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CUE DP 2012, No. 3 (13)

The role of a stock exchange
in transition economies

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ISSN 2081-3848

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The role of a stock exchange in transition economies

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Fundacja 2065
im. Lesława A. Pagi

This publication is a final deliverable of the Project *The role of a stock exchange in transition economies* executed thanks to the financial support granted by the Leslaw Paga Foundation. It was conducted in cooperation between the Cracow University of Economics, the University of Kragujevac and the Vasyl Stefanyk Precarpathian National University. The project was supervised by members of the Student Research Group – Kolo Naukowe Miedzynarodowych Stosunkow Gospodarczych.



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The role of a stock exchange in transition economies

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Key words: stock exchange, transition economies, WSE, BSE, USE, capital market

ABSTRACT:

This publication presents three stock exchanges which operate in transition economies. All of them are described together with the national background and surrounding environment. Therefore, final conclusions aim to compare the exchanges and best practices constitute a summary of authors' considerations.

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I. Warsaw Stock Exchange

Joanna Chuda

1. Introductory Issues on the Stock Exchange

The movement of money in free-market economies takes place mainly through the financial markets where financial instruments are traded. Numerous financial institutions are involved in matching capital providers and borrowers (investors).¹

Capital market, with stock exchange as its organized form, is only one of three financial market subsystems beside the foreign exchange and the money market. The most important issue for the purpose of further analysis is to clarify and define what the stock exchange is.

The stock exchange is generally defined as a particular kind of a market of an institutional character, for trading in securities. Its organized character is evidenced by the existence of internal organization acting on the basis of relevant laws and regulations, standardization of items that are subject to trade and permanent place and frequency of trading sessions. A special system of securities' sale and purchase results in the fact that the major part of the market turnover takes place on the exchange. This is mainly due to the following four pillars, on which the exchange is based:

- liquidity of trading,
- widespread availability,
- market transparency,
- equal access to information.

Due to all these features the exchanges are called "perfect markets"², e.g. for the valuation of securities and cash.

1.1. Establishment of the Warsaw Stock Exchange

The first stock exchange in Poland was established in 1817 in Warsaw and functioned until the beginning of military operations during World War II. Attempts revive stock exchange after 1945 were doomed to failure because of its incompatibility with the imposed

¹ Kulpaka P., *Giędy w gospodarce*, Polskie Wydawnictwo Ekonomiczne, Warszawa 2007, pp. 11-12.

² Nowak K., *Polski rynek kapitałowy. Instrumenty. Uczestnicy. Inwestycje*, Wydawnictwo Wyższej Szkoły Bankowej, Poznań 1998, pp. 17-18.

system of the centrally planned economy. When the first non-communist government started to rebuild the market system, efforts were also made to re-establish the exchange.

The main catalyst for transformation was the privatization and development of the capital market whose infrastructure had to be created almost from scratch. Decades of interruption in the stock exchange functioning resulted in absence of institutional and legal arrangements governing its existence and in a clear lack of expertise in this field. This led to the decision to revive the Warsaw Stock Exchange following the western model. The choice fell on the stock exchange in Lyon.

Works on the creation of the Warsaw Stock Exchange started in September 1990, in the Ministry of Privatization. The following organizational units were responsible for their intensification: the Capital Market Development Department headed by Mr. Wiesław Rozłucki and the Office of Securities and Exchange Commission headed by Mr. Lesław Paga. These two units were the nucleus respectively of the Stock Exchange and the Securities and Exchange Commission.

Already on 22 March 1991 the Sejm (the Lower Chamber of the Polish Parliament) passed *the Act on Public Trading in Securities and Trust Funds*, which officially created the legal framework for the functioning in Poland of the stock exchange and other capital market institutions: brokerage houses, trust funds, as well as the Securities and Exchange Commission as a governmental body that controls and promotes the securities market.³ Several days later, on 12 April 1991, a memorandum of association of the Warsaw Stock Exchange (Giełda Papierów Wartościowych, WSE) was signed (initially with the share capital of PLN 6 million, presently - PLN 41, 972 million), and the first trading session was held on 16 April. Initially, trading sessions were held once a week (on Tuesdays), but since 1992 also on Thursdays. Regular sessions, held five days a week, started in 1994.⁴ Additionally, in the same year, the Warsaw Stock Exchange became a full member of the International Federation of Stock Exchanges.

Today, the Warsaw Stock Exchange operates based on the Acts of Parliament of 29 July 2005 on:

- Public Offering, Conditions Governing the Introduction of Financial Instruments to Organized Trading, and Public Companies (Journal of Laws of 2005 No. 184, item 1539, as amended),

³ As at on 21.05.2012.

⁴ Ziarko-Siwiek U., *Giełda papierów wartościowych w Polsce – Giełda Papierów Wartościowych w Warszawie S*, [in:] *Giełdy kapitałowe w Europie*, edited by Ziarko-Siwiek U., CeDeWu.PL Wydawnictwa Fachowe, Warszawa 2007/2008, pp. 347-348.

- Trading in Financial Instruments (Journal of Laws of 2005 No. 183, item 1538, as amended),
- Supervision of the Capital Market (Journal of Laws of No. 183, item 1537, as amended).

It is also subject to the regulations of the Polish Financial Supervision Authority and the internal Rules of the Exchange.

The Warsaw Stock Exchange as a joint stock company was established by the Treasury. Its shareholders are banks, brokerage houses and the Treasury itself. However, to enable Exchange's further development, a decision on its privatization was taken. A possibility of selling some shares to a strategic investor was considered, but finally it was decided to introduce the WSE to the stock exchange. Subscriptions for shares enjoyed enormous popularity among individual investors. Therefore the pool of available shares was increased from 25% to 30%. A record of 323 308 entries was noted (more than for the shares of such giants as PZU or Tauron). Even at a maximum price - PLN 46, the demand exceeded the supply. Successful debut was on 9 November 2010. The company shares had appreciated by more than 25%.

Currently, the company's ownership structure is as follows: Treasury - 35%, free float - 63.82% of the share capital and the brokerage houses and offices. It is worth noting that the Treasury and the brokerage houses and offices hold registered preferential vote shares. 35-percent stake gives the Treasury 51% of votes at the general meeting of shareholders, and 1.18% of shares give the brokerage houses and offices 1.74% votes. The remaining free float shares are ordinary bearer shares.⁵

1.2. The Organizational Structure of the Warsaw Stock Exchange

The basic management and supervisory bodies of the company running the stock exchange are:

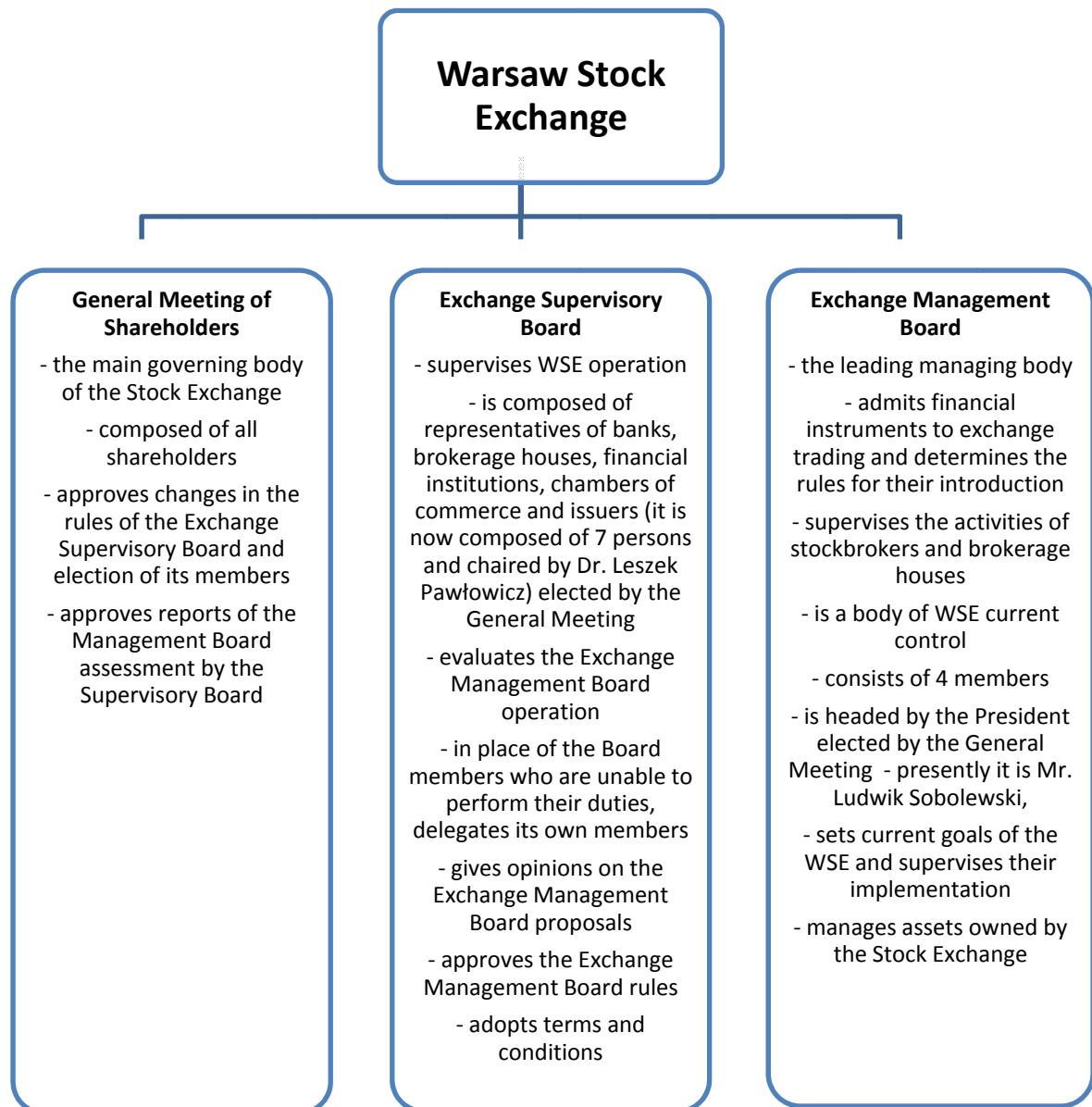
1. the General Meeting,
2. the Supervisory Board called the Exchange Supervisory Board,
3. the Management Board called the Exchange Management Board.

There also exists the Exchange Court, but it is not the body whose operation would be governed by regulations of joint-stock companies in Poland. It is a permanent court of arbitration settling the disputes between the trading participants and civil disputes concerning

⁵ *Rynki finansowe. Organizacja, instytucje, uczestnicy*, op. cit., p. 79.

property rights between the company and the shareholders. Figure 1 presents competencies of each of the bodies.

Figure 1 Organizational structure of the Warsaw Stock Exchange.



Source: Own work based on Proniewski M., Niedźwiecki A., *Gięda Papierów Wartościowych w Warszawie- ujęcie retrospektywne*, Drukarnia Biały Kruk, Białystok 2009, pp. 102-104.

The mentioned tasks and powers of individual bodies are governed by the *Articles of Association* and *the Rules of the Exchange* as well as by various internal rules. It is worth noting that the ordinary General Meeting is convened by the Management Board no later than on 30 June each year. In its framework, each of the shareholders, with the exception of the Treasury, is authorized to carry no more than 5% of the total number of votes, which is

believed to constitute one of the most important elements of the Treasury's ownership control of the Warsaw Stock Exchange and clearly diffuses powers of other owners of the company share capital.

1.3. Exchange Members

Exchange members do not belong to the WSE organizational structure, but without their presence on the floor no exchange trading would be possible. In accordance with the *Rules of the Exchange*⁶ we distinguish three groups of entities:

- investment companies making exchange transactions on their own account or on the account of their clients,
- entities being the participants of the National Depository for Securities, making exchange transactions solely on their own account,
- other entities not being the National Depository participants, making exchange transactions solely on their own account under the condition of indicating entities being the National Depository participants which will commit themselves to fulfil the obligations related to the settlement of the transaction.

It should be, however, observed that the exchange members operate primarily through stockbrokers, including the supervising brokers who perform management functions in relation to other brokers. Besides, an individual cannot be a member of the stock exchange.

Since 2004 banks have been also authorized to become WSE members. They operate on their own account without being brokerage firms.⁷

1.4. Instruments Listed

Financial instruments listed on the Stock Exchange can be divided into three basic groups: securities, derivatives and other instruments.

Historically, securities are the most important segment of exchange trading, although a gradual reduction of their share in the total turnover has been recently observed. However, they remain a very important part of the stock market. The following are listed on the Warsaw Stock Exchange: shares, bonds, rights to shares (allotment certificates, PDA) and subscription rights.

Shares are undoubtedly the most important group of instruments listed on the Stock Exchange. They are first sold in the initial public offering (IPO), at the so-called selling price

⁶ http://www.gpw.pl/pub/files/PDF/regulacje/regulamin_gpw.pdf [accessed on 29.05.2012].

⁷ Proniewski M., Niedźwiecki A., *Gięta Papierów Wartościowych w Warszawie- ujęcie retrospektywne*, Drukarnia Biały Kruk, Białystok 2009, pp. 105-106.

that may be lower than the nominal value. It is through them that the company attracts capital. Further trading in shares on the secondary market has no impact on cash inflow to the company. The shares are also associated with the subscription rights, which are issued in connection with the issuance of new shares of joint stock companies. Existing holders of shares can opt out of their pre-emptive right of the new shares thus admitting this right to trading. The right to share (allotment certificate) is a security that allows to make transactions during the period from the date of registration for the public subscription of shares until their introduction to public trading. Trading in allotment certificates may take place only after a formal process of allotment of shares has taken place.

Bonds are the second group of securities. They were admitted to trading in 1992. Currently, treasury and corporate bonds are traded on the stock exchange. There are also foreign bonds.

Derivatives' trading was launched on 16 January 1998, when an opportunity to trade in futures contracts on WIG20 was introduced. In subsequent years, an offer of derivatives was extended inter alia by warrants ⁸(1998), options ⁹(2003), index participation units (IPUs) MiniWIG20 (2001).

Beside securities and derivatives, financial instruments that cannot be classified in any of the groups are also listed on the Warsaw Stock Exchange. This group includes: short sale orders¹⁰ and structured products - i.e. financial instruments which are a special type of derivative instruments, such as structured bonds issued by issuers whose securities are not exchange-traded, but are in the organized trading in the Polish territory.¹¹

⁸ Registered securities or bearer securities entitling their holders to register for or subscribe shares with the exclusion of the subscription rights (subscription warrants). (Art.453 (2) of the Act of 15 September 2000 Commercial Companies Code - Journal of Laws of 2000 No. 94, item 1037).

⁹ At the moment, options on WIG20 are exchange-traded. Introduction of subsequent series of stock options to exchange trading and trading in all series of options has been suspended since July 4 2007.

¹⁰ As explained by the Warsaw Stock Exchange, a short sale transaction is a reversal of the order of a typical exchange transaction, in which one buys cheaper and sells at a higher price. Short sale operation means that the investor first sells on the stock exchange a borrowed paper, and then re-purchases it. Short sales orders can be very effectively used in arbitrage strategies (e.g. by combining short sale and purchase of a futures contract).

¹¹ http://www.gpw.pl/pub/files/PDF/regulacje/regulamin_gpw.pdf [accessed on 04.07.2012].

2. Initial Public Offering - company introduction to the stock exchange

The increasing number of IPOs on the stock exchange reflects the growing popularity of raising capital by introducing the company to the stock exchange. Already since the initial phase, i.e. the initial public offering (IPO), introduction of the company assets to the stock exchange not only makes it easier to raise capital, but also has a positive effect on the company thanks to organizational, legal and financial changes. Changes made on the way to IPO are extremely important for the company in terms of future benefits from shares' issue.

Every successful company sooner or later will have to answer the question of whether it is a proper time to introduce the company's shares to the stock exchange. This decision requires a thorough and robust analysis of the company's capacity, as well as prospects for its development. If the company prospects are good, but it lacks the resources to carry out its plans, it should consider entering the public capital market. A very important factor in the process of deciding whether the company should go public, is the convergence of objectives guiding the company owners with future benefits of being present in the stock market.¹²

2.1. The Process of Company Introduction to the Stock Exchange

Benefits and costs arising from the introduction of the company to the stock exchange

The objectives of the founders and the business plan are constantly changing, so an important step is to analyse the benefits and costs resulting from entry of the company to the stock exchange. Apart from other possibilities of financing the business, such as bank loans as an alternative to an IPO, one should consider all the pros and cons of the process of company introduction to the stock exchange.

The most visible and the most important benefit for the company deciding on the IPO is raising more capital by issuing shares. Capital obtained as a result of the skilful introduction of the company to the stock market can be used to expand the business or improve its market position. Thanks to the acquired funds the company is able to achieve in the future the short and long term goals. Introduction of information requirement (current, periodic reports) and supervision by the institutions that control functioning of the company leads to easier and cheaper access to financial capital for companies.

¹² *Droga na giełdę, jak przygotować spółkę do emisji publicznej*, praca zbiorowa ekspertów BDO, Wydawnictwo Difin, Warszawa 2008, p. 47.

Going to public is also associated with an increase in prestige and with extra promotion. Thanks to becoming a public company, the company's image in the market is strengthening. There is a growing confidence in the company, both on the part of investors and business partners, as well as lenders. Changing into public increases the visibility of the company and its products on the market. The quality of company management and its transparency also increase. These actions translate directly into company's increased efficiency and so also its profits.¹³

Impartial valuation of the company's assets is particularly important in the process of attracting foreign investors. Every day a trading session presents an accurate valuation of the company, which includes not only the current situation of the company, but also investors' opinion on its future, which is expressed in market value of shares. Higher attractiveness of the company will increase the probability of the transaction.

It is very important for the company to have a competent and well-qualified team. High trading of the company on the stock exchange is an incentive for employees to remain in the company, as well as a method for attracting specialists. Stakes granted in implementation of loyalty programmes may be a motivation for the management board.

In addition, thanks to company introduction to the stock exchange, there is an increased ability to change company's debts into the new shares in difficult situations.¹⁴

In addition to the benefits, one should also consider potential costs associated with the company going public. Changing into public is associated with large expenses. Company's future costs include for example expenditure associated with IPO process or costs of future operation as a public company, such as the cost of company owners losing their personal privileges.¹⁵

Company's admittance to the stock exchange leads to a change in the percentage of votes at the general meeting. Thus there is the risk of changes in the shareholder structure, and - as a result - of the majority shareholders taking over the control of the company.

In addition, there is a need to disclose information about company's activities to the public, as well as to observe regulations related to public companies' operation and to respect the rights of shareholders laid down in the Act on joint-stock companies (Journal of Laws of 2000, No. 94, item 1037, as amended).

¹³ *Droga na giełdę*, PricewaterhouseCoopers 2011, http://www.pwc.pl/pl/rynki-kapitalowe/Droga_na_gielde_2011_f.pdf [accessed on 19.05.2012], p. 8.

¹⁴ <http://www.portfel.pl/pdf/art543>, [accessed on 20.05.2012].

¹⁵ Mach A., *Wprowadzenie spółki akcyjnej na giełdę*, LEGE ARTIS Dom Wydawniczy, Kraków 1998, p. 80.

2.2. IPO Terms and Conditions

Any economic entity introducing companies to stock exchange has to meet certain terms and conditions that are contained in the Regulation of the Minister of Finance of 14 October 2005 and in the Rules of the Exchange. Companies that apply for listing on the main market are required to comply with specific restrictions and conditions. The main obligation is to prepare an information document to be approved by the Financial Supervision Authority (Komisja Nadzoru Finansowego, KNF). It is required that no bankruptcy or liquidation proceedings are underway with respect to the issuer. In addition, the Rules of the Exchange provide that shares' transferability may not be limited. An additional requirement relates to the issued shares: namely, they must be referred to in the application for admission to exchange trading with a value of at least EUR 5 million. The next restriction relates to the distribution of company shares, and more specifically, not less than 25% of company shares or 500 thousand shares worth EUR 17 million must be in the hands of small shareholders.¹⁶ At the end, the issuer is required to publish a report of three consecutive financial years. IPO procedure may start only after all those conditions have been met.

2.3. The Way to the Stock Exchange

Company's introduction to the Stock Exchange is usually an extremely complex process. It has been divided into stages, which in themselves require great precision in action on the part of the company owners. It is assumed that from 6 to 9 months are needed from the formal decision to go public to the first listing on the Stock Exchange.

Before starting works associated with the public offering, the company owner is required to take decisions and actions of a formal and legal character. They lead to the analysis of such issues as, for example, capital needs of the company, including means' assessment in terms of their necessity and potential level. Then one alternative source of investment financing should be selected. The last issue is to analyse the market situation and its implications for the timing and volume of issuance.¹⁷

Company's introduction to the Stock Exchange starts with the issuers' decision to go public.¹⁸ The company, which plans to take such a step must organize all issues of a formal, legal and ownership character.

¹⁶ *Droga na giełdę, jak przygotować spółkę do emisji publicznej*, op. cit., p. 67.

¹⁷ Mach A., op. cit., pp. 76-80.

¹⁸ The exchange-listed shares may be issued only by an entity which is a joint stock company.

If the company has a different form of ownership, it must be converted into the joint stock company. The rules for companies' transformation are laid down in the "Code of Commercial Companies."¹⁹ After the decision on going public is made, in most cases there is a requirement to draw up an appropriate information document, which necessitates the cooperation with a certified auditor responsible for analysing financial statements of the company and with a brokerage office. In preparation for entry into the Exchange, the company must choose advisers, especially a company that conducts brokerage business. In addition, the company should choose legal advisers and an auditor, as well as - depending on the needs of the company - a public relations agency, which is responsible for company promotion.²⁰ Experts with the owners have to value the offering, the goals of shares' issuance and to create a strategy of company's introduction to the Stock Exchange.²¹

Preparation of a high quality, reliable prospectus, which is a showcase of the company, is very important in the whole process. The prospectus, to be presented to investors, is a kind of knowledge compendium about a given company, its business and financial results achieved. The prospectus should be prepared in accordance with the European laws. The prospectus consists of three parts. The first is a registration part with information about the issuer, the management, company operations and resources. The second part contains information of risk factors associated with a type of securities and with the corporate group of the issuer. The last part is a summary, which is a recapitulation of the most important information contained in the previous two documents.²² Individual investors pay attention mainly to the summary, and the part describing risk factors.²³

The next step on the way to IPO is to apply to KNF for prospectus approval. After its verification and - if needed - consulting the issuer, KNF takes a decision on the approval. This means a permission to conduct public offering under the terms described in the prospectus. It should be noted that KNF constantly monitors the offering process, and is entitled to intervene if any irregularities are detected.²⁴

Prior to the Offering, the issuer is obliged to enter into a contract with the National Depository for Securities (Krajowy Depozyt Papierów Wartościowych S.A. , KDPW) in order to register the securities, as determined by a public offering.

¹⁹ Commercial Companies Code of 15 September 2000

²⁰ <http://www.idmsa.pl/repo/dzial-brokerski/gieldowe-abc/droga-na-gpw.pdf> [accessed on 18.05.2012].

²¹ *Droga na giełdę, jak przygotować spółkę do emisji publicznej*, op. cit., pp. 169-170.

²² *Droga na giełdę*, op. cit., p. 29.

²³ *Droga na giełdę, jak przygotować spółkę do emisji publicznej*, op. cit., p. 146.

²⁴ *Ibid.*, pp. 387-388.

2.4. Public Offering

Public offering is the most important IPO stage. It starts at the moment of prospectus publication. During the offering process, subscriptions are collected from investors interested in buying the shares of a given company. At the same time there are conducted meetings with investors and actions aimed to promote the offering.

It is very important to choose the relevant promoting tools meeting the requirements of the company. When advertising the public offering, the company has a variety of media at its disposal: radio, television or the Internet are unequivocal allies of the advertising company. Other tools may be also used for promotion purposes, such as investors' subscriptions in all brokerage houses or the Stock Exchange information system.

In the public offering process the so-called "spreads" are created, i.e. the issue price range, which are based on fundamental valuation created by financial advisors. The fundamental valuation is prepared, inter alia, based on the discounted cash flow method. It reflects the company's ability to generate capital in the long term.²⁵

The so-called roadshow is an important stage of the public offering, when seminars and company presentations are organized. They are carried out with participation of the management board members and investors, analysts and journalists. The roadshow is a series of company presentations with the most important information about the company, its strengths, achievements and business partners. There is also presented the strategy and forecast of results for the next period as well as the structure of the public offering (dates, shares' prices).

At the time of prospectus publication, the issue price may be also determined. However, more often the so-called book-building is carried out, which consists in collecting from institutional investors, sometimes also from individual ones, declarations as to the proposed price and a number of shares. This process is usually organized by a brokerage house, which at the same time prepares a relevant distribution network. The shares are allotted at a price which ensures that the interest reported during the book-building would exceed shares' supply. This ensures a stable shares' price at the beginning of trading.²⁶ The decision on shares' allocation to individual investors is taken by the company management immediately after the subscription process.²⁷

²⁵ Ibid., p. 404.

²⁶ *Droga na giełdę, jak przygotować spółkę do emisji publicznej*, op. cit., p. 410-411.

²⁷ Ibid., pp. 421.

Before the public offering it is required to conclude a contract with KDPW to register shares and allotment certificates in the KDPW.²⁸ The contract allows to seek admission of shares to trading. After receiving an approval of the introduction of shares to trading, termination of the public offering and registration of shares of a new issue by the court, the company may apply to the Exchange Management Board for the introduction of the shares to trading on the main or the parallel market. In this case the Exchange Management Board determines inter alia the date of the first listing on the Stock Exchange.²⁹

The first listing is equivalent to the completion of the company's admittance process and is called the company shares' debut on the Stock Exchange. This event is accompanied with celebration in the Stock Exchange building. It is most often used to promote the company and its business.

²⁸ For the admission of shares to trading on the Stock Exchange it is necessary to register the increase in the share capital in the court. In the meantime, the allotment certificates, which entitle to new shares of the company, are listed on the Stock Exchange.

3. Stock Market Organization

Giełda Papierów Wartościowych w Warszawie S.A. (the Warsaw Stock Exchange) is the largest national stock exchange in the CEE and one of the fastest-growing exchanges in the world.

WSE is a leader in the region in terms of capitalization size and turnover. In 2011, the value of trading in shares for the first time in the WSE history exceeded PLN 250 billion, and a record number of debuts were noted - 38 debuts on the Main Market and 172 on the NewConnect. This enabled the WSE to take the first place in Europe in terms of the number of new companies and the third place in terms of IPOs value (EUR 2 199 million).³⁰

As at 25 May 2012, 435 companies are listed on the Warsaw Stock Exchange, including 40 foreign companies. And the companies' capitalization on the Stock Exchange on that day amounted to PLN 638 522 million. Interestingly, despite a small number of foreign companies listed on the Stock Exchange in Poland, their capitalization accounts for 29.91% of the total. Foreign investors' participation in the trading within the framework of session transactions is also significant. In 2011, foreign investors generated 47% of trading on the stock market and 16% of trading on the futures market .³¹

Companies listed on the Stock Exchange operate in 26 market sectors, of which 13 are different types of industry³². Currently, the structure of exchange-listed companies is as follows:

- construction - 36 companies,
- finance - 32 companies,
- wholesale - 32 companies,
- IT - 31 companies,
- electromechanical industry - 28 companies,
- food industry - 28 companies,
- developers - 27 companies,
- retail trade - 23 companies,

³⁰ *Sprawozdanie Zarządu z działalności Grupy Kapitałowej Giełdy Papierów Wartościowych w Warszawie S.A. za 2011 rok*, http://static.gpw.pl/pub/files/PDF/raporty/okresowe/pl_2011_skonsolidowane/Sprawozdanie_Zarzadu_z_dzialalnosci_Grupy_Kapitalowej_GPW_2011.pdf, pp. 5-15., [accessed on 30.05.2012].

³¹ http://www.gpw.pl/analizy_i_statystyki, [accessed on 30.05.2012].

³² http://www.gpw.pl/lista_spolek, [accessed on 30.05.2012].

- metal industry - 20 companies,
- other such as banks, media, energy, hotels and restaurants, telecommunications, fuel industry, raw materials, pharmaceuticals and others - a total of 178 companies.

Companies are listed on the Stock Exchange according to established forms and rules. There are two trading systems: the single-price auction system and the continuous trading system. And all transactions are made in rigidly defined session schedule, with the exception of block trades, which are implemented in the pre-session and off-session system.

3.1. Listing Forms

Two basic types of transactions are made on the Stock Exchange: spot and futures transactions. Generally speaking, capital is transferred in the spot (cash) market and liabilities are transferred in the futures market. Liabilities are acquired by the futures transaction parties at the time of the transaction and payment takes place in the future. Transactions in the spot market are settled in full at the conclusion of the transaction, while in the case of futures, the settlement between the parties occurs after a certain time in the future. Thus, the futures market is identified with the derivatives market.³³

Spot transactions are completed immediately after their conclusion, no later than 1-3 days after they are made. Thus, during that period, the seller should deliver assets to the buyer, the buyer should receive them and make payment - with due commission. Delivery of securities does not necessarily require their physical transfer if they are deposited in a bank or in a particular trust institution. Their delivery may then consist in making a relevant act of transfer of ownership of the deposited share portfolio or the transfer of the depository receipt.³⁴

Forward contract is one of the simplest futures transactions. Its settlement is based on the difference in price of the underlying instrument at the date of the contract and at the date of contract execution between the contracting parties. This is done without having to deliver the underlying instrument, so the transaction can be called unreal. The contract is settled after the expiry of the contract.³⁵

Parties to the futures transaction tend to earnings resulting from price differences of a given type of asset that occur between the date of the transaction and the date of its

³³Czekaj J., *Rynki, instrumenty i instytucje finansowe*, Wydawnictwo Naukowe PWN, Warszawa 2008, pp. 16-17.

³⁴Bień W., *Rynek papierów wartościowych*, Wydawnictwo Difin, Warszawa 2008, p. 232.

³⁵Mikos-Sitek A., Zapadka P., *Polskie prawo bankowe*, Oficyna a Wolters Kluwer business, Warszawa 2009, p. 179.

execution. Certain forms of futures transactions may be also concluded in order to hedge against losses that could result from an expected decline in prices of assets held by the investor who does not want to get rid of them. The futures transaction is concluded by two partners who are guided by different reasons. One (the seller) forecasts that the price of the asset will decrease in the future as compared to its price fixed in the contract. S/he is defined as a "bear". The other expects that on the liquidation date, the price of the purchased assets will increase. S/he is called a "bull".³⁶ The seller expects to be able to buy securities needed to be delivered to the buyer at a fixed date at a price lower than the buyer will have to pay according to the contract. On the other hand, the buyer predicts that upon receipt of the purchased assets, at the date of liquidation s/he will be able to re-sell them at a more favourable price than fixed in the contract, i.e. with profit. It may be simply stated that if at the close of the transaction the price of securities increases, the buyer will gain, and if the price falls, the seller will gain.³⁷

3.2. The Rules for Price Fixing on the Stock Exchange

Two trading systems operate currently on the Stock Exchange: the single-price auction system and the continuous trading system. A decision on the assignment of a given instrument to one of these systems is taken by the Exchange Management Board. The main qualifying factor is liquidity of companies (higher liquidity - continuous trading, lower liquidity – a single-price auction).³⁸

The single-price auction is based on a price determination procedure (fixing). It consists in collecting buy and sell orders during a given period (the so-called pre-opening phase of the session). During this phase, the indicative opening price (IOP) is calculated. Then the single price is calculated (fixing) at which stock transactions are executed. The determined price must meet several criteria, namely: maximization of trading volume, minimization of the imbalance between the supply and demand, as well as reducing price variations. The fixed price is called the equilibrium price at which orders are executed. Then there is a phase of post-auction trading when additional buy and sell orders may be placed whose limit price is equal to the determined single price. During each day of trading in a single-price system there are two auctions (fixings): in the morning and in the afternoon.

³⁶ The bear period means a period of general decline in stock market values, and the bull period means a general increase in prices on the stock exchange.

³⁷ Bień W., op. cit., p. 233-235.

³⁸ Zaremba A., *Giełda papierów wartościowych*, Wydawnictwo HELION, Helion 2010, p. 125-135.

The single-price system is characterized by limiting fluctuation. The single price must not differ from the reference price by more than 10 per cent in the case of shares and 3 percentage points in the case of bonds (both in case of decline and growth). This applies both to the single-price auction system with one auction and with two auctions. When the price goes beyond the variation limits, a chairperson of the session may change the price variation limits (the maximum is 21% for shares and 6 percentage points in the case of bonds) or close the trading, which results in announcing a non-transactional single price equal to the upper or the bottom price variation limit, depending on an excess of buy or sell orders.³⁹

In continuous trading the price may change in subsequent transactions that are executed during the trading session. This means that currently placed buy and sell orders are executed immediately (on the condition that buy and sell orders match) or are entered into the order book, which is kept for each security, and then they await orders on the other side, allowing to execute a given transaction. There are two priorities in order execution in the continuous trading system: price and order placement time. This means that whenever two orders are placed at the same price, the one submitted earlier has the priority in trading. The auction (fixing) procedure is also used in continuous trading - at the opening of the session - the opening price is determined, and at the close of the session - the closing price. After the closing price is determined, the post-auction trading phase occurs, during which all transactions are executed at that price.⁴⁰

In determining the opening price and the closing price the following rules are followed: maximizing the volume of trade, minimizing the difference between the number of financial instruments in sell orders and in buy orders which may be executed at a determined price and minimizing the difference between the price being determined and the reference price. The opening and the closing price may not be lower than the reference price by 10 per cent in the case of shares and 3 percentage points for bonds. When the prices exceed the variation limits, they are not announced and market balancing activities begin. In effect, exchange members may place additional buy and sell orders, as well as modify and cancel orders placed earlier. If as a result of balancing it is possible to determine the opening or closing price, the balancing is completed and those prices are announced. If the balancing did not give the expected effects, the chairperson of the session may alter price variation limits or close the quotations by announcing a non-transactional opening or closing price.⁴¹

³⁹ http://www.gpw.pl/pub/files/PDF/regulacje/regulamin_gpw.pdf [accessed on 22.06.2012].

⁴⁰Becket M., *Jak działa giełda*, Wydawnictwo K.E.LIBER, Warszawa 2009, pp.76-78.

⁴¹ http://www.gpw.pl/pub/files/PDF/regulacje/regulamin_gpw.pdf [accessed on 25.06.2012].

3.3. Block Trades

Block trades may be concluded on the stock market outside the routine trading session. These may be the pre-session and off-session transactions. All securities and financial instruments admitted to trading (other than futures and options) may be subject to block trades. There is only one condition, namely, that their trading is not suspended.

Pre-session block trade in securities may be executed before they are introduced to trading. This solution enables to transfer the securities on the regulated market to ensure that admission to public trading and the associated rules and regulations do not completely block a possibility to transfer the securities. The pre-session block trade may be carried out subject to certain conditions:

- a block subject to the transaction must include at least 5% of the securities that are the subject of that transaction;
- at least one exchange member must submit the broker's orders to buy and sell the same number of securities at the same price, with the same settlement date, as well as the reasons for the conclusion of that transaction,
- may not exceed 30 days from the date of concluding the transaction.

The pre-session transaction is deemed to have been effected when an appropriate record is made in the Exchange IT system. Immediately after the conclusion of such transaction the Exchange makes public information about the transaction, including: the name of securities, transaction volume, price, the value and the date of settlement.

Off-session block trade allows to transfer a significant number of securities without affecting their price in the listings at a specific time on the trading sessions. The following conditions must be met to conclude an off-session transaction:

- at least one exchange member must submit orders to buy and sell the same number of securities at the same price and with the same settlement date,
- the block value must be at least:
 - ❖ PLN 3 million for shares traded on the main market, included in the WIG20 index
 - ❖ PLN 1 million for other shares traded in the continuous trading system,
 - ❖ PLN 0.5 million for other shares, securities and financial instruments,
 - ❖ a maximum difference between the security price as defined in the order, and its last price cannot be higher than 0.5%. The difference of the price may be increased in accordance with the principle that the increase in the block value allows to

increase the difference by a further 0.5%. The maximum difference cannot be higher than 10%.

For block trades concluded outside the trading hours, the Exchange allows for a much greater difference between the price of the security that is the subject to the transaction and the reference price equal to arithmetic mean of prices in all transactions in the last trading session. The difference may not exceed 40%. Orders for the conclusion of block trades are valid only on the date of their submission to the exchange and they cannot be changed nor cancelled.⁴²

3.4. Types of Indices Listed on the Warsaw Stock Exchange

The Warsaw Stock Exchange publishes 22 indices. Values of WIG20, WIG20lev, WIG20short, mWIG40, sWIG80, WIG-PLUS, WIGdiv, Respect and WIG indices are published during continuous trading, other indices are published three times during the trading session - after the first and the second auction (fixing) and at the closing of the session. The share indices may include companies that meet certain conditions, such as: the number of free-float shares should be greater than 10%, the value of free-float shares must necessarily be greater than EUR 1 million, the company may not be designated in a special way and cannot be part of the MINUS5 and Alert List segments and may not be listed in the Low Liquidity Zone.⁴³

⁴²Socha J., *Rynek papierów wartościowych w Polsce*, Wydawnictwo Gaudim, Warszawa 2008, pp. 89-95.

⁴³http://www.gpw.pl/plik?ph_content_start=getFile&fwmf_id=720 [accessed on 15.05.2012].

Table 1 Selected Stock Exchange indices

Index	Date of first publication	Index type	The number of companies in the index *	The value of the index *
WIG	16.04.1991	Income ¹	346	40792.66 points
WIG20	16.04.1994	Price ²	20	2273.28 points
mWIG40	31.12.1997	Price	40	2284.88 points
sWIG80	29.12.1994	Price	80	9536.76 points
WIG-PLUS	31.12.2009	Price	170	740.35 points
WIG-Poland	16.04.1991	Income	311	40893.82 points
WIG-Ukraine	31.12.2010	Income	10	678.27 points

* - As at 06.07.2012

¹ -This type of index is calculated taking into account the prices of shares contained therein and the income from dividends and subscription rights.

² -This type of index is calculated taking into account only the prices of transactions contained therein.

Source: Own work based on data from the www.gpw.pl portal

The latest Stock Exchange index is worth mentioning - WIG-CEE. It was published on 30 May 2012. This is an income index, taking into account income from dividends and subscription rights. Its initial value was 800 points. The main criterion for the selection of companies is their country of origin. Its portfolio may include companies from Bulgaria, the Czech Republic, Estonia, Latvia, Lithuania, Romania, Slovakia, Slovenia, Ukraine and Hungary, whose shares are traded on a regulated market or in the alternative trading system operated by the Warsaw Stock Exchange. Companies of a given country may be included in the WIG-CEE index only if at least two companies of that country are listed on the Stock Exchange, and they have been qualified to various sectors. At the time of the publication, the index consisted of 25 companies. Now it includes 28 companies, and the index value is 847.01 points.⁴⁴

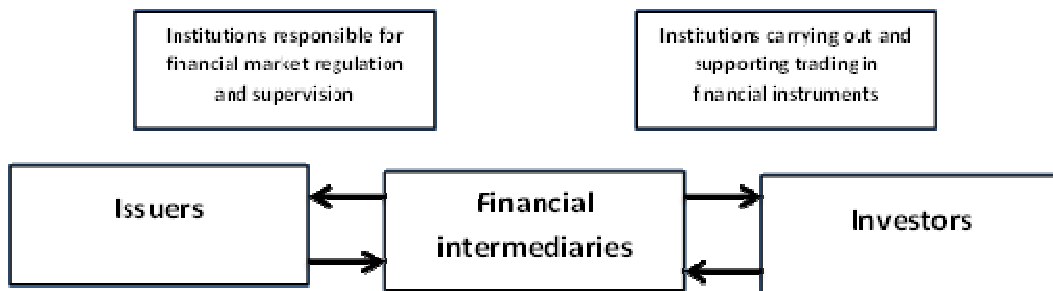
⁴⁴ As at 06.07.2012.

4. The Capital Market Participants in Poland

The previous chapters have discussed functioning and organization of the stock market and financial instruments traded. In this chapter, the subjective structure of the capital market in Poland will be addressed.

The most important groups of market participants include issuers, investors, financial institutions playing the role of financial intermediaries between the two already mentioned groups, as well as institutions regulating and supervising capital market and institutions that organize trading in financial instruments. This structure is shown in Figure 2

Figure 2 The main groups of capital market participants



Source: Own work based on Czekaj (ed.), *Rynki, instrumenty i instytucje finansowe*, PWN, Warszawa 2008.

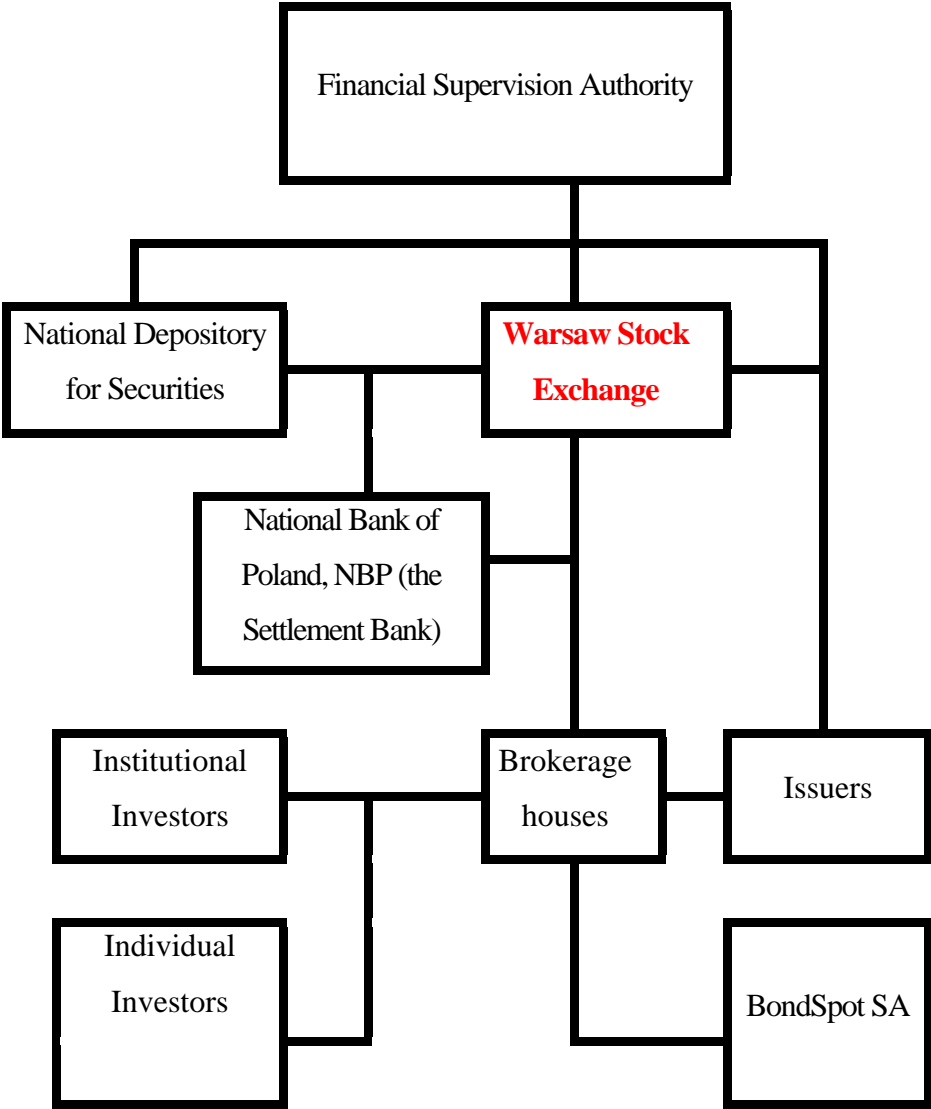
The issuers are capital market players who - by issuing securities and other financial instruments on their own behalf - report the demand for capital. Investors are market participants providing capital, who - having surplus capital - acquire financial instruments, investing their savings in securities or other financial instruments. This group includes individual and institutional investors, domestic and foreign investors, who will be discussed later in this work.

Financial institutions are another group, acting as intermediaries in capital market transactions. In providing their services, they are responsible for transactions in financial instruments facilitating the movement of capital from entities with its surplus to entities with its deficit. They also provide advisory services.

Specialized institutions responsible for market regulation and supervision as well as institutions responsible for trading organization are an important group in the subjective structure of the capital market, creating conditions conducive to proper conduct and settlement of capital market transactions.

While the subjective structure of the financial market has been presented above, the individual groups of the Polish capital market players will be characterized later in this work. The subjective structure of the Polish capital market is shown on Figure 3.

Figure 3 The subjective structure of the capital market in Poland



Source: Giełda Papierów Wartościowych w Warszawie SA, *Rocznik Giełdowy 2012. Dane statystyczne za rok 2011*, GPW SA, Warszawa 2012.

4.1. Issuers and Investors in Poland

As it was already mentioned, capital market issuers are entities engaged in the issue of securities on their own behalf, which raise capital to finance their operations by selling financial instruments to investors. A wide range of instruments traded on the capital market, as referred to in Chapter III, translates into a possibility of greater investment diversification.

However, to a large extent, issuers of two instruments - shares and bonds - operate in the capital markets.

Issuers in the Polish capital market primarily include such entities issuing shares, bonds and other securities as: joint stock companies, the Treasury represented by the Ministry of Finance, responsible for the issue of treasury debt securities, as well as local governments issuing municipal bonds.

Terms and conditions of the issue and an ability of individual entities to issue securities are governed by the commercial law. The most important regulations in Poland regarding securities trading and its safety are included among others in *the Capital Market Supervision Act, the Financial Instruments Trading Act and Act on Public Offering, Conditions Governing the Introduction of Financial Instruments to Organized Trading, and Public Companies*. Legal regulations govern the procedure of obtaining permission for issuance. They also oblige the issuer to publish a certain range of information with securities sale offer and determine the scope of legal liability.

Issuers' operation on the Polish capital market is discussed in Chapter II in the light of the process of entering the Warsaw Stock Exchange.

There has been already presented the supply side of the capital market: issuers ensuring the supply of securities. The demand side is represented by investors who acquire securities, as an alternative to investing their cash savings for example in a bank. Thus, the investor is defined as a natural person, legal entity or an organizational unit without legal personality which - having a certain amount of capital - makes investment in order to gain profit.

As mentioned earlier in this chapter, there are individual and institutional investors on the capital market. Individual investors are mostly small investors. They include households and non-financial institutions, i.e. entities that invest their cash savings in the securities.

To gain knowledge of investment principles, individual investors may associate in investor clubs, primarily in order to jointly invest in securities.

It should be also mentioned that the EU regulations and the Polish laws provide individual investors with protection in relations with investment companies. These are primarily the *Act on Trading in Financial Instruments and the EU Directive on Markets in Financial Instruments (MiFID)*.⁴⁵ MiFID provisions aim to strengthen the single passport principle, relating to uniform regulations on financial instruments markets in the entire European Union,

⁴⁵ Directive 2004/39/EC of the European Parliament and of the Council of 21 April 2004 on markets in financial instruments amending Council Directives 85/611/EEC and 93/6/EEC and Directive 2000/12/EC of the European Parliament and of the Council and repealing Council Directive 93/22/EEC.

to increase the protection of investors' rights and the competitiveness in trading in financial instruments, to introduce the supervision of investment advisory services, to increase consistency and transparency in companies' operation and they lay down the "best execution" principle.⁴⁶

The purpose of the passporting principle is to allow investing entrepreneurs from individual Member States equal access to markets within the European Union. By extending the single passport principle, the MiFID provisions eliminate the possibility of establishing local rules on financial instruments' markets by individual states, which in turn enables and facilitates the companies to conduct investment business and to provide investment services across the European Union.

The 'best execution' principle imposes on investment firms an obligation to execute client orders by means of activities aimed at achieving the best possible results for their clients.

Therefore the rules introduced by MiFID relate to the activities of financial institutions, which will be discussed later in this work.

Institutional investors are mostly professional participants of the capital market with a staff trained in the capital markets' operation and in trading in financial instruments. They have much greater financial resources, knowledge and experience than individual investors. Beside investing their own capital on the capital market as companies with financial surpluses, the institutional investors deal with investing their clients' cash, thus acting as financial intermediaries. This group of players will be characterized in the next part of the work.

4.2. Financial Intermediaries in Poland⁴⁷

The following should be mentioned as financial institutions acting as intermediaries on the Polish capital market: the Central Bank, commercial banks, investment funds, pension funds, insurance companies and other financial intermediaries, such as leasing and factoring companies.

Among the commercial banks, an important role on the capital market is played by non-depository banks. These banks conduct investment operations associated with trading in

⁴⁶ Narodowy Bank Polski, Krajowy Depozyt Papierów Wartościowych SA, Giełda Papierów Wartościowych w Warszawie SA, *System rozrachunku papierów wartościowych w Polsce i Unii Europejskiej*, NBP, Warszawa 2009, http://www.mifid.com.pl/mifid_w_praktyce/, [accessed on 22.05.2012].

⁴⁷ Giełda Papierów Wartościowych w Warszawie, *Rocznik Giełdowy 2012. Dane statystyczne za rok 2011*, Giełda Papierów Wartościowych w Warszawie, Warszawa 2012; Czekaj J. (ed.), *Rynki, instrumenty i instytucje finansowe*, PWN, Warszawa 2008; Komisja Nadzoru Finansowego, *Raport o funkcjonowaniu polskiego rynku finansowego w ujęciu międzysektorowym*, Urząd Komisji Nadzoru Finansowego, Warszawa 2011.

financial instruments and with the risk emerging in capital markets. The main functions of this type of banks in the capital market include: organization and conduct of clients' securities placement, securities' underwriting in the form of underwriting agreement, trading in securities upon clients' order and on their behalf through a bank brokerage office, client investment portfolio management and securities' trading on their own account as a form of own bank investment.

Another group of financial intermediaries in Poland to be characterized are investment funds being the collective investment institutions. The Fund may be created only in the form of a joint stock company by an investment fund company and the purpose of its operation is the best possible placement of participants' resources.

There are distinguished open-end investment funds, issuing participation units and redeeming them at the request of the fund participant. The specialized open-end investment funds operate under the principles similar to open-end funds, but their statutes may contain some regulations on the investment methods. Closed-end funds are the last group. They issue investment certificates traded on the regulated markets. Thus, investors have an opportunity to sell investment certificates, but the investment fund may not redeem its certificates on the market.

When discussing the investment funds, the National Investment Funds (Narodowe Fundusze Inwestycyjne, NFI) should be mentioned. They are also special privatization funds. They were created as part of the Mass Privatization Programme. These funds operate in a different manner than the above-discussed institutions. Participants in the National Investment Fund do not entrust their resources to the Fund to be placed with benefit, but buy its shares on the stock market.

Open Pension Funds (OFE) are another form of financial intermediation. They are also a collective investment institution. Open pension funds are the second pillar of the pension system in Poland as funded pension insurance. Their creation was the most important element of the pension system reform in Poland in the 1990s. This pillar is compulsory and universal. As already mentioned, it has the funded character and is managed by private entities - General Pension Societies (Powszechna Towarzystwa Emerytalne).

The Open Pension Fund invests cash collected by the participants - prospective pensioners in securities and other assets. The purpose of the Open Pension Fund is, following the investment strategy adopted, to maximize the security and rate of return on their deposits.

Open Pension Funds, managing assets with a high total value, may be included to major institutional investors operating on the Polish capital market.

Insurance companies, being the oldest non-depository institutions, are the last financial intermediary institution in Poland, which is described in this chapter. These entities are designed to insure clients against adverse effects of fortuitous events. The risk of damage as a result of the fortuitous event is spread out among all participants in the insurance company who are exposed to such risks. Upon premium paying the insured receives a policy which certifies the insurance contract.

Insurance companies are largely involved in investment activities. They invest the temporarily unused funds, designated for compensation, in securities in the capital market. This trading is not, however, governed by the general principles. *The Act on Insurance Activity*⁴⁸ dated 22 May 2003 imposes certain conditions on insurance companies and defines the types of securities in which they may invest.

4.3. Institutions Regulating and Supervising the Capital Market in Poland⁴⁹

The following institutions are responsible for regulation and supervision of the capital market in Poland: the Financial Supervision Authority and the National Depository for Securities.

The Polish Financial Supervision Authority (Komisja Nadzoru Finansowego, KNF) supervises the capital market, but also the banking sector, the pension scheme, the insurance market, payment service providers (PSP) and electronic cash institutions. KNF was established under the Act on Financial Market Supervision and is subject to the supervision by the Prime Minister.⁵⁰

While supervising the financial market, KNF is designed to ensure its proper functioning and development of its competitiveness and to protect the interests of market actors. Its activities are aimed to increase the stability, transparency and security of the financial market. What is also important, the Financial Supervision Authority builds up trust in the financial market in Poland.

The Financial Supervision Authority is actively involved in the creation of regulations relating to the financial market operation. It also undertakes information measures related to the financial and capital market operation in Poland. Also important are measures taken by

⁴⁸ Journal of Laws 2003.124.1151 as amended

⁴⁹ Giełda Papierów Wartościowych w Warszawie, *op. cit.*; Czekaj J. (ed.), *op. cit.*, <http://www.kdpw.pl/pl/Strony/Home.aspx>, accessed on 15.05.2012; <http://www.knf.gov.pl/index.html>, [accessed on 15.05.2012].

⁵⁰ Journal of Laws 2006.157.1119.

KNF to create opportunities for amicable and conciliatory settlement of disputes between financial market actors.

With regard to the capital market and stock exchange, the most important tasks of the Financial Supervision Authority include granting to brokers, brokerage houses, investment advisers, other entities organizing markets or investment funds licenses and permits to operate in the public market. KNF is also responsible for approving prospectuses, i.e. for admission of financial instruments to public trading and, as already mentioned, it undertakes a number of other activities aimed at the orderly functioning of the financial market.

KNF carries out international cooperation on a large scale. It is a member of the Basel Committee on Banking Supervision, the International Organization of Securities Commissions, the International Association of Insurance Supervisors, the International Organization for Pensions Supervisors. Besides, KNF representatives sit in MONEYVAL, the Council of Europe Committee of Experts involved in evaluation of methods for anti-money laundering and counteracting terrorist financing.

From 1999, the Financial Supervision Authority has also signed a number of international agreements on cooperation and exchange of information with major financial institutions from such countries as Argentina, Armenia, Austria, Belgium, Belarus, Bulgaria, China, Croatia, Cyprus, Czech Republic, France, Germany, Lithuania, Latvia, Luxembourg, Macedonia, Malaysia, Malta, Mexico, Mongolia, Netherlands, Portugal, Romania, Slovenia, Switzerland, Ukraine, the USA, Hungary and Italy.

The second most important institution regulating and supervising the capital market in Poland is the National Depository for Securities (Krajowy Depozyt Papierów Wartościowych, KDPW). Being the supervisory institution, keeping and supervising the depository and settlement system in Poland for trading in financial instruments, KDPW keeps a central securities depository and settles transactions made both on the regulated market and in alternative trading, inter alia on the Stock Exchange, BondSpot as well as NewConnect and Catalyst, which are discussed in separate chapters.

The National Depository for Securities operates as a joint stock company, whose shareholders are the State Treasury, Warsaw Stock Exchange and the National Bank of Poland.

Within the framework of the international cooperation, KDPW is involved in a number of initiatives, inter alia of the European Central Bank and the European Commission, and is also active in several international organizations.

The National Depository for Securities carries activities within ECSDA, the European Central Securities Depositories Association, set up to facilitate cooperation of the Central Securities Depositories of individual European Member States within joint projects, and being a forum for the exchange of opinions between them.

SMPG, Securities Market Practice Group, is another organization where KDPW is active. SMPG aims to develop market standards and practices to achieve Straight-Through-Processing (STP), which refers to the full automation of orders' processing on the capital market.

National Depository for Securities is also a member of the ESA, the European SWIFT Alliance, which brings together representatives of countries benefiting from the SWIFT financial network.⁵¹ ESA aims to exchange information, experience and provide a forum for discussion.

The last international organization in which KDPW is active is ANNA, the Association of National Numbering Agencies that assign ISIN codes (international codes identifying financial instruments) to all securities in public trading.

4.4. Institutions Trading in Financial Instruments in Poland

Institutions trading and supporting trading in securities in Poland include, first of all, in addition to the Warsaw Stock Exchange, brokerage offices and houses and BondSpot S.A.

Brokerage houses act as intermediaries in the transactions listed, through which investors may trade on the organized market. They primarily deal with opening and administering brokerage accounts, organizing public offering of instruments' sale, receiving and executing buy and sell orders of financial instruments on the market, managing the portfolio of financial instruments upon order, as well as providing advisory services. As mentioned in the previous part of the work, brokerage activity is subject to authorization by the Financial Supervision Authority.

Activities of brokerage houses in Poland are governed by the Act on Trading in Financial Instruments. In accordance with this Act, the brokerage house may carry out its activities only as a joint stock company, and brokerage offices as separate organizational units of banks.

⁵¹ The Society for Worldwide Interbank Financial Telecommunication is a telecommunications network that is used to exchange information between international financial institutions inter alia by serving as an intermediary in transactions between stock exchanges, banks, brokerage houses; <http://www.swift.com/>, [accessed on 20.05.2012].

There are 42 brokerage houses and 7 brokerage offices in Poland.⁵² Supervision of their activities is exercised by the Financial Supervision Authority. In order to represent these entities in Poland, the Chamber of Brokerage Houses, entered into the Register of the Economic Chambers, was established on 28 June 1996. The legal basis for its functioning, beyond the Statute of the Chamber of Brokerage Houses, is *the Act on Trading in Financial Instruments* and *the Act on the Economic Chambers*⁵³ of 30 May 1989.

The Chamber of Brokerage Houses, which is a self-governing organization, associates brokerage businesses in Poland, creating favourable conditions for the development of brokerage houses and offices, providing them, as major market actors, with an opportunity to influence the capital market development in Poland, . By creating the rules of good practices in the brokerage, the Chamber protects entities involved in trading securities. In order to improve the capital market regulation, it also carries out cooperation with other institutions of this market and with the state administration.⁵⁴

Institutions that organize trading in financial instruments in Poland include BondSpot S.A., managing the over-the-counter market. The company is a unique institution in Poland due to the fact that it has a license to manage the regulated market and the alternative trading system. At the same time it may also create other platforms for electronic trading in financial instruments. The Company was established in 1996, through the initiative of over twenty major Polish banks and brokerage houses, under the name of Centralna Tabela Ofert S.A (CeTO S.A.). Since 2000, the Warsaw Stock Exchange has become CeTO S.A. shareholder. Nine years later MTS-CeTO S.A.⁵⁵ joined the Warsaw Stock Exchange capital group, changing its name to BondSpot S.A. in 2009 Starting from this period, the Warsaw Stock Exchange has been constantly a leading shareholder of BondSpot S.A., holding 92.47% of the share capital. 3.56% of the share capital is held by banks, 3.88% - by brokerage houses and 0.09% of the capital is in the hands of other entities, including Treasury.⁵⁶

BondSpot aims at the creation of a competence centre and a centre for trade in debt instruments in the Polish capital market. To achieve these goals the following intermediate objectives have been adopted for the organization of trading in debt instruments: to create and implement modern, competitive and comprehensive solutions, to provide professional

⁵² <http://www.mf.gov.pl>, [accessed on 22.05.2012].

⁵³ Journal of Laws No. 35, item 195 with amendments.

⁵⁴ <http://www.mf.gov.pl>, [accessed on 22.05.2012].

⁵⁵ In 2004, CeTO SA was transformed into MTS - CeTO S.A. after entering into a strategic alliance with the Italian MTS Group; http://www.bondspot.pl/o_spolce, [accessed on 20.05.2012].

⁵⁶ http://www.bondspot.pl/o_spolce, [accessed on 20.05.2012].

expertise, to integrate various segments of the Polish bond market and to focus within WSE capital group competencies in debt instruments' trading.⁵⁷

An important objective of the company is to support the Stock Exchange in pursuing the strategic goal of creating a regional centre of capital trading through gaining a competitive advantage in this field by the WSE as compared to other markets in the Central and Eastern Europe.⁵⁸

⁵⁷ http://www.bondspot.pl/strategia_bondspot, [accessed on 20.05.2012].

⁵⁸ Ibid.

5. Foreign Issuers and Foreign Investors' Participation in Trading at the Warsaw Stock Exchange

Polish accession to the European Union in 2004 was a very important event for the development of the Stock Exchange in Warsaw and for building a regional financial centre. This not only allowed to facilitate the access of foreign capital to the Polish market, but also the domestic securities market became part of the securities market of the European Union.

5.1. Introduction of Foreign Issuer's Securities to Trading

On the basis of the single European passport institution, which has been discussed in more detail in Chapter 4, the procedure to enter the Polish exchange by a foreign company registered in another country of the Community was greatly facilitated. Currently, such issuer has an opportunity to submit a prospectus to its national securities market regulator. At the same time it is released from an obligation to prepare the prospectus for the supervisory authority of a stock exchange where it wants to issue its securities. However, such public offering may be carried out in Poland only if the Polish Financial Supervision Authority receives from its sister institution in another EU Member State the following documents:⁵⁹

- a notification document confirming approval of the issue prospectus relating to such securities and defining the scope of information whose omission from the issue prospectus has been authorized by the competent authority or not included in the issue prospectus on account of the nature of the issuer's activities, its legal form, the securities in question, or of other reasonable considerations which justify omission of such information from the prospectus, along with a statement of reason for such authorization or non-inclusion;
- a copy of the approved issue prospectus, drawn up and updated in compliance with the law of such Member State, along with a translation into Polish or English (along with translation into Polish of the part of the issue prospectus including a summary of the information contained therein).

After the approval of the prospectus by the Financial Supervision Authority, the requirements for the issuer, and subsequent procedures for the admission of shares to trading, are similar to those applied for Polish companies.

⁵⁹ The Act of 29 July 2005 on public offering and terms and conditions of introducing financial instruments to the organized trading system and on public companies, Article 37, Journal of Laws of 2005 No. 184, item 1539.

The issuer from outside the Community who intends to enter the Warsaw Stock Exchange, must receive approval of its prospectus by the securities market regulator of any EU Member State, which results from the aforementioned principle of the single European passport. The most common practice used by foreign companies from outside the EU is to create a special company in one of the EU Member States and to contribute their shares to such company. Companies that took advantage of this solution include among others: Ukrainian companies Kernel and Astarta, Belarusian Asbis or Israeli Cinema City. After approval of the prospectus, all applicable regulations and procedures are identical as for an issuer incorporated in one of the EU Member States.

The rules for foreign shares' introduction to trading on NewConnect, upon approval of the information document (in this case, too, there is the requirement of appropriate language and the principle of the single European passport is valid), are similar to those applied for Polish companies.

Conditions of bonds' issue on the Catalyst market for foreign issuers are identical to those for Polish issuers.

The most commonly cited argument for decisions on foreign entry to the Warsaw Stock Exchange, is the IPO cost attractiveness. Compared to the London Stock Exchange, IPO on the WSE is 3-4 times cheaper.⁶⁰

5.2. Dual Listing of Foreign Issuer's Shares

If the shares of the issuer wishing to enter the Polish stock exchange are already listed on another regulated market of the European Union, it is necessary to establish a link between the home depository and the Polish National Depository for Securities. KDPW currently⁶¹ holds 18 such links, which makes it a regional leader in terms of number of links. These contracts allow for dual listing of companies from Austria, Bulgaria, Czech Republic, Estonia, France, Canada, Lithuania, Germany, Slovakia, Sweden, USA, Hungary, Great Britain, and Italy.

In May 2012, 20 foreign companies took advantage of the dual listing formula on the WSE Main Market, which means that every second foreign company used dual listing. The reason for foreign companies' decisions on the dual listing on the Polish stock market is most often the desire to raise from the Polish market additional capital for further development.

⁶⁰ Przybylska-Kapuścińska W., *Rozwój polskiego rynku giełdowego na tle sytuacji giełd europejskich w XXI wieku*, "Roczniki Ekonomiczne Kujawsko-Pomorskiej Szkoły Wyższej w Bydgoszczy", Bydgoszcz 2008, p. 128.

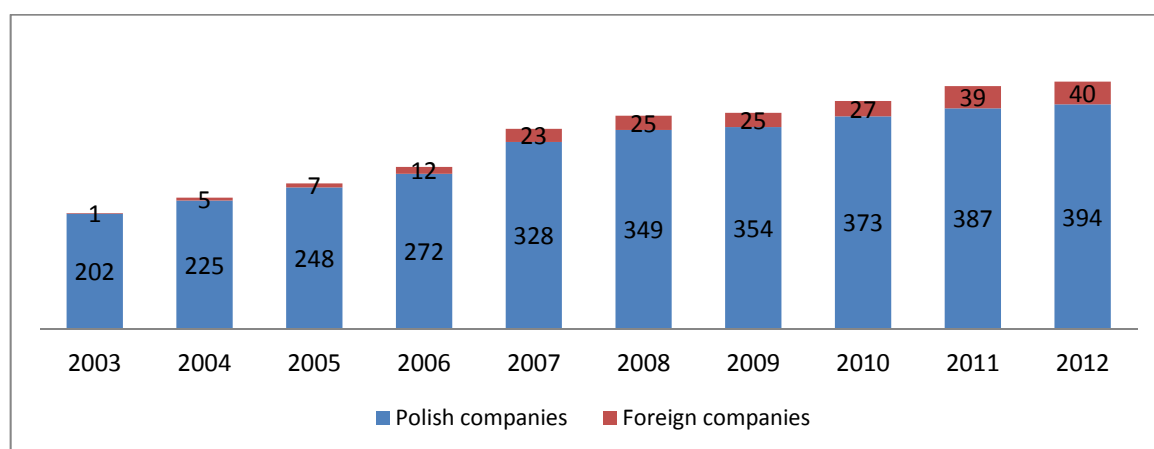
⁶¹ As at May 2012.

The decision to choose this formula may also have a more trivial basis, as was the case with CEDC company, which comes from the New York Stock Exchange. If the issuer decided to trade at the same time in both stock exchanges, trade in shares on the Warsaw Stock Exchange would take place only for an hour and fifty minutes. This is due to the location of Warsaw and New York in various time zones.

5.3. Foreign Issuers' Importance for WSE

At the time when Bank Austria Creditanstalt, as the first foreign company in the history of the Stock Exchange, had its impressive⁶² debut on the Polish stock exchange on 14 October 2003, the route was made for other foreign issuers interested in the Polish trading floor, and the process of the Warsaw Stock Exchange brand building began as a regional financial centre. After the Polish accession to the European Union and associated procedural facilitation for IPOs from other Member States, the issue of foreign shares on the Polish capital market began to follow (see Diagram 1). In the years 2008-2010, the slowdown in foreign IPOs can be seen, which was due to the economic crisis in Europe.

Diagram 1 Number of companies on the WSE Main Market as at 25 May 2012.



Source: Own work based on data from www.gpw.pl [accessed on 20.05.2012].

The debut of the first foreign company and expected debuts of other companies necessitated establishment of an index made only for companies incorporated in Poland – WIG-Poland (earlier WIG-PL) in December 2003⁶³.

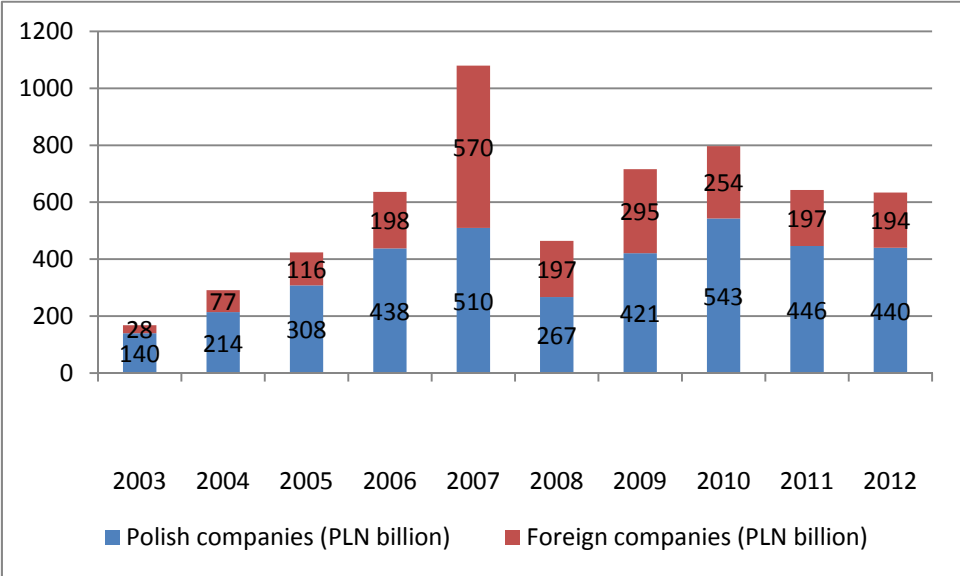
Analysing the ratio of the number of foreign companies to the total number of companies listed on the Main Market of the Warsaw Stock Exchange (foreign companies account for less

⁶² Kurasz J., *Akcje Banku Austria zadebiutowały na GPW po 160 zł*, „Gazeta Giełdy Parkiet”, 14.10.2003.

⁶³ http://www.gpw.pl/indeksy_gieldowe?isin=PL9999999599&ph_tresc_glowna_start=show, [accessed on 25.05.2012].

than 10% in this comparison), one could get the impression of low importance of foreign issuers for the Polish stock exchange. However, this illusion disappears when one takes into account the capitalization of the WSE Main Market and participation of foreign companies therein (see Diagram 2). It should be noted that already in 2007, i.e. four years after the debut of the first foreign company on the WSE, capitalization of foreign companies was higher than the Polish companies' capitalization. This phenomenon, however, turned out to be a one-off event, because as early as in the next year the capitalization of Polish companies was again higher than the foreign companies' capitalization. This situation is related to the bear market in the years 2007-2009. Two arguments prove a hypothesis that prices of foreign companies' shares on the Warsaw Stock Exchange are more sensitive to poor investor sentiment than the Polish ones. The first of these is a summary of data on the WSE Main Market capitalization for the years 2007-2012 (Diagram 2). The second is the fact that the broad market index - WIG - since its peak in June 2007, to the present, has fallen by 42%, while the WIG-Poland index - by 25%. This hypothesis, however, is not discussed in more detail in this study, due to its divergence with the objective of this work.

Diagram 2 WSE Main Market capitalization as at 25 May 2012



Source: Own work based on data from www.gpw.pl [accessed on 21.05.2012].

Foreign companies whose shares are listed on the Warsaw Stock Exchange Main Market, come from the following countries (in brackets the number of companies from a given country) Ukraine (10), Czech Republic (4), Israel (4), Bulgaria (2), Estonia (2), Lithuania (2), Slovenia (2), Switzerland (2), Austria (1), Cyprus (1), Italy (1), Canada (1), Luxembourg (1),

Germany (1), Slovakia (1) , Sweden (1), USA (1), United Kingdom (1), Italy (1).⁶⁴ Most foreign companies come from the food industry - 10⁶⁵

A relatively large number of companies from Ukraine and the strategic importance of the Ukrainian business for the Polish stock market⁶⁶ has led to a decision by the Warsaw Stock Exchange to create a second national index on the Main Market - WIG-Ukraine - which brings together companies established in Ukraine, as well as those whose activities are concentrated to a largest degree in this country.⁶⁷ This index has been published from 4 May 2011, and now it includes all 10 Ukrainian companies. From the end of May 2012, there has been created a WIG-CEE index, which brings together foreign companies from countries with at least two representatives on the Main Market, from at least two different industries, including at least one whose shares are listed in the formula of single listing .

Despite the importance of foreign issuers, their shares on the Main Market do not enjoy large turnover - in 2011 they accounted for 3% of all turnover in shares on the Stock Exchange⁶⁸.

The NewConnect market, conducted in the alternative trading system, may be called international from 16 October 2008, i.e. the date of the first foreign company debut - Czech company Photon Energy. Currently, securities of 7 foreign companies are quoted on the trading floor for small companies (from Bulgaria, Czech Republic, Ukraine and the United Kingdom) with the total capitalization of PLN 104 million in 2011⁶⁹, which represents 1.2% of the total market capitalization.

Debt instruments of only one foreign issuer - Austrian Warimpex were quoted on the debt market, Catalyst, in October 2011. However, WSE strategy involves measures aimed at encouraging foreign issuers to enter into this market. It especially concerns companies from the Czech Republic⁷⁰.

WSE organizes by its own and in cooperation with the Ministry of the Treasury, campaigns designed to promote all its platforms as a modern financial centre in the Central and East European region. As part of these activities there are organized conferences both in

⁶⁴ As at 25.05.2012.

⁶⁵ As at 25.05.2012.

⁶⁶ Mayer B., *WIG-Ukraine – pierwszy taki indeks giełdowy w Europie*, „Gazeta Giełdy Parkiet”, 05.05.2011

⁶⁷ http://www.gpw.pl/indeksy_gieldowe?isin=PL9999999458&ph_tresc_glowna_start=show, [accessed on 25.05.2012].

⁶⁸ *Rocznik giełdowy 2012. Dane za rok 2011*, Giełda Papierów Wartościowych w Warszawie, Warszawa 2012, p. 80.

⁶⁹ *Ibid.*, p. 264.

⁷⁰ <http://wiadomosci.stockwatch.pl/l-sobolewski-rozwoj-catalyst-jest-dla-nas-kluczowy,obligacje,3971>, [accessed on 25.05.2012].

Warsaw - CEE IPO Summit, and in home countries of companies potentially interested in issuing their securities on the Warsaw Stock Exchange - CEE IPO Roadshow. Within the framework of the second of these events, representatives of the Warsaw Stock Exchange, KDPW and the Ministry of the Treasury visited in 2011 Israel, Lithuania, Slovenia, Ukraine and Hungary⁷¹.

5.4. Foreign Investors' Participation in Trading at the Warsaw Stock Exchange

Starting from 1997, a survey on the participation of different groups of investors in stock trading has been carried out among brokerage houses in Poland. The survey relates only to session activity: block trade and tender offers are not taken into account⁷².

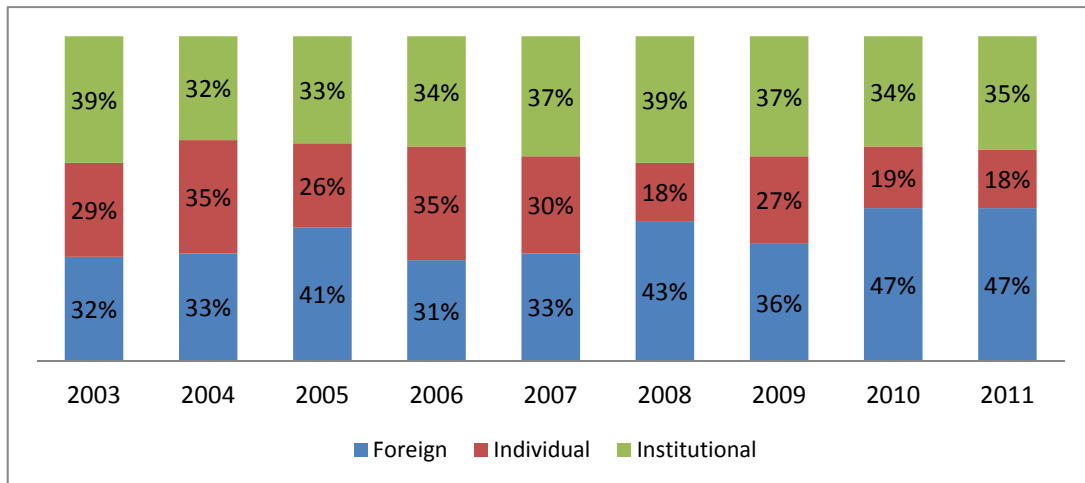
Already starting from the 90s of the last century, foreign investors have been exerting a significant impact on shares trading on the Warsaw Stock Exchange Main Market. The last decade has seen a further increase in their activity (see Diagram 3). In 2005 an increase in the share of foreign investors by 8 percentage points was noted, which may be caused by Polish accession to the European Union in May 2004. Since 2010, foreign investors have been generating almost half of trading on the Main Market. The stabilization of their trading share was also observed, which is important because of the increase in shares trading value in 2011. The most common foreign entities trading on the Warsaw Stock Exchange are brokers from the UK and France.⁷³ The increased interest in the Polish stock market may be associated with numerous privatization projects carried out by the Ministry of Treasury.

⁷¹http://www.gpw.pl/wydarzenia/?ph_tresc_glowna_start=show&ph_tresc_glowna_cmn_id=46738, [accessed on 25.5.2012].

⁷² *Droga na giełdę, jak przygotować spółkę do emisji publicznej*, op. cit., p. 23.

⁷³ *Rocznik giełdowy 2012. Dane za rok 2011*, op. cit., p. 150.

Diagram 3 Participation of different investors groups in stock trading



Source: Giełda Papierów Wartościowych w Warszawie, www.gpw.pl

The share of foreign investors in the futures market in 2011 was 16%, while in trading options - 24%. In the first of these instruments there has been recorded steady growth in the foreign companies' share starting from 2006, while in the other, foreign participation in trading doubled in 2011 as compared to the previous year⁷⁴.

WSE trading floor for small companies - NewConnect - currently does not enjoy high interest of foreign investors. Their share in stock trading in this market fluctuated in the years 2007-2011 in the range of 2-3%⁷⁵.

⁷⁴ Ibid p. 150.

⁷⁵ Ibid p. 265.

6. NewConnect

6.1. Introductory Issues on the NewConnect

In Poland, as in other neighbouring countries, there are lots of young, innovative and promising companies that are undercapitalized, and thus lack financial resources for implementation of innovative business projects. On the other hand, there is a large group of investors on the capital market who are interested in potentially very profitable, although risky, investments.

For this reason, the Warsaw Stock Exchange decided to meet the needs of both groups: young companies and investors, by creating an alternative market NewConnect.⁷⁶ It is an organized stock market of the Warsaw Stock Exchange, but it is run outside the regulated market in the form of an alternative trading system.⁷⁷ The creation of this market is also a great opportunity for the development of the Warsaw Stock Exchange, and it has contributed to the growth of the Polish economy innovation. NewConnect is a kind of a platform for financing and trading in the secondary market, for companies with a short track record and a high growth potential. For issuers it is a stimulator of growth, providing investors with additional investment opportunities.

NewConnect creation was consistent with trends observed in many European capital markets. Similar platforms operate on the London Stock Exchange - AIM market, First North market is attached to the OMX Nordic stock exchange group, in Ireland there is Enterprise Exchange market, in Germany -Entry Standard Market attached to Deutsche Boerse, in Italy - Expandi, as well as Alternext market attached to the Euronext stock exchange.⁷⁸

6.2. Issuers at NewConnect

NewConnect is mainly intended for small and medium-sized joint-stock companies, which are struggling with the so-called equity gap, and also - because of their size, or for other reasons - have problems with raising capital. Companies listed on NewConnect are characterized by high growth rates, represent innovative sectors based on intangible assets

⁷⁶ On 30 August 2007 the first session on NewConnect market was held with debut of 5 companies (Virtual Vision, a film and video games producer, ViaGuara from the alcohol beverage industry, Wrocławski Dom Maklerski (Wrocław Brokerage House), IT company S4E and Digital Avenue).

⁷⁷ The NewConnect market activity is governed by the Alternative Trading System Regulations (accessible at http://www.newconnect.pl/pub/regulacje_prawne/Regulamin_ASO.pdf).

⁷⁸ www.newconnect.pl/index.php?page=faq_spolki [accessed on 28.05.2012].

(e.g. IT, electronic media, telecommunications, biotechnology, alternative energy, etc.), usually have a short track record (the so called start-ups). However, mature companies may also seek capital of several hundred thousand to several million Zloty on this market. NewConnect platform is also regarded as a form of transition before the debut on the WSE Main Market.⁷⁹ 400 companies are currently listed on the NewConnect market, the largest group being companies from the retail and service sector (28.76% of the total).⁸⁰

NewConnect market is generally simpler and more liberal than the regulated market. It differs from WSE Main Market by more simplified formalities and admission procedures, fewer information (disclosure) obligations, and above all much lower debut and trading costs. However, any company wishing to debut on this market must meet the following admission requirements:

1. the status of a joint stock company (or partnership limited by shares),
2. unlimited transferability of shares,
3. the company may not be in bankruptcy or winding-up proceedings,
4. must be aided by an authorized adviser⁸¹ and a market maker (in certain cases, the optional requirement)
5. Preparation of an appropriate information document.⁸²

6.3. NewConnect Debut

The Company may enter the NewConnect market in two ways: through a private and a public offering.⁸³ In the first case the issue is carried out in the form of the so called private placement, targeted at maximum 99 investors. It is characterized by an easier admission to

⁷⁹ Banaszczak-Soroka U., *Rynki finansowe. Organizacja, instytucje, uczestnicy*, Wydawnictwo C.H.Beck, Warszawa 2012, p.87.

⁸⁰ As at 22 May 2012.

⁸¹ The following may become authorized adviser: an investment company or other entity providing services related to business transactions. The role of the adviser is to assist the issuer in drafting an admission document, then in its approval. From the debut of the company, for a period of at least one year, the adviser supports the issuer in complying with the information (disclosure) obligations and advises the company on its trading in NewConnect. Only those entities that receive authorization of the Stock Exchange and will be entered by the Stock Exchange into the list of Authorized Advisers may be Authorized Advisers in the NewConnect market.

⁸² The information document is drawn up under more liberal rules than the prospectus and information memorandum. Detailed information in relation to the structure and content of the information document can be found in Appendix 1 to the Rules of Alternative Trading System.

⁸³ In this case all the requirements of public information document, i.e. Regulation EC 809/2004 implementing Directive 2003/71/EC as regards information contained in prospectuses as well as the format, incorporation by reference and publication of such prospectuses and dissemination of advertisements are applicable, including the procedure of prospectus approval by a competent supervision authority (Financial Supervisory Authority). For tenders under PLN 2.5 million an information memorandum must be prepared.

trading, which is based on a short, simple information document.⁸⁴ It is approved in advance by the Authorized Adviser (cooperation with the Adviser is a necessary condition for the private placement).

Another method of shares' issue is the traditional way, known from the regulated market, i.e. through a public offering. In this case, the company must meet the same admission requirements that are applicable in the WSE Main Market. This implies the need for a prospectus or information memorandum (for tenders to EUR 2.5 million) and approval by the Financial Supervisory Authority.

Extremely important is the fact that shares are introduced to trading in NewConnect within 7 days of receipt of all required admission documents.

6.4. Information Requirements

One of the three characteristics of the NewConnect market are the reduced information (disclosure) obligations for companies, which have an absolute duty to present: current reports (with a narrower scope than on the regulated market), quarterly reports, and annual reports approved by the auditor. They do not need to submit semi-annual reports.

A very interesting point is that from 2010 onwards, alternative market issuers must meet information (disclosure) obligations for compliance with the corporate governance rules in the form of best practices for NewConnect listed companies and for authorized NewConnect advisers.⁸⁵ Issuers are required to publish, along with the annual report, a report describing application of the best practice rules.

6.5. Benefits and Risks for Investors

Both institutional and individual investors can invest on NewConnect. We distinguish the following categories of investors:

1. Individual investors looking for investment with a high rate of return, accepting the increased level of risk,
2. individuals with significant capital, the so-called *business angels*,
3. closed-end funds, open pension funds, open-end investment funds
4. hedge funds, private equity / venture capital,

⁸⁴ In this case, the information document must be prepared, the scope of which is set out in Appendix 1 to the Rules of Alternative Trading System.

⁸⁵ The corporate governance rules are described in detail in Appendix 1 and Appendix 2 to Resolution No. 293/2010 of the Management Board of the Warsaw Stock Exchange of 31 March 2010 on the changes in the document: "Dobre Praktyki Spółek Notowanych na NewConnect" [Good Practices of the NewConnect Listed Companies].

5. companies specializing in asset management services.

Thanks to NewConnect the above investors have an opportunity to co-finance innovative business projects and participate in profits resulting from their rapid growth.

The Warsaw Stock Exchange has made every effort to ensure, by means of appropriate regulations, high trading transparency and security on that market. However, one must realize that higher development potential is always accompanied by an increased investment risk. This is largely due to the specific profile of the market, which brings together companies operating in a competitive, volatile sector of economy, with a lower market capitalization and a shorter track record.

6.6. Trading Mechanism⁸⁶

NewConnect is based on an existing technological infrastructure - WARSET. Listings may be held from Monday to Friday, in two systems:

1. The order-driven system - session is open at 8.00 a.m. and close at 5.35 p.m. (as at the regulated market), where continuous trading system and single-price trading system with two fixings are allowed. In this system, the market animator operates, which is required to support the liquidity of trading in the issuer's shares.
2. The prices-driven system - an innovation in the Polish market, where trading resembles an auction. In this system, the market maker operates, which is responsible for quoting, i.e. the issue of buy and sell offers. Continuous trading phase lasts between 9.30 a.m. and 4.10 p.m.

Besides, it should be noted that to promote the best issuers, the Stock Exchange has created a special NewConnect Lead segment, which brings together companies with a clear potential to move to the main floor of the Stock Exchange. In this way, on the one hand it honours leaders, on the other hand - provides investors with an extra hint. To be selected for this segment, the company must meet several criteria:

1. the average market value of the issuer's shares in the past 6 months was greater than EUR 5 million, and at least 10% of the issuer's shares are free-float shares at the end of each quarter,
2. the average number of transactions in the issuer's shares was greater than 5 transactions per trading day or the average value of trading was greater than PLN 5,000 per trading day,

⁸⁶ As at 28 May 2012.

3. transactions in the issuer's shares in the last 6 calendar months were made at least on one half of all trading sessions,
4. price volatility over the past six months did not exceed 15%, and the average price in this period was higher than PLN 0.50,
5. the company was listed on the Stock Exchange for at least one year, it complies with the "Code of Best Practice of NewConnect Listed Companies".
6. the company carefully meets the disclosure obligations in relation to investors.

NCLead qualification is performed on a quarterly basis.

6.7. Market Members

NewConnect market members are market animators⁸⁷ and market makers. In both cases, this role is played by investment companies that support the company for at least two years. The main task of these entities is to ensure the liquidity of trading in the issuer's shares. The market animator operates in the order-driven system, and in the price-driven system this role is played by the market maker. 34 members currently operate in the NewConnect market, three of whom have together nearly 50% share in trading. They are the following: Alior Bank - 17.59% Dom Maklerski BZ WBK (BZ WBK Brokerage House) - 17.5% and Dom Inwestycyjny BRE Banku (BRE Bank Investment House) - 14.51%.⁸⁸ Only an entity having the status of a WSE member may become a NewConnect member.⁸⁹

6.8. Market Index

NCIndex which is calculated for the NewConnect market, includes all companies listed at this market. Index participants are updated on a quarterly basis, which allows to better map the economic situation. Throughout the session, the index values are updated continuously: the latest data are published every 5 minutes.

Moreover, there is one more index at such a young market - NC Life Science, dedicated to companies from medicine and biotechnology sectors (high share of human capital and modern technologies). It is one of a class of income indexes. This means that in calculating its value the dividends and subscription rights are taken into account in addition to the share price.⁹⁰

⁸⁷ The detailed rules of operation are specified in the Alternative Trading System Rules, Chapter VI, § 20 Market Animators, § 21 Market Makers (http://www.newconnect.pl/pub/regulacje_prawne/Regulamin_ASO.pdf).

⁸⁸ <http://www.newconnect.pl/index.php?page=1056> [accessed on 28.05.2012].

⁸⁹ The detailed rules for becoming a NewConnect market are specified in the Alternative Trading System Rules (legal status as at 19 July 2011).

⁹⁰ As at 28 May 2012

Currently, the NC Life Science index is determined on the basis of 10 companies with a total market block value exceeding PLN 1.5 million.⁹¹

⁹¹ http://www.newconnect.pl/?page=sklad_ncxlifesci [accessed on 28.05.2012].

7. Catalyst

The debt securities market Catalyst was launched on 30 September 2009. Thus, it is the youngest capital trading market created by the Warsaw Stock Exchange. Catalyst was created to facilitate and disseminate investment in bonds, which are not connected with such a high risk as shares.

7.1. Catalyst Market Structure

The following may be the issuers in the bond market: small and medium-sized enterprises, local governments, territorial units and large enterprises. Debt financial instruments have been adjusted to such a wide range of issuers. They are the following⁹²:

- corporate bonds issued by companies and financial institutions,
- municipal bonds issued by local government units (e.g. municipal units)
- cooperative bonds issued by cooperative banks,
- treasury bonds issued by the Treasury,
- mortgage bonds.

The legislative definition of bonds was laid down 1995 (quote)⁹³: „*Bonds* are securities issued in series, wherein the issuer declares that he is a debtor of the owner of the bond (the bondholder) and takes upon himself an obligation to make a specified performance for the benefit of the bondholder. Securities issued in series mean the securities representing property rights, divided into a certain number of equal units. ”

The Catalyst Market is managed by the Stock Exchange and by BondSpot⁹⁴, a capital company established by the Stock Exchange. WSE manages the organized market of retail transactions and an alternative trading system for retail transactions. And BondSpot is responsible for the regulated wholesale sub-market for wholesale transactions and alternative trading system for wholesale transactions.

7.2. Reasons for Establishment of the Organized Bond Market - Catalyst:

Catalyst market was created due to:

⁹² *Przewodnik dla inwestorów, Obligacje na rynku Catalyst*, Giełda Papierów Wartościowych w Warszawie SA, Warszawa 2011.

⁹³ Act of 29 June 1995 on bonds , art. 4. Journal of Laws of 4. 19 July 1995, item 420.

⁹⁴ BondSpot SA - a company established in 1996 at the initiative of 20 Polish brokerage houses and Polish banks. Since 2009, WSE has been its main shareholder. The Company has a license to manage the regulated market and the alternative trading system; it is also entitled to create other platforms for electronic trading in financial instruments. Source: <http://www.bondspot.pl/> [accessed on 22.05.2012].

- insufficient information on issued bonds and carried out transactions,
- lack of a single settlement platform,
- inadequate standards for issuers,
- difficulties in comparing bonds' issues,
- large variations in the issue terms and conditions,
- diversity of internal bank regulations on keeping the depository (mainly banks dealt with bonds trading prior to 2009).

Catalyst establishment means increase in liquidity in the instruments' trading and access to public data on transactions. The market valuation of bonds may contribute to market risk reduction. Moreover, the investment risk reduction is due to access to information and an ability to control the bond issuer's condition thanks to these data. Catalyst has also created a standardized form of bonds' issue, which allows for easy comparative analysis of issuers. Uniform requirements and regulations applied by the WSE and BondSpot reduce the legal and operational risks. An important advantage of Catalyst creation is application of a uniform settlement and recording system maintained by the National Depository for Securities and high requirements put to the market participants, by allowing them to trade only through brokerage houses and offices.

Financial instruments traded in the alternative trading system (ATS)

To be admitted to the ATS, bonds must have the following characteristics:

- no restrictions on transferability,
- no winding-up proceedings in relation to their issuer,
- information documents or notes must have been created for them.

The alternative trading system is managed separately by the Stock Exchange and BondSpot S.A. Bonds of 29 issuers are listed on the ATS managed by WSE and 16 participants are registered at the ATS managed by BondSpot. Table 2 shows examples of ATS participants.

Table 2 Examples of issuers at the Alternative Trading System Catalyst

WSE ATS	BondSpot ATS	WSE ATS and BondSpot ATS
ALIOR BANK SA	SOCIETE GENERALE SA	COPERNICUS SECURITIES S.A.
BANK BPH S.A.	BANCO ESPIRITO SANTO DE INVESTIMENTO S.A. BRANCHES IN POLAND	BANK POLSKA KASA OPIEKI S.A.
DB SECURITIES S.A.		DOM MAKLERSKI BZ WBK S.A.

Source: Own work based on: <http://gpwcatalyst.pl/1100> [accessed on 07.07.2012].

Financial instruments listed on the regulated market⁹⁵

The Financial Supervision Authority has laid down more rigorous guidelines for the terms and conditions of trading and issue on the regulated market. Bonds may be traded on the regulated market when the prospectus created by the issuer has been approved by the Financial Supervision Authority. Furthermore, as in the case of trading on the ATS, the issuer may not be subject to a proceeding as a result of which it could have filed for bankruptcy or liquidation. Also on the regulated market, bonds transferability may not be restricted. An important point in the Catalyst Rules is a requirement that on the regulated market the value of the bonds, which are placed on the main market should be at least EUR 1 million (PLN 4 million).

Catalyst has 60 participants, each having its own instruments traded on the Regulated Market operated by the Stock Exchange. Twelve issuers have their bonds in trade managed by BondSpot, including:

- Raiffeisen Bank Polska S.A.,
- Societe Generale SA,
- Dom Inwestycyjny BRE Banku S.A.,
- Bank BPH S.A..

In addition, 10 Catalyst participants have their instruments listed in 4 markets (WSE ATS, BS ATS, WSE, RR BS), including:

- Bank Polska Kasa Opieki S.A.,

⁹⁵ <http://gpwcatalyst.pl/1100> [accessed on 07.07.2012].

- Dom Maklerski Banku Handlowego S.A.,
- Dom Maklerski BZ WBK S.A.,
- ING Securities S.A..

7.3. Catalyst Authorization

Catalyst Authorization means the registration of debt financial instruments issue in Catalyst information systems. At the same time the issuer making authorization undertakes to meet the requirements related to the presentation of current and periodic reports. The buyer of such bonds is not liable for any costs, authorization does not bring about any impediments to trade. The authorized bonds may be also traded outside the organized market. Such a situation occurs mostly with participation of brokerage houses and banks, acting as an intermediary.

To receive authorization the issuer must submit a report with information on the name and address of the issuer, a brief description of its business, financial data for the last year - amount of equity, revenue, net profit and total liabilities. A compulsory part of the report is to describe instruments that are to be subject to authorization. In addition to the report about the issuer, an information about rating results and the current articles of association must be submitted. Besides, the issuer seeking authorization must unconditionally agree to comply with the "Catalyst Rules of Procedure."

Obtained authorization is an incentive for investors - it indicates that the issuer is a participant of the market managed by the Stock Exchange and, importantly, meets all the disclosure requirements. Information provided by the issuer should include a note of the circumstances and events that affect its economic situation, assets and financial situation. If the issuer violates the rules and fails to meet its obligations, bonds that it has issued may be deprived of the authorization. Instruments that had been listed will be automatically excluded from the Catalyst trading.

7.4. Retail Trade and Wholesale Rules⁹⁶

1. There is a lot of difference between the wholesale and retail trade. The wholesale takes place within BondSpot, and the retail trading - on the Stock Exchange.
2. In both cases prices are expressed as a percentage of the nominal value, but they have different accuracy. Prices of debt financial instruments on the Stock Exchange are always determined with an accuracy of 0.01 percentage points for all nominal values, while in the wholesale trading accuracy is diversified depending on the nominal value:

⁹⁶ *Przewodnik dla inwestorów, Obligacje na rynku Catalyst*, op. cit. p.1.

- 0.1 percentage points – nominal value of less than PLN 100;
 - 0.01 percentage points – nominal value PLN 100-10,000;
 - PLN 10,000 – price accuracy of 0.0001 percentage points.
3. There are no restrictions on price variations in the wholesale, while in the retail trade the variation is 3 percentage points to the reference price.
 4. The opening price in the retail trade is determined on the basis of orders placed prior to the start of the session. There is no fixed opening price on the BondSpot market.
 5. The minimum value of financial instruments in one order is, respectively, one bond and a block worth PLN 100,000 (the nominal price) for retail trade and wholesale.
 6. Another difference is the minimum block trade value - in the retail market it is PLN 100,000. In the wholesale it was determined that the block trade value could not be lower than the minimum value of the transaction admitted to this market.
 7. The retail trade as opposed to the wholesale does not allow for negotiated transactions.

7.5. Instruments Listed and Authorized - Statistics⁹⁷

296 debt instruments denominated in the Polish currency and one bond priced in Euros are currently listed on the Catalyst market. They include:

- 191 - corporate bonds;
- 38 – treasury bonds;
- 25 – cooperative bonds;
- 23 – municipal bonds;
- 9 – a total of public mortgage bonds and mortgage bonds).

Values of each issue of bonds are in the range of PLN 10,000.00 - 29,570,737. The biggest issue for the said amount was done by the Treasury on 26 October 2008, i.e. before the creation of the Catalyst⁹⁸.

There are 27 authorized instruments, the largest group being the municipal bonds. The following have received most authorizations: Jaroslowski powiat (district) and cities of Tczew, Ząbki, Chełm⁹⁹.

The table below presents the change dynamics in the Catalyst, showing the number of transactions, debuts, series, issue and trade values.

⁹⁷ As at 25.05.2012.

⁹⁸ http://www.gpwcatalyst.pl/instrumenty_notowane, [accessed on 25.05.2012].

⁹⁹ http://www.gpwcatalyst.pl/instrumenty_autoryzowane, [accessed on 25.05.2012].

Table 3 Statistical annual data of Catalyst trading in the years 2009-2011

Parameter Value	2009	2010	2011
The value of session trading (PLN million)	169.97	751.06	1, 214.13
Number of session transactions	318	4, 300	29 ,978
The value of block trades (PLN million)	4, 978.78	255.2	1, 279.90
Number of block trades	73	43	215
Number of series	47	109	268
including listed	35	97	246
including authorized	12	12	22
Issue value (PLN million)	10,690.79	21,552.76	531,651.77
including listed	10,649.29	21,508.10	531,587.51
including authorized	41.5	44.67	64.26
Number of IPOs	35	69	146
Number of sessions	64	253	251
EUR exchange rate	4.11	3.96	4.42

Source: Own work based on: http://www.gpwcatalyst.pl/statystyki_roczne [accessed on 23.05.2012].

The main perceivable relationship is the growth of all indicators in the consecutive years, which may be taken as an indicator of the Catalyst market development. 2011 was especially fruitful in terms of debuts - a total of 146. It is also important to draw attention to a major change in the issue value between 2010 and 2011 - from about PLN 21,508 million up to PLN 531,650 million.

II. Ukrainian Stock Exchange

Uliana Pavliuk

8. Ukrainian Stock Exchange-the way of development.

8.1. General information about the Ukrainian Stock Exchange (USE).

Ukrainian Stock Exchange is an important part of the stock market of Ukraine. Exchange is the organizational form of market in which traded securities - stocks, bonds, certificates, and documents connected with the movement of credit and currency values. Unlike commodity exchanges which regulate the movement of goods, funds exchange provides the movement of the capital because the securities are different forms of its equivalent. Acceleration of capital movement contributes to increased efficiency of the economy. This is one of the objectives, of the Stock Exchange. Ukrainian Stock Exchange occupies an important place in the stock market.

Ukrainian Stock Exchange is:

- the first organized securities market created in Ukraine,
- created according to the Law of Ukraine “On Securities and Stock Exchange” and registered by the Decree of Cabinet of Ministers of Ukraine in 1991, October 29,
- closed joint-stock company. Its authorized capital is divided into 2000 ordinary shares, which belong to legal entities, which amounts to 15,400,000 UAH,
- organizes securities trade under the license for professional activity in securities market in April 26, 2011 issued by the State Commission of the Securities and Stock Market Under the current legislation of Ukraine,
- is a self-regulatory organization of the securities market since June 1998,
- has 3 branches in Crimea, Kharkiv and Ivano-Frankivsk,
- has the leading structure of privatization processes (in 1993 USE became a pioneer of money privatization and implemented the exchange mechanism of price creation),
- is a member of Coordinating Council for securities market’s functioning questions charged by the President of Ukraine,
- a member of Consulting and Experts Council in Securities and Stock Market State Commission,
- a member of Executive Committee of Federation of Euro-Asian Stock Exchanges,

- a member of the Capital Markets Working Group in Organization for Economic Co-operation and Development (OECD),
- a member of Ukrainian Community “Intelligence of the Nation”,
- official publication - Newscasts "Hermes" in "Business Ukraine".

The first auction in USE occurred in February, 1992. The practice of the stock market shows that non-government securities markets are developing more rapidly.

At the end of 2000, USE experts took an active part in the work of the Strategic group on stock market development of Ukraine, which included (consisted) representatives Ukrainian Government, Administration of the President of Ukraine, ministries and agencies, SEC, professional stock market of Ukraine and international organizations. The result of the work of the strategic group was the following development projects: President of Ukraine Decree "On measures of stock market of Ukraine for 2001-2005", Cabinet of Ministers of Ukraine Order "On approval of a plan to implement the basic directions of development of the stock market of Ukraine for 2001-2005" and "Programs of development the stock Market of Ukraine for 2001 -2005 years ",which are directed to create an efficient functioning stock market, which should provide civilized level of investment process and the practical success of market reforms. In 2000, the project "the concept of creation and development of the Single Stock trading in Ukraine" was initiated and prepared by the Ukrainian Stock Exchange and was presented for consideration and discussion with the organizers of securities trading. Some provisions of the proposed project of the concepts were taken into account and reflected in the draft of the documents developed by the Strategic Group.

In 2000, the USE strengthened international relations with Warsaw, Frankfurt, Korea, Moscow, Istanbul, Macedonian, Kyrgyz stock exchanges, the Austrian stock exchange options and futures.

In the reporting period, representatives of the Stock Exchange took part in the intergovernmental meeting in Germany. The main item of the conference was the restructuring of economy in Ukraine, in particular banking system and stock market. In September, took place 6th General Assembly of the Federation of Euro-Asian Stock Exchanges. USE supports and promotes the Federation policy of creating a single trading platform for the countries - members of the Federation. During the year communication with the Federation of European Stock Exchanges was maintained. Ukrainian Stock Exchange is a member of the Working Group on the stock market in the Organization for Economic Cooperation and Development (OECD).The main function of the USE in the organization is

to develop proposals for improving the practices development of stock exchanges newly created stock markets of Eastern Europe and Central Asia.

During the cooperation with the Istanbul Stock Exchange a Memorandum of Understanding and cooperation between the exchanges was concluded. This document will be the start of the active exchange of information, financial services.

To understand the dynamic of the development of USE we need to analyze the trading in USE. During the last 20 years the dynamic has been changing, earlier there were 5 branches, now 3.

8.2. Short information about last years of the work of USE.

Exchange turnover on the basis of the Ukrainian Stock Exchange in 2011 amounted to 396.47 million UAH. (the corresponding figure in 2010 - 54.40 million UAH). The volume of stock trading in 2011, compared with the previous year increased by 630%, due to activation of the primary corporate bond market

At the end of 2011, Ukrainian Stock Exchange membership was represented by 50 market participants, including 28 members - traders, the remaining 22 - banking institutions.

In the end of the year 2011, in the stock list Stock Exchange had 125 financial instruments 117 issuers, which is 3 times higher than similar figures in 2010.

The following year, 2011 on the USE and its subsidiaries, held 104 trading sessions (for the same period in 2010 - 50 sessions).

The average trade volume amounted to 33.0 million UAH (the corresponding figure in 2010 - 4.5 m UAH), the trading session - 3.8 million UAH. (in 2010 - 1.1 m).

During the reporting year to USE and its subsidiaries were signed 6,629 agreements (in average of 63 transactions per trading session), of which 6,599 contracts signed by Stock Exchange, others - on its subsidiaries.

In terms of financial instruments, the largest number of transactions (6,191 agreements) was signed with derivatives - namely, an option certificate of purchase and delivery of the underlying asset.

The biggest volume of trading was recorded on the primary market of corporate bonds and made a total 323.50 million UAH, Which was 81.59% of the stock exchange turnover by 2011.

The highest exchange activity amounted to 206.02 million UAH, representing 51.96% of total trade during the reporting period.

Indicators of the exchange activity in the USE compared to the same period of the last year increased in 22 times.

The volume of exchange trading in the first quarter of 2012 totaled 49.3 million UAH (a similar figure in 2011 - 2.2 m UAH). The growth of trading during the period is due to increasing exchange activity in the primary market for corporate bonds.

At the end of the reporting period in the stock list of USE there was 186 financial instruments, 180 issuers which is 4.6 times more than similar figures in 2011.

Shares take the largest place in the structure of stock exchange list (94% of financial instruments).

During the reporting period, on USE and its subsidiaries were signed 168 contracts, of which 126 agreements - on the Stock Exchange, the remaining 42 - to Ivano-Frankivsk branch USE.

The greatest volume of trading was recorded in the primary market for corporate bonds and made 38.2 m UAH, representing 77.49% of trading volume for the first quarter of 2012.

The highest activity was observed in March. The turnover totaled 43.9 million UAH, representing 89.14% of total trade for the first 3 months of the work of Exchange.

9. Current status and innovations in the stock market of Ukraine.

9.1. General overview of the Ukrainian stock market.

The last year played an important role for the development of the Ukrainian securities market. During 2011 important events took place on the Ukrainian securities market and this will determine the perspectives of its further development. The most important events included: adoption by the Verkhovna Rada of Ukraine a series of laws that change the legal conditions of market operation, the appearance on the Warsaw Stock Exchange index of Ukrainian companies, active growth of operations with derivatives.

Ukrainian securities market

As for September 1, 2011 there were 128 professional participants, including 381 dealers (123 banks), 12 custodians, registrars, 2 depositories of a license for securities clearing and settlement activities on securities market of Ukraine.

335 companies had a license for implementation of activity of asset management. The number of registered collective investment institutions was 1,677,275 of which were corporate investment funds and 1,402 were mutual (unit) investment funds. 10 securities trade organizers also worked on the market.

Issue of securities

During the period of January-August 2011 433 issues of shares were carried out which amounted 45.540 billion UAH. Compared with the corresponding period in 2010 the volume of issues of registered shares increased to 22.550 billion UAH (almost doubled).

Large volumes of stocks that significantly affected the overall structure of the registered share of issues during this period was made by banking institutions, to increase the share capital, including: JSC "Kreditprombank", JSC "Ukrainian Development Bank", JSC "Virgin Bank" JSC Bank "Imexbank", JSC "State Export-Import Bank of Ukraine" OJSC CB "Nadra", OJSC "Alfa-Bank", JSC "Bank"Petrocommerce-Ukraine", JSC "RodovidBank", OJSC AB "Brokbiznesbank", PJSC "Marfin Bank", OJSC AB "UGB", JSC CB "Privat", JSC CB "Pivdencombank", PJSC "First Ukrainian International Bank" and JSC "Subsidiary Bank Sberbank of Russia."

Compared with the same period in 2010, the volume of issues of registered corporate bonds of enterprises increased to 18.770 billion UAH. 124 issues of corporate bonds of enterprises were registered which amounts to 21.570 billion UAH (Table 4).

Table 4 The volume and number of issues of enterprises bonds during January-August of 2011.

Month	Volume of issue of enterprises bonds, million UAH				Number of issues
	Enterprises (without banks and insurance companies)	Banks	Insurance companies	Overall volume of registered issues	
January	934.54	1,700	0	2,634.54	19
February	1,121.81	2,700	0	3,821.81	22
March	318.00	100	0	418.00	6
April	6,029.39	700	0	6,729.39	17
May	490.16	2,000	0	2,490.16	10
June	387.09	100	0	487.09	6
July	581.00	1,100	100	1,781.00	19
August	3,010.00	200	0	3,210.00	25
Totally	12,871.98	8,600	100	21,571.98	124

Source: USE, 2012

From the beginning of 2011, 3 issues of stock options were also registered on the total sum of 2.91 million UAH which compared with the data during the same period in 2010 increased to 2.81 million UAH.

Besides, during this period there were registered 7 issues of municipal loans bonds in the amount of 485 million UAH. The issuers of these bonds were: the Parliament of the Autonomous Republic of Crimea in the amount of 400 million UAH, the City Council of Zaporizhzhya – 25 million UAH and the City Council of Cherkasy – 60 million UAH.

The issues of securities of collective investment

During January-August 2011 the volume of registered issues of investment certificates of Asset Mutual Fund amounted to 39.59 billion UAH, which compared with the data during the same period in 2010 increased to 18.27 billion UAH.

The volume of registered shares of corporate investment funds decreased compared with the data during the same period in 2010 to 3.17 billion UAH and amounted to 4.88 billion UAH.

The activity of trading organizers

As of August 31, 2011 trade organizers included 1,884 securities on stock listings.

The number of securities, which were included in the stock registers of trading amounted 373,119 securities (including staying in the stock register of several organizers of trade – 215 securities) were included in the stock listed on the registry for the first level of listing and 254 securities (including staying in the stock register of several organizers of trade- 283 securities) for the second level of listing.

As a result of organized trading, the volume of exchange contracts of securities between January and August 2011 amounted to 162.98 billion UAH (Table 5).

Table 5. The volume of exchange contracts with securities on the trade organizers during January-August 2011, million UAH.

Period	Organizer of trade										Totally
	УФБ ¹ (USE)	КМФ Б ² (KISE)	ПФТС (PFTS)	УМББ ₃ (UICE)	ІНН ЕКС (OTHERS X)	ПФБ ⁴ (PSE)	УМФ Б ⁵ (UISE)	ПЕРСПЕ КТИВА (PERSPE CTIVA)	СЄФБ ⁶ (EESE)	УБ ⁷ (UE)	
January	0.89	11.98	4,838.69	0.20	0.07	9.21	1.62	4,554.03	2.95	4,649.81	14,069.45
February	0.63	195.98	5,866.21	0.19	16.45	8.34	3.31	5,661.99	2.59	7,201.02	18,956.70
March	0.70	530.11	7,214.94	0.21	0.12	21.86	256.01	7,908.98	6.32	7,630.02	23,569.28
April	0.64	194.89	9,215.37	0.39	0.96	20.32	1.91	7,970.70	99.75	6,095.59	23,600.53
May	3.30	87.57	6,165.22	0.13	0.01	9.46	2.33	6,243.21	17.64	5,827.98	18,356.86
June	0.82	88.28	5,306.24	0.22	0.85	10.06	154.69	4,875.83	6.36	4,641.24	15,084.58
July	1.02	7.65	10,422.53	0.15	0.08	7.11	43.30	8,303.92	4.80	4,457.60	23,248.18
August	4.45	156.66	9,113.76	0.18	0.01	113.43	112.39	10,064.03	7.93	6,517.97	26,090.82
Totally	12.47	1,273.12	58,142.97	1.67	18.55	199.80	575.56	55,582.69	148.33	47,021.24	162,976.39

¹Ukrainian Stock Exchange

²Kyiv International Stock Exchange

³Ukrainian Interbank Currency Exchange

⁴Pridneprovsk Stock Exchange

⁵Ukrainian International Stock Exchange

⁶East European Stock Exchange

⁷Ukrainian Exchange

Source: UKRSTAT, 2012

During the period January-August 2011, compared with the dates of the same period of 2010, the volume of exchange contracts of securities on organizers of trade has increased almost 1.5 times (98.42 billion UAH in 2011 and in 2010 – 64.93 billion UAH).

The greatest volume of trading in financial instruments during the period was recorded with:

- government securities of Ukraine –66.20 billion UAH (or 40,62% of the total executed exchange contracts to organizers of trade in January-August 2011);

- shares in the amount of 59.76 billion UAH. (36,67%).

The volume of exchange contracts of securities on the trading organizers in the secondary market is 76,84% of the total exchange contracts during this period, including the cost of government contracts, concluded here, has made the following amounts of shares – 46.11 billion UAH, Corporate bonds – 4.4 billion UAH, Government bonds – 66.2 billion UAH, Local bonds–42.2 million UAH, investment certificates –8.38 billion UAH, derivative securities–72.6 million UAH.

9.2. Ukrainian stock index on the Warsaw Stock Exchange.

Since 4 May 2011 WIG Ukraine, the national index of Ukrainian companies listed on the WSE, has been calculated and published. This is the first and so far the only stock index outside Ukraine, in a basket of which will be the company of our country.

The index WIG Ukraine is the second national index on the Warsaw Stock Exchange (WSE). Since December 2003 WSE has published index of Polish companies WIG PL, which changed its name to WIG Poland from May 4, 2011.

Creating an index of Ukrainian companies is the result of the increasing number of issuers from our country on the Warsaw Stock Exchange. The industrial Milk Company is already the seventh Ukrainian company on the Warsaw Stock Exchange markets and the sixth, whose shares are traded on the main site.

Considerable interest in the Warsaw Stock Exchange among Ukrainian companies is the result of a coherent implementation strategy of WSE, aimed at luring foreign companies (with special emphasis on eastern markets).

The debut of the first Ukrainian company in 2006 and a contract with the first Ukrainian partner WSE IPO Partner, opening of the Warsaw Stock Exchange in Kyiv in 2008 and the opening service www.wseinternational.eu, devoted to foreign companies that are listed on the WSE, and finally introduced WIG Ukraine – these all are the elements of a chain of events that the WSE has initiated and implemented, to make cooperation with Ukrainian business closer.

The idea WSE is providing for investors from Poland or abroad is another very important investment tool. The Ukrainian index should emphasize the strategic importance of business in Poland of Ukrainian origin and pay attention to international market participants on WSE.

The composition of the index WIG Ukraine will include companies whose shares are listed on the Main market of the WSE, with an office in Ukraine, or companies in which Ukrainian company is a major part of the holding structure with an office outside Ukraine.

The share of company stock in free float of WIG Ukraine will be no less than 10%, and companies must belong to one of these segments on the Main market WSE 250PLUS, 50PLUS or 5PLUS.

Revision of the index will be made quarterly. New issuers may be included in the index after three sessions of the beginning of their debut on the stock bidding. WIG Ukraine is a profitable index that provides dividends. Base date of index is December 31, 2010, and its base value of 1 000 points.

Earlier it was reported that the structure of WIG Ukraine, will probably be as follows: 73,13% of constitute the structure of the index action of "Kernel", 13,18% - "Astarte," 7,13% - "Milkiland" 4,15% - "Agroton "and 2,41% - " Garden Group ". However as we can see, these indicators later became significantly different and many of them increased. (Table 6)

Table 6. The structure of index WIG Ukraine (as of 18 August 2012).

№	Name of company	Package	Weight in the index basket (%)
1	KERNEL	14,991,000	43.36
2	ASTARTA	9,256,000	23.29
3	COALENERG	11,253,00	6.59
4	IMCOMPANY	9,955,000	5.99
5	MILKILAND	8,426,000	5.86
6	OVOSTAR	1,500,000	5.47
7	KSGAGRO	5,126,000	3.50
8	AGROTON	6,610,000	3.16
9	SADOVAYA	10,771,000	1.37
10	KDMSHIPNG	996,000	1.13
11	WESTAISIC	11,033,000	0.27

Source: WSE, 2012

Consequently, we can confidently speak about the opportunities which our country should use for the development of the securities market and stock exchange.

9.3. Legislative regulation.

In recent years the Supreme (Verchovna) Rada (Parliament) of Ukraine adopted a series of laws that regulate the activity in the stock market. The most resonant of them became the law number 7106, which requires issuers to register in the State Committee of Securities and Stock Market the prospectus not only in public offerings of securities, as now, but in private (closed). According to the document, after such registration issuers not entitled to make any changes to the prospectus. Later they will be provided to persons that are involved in positioning of the securities (this document is not printed in the mass media). Regulators of the Market believe that this approach will significantly increase the transparency of the domestic stock market and provide his participants additional opportunities for monitoring.

The Stock Market experts ambiguously reacted to the innovations. All over the world the closed issues of securities have one large plus - speed. As soon as the issuer has the urgency in attracting funds and he negotiates with investors about the conditions of borrowing, he can do it as quickly as possible in a closed location. The new registration not only slows the process, but also opens opportunities for corruption: because the regulator can refuse to register and paralyze the company. However, most financial experts are sure that if during the private placements issuers will not be able to adjust their prospectus for the issue, the stock market will only benefit. The invariability of provisions of the issue prospectus allows controlling more carefully the placement of securities and fulfillment by the issuer of undertaken obligations. As a result of violations, resorting to the different tricks, the investor will be left alone with his problems.

Not less important for the securities market will become two documents that increase the responsibility of its participants. The Law number 8274 established for criminals to be responsible for manipulation in the stock market, and the law number 7330 - for intentionally illegal disclosure of insider information.

If in the first case you can go to prison for up to three years, the second - to five years. In the opinion of the regulator, by introducing criminal responsibility for manipulation in the stock market, Ukraine fulfills its obligations to the FATF.

The requirements are being strengthened for stock market experts with two other laws adopted by the Verkhovna Rada (Parliament) of Ukraine. By the Law № 7051-d to persons who have the outstanding or not withdrawn conviction for financial crimes it is prohibited to own shares in the capital of securities market participants. And by the Law number 3662 for the all issuers of securities is introduced obligatory audit. Until recently, only professional

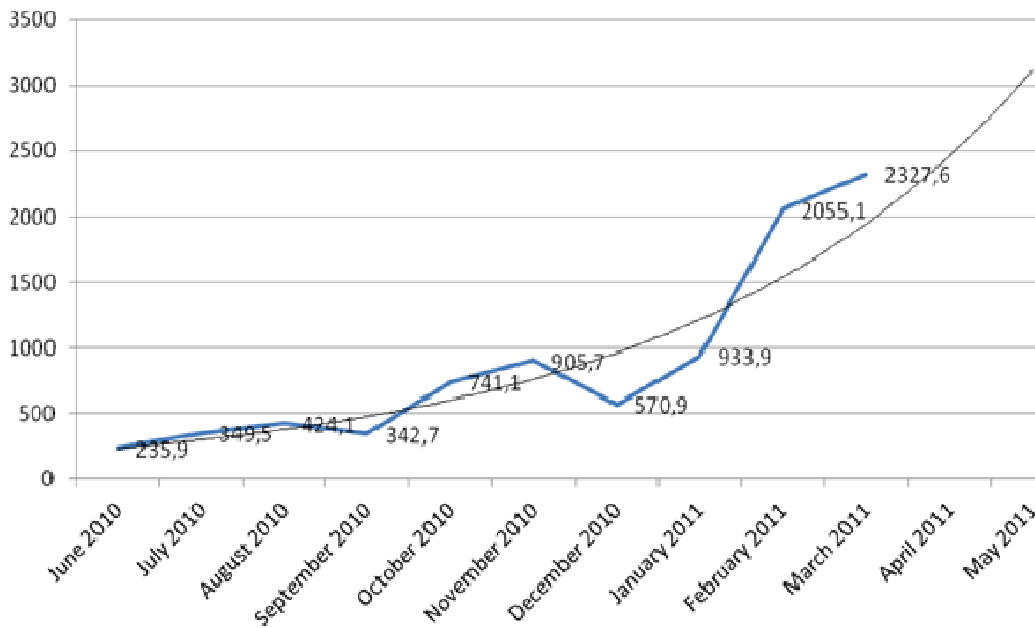
participants had to do this to obtain license for work. Experts believe that these actions will increase transparency of the information of securities issuers in the sector and will reduce the risk investors.

9.4. Derivatives transactions

Ukrainian operators have started the development of the new domestic stock market instruments - an option on the indexed futures. Option (Lat. option - choice, desire) - the agreement under which a trader obtains the right to make the purchase or sale indicated in option the asset during a specified period of time at a fixed price. The index futures - is a contract which represents obligations on the two parties to implement a certain date in the future mutual settlements based on the difference of the actual index value which has been fixed in the futures price on the day of his signing. Benefit turns to the one who most accurately prognosis the future value of stock exchange index.

The Ukrainian Stock Exchange has recently started to provide the ability to operate with these derivative securities. According to the stock exchange data on the first day of trading (April 26) the volume of transactions with the options on the indexed futures amounted to more than 2 million UAH. The Securities traders hope that the launch of optional trade will cause a further growth in trading on the derivative securities market. The number of traders in the market of derivative securities increased in recent years. More and more, this market is becoming the market not only for corporate but also for private investors.

Diagram 4 Trade volume in the market of the derivative securities, million UAH.



Source: USE, 2012

In the opinion of stock market experts, investors are interested in options because the trading of options provides the opportunities that cannot propose other financial instruments. Thus, the option gives for the buyer a right to choose: perform or not perform futures contract. But it can be appropriate to unpredictable market. The point is that in the case of futures on the index trading the winning party of the contract is the one which has predicted the dynamics of stock prices more precisely. Options - generally recognized indispensable tools for insurance against unfavorable price changes of shares, currencies, indexes and other assets. Combinations of options with other tools allow create risk-free portfolio. In the current situation traders of Futures on stock exchange index are able to insure in case if their vision of future growth or fall stock exchange index will be far from real.

Futures on the index do not accidentally become a basic asset for the option. The futures index of "Ukrainian Stock Exchange" appeared about a year ago and now is one of the most liquid financial instruments in the domestic stock market.

Sometimes the volume of futures trading higher than the total volume of trading shares. And consideration the fact that on the "Ukrainian Exchange" agreements concluded with more than 260 securities.

According to the data of "Ukrainian Stock Exchange" nearly 2,700 physical and legal persons or approximately one third of all clients of the stock exchange are trading futures. The share of clients, who are trading in the market of derivative securities, is rapidly increasing.

There are those who come to trade exclusively on the market of derivative securities, because there are lower costs and higher liquidity.

Securities traders predicting that new financial instruments will cause interest and foreign investors.

This gives hope, as a result of the fact, of an increased observed demand for futures. If the investment funds managers are waiting for lower prices on shares which are located in their portfolio then they are selling futures.

Such a way the investors insure themselves against falling markets.

Also, the stock exchange experts are expecting that shortly in Ukraine market instruments of derivative securities will allow use also the institutional investors in particular private pension funds (NPF). But to ensure that such an opportunity appeared that it is necessary make changes to Law of Ukraine "About collective investment institutes, equity and corporate investment funds."

At the same time the European Union legislation still prohibits the NPF work in the market of derivative financial instruments.

Option and futures – these are the contracts, which always have a side that wins, and a side that loses. Besides, Ukraine has a lot of questions not regulated by law. In particular, it has not adopted the law on derivatives (derivative instruments).

10. Stock Exchanges In Ukraine. Status, Problems and Prospects of Development.

10.1. Status Of Stock Exchange In Ukraine.

Every day new financial instruments and financial services appear, technologies of conclusion and fulfillment of agreements are improving, their legal execution is optimizing. An important role in this process belongs to the stock exchange, which, due to significant concentrations of capital, became a kind of global innovation centers, directing financial flows into attractive objects and territory. In fact, the formation of full-fledged stock market securities can be regarded as a necessary precondition for development of investment processes in the country. It is reflected by the dynamics of trade volume on the Stock Exchange, according to the report of Ukrainian Stock Exchange for the last 9 months in 2011 and is characterized by a positive trend in growth. Indicators of exchange activity over the same period compared with the previous year increased by 70.35%. Exchange turnover on the basis of the Ukrainian Stock Exchange in the reporting period was 14.6 million UAH. (The corresponding index in 2010 is 8.6 m UAH).

For nine months in 2011 the Ukrainian Stock Exchange and its subsidiaries held 72 trading sessions (for the same period in 2010 - 32 session). Average trade volume totaled 1.6 million UAH. (The corresponding index in 2010 was 0.95 million UAH), per trading session - 0.20 million UAH (in 2010 - 0.27 million UAH).

During the reporting period on Ukrainian Stock Exchange and its subsidiaries was drawn up 1,707 contracts.

The greatest volume of trading was recorded on the secondary market of shares and was 8.27 million UAH, what is 56.61% of the stock exchange turnover for nine months of 2011. The highest Exchange's activity was observed in May of the reporting period. Turnover in May was 3.3 million UAH, what is 22.6% of exchange transaction during the reporting period.

Information about volume of trade of securities on Ukrainian Stock Exchange and its subsidiaries for nine months in 2011 is reflected in Table 7.

Table 7. Trade specifics on the USE in Q1-Q3 2011.

Trade territory	Quantity of sessions	Quantity of transaction	Quantity of realized securities, pieces.	Volume of trade, UAH
t. Kyiv	68	1,702	360,913,857	13,697,990.94
East-Ukrainian subsidiary	2	3	1,694	29,190.30
Ivano-Frankivsk subsidiary	1	1	11,769,617	823,873.19
Krym subsidiary	1	1	412,372	61,855.80
total amount	72	1,707	373,097,540	14,612,910.23

Source: USE, 2012

Turnover of trades on the Leading Stock Exchange of Ukraine (LSEU) almost doubles every year. This trend occurs in almost all major Exchanges of Ukraine, in particular on the Ukrainian Exchange (UX), and Ukrainian Stock Exchange. Market's liquidity increases, it becomes more effective and attractive for investment. Although there are still some problems in the Ukrainian stock market which must be overcome during further development.

10.2. Problems Of Stock Exchange In Ukraine.

Problems of the effective functioning of stock exchanges and enhancing the process of buying and selling securities are becoming more important for the economic development of Ukraine. The domestic stock exchange, which is a mandatory attribute of a market economy and an important element of financial infrastructure, does not fulfill the inherent functions of attracting financial resources into the financial system and does not provide their direction and redistribution in advanced branches of manufacturing.

Stock Exchange is a loan capital market, on which trading with securities take place – it can be stocks, bonds, shares, etc., as well as trade in payment documents drawn in foreign currency.

The main role of the stock exchange is to maintain cash capital movement, which mediates the distribution and redistribution of national income as in whole in the economy, as between social groups and sectors of the economy.

The stock market of Ukraine is developing day by day and expands the field of its investment opportunities. The decisive factor of such a rapid development of the stock market is a catastrophic shortage of money. One of the main functions of the stock market is to attract additional working capital through the emission of securities - stocks, bonds, notes, depository receipts, indices, shares through mutual funds.

Stock market's infrastructure, despite the complexity and inconsistency of the transformations that exists in Ukraine, has a tendency to grow and development. However, during the recent years, due to the economic crisis, there is a weakening trend of growth.

Although the current macro-economic processes are characterized by instability, the Stock Market of Ukraine increases its potential every year and shows an increasing tendency. Of course, the global crisis that began in 2008 significantly affected the state of securities market.

At the present stage of development of stock trading in Ukraine there are still many unresolved issues that require more detailed study. This primarily concerns such issues as:

- low level of capitalization of national stock market;
- insufficient supply of capital market's instruments with adopted characteristics for investors about profitableness, liquidity and security, and also the small amount of investment capital;
- low level of corporate management in companies – issuers, insufficient level of disclosing of the information about the activities of such enterprises, lack of appropriate dividend policy;
- lack of an effective mechanism of the protection of investor's rights, complexity of procedures of restructuring and, as the result, limited secondary market (the market for debt securities);
- the complexity of organizing and conducting initial public offerings of financial instruments on the Ukrainian stock market, what significantly reduces the access of investors to investment objects;
- scarce development of markets of basic instruments and imperfect legal regulation in this field that caused actual absence of market of derivatives;
- too low level of transparency of stock market: information that is disclosed by market participants about their activities is not always sufficient, relevant and objective;
- a small supply of investment capital in the stock market.

In case the present deficiencies will be eliminated, the country can receive a clear and available stock market.

It is important to improve the existing depository system, by adapting it to changes that have occurred in the legislation of Ukraine in recent years according to tendencies in the domestic and global financial markets, taking into account international standards and recommendations of Depository Registration. We also must eliminate existing shortcomings in the accounting system of ownership on securities, as well as conceptually to solve the

problem of technological consolidation professional members of Depository System of Ukraine, and also to resolve corporate conflicts related to the maintenance of a register of holders of securities.

Another, equally important problem of stock exchanges is the degree of its readiness for computerization, namely: whether each employee of exchange is ready to enhance qualifications, change the technology of his work, or shaped around the exchange's stuff developed infrastructure, service, including methodological, technical and program software.

The number of problems related to automation of exchange activity, are extremely broad. They include both, general technological problems of information processing (like formation of optimal dialogue, definition of collective forms of information processing, development of procedures to communicate with databases, etc...) and the selection of effective technological measures that are necessary for such work. Professionals, engaged in exchanges, using personal computers are able to facilitate their career.

Automation greatly simplifies the exchange's work, assists its efficiency, and enlarges the number of represented products and the number of brokerage firms that increased turnover of stock.

A typical problem is that the level of automation of stock exchanges in Ukraine is not high enough. The reasons for this are:

- lack of national experience of automation of exchange activity;
- the specific features of markets as objects of automation;
- lack of a developed domestic market for the exchange with information technologies;
- lack of readiness of the object of management to use the purchased software and no unified exchange operations.

As it was mentioned above, one of the problems is the capitalization of stock exchanges. Power indicator of the functioning of stock exchange is capitalization, which includes evaluation of the level of its development and competitiveness on domestic and foreign markets. Comparing with countries with developed market economy, capitalization of stock markets of Ukraine is extremely low and represents only 0.4% of total world gross domestic product (GDP), while the U.S.A. - 21.1%, Japan - 7%, Germany - 4.5%, Africa - 3.2%, Russia - 2.6%. Such low level of capitalization of stock exchanges in Ukraine due to the peculiarities of formation and development of stock market in the country, its fragmentation and disorder. Since the founding, there were no positive displacements, and therefore they do not perform their inherent functions of engagement and reallocation of capital and its direction in the real sector. Underdeveloped stock markets in Ukraine impede

economic development, income of foreign investment, improving efficiency of redistribution in the economy. Under these conditions the issue of the development of stock exchanges, to ensure their durability and resistance to external factors are especially important. Therefore, to increase the capitalization of stock markets of Ukraine should identify the main problems of development and to make all necessary affords to solve these problems.

At this stage of the development of stock exchanges we have to use the experience of leading countries that have undergone the process of stock markets and stock exchanges development in general. We also need to work out a series of steps to help introduce positive changes and to facilitate the development of this scope.

10.3. Prospects of Development.

Presently the stock market is active in Ukraine and the perspective is a promising socio-economic component of the market economy. It promotes accumulation of capital for investment in the economy through purchase, ownership and free disposal of securities. The stock market is an important sector of the financial market.

It is impossible to increase the efficiency of the securities market in Ukraine without a clear definition of the main directions of its further development. These directions should be: to increase its transparency, openness and liquidity, integration into international stock markets. For this it is necessary to introduce such forms and methods of regulation that would significantly raise the level of investor protection, society and state.

Overcoming the current challenges of Ukraine's stock market, most experts and researchers associate with the need of improvement of legislation that regulates the market as whole and individual components of its infrastructure in particular. Therefore, in Ukraine today basically completed the process of developing the regulatory framework that regulates the securities market participants, and begins a new phase; which is connected with the improvement specific legislation based on the analysis of practice of issuers, investors and professional participants of securities market.

Another important point in the stock market development in Ukraine is to increase the activity of banks in conducting transactions in the stock market. This will facilitate the development of mortgage loaning, because only a highly developed stock market can provide long-term refinancing of mortgage loans granted by banks, which in comparison with many European countries are at the stage of development. Actually taking into account that the regulatory framework of banks participating in operations in the stock market as a whole is

already created, the main step of the National Bank is to take measures to revitalize the banks in the stock market.

Technological progresses takes an important role in the development of the stock market, and contribute efficient work of modern Exchanges, facilitate trade, improve the system of communications. Nowadays, widespread usage of automation helps to form a solid technology base for improving organizational management exchange. Today in our country, the emergence of electronic exchange indicates a significant increase in technical level of trading securities that has a positive impact on the economy in general.

However this will help to solve only a part of the problems associated with unbridled growth of the information. Automation greatly simplifies the exchanges' work, increase its efficiency, briefly speaking – increased turnover of stock.

However, access to the domestic stock market is still restricted by its weak technical equipment. Such service as online trading is just a few years. It is very common worldwide and allows individuals on their own, through computer program, to trade on stock markets, to pay to the broker commissions for agreement. This saves time, money and gives customers the opportunity to see their operations in real time. In Ukraine, the number of users of this service is still measured in hundreds, in the world there are millions of such people.

Active government's involvement in the development of the stock market will create an effective mechanism for monitoring and management. It should be mentioned that the State Commission on Securities and Stock Market conclude the program of the stock market till 2015. The draft of this document provides the mechanisms of solving the problem of low liquidity markets, improving its infrastructure and facilitation of exchange control. The program includes more than 120 actions to solve the problems. To the end of 2012, the program foresees to appeal the concession of corporate bonds, to reduce the requirements for listing securities, to allow inclusion in the listing of shares exchange, which have already passed the listing procedure on other stock territory. Potential local markets in the nearest two years, State Commission on Securities and Stock Market will be open through the stimulation of initial public offerings of securities (IPO). It should be noted that the IPO - (Initial Public Offering) – is a relatively new way for Ukrainian companies to attract investment resources and deserves special attention. Ukraine's economy is gradually integrating into the international financial markets, and the consequences of this process are becoming more tangible for the Ukrainian financial system. Therefore, a high rate of integration continues to stimulate the development of IPO market. It should be noted that Ukraine has accumulated sufficient experience in raising capital through an IPO.

Our new Tax Code that was adopted last year created the preconditions for the emergence of domestic IPO and cash flow from the population to the stock market. There are a lot of technical, but important details in the Code. It regulates the taxation of investment transactions of individuals, attributing securities, corporate and investment derivatives to assets, whereas previously it was not clearly stated in the tax legislation. Tax Code also abolishes the tax on income from family profit, thus eliminating the harassment for conducting public offerings (IPO). Availability of such kind of tax encouraged corruption among officials of enterprises, manipulation and illegal use of insider information.

Among the currency innovations of the program for the stock market - is to simplify the procedure for foreign exchange operations for residents in order to enable Ukrainian investors to buy securities of issuers in other countries more actively. It is planned to resolve the issue and circulation of currency derivatives. It also declares the obligatory creation of the Central Depository.

10.4. Conclusion.

After analyzing the state of Ukraine's stock market, we can conclude that the main factors that hinder its development are weak legislation, poor liquidity of financial instruments, and a general lack of awareness of all segments of the population about the role of stock market in the economy. All considered issues of improvement of the stock market will help to make it more attractive for citizens of Ukraine, as well as for foreign investors.

III. Belgrade Stock Exchange

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Republic of Serbia - Capital Market

The capital market can be defined as "the place of linking supply and demand for long-term financial instruments."¹⁰⁷ The basis of its functioning are financial instruments with a maturity longer than one year, including: equities (stocks), debt securities (bonds) and derivative securities (financial derivatives). In addition to these three segments there is the oldest segment of capital markets, namely the mortgage market, which includes a set of transactions of securities, directly or indirectly secured by mortgage, which represents debt secured by real property.¹⁰⁸

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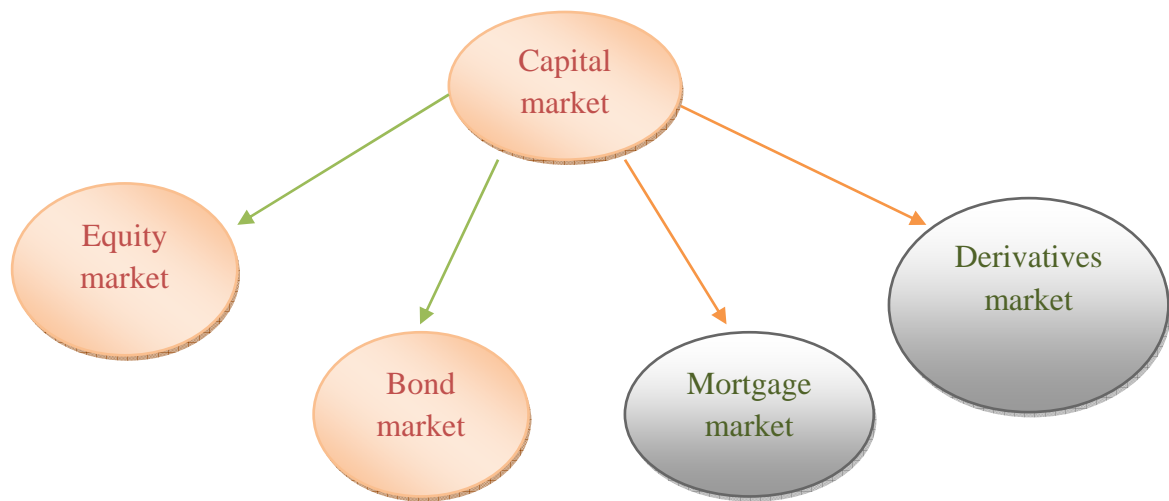
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¹⁰⁷ Eric D.D., *Financial markets and instruments*. Čigoja press, Belgrade 2003, p. 434.

¹⁰⁸ Jaksic M. *Financial market - instruments and institutions*. Faculty of Economics in Kragujevac 2011, p. 2.

Figure 4 Capital market organization



In Serbia on capital market operate only Belgrade Stock Exchange and derivatives market on Commodity Exchange in Novi Sad.

11. The history of the Belgrade Stock Exchange

11.1 Establishment and Organization

The first ideas of a stock exchange occurred during the thirties of the 19th century, but the idea is transformed into action at the end of century, when the National Assembly adopted *Law on public stock exchanges*, which was declared and published by the then king of Serbia Milan M. Obrenović. Eight years after the adoption of law, namely November 21st 1894 was held in the Constituent

Assembly which was elected a permanent government and their stock brokers. The opening ceremony was carried out in January 1st, and regular work began in January 3rd 1895¹⁰⁹. The aim of founding stock exchange is contained in promoting and facilitating trade transactions- a variety of goods (especially agricultural products), all securities which listing is allowed, checks and coupons, coins and paper money.

During first years of existence, BSE managed to gain upon many regular visitors. Her courses are given in importance, becoming applicable to the whole of Serbia. Particularly

¹⁰⁹ Dugalić V, Stimac M., *Basics of stock market operations*, Stubovi kulture, Belgrade 2007, p.370.

important was its role during forming of prices of agricultural product in domestic market, or development of its activities as a commodity stock exchange.

The first exporter meetings were held in “Bosna” Hotel, on Sava river coast, where they made arrangements for deliveries of products which were characteristic for Serbia. The aforementioned activities initially gave poor results, and Commodity Exchange was closed in 1896, but not for a long time, the work was resumed next year.

Currency and foreign exchange market, which from the very beginning was successful, a new impetus was given when the BSE received equal treatment in conducting exchange affairs, considering that these affairs were much more taxed on the Stock Exchange, than without her.

Stock exchange trading has become more successful, and accordingly, there was a separation of affairs- in the coast of Sava river has left a department for a goods, i.e. Commodity Exchange in “Serbia Crown” Hotel in the Knez Mihailova Street was transferred to the department for currency and cash, and it was closed until 1914.

11.2 Belgrade Stock Exchange during World Wars

BSE was closed since 1914 till 1919. The business was restored after World War II, and the reason of it was creation of the Kingdom of Serbs, Croats and Slovenes, as well as the annexation of the territories that were part of the Austro-Hungarian Empire. Stock Exchange were made in Zagreb, Ljubljana, Sombor and Skoplje, and BSE continued her business as usual.

There were large differences in the development of certain parts of the country’s economy, which caused disparity in the performance of emerging stock market trading. For that reason, in 1927, was adopted Regulation on establishing the delegation of stock exchange, whose main goal was to bring together all domestic stock exchange, to represent them protect their interests and to facilitate trading and uniform stock exchange rules.

After World War I, BSE began operations in Knez Mihailova 137, and soon moved to the Palace of Academy Sciences in Jaksiceva 2 Street, where she was located till 1934, when she received her own building at King’s Square 13. Stock exchange operations recorded a rise. BSE was visited by 100-150 people per day, exchange rate list were printed in a thousand pieces. The most intense development of stock market has been made from 1923 till 1930. That was also a period of consolidation and stabilization of national economy and national currency. After that, European Countries have been affected by crisis,

and countries begun preparations for the coming war, which certainly adversely affected on the operation in BSE. The largest financial transaction on BSE in the years between wars was achieved in trading foreign currency, whose value amount several times surpassed all other transactions that were realized on stock exchange.¹¹⁰ From existing sources,¹¹¹ we can be sure that indeed was so, taking for example 1925, in which it recorded the highest financial transactions of foreign currency in national currency, between 1919 and 1939.

Table 8 Belgrade Stock Exchange, 1894-1994

year	effects	currencies	foreign currency	products	total
1925	634.651.649	13.965.750	3.562.473.204	84.265.044	4.295.355.647

The financial transactions on BSE were higher than on all stock exchanges in country, achieved a great reputation and was ranked among the leading European stock exchanges during that period. In the years before World War II, President of BSE was elected for Prime Minister of Kingdom of Yugoslavia, Milan Stojadinovic (University Professor). This fact was the best illustrate of importance of BSE during that period.¹¹²

Before the World War II, business was more difficult and less. The last Annual General meeting was held in 1940, and 10 months later the country was occupied, and BSE has stopped working. Managerial Board held last meeting on 28th March 1941.

During World War II, financial markets could not prosper, normally, and therefore some institutional parts, especially stock market, which did not exist til 1953. That year was considered a milestone in development of the monetary system and financial markets.

During that period existed strife between two systems- capitalist and socialist. Countries with capitalist economy system, their activities focused on restoring financial market, while the socialist countries declared highly undesirable capitalist type of financial market, especially secondary market of securities. After World War II, Yugoslavia was transformed into federal state with socialist economic system, and stock exchanges did not resume their work after war, and as intermediaries in trade occurred only banks and sovereign funds. Decision of Presidium of the Serbian Government BSE has ceased to exist in 1953.

¹¹⁰ Dugalić V, Stimac M, op. cit., p. 374.

¹¹¹ Belgrade Stock Exchange, *Belgrade Stock Exchange 1894-1994*, p. 44.

¹¹² <http://www.ekapija.com/website/sr/page/213737>, [accessed on 03.05.12].

The only institution that was something like Market Organization was Money market and Market of securities, the Bank Association of Yugoslavia, established in 1967.¹¹³

The eighties of the last century have brought many changes, mainly referring to the social and economic reforms. Although the development of market economy was at the center of change, some kind of change lacked in the field of property relations, because social property was still in the first place. What led to the development was adoption of numerous laws and the most important:

1. *Law on Enterprises*, which allows establishment of joint stock companies and limited liabilities companies, that creates opportunities for companies to come to capital through equity (stock).
2. *Law on Securities*,
3. *Capital Market Law*, which regulates establishment of stock exchange as the primary institution in the secondary financial market.

The adoption these laws have been created conditions for the complete reconstruction of the financial system. Approval for commencement money market was given by National Bank of Yugoslavia, November 7th 1989, and the work began November 14th in the same year. Beginning of the capital market was preceded by the maintenance of Founding Committee in Belgrade and Ljubljana in October 1989. Soon after Constituent Assembly of the Yugoslav capital market was held in Belgrade in 1992 and stock exchange gave a name Belgrade Stock Exchange (BSE).

Nineties on the stock market mainly traded with short-term and government bonds. First trading with shares was performed in 1991, the name of companies- Sintelon and Auto Dealers Kikinda. A significant prosperity in trading on BSE was achieved in 2000, when in the secondary trading were included shares previously privatized enterprises. At the BSE during 1996 was traded with commercial-goods notes of the Directorate for Commodity Reserves with the substrate in wheat, corn, sugar and oil and with the first municipality bonds was traded in 2000 when in market was included Treasury bills (NBJ).¹¹⁴ Issue of Republic of Serbia bonds on basis of old foreign currency savings contributed for development domestic financial market.

Extremely important for development of Stock Exchange was improvement of BELEX trading system, there was introduced a permanent and remote trading and intensified

¹¹³ Dugalic, V., op. cit., p. 75.

¹¹⁴ http://www.belex.rs/o_berzi/istorijat, [accessed on 07.05.12].

a international cooperation with other developed markets. BSE introduced first index BELEX fm during 2004, and electronic trading system. During 2005, the emphasis has been placed on improving process of informing and reporting from stock exchange. On 2006, initiated of process education at general public (citizens), through a variety of courses and courses still hold at Stock Exchange. In 2007, we have first listing of shares, which contributed increasing the liquidity of the BSE, which is still not at high level. In recent years special efforts have been invested the better cooperation between BSE and companies because of increasing of listed shares, and thus overcomes the basis problem of BSE, lack of liquidity. Since 2008, BSE is not at a high level moreover, he is in the limit of endurance. One factor is impact of world financial system crisis. Although Serbia did not invest in high-risk securities foreign investors who invested in our stock exchange market, they were.

For that reason, investors closed their losses on U.S. market by retreating funds from small markets, including BSE market. Money was needed them, and they offered the most liquid shares for lower value than reality. All of that resulted to decline of individual shares and index of shares, logically. A large number of issuers from the period of crisis till now are excluded from the market.

For example, the number of issuers on OTC market in 2007, was 1886, and today that number is 955, on multilateral trading platform. Drastic drop in the number of issuers was contributed by implementation of Capital Market Law, because there has been a complete reorganization of BSE. Aim of this law-increasing transparency liquidity of domestic capital market.

12. Belgrade Stock Exchange- current situation

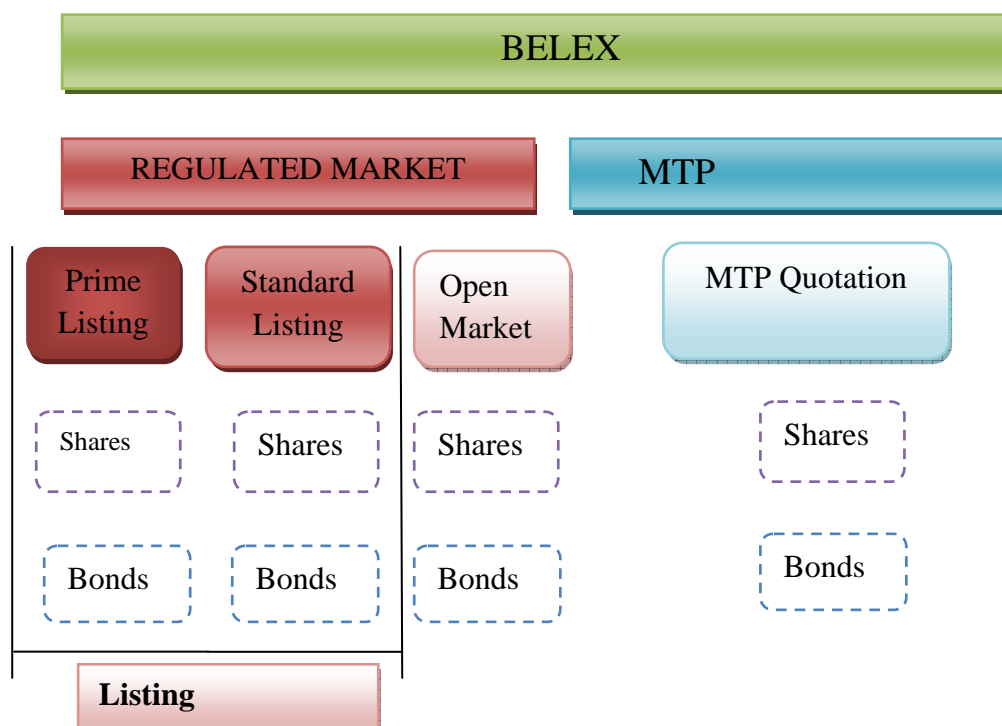
12.1 Market organization

On the BSE, to the Law on the Capital Market ("Off. Gazette RS", no. 31/2011), differ more types of markets:

- Regulated market - which consists unlisted and listed securities, is multilateral system organized and managed by the market operator and which facilitates connection of the interests of third parties for the purchase and sale of financial instruments in accordance with its binding rules and the way, which leads to the conclusion of contracts relating to financial instruments included in trading by its rules in the system, licensed and regularly operates in accordance with the capital market.

- Multilateral trading platform (MTP) is a multilateral system, which is organized and run by the market operator or investment company, and which facilitates connection of the interests of third parties for the purchase and sale of financial instruments in accordance with its binding rules and the way that leads to the conclusion contract, in accordance with this Law.
 - The market outside the regulated market and MTF, as follows: Trading without the participation of the investment company, but with mandatory notification of the Central Registry of Securities.
 - Counter trading on the OTC market with an investment brokerage company

Figure 5 BSE Market organization



Source: http://www.belex.rs/eng/trzista_i_hartije/organizacija_trzista [accessed on 22.04.2012].

Securities, now at lists A and B, i.e. *prime* and *standard* listing, will be traded at the regulated market. There are eight of this kind of securities (shares) in total, which are: five on the *prime* market and three on the *standard* listing. Multilateral trade platform (MTP) fits momentary out stock market, which numbers 1252 action issuers, i.e. 1 bond issuer.

Since 2004 with the transition from telephone to electronic trading system, the Belgrade Stock Exchange gets one totally new organizational form. By introducing

the new trading system for the mentioned securities, based on FX protocol, in the year 2008, the Belgrade Stock Exchange becomes closer and closer to the world Stock Exchanges. That's how it is provided faster, more secure, more efficient and cheaper way of securities at the Belgrade Stock Exchange. Also, through development of the broker's application, based on FIX protocol, Stock Exchange members provide investitures with easy, fast and effective way of sending orders from their personal computers.

Advantages of implementation of the FIX protocol and development of the BELEXFIX trading system are still not fully exploited. The main reason can be found in the outbreak of the crisis in the world's financial system, as external, and unsatisfying number of valid trading securities, as internal factor. What is wanted to achieve by the new Law is revival of the domestic capital market, which will be ready to greet the exit from the crisis.

Table 9 Market capitalization on May 28, 2012

Listed Companies	Market capitalization
<i>Prime Listing</i>	121.945.740.596
NIS jsc Novi Sad	95.390.334.000
Nikola Tesla Airport jsc Belgrade	14.435.816.350
Energoprojekt holding jsc Belgrade	4.118.497.350
Soja protein jsc Bečej	7.358.388.856
Tigar jsc Pirot	642.704.040
<i>Standard Listing</i>	16.838.504.750
Komercijalna banka jsc Belgrade	13.978.442.550
Alfa plam jsc Vranje	1.197.462.200
Metalac jsc Gornji Milanovac	1.662.600.000
Listing-total	138.784.245.346
<i>Open Market</i>	191.947.735.068
<i>MTP</i>	280.738.494.406
Total Market capitalization of shares	611.470.474.820
% Listing/total Mcap of shares	22,7%

(JSC-joint-stock company)

12.2 Activity

Joint stock of company BSE is a legal entity with rights and obligations stipulated by Law on the Capital Market. Under this Law, BSE organize trading with securities and financial derivatives on regulated and MTP market. She performs the affairs organizing the public offer of securities, and matching supply and demand of securities, then makes publication information about supply, demand and market price of securities. BSE also publish and circumstances exchange rates of securities and perform other duties in accordance with the Law. BSE organize public offer trading. The subject of a public offer can be securities, standardized financial derivatives and other financial instruments. These financial instruments can be subject of trading on stock exchange and OTC market in accordance with Commission of Securities Act.¹¹⁵ BSE cannot perform trading and give an advice which is related to the purchase and sell securities. BSE also cannot give advice about choosing broker-dealer or authorized banks.

12.3 Regulatory and legal framework of the Belgrade Stock Exchange

BSE operates under rules set by the Law on the Capital Market, both in terms of the Labour Exchange, and in terms of establishment and operation of stock exchange members. This law defines the following:¹¹⁶

- 1) A public offering and secondary trading of financial instruments;
- 2) Regulated market, multilateral trading platform (hereinafter referred to as MTP) and the OTC market in the Republic of Serbia;
- 3) The provision of investment services and carry out investment activities, including licensing and editing of investment companies and other capital market participants in accordance with this Law;
- 4) Disclosure of financial and other data, and reporting obligations of issuers and public companies in accordance with this Law;
- 5) Prohibition of deceptive, manipulative and other illegal acts and acts in connection with the purchase or sale of financial instruments, as well as the exercise of voting rights in relation to securities issued by public companies;
- 6) Clearing, settlement and registration of transactions in financial instruments, as well as the organization and jurisdiction of the Central Depository and Clearing House;

¹¹⁵ http://www.belex.rs/o_berzi/delatnost, [accessed on 10.05.12].

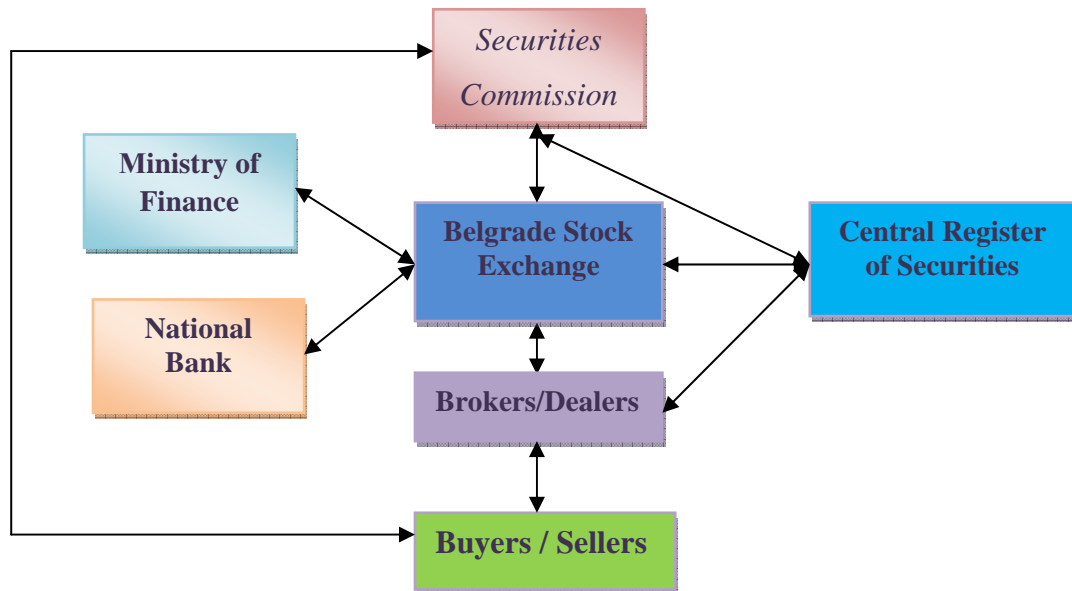
¹¹⁶ Law on the Capital Market ("Off. Gazette RS", no. 31/2011).

7) The organization and jurisdiction of the Commission for Securities.

Debt securities issued by the Republic of Serbia and National Bank of Serbia, can be traded on the stock market without any special conditions which sets out the Exchange to other issuers of securities, while securities issued by foreign legal entities may only receive the listing under the established conditions.

One of the important participants in the capital market in Serbia is the Ministry of Finance, responsible for the legal framework of securities market, namely the adoption and harmonization of laws on stock market operations and securities. On Figure 6 can see the place and the relationship of each institutions for the effective functioning of the BSE, and its place in the whole system that makes the capital market in Serbia.

Figure 6: Subjects in the Serbian capital market



12.4 Bodies (Authorities)

The highest governing body is Assembly of stock exchange, Managerial Board convene Assembly of SE in accordance with law, all shareholders of SE who are registered in Central Depository and Clearing House, are members of Assembly. Assembly hold at headquarters of stock exchange. All information about shareholders are available on website Agency for Business Registers. Managerial Board elects Assembly of SE, consist of 11 members who are shareholders of SE. Members of Managerial Board are- shareholders with the largest percentage of capital BSE, shareholders who are also members of SE as well as minority shareholders. When the Commission for Securities gives consent, the mandate begins for newly elected members.

The Director of Stock Exchange elect by the Assembly of BSE. He is responsible for organization of exchange operations, the implementation of decisions for Assembly and Managerial Board, as well as the other duties specified by Law, Statute and Rules of BSE.¹¹⁷

Stock Exchange create arbitrage. The main task is resolving disputes between participants on SE. The list arbitrators prescribe Assembly of SE and it is very important-members of Board cannot be members of Exchange Arbitration. Arbitration is based on special rule book. SEC prescribes conditions and method of promoting arbitration in case of possible disputes between participants on Stock Exchange.¹¹⁸

Exchange Commission - Commission for listing and quotation, which has five members elected by Managerial Board, performs task which is related to:

- The process of admission securities to the regulated market,
- Temporary suspension of trading in securities,
- Exclusion for listing securities of Stock Exchange and other duties established by Statute and Rules of SE.

Commission for violations on SE is the first instance of body which conducts proceeding for determining violations on SE. It consists: President and Vice President elected by Managerial Board of SE, and from two members and two deputy members from among of employees of SE and other qualified persons. Mandate period is one year, and Commission has an obligation to quarterly, and sometimes in shorter period, if Managerial Board require, to inform Managerial Board about procedures and conducted penalties and measure. There is a opportunity to appeal against decision made by Commission.

12.5 International Cooperation

The process of integration requires, for all institutions and Stock Exchange to invest efforts for better international cooperation. The process of integration contributes erasing boundaries in terms of investment, BSE is forced on fighting and maintaining competitive position globally. It does it by constantly improving its image of a unified corporate brand, which features professional identity are built in world standards in the field stock exchange operations.

¹¹⁷ <http://www.ekapija.com/website/sr/page/214157>, [accessed on 04.05.12].

¹¹⁸ http://www.belex.rs/o_berzi/organizacija_2, [accessed on 04.05.12].

International activity of the BSE is reflected by its ongoing activities in a number of regional and international projects and programs, as well as an active presence in international associations. BSE is:

1. A full member of the The Federation of Euro-Asian Stock Exchanges (FEAS),
2. Corresponding member of the Federation of European Securities Exchanges (FESE),
3. Corresponding member of the World Federation of Exchanges (WFE).¹¹⁹

International cooperation is exceptionally important, it is based on bilateral agreement about cooperation and joint projects with regional markets, including- Ljubljana, Zagreb, Sarajevo, Montenegro and Stock Exchange in Skopje. Integration of BSE with regional Stock Exchanges would involve creation of strong stock market which would be traded with very liquid securities and would be very attractive for investors who invest in world markets. All of this still is a distant prospect. Special attention is given to the cooperation of media services in region and wider environment. There are established regular lines of communication through the distribution of reports and news.

12.6 Methods of trading in securities on the BSE

Securities trading at the Exchange sessions can be organized by the following methods of trading:¹²⁰

- **Single price auction** - members place trading orders in the pre-opening phase, and the price is determined during the auction phase based on the placed trading orders. During the single price determination the following criteria are applied: *maximization of the trading volume and minimization of the difference between the possible price and the reference price.*
- **Continuous trading method** - under this method of trading orders are entered into the electronic order book and are issued in BELEXFIX system, which continuously compares the conditions of price and quantity from previously issued, accounts and unrealized trading. Orders are implemented in priority order from the price, and if the prices of several orders equal, preference is given to previously issued order. Implementation of orders is possible if the system exposed in BELEXFIX are contrary to the type of transactions that have a price equal

¹¹⁹ http://www.belex.rs/o_berzi/medjunarodna_saradnja, [accessed on 10.05.12].

¹²⁰ Belgrade Stock Exchange. Methods of trading. Source: http://www.belex.rs/trzista_i_hartije/metode_trgovanja, [accessed on 11.05.12].

to or greater than the order that the status of active orders awaiting implementation. Closing price is calculated as the weighted average traded price of each unit of securities during the trading day¹²¹. Continuous trading method consists of the following phases¹²²:

First phase: *pre-opening* - at this stage of the continuous trading method equals the prevailing price method, but only until 9:55 pm. This phase includes two sub-phases:

- Receipt of orders - the period of receipt of orders to trade, and
- Random time-limited period for the receipt and trade show information.

Second Phase: *Opening* - opening price is equal to the price determined using the prevailing price.

Third phase - *Continuous trading*-in which members of the Exchange may turn out to continuously trading orders, including orders to retreat.

Fourth phase – *Closing*

Table 10 Example of trade continuous trading method

Symbol		View		Options		Trade Now!		
Last	SumBid	SumAsk	Open	High	Low	%Chg	Turnover	VWap
2,900 ▲	2,461	3,071	2,900	2,900	2,890	.63	1,861,700	2,900
AccSize	Size	Bid	Ask	Size	AccSize			
200	200	2,880	2,900	86	86			
300	100	2,832	2,920	23	109			
500	200	2,831	2,935	100	209			
800	300	2,830	2,949	66	275			
822	22	2,826	2,950	478	753			
922	100	2,825	2,980	300	1,053			
1,022	100	2,822	2,990	8	1,061			
1,122	100	2,821	2,999	557	1,618			
1,152	30	2,820	3,000	1,005	2,623			
1,252	100	2,801	3,054	174	2,797			
1252		1209	274		2797			

Source: Inter Capital Securities (2009), Guide to trading on the BSE, Belgrade, p. 9.

The process of pre-opening method for continuous trading takes place in the same manner as in the single price method. However, when you begin continuous trading, the transactions are carried out if the conditions are fulfilled for trade between supply and demand.

Table 10 can be seen that it is impossible to come to the conclusion of order, because there are no accounts that could be paired. No. 1209, shows the number of shares to foreign

¹²¹ Inter Capital Securities, *Guide to trading on the BSE*, Belgrade 2009, p. 7.

¹²² BSE, *Basic Course on Stock Exchange*, Belgrade 2008, p. 13.

buyers who are below the 10th. The same situation exists on the supply side, where the 274 shares listed under the 10th.

Market orders are in the continuous trading period immediately realized, provided that a bid (in case of purchase), or demand (in the case of sales).¹²³ In the event that no foreign sales orders, and the demand appears a market order, it automatically goes into limit orders with prices equal to or above the indicative price determined in the course of trade. The same goes for the demand side there are no purchase orders, and appears to offer a market order sales.

Block trading - includes a block transaction, which is the subject of securities traded on the regulated and unregulated market. Features include the performance of block trades outside the trading session trading method and the prevailing price or the method of continuous trading. For the trading of securities is determined zone of fluctuation, which is the largest allowed price deviation from the indicative price of securities.

13. Products and Services

13.1 BELEXFIX

BELEXFIX based on Fix protocol is a official system for trading on BSE, and was put into operation 14.04.2008. According to developed country BSE has decided to develop a trading system that is integrated into single protocol for the exchange of information in the financial markets for safer and easier information exchange. The system bases on interconnected modules from which perform all functions of the Exchange:

- **Listing module**, which is used to record material market, their inclusion on the Stock Exchange, trading suspension, the registration of stock exchange members, their licenses, suspension and power brokers. It enables the efficient functioning of the department listings, as well as facilitating the daily work of employees in this sector.
- **Trading module**, which is also the center of the system, is serving customers, that take basic data about the market. In this module are implemented two methods of trading: continuous and auction, and all types of orders that are currently used.¹²⁴
- **Information module** allows automatic generation of periodic reports and associated for the purpose of the web site of the Exchange.

¹²³ Inter Capital Securities, op. cit., p. 9.

¹²⁴ http://www.belex.rs/proizvodi_i_usluge/BELEXfix [accessed on 23.04.2012].

The new system enables electronic order entry through FIXAPI modules, based on which members can connect your *Backoffice* applications and enable customers quickly enter orders into the system of trading. Overall implementation of the new trading system means improving system performance, speed and security that are extremely important for both investors and all market participants in our capital. Customers will be able, as investors in the world markets, that their orders are issued by Internet. Luxembourg stock market was a major donor to the project.

BELEXFIX allows processing up to 500,000 orders and 300,000 transactions per day. Maximum at the BSE was 10 000 orders and 2,500 transactions, and that number is lower due to more impact, both economic and non-economic, factors. Version of the FIX protocol, which uses the BSE, is 4.4 and includes electronic communication between:

- The broker and the stock market, which is bidirectional and is done when:
 - giving orders to the trading (buying or selling) - Broker -> Stock
 - providing trading feedback (if the transaction is completed, at what price, volume, etc.) - Stock -> Broker
- Broker and a Central Registry, which is:
 - checking customers - Broker -> Register
 - giving feedback on the client - Registry -> Broker
- Broker and clients (buyers and sellers of securities) if the broker-dealer company developed its own system of receiving orders electronically (via mail or by installing a special application on personal computer users). Communication takes place at:
 - receipt of purchase and sales orders - Customers -> Stock
 - statements of purchase - Stock -> Clients
- Central Registry and the stock market, which is also bidirectional and is done when:
 - providing information about the completed transactions - Stock -> Central Registry
 - providing information about the owners of securities - Central Registry -> Stock

The following image can be observed relationship between participants who do communicate electronically and those who continue to communicate in writing

or by telephone. On the basis of the following characteristics, represented graphically, it can be interpreted on Figure 7.



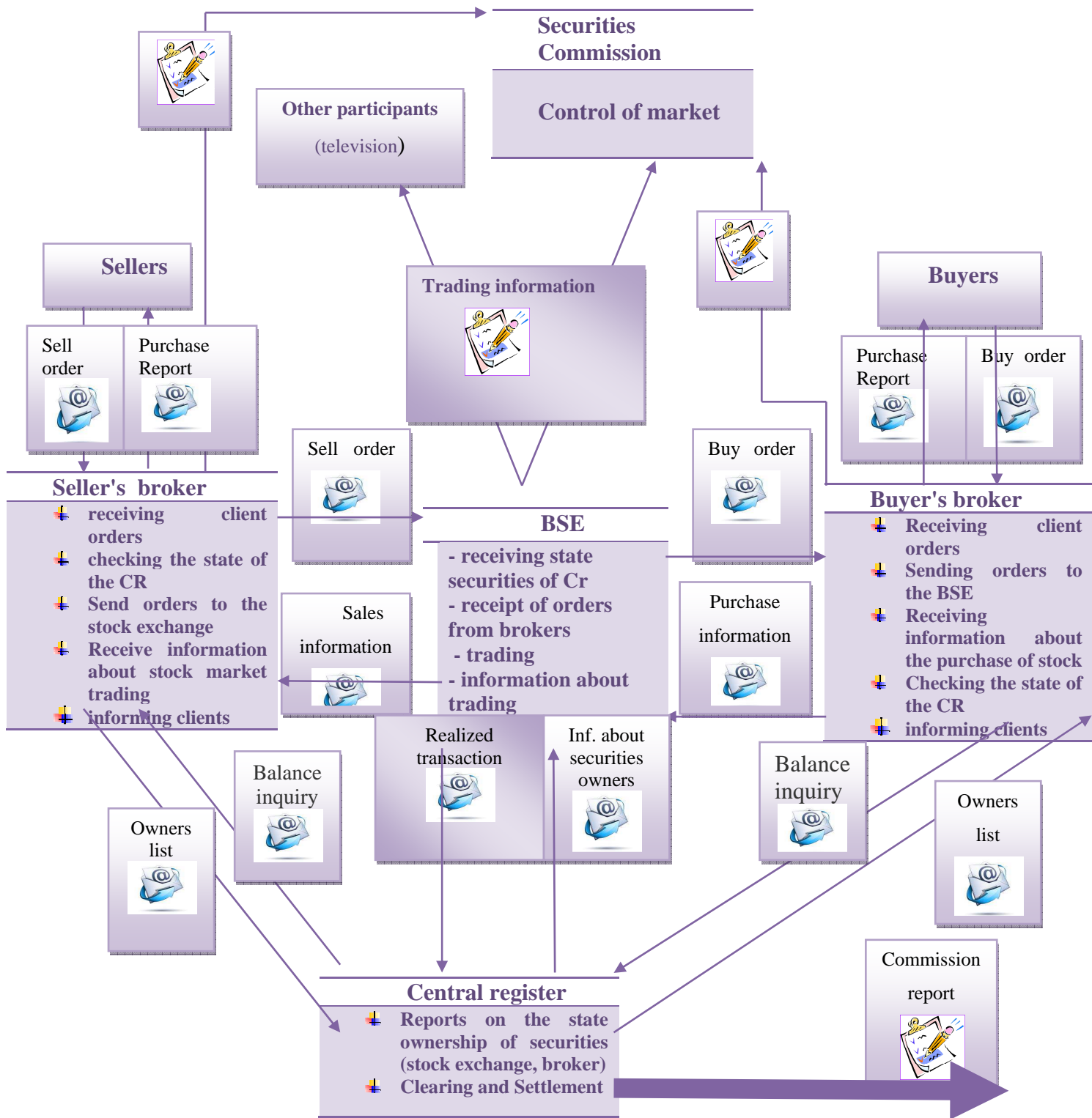
-  Electronic communication between participants in the securities market
-  Communications in writing between parties in the securities market

Figure 7 Communication of participants in the securities market



Source: BSE (2007). Implementation of FIX protocol on the Serbian capital market, Belgrade, p. 78.

13.2 Information Services on BSE

On BSE distinguish the following information services:

1. **Belex.info** - to distribute information about trading to all users via the Internet in real time. In this way, users have continuous insight into the securities market, that is, the price movements of securities.
2. **SMS** - provides easy access to information about trading on the BSE, the use of mobile telephony. Allows users to always be informed about the current price of securities, the percentage change in price and trading volume by way of sending text messages.
3. **SMS start-stop** - can be used by users who wish to be informed about the daily price movement of specific securities, the price at closing, highest and lowest daily price, procentualnoj change in price and daily trading volume for the selected value of the paper.
4. **Data Feed** - dedicated to the professional information distributors, known as data vendors, the data retrieved, processed and re-distributed, in whole or in part, to end users. This service is possible only previous signing a distribution agreement with the Stock Exchange, to distribute information on current prices of securities, depth, concluded transactions, indexes, and corporate news listed companies and companies included in the index basket BELEX15¹²⁵
5. **Ticker** - if users are interested in at any time be informed of current prices and price changes of securities traded during the day, they can download the BSE ticker online
6. **RSS** - involves downloading and displaying data in a separate program to read your mail on the basis of which the formation of "personal newspaper".

13.3 Indicators of BSE

Classified indicators we use to rate business in BSE, with the help of using different mathematical patterns. It is important to calculate ratios compared with indicators from the previous period or with indicators of regional stock exchanges. There are following groups of indicators:

1. **Market capitalization** - the product of market price and the total number of issued shares or bonds.

¹²⁵ BSE. *Products and services*. Source: http://www.belex.rs/files/proizvodi_i_usluge/gi_2010.pdf 11.1.2012.g., [accessed on 13.05.12].

2. **Indices:**

- **BELEX15** - includes actions that are in continuous trading. This index is weighted by market capitalization, calculated on a daily basis. The participation of individual companies is limited to 20%.
- **BELEXline** - a general market index. This index represents the price movement of a representative sample of shares on the Stock Exchange. The participation of individual companies is limited to 10%.

3. **FIT, FIS, FIB** - the participation of foreign investors

- **FIT** - an indicator of foreign investors in total
- **FIS** - the participation of foreign investors to trade stocks
- **FIB** - the participation of foreign investors to trade bonds RS

4. **BELEXsentiment** - represents the expectations of market participants on the movement of stock prices in the coming month. The survey included: participants in trading, institutes, universities and the general public¹²⁶.

5. **Ratios** - balance is the ratio of one position to another, expressed in simple mathematical formula. The most popular ratio indicators are:

- **EPS (Earning Per Share)** - is obtained as the ratio of net income and the number of issued ordinary shares
- **P / E (Price / Earning per share)** - is obtained as the ratio of market price of shares and earnings per share
- **P / B (Price / book value)** - given as the ratio of market value and book value of shares
- **ROE (Return on Equity)** - is obtained as the ratio of net income and ongoing capital

¹²⁶ BSE, *Basic course on the stock exchange*, Belgrade 2008, p.4.

14. State on the Belgrade Stock Exchange in the period 2007- 2011

14.1 Condition on the BSE during year 2007

Conditions in economics and politics during 2007 in Serbia and the region to which it belongs, represented a given frame within which the Belgrade Stock Exchange business occurred. This year was marked by significant events within the EU, as well as dynamic international activity of Republic of Serbia, mostly seen through diplomatic activity concerning the status of the southern Serbian province.

In the year 2007 the Belgrade stock Exchange was extremely successful in turnover, number of transactions, number of issuers included in organized market and number of the Stock Exchange members, as well as according to improvement of the total business conditions, educational activities and financial result.¹²⁷

In order to define the overall business environment in 2009, we have to mention few important events that characterized the economic-political scene in Republic of Serbia:

1. Economic trends were characterized by high rates of: economic activity, GDP was 7,3% of export, import and earnings. Despite of the increase in inflation which reached 10,1%, the core inflation was successfully kept within the planned framework from 4% to 8%, which indicated a favorable macroeconomic environment. What spoiled, it was the high foreign trade deficit, caused by higher growth of demand due to fiscal expansion in the late 2006.
2. The growth of domestic and foreign loans contributed to the increase in domestic demand below the level of economic activity and to the growth of the foreign trade deficit.
3. The growth of foreign direct investments amounted to 960 million euros, as well as the growth of net inflow of foreign investments on Belgrade Stock Exchange, which were 36 billion euros in previous period.
4. Creating the first foreign index of Serbian shares SRX and selling the first llicence for the index BELEX15, based on which the products traded on stock exchanges in Francfut and Stuttgart were created.

¹²⁷ Belgrade Stock Exchange, Annual Report for 2007, BSE, p.1.

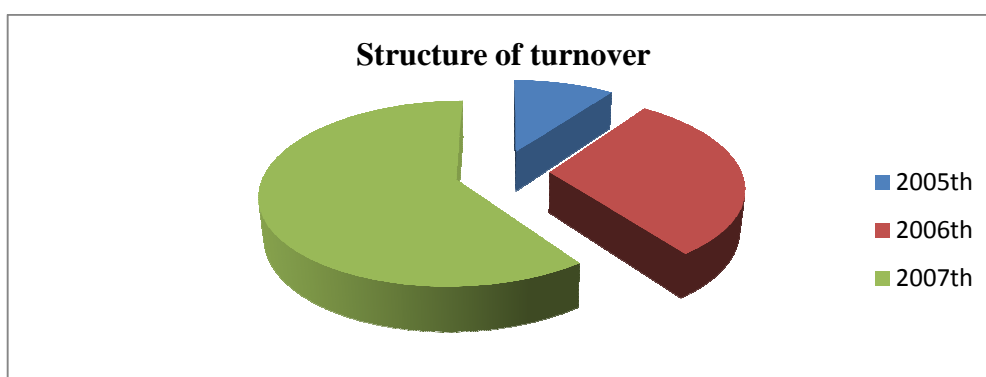
5. The cooperation with stock exchanges in the region is fixed by signing the Partnership Memorandum. The goal was the promotion of regional market, the development and creation of regional stock exchange products and services.

Business operations

➤ Turnover:

The total turnover in 2007 was valued at 165 billion dinars, an increase of 64% compared to 2006. Also, there was the increase in number of transactions per year by 113% since that year.

Diagram 5 Structure of turnover on the BSE in 2005-2007



Source: BSE 2011

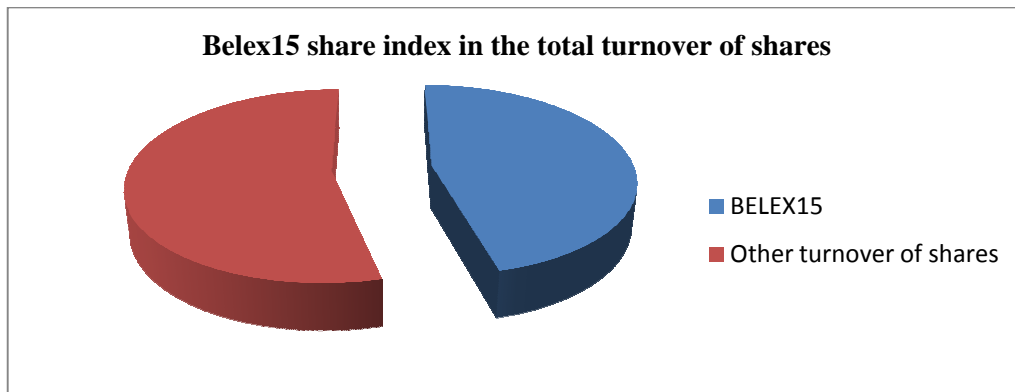
➤ Shares:

As in previous years, the shares had the dominant role in the total turnover on Belgrade Stock Exchange with 90%, which is 3% more than in the year 2006. Compared to shares of companies traded on Belgrade Stock Exchange the shares of banks completely changed their participation and they no longer have the absolute domination over the domestic capital market.

The decline of these shares in trade is 21% compared to previous year. Companies shares traded by the *method of continuous trade* reached the turnover of 68% of total turnover of shares, indicating an increase in liquidity that characterizes the shares selected using the single price method and are included in continuous trading. The most liquid shares covered by the index BELEX15 achieved 75% of the turnover of all shares traded by the method of continuous trade.¹²⁸

¹²⁸ Belgrade Stock Exchange, Annual Report for 2008, BSE, p. 3

Diagram 6 Belex15 share index in the total turnover of shares



Source: BSE, 2011

➤ **The block trading:**

The block trading reached about 9% of total turnover, and the highest value was achieved by trading with a large amount of shares of AIK Bank from Nis, but regardless of that fact the turnover of block trading decreased by 11% compared to 2006 which indicates the increase in market efficiency.

➤ **Bonds:**

Of total turnover reached on Belgrade Stock Exchange, only 10% was the segment of trading with bonds, but in total amount the turnover of notes of hand increased by 30% compared to 2006. The achieved turnover was 207 million euros. The number of transactions decreased by 39%, and we can conclude that the frequency of transactions is lower on the market of notes of hand, with simultaneously higher value of individual transactions.

➤ **Indices:**

At the beginning of the year the index BELEX15 continued to grow, noting new historical values every day. The unusual growth of 70% in the first three months contributed to recognizing the Balkan region as the fastest growing region in the world's capital market.¹²⁹ It reached its historical maximum on May, 3rd, with the value of 3335,20 points. The first depreciation happened in May with the noted record depreciation of 6,53%. Later depreciations followed in summer period, as well as in fourth quarter, but all these could not decrease the growth of index which was 38,4% on the annual level. The new index of Belgrade Stock Exchange was presented in 2007 – BELEXline which was a successor

¹²⁹ Ibid., p. 20.

of the first stock exchange index, BELEXfm. The movement of this index was in correlation with BELEX15, with intensive growth in the first quarter, as well as with record values in the month of May. This index also noted depreciations in the same periods as index BELEX15. On the annual level the growth reached 44%.

➤ **Other indicators:**

BELEXsentiment was in the zone of positive expectations for the greater part of the year 2007. However, the first time this indicator was published, it was in negative zone for two months, below 100 points, reaching its historical minimum. Certainly, macroeconomic and political occurrences in the second half of the year contributed to that.

Participation of foreign investors in total trading could be seen in trading with notes of hand of foreign currency savings, while in trading with shares we could see decreasing of this indicator. In relation to the year 2006, there was decrease in relative values of FIT by 18,2%, but if we look at absolute values, there was an increase in trading of foreigners by 89%. Net inflow of foreign investments on Belgrade Stock Exchange was around 500 million euros.

➤ **The listing:**

Commission for the list and quotation has held 5 meetings, on which among other things, it made the decision on admission to the *Prime market* shares for these issuers: Sojaprotein jsc Becej 2. Energoproject Holding jsc Belgrade. It also brought a solution to the admission of shares of another issuer, and that is Tigar co. Pirot, with the provision that it had to meet additional criteria relating to liquidity.

➤ **The OTC market:**

The OTC market in 2007 included shares of 775 issuers, which together with shares of those included in previous years made the total of 1944 emissions of shares issued by 1886 issuers.

14.2 Condition on the BSE during year 2008

As in previous year, the situation on the BSE was result of economic-political situations in Serbia, and also the problem of globalization and global economic crisis provided the framework in which the report should considered for this year. To define

the overall business environment in 2008 year, we have to mention several important events that have characterized the global and domestic economic and political scene:

1. The crisis of the world financial system that has evolved into a economic recession and affected all areas of life;
2. to reduce GDP by more than 1%, increase in the current account deficit, which could not be compensated surpluses recorded in the financial and capital transactions, which resulted in a reduction of foreign reserves CB to the level of 12,85 billion dollars, reducing unemployment, reducing investment activities, but experts fear that the crisis will persist even up to 2010, which eventually came true,
3. The fall of giants in financial sphere,
4. The decline in economic activity,
5. State intervention in the economy, which alter widely accepted concept of strict separation of state and business companies. This concept was adopted already in 2006, as a necessity in further development of economic sector,
6. The tightening of regulations governing business in the financial sector,
7. The deterioration of the investment rating of country,
8. Frequent exchange rate fluctuations,
9. Postponement of the privatization of public enterprises by initial public offering

A positive signal for foreign investors was certainly the conclusion of stand-by arrangement with the IMF, as it did monitor the implementation of economic policies and structural reform of country.

BSE was also in 2008 year participated in “road show” activities, which was held in Zagreb, and later in Wien in cooperation with regional stock exchanges. Cooperation with leading index providers, American DJ-Stoxx, was resulted the creation of family DJ Stoxx Balkan Index whose calculation involved the shares traded on BSE.¹³⁰

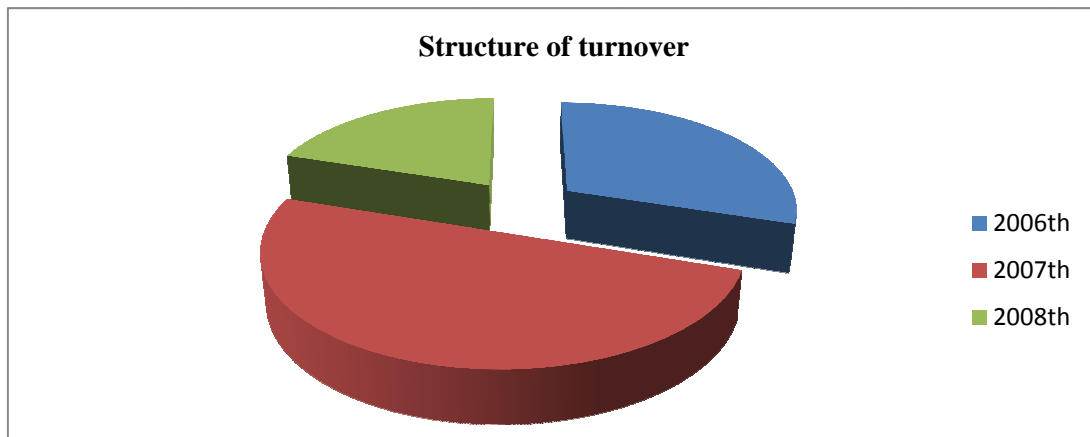
¹³⁰ Ibid., p. 8.

Business operations

➤ Turnover:

A total turnover was amounted to 71.8 billion RSD, which represented its reduction for 56.4%, over the previous year. Also the number of transactions was decreased for 182 thousand, which was 60% less than in 2007.

Diagram 7 Structure of turnover



Source: BSE, 2011

Although in 2008, saw a significant decrease in investment activities, actions as in previous year had dominant contribution in total financial transactions on BSE, which was 92.6%, which was 3% more than previous year. Shares which were traded to the method of continuous trading turnover amounted to around 35.2 billion RSD, it was more than 52% of total financial transactions by shares, which was relative lower contribution than previous year. About 28% of total turnover was achieved by block trade, which was 40% more than in previous at year, all of this indicated the reduction in liquidity and tendency to large transactions carried out through bilateral agreements.

The number of transactions has been decreased for 47% and strong depreciation of the price on stock market, there was no recomposition of portfolio through bond accumulation by organized stock trading. Bond which was traded in 2008, as well as in previous year, was the bond A2016.

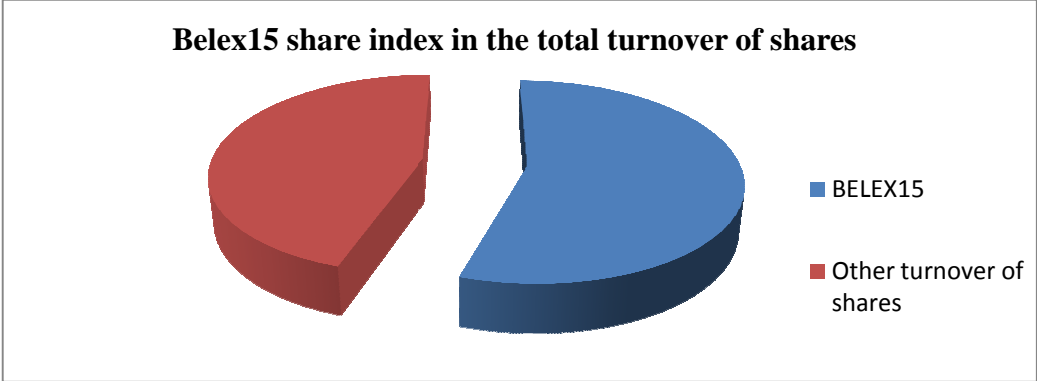
➤ Indices:

Trend of declining index values was formed during the third quarter of 2007. However, the first negative effects came into play in 2008. Increasing of political risk marked

the first quarter of 2008, caused by uncertainty first presidential election, then the Kosovo crisis and the fall of Government and the early presidential elections. All of this resulted on the weakening of the index to 25.86%, during the quarter, while the second quarter brought some stabilization and positive result (3.75%) which was mostly caused by post-election expectations.

While the first quarter of 2008, was determined by local circumstances, the third and the fourth was determined by events in world financial markets and the effects of financial crisis, which were strongest in September and October. BELEX 15 in this period decreased by 43%. In the last quarter has been noted a historic minimum of the index, which was only 474.3 index points. BELEX line was correlated with an index BELEX15, with somewhat weaker oscillations, recording annual decline of 69.08%.¹³¹

Diagram 8 Belex15 share index in the total turnover of shares



Source: BSE 2011

➤ **Other indicators:**

BELEX sentiment during 2008 was in negative zone of expectations, participants not used to negative trend, expected recovery of the domestic market in mid-year, to which was not there.

Participation of foreign investors in total turnover, which measure by an indicator FIT increased compared to 2007 for more than 8 percentage points, indicating lack of domestic demand rather than growth of domestic market activity. As regards the participation of foreign investors in financial transactions by shares, sale was reduced only by about 2%, which was a signal that the our market was not abandoned, while it sales has been a dramatic increase of sales, for some 20%, which also represented main cause off falling share prices in the domestic market.

¹³¹ Ibid., p. 6.

➤ **Listing:**

Commission for listing and quotation of BSE in 2008 adopted a decision about admission shares to the regulated market of issuer: joint stock company Metals bank, on the Prime market and Company Alfa Plam, Vranje, on Standard market, which hold that position to this day.

Metals bank did not keep position on Standard market, it was soon given solution of exclusion and return to the OTC market, due to did not fulfill its obligations on time, in particular obligation in relation to reporting.

During this period, the issuer Tigar, Pirot fulfilled the necessary conditions, namely the increase of liquidity, with whom he had problems in short term, for admission the shares to Prime market, On Prime market already have been two other issuer: Sojaprotein Becej, and Energoprojekt Holding, Belgrade.

➤ **OTC market:**

During 2008 was significantly reduced number of shares of the issuer on the OTC market compared to 2007. In addition to the reduction of these factors influenced the decision of the Commission that it was not possible to include action on the OTC market without a prospectus, Commission wanted to guard against fraud on the market and there by increase the liquidity of the entire market.

14.3 Condition on the BSE during year 2009

As in past years, the situation on BSE in 2009 was conditioned by economic and political situation in Serbia. The basis of this postulate is that the Exchange mirror the economy and the economy can not be divorced from politics.

This year was marked by a dynamic international activity of Republic of Serbia, which has largely been directed towards meeting the conditions for joining the EU. Also this year was marked by the following economic and political events, local and international scene:

1. Continuation of the world financial system crisis and economic recession that has caused a decline in GDP of 4%, increase the budget deficit, rising unemployment by 2 percentage points compared to last year, an increase in borrowing, reducing the activity of investing and definitely negative expectations for a longer period of time.

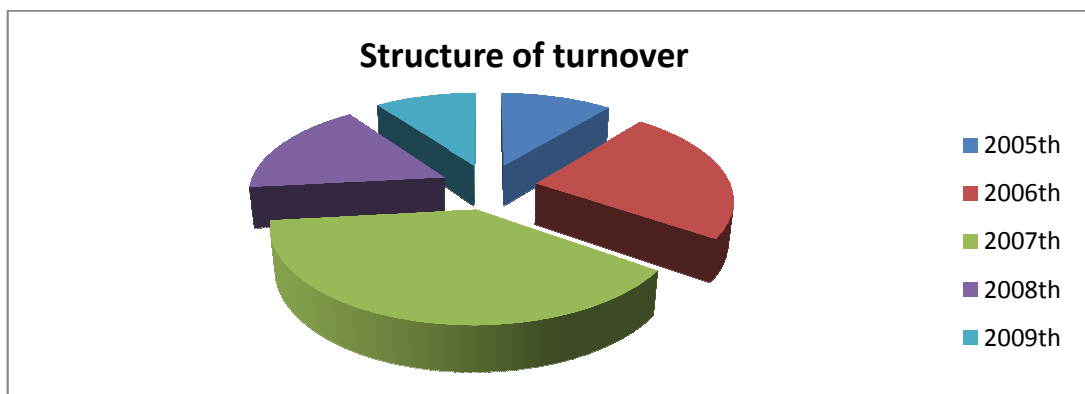
2. The decline in economic activity in many sectors of the economy, caused the general decline in spending and further government intervention in the economy,
3. Sale of 51% of NIS-Gazprom Russian, the direct negotiation and further delay in the privatization of public enterprises initial public offering,
4. The introduction of visa-free regime for Serbian citizens in the EU,
5. Free distribution of 15% shares of NIS citizens of Serbia,
6. Significant changes in the course of the domestic currency in the last quarter;

Business operations

➤ **Turnover:**

In 2009. the turnover was valued at 41.8 billion, representing a decrease of 41.9% compared to 2008. Decline in liquidity in the trading of the number painted on transactions of 77. 215, which represents a decrease of 35% compared to 2008.¹³²

Diagram 9 Structure of turnover in 2005-2007



Source: BSE 2011

➤ **Shares:**

Share turnover of stocks amounted to 87.83% which is almost 4.7% percentage points less than in the year 2008, and this value was 36.7 billion dinars. Reducing the number of transactions is 4.38% over the previous year.

The method of continuous trading in the OTC market achieved a 29% share of total turnover, if we add the action to the stock market total turnover achieved by this method was

¹³² Belgrade Stock Exchange, Annual Report for 2009, p. 10.

37%, which is 16% less than in 2008. Block trades were more than half of total turnover on the Exchange, which is the result of sales Apatinska brewery.

➤ **Bonds:**

The total turnover on this market recorded a decline of 17.4% over the previous year, but the number of transactions increased by 6.1%. Bonds with which most trade is, as in previous years, A2016, whose trade was one-third of total turnover in this segment.

➤ **Indices:**

The first quarter saw a sharp decline BELEX15, as evidenced by the historic low reached in this, and BELEXline index. March 11 BELEX15 index was 347.46 points, while the April 1 BELEXline index stood at 841.99 points. The second quarter marked by strong growth and has recorded a yield of 48%, and measured BELEX15-om 60% compared to historic low. In the third quarter, this index has continued to grow, reaching an annual maximum of 870.2 index points. In the last quarter there was reversal trend and crossed into the zone of constant negative returns. BELEX15 in this quarter lost more than 19, and BELEXline 15 index points. In 2010, we entered the year with a slight increase in the index, which lasted until April, the month in which the BELEX15 was 761 index points. Since April to October, BELEX15 and reasonable and BELEXline, recorded a continuing decline in value. 9. October BELEX15 index value was 606.57 percentage points, while the index BELEXline was 1212.65.

➤ **Other indicators:**

BELEXsentiment showed his sensitivity to what's happening in the world economic scene by entering the red zone since September 2008, where he was left in the first 7 months of 2009. Turning point occurred in August of 2009 when this indicator moved in the green zone and remained there until the end of the year.¹³³

In 2009 there was a decrease in participation of foreign investors compared to the year 2008, both in trading shares and trading in bonds, FIT is reduced by 10.5% compared to last year, while reducing the FIS amounted to 6.4.

¹³³ Ibid., p. 26.

➤ **Listing:**

At the end of 2009 *Prime market* as the most liquid segment of the Stock Exchange accounted for shares of the issuer of the same as in the previous year, while the *Standard market*-no change. In May 2009, included the company's Metalac, Gornji Milanovac and the shares of the bank with the largest capitalization on the Stock Exchange - Commercial Bank, Belgrade.

Characteristic for the year 2009 is the increasing number of market makers to 5 members, while in 2008 there was only one and tied to the company Tigar Pirot.

14.4 Condition on the BSE during year 2010

As in previous years, BSE has maintained its business to the limits of endurance. The main reason is still the dominant influence of the global financial crisis, which caused an outflow of capital from the domestic market. BSE, in turn, sought to according to the markets needs, improve their business reputation.¹³⁴ Despite the crisis the world financial system, the Belgrade Stock Exchange was hit by:

1. the decline in economic activity,
2. the increase in inflation,
3. increasing of Budget Deficit,
4. the growth of unemployment,
5. significant course fluctuation

Business Operations:

➤ **Turnover:**

The total turnover on BSE in 2010 was 23 billion dinars, or 45% less in last year. This percentage shows how the crisis as an external factor and unfinished process of privatization of public enterprises initial public offering, the weak economy and the overall economy contributed to the deterioration of the business by far the most important financial institutions.

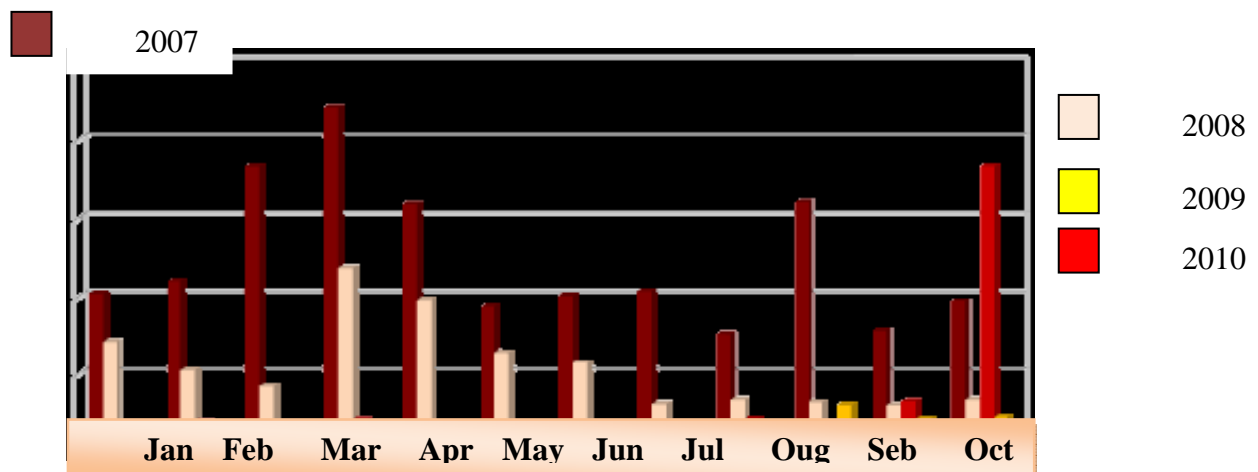
Turnover is achieved with stocks, bonds and corporate bonds trading. For these reasons, the average daily turnover was lower by 44% compared to last year. This trend changed

¹³⁴ Annual Report for 2010, BSE, p. 1.

in August of involvement in the trading of shares of the Oil Industry of Serbia (NIIS), which were distributed free to citizens.

Investors, who continued to invest on the BSE, decided to invest in less risky financial instruments, which speaks in favor, 33% of turnover on the stock market. Trading at the BSE has retained the dominant share in 2010 year, but down from last year's 87.8% to 79.5% of total turnover.

Diagram 10 Total turnover of shares per month



Source: Annual Report for 2010, BSE, p. 5.

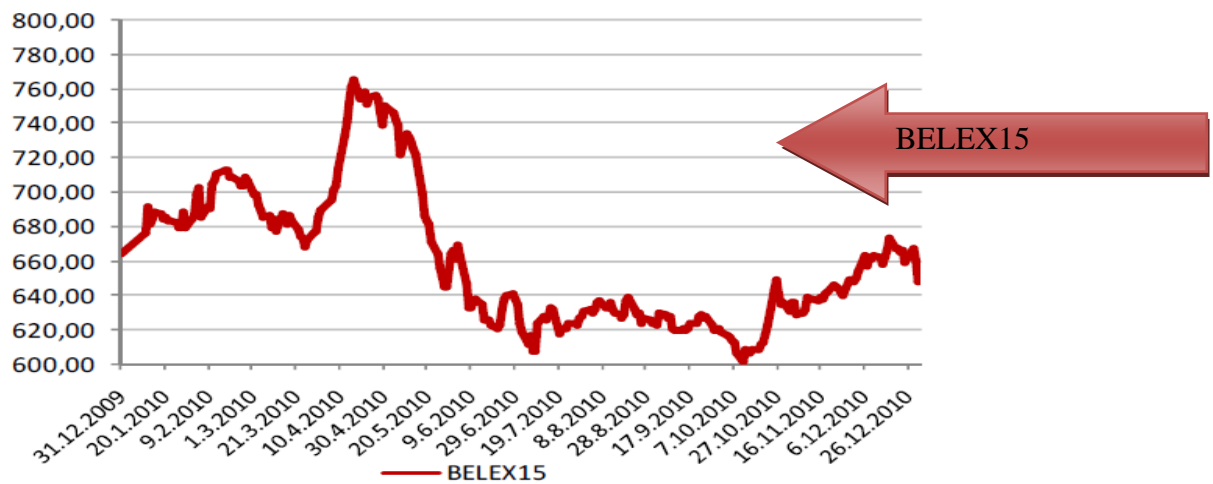
The most traded bonds in 2010 were the A2011 series, in which trading has a turnover of 7.7 million.¹³⁵

➤ **Indices:**

BELEX15 recorded a decrease from 1.81% in respective to year 2009. During the year, alternating periods of growth (at the beginning of the year, April and October) and fall periods (February, May, June, July, October). End of the year was marked by a slight indexes increase, which is offset by 5% of the index.

¹³⁵ Ibid, p. 5.

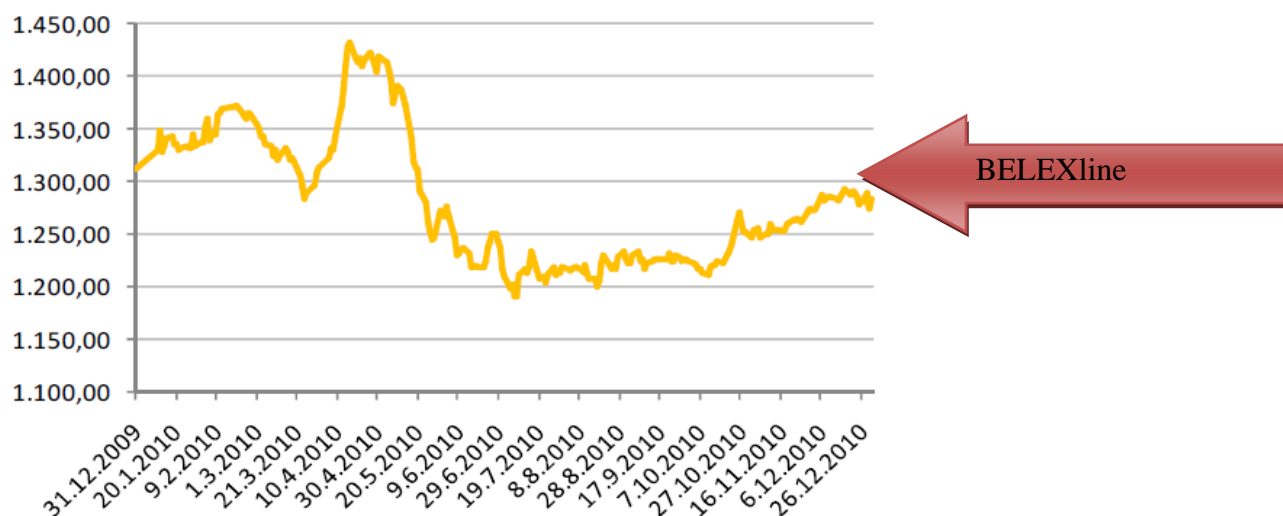
Diagram 11 Moving of BELEX 15 through year 2010



Source: Annual Report for 2010, BSE, p. 11.

BELEXline recorded an average rate of decline of 2.22%, a trend is nearly identical to the movement of BELEX15.

Diagram 12 Moving of BELEXline through 2010



Source: Annual Report for 2010, BSE, p. 11.

➤ **Other indicators:**

BELEXsentiment: Positive expectations of investors, began in September 2009, calming of the economic crisis in the world's leading economies remained at approximately same level within green zone until the end of 2010.

According to the above reasons, the indicators of foreign investors in the market is dramatically reduced. Participation of foreign investors in trading (*FIT*) was reduced compared to the previous year by 20.6% and amounted to 33.6%. What is encouraging is the decline in the participation of foreign investors in foreign sales of 60%.

➤ **Listing:**

The prime market shares of issuers included NIS Novi Sad. Listing of shares of NIS, as the first privatized public companies on the stock market had multiple positive impact on the capital market, in terms of increasing the market capitalization of the Stock Exchange and the qualitative and quantitative contribution to offer in the capital market in Serbia.

In the OTC market occurred a significant drop of involved, in relation to the number of excluded shares. This ratio is 242:57 or 1:5.

14.5 Condition on the BSE during years 2011 and 2012

Deepening global financial crisis had a significant impact on the operations of the BSE in 2011. Depreciation of the international stock exchanges indices and new problems

in european markets have caused an additional withdrawal of capital from the domestic market. In 2011 and the first half of 2012, lack of political stability, also influence of BSE bussines. Also, all indicators (GDP, inflation, economic activity) showed an additional decline in value.

Movements of the BELEX15 through June 2011, had a negative trend, which shows the value of the index in May 2012 of 435 index points compared to May of 2011 when the value was 793.

Also, the value of BELEXline has decreased throughout 2011 and early 2012. The value of this index in May 2011 was 1541 points, while the value in May 2012 was 884.

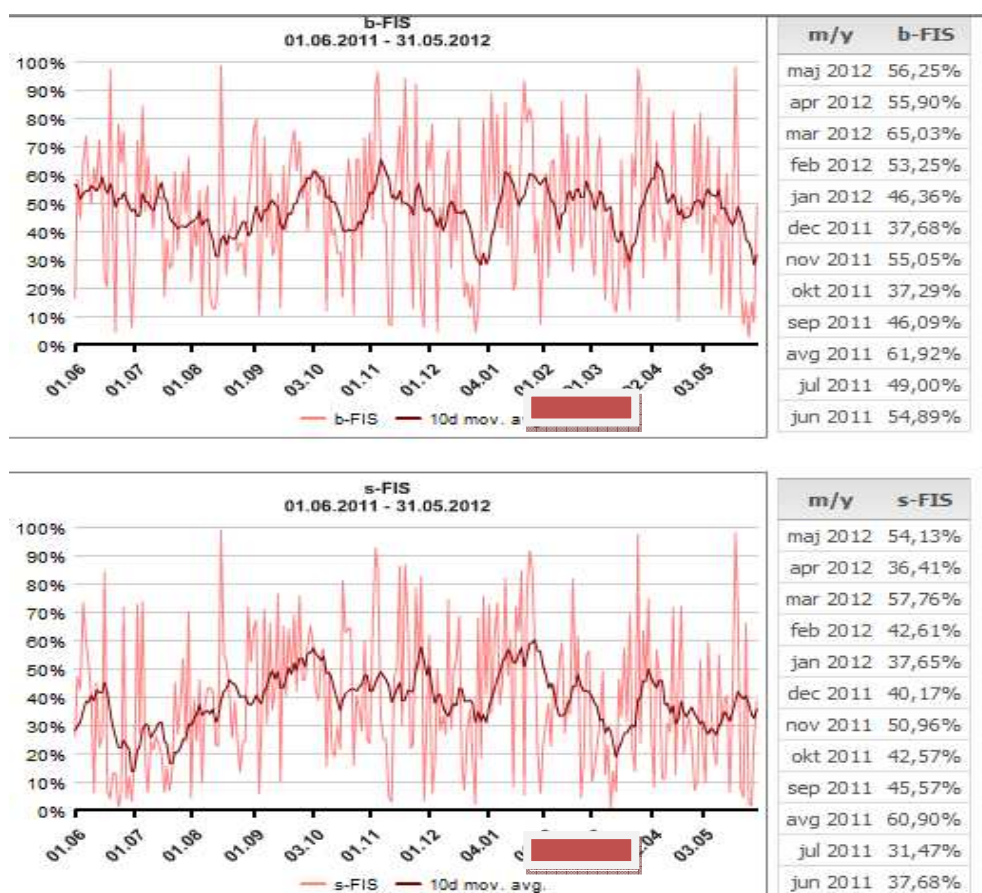
Table 11 Relation of Belex15 and Belexline in according of total turnover of shares

Years	Total turnover of shares	BELEX15	%	BELEXline	%	Belex15/Belexline
2007	148.357.284	68.939.964	46,5 %	106.889.910	72,1%	64,5%
2008	66.513.617	29.283.226	44,1 %	38.544.778	57,9%	75,9%
2009	36.694.419	11.338.996	30,9 %	14.148.253	38,6%	80,1%
2010	18.293.750	9.233.059	50,5 %	12.515.545	68,4%	73,8%
2011	24.400.139	11.586.968	47,5 %	18.019.217	73,8%	64,3%

Source: BSE 2012

Value of BELEXsentiment (76.72) indicates that the expectations of market participants about the developments on BSE is most pessimistic since April 2009 - a period of more than three years. But despite of pessimistic views of the indicators, foreign investors bought more than sold, and that gives hope for domestic market development. The following comparison of charts are proof of that.

Diagram 13 Relation of b-FIS and s-FIS in period from Jun 2011 to May 2012



Buy-FIS > Sell-

Source: http://www.belex.rs/trgovanje/ucesce_stranaca, [accessed on 13.05.12].

Situation on BSE in 2011 and 2012. We will address more in the next section that relates to the determination of the BSE market liquidity.

15. The size and liquidity of the BSE

Exchange has a crucial role in the development of any capitalist economy.¹³⁶ BSE is a relatively new and underdeveloped market. Although founded in 1894, the Belgrade Stock Exchange is a young market, it was reestablished in 1989, after nearly half a century break.¹³⁷ On the other hand, its underdevelopment is reflected in the existence of a small number of high-quality securities, the dominant share trading and very low market liquidity.

Until 2002. BSE was a market of short-term securities and cash. Most of the traffic in 2000, 2001 and 2002. and performed with the commercial bills. Only since 2003 and in 2004. he received the mark of the capital market. On the BSE's shares are traded mainly with

¹³⁶ Cecchetti G. Stephen, Schoenholtz L. Kermit, *Money, Banking, and Financial Markets*, McGraw-Hill, Irwin, 3-rd editon, New York 2011, p. 240.

¹³⁷ Decision of the Presidium of the Government of Serbia Belgrade Stock Exchange has ceased to exist 1953rd.

low trading volume in government bonds. In the period from 2007 to 2011, turnover stocks is about 85% of the total turnover on BSE. This project will analyze the size and liquidity of the total BSE market.

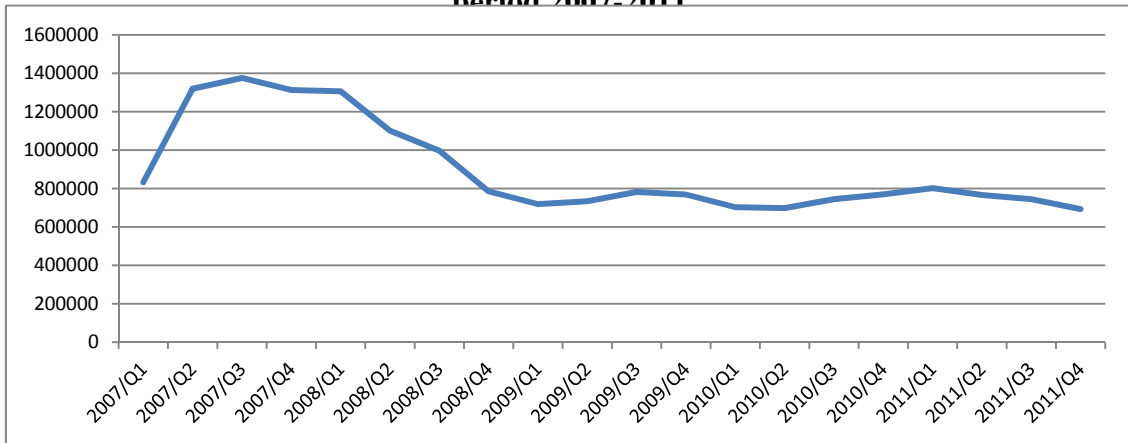
The size and liquidity of the overall market will be observed on the two most commonly used indicators which were used by numerous authors, which regularly publishes the World Bank (Boubakari and Ognaligui (2010), Tachiwou (2009), Nowbutsing and Go, (2009), Levine and Zervos, Deb and Mukherjee (2008).

Analyze the market size, based on the ratio of total stock market capitalization to gross domestic product of the Republic of Serbia, while we look at liquidity ratios on the basis of turnover (turnover ratio), which represents the ratio of the total turnover of stocks and shares of total market capitalization. Therefore, we can easily conclude, that the market capitalization of shares is very important factor in calculating both indicators.

However, the question is, which amount of market capitalization should be taken into account when calculating the indicators in certain period? Bearing in mind, that during the year is often a significant change in market capitalization is necessary to calculate the amount included in the analysis of the average market capitalization.

Before we approach the more detailed analysis, we will show the movement of stock market capitalization and turnover of shares on the BSE during the period 2007-2011 (Diagram 14 and Diagram 15, respectively). Also, we present the movement of gross domestic product of the Republic of Serbia in the period (Diagram 16).

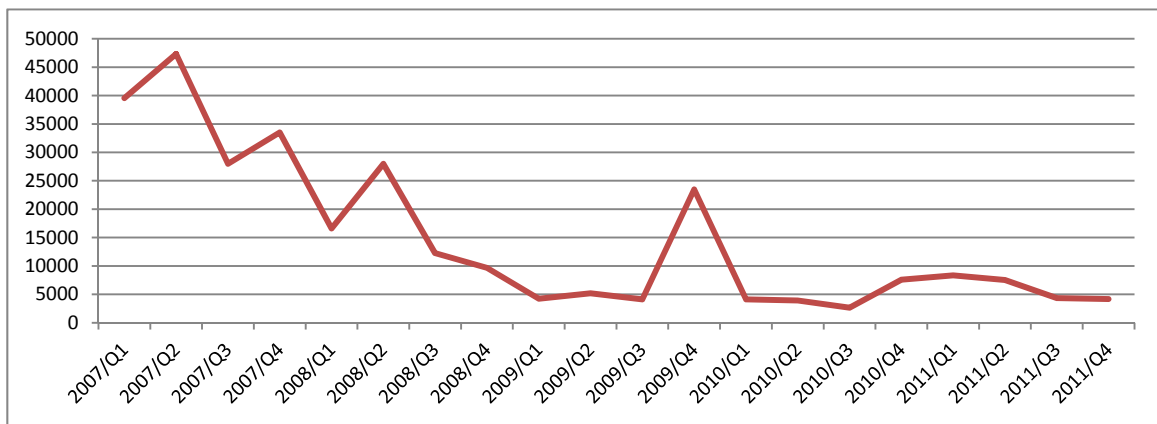
Diagram 14 Trends in the market capitalization of shares on the BSE during the period 2007-2011



Source: BSE, 2012

In the period from 2007 to 2011, market capitalization of shares was the highest in the third quarter of 2007 and amounted to an average 1 375 494 810 000 dinars, and the lowest in the fourth quarter of 2011 with an average amount of 693 271 290 000 dinars.

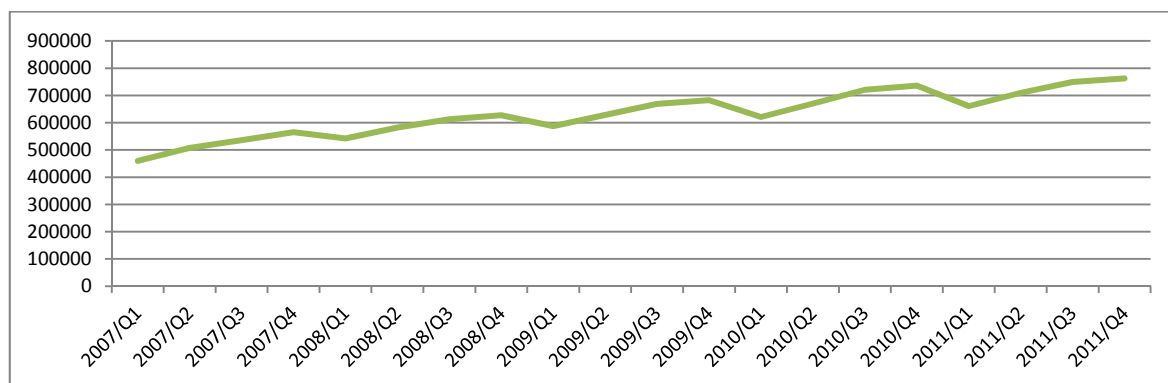
Diagram 15 Trading of shares on the BSE during the period 2007-2011



Source: BSE, 2012

In the period 2007-2011, total turnover share per quarter ranged from minimum 2.65546 billion dinars in the third quarter of 2010, up to a maximum of 47.32041 billion dinars in the second quarter of 2007. On an annual basis in the period a record turnover was achieved in 2007 in the amount of 148 357 284 000 dinars.

Diagram 16 Gross Domestic Product of the Republic of Serbia in the period 2007-2011



Source: BSE, 2012

GDP (Gross Domestic Product) is a worldwide standard and is adopted by the System of National Accounts of the United Nations, European Union, OECD, World Bank and International Monetary Fund.¹³⁸ It includes both tangible and intangible production, expression as an aggregate value of final goods and services produced in one year. These are usually more accurate comparison is expressed in U.S. dollars, but the practice and expression in local currencies.

Based on the data access to the calculation of the above indicators of size and liquidity of the market.

Table 12 shows the quarterly values of these indicators are calculated based on the average amount of market capitalization stocks.

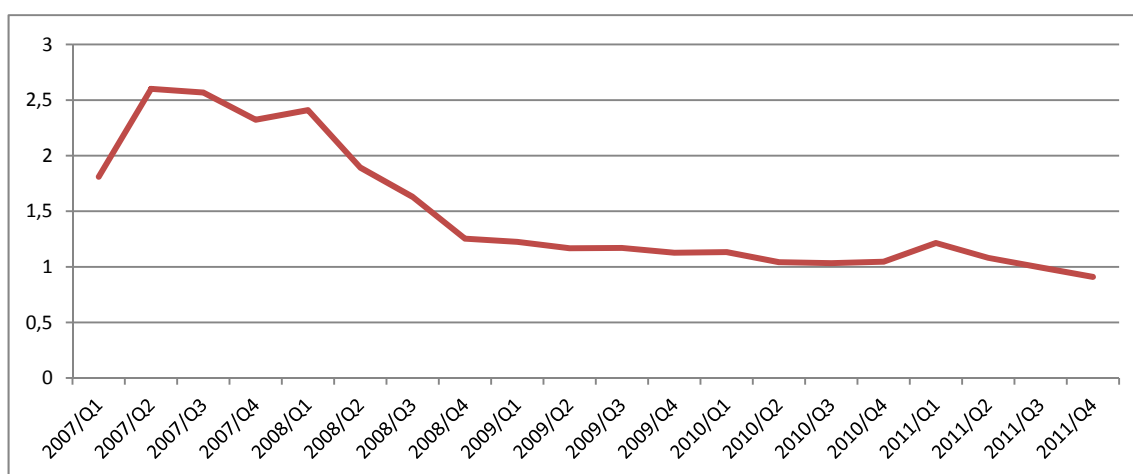
¹³⁸ Rosić I., Veselinović P., National Economics, Faculty of Economics, Kragujevac 2006, p. 58.

Table 12 Size and liquidity of the BSE in the period 2007-2011

Period	Mcap/GDP	Ts/Mcap
2007/Q1	1.810540335	0.047504701
2007/Q2	2.600606043	0.035861286
2007/Q3	2.568531899	0.020354886
2007/Q4	2.323595599	0.025514109
2008/Q1	2.534096247	0.012066489
2008/Q2	1.893050843	0.025416624
2008/Q3	1.628689775	0.012302019
2008/Q4	1.253230968	0.012294569
2009/Q1	1.224524174	0.005901446
2009/Q2	1.166959772	0.007054953
2009/Q3	1.169347540	0.005275424
2009/Q4	1.126268303	0.031985674
2010/Q1	1.132295760	0.005861902
2010/Q2	1.041978489	0.005616588
2010/Q3	1.032735648	0.003566479
2010/Q4	1.045887714	0.009868202
2011/Q1	1.215011465	0.010379951
2011/Q2	1.080898406	0.009827855
2011/Q3	0.993639857	0.005850350
2011/Q4	0.908995932	0.006023400

Source: BSE and the Statistical Office of Serbia, 2012

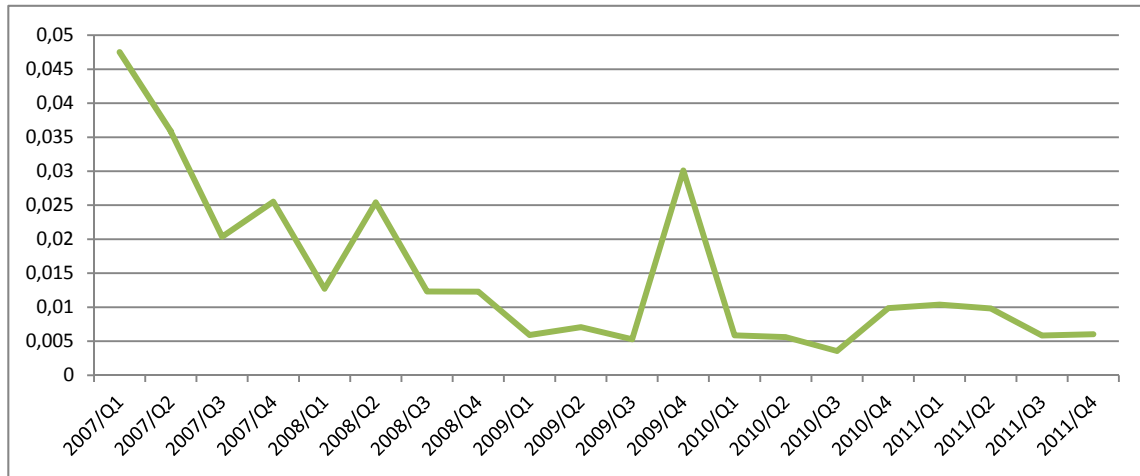
Diagram 17 Trends in the size of the market share per quarter in the period 2007-2011



Source: BSE, 2011

Based on Diagram 17 we can see that the size of the BSE in the period 2007-2011 in constant decline. The most influential factor in these developments is the current world economic crisis that has shaken the whole world at the end of 2008. On the other hand, in this period there was a reduction in the number of companies that are on the BSE. Of course, when this downward movement of the market capitalization of shares placed in relation to gross domestic product in the period increased slightly downward trend we observe.

Diagram 18 Trends in the liquidity of shares per quarter in the period 2007-2011



Source: BSE, 2011

Based on Diagram 18, we see a bad example in the liquidity of stocks that are on the market of the BSE. Liquidity ratio has decreased values in the period with the exception of the fourth quarter of 2009. However, this increase does not indicate improved liquidity of shares, it is caused by a very large block trade realized in December that year. Rise of large public companies on the Belgrade Stock Exchange, the highest quality segment of the market, contributes greatly to improving the overall liquidity of the market. This contribution can be seen on the graphic that shows that in the last quarter of 2010, when the NIS Novi Sad to Belgrade Stock Exchange, came a rise in liquidity ratios.

In addition to shares of the company give its contribution to the shares the Airport Nikola Tesla Belgrade, while the expected significant increase in liquidity recent release of Telekom Serbia.

To the liquidity and size, the Serbian market share compared with other markets in the world, we will calculate the values of indicators on an annual basis (Table 2). Table 3 shows the values of indicators of size and liquidity of the stock market of the European Union.

Table 13 Size and liquidity of the BSE

Year	Market cap. (%GDP)	Turnover ratio (%)
2007	58,5	12,26
2008	44,3	6,35
2009	29,3	4,68
2010	26,5	2,51
2011	26,1	3,24

Source: BSE and the Statistical Office of Serbia, 2012

Table 14 Size and liquidity of the stock market in the EU

Year	Market cap. (%GDP)	Turnover ratio (%)
2007	92,1	184,7
2008	41,6	163,6
2009	60,2	111,8
2010	64,7	92,8
2011	-	113,5

Source: World Bank, 2012

BSE Market Size: Market capitalization of shares relative to GDP in this period was highest in 2007 with the amount of 58.5%. It says that it is a solid stock size, but we should not lose sight of the fact that the Law on Privatization of the Republic of Serbia with open joint stock companies were coerced to vote in the stock market. This resulted in a large number of companies in Belgrade which was only formally on the market because their shares are not traded. Table 15 shows the total number of companies that are on the market, BSE, and the number of companies whose shares are actively traded. Based on these data we conclude that the market capitalization of stocks trading disproportionate needs.¹³⁹ Capital Markets Act of the Republic of Serbia which entered into force on 21st November 2011 will help to significantly reduce the number of listed companies on BSE.

¹³⁹ Marinković S., *Financial markets and financial institutions in the Republic of Serbia*, Faculty of Economics Nis 2008, p. 93.

Table 15 Number of companies on the BSE

Year	Total	Active
2007	1710	1122
2008	1848	1066
2009	1779	788
2010	1601	657
2011	1339	581

Source: BSE and FEAS, 2012

Market liquidity BSE: Belgrade Stock Exchange since its re-establishment is characterized by low liquidity, and total annual turnover of stocks reached the highest amount of 7.2% GDP (2007). In that year, and achieved a record amount of liquidity ratio of 12.26% that cinema seen in table 10. From that year as a whole liquidity is constantly decreasing. Slight increase in liquidity in 2011 was the result, as previously mentioned, leaving two large public company Prime Listing on the BSE. When we compare the obtained values of liquidity indicators relating to the Belgrade Stock Exchange with the values that make the stock exchanges within the EU come to disappointing results (such as BSE in 2011 had a Turnover Ratio 3.24%, while in the EU amounted to 113.5%). Table 13 shows values of Turnover ratios in most developed markets of the world. The U.S. stock market used to be by far the largest in the world.

However, for 80's of the 20th century occasionally happened that the value of traded shares in Japan exceeds the value in the United States. The U.S. investors today do not just look at the Dow Jones average, industrially, but with equal attention and follow the stock market indexes (for example, the Nikkei 225 average and the Financial Times Stock Exchange 100-Share index). Thus, the internationalization of financial markets has a major impact in the United States. The foreigners, especially Japanese and Chinese, not only to provide funds to U.S. companies, but also help finance large budget deficits of the federal government.¹⁴⁰

¹⁴⁰ Mishkin F., Eakins S., *Financial markets and institutions*, Mate-Zagreb 2005, p. 21.

Table 16 Trends in turnover ratio on some of the most world stock exchanges.

Year	United States	United Kingdom	China	Japan	Germany	Italy	Spain
2007	216.5	269.8	180.1	141.6	179.7	220.4	189.7
2008	404.1	227.2	121.3	153.2	193.3	84.0	177.7
2009	348.6	146.4	229.6	127.1	107.2	109.7	142.6
2010	189.1	101.9	164.4	114.5	103.0	169.7	110.2
2011	187.6	137.9	188.2	108.9	134.5	236.8	128.9

Source: World Bank, 2012

So, when we look at the overall market shares of BSE, we conclude that the market size is disproportionate to the needs of trading. That is, the analysis should focus only on the highest quality segment of the market.

Capital Market Act, which entered into force on 21 November 2011, the Board provides for strict separation Listing as a top quality market segment BSE from other parts of the market not reflected the listing. In the regulated market is another segment (Open Market) which includes companies that meet certain liquidity criteria, but not a listing. The following section shall effect the analysis of size and liquidity of shares of companies that are listing (Prime and Standard Listing).

16. Commodity Exchange Novi Sad

Adoption of Public Markets Act from 1886, which was signed by King Milan, was established first Stock Exchange in Novi Sad. After fifty years, in March 1921, started working in order to promote, facilitate and regulate trade transactions. The first President of the Stock Exchange was one of the most prominent landowners of the time, Gedeon Dunderski.¹⁴¹

Commodity Exchange Novi Sad, in the presents, was founded on the premises of today's Serbian Matica, in December 1958 year by the Government of the Republic of Serbia. Since its establishment, through the Commodity Exchange in Novi Sad was sold over 16 million tons of goods.

The bodies of management of the exchange are:¹⁴²

- Assembly as the highest governing body, which consists of all employees,

¹⁴¹ Commodity Exchange. *History*. Source: <http://www.proberza.co.rs/o-nama-2/istorijat/>, [accessed on 17.05.12].

¹⁴² Ibid.

- Board of Directors elected by the Assembly and is composed of seven members, which includes two representatives of provincial authorities and five representatives of the "Commodity Exchange",
- Director, appointed by the Board of Directors.

In order to participate in the stock trade is necessary to become a member of the exchange and to pay a specified amount of money. In addition to the conditions of membership, it is the existence of legal personality. The basic question is: *How can trade individual producers?* This is possible with help of "Agrar product", which today is representative of individual farmers in the sale of agricultural products through the "Commodity Exchange". This company operates as a broker of individual farmers.

On Product Stock Exchange, where the trade takes place mainly in the spot market, traded commodity derivatives (futures) and commodity trading records, which has not developed yet. These are securities backed with grains, a component of animal feed, seeds, fertilizers, industrial plants, consumer goods.

Trading system is still in early development, although the Commodity Exchange has been around for a long time in our market. The main problem is lack of interest for further development of this Stock Exchanges by legislative bodies and the farmers and consumers. In the future, is expected to increase the product listing that will serve as the basis of securities traded on exchanges and increase number of investors in this market. With all, that is necessary and implemetation of new information system.

IV. Conclusions

17. Establishment of Stock Exchanges and Legal Regulations

The origins of the capital market in Poland date back to 1817, which is much earlier than in Serbia, where the year 1894 is assumed as the date of creation of the first exchange. Both markets operated till the wartime period, and then - for political and ideological reasons - they resumed their operation only in the first years of the market economy formation. Stock exchange functioning in the centrally planned economy was in fact contrary to the underlying principles of socialism and was not feasible in conditions that developed in Europe after World War II. After 1989, the Belgrade Stock Exchange was revived as the first one. It currently operates on the basis of the Act - the Securities and Capital Market Law.

Subsequently, in 1991, two stock exchanges were established in parallel: in Warsaw (established by the Act of 22 March 1991 on Public Trade of Securities and Trust Funds, based on which it operates to date) and in Kiev (under the Securities and the Stock Exchanges Act, additionally confirmed by the Decree of the Cabinet of Ministers).

Taking into account the initial situation, both the Warsaw and the Belgrade Stock Exchanges were in the incomparably better position than the stock exchange in Ukraine, which had no history and no established traditions. However, decades of interruption in the Warsaw and Belgrade Stock Exchanges operation led to the point where each of these countries lacked adequate technical facilities, human resources and legal base to operate such undertaking as the stock exchange. The biggest obstacle was, however, the lack of capital and uncertainty that accompanied economists and first investors.

18. Organizational and Ownership Structure of Stock Exchanges

When comparing the organizational structure of stock exchanges in the three analysed countries we can see some parallels, especially in the case of Warsaw and Belgrade trading floor. The highest authority in the Polish Stock Exchange is the General Meeting of Shareholders, which plays a supervisory role and consists of all shareholders. In the Belgrade Stock Exchange, this body is called the Stock Exchange Assembly. One of the tasks of these bodies is to elect the BSE Board of Directors and the WSE Supervisory Board respectively. The Belgrade Exchange consists of two basic bodies, while in Warsaw there are three bodies. The BSE Board of Directors holds competences of the Management Board and the Supervisory Board of the Polish Stock Exchange. In addition, the following are attached to

BSE: Arbitration Committee, Listing and Quotation Committee, Exchange Violations Committee. In turn, independent rulings at the WSE are issued by the Exchange Court, which - although not being a body - performs the functions of the court of arbitration.

Completely different is the situation in Ukraine, where the organizational structure is completely unclear. Available sources only indicate that the current USE Chairman, Valentyn Oskolsky, and his family are in possession of a majority stake in the Exchange. However, it is purposeless to look for accurate information about USE organizational structure, because none of the sources that we succeeded to access addressed this issue. The official website only informs of the existence of three departments within the USE, and namely: the Department of Operational Exchange, the Financial Department and the Management Organization Department [Trading Department, Financial Department and Administrative Department.]¹⁴³.

In terms of the ownership structure, all three exchanges are joint stock companies. As regards the WSE, the Treasury holds 35% of shares and 65% are in the hands of the free float. In Serbia, the government is in possession of more than 10% of the shares, and the remaining free float is distributed among brokers, dealers, banks and insurance companies, etc.¹⁴⁴.

19. International Cooperation

The importance and prestige of the stock exchange in the international forum is proved by its membership in international organizations. It also confirms the high level of transparency and quality of practices, based on which the trading is carried out. In this respect, the leading role is played by the WSE, which is a full member of the following organizations: World Federation of Exchanges (WFE) and the Federation of European Securities Exchanges (FESE). The BSE is a full member of the Federation of Euro-Asian Stock Exchanges (FEAS) and an associate member of the Federation of European Securities Exchanges (FESE) and the World Federation of Exchanges (WFE). The USE does not record the membership in any federation. And also none of the aforementioned organizations recognizes it as its member. Membership in international organizations indirectly proves the quality of individual exchanges.

¹⁴³ <http://www.ukrse.kiev.ua/about/contacts.shtml> [accessed on 4.09.12].

¹⁴⁴ *Godišnji izveštaj o poslovanju u 2011. godni*, p. 27, http://www.belex.rs/files/proizvodi_i_usluge/gi_2011.pdf [accessed on 20.08.12].

20. Instruments Listed on Stock Exchanges

Financial instruments, which are most often traded on the stock market can be divided into three basic groups: securities, derivatives and other instruments that do not qualify for any of the groups, that is, short sale orders and structured products. Their good knowledge allows each investor to build a portfolio that will minimize the risk and maximize potential profits. However, each stock exchange has different regulations that individually govern trading in each of these types of instruments. Indeed, not all instruments are equally available to investors at different exchanges. The main reason for the differences is the lack of legislation that would govern trade in a given type of instruments. The size of the stock market and demand reported by participants also largely determine the range of offered instruments. In the case of the analysed stock exchanges, each of them trades in certain instruments, which are listed in Table 17. Number of instruments that can be traded is an indicator of stock market development and attracts investors with different investment preferences and entities which are not necessarily interested in the most popular securities, such as shares and bonds. A wide range of instruments is available only when an appropriate legal basis is created. Instruments must correspond to capital resources held by the investors and to the specifics of their issuers.

Table 17 Instruments traded on the WSE, the BSE and the USE respectively (as of 30.06.2012)

WSE	BSE	USE
<ul style="list-style-type: none"> - Shares, - Treasury bonds (Catalyst market - corporate and municipal bonds), - Futures, - Warrants, - Index Participation Units (IPUs), - New shares' subscription rights, - Rights to shares, - ETF, - Structured products, - Investment certificates. 	<ul style="list-style-type: none"> - Shares, - Bonds of the Republic of Serbia. 	<ul style="list-style-type: none"> - Shares, - Corporate bonds, Treasury bonds and self-governmental bonds, - Investment certificates, - Options.

Source: Own work based on: WSE, BSE, USE, 2012

Table 17 shows exactly how the different stock exchanges are advanced in development in terms of number of financial instruments that can be traded. In spite of many problems

encountered by the stock market in Ukraine, it is able to offer investors a wider range of products than the BSE. This does not mean, however, that the Serbian Stock Exchange is stagnant and not growing. Attention should be paid to the fact that it is a country of much smaller internal market, where the SMEs sector in 2010 accounted for 99.02% of all operating companies, and micro enterprises alone (according to the nomenclature of the Serbian Statistical Office micro enterprises mean companies with revenue below RSD 100 million) accounted for 91.79% of all companies registered in Serbia. For companies of this size the capital market, as a rule, is not a viable alternative for raising capital and further expansion. Therefore the privatization of state assets seems to be the main catalyst for change and a stimulus for further development.

21. Capitalization

The level of the stock exchange development to a large extent is determined by market capitalization, i.e. the total value of all securities listed on the stock exchange. This indicator informs of the actual size of the stock market, and its periodic analysis allows to observe the dynamics of changes and trends in those changes.

Table 18 presents the market capitalization of the Warsaw, Belgrade and Kiev Stock Exchanges in 2005-2011, expressed in millions of U.S. dollars. It can be clearly seen that the WSE was characterized by the highest rate of market capitalization during the analysed period. For example, if we compare 2011 data, the BSE capitalization equals 1/39 of the WSE capitalization, and the USE capitalization - only 1/770, and respectively 1/20 in comparison to the BSE.

Table 18 WSE, BSE and USE capitalization in 2005-2011, USD million

Capitalization (USD million)*	WSE	BSE	USE
2011	393 055,95	10 108,82	510,60**
2010	425 630,20	11 774,26	477,93
2009	360 220,46	13 972,03	224,49
2008	343 850,66	14 572,26	238,55
2007	516 919,07	26 811,35	273,25
2006	309 658,66	13 489,14	193,50
2005	220 418,88	n. a.	541,28

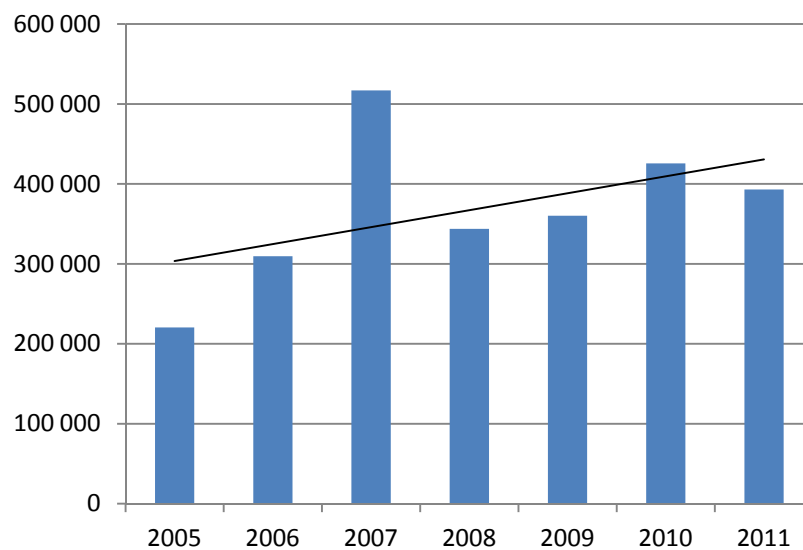
* Currency conversion based on the average annual exchange rates published by national banks

** Data for the period January-September 2011

Source: BSE, WSE, USE, 2012

The WSE was the only stock exchange which increased its capitalization over the analysed period. In 2011 this rate almost doubled its value recorded six years earlier. The biggest drop in capitalization value was recorded at the BSE (taking 2006 as the beginning of the analysis period). Similarly, the USE has failed to increase the capitalization level, although its decline expressed in the nominal value is lower than at the BSE due to much lower base value. Furthermore, it is clear that the discussed exchanges are not fully synchronized with each other. None of them, however, is not indifferent to the political and the macroeconomic situation, both in the country in which it operates and in the context of the global economy. Both the WSE and the BSE may regard 2007 as a particularly successful year, thus becoming the kind of positive economic barometer of global markets at that time. In this year both stock exchanges achieved an exceptionally high level of capitalization, which almost doubled over 12 months (in the case of the Serbian Stock Exchange, while in the case of the Warsaw Stock Exchange it increased by 40%). The increase in capitalization was also recorded on the USE, after 2006, which was clearly the weakest year for that stock exchange. At that time - mainly because of the changes taking place in Ukraine and instability of its market - capitalization value dropped on an annual basis by as much as 280%. It is worth mentioning that the rate of change in values expressed in the local currency may not coincide with that expressed in US dollars due to differences in exchange rates. However, the capitalization brought to a common currency allows to compare the dynamics and direction of changes, as well as to obtain and compare the size of each of these exchanges.

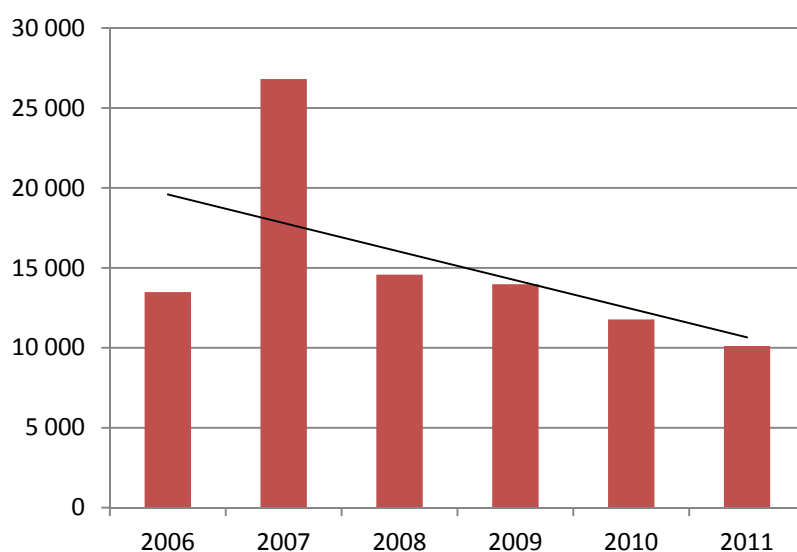
Diagram 19 WSE capitalization in 2005-2011, USD million



Source: WSE, 2012

Market capitalization of the BSE, in contrast to the WSE and the USE, is characterized by a clear declining trend (Diagram 20). In the years 2006-2011, its value fell by 3.38 USD billion, which means a decrease of 25%. Only 2007 turned out to be particularly beneficial year for the BSE, because at that time its capitalization recorded an exceptionally high level close to 27 USD billion, and - if measured by the annual growth rate - it was almost 100%, thus showing a big BSE potential for further development. The next year, however, was not so successful, because the dynamics of change, even though it reached a similar value, had the opposite direction. Both of these phenomena indicate a high BSE susceptibility to changes in the economic environment in which it operates. Although the Serbian economy is relatively small, but, as Diagram 18 shows, stimuli that it creates are of crucial importance for the well-being of the Belgrade Stock Exchange.

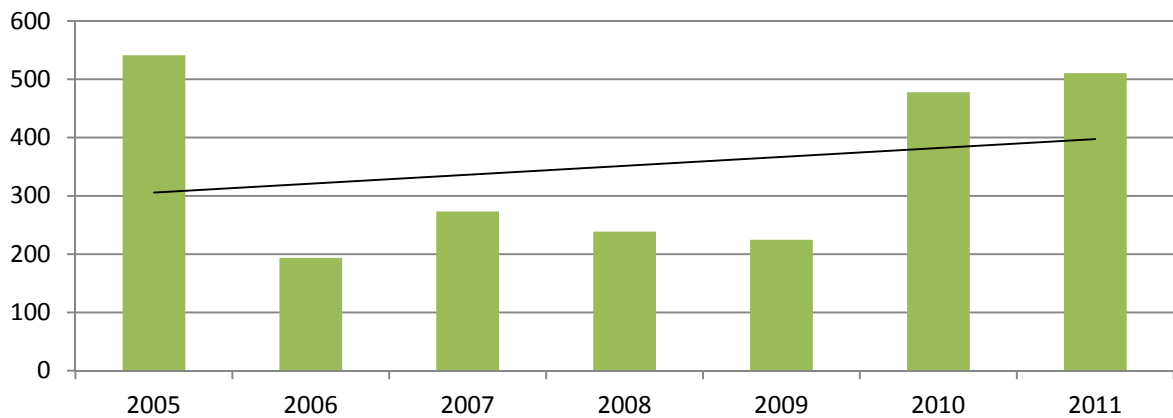
Diagram 20 BSE capitalization in 2005-2011, USD million



Source: BSE, 2012

The USE capitalization value in 2005-2011 (Diagram 21) is quite varied. Therefore it is difficult to speak of a single dominant trend on that trading floor. The average level of the USE market capitalization during the described period totalled 355 USD million. The largest decrease was recorded in 2006 (by 64.3% as compared to the 2005 baseline). Then, for the next four years (to 2009), it was maintained at a relatively stable level - about 232.45 million dollars. The year 2010 brought a big rebound, which was reflected in the annual growth in market capitalization by 113% as compared to the previous year. Ultimately, it reached the level of 477.9 USD million. The year 2011 was also favourable for the USE, although such a significant growth of capitalization could not be repeated, and the recorded increase was less than 7%.

Diagram 21 USE capitalization in 2005-2011, USD million



* Data for the period January-September 2011

Source: USE, 2012

In conclusion, the WSE recorded the highest values of market capitalization that significantly exceed the BSE and the USE performance. During the analysed period, only the WSE noted an apparent upward trend, which contributed significantly to the increase in the capitalization values which currently differ the WSE from the BSE and the USE.

22. Turnover

The turnover value on the stock exchange is one of the most important absolute indicators used to compare the stock exchanges. Table 3 presents the total value of trading on the stock exchanges in Poland, Ukraine and Serbia in 2005-2011. Total turnover presented in Table 19 includes the total turnover of all available instruments at individual stock exchanges (listed in Table 17).

Table 19 WSE, BSE and USE turnover in 2005-2011, USD million

Turnover (USD milion)	WSE	BSE	USE
2011	220 76,61	353,48	1,90**
2010	196 721,16	290,33	59,93
2009	142 639,43	626,10	7,39
2008	200 564,92	1 142,35	21,16
2007	214 266,09	3 070,93	16,79
2006	120 004,19	1 677,08	46,77
2005	69 884,38	669,50	152,19

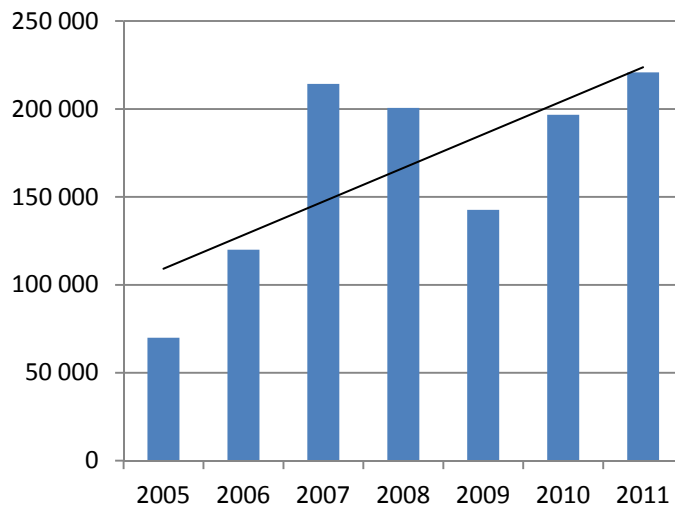
* Currency conversion based on the average annual exchange rates published by national banks

** Data for the period January-September 2011

Source: BSE, WSE, USE, 2012

The value of trading on the WSE from 2005 to 2007 recorded a more than threefold increase, reaching the level of 214.27 USD billion. After 2007, being a record year both in terms of the capitalization and the turnover, within the next 12 months there was a significant decrease in interest in trading in the stock market. Although the capitalization value in 2009 was already higher than in the preceding year, trading values continued to fall. This proves the lack of a simple correlation between these two values. Since 2010, however, we observe the re-growth of the WSE turnover and in 2011 the value obtained in 2007 (214 billion dollars) was exceeded.

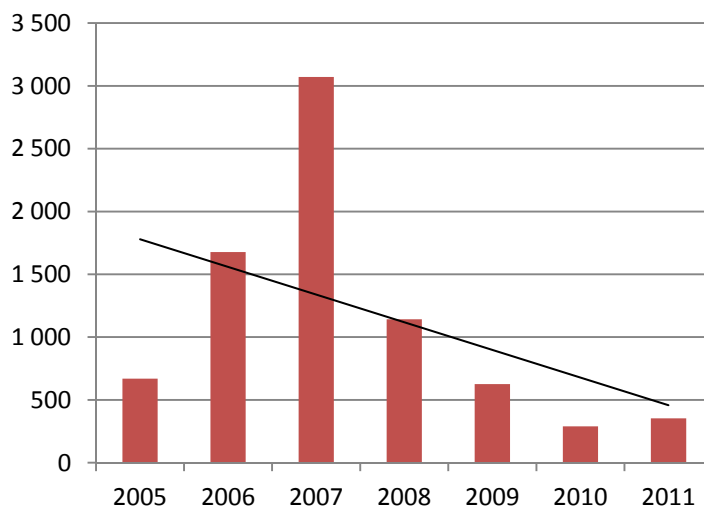
Diagram 22 WSE turnover in 2005-2011, USD million



Source: WSE, 2012

The BSE noted a very dynamic development from 2005 to 2007, in terms of increase in the turnover and capitalization. Turnover, which in 2007 reached the level of 3 USD billion, was 4.5 times higher than only two years earlier. However, in a subsequent year a significant drop in interest in securities was observed in Serbia, and as a result the turnover, calculated on a year-on-year basis, fell by 63%. In spite of the growth in the turnover in 2011 by more than 20%, considering its low base, it was only a nominal increase of 63 USD million.

Diagram 23 BSE turnover in 2005-2011, USD million

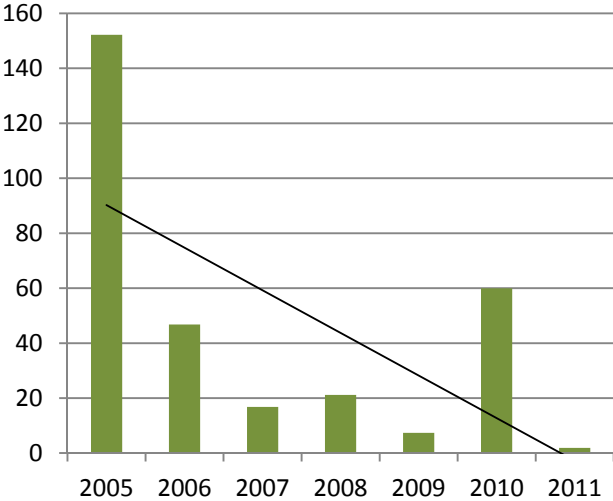


Source: BSE, 2012

In the case of the USE it is hard to talk about short-term fluctuations, as the turnover generally significantly drops on an annual basis with the exception of few significant

rebounds that do not last longer than one year. Turnover recorded in 2011 represents only 1.2% of the turnover reported six years earlier. The amplitude of change is much greater here than in the case of capitalization. This reflects the decline in the stock market liquidity. Although in some ways the USE managed to keep the interest of issuers, the investors, however, are not willing to trade in securities so frequently as for example in the WSE. USE instability is reflected in significant declines and increases in annual turnover, which are difficult to predict and forecast.

Diagram 24 USE turnover in 2005-2011, USD million



* Data for the period January-September 2011
 Source: USE, 2012

The highest turnover during the analysed period was recorded in the WSE. Only in 2005 it was more than 100 times higher than the turnover on the BSE and more than 450 times higher than on the USE. Taking into account the fact that the WSE, as the only one of the analysed exchanges, recorded the growing trend in the values of trading, it should not be surprising that WSE turnover in 2011 was more than 600 times higher than at the BSE and more than 100 thousand times higher than at the USE.

23. Liquidity Ratio

In order to obtain a more complete picture of the analysed stock markets, their relative positions and the condition, it is also worth referring to the relative indicators, which among others include the liquidity ratio - i.e. the ratio of turnover to capitalization value. This

indicator shows the rate of capital movements in the stock market.¹⁴⁵ Calculations took into account total turnover in individual stock markets and full capitalization.

Table 20 The value of the current liquidity ratio for the WSE, the BSE and the USE in 2005-2011 (%)

	2005	2006	2007	2008	2009	2010	2011
Warsaw Stock Exchange (WSE)	31,71%	38,75%	41,45%	58,33%	39,60%	46,22%	56,17%
Ukrainian Stock Exchange (USE)	28,12%	24,17%	6,14%	8,87%	3,29%	12,54%	0,37%*
Belgrade Stock Exchange (BSE)	n. a.	12,43%	12,43%	11,45%	4,48%	2,47%	3,50%

*Partial data composing the index cover the period January-September 2011

Source: Own work based on: BSE, USE, WSE, 2012

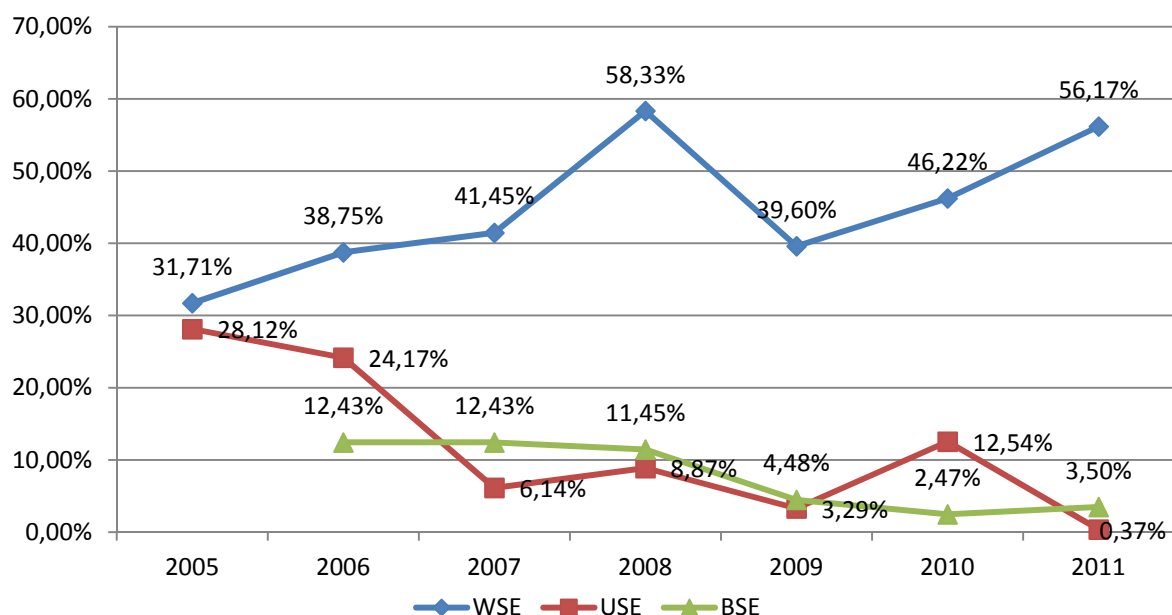
In the years 2005-2011 the WSE was characterized by the highest liquidity, oscillating in the range of 30-60%. By 2008, the liquidity of the stock market in Poland recorded continuous growth. This indicator has increased over the three years up to 26.62 percentage points, amounting to 58.33% in 2008. However, in 2009 there was a sharp decline in WSE liquidity. The difference as compared to the previous year was 18.73 percentage points. In subsequent years the liquidity ratio significantly increased, reaching the value of 56.17% in 2011. The value of the liquidity ratio in excess of 50%, and its growing trend allow the conclusion that the present condition of the WSE is satisfactory, and it may be even improve with time.

The USE liquidity ratio in 2005 was 28.12% and did not differ significantly from that calculated for the WSE. However, in 2007, its value fell dramatically to a level of 6.14%. Subsequent years alternately are characterized by an increase and a decrease in the liquidity ratio at the Ukrainian trading floor. As a result of this apparent lack of stability, in 2011 this ratio had a value of only 0.37%. It seems that the return to double-digit USE liquidity is not possible in the next few years' perspective, although it cannot be completely excluded given the historical values of this ratio.

¹⁴⁵ Sieradzki R., *Rynek akcji na WSE w Warszawie na tle innych krajów Unii Europejskiej.(After) krótka historia WSE, .Nasz Rynek Kapitałowy.2006, No. 12 (192), p. 93.*

In 2006, the BSE recorded the liquidity value at the level of 12.43%. In the following years, until 2010, when it was at the level of 2.47%, the ratio was characterized by a declining trend. Although the year 2011 helped to reverse this trend, the increase in liquidity was negligible. Currently, the lack of liquidity is a major problem both for the BSE and the USE, and it probably keeps companies and individual investors from engaging their capital and does not favour the development of these exchanges. Liquidity ratios that achieve single-digit values clearly indicate poor condition of the stock market and are not a good prognostic for the future.

Diagram 25 The value of the current liquidity ratio for the WSE, the BSE and the USE in 2005-2011



Source: own work on based: BSE, USE, WSE, 2012

Analysing the stock market in Poland, in Ukraine and in Serbia in 2005-2011, one has to consider the outbreak of the financial crisis that adversely affected each of them since 2009. Its effects are especially visible in the WSE where the liquidity ratio declined by about 20 percentage points as compared with unexceptionally positive one in 2008 (58.33%). Despite this significant decline, the liquidity condition of the WSE returned to the sustained upward trend in the subsequent years, as opposed to the USE and the BSE, mainly due to the relatively good economic and financial situation in Poland as compared to other countries in the region.

24. Capitalization to GDP

Another relative indicator that can serve as a reference point for further analysis and for comparison of exchanges is the ratio of capitalization to the GDP of a given country, which indicates the amount of capital valued through GDP, because there is the generally accepted opinion that the value of this index equal to over 40% signifies the importance of exchange for the national economy.¹⁴⁶

Table 21 WSE, BSE and USE capitalization as a part of the national GDP in the years 2005-2011 (in %).

	2005	2006	2007	2008	2009	2010	2011
Warsaw Stock Exchange (WSE)	72,53%	90,63%	121,54%	64,95%	83,60%	90,60%	76,40%
Ukrainian Stock Exchange (USE)	0,63%	0,18%	0,19%	0,13%	0,19%	0,35%	0,31%*
Belgrad Stock Exchange (BSE)	n. a.	46,16%	68,83%	30,51%	34,80%	30,63%	22,44%

* Data for the period January-September 2011

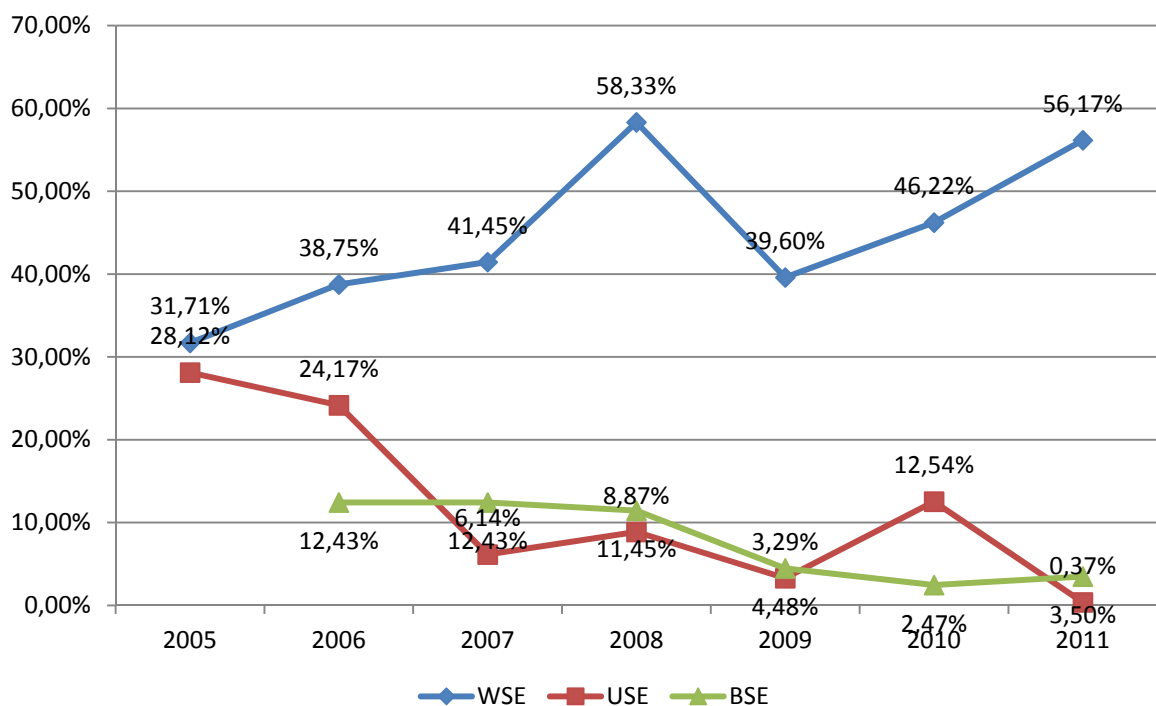
Source: own work on based.: BSE, USE, WSE, 2012; World Bank, 2012

At the WSE, capitalization to GDP ratio in 2005-2011 is in the range of 64.95% - 121.54%. It is worth noting that in 2008 the WSE recorded the lowest value of this index in the analysed period of time. However, in the same year, the ratio reached its highest value. This shows that as a result of the first signs of the crisis, capitalization value dropped much faster than the turnover at the WSE. Without a doubt, however, the WSE is of great importance for the Polish economy. This is particularly evident on the example of 2007, in which the WSE capitalization was higher than GDP in the country. Due to this fact, the country's economic situation should be closely linked with the exchange: they interact with each other in equal measure. The situation in the Ukraine is different, because the role of the USE appears to be marginal, especially in the context of several stock exchanges simultaneously operating in the country. The USE itself is vulnerable to external stimuli, but the size of its capitalization in relation to the potential of the economy confirms the lack of reciprocal impact of exchange on the economy.

¹⁴⁶ Gruszczyńska-Broźbar E., *Funkcjonowanie Giełdy Papierów Wartościowych w Warszawie*, Wydawnictwo AE Poznań, Poznań 2007, p. 103.

In the case of the BSE, it is clear that before the crisis this stock exchange played a significant role, because its capitalization in 2007 was almost 70% of the country's GDP. However, in subsequent years this index showed a significant decrease - to the value of 22.44% in 2011. Such trend indicates that - during the analysed period - the BSE gradually lost its importance, as it does not concentrate any more such significant capital in order to have a visible and real impact on the economy of Serbia. But definitely it is still a very important link in the economic life of the country.

Diagram 26 WSE, BSE and USE capitalization as a part of the national GDP in the years 2005-2011 (in %).



Source: Own work on based BSE, USE, WSE, 2012; World Bank, 2012

Taking into account the ratio of capitalization to GDP, the best result was achieved in 2005-2011 by the WSE. Next in order is the BSE, which has a 2-3 times lower value of this ratio. The last place is occupied by the USE, where the value of capitalization measured as a percentage of GDP has not exceeded 1% over the several years.

It should be however stressed that in all analysed exchanges there was noted the downward trend of this indicator during the analysed period.

Summary

The comparative analysis was aimed at selecting the best thriving stock exchange. To achieve this objective we used eight categories, which served to compare exchanges presented in this publication. Selection of indicators was designed to show the similarities and differences between the three markets so as to ensure that the analysis is as far as possible impartial and fairly presents the entire spectrum of the presented research problem.

As a result of comparison we may easily notice that practically at any analysed level the first place is occupied by the WSE, which means that it is by far the most developed organized market, and other exchanges, the BSE and the USE, can follow its model. It is worth to briefly summarize the factors that have played here a key role.

First, the WSE is based on transparent regulations, which gave a solid foundation to create an appropriate organizational structure and at the same time allowed for an appropriate division of functions, so that the stock exchange as the organized market operates very efficiently. Investors are provided with a sense of security, for example thanks to the Exchange Court.

Similarly important is also an aspect related to equal access to information. Access to the Warsaw Stock Exchange is possible thanks to the WARSET listing system, which provides market participants with efficient access to the market for trading securities and full automation of transactions, as well as a source of information about the current market situation. From November 2012 the listing on the WSE will be conducted using the most modern transaction system - the Universal Trading Platform (UTP)¹⁴⁷. This listing system is already operating inter alia at NYSE and Euronext.

Analysing the number of instruments traded on various stock exchanges, the WSE is definitely at the first place, as trading on the Warsaw Stock Exchange includes more than a dozen instruments (see Table 1). A wide range of options is very important for investors, and the more options, the more incentives to invest, since investors may conveniently construct for themselves a diversified investment portfolio. In addition, beside the standard quotations, there is a possibility to conclude block trades, both in the pre-session and off-session system.

Fluctuations in individual industries or sectors are extremely important in investment decisions. For this purpose stock exchanges indices are used. They are a kind of a statistical measure illustrating the direction and magnitude of change in given sectors. The Warsaw

¹⁴⁷ <http://www.gpw.pl/utp> [accessed on 19.08.2012].

Stock Exchange lists a total of 25 indices, including - in addition to indices containing the largest companies - also branch indices (e.g. WIG-BANKS) and national indices (e.g. WIGUkraine), as well as an index of socially responsible companies - RESPECT. This is another factor determining the high transparency of the Warsaw Stock Exchange. In addition to trading on the Main Market, one can invest in alternative markets - NewConnect and Catalyst. This gives both investors and smaller companies more opportunities to raise capital, at the same time contributing not only to increase the attractiveness of the Polish capital market, but also to increase innovation in the economy.

Figures, which allow to strengthen the leading position, also speak in favour of the WSE. It is enough to see how the share capital of the WSE increased over 20 years. Initially it amounted to PLN 6 million, and now it stands at PLN 523,209 million, which is over 87 times more.

Considering the size of the stock market, a closer look should be taken at stock market capitalization. WSE capitalization during the analysed period exceeds several times the results obtained by the BSE (39 times less) and the USE (770 times lower than the WSE). At the same time capitalization of the WSE shows an upward trend, which clearly demonstrates the continual development of the stock market, at the same time leaving other exchanges of the Central and Eastern Europe far behind. In addition, it indicates the fact that the Polish capital market is several hundred times higher as compared to the Serbian and the Ukrainian one. In addition, foreign companies play the growing role on the WSE. At the end of May 2012 there were 40 such companies, and their capitalization corresponds to 29.91% of the total.

The second absolute indicator beside the capitalization is the trading in all securities on the stock exchange. During the period 2005-2011, this ratio shows a rising trend which allows the conclusion that in the future this value will grow from year to year. In comparison to the BSE and the USE, the turnover on the Warsaw Stock Exchange in the last analysed year was more than 600 times greater than at the BSE and more than 100 thousand times greater than at the USE.

In addition to absolute indicators, the relative indicators have been reviewed for the described exchanges: liquidity and capitalization to GDP. Also here the WSE is an absolute leader: its liquidity ratio in the recent years more and more rapidly approaches the value of 60%, indicating the rate of capital movements. In an indirect way this indicator tells us about the maturity of the Polish market.

Capitalization to GDP ratio tells us about the importance of the stock exchange in the country (the ratio above 40%). For the WSE it may be safely argued that it plays an important

role in the country. Despite a decline in the ratio in the last year by 14.2 percentage points, it is still at a very high level - 76.4%. The long-term growth indices, number of IPOs and subsequent issues caused that the rate is three times higher than that for the BSE, or even 247 times higher than for the USE. This means that we are quickly reaching the level of the developed markets, where the value of companies is most often higher than the GDP.

The thesis that the WSE is the most developed stock market - which leaves far behind two others, is finally confirmed by full membership in the stock market world-class associations, namely: WFE and FESE.

According to the analysis, the BSE is in the second place of the analysed stock exchanges in terms of the condition and the potential. The BSE is a relatively young market, being under construction. Although it was founded already in 1894, it was only in 1989 that its operation, suspended since the war period, was resumed. The Belgrade Stock Exchange is a joint stock company, similarly as other discussed exchanges. Its organizational structure and legal regulations are transparent and comparable to international standards.

The BSE, similarly as the WSE, has the well developed information services for users, inter alia providing information on the current prices of securities, the percentage change in price and trading volume through the internet and telephone services. In result, the access to information is simple and universal.

For the assessment of the BSE business, BELEX15 indices are used, including trading in securities that are in constant circulation. Belexline is another indicator of the stock market. It is a general market index, representing the movement of stock prices. In addition, BELEXsentiment exists at the BSE. It represents expectations of market participants on the movement of stock prices in the coming month. This means transparency and ease of access for the stock market participants to data on securities listed on the BSE.

In contrast to the stock exchanges in Poland and in Ukraine, the BSE is characterized by a very large number of companies listed on the Stock Exchange, which in 2011 amounted to 1339, but one cannot ignore the fact that only 581 of them were active companies, that is such companies whose shares were traded in a given year.

Currently, trading in securities in Serbia is carried out on the regulated market and at the Multilateral Trading Platform (MTP). Trading in securities at the BSE sessions is similar to the system used at the WSE, which means that it is organized according to two methods: a single trading and continuous trading method. Since 2008, an official BELEFIX securities' trading system has been operating at the BSE, under the FIX protocol. As a result, trading on the Belgrade Stock Exchange is faster, safer, more efficient and cheaper. Thanks to the

introduction of this system, the BSE has become closer to the world stock exchanges' standards. However, the benefits and opportunities arising from implementation of the FIX protocol and development of the BELEXFIX trading system are not yet fully utilized. As the main cause one may mention an outbreak of the global financial crisis and the unsatisfactory number of important securities, as an intrinsic factor.

The Belgrade Stock Exchange, as compared to the Polish and the Ukrainian stock market, has a very poor range of listed instruments: only trading in shares and Treasury bonds is carried out at the BSE. As a result, the BSE is not able to attract investors interested in trading in popular securities, other than stocks or bonds. However, when it comes to the total turnover value, the BSE is between Poland and Ukraine, noting an average value at the level of 1,118 USD million in 2005-2011, while an average value of the total turnover on the WSE for the analysed period is more than 100 times greater. However, comparing the BSE to the stock exchange in Ukraine, it is in a much better position when it comes to the turnover ratio. The situation is similar when it comes to the capitalization ratio, where the values reached at the BSE much differ from the WSE results, and significantly outweigh the capitalization value reached during the analysed period at the stock market in Ukraine. It is worth noting that values of these two indicators show the declining trend in 2005-2011, which means the poor condition of the stock market, which in addition continues to deteriorate.

Analysing the liquidity ratio and the capitalization-to-GDP ratio of a given country, the BSE is between the WSE and the USE.

The values of the capitalization-to-GDP ratio at the BSE in the years 2006-2008 have been ca two times lower than the same values at the WSE, and in the years 2009-2011 even three times lower, and have reached an average of 39% during the analysed period. The continuous decline in this rate to the level of 22.4% in 2011 shows that the BSE is losing its importance in the context of the Serbian economy, not having much real impact on that economy. However, the BSE is in a much better position than the USE, where the values of that index oscillate around zero.

Given the liquidity, Serbia recorded a dramatic reduction in the rate over the analysed period: from 12% in 2005 to 3% in 2011. Very low stock market liquidity is one of the main problems of the BSE, which significantly affects its poor condition.

The continuous construction and development of the stock market and external factors, such as the current economic crisis that shook the entire world by the end of 2008 and the poor economic situation of Serbia during the analysed period, are reflected in the presence of a small number of high-quality securities, the dominant role of shares' trading, very low

liquidity of the stock market and the continuing decline in the number of companies listed on the Stock Exchange. So when we look at the BSE as at the entire market, we can say that the market size is disproportionate to the needs. This means that the market should focus on the segment of the highest quality.

The Ukrainian capital market is very different from that in Poland and in Serbia. First of all, it is much fragmented and - as a result - lacks both liquidity and transparency. At present there are 8 exchanges in Ukraine (the oldest of which is the Ukrainian Stock Exchange, described in this publication) and 2 exchange platforms, with PFTS, established in 1996, which reached a dominant position in the market. Although much of the trading is done via PFTS, the Ukrainian Securities and Exchange Commission refused to grant it an official status of the stock market. The Commission itself was established only on 12 June 1995, thanks to the initiative of the President, and it is also subordinate to him, because he appoints and dismisses its members. This creates a far-reaching speculation when it comes to the lack of neutrality of this institution and its credibility in the context of protection of investors' rights and counteracting violations.

Taking into account the year of the USE creation and the date of establishment of the Commission, one may easily see the four-year time difference. This delay proves an initial lack of regulations and supervision over the emerging capital market, which in the first phase was developing without a clearly defined spectrum of legal regulations that would reflect the rights and obligations both of investors and issuers with regard to the stock exchange as a regulated market of a certain specificity and standardized in many respects. The Commission, as a guardian and regulator, appeared only after the market had been to certain extent shaped and it did not play a significant role in its development phase. Controversies are still raised as regards the independence of the Commission and the principles that it follows when making its decisions and regulations.

What distinguishes the USE against the WSE and the BSE is the fact that now it has 3 regional offices located in Crimea, Kharkiv and Ivano-Frankivsk. Previously, it had five regional offices. This solution only reinforces the fragmentation of already fragmented market and does not increase the concentration of capital or its attraction. Local branches do not concentrate local capital, dispersed within such a vast country as Ukraine, and - all the more - do not bring together local investors, so the validity of their existence can be questioned. Currently mainly bonds are traded on the main floor - in 2011 they accounted for over 80% of turnover. This was possible mainly due to the activation of the primary market of corporate bonds. In contrast to the Warsaw Stock Exchange, and just like in the case of the BSE, the

USE suffers from a distinct lack of capital, which adversely affects market liquidity. The USE not only has to compete for the investors' and new issuers' favours, but also its decisions depend on the actions of other exchanges in Ukraine. Market fragmentation is definitely not conducive to the creation of a consolidated strategy that could contribute to more dynamic development of the capital market in Ukraine. Indeed, the situation is very unpredictable because the Ukrainian Exchange (UX), established in 2008, after 3 years of operation is already responsible for almost 30% of trading in the country, and together with the PFTS platform they are leading in terms of turnover and market capitalization, thus contributing to the marginalization of the USE importance. In addition, irregularity of trading sessions does not encourage investors despite the fact that the USE is all the time trying to increase the range of instruments available for trading - for example by introducing an opportunity of trading in options. In contrast to the WSE and the BSE, the block trades are not allowed.

In comparison with the WSE and the BSE, the USE does not look very favourably. Legal and technical infrastructure that is essential for proper and dynamic functioning of the stock exchange requires further improvement in Ukraine. Absence of relevant IT solutions reduces the ability to make transactions and limits sufficiently fast flow of information, thus negatively affecting the efficiency of the stock market. Legal regulations, and in fact their fragmentation and lack of coherence, largely impinge on the high fluctuation amplitude in terms of market capitalization or turnover, thus increasing the investment risk and contributing to sudden capital flows in both directions. In comparison with the WSE and the BSE, investors' interests are protected by law to a lesser extent, which additionally creates a greater desire for profit, often at the cost of speculation.

As compared with the BSE and the WSE, the USE is a decadent exchange, whose importance for the economy of the country is negligible. The USE potential as compared to the results of the Ukrainian economy leaves much to be desired. The aforementioned indicators clearly show the USE weakness against the WSE and the BSE. The USE is not able to either generate sufficient turnover or attract sufficient capital to be able to influence visibly and actively the economic conditions in the country. Capitalization value is negligible as compared to the BSE, which operates in a much smaller country, and is quite insignificant in comparison to the WSE or the GDP of Ukraine. The liquidity ratio, which stood generally at a level below 10% in the recent years, indicates clearly the difficult situation of the local stock market and clearly reveals the main reason not only for inhibiting further development of the USE, but also for the decrease in its importance in favour of other regulated markets in Ukraine, e.g. the Ukrainian Exchange.

V. Best Practices

As a result of the comparative analysis of three stock exchanges presented in this publication, it may be seen that each of them has its specific characteristics, which affect its functioning. Activities they carry out and their consequences show the whole spectrum of problems that had to be dealt with by the stock exchanges in countries in transition. Despite their different characteristics, one can note several common practices which - being universal in terms of application - in the longer perspective may have a positive impact on the condition and liquidity of the WSE, the BSE and the USE, thereby helping to strengthen their position in the region.

Legal Regulations

- Extremely important for the credibility of the exchange as an institution is to establish clear and transparent rules, which - based on the rule of law and internal regulations and statutes - will be strictly enforced. It is important to match the organizational structure of the stock market with challenges and tasks the exchange must fulfil, and to ensure that persons who sit in the authorities are independent and respected in the milieu and at the same time are of good repute and have expert knowledge and practice. The exchange should encourage listed companies to continually raise the corporate governance standards - at the same time being the best example in this regard.
- Legal regulations should follow, and preferably be ahead of potential changes and transformations taking place in the stock market, in order to prevent the possibility of speculative profits and equally protect the interests of investors, issuers and the exchange as an institution. Regulations should as far as possible match the realities. Their regular reviews are recommended, but any drastic changes should be made only after consulting experts and the milieu.
- Intermediaries in capital market transactions fulfil very important organizational and control functions in trading, which is why it is so important that brokers and other intermediaries are highly specialized and above all independent. Their activities should be controlled through licenses issued by the relevant authorities.

The Structure and Organization of the Stock Exchange

- Creation of a single centralized exchange, preferably located in the capital of the country, should be considered as the next good practice, taking as an example the WSE and the BSE. This favours the capital market transparency as well as facilitates the flow of information and introduction of changes to improve the condition of a given stock exchange, which would not have any negative consequences for other exchanges. One centralized exchange platform creates equal opportunities for all participants in the exchange and does not have to compete for capital and interest with other national stock exchanges, and - as a result - can focus on improving its competitiveness in the international arena. Local representations are not judged relevant as the case of the USE shows, especially if there are only several trading sessions a year. One dynamic main floor may become a stimulus for further development of subsequent alternative markets.
- The very regularity of trading sessions, according to a predetermined schedule, favours liquidity and proper valuation of assets, since any new information is immediately reflected in the value of securities traded. For investors, this means an ability to quickly liquidate or acquire assets. The recommended frequency is 5 sessions a week (Monday to Friday, except for days recognized as days-off in a given country), just as it is at other major global stock exchanges.
- The wide range of instruments listed on the stock exchange allows to diversify the investment portfolio. It results in a significant reduction of investment risk, which in turn attracts new investors to the stock exchange. Introduction of additional instruments - beside shares and bonds - to the stock exchange, such as short-term contracts or options, will certainly encourage investors with the diverse needs, whose demand for such securities has not yet been met by their supply.
- The listing system is a very important element. It ensures full and timely access to information, and above all equal opportunities when placing orders. This condition must necessarily be satisfied if the stock exchanges want to raise new capital, because current investors are extremely demanding, so the technological barrier is simply unacceptable.

Companies Entry to the Stock Exchange

- Introduction of a company to the stock exchange must meet many requirements posed by the stock exchanges, such as the minimum value of shares / capital, preparation of a prospectus or financial documentation with an opinion of the authorized bodies. Not all

companies are able to meet high requirements for admission of shares to trading at the primary market. Taking into account the fact that in all three analysed countries small and medium-sized enterprises account for over 90%¹⁴⁸ of all registered businesses, it is worth to consider an opportunity of creation of an alternative market, oriented towards smaller companies (for example as the Polish New Connect). Appropriate promotional campaign and a large number of SMEs in Serbia and in Ukraine will attract to the stock exchange new companies that seek alternative ways to raise capital.

- It is important to provide foreign companies with opportunities to enter the stock market on an equal footing with the domestic companies. Non-discrimination as well as clear and transparent rules for companies' introduction allow to attract new issuers. This allows to increase the number of listed companies and to enhance not only the turnover but also the stock exchange importance at the international level. Issue of securities by foreign companies will also allow to attract new investors, both domestic and foreign.

Access to Information

- Investors who invest their capital in the stock market are the most important element in securities' trading. Their decisions are based on an extensive analysis of the market and the situation and condition of companies offering securities. Therefore the stock exchange should be a reliable source of information for current and future investors. It is extremely important to ensure easy and fast access to such information, so the best solution is to keep a website both in the native language and in English (addressed to foreign investors and issuers). The website should include widely available information on the operation of the stock exchange, its condition, the development plans for the next few years, as well as current and annual reports on the activities of the company, information about upcoming IPOs, investor's calendar, etc. In addition, for example in its extended version available after login or authorization, the website should include more detailed information on listed companies and securities issued by them, i.e. among others the value and the number of trading in securities, their prices, as well as historical values.
- In order to facilitate access to and disseminate information about the company, the issuers or the securities, the stock exchange should establish close cooperation with the media. Exchange's presence in television news reports, thematic sites, or information in the press

¹⁴⁸ State Statistic Service of Ukraine <http://www.ukrstat.gov.ua/> [accessed on 15.08.12].
Statistical Office of the Republic of Serbia <http://webrzs.stat.gov.rs/WebSite/> [accessed on 15.08.12].
Central Statistical Office of Poland <http://www.stat.gov.pl/gus> [accessed on 15.08.12].

provide universal and easy access to stock information for the public of the country, including current and potential investors.

Promotion

- Another important element when it comes to attracting new investors is a widely understood civic education aimed at promoting knowledge on investing in the capital markets. This would encourage first of all individual investors to invest their capital in the stock market as an alternative to deposits or bonds.
- To increase interest in purchasing securities the stock exchange should carry out widely understood promotion of companies. Information about the debut of the company and its business structure, financial situation should be widely available in order to encourage investors to buy its shares / bonds. Suitable promotional campaign and easy access to information will attract capital to the stock market, thus increasing the turnover and improving the overall conditions of the stock exchange.

Cooperation

- In order to improve the situation of the stock exchanges in Ukraine and in Serbia - their functioning and condition, it is worth to enter into the cooperation with more developed stock exchanges, such as the WSE and the Vienna Stock Exchange. As a result of such partnership, the less developed stock exchange could draw patterns on regulation, structure, trade organization or could obtain on an ongoing basis advice on problems which the associated stock market could potentially experience in the future. Such cooperation would allow the less developed stock exchange for a quicker and more efficient expansion.
- Following the guidelines of such exchange organizations as WFE will allow for gradual and oriented development of exchanges. Thanks to such cooperation, the exchange may count on assistance in developing business strategies, receive tips on how to improve and harmonize its management practices, and - as a result - it may later become a full member of such organizations and co-decide on their shape,¹⁴⁹ thus increasing its international significance.
- In addition to the above recommendations, there should be emphasized the role played by good corporate governance practices, especially in the capital market. This involves

¹⁴⁹ <http://www.world-exchanges.org/> [accessed on 24.08.12].

preparation by the stock exchanges of documents relating to business practice standards, and introduction of the requirement to use these solutions by listed companies. Well designed good corporate governance practices help to solve problems and respond to the current challenges faced by the capital market as a whole, as well as by individual companies. High standards of corporate governance may be reflected for example in the quality of the prospectus prepared by the company, which is a kind of business card for the company making its debut on the stock exchange. Their application is also reflected in the way companies communicate with their exchange environment.

The stock exchange is a common good, however not understood in terms of the old political system, but as an opportunity to improve the general well-being of citizens and ensure the socio-economic development of the country. Every citizen, regardless of whether s/he is only a natural person or is the owner / co-owner of a corporate entity, should be aware that the stock exchange is not an abstract being, and what happens there is important for each of us, directly (e.g. if we are investors) or indirectly, e.g. through pension funds that invest a part of resources entrusted to them. Laying down and application of the best practices will enable the stock market sustainable development, thus becoming the catalyst for changes taking place in the transition economies and the on-going privatization process.

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