permit medium-size firms to obtain financing that might otherwise be unavailable to them because of the relatively high risk.<sup>93</sup> Moreover, the capitalisation of domestic companies on the WSE is comparable to developed countries such as Luxembourg and Austria. The investor structure in equities on the WSE in the year 2007 was more or less equally split between domestic institutional investors, domestic individual investors and foreign investors. UNIDO (2006) published that in Poland since 2001, the growing number of companies and its booming capitalization has more than quadrupled since the end of 2005, where it reached at PLN 425 billion (approximately USD 130 billion). In the end of the year 2005 the WSE accounted for 255 companies, including 7 foreign ones. Moreover, in the trading of Polish companies' stocks on the WSE 41 percent were foreign investors, 26 percent were Polish individual investors and the remaining 33 belonged to Polish institutional investors. Contrary, the future market was obviously dominated by Polish investors, followed by Polish institutional investors whereas only 5 percent accounted to foreign investors.

On the corporate level, domestically owned firms have lower debt-equity ratios than foreign-owned firms, leading to the assumption that domestic firms rely more on the stock market for their funds than foreign enterprises do. Thus, the listing of larger firms with high retained earnings should be encouraged to raise the level of leverage.<sup>94</sup> Nevertheless, empirical IMF studies (1997) indicate a growing level of leverage for both larger firms and newer ones, as these firms might enjoy better reputations with banks. The shareholder concentration has been

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<sup>91</sup> WSE: *Indices of Warsaw Stock Exchange* (October 2007), [http://www.gpw.pl/gpw.asp?cel=e\\_informacje&k=7&i=/indices\\_n/indices&sky=1](http://www.gpw.pl/gpw.asp?cel=e_informacje&k=7&i=/indices_n/indices&sky=1), [01.10.2008], p. 15 - 16

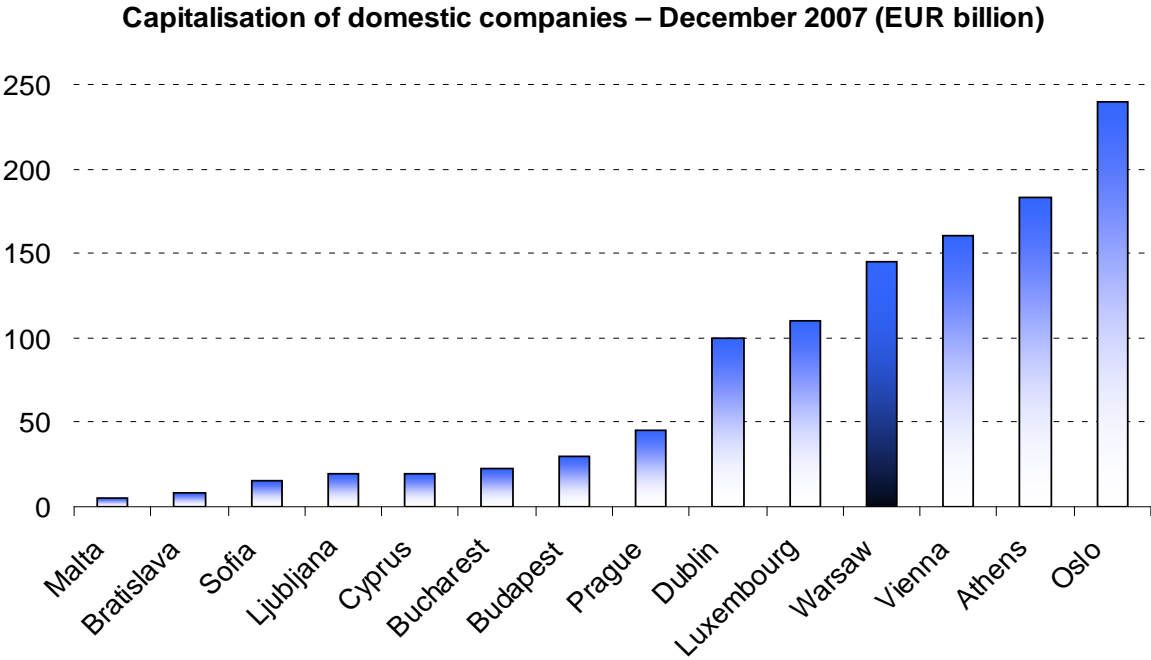
<sup>92</sup> AltAssets: *Private capital markets in Poland: A third wave of opportunity and challenge* (06/09/2006), <http://www.altassets.com/casefor/countries/2006/nz9299.php>, [05.10.2007]

<sup>93</sup> Mishkin F.S., Eakins S.G., (2000), *Financial Markets and Institutions*, Third Edition, Addison Wesley Longman, p. 294

<sup>94</sup> UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823), [http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf), [14.11.2007], p. 85 - 106

noticed as either neutral or beneficial in Poland, where the dominant shareholders are banks, investment companies and the state. Banks are allowed to hold equity in firms and economies of scale and duplication in monitoring are facilitated. This may be essential for such young financial markets like the Polish, where firms' reputations are not clearly established.<sup>95</sup>

**Figure 10: Capitalization of domestic companies – December 2007 (EUR billion)**

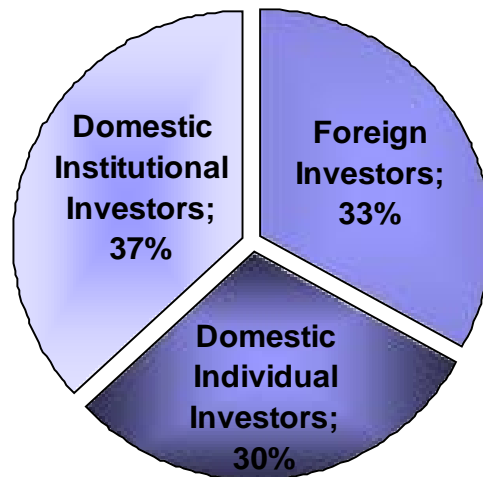


Source: WSE : *Fact Book*, (2008), [www.gpw.pl/zrodla/gpw/rocznik2008/WSEfactbook2008.pdf](http://www.gpw.pl/zrodla/gpw/rocznik2008/WSEfactbook2008.pdf) , [01.10.2008], p. 161

<sup>95</sup> Hussain Q., Nivorozhkin E., (1997), *The Capital Structure of Listed Companies in Poland*, IMF Working Paper (WP/97/175), International Monetary Fund, p. 17 - 18

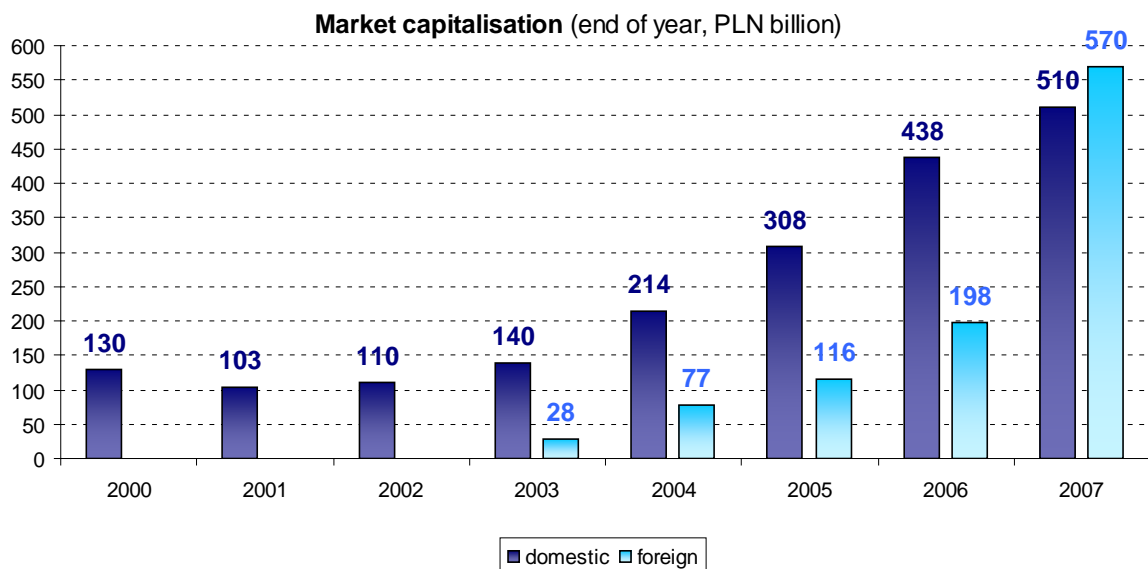
**Figure 11: Investor structure 2007 - equities**

**Investor structure 2007 - equities**



Source: WSE : *Fact Book*, (2008), [www.gpw.pl/zrodla/gpw/rocznik2008/WSEfactbook2008.pdf](http://www.gpw.pl/zrodla/gpw/rocznik2008/WSEfactbook2008.pdf) , [01.10.2008],, p.119

**Figure 12: Market capitalization (end of year, PLN billion)**



Source: WSE : *Annual Report 2007*, [www.gpw.pl/zrodla/gpw/pdf/annual/raport2007/raport2007.pdf](http://www.gpw.pl/zrodla/gpw/pdf/annual/raport2007/raport2007.pdf) , [01.10.2008], p.20

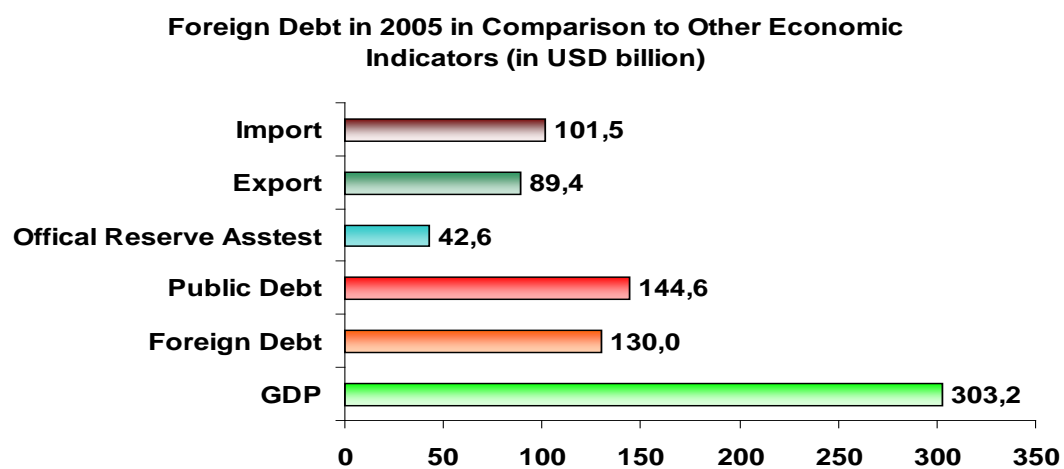
To estimate the interest of foreign investors in the Polish market and to further analyze long-term economic development, the Foreign Direct Investment (FDI) is provides essential information. The FDI not only has advantages for investors, such as high returns, but it positively influences the economy by increasing the employment rate, productivity. It also introduces modern technologies and management techniques. To highlight the importance of FDI it is important to mention that one-third of global trade is already intra-firm trade and that its share continues to increase. According to the OECD and UNIDO (2006), compared to other CEE countries, Poland was one of the most successful countries in these investments. From 1991 until the end of 2005, FDI stock accounted for over USD 75.8 billion in Poland. Although Poland remains the regional leader in terms of FDI stock, in 2004 and 2005 some foreign managers preferred other regions as the Czech Republic or Hungary. When considering the size of the Polish population, with under USD 2,000 of FDI per capita, Poland lagged behind other countries, like the Czech Republic or Hungary, where the FDI was twice as high. The reasons mentioned were better incentives, including a more efficient legal and institutional framework. Nonetheless, the number of commercial companies with foreign capital, the so called CCFC, which is reflected in the table below, enjoys dynamic development in Poland. When looking at the foreign debt ratio in 2005, it is evident that it did not increase as much as in previous years, representing 42.9 percent of GDP. The main indicators for this increase were the NBP and central and local government whereas companies reduced their foreign debts significantly.<sup>96</sup>

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<sup>96</sup> UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823), [http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf), [14.11.2007], p. 107 - 132



**Figure 13: Foreign Debt in 2005 in Comparison to Other Economic Indicators (in USD billion)**



Source: UNIDO: *How to do business in Poland*, 2006, (ISSN 1642-7823),

[http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf), [24.10.2008], p. 24

**Table 3: Commercial Companies with Foreign Capital**

<b>Commercial Companies with Foreign Capital</b>		
<b>Year</b>	<b>Commercial Companies with Foreign Capital</b>	<b>Share of Commercial Companies with Foreign Capital in the Total Number of Companies in Poland* (%)</b>
1991	5,583	4.1
1992	10,817	6.9
1993	15,814	8.6
1994	20,324	10.4
1995	24,635	11.7
1996	29,157	12.2
1997	33,459	13.8
1998	37,355	12.6
1999	40,910	12.3
2000	44,229	11.6
2001	46,258	10.6
2002	47,352	10.0
2003	48,973	9.7
2004	51,503	9.6
2005	54,336	9.7

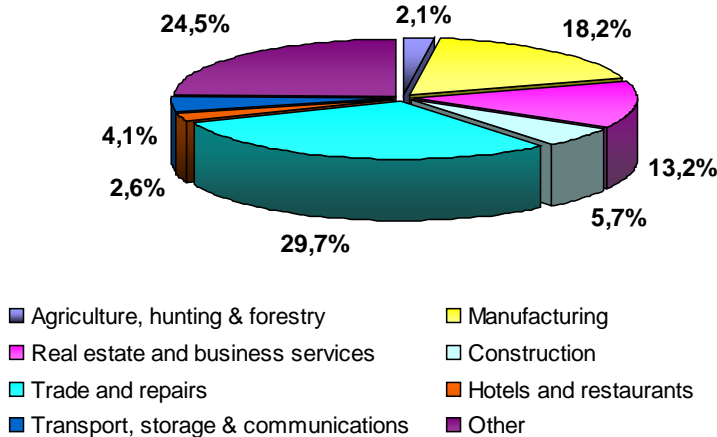
*\*excluding enterprises run by natural persons and civil partnerships*

Source: UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823),

[http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf) , [24.10.2008], p. 128

**Figure 14: Commercial Companies with Foreign Capital by Sector**

**Commercial Companies with Foreign Capital by Sector**



Source: UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823), [http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf), [14.11.2007], p. 129

As FDIs are necessary for economic development, the government has to support these investors because they usually reinvest most of their profits in the country and boost local development. It must be critically observed that compared to investments in existing Polish companies, green-field investments increased. Higher investments are always positive for the domestic economy. However, the disadvantage for existing companies in having green-field investments as competitors is the fact that they will not get the money that they need to modernize their enterprises. Not only foreign investors are moving abroad, also the Polish companies are interested in foreign markets. It is important to note that international capital flows have led to the fact that in the last decade, FDIs worldwide were greater than the growth of world trade. Poland is only rarely engaged in the global internationalisation process. Generally Poland is net recipient of foreign direct investments, whereas its foreign direct investment in 1995 to 2004 amounted to a mere 1.4 percent of the FDI flowing into the country. According to NBP, the Polish FDI amounted to approximately USD 1.5 billion in 2005, compared to USD 0.8 billion in 2004.<sup>97</sup>

<sup>97</sup> UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823), [http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf), [14.11.2007], p. 130 - 132

For the private equity market the status quo of the loan market plays a significant role, thus, its development should be explained briefly. After the boom period in the early 1990s, economic activity slowed down during the years 1998 to 2005. The consequence was a decline in loan demands. There may be several reasons for the reduced demand, like the fact that government securities and the equity market are the main financial instruments of the Polish capital market.<sup>98</sup> Due to the declining corporate credit, household credit has been expanding rapidly. As mentioned in the IMF working paper ‘Republic of Poland: Financial Sector Assessment Program – Technical Note – Credit, Growth, and Financial Stability’ (2007), the lacklustre credit growth during 2000 to 2005 partly reflected weak economy activity, what is not only visible in a declining loan demand, but also in lower industrial production growth, wage growth and higher unemployment and loan supply.<sup>99</sup>

This development may be seen as a chance for the private equity sector when they invest in companies which cannot obtain any loans from these institutions. As studies done by IMF (2006) have shown, corporate credit growth is negatively correlated with industrial production growth and the strong retained earnings in recent years have enabled corporations to finance themselves internally. Other reasons for Poland’s slower credit growth are the weak enforcement of pledges and collaterals. What should be viewed in a critical light is the fact that the number of non performing loans (NPLs) in total corporate loans more than doubled in five years. This has caused the credit risk to increase significantly. In summary, when observing and interpreting the credit sector of one country, the corresponding indicator for measurement of credit growth, namely the aggregate bank credit to households and corporations, depends on the basic proxies of loan demand. The industrial production growth, wage growth, unemployment rate, loan supply and real interest rate should be analyzed.<sup>100</sup>

The Reason why foreign investors should consider Poland as a market for possible profits, is that Poland remains the leader in Central and Eastern Europe in terms of attracting FDI. Moreover, a global awareness and recognition of foreign direct investment opportunities in Poland is growing. According to the latest FDI Confidence Index, an annual survey of

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<sup>98</sup> IMF, (2006) *Republic of Poland: Financial Sector Assessment Program – Technical Note - Competition and Performance in the Polish Second Pillar*, (2006), IMF Country Report (No.06/104), International Monetary Fund, p. 14 – 15, p. 36 - 38

<sup>99</sup> IMF, (2006) *Republic of Poland: Financial Sector Assessment Program – Technical Note - Credit, Growth, and Financial Stability*, ( 2006), IMF Country Report ( No.07/103), International Monetary Fund, p. 15

<sup>100</sup> IMF, (2006) *Republic of Poland: Financial Sector Assessment Program – Technical Note - Credit, Growth, and Financial Stability*, ( 2006), IMF Country Report ( No.07/103), International Monetary Fund, p. 14, p.4

executives from the world's largest companies conducted by global management consulting firm A.T. Kearney, Poland ranked as the fifth most favoured investment location and second in Europe. Further reasons why Poland is an attractive market for foreign investors are not only its EU membership but its a market of 460 million consumers. Poland's transparent and predictable business environment, ease of entry and of doing business, the very good "bridging position" of Poland in Europe also make it an attractive market for foreign investors. Poland offers investors the guarantee of easy access of goods manufactured in the country both for other EU members and for Eastern markets, and the obvious success of foreign companies that have already entered the market since the early 1990s.<sup>101</sup>

### **3.3 The Private Equity Market in Europe**

The evolution of the European private equity market between 1999 and 2006 is shown by the charts below which were published by *AltAssets* (2006). It is clear, that the number of funds raised has grown rapidly as well as investments. Compared to 1996, during which time 4,448 companies exited with total value of €33.1 billion, in 2005 the rate grew by 11%. This confirms the growing European exit market. Nevertheless, the volume of the exits is still low when looking at the investments. This fact can be interpreted as a growing secondary market in fund participation and investments. The European buyout sector published excellent returns for investors. Contrary to this, the early-stage venture investments noted, on average, negative returns. Buyouts have been increasing very fast, but due to on-going corrections in the credit markets and higher interest rates, the limited availability of loans to complement the funding of buyouts will lead to difficulties in completing the deals. Venture capital is expected to be affected less as these investments are not as dependent on the loan sector as buyouts are. To understand the weak development of European early-stage venture activities, the differences in the pre-venture financing of innovation in Europe and the US should be explained. It is worth noting that institutions such as universities, foundations & endowments and business angels heavily influence the pre-venture stage of the innovation value chain and preparing projects for venture investments. The funds' origins accounted for 60.8% of European fund

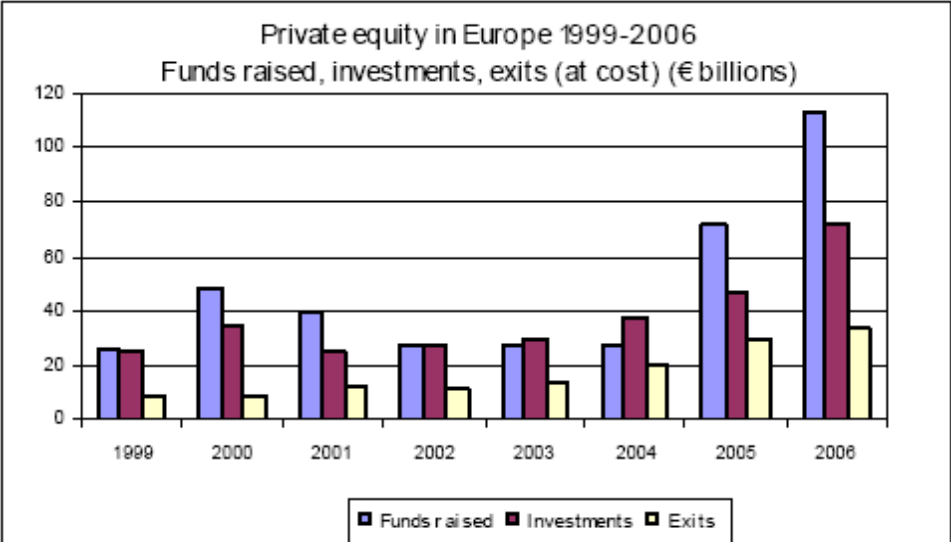
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<sup>101</sup> UNIDO: *How to do business in Poland*, (2006), (ISSN 1642-7823), [http://exchange.unido.org/cmsupload/1509\\_3152528128\\_Poland2005.pdf](http://exchange.unido.org/cmsupload/1509_3152528128_Poland2005.pdf), [14.11.2007], p. 121 - 125

managers in the year 2008, compared to the increase in previous years, the rate is declining. In 2005 it accounted for 65.6% and in 2004 76.0%. Contrary to this, the rate of U.S. derived funds, it amounted to 28.8% in 2006. Moreover, funds originating from other parts of the world are growing, which can be explained by the increasing role of sovereign wealth funds. When analyzing the exit market by using the chart below, the total European PE divestments amounted to €33.1 billion, which has significantly grown when comparing 2005, with its €29.8 billion, and the year 2004, which accounted for €19.6 billion. As previously mentioned, even though exit volumes are growing, in comparison to fundraising, they seem to be rather low.<sup>102</sup>

**Figure 15 Private equity in Europe 1999 – 2006**

**Funds raised, investments, exits (at cost) (€billions)**

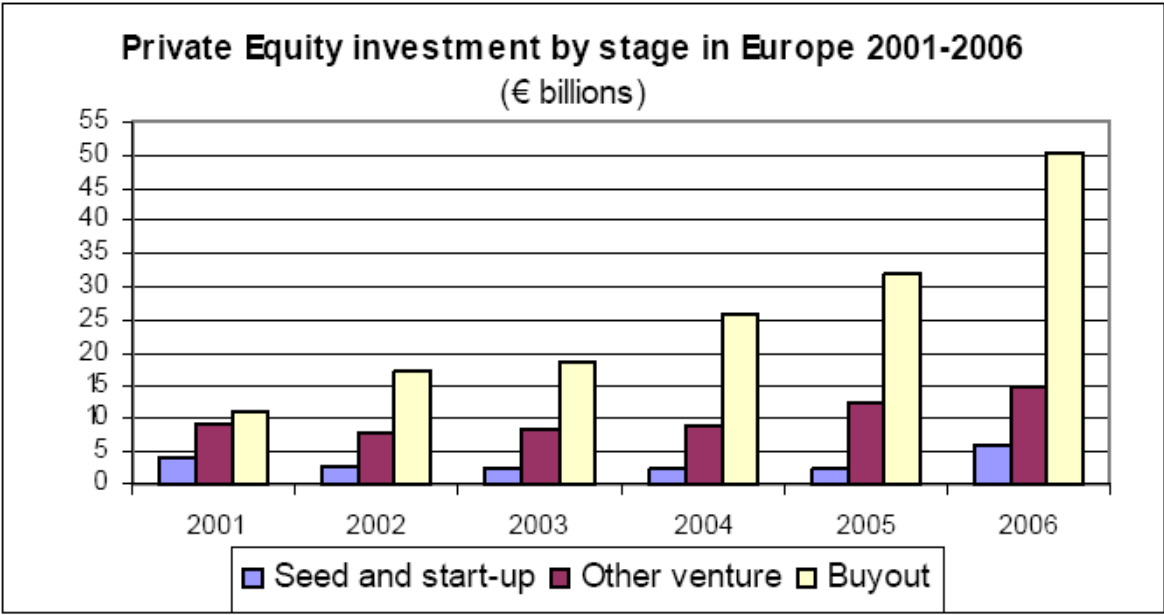


Data source: EVCA

Source: Raade K., Machado Dantas C., (2008), *European Economy, Recent developments in the European private equity markets*, Economic Papers (319), AltAssets, <http://www.altassets.com/pdfs/recentdevelopments.pdf>, [04.10.2007], p.5

<sup>102</sup> AltAssets: *Private capital markets in Poland: A third wave of opportunity and challenge*, (06/09/2006), <http://www.altassets.com/casefor/countries/2006/nz9299.php>, [05.10.2007]

**Figure 16: Private Equity investment by stage in Europe 2001 - 2006**



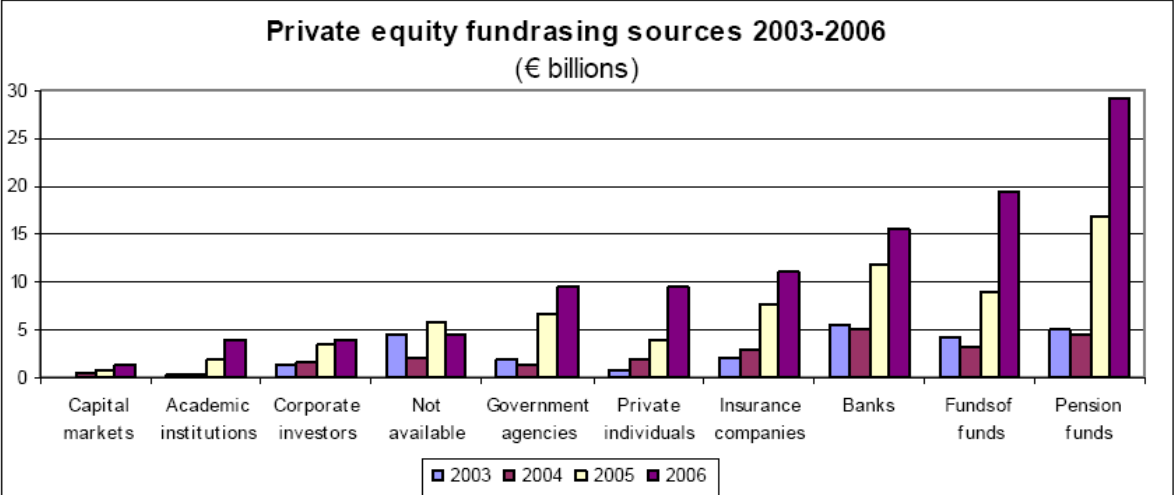
Data source: EVCA

Source: Raade K., Machado Dantas C., (2008), *European Economy, Recent developments in the European private equity markets*, Economic Papers (319), AltAssets, <http://www.altassets.com/pdfs/recentdevelopments.pdf>, [04.10.2007], p.6,

As reflected by the chart below, the main investor classes in PE have changed as pension funds have replaced banks as the largest investors. Although it is still below the U.S. level, this can be interpreted as an indication that the European PE market has matured and this has enabled pension funds to invest in this asset class. Further facts, like a lower risk environment driven by lower debt default rates in firms which were subject to leveraged buyouts, have reinforced this process. Investments done by pension funds accounted for €29.3 billion or 27.1% of total fundraising in 2006. The greatest amounts invested by pension funds has been driven by UK private equity houses, accounting for 83% of total European pension funds raised, what can be interpreted as increasing interest in non-EU pension funds in the European buyout market. Another investment possibility into private equity assets are ‘funds of funds’ which are increasing significantly as well. In the year 2006, funds of funds were the second largest fundraising source accounting for €19.6 billion. In other words 18.2% of total funds were raised. Individual investors accounted for €9.6 billion, or 8.9% of total funds, in 2006. This makes them comparable in size to insurance company investors. Furthermore, the paper published on the homepage of *AltAssets* (2006), noted increasing investments done by

government agencies worth €9.4 billion in 2006, which can be explained by the emergence of sovereign wealth funds seeking to invest actively in the EU.<sup>103</sup>

**Figure 17: Private equity fundraising sources 2003 - 2006**



Data source: EVCA

Source: Raade K., Machado Dantas C., (2008), *European Economy, Recent developments in the European private equity markets*, Economic Papers (319), AltAssets, <http://www.altassets.com/pdfs/recentdevelopments.pdf>, [04.10.2007], p.9

As published by EVCA, compared to the year 2005. where the amount of funds raised accounted €1.8 billion and increased up to €12.3 billion in 2006. The majority of the funds raised were for buyout activities, which accounted for 75%, or €8.4 billion. In response to an initial recovery in performance since the bursting of the technology bubble in 2000, the venture capital sector has improved. Venture capital was represented with 15.5% (€7.5 billion) whereas €5.9 billion accounted for early-stage venture investment.<sup>104</sup> According to EVCA, the focus of investments when comparing 2007 to 2008 remained the same, namely highly innovative sectors such as computer software and IT security, Internet Technology or energy and clean technology. The sharp slowdown of European economic activity in the second quarter of 2008 is reflected in factors such as GDP, which was down by 0.1% in the EU on a quarterly basis. Inflation has also grown from 3.2% in January to 4% in July, and a higher interest rate (LIBOR 12 months in Euros) has arisen from 4.7% in January to 5.3% at

<sup>103</sup> AltAssets: *Private capital markets in Poland: A third wave of opportunity and challenge*, (06/09/2006), <http://www.altassets.com/casefor/countries/2006/nz9299.php>, [05.10.2007]

<sup>104</sup> AltAssets: *Private capital markets in Poland: A third wave of opportunity and challenge*, (06/09/2006), <http://www.altassets.com/casefor/countries/2006/nz9299.php>, [05.10.2007]



the end of August. For 2009 the expected GDP growth in Europe is below 1%. Comparing the IPO activities of the recent past to the previous year 2007, only 11% of the total proceeds generated in the previous year were achieved, while during the first eight months of 2007, 64% of total 2007 proceeds had already been generated.<sup>105</sup> In the buyout sector it could be noted that the relative price that PE houses are willing to pay for large companies has increased significantly in the recent past. Though data about private equity deal prices are hard to come by, some data is available on mid-market buyout EBITDA multiples for Euro zone countries.<sup>106</sup> When observing the activities on the leverage loan market, based on data provided by Standard & Poor's Leveraged commentary & Data (S&P LCD), debt to EBITDA multiples has fallen by 0.46 percentage points from 6.12x in 2007 to 5.66x in the first half of 2008. Furthermore, the senior debt to EBITDA multiple has fallen as well by 0.96 percentage points, from 5.31x in 2007 to 4.35x in the first half of 2008. In spite of the difficult financial circumstances, the average equity contribution for European LBO transactions increased dramatically from 33.6% in 2007 to 42.9% in the first half of 2008.<sup>107</sup> This data underlines the critical financial situation which has occurred at the global level. This leads to the assumption that until the end of this year, any increase in IPO activities should not be expected and in general investment activities will decline significantly. On the other side, due to dramatically low market values and liquidity problems of numerous companies, the PE/VC sector can expect an investment boom in the year 2009, where buyout activities should dominate.

### **3.4 The Private Equity Market in Europe and its Impact on Domestic Macroeconomics**

Whenever market participants are confronted with the terminology “private equity” they first think of the negative reputation related to corporate raiders or their buyout activities which are often published in stories of leverage, job loss and asset-stripping. What is seldom published

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<sup>105</sup> EVCA: *EVCA Barometer September 2008*, [http://www.evca.eu/uploadedFiles/Home/Knowledge\\_Center/EVCA\\_Research/Barometer/September\\_2008.pdf](http://www.evca.eu/uploadedFiles/Home/Knowledge_Center/EVCA_Research/Barometer/September_2008.pdf), [12.03.2008], p. 1 - 12

<sup>106</sup> AltAssets: *Private capital markets in Poland: A third wave of opportunity and challenge*, (06/09/2006), <http://www.altassets.com/casefor/countries/2006/nz9299.php>, [05.10.2007]

<sup>107</sup> EVCA: *EVCA Barometer September 2008*, [http://www.evca.eu/uploadedFiles/Home/Knowledge\\_Center/EVCA\\_Research/Barometer/September\\_2008.pdf](http://www.evca.eu/uploadedFiles/Home/Knowledge_Center/EVCA_Research/Barometer/September_2008.pdf), [12.03.2008], p. 16 - 19

by popular newspapers is the positive impact which this sector can also have on macroeconomic development such as the value, growth and success that PE/VC create. Especially in times when there are economic volatility and unprecedented attention from governments, unions and politicians across Europe, it is important to highlight facts that confirm the positive effect of the PE/VC sector on the economy. Political organizations in Brussels and the new European Parliament and Commission have to understand and note the positive influence of this industry on Europe's economy so that the average citizen can be informed about them as well. Most average citizens of the European countries will not think about the fact that the majority of private equity investments are in SMEs, or about venture-backed start-ups. Nor do they consider that PE makes genuine long-term investments. It is not necessary to understand macroeconomics at the professional level to estimate the effects of this sector on our economy. The effects are visible in people's everyday life, like increased employment rates, wages, and productivity. From the investors' perspective, this means that they have to take responsibility for being clear about ethics or by providing the public with more information about their activities.

EVCA has performed several surveys and undertaken researcher to show the positive impact of the PE/VC sector on the European Economy. In the years 2000 to 2004, the private equity and venture capital sector created approximately one million new jobs in Europe. The VC sector created about 630,000 jobs, whereas buyouts accounted for 420,000 jobs. To get a better overview, compared to the EU25 where the employment rate grew on average 0.7%, in the PE/VC sector the growth rate was approximately 5.4% on an annual basis. Facts such as the one that investments by European PE and VC funds have grown by more than six times from €5.5 billion in 195 to €36.9 billion in 2004, underpin the statement that in the past ten years the private equity and venture capital sector have played an important role in the European economy. Of particular importance is the fact that the number of firms receiving PE or VC has grown from 5,000 to 7,000 in the year 2004.

Within these investments two factors must be pointed out, namely the total value of the invested capital and the number of investments. The largest proportion of capital is invested in buyout deals whereas the venture sector counts for the majority in terms of number of investments. Due to an increase in the private equity and venture capital investments, the industry's contribution to employment, growth and innovation in Europe has grown

significantly.<sup>108</sup> In 1996, EVCA undertook a study to measure the economic impact of the private equity sector (venture capital and buyout) in Europe on the economy. The results of this research prove that venture capitalists contribute positively to the growth of enterprises, sales and employment and, furthermore, to higher research and development (R&D) expenditure and a growing export rate. Since the 1990s, acquisitions of companies have become a significant sector of PE investments.<sup>109</sup>

The industry's positive impact on restructured companies has been reflected in several EVCA studies analyzing the economic and social impact of private equity and venture capital at both pan European and national levels. Studies as 'The Economic Impact of Private Equity and Venture Capital in the UK' by IE Consulting/BVCA in 2003/2004 found out, that 18% of UK private sector employment is attributed to venture capital and private equity sector, and furthermore, during a period of 5 years to 2003/2004 the employment rate in venture capital and buyout-financed companies grew by approximately 20% p.a. on average, whereas 0.5% was the growth of the average employment rate of the UK. Moreover, buyout-financed companies noted a growth of 11% p.a.<sup>110</sup> In summary, it could be said that after the buyout the employment rate has grown significantly.<sup>111</sup>

Not only has the employment sector been positively influenced by the PE/VC sector but also the R&D expenses increased by 27% per year.<sup>112</sup> One could think that only big companies and firms are profiting from the PE sector but the positive development of family business could be proven as well.<sup>113</sup> The positive economic and social influence of the private equity

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<sup>108</sup>EVCA: *Employment contribution of Private Equity and Venture Capital in Europe*, (November 2005), [www.evca.eu/pressroom/pressroom.aspx?id=1434&terms=Employment+contribution+of+Private+Equity+and+Venture+Capital+in+Europe](http://www.evca.eu/pressroom/pressroom.aspx?id=1434&terms=Employment+contribution+of+Private+Equity+and+Venture+Capital+in+Europe), [12.03.2008], p. 3 – 8, p.12 - 29

<sup>109</sup>EVCA: *Survey of the Economic and Social Impact of Management Buyouts & Buyins in Europe*, (January 2001), [www.evca.eu/uploadedFiles/Home/Knowledge\\_Center/EVCA\\_Research/Economical\\_Impact/EconomicImpact\\_Buyouts.pdf](http://www.evca.eu/uploadedFiles/Home/Knowledge_Center/EVCA_Research/Economical_Impact/EconomicImpact_Buyouts.pdf), [12.03.2008], p.3

<sup>110</sup>EVCA: *Employment contribution of Private Equity and Venture Capital in Europe*, (November 2005), [http://www.evca.eu/uploadedFiles/Home/Knowledge\\_Center/EVCA\\_Research/Economical\\_Impact/evca\\_employment\\_contribution\\_pe\\_2005.pdf](http://www.evca.eu/uploadedFiles/Home/Knowledge_Center/EVCA_Research/Economical_Impact/evca_employment_contribution_pe_2005.pdf), [12.03.2008], p.40

<sup>111</sup> EVCA: *Private Equity and Generational Change, The Contribution of Private Equity to the Succession of Family Businesses in Europe*, (March 2005), [www.evca.eu/UploadedFiles/d\\_private\\_equity\\_and\\_generational\\_change\\_2005.pdf](http://www.evca.eu/UploadedFiles/d_private_equity_and_generational_change_2005.pdf), [12.03.2008], p. 3, p. 22

<sup>112</sup>EVCA: *Employment contribution of Private Equity and Venture Capital in Europe*, (November 2005), [www.evca.eu/pressroom/pressroom.aspx?id=1434&terms=Employment+contribution+of+Private+Equity+and+Venture+Capital+in+Europe](http://www.evca.eu/pressroom/pressroom.aspx?id=1434&terms=Employment+contribution+of+Private+Equity+and+Venture+Capital+in+Europe), [12.03.2008], p.5, p. 23 – 25, p.29

<sup>113</sup> EVCA: *Private Equity and Generational Change, The Contribution of Private Equity to the Succession of Family Businesses in Europe*, (March 2005), [www.evca.eu/UploadedFiles/d\\_private\\_equity\\_and\\_generational\\_change\\_2005.pdf](http://www.evca.eu/UploadedFiles/d_private_equity_and_generational_change_2005.pdf), [12.03.2008], p.3, p. 22 - 28

investors on investee companies are reflected by increased exports, sales and profits, higher employment rate, and increased earnings. From the customer point of view, marketing and customer services haven been professionalized, a fact which enforces enterprise activities in the open market of individual companies.<sup>114</sup> These effects can be also explained Okun's law, explained in Chapter 2. Through buyout activities, the output growth of companies has grown over the natural level and the unemployment rate has decreased, which is proven by the rising employment numbers shown by the statistics by EVCA. Higher output growth leads to higher prices, which is reflected in higher inflation rates and lower unemployment rates. This is explained by the Philip's curve relation. For investors, the macroeconomic effect is reflected in the Fisher equation as is the assumption that the real interest rate is equal to the nominal interest rate minus the expected inflation. As output growth will lead to higher expected inflation, the real interest rate will decline and the nominal interest rate may be expected to increase. Of course, this depends on actions taken by the central bank, the current market status and its future prognosis.

Due to the past activities of private equity investments, which have led to the critical reputation of this sector, companies and policy makers have to recognize the potential of buyouts, and to understand this financing method which can optimize the economic and social outcome.<sup>115</sup> During buyout activity, private equity investors are restructuring financing by using the due diligence process that evaluates potential market growth and eliminates possible market risk. The restructuring process replaces the key strategic points, which are similar in most companies, namely net profits, cash flow and sales growth, by the new long-term profitability, market value increment and return on shareholder equity.<sup>116</sup> Especially in cases of family-owned business, the owners and employees do not see the advantages of this sector at first glance, but these strategic actions can save their jobs. They open up access to important financial and operating sources and instruments.

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<sup>114</sup>EVCA: *Survey of the Economic and Social Impact of Management Buyouts & Buyins in Europe*, (January 2001), [www.evca.eu/uploadedFiles/Home/Knowledge\\_Center/EVCA\\_Research/Economical\\_Impact/EconomicImpactBuyouts.pdf](http://www.evca.eu/uploadedFiles/Home/Knowledge_Center/EVCA_Research/Economical_Impact/EconomicImpactBuyouts.pdf), [12.03.2008], p. 3 - 16

<sup>115</sup>EVCA: *Survey of the Economic and Social Impact of Management Buyouts & Buyins in Europe*, (January 2001), [www.evca.eu/uploadedFiles/Home/Knowledge\\_Center/EVCA\\_Research/Economical\\_Impact/EconomicImpactBuyouts.pdf](http://www.evca.eu/uploadedFiles/Home/Knowledge_Center/EVCA_Research/Economical_Impact/EconomicImpactBuyouts.pdf), [12.03.2008], p.16

<sup>116</sup> EVCA: *Private Equity and Generational Change, The Contribution of Private Equity to the Succession of Family Businesses in Europe*, (March 2005), [www.evca.eu/UploadedFiles/d\\_private\\_equity\\_and\\_generational\\_change\\_2005.pdf](http://www.evca.eu/UploadedFiles/d_private_equity_and_generational_change_2005.pdf), [12.03.2008], p. 13 - 17

### **3.5 The Private Equity Market in Poland and its Impact on Domestic Macroeconomics**

Since 1990, the Polish market has established itself for PE houses as one of the most attractive opportunities to gain high rate of returns. The economy has developed on a very fast level with inflation falling from 585.8% annually in 1990 to 0.5% in the year 2003 and furthermore, with an annual growing GDP that reached 7%. At the beginning of the PE/VC activities in the 90s, only a few PE houses were active in this market, ranging in profile from public sources with the goal to stimulate the Polish private sector as the Polish American Enterprise Fund, to private sources such as Invesco which were interested in emerging markets. The fast development of the financial market in Poland has led to the fact that capital for enterprises which would like to expand is available from different sources such as banks, public equity markets, leasing companies, national investment funds and corporate investors. Within these capital sources, PE/VC houses focus mainly on firms which occupy dynamic market segments and take part in buyout transactions. In the recent past of 13 years more than 60 PE funds have been established to invest in Poland and other CEE countries. This capital, worth approximately €5 billion, is mainly from foreign institutional and multilateral sources.<sup>117</sup>

Due to facts like rising and developing funds and an increase in the number of divestments like IPOs, Poland and other CEECs have become dynamic private equity markets. At the beginning of the transition process, which was supported by the Polish Private Equity Association (PPEA), the main barriers were a lack of private equity investors' experience, government restrictions on the compensation, and constraints on the implementers. These factors limited the fund's ability to attract the right individuals to manage portfolios.<sup>118</sup> According to IMF (2006) working papers, Poland's main differences from developed countries were its huge agricultural sector and numerous small businesses, which made it difficult for investors to operate in way which they were accustomed to. Additionally, in some

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<sup>117</sup>PPEA: *PE/VC market, Private equity market in Poland: A Historical Survey*, [www.ppea.org.pl/new/rynek3.php](http://www.ppea.org.pl/new/rynek3.php), [04.10.2007]

<sup>118</sup>Lerner J., Hardyman F. and Leamon A., (2005), *Venture Capital and Private Equity*, Third Edition, John Wiley & Sons, Inc., p. 340 - 341

countries, government bodies conducted lengthy reviews of potential investments, therefore funds lost the opportunity to make attractive deals.

Not only sector specific indicators influenced the Polish financial market. A very influential factor was the pension fund sector reform, which involved the introduction of a multi-pillar pension system. In the following years the pension fund sector had become one of the most important institutional investors in Poland beside private individuals, government agencies and banks. Pension fund assets reached nine percent of GDP in 2005, accounting for more than ten percent of the financial sector. Additionally, smaller companies have gained pension funds as important shareholders.<sup>119</sup> This is supported by data like that of pension fund managers, who are interested in initial offerings, take companies as small as PLN 75 million (\$25 million) in enterprise valuation into consideration.<sup>120</sup> There are approximately ten major pension fund investors in Poland. Their target is to allocate assets to growth-oriented stocks and so to participate in new issues.<sup>121</sup>

Investing in young financial markets, such as Poland, can be difficult for several reasons. More firms rely on debt than on shares of stock or retained earnings. Factors like the age of a company, reputation and the relationship of the main shareholders of the Warsaw Stock Exchange (WSE) to the firms, can have a great impact on firm monitoring.<sup>122</sup> It is highly recommended to have a look at the relationship between the current growth in value of the stock exchange and future growth in real output of Poland as it can help in drawing some conclusions for the future. It has been investigated that the largest shareholders in the Warsaw Stock Exchange, such as the state, banks and investment companies, do not have an adverse impact on firms' capital structure but more a neutral or even beneficial effect.<sup>123</sup> Additionally, achievement of high returns on the WSE, reflect the lower risk of private capital markets in Poland than on public markets.

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<sup>119</sup> IMF, (2006) *Republic of Poland: Financial Sector Assessment Program – Technical Note - Competition and Performance in the Polish Second Pillar*, IMF Country Report (No.06/104), International Monetary Fund, p. 13 - 15

<sup>120</sup> AltAssets: *Private capital markets in Poland: A third wave of opportunity and challenge*, (06/09/2006), <http://www.altassets.com/casefor/countries/2006/nz9299.php>, [05.10.2007]

<sup>121</sup> IMF, (2006) *Republic of Poland: Financial Sector Assessment Program – Technical Note - Competition and Performance in the Polish Second Pillar*, IMF Country Report (No.06/104), International Monetary Fund, p. 11 - 14

<sup>122</sup> Hussain Q., Nivorozhkin E., (1997), *The Capital Structure of Listed Companies in Poland*, IMF Working Paper (WP/97/175), International Monetary Fund, p 16

<sup>123</sup> Hussain Q., Nivorozhkin E., (1997), *The Capital Structure of Listed Companies in Poland*, IMF Working Paper (WP/97/175), International Monetary Fund, p. 17 - 18

Although the markets for privately issued fixed income instruments are small, in recent years, the equity market in Poland has been increasingly active.<sup>124</sup> The dynamic position of Poland in the private equity market is confirmed through statements that for example, in 2003 private equity investments in Poland were higher than in other EU countries, such as Austria (EUR 113 million), Hungary (EUR 111 million) and Portugal (EUR 116 million). Furthermore, compared to the years 2003 and 2002, investments of private equity companies increased by 39 percent, and foreign-based private equity managers grew by 80 percent in the year 2003.<sup>125</sup> In 2005 the key targets of Polish private equity companies were later stages of development and replacement capital with 65 percent and buyouts ranking 32 percent.<sup>126</sup> The big advantage of this market is a strong exit market dominated by trade sales to investors and IPOs on the stock exchange, representing 64 percent and 19 percent of the total amount divested in 2005. More than 350 investments amounting to €1.8 billion have been invested since 1990, and between the years 2004 and 2005 sixty-eight IPOs have taken place.<sup>127</sup> This success of the exit market is justified not only by interesting combinations of successful exit sell-offs but also by a large numbers of new issuers by private mid-cap companies and the appearance of foreign issuers in the local market. Further, the key findings of the ‘Private Equity Confidence Survey’ (2007) of the company Deloitte Touche Tohmatsu confirmed that the IPO exits are also considered for middle size companies and it is expected that this trend will continue. Furthermore, they noted that on average investments are made for approximately less than two years which is confirmed by the table below and underlines the fact that this market is still in its transition phase as in developed countries investments are also done for duration of 10 years.<sup>128</sup> Moreover, the table mentioned below reflects very well the growing number of IPOs on WSE.

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<sup>124</sup> IMF, (2006) *Republic of Poland: Financial Sector Assessment Program – Technical Note - Competition and Performance in the Polish Second Pillar*, (2006), IMF Country Report (No.06/104), International Monetary Fund, p. 15 - 19

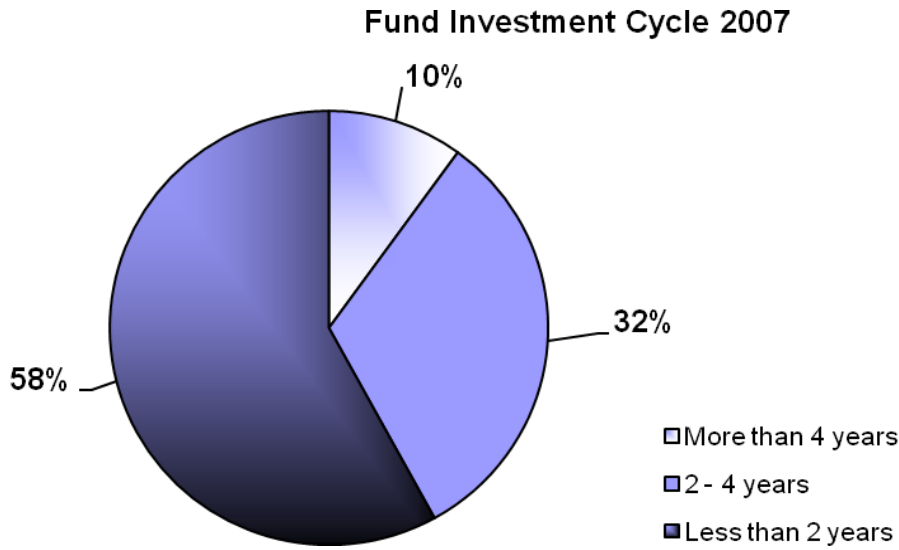
<sup>125</sup> EVCA: [www.evca.com/html/press\\_keyAchievements1.asp](http://www.evca.com/html/press_keyAchievements1.asp), [12.03.2008]

<sup>126</sup> AltAssets: *Private capital markets in Poland: A third wave of opportunity and challenge* (06/09/2006), <http://www.altassets.com/casefor/countries/2006/nz9299.php>, [05.10.2007]

<sup>127</sup> EVCA: [www.evca.com/html/press\\_keyAchievements1.asp](http://www.evca.com/html/press_keyAchievements1.asp), [12.03.2008]

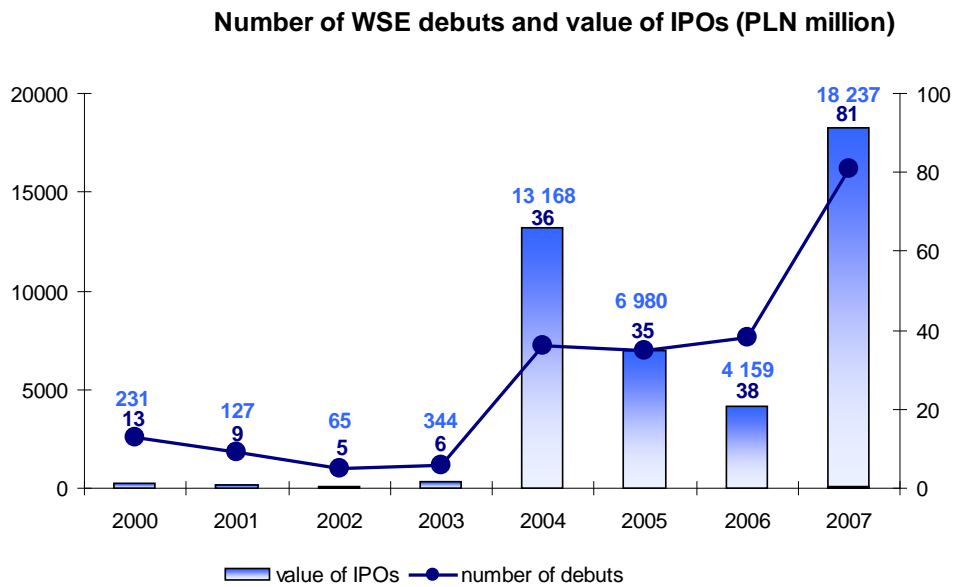
<sup>128</sup> Deloitte Touche Tohmatsu, Financial Advisory, Garret Byrne: *Central European Private Equity Confidence Survey* ( July 2007), [www.deloitte.com/dtt/cda/doc/content/cz\\_fas\\_private\\_equity\\_ce\\_240707.pdf](http://www.deloitte.com/dtt/cda/doc/content/cz_fas_private_equity_ce_240707.pdf), [04.10.2007], p. 4 - 7

**Figure 18: Fund Investment Cycle 2007**



Source: Deloitte Touche Tohmatsu, Financial Advisory, Garret Byrne: *Central European Private Equity Confidence Survey*, (2007), [www.deloitte.com/dtt/cda/doc/content/cz\\_fas\\_private\\_equity\\_ce\\_240707.pdf](http://www.deloitte.com/dtt/cda/doc/content/cz_fas_private_equity_ce_240707.pdf), [04.10.2007], p. 7

**Figure 19: Number of WSE debuts and value of IPOs (PLN million)**



Source: WSE : *Annual Report 2007*, [www.gpw.pl/zrodla/gpw/pdf/annual/raport2007/raport2007.pdf](http://www.gpw.pl/zrodla/gpw/pdf/annual/raport2007/raport2007.pdf) , [01.10.2008], p.22

When observing and interpreting the private capital market of Poland, some private equity experts like AltAssets (2006) are talking about a third wave of opportunity and challenges.



They describe the domestic portfolio as well diversified, including medium and small companies. Further the recent survey of M.C. Alcamo & Co., Inc indicated that media companies, including two internet companies, listed at about four times turnover on the Warsaw stock exchange. Hence, it could be denoted that in recent years, exchange rate depreciation did not have any significant effects on bank soundness, what leads to the assumption that the correlation between the soundness of Polish banks and the level of economic and institutional development seems to be negative. Reflecting the recent developments on the financial market this assumption cannot be completely true as the weak soundness of numerous banks has heavily influenced the economy in several countries. Only a few of the approximately forty funds that operate in Poland, which are spread across bank-sponsored groups with no capital at work as yet, to active teams with well-developed portfolios, had fixed investment criteria or industry focus. Firms such as Enterprise Investors seek larger regional deals, while Krokus Private Equity focuses mainly on Polish growth sector. Generally, many private equity investors do not focus on only one or two industries as the market has not yet reached industry specialization. The status quo of the domestic market is also reflected in the fact, that the private equity market consists of mainly mature venture capital or expansion capital, and new funds are usually raised for the whole region often by management groups headquartered outside of Poland.<sup>129</sup>

Although the average divestment activity reached 30 percent annual growth, with a value of €8.7 million in 2004 to €15.6 million in 2005, the number of transaction decreased from 53 divestments in 2004 to 40 in 2005, what can lead to the assumption that more buy-outs of mid-size to big companies have taken place and less start-up firms could get financial support.<sup>130</sup> In the year 2005, start-ups accounted for only 0.3 percent of total investments, while there were no seed capital investments.<sup>131</sup> Hence, the situation from the first years of private equity companies where mainly later-stage investments, as for example mezzanine transactions, were the target of private equity market in developing countries has not really changed.<sup>132</sup> To boost this process, recently the subsidiary of the state-owned bank, Bank Gospodarstwa Krajowego (BGK), funded the so called National Capital Fund (KFK) to solve the equity gap of mainly dynamic and innovative companies. The target of KFK is to support

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<sup>129</sup> AltAssets: *Private capital markets in Poland: A third wave of opportunity and challenge*, (06/09/2006), <http://www.altassets.com/casefor/countries/2006/nz9299.php>, [05.10.2007]

<sup>130</sup> EVCA: [www.evca.com/html/press\\_keyAchievements1.asp](http://www.evca.com/html/press_keyAchievements1.asp), [12.03.2008]

<sup>131</sup> AltAssets: *Private capital markets in Poland: A third wave of opportunity and challenge*, (06/09/2006), <http://www.altassets.com/casefor/countries/2006/nz9299.php>, [05.10.2007]

<sup>132</sup> EVCA: [www.evca.com/html/press\\_keyAchievements1.asp](http://www.evca.com/html/press_keyAchievements1.asp), [12.03.2008]

the finance provided by private equity and venture capital houses along with finance from private investors and to make use of funds from the European Regional Development Fund. Therefore, it is expected that KFK may give another boost to the private equity and venture capital sector.<sup>133</sup>

On the one hand investors can obtain a superior yield by investing in Central Europe but on the other side, uncertainty and transaction risk is higher than in developed countries. Foreign investors also face attractive incentives such as special tax treaties with a total exemption from income tax for a considerable period. Industries such as wine and spirits, while goods manufacturer and telecom enjoy these preferential treatments. Generally in Poland the Corporate Income Tax (CIT) rate was at 19 percent in the year 2005, the Personal Income Tax (PIT) was at three thresholds, with 19 percent, 30 percent and 40 percent. The tax rate for dividends stood at 19 percent in the year 2005, what was also subject to company investments and income from the liquidation of the company. The tax rate on interest and royalties paid to non-residents remained 20 percent. Due to the association to the EU double tax treaties reduced the tax rates, as interest and royalties to EU residents have received special treatment. Since March 2005, amendments to regulations on business activity in Special Economic Zones (SEZ) came into force what opened a lot of new investment opportunities for the investors. Services such as information technology, research and development, accounting, bookkeeping and technical research can be conducted within SEZs. The big advantage of SEZs is that they offer income exemptions up to 50 percent of investment expenditure and furthermore, entities classified as small or medium-sized can be granted income tax exemptions up to 65 percent of their investment expenditure. Therefore, special investments in these zones can enjoy total exemption from income tax for a considerable period, what should attract a lot of potential investors as PE/VC funds.<sup>134 135</sup>

According to Lerner et al (2005), an additional economic opportunity which attracts a lot of investors is the younger average age as well as cultural differences. This may lead to an increasing money supply, as the rate of retirement savings is steady growing in developing countries. Thus, the booming retirement savings sector is another possible source of funds for the domestic private equity investors. Generally it could be observed that retirement savings

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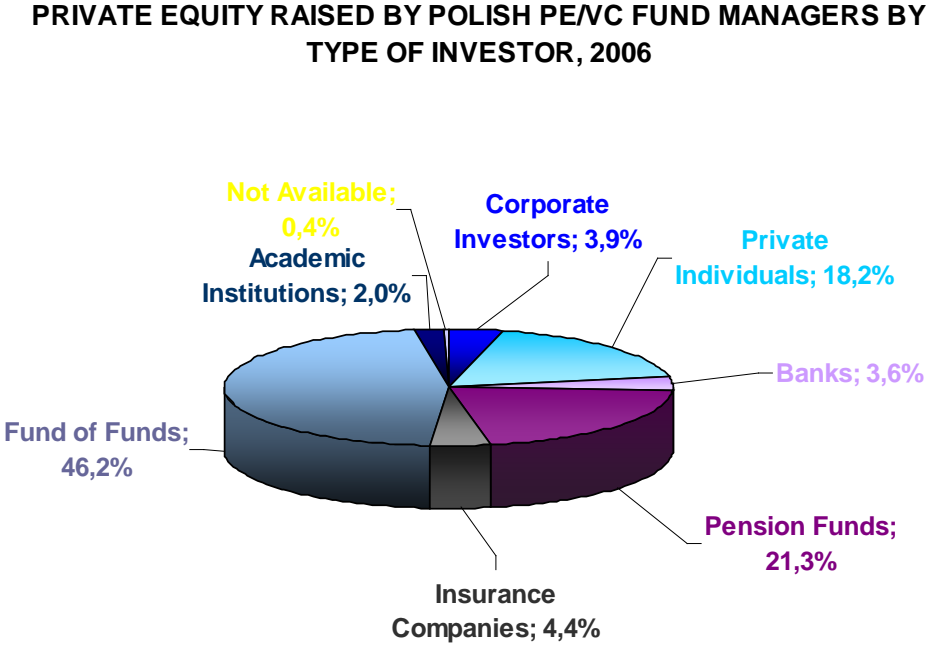
<sup>133</sup> PPEA: *EVCA Yearbook 2006*, <http://www.psyk.org.pl/new/docs/poland.pdf>, [12.03.2008], p. 1

<sup>134</sup> AltAssets: *Private capital markets in Poland: A third wave of opportunity and challenge*, (06/09/2006), <http://www.altassets.com/casefor/countries/2006/nz9299.php>, [05.10.2007]

<sup>135</sup> EVCA: *Private Equity Fund Structures in Europe, An EVCA Tax and Legal Committee Papers*, (January 2006), [www.evca.eu/uploadedFiles/fund\\_structures.pdf](http://www.evca.eu/uploadedFiles/fund_structures.pdf), [05.10.2007], p. 145 - 148

in the developing countries have increasingly become an important capital source. Although many of the individual savings are still invested informally in the privately held businesses of relatives and friends, little has been directed into institutional private equity funds. In future years, because of the privatization of the retirement savings, these patterns are likely to change and increase the capital.<sup>136</sup>

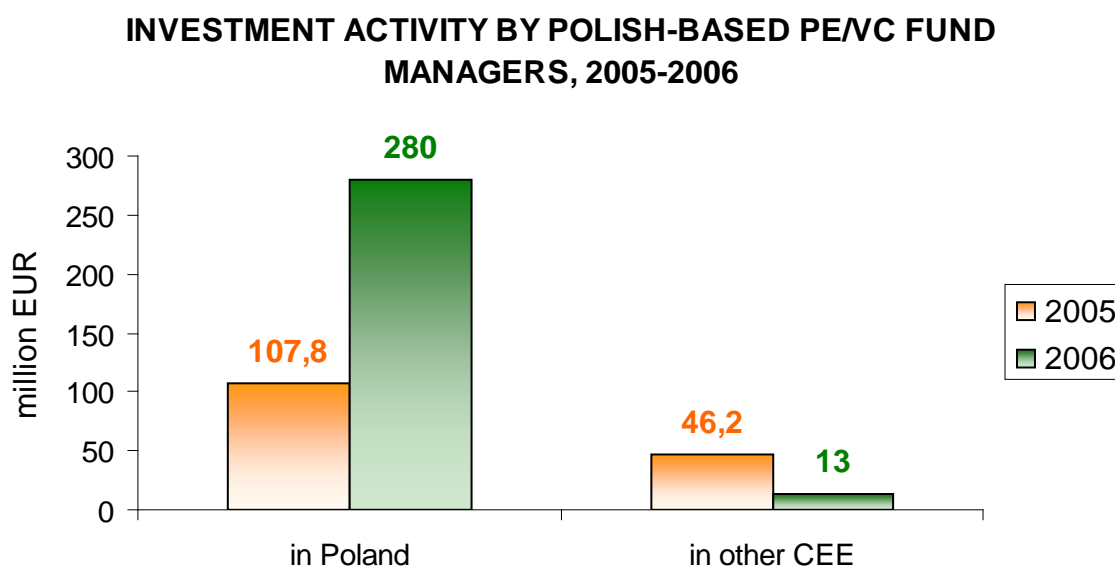
**Figure 20: Private Equity raised by Polish PE/VC fund managers by type of investor, 2006**



Source: PPEA : PE/VC market, Polish Fund Managers in 2006[1], [www.ppea.org.pl/new/rocznik2006.php](http://www.ppea.org.pl/new/rocznik2006.php), [04.10.2007]

<sup>136</sup> Lerner J., Hardyman F. and Leamon A., (2005), *Venture Capital and Private Equity*, Third Edition ,John Wiley & Sons, Inc., p. 341

**Figure 21: Investment activity by Polish-based PE/VC fund managers, 2005 - 2006**



Source: PPEA : *PE/VC market, Polish Fund Managers in 2006*[1], [www.ppea.org.pl/new/rocznik2006.php](http://www.ppea.org.pl/new/rocznik2006.php), [04.10.2007]

According to PPEA, the PE/VC activities in Poland reached a level of €84 million in the year 2007. Compared to the previous year amounting to €303 million, it has more than doubled. The investment target was the same as in the years before, namely mature companies, where buyout and replacement capital transaction accounted for €47 million or 80% of total investment value. Further, the investment strategy has not changed as venture investments accounting for 20% were on the second slot, which included early stage financing as start-up and expansion capital. A minority of €4.3 million of these activities has been invested in seed and start-up companies. Sectors like business & industrial products and financial services got the highest investment capital amounting to €138 million and €133 million respectively in 2007. On the second slot was the transportation sector where PE/VC houses invested €12 million or 16% of the total value. The exit market noted 33 Polish companies with a combined cost of €175 million. Compared to the year 2006, this is an increase of 27%. As published by the PPEA, the most common exit form was sale to other PE firms, accounting for 55% for all exits. Trade sale accounted for 13% of total exits, repayment of principal loans for 13% whereas divestment by public offering noted 3.4%, what compared to the year 2006 has fallen.<sup>137</sup> The macroeconomic impact on the Polish

<sup>137</sup> PPEA: *PE/VC market, Polish private equity / venture capital market in 2007*, [www.ppea.org.pl/new/rynek\\_private\\_equity\\_2007.php](http://www.ppea.org.pl/new/rynek_private_equity_2007.php), [04.10.2007]

market has been reflected in the data above; increasing numbers of investments lead to higher market capitalization, industrial growth, and furthermore, to more jobs offered. Although the economic development status between the Polish market and the UK are different, the effect of the PE/VC sector on the domestic macroeconomics are expected to be the same, namely an increase of the employment rate which is mainly caused by higher investments in buyout transactions.

**Table 4: Sector distribution of investments in Poland, 2007**

<b>In million EUR</b>	<b>Amount invested</b>	<b>%</b>	<b>Number of companies</b>	<b>%</b>
Chemical and materials	0.9	0.1	1	1.5
Life sciences	102.8	15	5	7.7
Computer & consumer electronics	26.3	3.8	5	7.7
Communications	11.8	1.7	17	26.2
Consumer goods and retail	74.7	10.9	6	9.2
Consumer services: other	6.3	0.9	4	6.2
Bus. & industrial prod.	138.2	20.2	11	16.9
Bus. & industrial services	2.6	0.4	1	1.5
Transportation	111.7	16.3	2	3.1
Construction	12.8	1.9	3	4.6
Energy and environment	62.0	9.1	2	3.1
Financial services	133.5	19.5	8	12.3
<b>Total investment</b>	<b>683.6</b>	<b>100</b>	<b>65</b>	<b>100</b>

Source: PPEA: *PE/VC market, Polish private equity / venture capital market in 2007*, [www.ppea.org.pl/new/rynek\\_private\\_equity\\_2007.php](http://www.ppea.org.pl/new/rynek_private_equity_2007.php), [04.10.2007]

**Table 5: Breakdown of investments by stages in Poland, 2007**

<b>In million EUR</b>	<b>Amount invested</b>	<b>%</b>	<b>Number of companies</b>	<b>%</b>
Seed	2,483	0.4	4	6.2%
Start-up	1,815	0,3	9	13.8%
Expansion	131,286	19,2	23	35,4%
Rescue/Turnaround	1,257	0.2	1	1.5%
Replacement and Buyout	546,678	80	28	43%
<b>Total Investment</b>	<b>683,519</b>	<b>100,0</b>	<b>65</b>	<b>100.0%</b>

Source: PPEA: *PE/VC market, Polish private equity / venture capital market in 2007*, [www.ppea.org.pl/new/rynek\\_private\\_equity\\_2007.php](http://www.ppea.org.pl/new/rynek_private_equity_2007.php), [04.10.2007]

### ***3.5 A Comparison of the Private Equity Market in Poland to Developed Countries and Transition Economies***

The highly developed PE/VC European market is confirmed by the fact that most business plans were rejected not due to legal issues or rigidity of entrepreneurs, but because of the wrong investment focuses, such as sector or vague business plans. According to EVCA (2008), which compared the IPO market around the globe, Asia was noticed as the most active region. 41 new companies were registered on the stock market, with a total of €2.5 billion in proceeds. This year, 219 Asian firms were listed on public markets. Compared to the European and American companies this is twice the amount of those who were listed in the first eight months of this current year. When comparing the IPO activities across Europe, the Czech materials company *New World Resources* remains the largest IPO in May in Europe, year-to date with raising €1.61 billion. The second largest IPO pursuit is the Portuguese energy and power company *Edprenovaveis* accounting for €1.57 billion in total revenues.

In terms of proceeds with IPO, the London Stock Exchange is the most popular accounting 10 IPOs worth €3.4 billion. By contrast, looking at the number of firms listed, the WSE is on the

top accounting 13 IPOs until now. In the US, IPO activities have declined, 5 companies were listed in May 2008, generating €746 million in proceeds, which is significantly lower than the €2 billion proceeds generated in April through 7 IPOs. Until May 2008, the biggest IPO was of the financial company *Visa Inc.*, which accounted for €12.6 billion. Europe registered positive results in the second quarter of the year 2008, where it noted eight times more proceeds than in the first quarter, counting 23 IPOs by European companies worth €4.2 billion, whereas the first quarter counted 30 IPOs generating €533 million. The effects of the financial problems coming from the US were already significant in these quarters, as comparing these data to the previous year where in the same period 186 companies were generated and this year only 53 European companies have been launched on international stock markets. The Asian market also published falling numbers. In comparison to the previous year 2007, 30% less revenues were noted and 8% less firms were listed. Nevertheless, comparing all countries with each other, the London AIM comes first counting 12 IPOs, the New York Stock Exchange noted 64 IPOs worth €35 billion in June 2008. Concentrating on the number of deals, the NASDAQ noted the most with 122 IPOs generating more than €10 billion in revenues. The Hong-Kong stock exchange reached more than €3.7 billion in proceeds from 12 IPOs, where the Shanghai stock exchange posted €2.9 billion in proceeds with 2 IPOs and the Shenzhen stock exchange led with the number of IPOs with 43 firms. As published by EVCA (2008), when we look at the leverage loan market activities, a decrease of debt to EBITDA multiples by 0.28 percentage points from 6.12x in 2007 to 5.84x in the first quarter of 2008 could be denoted. Moreover, the senior debt to EBITDA multiple has fallen by 0.89 percentage points from 5.31x in 2007 to 4.42x in Q1 2008.<sup>138</sup>

Looking further at the M&A activities, it could be said that Western Europe dominated this sector with 6,466 M&A transactions worth €540 billion. In other words, Western Europe represents 81% in terms of revenue of the total European M&A activities and 76% in terms of transactions. Compared to the year 2007, the difference is not that much; it represented 88% in terms of revenue of total M&A activities and 84% in terms of deal numbers. Within Western Europe, the dominate market was the United Kingdom, registering about one third of the total Western Europe M&A activities and 2,061 M&A transactions. The country with the second highest deal value is France, with 691 deals of €104 billion total value. In terms of

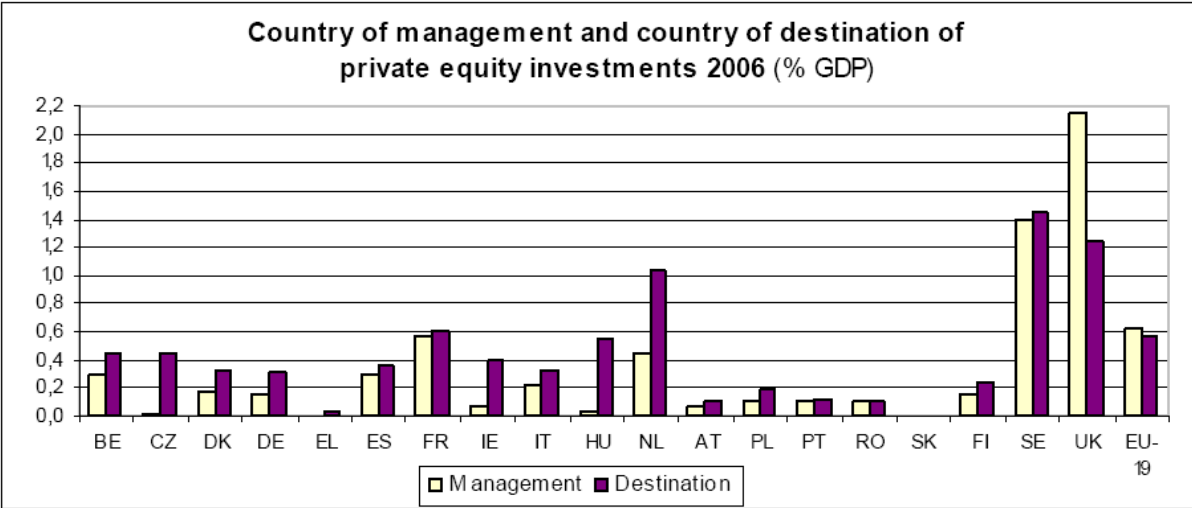
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<sup>138</sup> EVCA: *EVCA Barometer June 2008*, [www.evca.eu/uploadedFiles/Home/Knowledge\\_Center/EVCA\\_Research/Barometer/June\\_2008.pdf](http://www.evca.eu/uploadedFiles/Home/Knowledge_Center/EVCA_Research/Barometer/June_2008.pdf), [04.10.2008], p.20

deal numbers, Germany is the second market posting 887 M&A proceeds worth €35 billion. The M&A activities in Eastern Europe were significantly lower compared to Western Europe, accounting 2,049 M&A transactions of total value €126 billion. Comparing this data with the previous year 2007, this is already 86% of the total 2007 M&A transactions in this region. On a monthly basis, this means that in the year 2008, in the first eight months, 256 M&A transactions have taken place accounting for € 16 billion. Comparing the Eastern Europe countries, the most active country is the Russian Federation in terms of M&A transactions, with 804 M&A deals worth €8 billion. The country with the second highest deal number is Poland, with 302 M&A deals worth €4 billion. In contrast to this in terms of the total value, Turkey has reached the second highest value with €10 billion and 69 deals.<sup>139</sup>

Analyzing the total investments by country expressed in percentage of GDP which accounted for 0.61% in year 2006, the table below reflects the leading level of the UK which was 2.15%, followed by Sweden with 1.39%, whereas in Poland, the ratio was approximately 0.1%.<sup>140</sup>

**Figure 22: Country of management and country of destination of private equity investments 2006 (% GDP)**



Data source: EVCA

Source: Raade K., Machado Dantas C., (2008), *European Economy, Recent developments in the European private equity markets*, Economic Papers (319), AltAssets, <http://www.altassets.com/pdfs/recentdevelopments.pdf>, [04.10.2007], p. 11

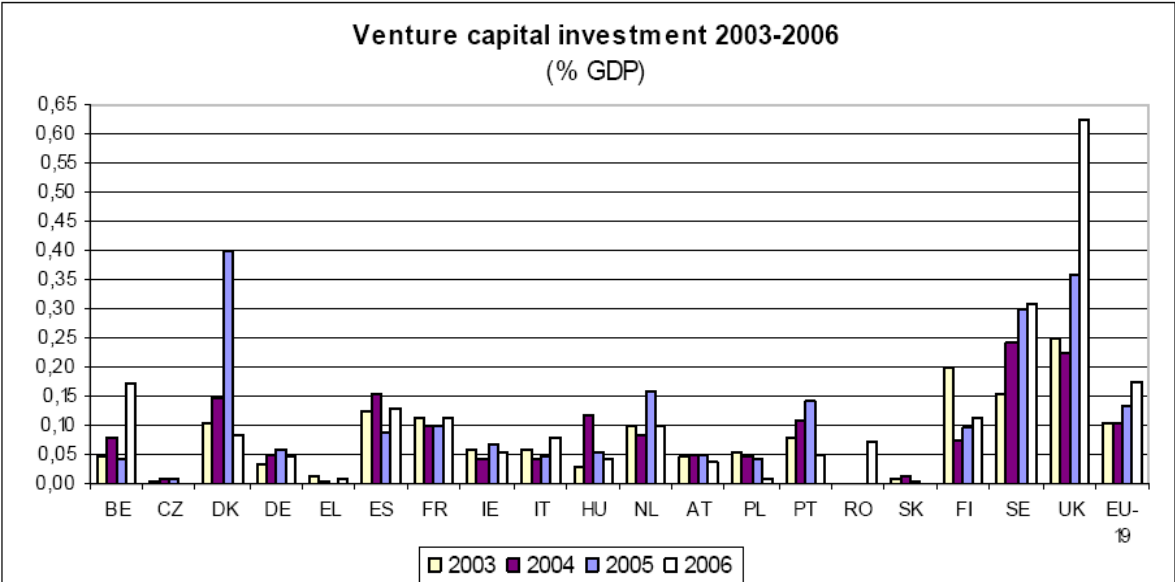
<sup>139</sup>EVCA: *EVCA Barometer September 2008*, [http://www.evca.eu/uploadedFiles/Home/Knowledge\\_Center/EVCA\\_Research/Barometer/September\\_2008.pdf](http://www.evca.eu/uploadedFiles/Home/Knowledge_Center/EVCA_Research/Barometer/September_2008.pdf), [15.11.2007], 14 - 19

<sup>140</sup> AltAssets: *Private capital markets in Poland: A third wave of opportunity and challenge*, (06/09/2006), <http://www.altassets.com/casefor/countries/2006/nz9299.php>, [05.10.2007]



As compared to the year 2003, where venture capital investment as percentage of GDP accounted for only 0.10%, in the year 2006, the European VC market reached 0.18% of GDP, close to the US rate of 0.20%. Due to the presence of numerous VC houses in the UK, which are capable of investing on a cross-border basis and encouraged by government actions to invest in early-stage projects, the UK is also the leading country in this sector. It can be said that governmental schemes have had a significant, positive effect on the level of early stage venture investments.<sup>141</sup>

**Figure 23: Venture capital investment 2003 – 2006 (% GDP)**



Data source: EVCA

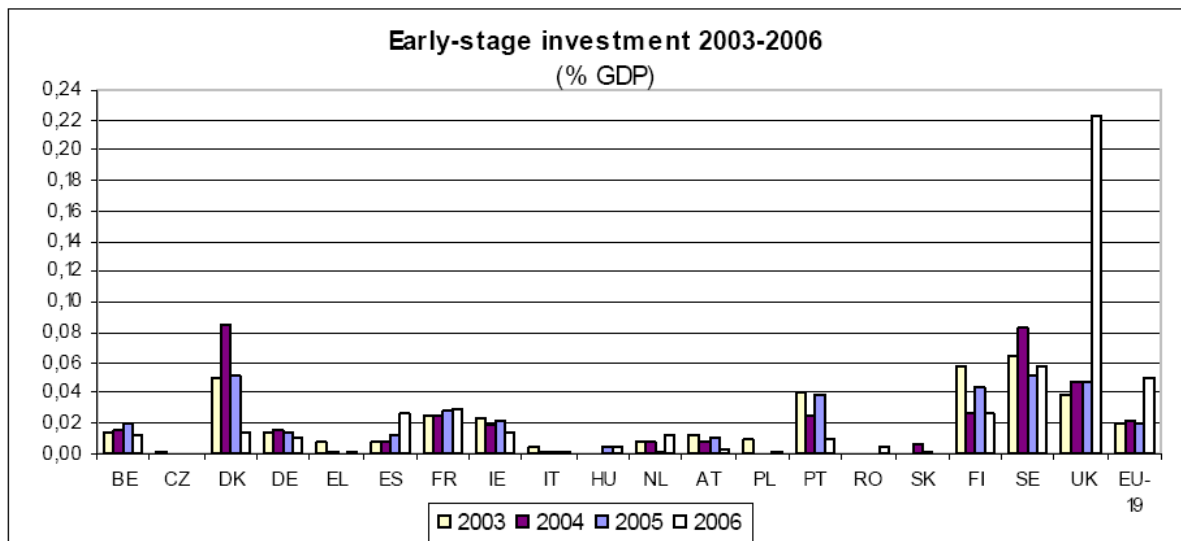
Source: Raade K., Machado Dantas C., (2008), *European Economy, Recent developments in the European private equity markets*, Economic Papers (319), AltAssets, <http://www.altassets.com/pdfs/recentdevelopments.pdf>, [04.10.2007], p. 13

Investments with high risk but potentially higher profits such as early stage segments are also the highest in the UK, where the existence of an organized business angel community that feeds opportunity to venture capitalists could be seen as the reason.<sup>142</sup> The data presented here highlights the UK’s leading position in the PE/VC and financial market in general.

<sup>141</sup> AltAssets: *Private capital markets in Poland: A third wave of opportunity and challenge*, (06/09/2006), <http://www.altassets.com/casefor/countries/2006/nz9299.php>, [05.10.2007]

<sup>142</sup> AltAssets: *Private capital markets in Poland: A third wave of opportunity and challenge* (06/09/2006), <http://www.altassets.com/casefor/countries/2006/nz9299.php>, [05.10.2007]

**Figure 24: Early-stage investment 2003 – 2006 (% GDP)**



Data source: EVCA

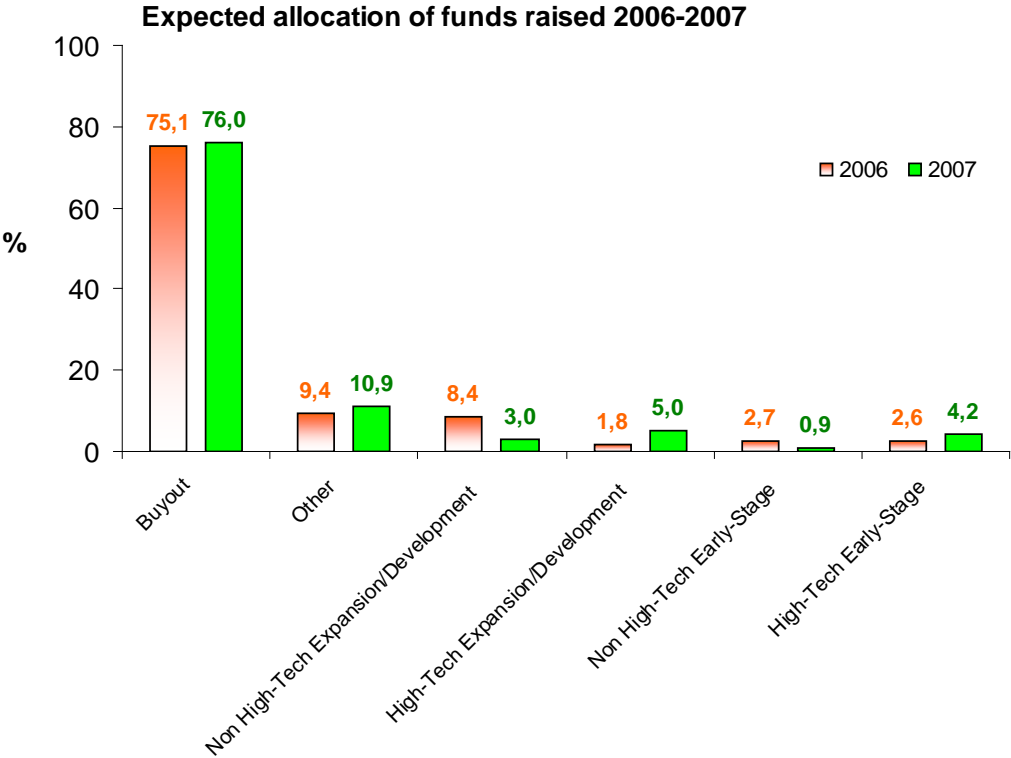
Source: Raade K., Machado Dantas C., (2008), *European Economy, Recent developments in the European private equity markets*, Economic Papers (319), AltAssets, <http://www.altassets.com/pdfs/recentdevelopments.pdf>, [04.10.2007], p. 14

It is important to look at one of the first steps of PE/VC houses, namely fundraising. As previously mentioned, in Europe the source of fundraising has changed to pension funds. However, in European countries such as Austria, Belgium, France, Italy, the Netherlands, Portugal and Spain, banks are still accounting for the most sources of funds.<sup>143</sup> In the year 2007, investments done by PE/VC houses, accounted for €73.8 billion, whereas about 5,200 European firms received this capital. 85% of these enterprises accounted for fewer than 500 employees, which highlights the fact that the PE sector is focusing on SMEs. As already noted, several surveys which have been done between 2000 and 2004, confirmed that PE/VC companies have created one million new jobs. Comparing this effect in percentage to the EU25 total employment rate, which was 0.7%, the employment rate in the PE/VC sector was eight times higher amounting to 5.4%. Moreover, the average employment rate in buyout-financed firms, which were the main target of PE/VC houses, was 2.4%, whereas the employment rate for venture-backed firms was 30.5%.<sup>144</sup>

<sup>143</sup> AltAssets: *Private capital markets in Poland: A third wave of opportunity and challenge*, (06/09/2006), <http://www.altassets.com/casefor/countries/2006/nz9299.php>, [05.10.2007]

<sup>144</sup> EVCA: *Key Facts and Figures*, [www.evca.eu/publicandregulatoryaffairs/default.aspx?id=86](http://www.evca.eu/publicandregulatoryaffairs/default.aspx?id=86), [15.11.2007]

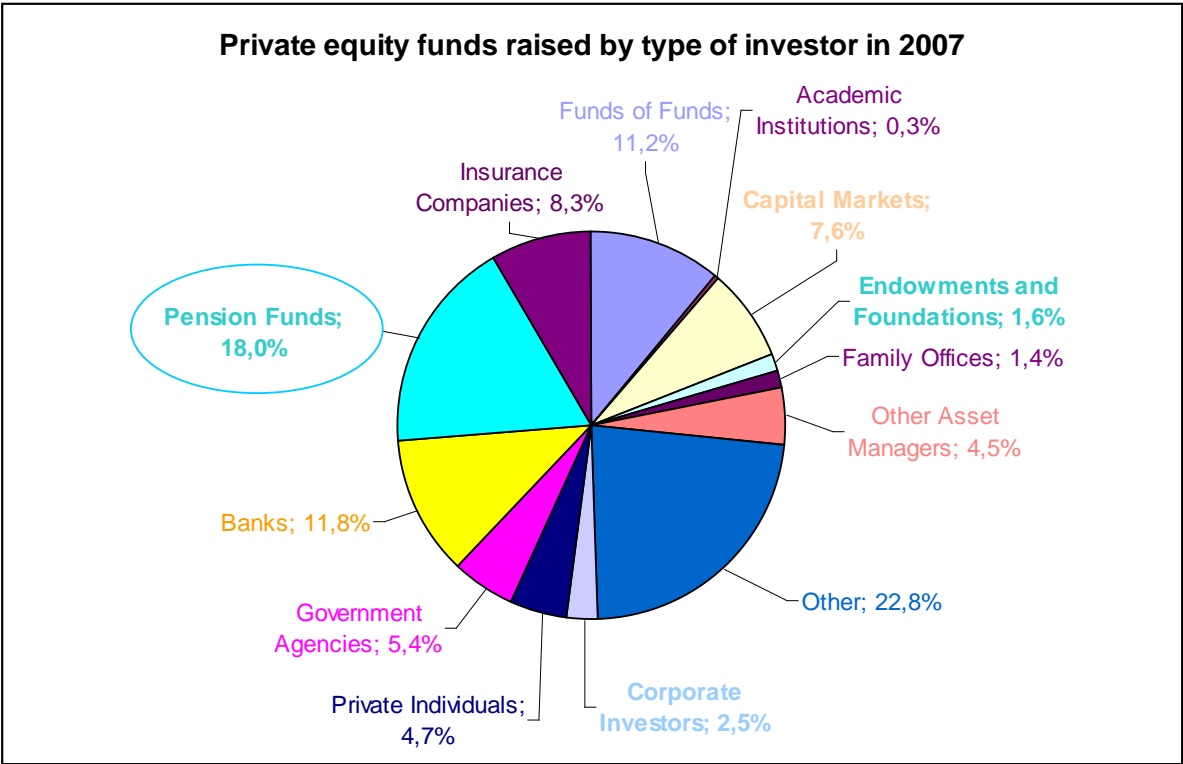
**Figure 25: Expected allocation of funds raised 2006 - 2007**



Source: EVCA, (2007):

[www.evca.eu/uploadedFiles/Home/Knowledge\\_Center/EVCA\\_Research/Statistics/4\\_2\\_Fundraising/08FR\\_3\\_ExpectedAllocation.pdf](http://www.evca.eu/uploadedFiles/Home/Knowledge_Center/EVCA_Research/Statistics/4_2_Fundraising/08FR_3_ExpectedAllocation.pdf), [04.10.2008]

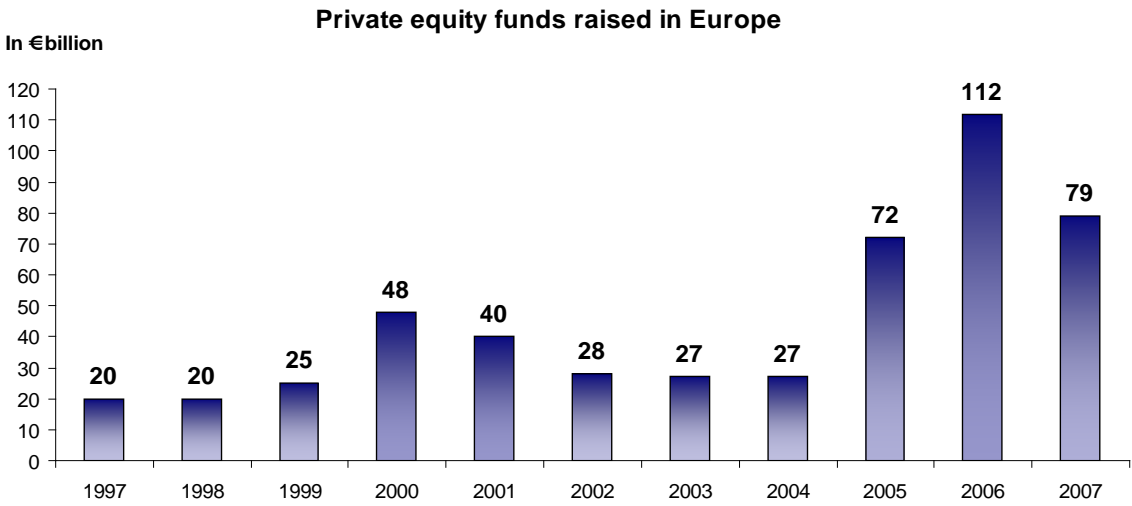
**Figure 26: Private equity funds raised by type of investor in 2007**



Source: EVCA, (2007):

[www.evca.eu/uploadedFiles/Home/Knowledge\\_Center/EVCA\\_Research/Statistics/4\\_2\\_Fundraising/08FR\\_2\\_TypeOfInvestor.pdf](http://www.evca.eu/uploadedFiles/Home/Knowledge_Center/EVCA_Research/Statistics/4_2_Fundraising/08FR_2_TypeOfInvestor.pdf) , [04.10.2008]

**Figure 27: Private equity funds raised in Europe**



Source : EVCA, (2007):

[www.evca.eu/uploadedFiles/Home/Knowledge\\_Center/EVCA\\_Research/Statistics/4\\_2\\_Fundraising/08FR\\_1\\_AnnualFundsRaised.pdf](http://www.evca.eu/uploadedFiles/Home/Knowledge_Center/EVCA_Research/Statistics/4_2_Fundraising/08FR_1_AnnualFundsRaised.pdf) , [04.10.2007]

In general, the European PE market differs significantly at the regional level, where the UK and Ireland are the leaders in most of the activities and CEE is still an emerging PE market. The second most active market is Southern Europe, which includes France, Italy, Spain, Portugal and Greece, whereas France and Greece were the leaders accounting for two thirds of the activities. PE markets which rose by 5% on the local level of total European funds were Benelux (Belgium and the Netherlands). Until June 2008, Poland has raised the most funds in CEE countries with 85% of the total. The origin of the rise in funds was mainly Europe but not from the CEE region. Over 130 firms located in CEE received investments worth €1.9 billion, whereby only 51% of them were venture backed companies. Divestments accounted for €500 million from 63 CEE enterprises, which were dominated by trade sales with 60% of the total amount and 41% of the total number of firms. According to EVCA (2008), the industry's development remained the same in the year 2007 as in 2006, with the same high volumes and returns driven mostly by buyouts and deal making. The highest net IRRs, which were generated by buyout funds, amounted to 16.3%, where net IRRs for venture funds were mentioned at 4.5%. Longer investments such as five-year rolling IRRs in 2007 were able to increase and reached 11.6% for PE in general. In the five-year venture sector, the IRR stood at 0.6%. The significant leading buyout sector, accounted for a level higher than in the US, 16.2% compared to 15.5%. Moreover, this was greater than the return of the Morgan Stanley Euro Index accounting 14.1% and above the JP Morgan Euro Bonds return with 13.1%.<sup>145</sup>

Like the US, Europe is also investing outside the domestic market, reflected in the data that European PE houses invested 3.8 billion in firms outside Europe. The most attractive market was Australia and the US, accounting for 45% of each total. Contrary to these foreign investors from outside, Europe invested about €3.0 billion in more than 100 European firms, whereas the UK received half in terms of value, however, Germany was the leader. In number of investments, France ranked second accounting for 18.7% of the total number of investments. Summing up all investments in the year 2007, about 5,000 European enterprises received investments worth €7.2 billion. The UK led with more than a quarter of total value, while Germany was the leader by number of firms invested with more than 20% of the total.

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<sup>145</sup> EVCA: *EVCA Barometer June 2008*,  
[www.evca.eu/uploadedFiles/Home/Knowledge\\_Center/EVCA\\_Research/Barometer/June\\_2008.pdf](http://www.evca.eu/uploadedFiles/Home/Knowledge_Center/EVCA_Research/Barometer/June_2008.pdf)  
[04.10.2008], p. 1

About one third of the divestment activities were sales to other PE houses, followed by trade sales whereas IPOs lagged significantly behind these two exit options.<sup>146</sup>

The buyout activities were dominated in Germany (9.3%), the UK (7.4%), France (5.0%) and Sweden (3.1%), by small and mid-market deals with 70% and 43.2% respectively. The sectors business and industrial products, business and industrial services and consumer goods and retail were the leaders in the buyout deals. Secondary sales were the leaders in buyout exits, where sales to other PE firms accounted for the main exit forms in terms of amount. The investment target in the venture sector were expansion deals with 46%, and start-up deals followed with 41.2% and with 11.4% by seed deals. Most of the venture investments in 2007, which accounted for 50%, were located in Germany, the UK and France. The venture investments were dominated by sectors such as communication, life science and computers and consumer electronics. In general, venture divestments were mostly driven by trade sales with 30.1%.<sup>147</sup>

To understand the difference between developed and developing countries in the PE/VC sector, Lerner et al (2005), mentions four types by which the difference is made clear. The first difference is the type of investments that are considered, the second is deal identification and due diligence, third is the deal structuring of the investment, and fourth is the pricing structure. While in the US, venture investors focus mainly on high-technology sectors and mature firms in a variety of industries, investors in emerging markets concentrate on traditional industries such as privatization, corporate restructurings and strategic alliances. Within venture capital investments, developing countries were mainly focused on three categories, such as business-to-business exchanges and online auctions sites. The second of these has linked human capital with labor-starved Western corporations and the third has commercialized technology originating in emerging markets for sale in the global market. When comparing the deal identification process, one will note that in developed markets it is a standardized process, whereas in most CEE countries investors have to act on the offensive by using relationships with business and social groups in the region. Factors that influence decision criteria for investors are the same across Europe, namely the management team's

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<sup>146</sup> EVCA: *EVCA Barometer June 2008*,  
[www.evca.eu/uploadedFiles/Home/Knowledge\\_Center/EVCA\\_Research/Barometer/June\\_2008.pdf](http://www.evca.eu/uploadedFiles/Home/Knowledge_Center/EVCA_Research/Barometer/June_2008.pdf)  
[04.10.2008], p. 2 - 7

<sup>147</sup> EVCA: *EVCA Barometer June 2008*,  
[www.evca.eu/uploadedFiles/Home/Knowledge\\_Center/EVCA\\_Research/Barometer/June\\_2008.pdf](http://www.evca.eu/uploadedFiles/Home/Knowledge_Center/EVCA_Research/Barometer/June_2008.pdf)  
[04.10.2008], p. 3 - 4

commitment, reputation and the ability to exit the investment. The main differences in evaluating potential deals in developed countries versus developing countries, is that the developed countries emphasize country risk and exchange rate risk. The private equity investors have to analyze institutions and legal frameworks as well as industry regulations. This underlines the importance of the relationship between the stock market (private sector) and the government (the public sector). Exchange rate risk may be a devaluation of the domestic currency, which can be mitigated by entering into currency swaps, the purchase of options based on relative currency prices, or the purchase of forward currency. The risk of the unknown nature and timing of the future payments to private equity investors can be ensured by hedge tools, which have attracted increasing interest. Nevertheless, private equity investors in developing nations are limited to using these hedge tools and, thus, country risk and exchange rate risk heavily influence the present value of the investment projects.<sup>148</sup>

When we look at deal structuring in developed countries investors use several common classes of preferred stocks, debt and convertible preferred stocks. Their advantage is the possibility of allocating investment risk, control management, and providing incentives to executives and demarcating ownership. In emerging markets, where the use of stocks with different voting powers is not allowed, investors use common stocks. Moreover, in transition economies a broader array of securities is employed, whereas in developed countries the rights of investors are protected and standardized. Due to common law, which is used in the big PE developed countries such as the UK and US, it is less likely to employ common stock or straight debt, but rather preferred stock. In countries like the UK, antidilution provisions are contractually protecting the investors in the transaction process, whereas in CEE countries they are missing. This may lead to difficulties when enforcing these provisions in court. The phenomenon of large equity holdings in developing countries can be due to the fact that they generally have less-established laws. Common-law countries have larger transactions with higher valuations.<sup>149</sup>

When we compare the pricing of transactions in developed and developing countries, one will note that in emerging markets some domestic central banks publish manipulated macroeconomics to portray a healthier economy. The different accounting principles and

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<sup>148</sup> Lerner J., Hardyman F. and Leamon A., (2005), *Venture Capital and Private Equity*, Third Edition ,John Wiley & Sons, Inc., p. 341 - 343

<sup>149</sup> Lerner J., Hardyman F. and Leamon A., (2005), *Venture Capital and Private Equity*, Third Edition ,John Wiley & Sons, Inc., p. 343 - 344

practices can cause problems when trying to estimate the value of the company. After the investment is made and PE houses would like to exit, in developed countries they use IPOs among other possibilities. In developing countries, most of the exits are done on sale to portfolio firms to strategic investors, which is problematic for small numbers of potential buyers because it can lead to a price below fair value. This has forced PE investors to develop alternative solutions for the exiting problem, such as listing the shares on an exchange in a developed country or the acquisition of a similar firm abroad.<sup>150</sup> All these facts underline the difference between financial markets in developed and emerging markets, which investors have to handle to be able to earn the required returns.

The importance of buyouts for restructuring the economy is confirmed by a survey done by EVCA (2005), where 84 percent of respondent firms said that without venture-backed buyout, they either would not exist or their development would lag behind other competitors. Buyout investments grew from €2.38 billion in 1994 to €18.42 billion in 2003. Family business plays an important role in this sector because often, when they face generational change, they seek a suitable successor. PE/VC houses act as a sounding board for management ideas in this sector and assist with the recruitment and development of management. They also influence the financial and operating performance of the firm. After the buyout, the number of employees rose from 263 to 440, and the business published an annual growth rate in turnover between 13.3% and 15.4%. Given the changes in family-owned business, which face a lack of adequate and interested successors, the role preservation of those firms and jobs will become an important matter in the next years. PE/VC houses, when investing in family-owned business, influence the future strategy of the company, and the former family owners are often involved.<sup>151</sup> Generally, PE investors have to guarantee transparency and clear information flow between the involved parties as the vendor, the management and the PE fund, to assess the potential of the company and to establish a common business strategy for the future.

The macroeconomic impact of the PE/VC sector has already been explained in previous chapters. It is important to underline positive effects of the sector, especially considering the problem of the unemployment rate in Europe. With targets set by the EU, such as an employment rate of 70% by the year 2010, the positive impact of the PE branch on the

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<sup>150</sup> Lerner J., Hardyman F. and Leamon A., (2005), *Venture Capital and Private Equity*, Third Edition, John Wiley & Sons, Inc., p. 344 - 345

<sup>151</sup>EVCA: *Private Equity and Generational Change, The Contribution of Private Equity to the Succession of Family Businesses in Europe*, (2005), [www.evca.eu/UploadedFiles/d\\_private\\_equity\\_and\\_generational\\_change\\_2005.pdf](http://www.evca.eu/UploadedFiles/d_private_equity_and_generational_change_2005.pdf), [15.11.2007], p. 3 - 28



employment rate should be followed with great interest. According to EVCA (2005), PE/VC houses play a vital role in holding and creating jobs on European level. The large buyout sector is dominating the majority of jobs accounting for 5 million or 83% of the total number of people employed by PE/VC backed firms. Venture capital houses, account for one million remaining jobs, which together with the buyout sector (16 million people) accounts for close to 3% of the 200 million employees in Europe. Furthermore, between 1997 and 2004, buyout-financed firms registered an average employment growth of 2.4% (ca. four times higher than what was registered by EU25). The positive impact of the PE/VC sector is confirmed by the 7 percentage rise in employment by family-owned firms which are investment targets for this sector. In the venture capital sector, the annual employment growth rate grew by 30.5% between 1997 and 2004, which is about 40 times the annual employment growth of the EU25. Moreover, most of these companies, namely 73% increased their headcount by more than 25% per year.<sup>152</sup>

When we look at the current economic situation and further prognoses for the future, we can expect a general recession phase. The problem which has occurred on the current global market is that money demand has become greater than money supply, and thus interest rates have grown. The enormous liquidity problems of several financial institutions have forced the central banks to increase money supply. This affects short-term nominal interest rates in a positive manner and, furthermore, the current and expected real interest rate. The best solution for the financial market would be to gain the same proportional increase in prices as the proportional increase in the nominal money stock. This would prevent inflation rates from overheating. Following macroeconomic theories, in the short-run, the effect of higher money supply is increasing the real money supply because price levels will not increase immediately. Domestic interest rates fall, which also leads to higher expected returns on domestic currency. In the long-run, the price level will increase. Exchange rates will fall as the domestic currency is expected to appreciate, and the expected return on foreign currency increases.<sup>153</sup> To achieve a higher money supply, the central bank buys bonds for which they pay with reserves. Therefore, bond prices are higher and interest rates are lower, which should lead to a higher investment rate. The current market situation is not only influenced by monetary policy, but also by the question of how fiscal policies will be engaged. Will they run an expansion phase,

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<sup>152</sup> EVCA: *Private Equity and Generational Change, The Contribution of Private Equity to the Succession of Family Businesses in Europe*, (2005), [www.evca.eu/UploadedFiles/d\\_private\\_equity\\_and\\_generational\\_change\\_2005.pdf](http://www.evca.eu/UploadedFiles/d_private_equity_and_generational_change_2005.pdf), [15.11.2007], p. 18 - 28

<sup>153</sup> Mishkin F.S., Eakins S.G., (2000), *Financial Markets and Institutions*, Third Edition, Addison Wesley Longman, p. 103 - 115

where the budget deficit increases but investment should grow, or a contraction phase where the effect is the opposite? The third possibility will be a policy mixture as Clinton and Greenspan have instated in the past,. This would entail a fiscal contraction to reduce the budget deficit together with monetary expansion to guarantee that the demand and output remain high and money supply increases.<sup>154</sup>

For PE/VC houses this is going to be a time of big investment opportunities as the stock market indices haven fallen by approximately 70 percent, and the dramatically worse loan market conditions for SMEs call for compensation from capital from PE/VC investors. The effect will be similar to the Business Cycle Expansion model explained in Chapter Two. In the PE/VC sector the supply curve will increase more than the demand curve, and these investors will earn higher interest rates and investment rates will increase. It is important to remember that these investors are closely linked to economic development, and the interest rates they earn are also affected by the expected inflation rate and the real interest rate. If we expect a higher inflation rate, the domestic currency will depreciate and real interest rates will decrease, which is negatively influencing the business development they are investing in. In summary, every market participant has been hit by the difficult market conditions, but the growing investment possibilities for the PE/VC sector can save people from losing their jobs.

## 4. Conclusion

The data reviewed in the present paper points to the rapid development of CEE countries, where historical boundaries such as legal and business culture characteristics for European PE/VC houses, have broken down. However, countries such as the UK, Germany and France belong to the main leaders in the European PE/VC sector. The present research has presented data pointing out that Poland has raised the most funds in the year 2008, and accounted for the second most M&A activities in the CEE region, all facts which highlight the great potential this market offers to its investors. Most of the capital raised in Poland is originally from foreign institutions and investors. Some professionals assume that the high profits made during the first moments of PE/VC activities in transition economies were mainly caused by

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<sup>154</sup> Blanchard O., (2006), *Macroeconomics*, Fourth Edition, Pearson Prentice Hall, p. 103 - 107

low money supply. They theorize that a greater capital amount will depress future returns. The present research calls this assumption into question. Although the money supply in Poland has continued to increase, the PE/VC activities in Poland are still growing significantly. Through the historical and economic changes that have occurred after the fall of communism, much more investment opportunities have evolved and market participants are more active entrepreneurs than ever before.

It should be critically viewed that many Polish firms still rely more on debt than on shares of stock or retained earnings. This may be due to the fact that most of the PE/VC funds are pushed towards buyout activities or replacement capital, whereas early-stage or start-ups account only for the minority of investments. When comparing Poland with other developed countries, the country still has a high number of SMEs, which are suffering from lack of capital and need to be restructured. There are numerous reasons why these small businesses should be encouraged to apply to PE/VC houses for investment capital. This would allow them to realize investments by trade sales to investors. It is a good alternative for these firms because they might be too small to take an IPO exit into consideration. The disadvantages facing these entrepreneurs are that PE/VC investments in CEE countries are made for no longer than 2 years. This can lead to the SME's apprehension that they will lose their firm and, after the investment has been realized, their jobs. Thus, government and financial bodies should provide sufficient information to the public regarding the PE/VC sector. The sector has created approximately one million new jobs in Europe within the last 4 years. Companies are not only showing growing employment rates, but also higher sales rates. It is clear that the PE/VC sector is positively affecting the economic environment. Citizens of emerging markets should be more informed about the positive effects of this type of investment and begin to see that thinking on the global level is more advantageous and secure than building a close relationship to a business.

Due to the current global financial crisis, it is quite difficult to make any predictions or suggestions for the future because the full effects of the crisis are not yet known. What can be forecasted for sure, however, is that investment activities and exits, such as IPOs, are going to decrease dramatically especially in the 3<sup>rd</sup> and 4<sup>th</sup> quarter of this year. Moreover, firms seeking investment capital should be aware of PE/VC houses because they could save their existence in this difficult financial situation.

Some analysts are of the opinion that, especially in transition economies like Poland's, enforcing the opportunity for entrepreneurs to enter their shares on stock market should be the policy target. This would reinforce the role of the central bank in terms of the need for special regulations of venture or private equity companies. We are currently confronted with a global scepticism about the financial sector as a lot of people have lost their jobs and money. Stricter and more transparent guidelines have to be adopted to strengthen the market participants' confidence. Emerging countries such as Poland have to focus on a strong development in the credit sector because it is essential for economic growth. Furthermore, there need to be improvements in process-related aspects of collateral enforcement and a higher quality of company accounting and auditing. More availability of information on prospective corporate borrowers is necessary to boost the financial and economic development of Poland.

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## **Explanation of Abbreviations**

ATMs-Automatic Teller Machines  
BGK-Bank Gospodarstwa Krajowego  
CCFC-commercial companies with foreign capital  
CEEC-Central Eastern European Countries  
CEE-Central Eastern European  
CIT-Corporate Income Tax  
CPI-Consumer Price Index  
EBITDA – Earnings Before Interest, Taxes, Depreciation and Amortisation  
EBRD-European Bank of Reconstruction and Development  
EMU-European Monetary Union  
EU-European Union  
EU-European Union  
EVCA-European Venture Capital Association  
FDI-Foreign Direct Investment  
GDP-Gross Domestic Product  
IFC-International Finance Corporation  
IFRS – International Reporting Standards  
IMF-International Monetary Fund  
IPO-Initial Public Offering  
IS-Investment Saving  
KFK-National Capital Fund  
LBO-Leveraged Buyout  
LM-Liquidity Money  
M&A-Mergers and Acquisition  
MPP-Mass Privatization Program  
NATO-North Atlantic Treaty Organization  
NBP-Narodowy Bank Polski  
NIFs-National Investment Funds  
NPLs-Non Performing loans  
OECD-Organization for Economic and C Development  
OPIC-Overseas Private Investment Corporation  
PAIZ-Polish Information and Foreign Investment Agency

PALIZ-Polish Information and Foreign Investment Agency  
PARP-Polish Agency for Enterprise Development  
PE-Private Equity  
PIT-Personal Income Tax  
PLN – Polish currency: Polskie Zloty  
PPEA-Polish Private Equity Association  
PPP-Purchasing Power Parity  
PWC-PriceWaterhouseCoopers  
R&D-Research and Development  
ROE – Return on Equity  
S&P LCD-Standard & Poor’s Leveraged Commentary & Data  
SEZ-Special Economic Zones  
SME-Small and Medium Sized Enterprise  
UK-United Kingdom  
UNIDO-United Nations Industrial Development Organization  
US GAAP – United States Generally Accepted Accounting Principles  
USAID-U.S. Agency for International Development  
US-United States of America  
VC-Venture Capital  
WSE-Warsaw Stock Exchange  
WTO-World Trade Organization

# Appendix

## Abstrakt

Der Fokus dieser Diplomarbeit liegt auf dem Einfluss des PE/VC Sektors auf die europäische Wirtschaft und besonders jener in Polen. Neben den positiven Einflüssen des PE/VC Sektors auf die Wirtschaft, wie zum Beispiel die Erschaffung von ungefähr einer Million neuer Jobs in Europa in der letzten 4 Jahren, höheren Erträgen und R&D Ausgaben; zahlreiche polnische Firmen weisen immer noch höhere Verschuldungsrate als Finanzierung durch die Börse. Dies kann die Konsequenz der Tatsache sein, dass der Investmentfokus der PE/VC Firmen hauptsächlich auf „Buyouts“ und Ersatzkapital gerichtet ist, wo hingegen „Early-Stage“ und „Start-up-Kapital“ zu der Minderheit der Finanzierungsziele zählen. Diese Fakten unterstreichen die Notwendigkeit der öffentlich zugänglichen Informationen und besseren Aufklärung durch die Regierung und Finanzinstitute über verschiedene Alternativen der Kapitalbeschaffung, wie durch den PE/VC Sektor und seinen positiven Einfluss auf die Wirtschaft, um die Finanzierungsmöglichkeiten für die KMUs auszuweiten und zu verbessern.

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