

POLISH STOCK MARKET DEVELOPMENT DURING THE DESTABILIZATION OF FINANCIAL MARKETS STARTED IN 2007

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Abstract

There was a rapid destabilization of financial markets around the world in 2007. The main root of the crisis was excessive exposure to credit risk. Moreover, the risk has been transferred by innovative financial instruments to other investors. Financial markets detached themselves from the real economy. Prices started to depend on investors-speculators emotions. At the beginning problems appeared in the financial markets and then turned into the economic slowdown in the world. Both the destabilization of the stock markets and the economic slowdown followed unevenly. The global financial crisis affected countries in varying degrees.

This article aims to assess the Polish stock market development compared to other European countries, particular the Central and Eastern Europe. The additional aim is to determine the prospects for its development in the future.

The main research hypothesis is that during the crisis, markets shrink at different rates. It causes some markets to gain in relation to the rest of the markets.

Keywords: financial crisis, stock markets, stock market development.

JEL Classification: G01, G10, G20.

Introduction

Developed capital markets should allow to allocate capital in the economy efficiently. Keynes gave some importance to the role of financial development by relating equilibrium in money market and general equilibrium in the economy (Keynes, 1936). The neoclassicists treated money and finance as insignificant or neutral over all countries. Economists began researched money and finance from different perspectives in the early 1950s. There is usually described the role of financial markets in economic development in the literature. The theory of financial markets is discussed generally in developed countries.

Among the first to study the importance of financial development, financial intermediaries with economic development was Schumpeter (Schumpeter, 1954). Seminal works by McKinnon and Shaw were the beginning of active research into the importance of financial development in the context of economic development (McKinnon, 1973). Financial market development become a much-researched area nowadays. King and Levine (King, Levine, 1993), La Porta, Lopez-de-Silanes, Shleifer and Vishny (La Porta, Lopez-de-Silanes, Shleifer and Vishny, 1998), Rajan and Zingales (Rajan and Zingales, 1998), Beck, Demirguc-Kunt, Levine and Maksimovic (Beck, Demirguc-Kunt, Levine and Maksimovic, 2001), Henry (Henry, 2000), Bekaert, Harvey and Llundblad (Bekaert, Harvey and Llundblad, 2001) and others have analyzed the determinants of financial sector development. They have studied the legal foundation of financial markets, relation of financial market development with macroeconomic variables, financial reform and other country factors. They also studied the developments of various parts of a financial system. General request is that capital market development tend to develop economic growth.

Financial crisis is an opportunity to conduct research on financial market development in the new conditions. This article aims to assess the Polish stock market development compared to other European countries, particular the Central and Eastern Europe. The additional aim is to determine the prospects for its development in the future.

Financial markets detached themselves from the real economy during financial crisis 2007-2009. Prices started to depend on investors-speculators emotions. At the beginning problems appeared in the financial markets and then turned into the economic slowdown in the world. Both the destabilization of the stock markets and the economic slowdown followed unevenly. The global financial crisis affected countries in varying degrees.

The main research hypothesis is that during the crisis, markets shrink at different rates. It causes some markets to gain in relation to the rest of the markets.

Warsaw Stock Exchange

The Warsaw Stock Exchange in its present configuration has existed for almost 22 years. Legal regulations pertaining to equities trade were specified in July 1990 after political changes in Poland. On 22 March 1991 the House of Parliament passed a bill on public equities. This was the legal basis of the main capital market institutions such as: the stock exchange, brokerage houses, trust funds, as well as Equities Committee being part of the government administration controlling and promoting the equities market.

Less than a month after the law on public equities trade and trust funds came into force, on 12 April 1991 the Finance Minister and Privatization Ministry representing the Treasury signed the foundation act of the Warsaw Stock Exchange. Four days later, on 16 April 1991 7 brokerage houses participated in the first session of the new Warsaw Stock Exchange. Five companies were listed on the stock exchange. There were 120 purchase orders and the turnover amounted to PLN 1990 (USD 2000).

The Equity instruments market in Poland incorporates shares, the entitlement to shares and acquisition rights. In 2010 there were several platforms for share trade including the main market, the New Connect and external trade conducted by BondSpot Ltd.

Basic Warsaw Stock Exchange statistics in the period of financial market destabilization in the years 2005-2010

Market capitalization

The year 2007-2009 is the time of serious financial market destabilization all over the world. The following study is devoted to the analysis of the Polish stock market development in this volatile period. Main market capitalization at the end of December 2011 it totaled PLN 643 bln. Domestic capitalization amounted to PLN 446 bln and foreign capitalization reached nearly PLN 200 bln. At the initial phase of the financial crisis (2008) capitalization of the Polish stock exchange decreased dramatically (by 56%) from the level 1000 bln in 2007 to 465 bln PLN in 2008. In the years 2009 and 2010 there was a growth of Polish stock market capitalization attributed mainly to domestic companies (Figure 1).

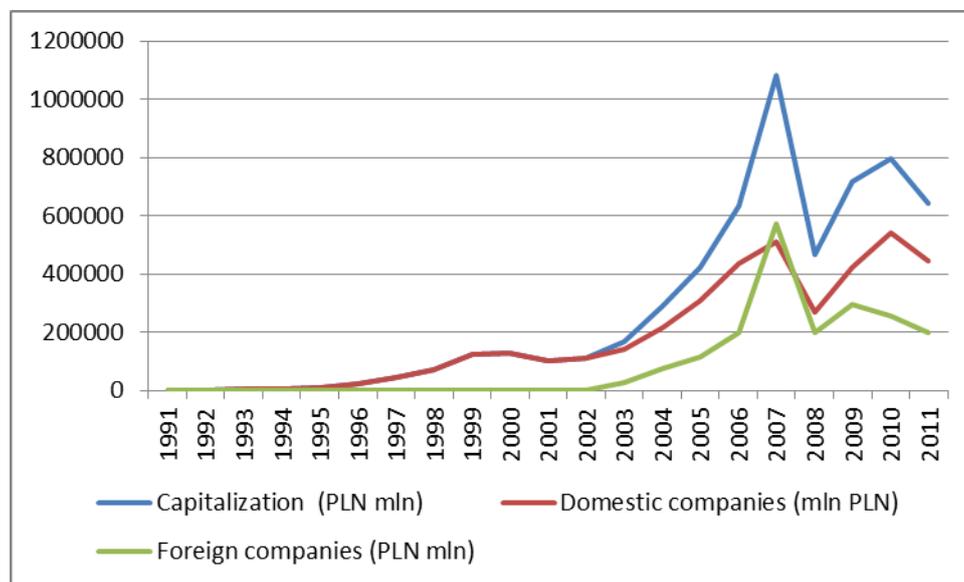


Figure 1. Warsaw Stock Exchange capitalization in the years 1991-2011 (PLN mln)

Source: own elaboration based on data from the Warsaw Stock Exchange, www.gpw.com.pl (02.02.2012)

The Polish stock market as a whole in 2010, is placed in the 12th position in Europe in terms of market capitalization. The largest European equity markets are in the UK, France and Germany. Denmark and Finland are, in terms of capitalization, reminiscent of Poland. The size of stock markets capitalization of shares in Europe is presented in Figure 2

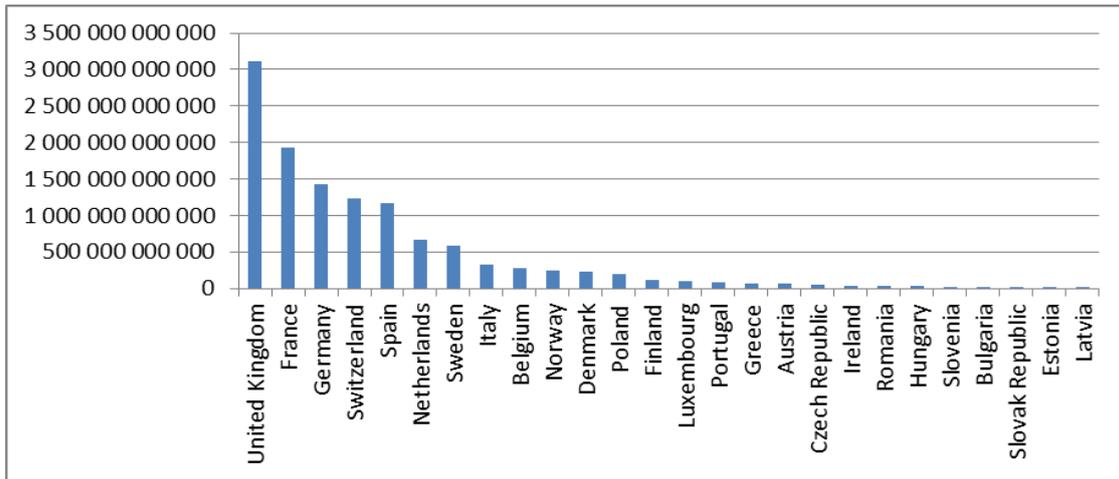


Figure 2. European stock market capitalization in 2010

Source: own elaboration based on data World Federation of Exchanges.

Poland, however, turns out to be a leader in terms of market capitalization in Central and Eastern Europe. Poland stands out in this group of countries with capitalization of more than four times higher than other markets in the Czech Republic and Romania (Figure 3).

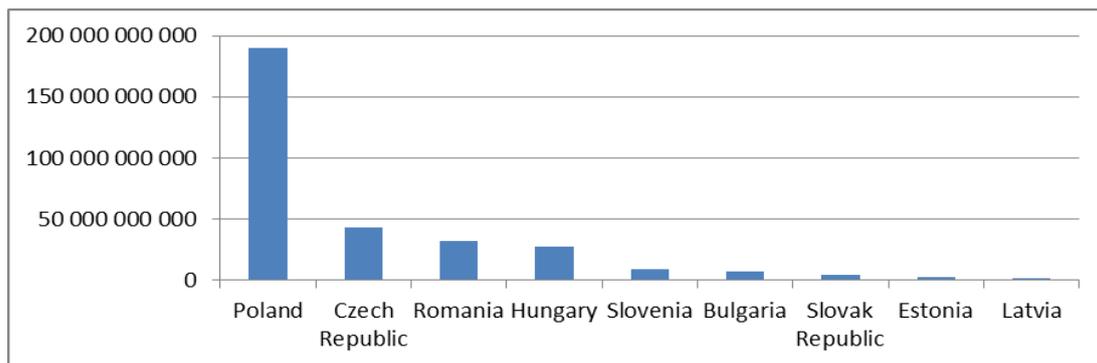


Figure 3. Central and Eastern Europe stock markets capitalization in the year 2010

Source: own elaboration based on data World Federation of Exchanges.

Capitalization of the WSE at the end of 2010 was higher than the capitalization of stock markets in Austria and Greece, the countries whose GDP is close to the Polish one. Far more companies were also listed on the WSE. In terms of the average daily value of transactions WSE was ranked as high among the relatively small markets in Europe. Turnover on the major European stock exchanges (LSE, NYSE Euronext, Deutsche Boerse) was in fact several times higher than on the Warsaw Stock Exchange. Liquidity on the Warsaw Stock Exchange measured by the ratio of turnover to capitalization of these instruments was low in Poland not only compared with the large stock exchanges, but also in comparison with the stock exchanges of a similar size (eg the Athens Stock Exchange and the Vienna Stock Exchange).

The reason for low liquidity of shares on the Warsaw Stock Exchange was a relatively large number of companies with small capitalization and low free float, whose shares were traded on this market. According to the World Federation of Exchanges (WFE), the average capitalization of companies listed on WSE at the end of 2010 amounted to USD 326 million and was almost four times lower than the average market capitalization of companies listed on other European markets (1 252 million). The experience of other countries shows that the markets where mainly small companies shares are traded have lower liquidity than markets where large companies stocks are primarily traded. The reason is that investors are relatively more likely to invest in shares of large companies than in shares of small companies (Sobolewski, Tymoczko, 2011).

Another factor affecting the low liquidity of the stock market on the WSE was the lack of efficient short selling shares mechanism. This limits the stock market liquidity, because shares held by long-term investment strategy entities (eg, strategic investors, pension funds) are not coming back to re-trading. Concentration of capitalization, defined as the ratio of 5% of the capitalization of domestic companies with the largest capitalization to the capitalization of all domestic companies, at the end of 2010 was 74.6% and was slightly higher than the average for other European exchanges (67.1%).

Concentration is another important stock market indicator (Rajan, Zingales, 2003). The concentration of shares turnover of companies quoted on the Warsaw Stock Exchange, calculated as the ratio of the value of transactions 5% of domestic companies with the highest value of trading turnover to the turnover of trading of all domestic companies, was also higher than the average for the European stock, which amounted to 76.3%. Higher levels of these indicators for the Warsaw Stock Exchange indicates that the activity of stock market investors is focused on a relatively small number of companies.

The capitalization of the Stock Exchange in Warsaw during the period of destabilization was generated mainly by domestic companies. The capitalization of foreign companies was higher than the domestic in 2007. These relationships reversed in subsequent years, and in 2011 foreign companies accounted for 30% of capitalization.

Capitalization/GDP ratio

A key measure to assess the development of the stock market is the ratio of market capitalization to GDP (Beck, Levine, Loayza, 2000). It refers to the size of the stock market and the country's economic size. The relative level of stock market development can be measured on this basis. Therefore it is a key indicator distinguishing the Polish stock market position compared to other capital markets.

In 2005, the capitalization / GDP ratio in Poland amounted to 31 which places Polish market on the 21st place among the European markets. Financial market crisis in the years 2008-2009 affected the level of this ratio in all countries. In 2010 this ratio reached in Poland a value of 41 and in critical 2008 was 17.

The financial crisis of 2008-2009 changed the structure of the ranking of the equity markets development defined on the basis of the capitalization / GDP ratio. Poland when compared to other European countries gained at this time being placed after the crisis (in 2010) at the 13 position among European countries.

The Polish stock market took the opportunity given by period of instability to consolidate its position among European stock markets. The change of the capitalization / GDP ratio in 2005-2010 is presented in Figure 4.

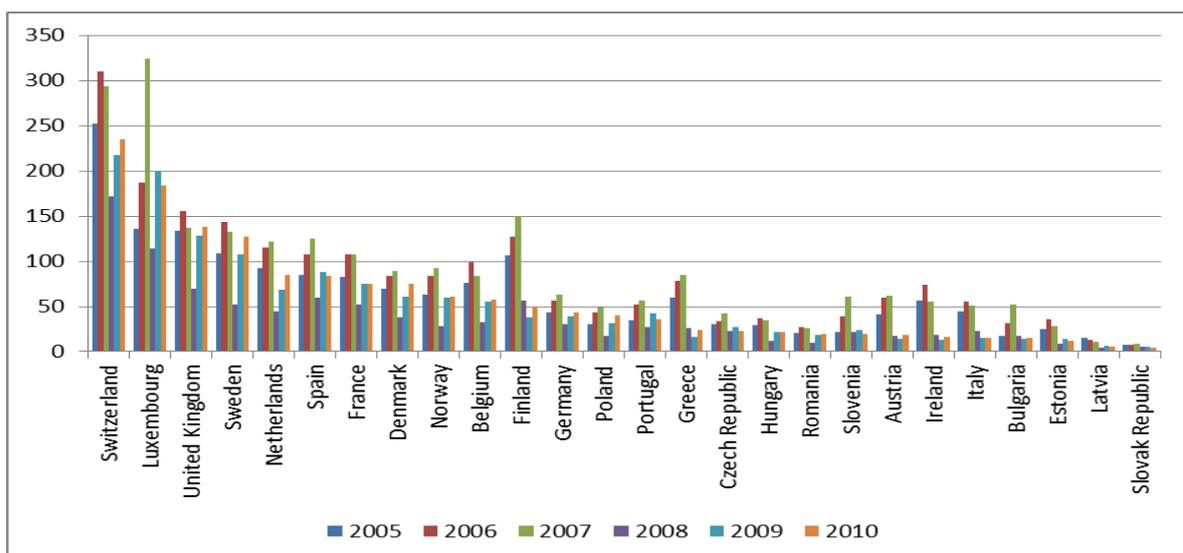


Figure 4. The stock market capitalization / GDP ratio in European countries in the years 2005-2010

Source: own elaboration based on World Bank data, <http://data.worldbank.org> (23.01.2012)

A stock market is considered to be developed when the market capitalization / GDP ratio is higher than 50%. Poland in its over 20 year history has never reached that level yet. The Polish stock market was closest to this level in 2007 when the index value reached 49%.

It is important to note that a good economic situation of Poland against the background of other European countries prevented to increase and strengthen the position of the Polish stock market in the European arena using capitalization/GDP ratio.

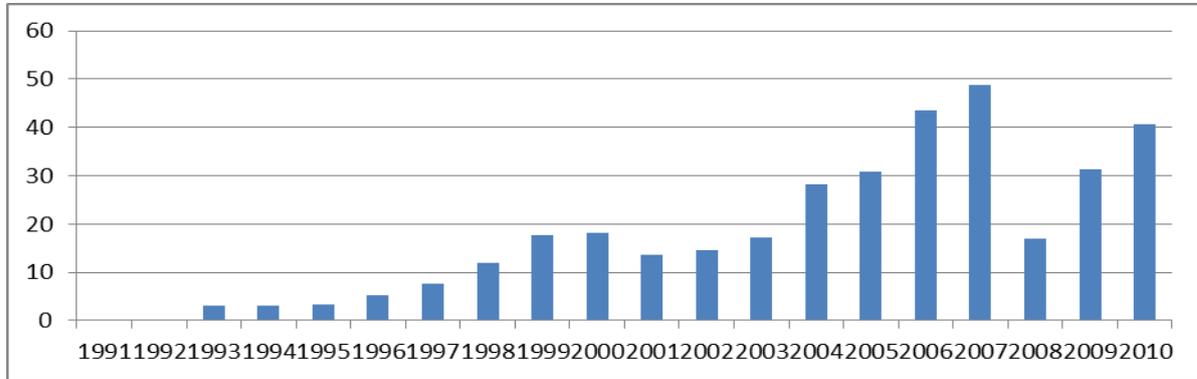


Chart 5. Capitalization to GDP on the Warsaw Stock Exchange, 2000-2010

Source: own elaboration based on data from the FESE, www.fese.be, and World Bank, <http://data.worldbank.org> (23.01.2012)

Shares issues

One reason for the Polish stock market improved position in Europe is a relatively high activity in the new issue of shares. The largest number of new shares on the Polish market took place in 2007 when there were 81 new listings. There was a sharp decrease in the number of IPOs during the crisis. They fell from 81 in 2007 to 13 in 2009. The Polish stock exchange reported 38 debuts in 2011. The annual number of withdrawals stood at approximately 10th throughout the study period.

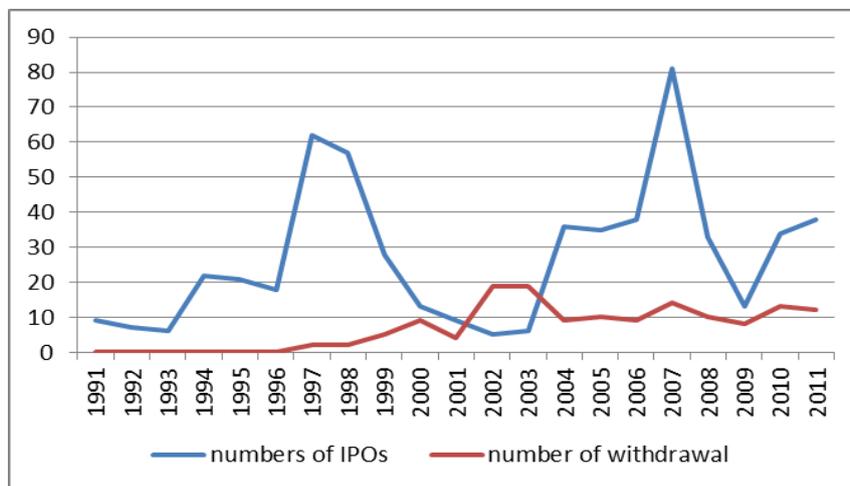


Figure 6. Number of IPO and withdrawal on the Warsaw Stock Exchange, 1991-2011

Source: own elaboration based on data from the Warsaw Stock Exchange, www.gpw.com.pl (02.02.2012)

There were introduced 34 companies on WSE in 2010, including shares in foreign entities, and three companies of the Treasury. WFE data show that the number of IPOs on the Warsaw Stock Exchange was ranked on the second place in Europe after the London Stock Exchange and on the fifth place in terms of their values (Table 1). There were issued mid-sized stocks on the WSE.

According to the WFE, the average capitalization of companies conducting initial public offerings on the Warsaw Stock Exchange amounted to USD 156 million in 2010 (USD 464 million in 2009) and it was significantly lower than in other European markets, where on average it amounted to 1 938.4 million. The

average value of IPOs on the WSE, including the old and new shares issue, totalled USD 43 million, while for companies offering their shares to other European markets it was USD 700 million.

Table 1. IPO on selected european stock markets in 2010

	Issued companies capitalization in bln USD	Number of IPOs
MICEX	63,2	24
LSE Group	60,4	188
Swiss Exchange	50,5	1
BME	37,5	53
Warsaw Stock Exchange	17,1	109
Deutsche Boerse	11,9	108
Oslo	11,7	19
NASDAQ OMX Nordic Exchange	11,1	23
NYSE Euronext	7,7	52
Budapest	0,3	6

Source: own elaboration based on data World Federation of Exchanges.

Public offerings carried out by companies already listed on the Warsaw Stock Exchange (called Secondary Public Offering - SPO) was crucial for domestic stock market capitalization growth. The value of secondary share offerings in 2010 amounted to 8.3 billion zł and was over one-third less than in the previous year.

Stock market investors structure

Different groups of investors are the participants of the stock markets . There are three basic groups of investors in the stock market: individual, institutional and foreign investors. The difference between them lies in the investment scale of individual investors. There is also a difference in the level of knowledge about capital market investments among different groups of investors. The behavior of the whole market is determined by the investors. Thus, the share of particular groups of investors will be critical in maintaining the market price. Investors with different groups making decisions are driven by other motivations and use different types of analysis. We can say that a strategy group with the largest share of turnover determines the behavior of the entire market and determines the other participants to adopt appropriate investment strategies. Each group of investors has different behaviors and reactions to price changes. At a time when investors are the largest group of private investors it can be assumed that the strategies of the group will determine the greatest changes in market prices. Institutional investors in taking decision on the stock market use fundamental analysis of companies primarily. In their case the price/generated profits or book value ratios will be relevant. Note, however, that in part institutional investors are in their decisions related to the reaction of individual investors in these institutions to acquire units or certificates. Individual investors, usually take investment decisions using technical analysis. The key factor here is the concept of a trend, pattern or a moving average rather than the fundamental value of the company. The decisions of foreign investors depend on the investment sentiment in various parts of the world and the position of the market in the region.

Equity markets destabilization significantly reduced the proportion of individual investors in stock market turnover on the Polish market. It accounted for 33% of the total turnover in 2007 and only 18% in 2008. At the same time, the share of foreign investors increased from 30% to 43%.

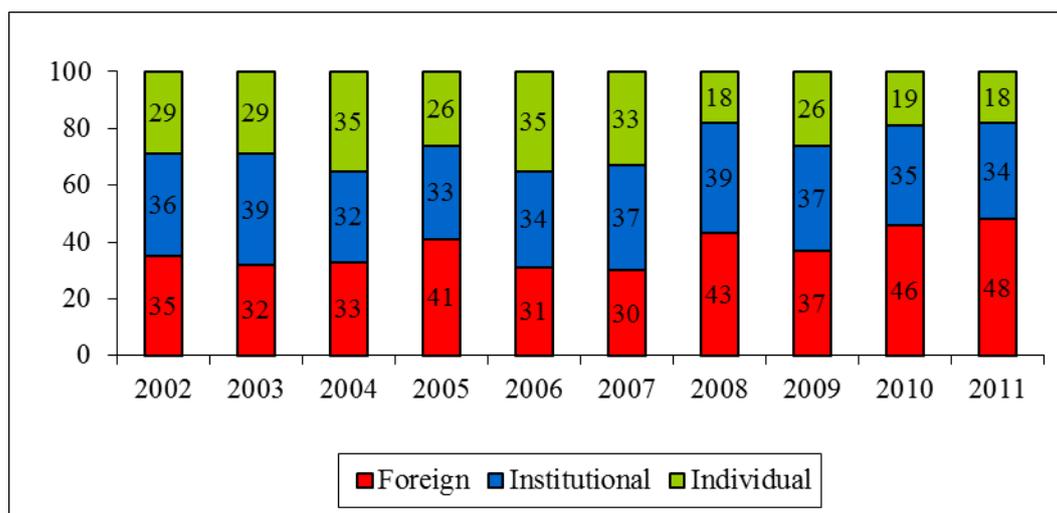


Figure 7. The structure of stock investors on the Warsaw Stock Exchange, 2002-2011, in percentage points
Source: own elaboration based on data from the Warsaw Stock Exchange, www.gpw.com.pl (02.02.2012)

The high share of foreign institutional investors may be one reason for the relatively strong position in the Polish stock market in the world. These investors are more mature and this contributes to the efficiency of the stock market and reduces its overreaction.

Polish stock market growth prospects

The Warsaw Stock Exchange is becoming the financial center of Central and Eastern Europe. The Polish stock exchange position seems to be unchallenged in the coming years. However, note that the privatization process in Poland is coming to the end, and the development of stock markets in the coming years should be generated by the issue of foreign companies shares.

The period of the financial crisis showed that foreign investors in such a difficult situation, do not lose confidence in the Polish capital market. This allows us to think positively about the future participation of this group of investors in the Polish stock market development.

The Warsaw Stock Exchange has the ambition of becoming a regional market and not just a local one. This can be achieved through acquisitions of other exchanges in the region of Europe.

Conclusions

Analyses and tests show that the Polish stock market has a relatively strong position among European markets. The financial crisis in 2008-2009 affected the development of financial markets. Some markets lost and some gained in relation to others. The Polish stock market has gained strongly in the ranking of the development of equity markets in Europe.

The main hypothesis of the research article saying that during the crisis markets shrink at different rates, means that in relation to the rest of the market gains have been positively verified.

In order to verify the hypotheses analysis of selected development indicators of European stock exchanges were made in the article. These studies were conducted on the basis of data from the Warsaw Stock Exchange, the Federation of European Securities Exchanges and the World Bank. The data come from the period 2005-2010. These are the data from the stock exchange markets in Europe, with particular emphasis on the Warsaw Stock Exchange.

The analyses concerned the following data: capitalization, capitalization / GDP, the share of particular groups of investors in stock market turnover.

The analysis of the data on the development of stock markets shows that the Polish stock market endured a period of global financial markets instability relatively well. The Polish stock market position in the European arena strengthened in the years 2005-2010. The Polish stock market in 2010, occupies the 12th position in Europe in terms of capitalization and the 13th place in terms of capitalization / GDP. Before the financial crisis the Polish stock market placed itself at 16th position in terms of capitalization and 21st in terms of the index capitalization / GDP.

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