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Warsaw Stock Exchange as a component of the modern financial market in Poland

Abstract. The article provides an assessment of the function of the capital market in Poland, with particular emphasis on factors which warrant the safety of its users. Using selected indicators that describe the significance and role of the stock exchange in the domestic economy, the Polish stock exchange was also compared with selected stock exchanges in Europe and the world.

Keywords: capital market, stock exchange, capital market infrastructure, attractiveness indicators

1. Introduction

The term “finance” is most often understood as the set of economic principles, associated with making of decisions that include distribution of money under the conditions of uncertainty. The investors allocate their financial means to various financial assets to achieve their objectives, while enterprises and governments attempt to obtain funds by issuing various liabilities for the purpose of implementation of specific investment projects. The financial market is the overall set of principles and transactions associated with financial flows between entities that have at their disposal a surplus of funds and entities that report demand for funds, confirmed by flow of financial instruments.¹ The financial market can also be defined as the overall set of transactions with financial instruments, which constitute

¹ A. Wawiernia, I. Jonek-Kowalska, *Zarządzanie wartością i ryzykiem instrumentów rynku finansowego*, CeDeWu, Warszawa 2009, p. 11.

instruments of granting of short-, medium- and long-term loans.² The financial market is not uniform. It can be divided internally according to various criteria. The most popular include the marketed product, time, territorial range, the time of settlement of the transaction, the organization form or the nature of transactions; however, the most significant criterion is the type of financial assets. From the perspective of this criterion, it is possible to distinguish the money market, the capital market and the (currency) exchange market.³

The capital market can be defined as the market of medium- and long-term capital, where capital is allocated and obtained through issue of financial instruments of duration of more than one year.⁴ The basic objective of the capital market is to allow various business entities to obtain funds for profitable investment activity and for public purpose financing (loans incurred by the state and the local governments).⁵ A significant feature of the capital market is the fact that, apart from loan transactions, there are equity transactions, consisting of acquisition of the right of ownership to the assets of the managing unit.⁶ Capital market participants, on the one hand, are entities interested in allocation of their financial surplus that would allow for achieving the highest possible rate of return, and on the other hand – entities searching for free capital to use and aiming at achievement of a rate of return on invested capital that would be higher than interest rates charged against the savings.⁷

2. Factors that determine the proper functioning of the capital market in Poland

The proper functioning of the financial market requires not only the appropriate number of investors and specific financial instruments, but also the proper legal regulations and the necessary infrastructure.⁸ The degree of regulation of the financial market varies in different countries. This regulation assumes one of the following forms:⁹

² W. Dębski, *Rynek finansowy i jego mechanizmy. Podstawy teorii i praktyki*, WN PWN, Warszawa 2010, p. 16.

³ A. Wawiernia, I. Jonek-Kowalska, op. cit., pp. 27-28; A. Dmowski, D. Prokopowicz, *Rynki finansowe*, Difin, Warszawa 2010, p. 19; J. Czekaj, *Rynki, instrumenty i instytucje finansowe*, WN PWN, Warszawa 2008, p. 10.

⁴ J. Czekaj, op. cit., p. 11.

⁵ M. Daniluk, *Rynek kapitałowy*, Bellona, Warszawa 1998, p. 14.

⁶ A. Dmowski, J. Samowski, D. Prokopowicz, *Podstawy finansów i bankowości*, Difin, Warszawa 2005, p. 131.

⁷ W. Dębski, *Rynek finansowy...*, p. 91.

⁸ W. Dębski, *Stan i perspektywy rozwoju rynku kapitałowego w Polsce*, in: *Finanse – nowe wyzwania teorii i praktyki. Rynek finansowy*, ed. K. Jajuga, Wyd. UE we Wrocławiu, 2011, p. 79.

⁹ F.J. Fabozzi, P.P. Drake, *Finance. Capital Markets, Financial Management and Investment Management*, John Wiley & Sons, Hoboken 2009, pp. 118-119.

1. Regulation of disclosure of information – most states have introduced legislation on disclosure of various pieces of information, which encompass many fields of law, including law of companies, real estate and banking law. On the basis of information disclosure legislation, specific persons and business entities may be forced to disclose information, which used to be considered private.

2. Regulation of financial activity – pertaining to the principles of operation of stock exchange brokers and financial market trade. Examples of such regulations include certain limitations with regard to stock trading by the so-called insiders.

3. Regulation of financial institutions, limiting the scope and freedom of their operation due to the significant role played by financial institutions in the economy of a given state.

4. Regulations applicable to the foreign participants, aimed at limitation of the role played by foreign companies on the internal market of a given state, the possibility of acquisition of specific entities and controlling of financial institutions.

The existing legal regulations determine not only the efficient functioning of the capital market, but also its size. L. Porta, F. Lopez de Silanes, A. Shleifer and R. Viskny¹⁰ have shown that capital markets in countries with legislation based on common law that are subject to more regulations beneficial for investor protection are relatively larger than capital markets in countries with legislation based on civil law tradition.

The capital market infrastructure in Poland consists of: the stock exchange, the over the counter market, the alternative trading system and brokerage houses. A typical feature of the capital market is the division into public and private market. In the case of the public market, the financial instruments are offered for paid acquisition by at least 100 persons or to an unspecified number of buyers,¹¹ and trade in such instruments is regulated by:

- The act of July 21st, 2006 on capital market supervision,¹²
- The act of July 29th, 2006 on trade in financial instruments,¹³
- The Act of July 21st, 2005 on public offering, conditions governing the introduction of financial instruments to organized trading, and public companies.¹⁴

¹⁰ L. Porta, F. Lopez de Silanes, A. Shleifer, R. Viskny, *Law and Finance*, “Journal of Political Economy” 1998, No. 6, pp. 1113-1115.

¹¹ Cf. art. 3 of the Act of July 29th, 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.

¹² Act of July 29th, 2005 on capital market supervision, Journal of Laws of 2005, No. 183, item 1537.

¹³ Act of July 29th, 2005 on trade in financial instruments, Journal of Laws of 2005, No. 183, item 1538.

¹⁴ Act of July 29th, 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.

Within the framework of organized secondary trade in securities, there is the regulated market and the alternative system of trade in financial instruments. The regulated market is a stable system of trade in financial instruments admitted to trading, providing investors to general, equal access to market information at the same time while matching the offers of acquisition and sale of these instruments, which is organized and subject to supervision by the Commission for Financial Supervision.¹⁵

The regulated OTC market, established at the end of year 1996 in form of the Central Table of Offers (CTO), and since September 18th, 2009, has been managed by BondSpot company, encompasses:¹⁶

- MTS Poland market, which is the electronic platform for wholesale of State Treasury bills and bonds,

- CeTo securities market, which offers retail trade in non-State Treasury debt securities, where, on September 30th, 2009, BondSpot and Warsaw Stock Exchange launched the electronic platform of the wholesale-retail organized market of Catalyst debt securities (municipal and corporate bonds and mortgage bonds).

The Catalyst market consists of four trade platforms. Two of these are managed by the Stock Exchange – according to the regulated market formula and the alternative trading system. Subject to trade on the platforms of WSE is one bond. The analogical two markets are managed by BondSpot, and the traded product on these is the transaction unit of the value of at least PLN 100 thousand. Thanks to this structure of the Catalyst market, it is adapted to various size and characteristics of issue and the needs of various investors – institutional and individual entities, engaged in wholesale and retail sale.

The alternative trading system is a multidirectional system of trade, organized by the company managing the regulated market or an investment company, which operates outside the regulated market, dealing with securities or financial market instruments, ensuring concentration of demand and supply in the manner that transactions between the system participants.¹⁷ The NewConnect alternative market, launched at Warsaw Stock Exchange, is aimed at joint-stock companies or limited joint stock partnerships with the forecasted capitalization up to PLN 20 million and the value of the public offering ranging from several hundred thousand to several million zlotys, as well as innovative, developing companies with potential of growth and a short history of operation.¹⁸

¹⁵ U. Banaszak-Soroka, *Instytucje i uczestnicy rynku kapitałowego*, WN PWN, Warszawa 2008, p. 11.

¹⁶ W. Dębski, *Stan i perspektywy...*, p. 82.

¹⁷ U. Banaszak-Soroka, op. cit., p. 13.

¹⁸ Ibidem, p. 46.

Interest of companies in this market is, among other things, due to:¹⁹

– Simplified formal requirements and procedures of marketing authorization – the minimum value of equity of the issuer is PLN 500 thousand, and this amount may include the capital for future registration of stocks acquired as a result of the offer;

– Low costs of the stock market debut and listings – the charge for marketing of stocks is PLN 6 thousand for the first issue and PLN 2.5 thousand for the following issues. The stock listing charge is a flat-rate payment, amounting to: in the first calendar year – PLN 1.5 thousand, in the subsequent years – 0.02% of the market value of all stocks of the issuer, however, no less than PLN 3 thousand and no more than PLN 8 thousand;

- Company exposure to business investors and partners;
- The prestige and reputation, associated with being a public company;
- Promotion and recognition of the company;
- Ability to gain capital through subsequent issues;
- Increased credibility to banks and business partners.

Due to the anonymous and mass character of transactions on the public market, the mode of organization of this market should ensure, among other things:²⁰

– Reliability, perceived from the perspective of awareness of participants of stock exchange trade that every behavior, which is improper or inconsistent with the principles, may lead to specific penalties, exclusion from the market and even imprisonment;

– Effectiveness, associated with efficient and reliable organization of activity of all institutions of capital market and availability on this market of the appropriate information – in terms of quality and quantity – to serve as a basis for decisions made by investors;

– Transparency, thanks to which the acts and behaviors of participants of the capital market are clearly understandable. It is based on ensuring easy and equal access for investors to real, reliable and complete information on financial instruments and the issuers of these instruments. Market transparency is to be ensured by the legal obligation of public companies to publish certain information on their business activity;

– Liquidity, which allows the investor to make decisions to buy or sale stocks quickly.

¹⁹ *Przewodnik po rynku NewConnect*, Warsaw Stock Exchange, Warszawa czerwiec 2013, www.newconnect.pl/?page=przewodnik [12.05.2014].

²⁰ U. Banaszak-Soroka, op. cit., pp. 10-11; M. Luniewska, *Ekonometria finansowa*, WN PWN, Warszawa 2012, pp. 42-43; M. Smaga, T. Włudyka, *Instytucje gospodarki rynkowej*, Wolters Kluwer Polska, Warszawa 2012, P. Hartman, F. Heider, E. Papaioannou, M. Duca, *The Role of Financial Markets and innovation in Productivity and Growth in Europe*, European Central Bank, Occasional Series Paper, No 72, September 2007.

– Innovation aimed at reduction of flaws of capital market and providing for new opportunities of capital allocation.

– Integrity, associated with effective functioning of the market thanks to proper relations between the institutions and entities operating on this market, the existing customs and legal provisions.

3. Attractiveness of the Polish capital market

The main problem of the Polish capital market is the lack of balance between supply on this market, understood as the currently offered range of financial instruments, and the reported demand for these instruments, which is expressed as the level of interest in allocation of financial surplus by individual investors. While expressing full acceptance for the common view that the main factor that determines the interest of retail investors in stock exchange is their income level, it should also be stated that the knowledge of the potential investors, and the associated views with regard to attractiveness of the capital market, are equally important.²¹ Moreover, as the level of affluence of the Poles grows, the importance of the income criterion will be gradually reduced, while individual assessment of investment opportunities will play a growing role.

The view, according to which an attractive stock exchange market must be transparent, free from manipulation and warranting protection of interests of the investors, should be fully supported. Even a small scale of stock exchange crime, accompanied by high crime detection and adequate penalties, is detrimental to the fundamental principles of the free financial market. In addition, in the case of crime of this type, it is not always possible to identify the specific victim – in general, it is usually the potentially the weakest individual stockholders, who are not even aware of the fact that the profit made by the stock market manipulator is equivalent to their loss. A prerequisite for operation of investors on the capital market is thus transparency and trust that the capital invested will be withdrawn in the future with a surplus. Transparency means access to data concerning the financial condition of issuers, their development perspectives, the structure of share ownership, as well as information on events that exert impact on the future financial and economic condition. Without such information, it is not possible to make rational investment decisions. Without investor trust and belief that the stock exchange market is operating in accordance with acceptable legal and ethical standards, the development of this market is, in

²¹ More on views of the potential individual investors in: R. Czyżycki, *Poglądy inwestorów indywidualnych jako wyzwanie stojące przed zarządzającymi funduszami inwestycyjnymi*, "Studia Zarządzania i Finansów Wyższej Szkoły Bankowej w Poznaniu" 2014, No. 7, pp. 25-35.

fact, impossible.²² Lack of availability of the appropriate stock exchange analyses and low liquidity (the two are correlated) usually discourage institutional and individual investors to develop their investment activity in the segment of small and medium sized issuers.²³

Attractiveness of a given stock exchange market to investors and issuers is determined also by the number of companies. Therefore, a significant factor that determines development of the stock exchange is the number of companies traded on a given market. At the same time, the presence of foreign companies is a very significant indicator of perception of the stock exchange, which confirms its economic role in the region of functioning.²⁴ As a result of the globalization tendencies, which have exerted impact, in particular, on financial markets, enterprises (particularly the large ones) are often able to obtain capital not only on the domestic market, but also on the international markets. The decision on where the enterprise is to issue stock, depends mainly on its size, availability of capital, costs associated with issue, information obligations etc. Local stock exchanges compete with one another, doing their best to attract the maximum number of issuers (including international entities). The state may support this direction of development of the local market by establishing the necessary infrastructure, as well as the favorable legislation (including taxation law).²⁵ In year 2008, Warsaw Stock Exchange opened its first foreign agency in Kiev. Another initiative of WSE is the WSE IPO Partner program. Its objective is to attract foreign financial institutions and advisory companies, wishing to promote the idea of capital acquisition through issue of stocks on the Polish market.²⁶ At the end of April 2015, there were 22 entities participating in the program, including 10 from Ukraine, 4 from Belarus, 2 from Lithuania, one from Bulgaria, the Czech Republic, Israel, Croatia, Cyprus and the United States.

In assessment of attractiveness of a given stock exchange, the following indicators should be taken into account:²⁷

– the stock market liquidity index, which is expressed by the ratio of trade to capitalization, indicating the pace of capital shifts on the market (Table 1),

²² W. Wąsowski, *Manipulacje giełdowe: od fałszywych informacji do nadużyć i przestępstw*, "Przegląd Corporate Governance" 2011, No. 2(26).

²³ A. Maciejewski, L. Pawłowicz, W. Rozłucki, *Przełomowy projekt na rzecz poprawy wiarygodności rynków*, http://gpwmedia.pl/upload/pdf/Przełomowy_projekt_16_04_2014.pdf [30.06.2015].

²⁴ W. Przybylska-Kapuścińska, *Rozwój polskiego rynku giełdowego na tle sytuacji giełd europejskich w XXI wieku*, "Roczniki Ekonomiczne Kujawsko-Pomorskiej Szkoły Wyższej" 2008, No. 1, p. 125.

²⁵ P. Perz, P. Kaźmierkiewicz, U. Dzyuma, R. Harasym, P. Bochenek, M. Cebotar, *Ukraińskie spółki na GPW w Warszawie: stan obecny i perspektywy*, Finansowy Kwartalnik Internetowy „e-Finance” 2011, Vol. 7, No. 4, p. 120.

²⁶ Ibidem, pp. 125-126.

²⁷ W. Przybylska-Kapuścińska, op. cit., pp. 130-136.

Table 1. The liquidity ratio of the stock market in Poland compared to other stock exchanges in the period 2009-2014 (in %)

Exchange	2009	2010	2011	2012	2013	2014
NYSE	75,91	83,40	72,22	113,75	141,00	130,91
Bratislava SE	31,02	46,09	20,35	41,94	44,16	n.a.
Budapest SE	110,40	104,69	119,94	189,36	182,93	204,02
Deutsche Borse	92,88	95,66	75,27	118,91	147,50	136,99
Euronext	145,20	143,06	124,33	176,47	208,84	185,94
Ljubljana SE	1175,47	1947,85	1235,28	1619,08	1727,77	1021,87
Prague	286,64	357,38	252,07	466,80	613,72	615,19
Warsaw SE	266,58	274,64	189,21	294,56	281,69	292,23
Wiener Borse	221,46	258,06	219,84	448,56	443,57	337,02

Source: own elaboration on the basis of: www.fese.eu/statistics-market-research/historical-data, www.bsse.sk/bcpben/Statistics/Year/tabid/171/language/en-US/Default.aspx and http://ftp.pse.cz/Info.bas/Eng/Key_data_05-14.pdf [25.04.2015].

Table 2. The concentration ratio of the stock market in Poland compared to selected stock exchanges in the period 2009-2013 (in %)

Exchange	Index	2009	2010	2011	2012	2013
NYSE	A	15,68	19,17	18,02	16,60	14,95
NYSE	B	29,72	24,82	24,40	59,56	43,54
Bratislava SE	A	60,21	73,57	75,01	70,70	73,39
Bratislava SE	B	99,43	99,49	99,81	98,84	99,47
Budapest SE	A	96,46	95,59	95,56	96,35	96,77
Budapest SE	B	99,04	99,24	97,79	99,25	94,62
Deutsche Börse	A	48,19	45,62	45,08	46,42	46,00
Deutsche Börse	B	50,48	48,78	50,80	49,45	45,42
Euronext	A	n.a.	n.a.	39,16	37,76	35,22
Euronext	B	n.a.	n.a.	31,90	31,21	29,66
Ljubljana SE	A	79,21	79,91	80,93	78,07	90,71
Ljubljana SE	B	92,93	90,43	94,23	92,94	92,86
Prague	A	99,10	99,38	98,24	95,42	96,21
Prague	B	97,47	96,92	96,97	98,79	98,92
Warsaw SE	A	56,73	53,52	53,33	54,62	n.a.
Warsaw SE	B	67,72	68,87	68,22	70,77	n.a.
Wiener Borse	A	63,78	64,18	61,66	63,55	63,74
Wiener Borse	B	77,26	78,58	78,07	81,39	80,09

A – the share of 10 companies with the highest capitalization in overall stock exchange capitalization;
B – the share of 10 companies with the highest turnover in overall stock exchange turnover.

Source: own elaboration on the basis of www.fese.eu/statistics-market-research/historical-data; www.bsse.sk/bcpben/Statistics/Year/tabid/171/language/en-US/Default.aspx and http://ftp.pse.cz/Info.bas/Eng/Key_data_05-14.pdf [25.04.2015].

– the concentration index, which shows the equity turnover of the ten (or five) largest companies in total turnover. If the concentration index value exceeds 60%, this threatens the liquidity of such stock exchange market. On mature markets, the share of the five largest companies usually does not exceed 35-45% of the total turnover. On the other hand, on small, undeveloped stock exchanges, there is strong concentration, based on several large companies (Table 2),²⁸

– the ratio of capitalization to gross domestic product, which provides information on how much capital is valued through the stock exchange in relation to GDP. In general, it is assumed that if the value of this index is above 40%, the stock exchange is of significance for the domestic economy (Table 3),²⁹

Table 3. The ratio of capitalization to GDP in Poland compared to selected markets in the period 2009-2014 (in %)

Exchange	2009	2010	2011	2012	2013	2014
Athens Exchange	34,30	22,47	11,67	17,99	34,07	23,31
BME (Spanish Exchanges)	96,14	81,50	68,85	73,43	80,09	71,01
Bratislava SE	5,88	5,07	5,56	5,82	5,74	5,41
Bucharest SE	7,37	7,93	7,68	9,41	12,95	11,23
Budapest	23,27	21,27	13,59	16,37	14,81	10,65
Bulgarian SE	17,33	15,09	14,77	12,60	12,87	10,88
Cyprus SE	40,31	26,96	10,51	8,01	8,74	17,43
Deutsche Börse	38,04	41,73	31,51	42,08	51,86	45,32
Ljubljana	24,27	19,57	12,32	14,00	14,84	15,28
Oslo Børs	58,85	68,44	44,23	47,65	50,37	44,20
Prague	21,90	20,60	16,65	17,99	14,50	13,39
Vienna	28,82	32,21	19,83	26,03	27,45	22,28
Warsaw SE	34,72	39,88	26,56	35,82	38,91	31,27

Source: own elaboration on the basis of: www.fesc.eu/statistics-market-research/historical-data, <http://databank.worldbank.org/data>.

– the average size of the company, for which it is assumed that its higher value proves the more significant role of a given stock exchange in activation of economy (Table 4).

²⁸ K. Stępień, *Drogie akcje i niewielka płynność*, „Parkiet” 2003, No. 2304.

²⁹ E. Gruszczyńska-Broźbar, *Funkcjonowanie Giełdy Papierów Wartościowych w Warszawie*, Wyd. AE Poznań, Poznań 2007, p. 103.

Table 4. The average size of a company listed on the stock exchange in Poland compared to other stock exchanges in the period 2009-2014

Exchange	2009	2010	2011	2012	2013	2014
	EUR million					
NYSE	3529,501	4326,649	3954,316	4565,930	5498,321	6457,081
Bratislava SE	26,562	28,877	42,877	39,723	40,547	n.a.
Budapest SE	453,036	398,816	268,985	302,692	287,567	248,795
Deutsche Börse	1145,142	1398,795	1228,526	1508,564	1952,975	2135,139
Euronext	1716,212	1932,179	1702,456	2001,225	2450,932	2588,686
Ljubljana SE	110,835	98,009	74,159	80,477	94,131	121,319
Prague	1949,766	2025,700	1583,106	1621,510	1534,227	1632,544
Warsaw SE	215,511	243,991	137,662	155,142	165,982	154,074
Wiener Borse	688,233	857,537	628,337	812,073	837,859	804,476

Source: own elaboration on the basis of www.fese.eu/statistics-market-research/historical-data; www.bsse.sk/bcpben/Statistics/Year/tabid/171/language/en-US/Default.aspx and http://ftp.pse.cz/Info.bas/Eng/Key_data_05-14.pdf [25.04.2015].

Analyzing the above indicators, it can be stated that Warsaw Stock Exchange stands out among the stock exchanges of Central Europe; nevertheless, it still has a long way to go before it catches up with the developed stock exchanges of the Western countries.

4. Conclusions

A factor that contributes to reconstruction and a relatively fast and stable development of the Polish capital market after year 1989 was the high level of regulation, which accompanied the functioning of this market since the very beginning. High regulation was aimed at warranting a transparent and safe secondary market of securities and achievement of objectives associated with the development of this market. Over the long-term perspective, Warsaw Stock Exchange (WSE) was supposed to offer space for processes of effective allocation of resources, aimed at enhancing of competitiveness of the Polish economy. The necessity to create a centralized, transparent and safe secondary market was also associated with the concept for privatization of state-owned enterprises, which was developed at the very beginning of the systemic transformation period, which was aimed at capital privatization of the best entities through the public offering, aimed at a large group of investors.³⁰ After twenty six years of functioning of WSE, it can be said that

³⁰ K. Appelt, *Polski rynek kapitałowy jako sukces procesu transformacji ustrojowej po 1989 roku*, "Zeszyty Naukowe Wyższej Szkoły Bankowej w Poznaniu" 2009, No. 25, p. 38.

these assumptions have been implemented only partially – for instance, the impact of political factors on functioning of the stock exchange is currently too high. It is indicated mainly by:

- listing of companies, in which the State Treasury has a significant share (e.g. 72.4% share in PGNiG S.A., 58.4% in PGE S.A., or 53.2% in JSW S.A.³¹), which may lead to concerns with regard to the political and not substantive reasons for hiring specific persons to occupy key positions in these companies,

- high impact on the decisions and even statements made by politicians on the listings of public companies. A typical example may be the statement of Prime Minister D. Tusk of November 18th, 2011, in which he announced the plan to introduce a tax on copper and silver mining – as a result, the price of KGHM stocks dropped by 22.22% during two stock exchange sessions; when the Ministry of the State Treasury, on the other hand, announced on July 2nd, 2014, its plan to sell 3.5% stocks of PGE, the stock price of PGE dropped by 8.04% during the two subsequent sessions.

The proper development and functioning of the Polish capital market, however, depends largely on specific share of domestic investors, in particular, individual ones. This has been noticed by Warsaw Stock Exchange as well, which has announced a plan to change its strategy in order to attract more retail investors. According to the Stock Exchange, this will be based not only on increasing of investment opportunities by proposing specific new products (including derivatives based on bonds, interest rates, electric energy or natural gas), but, more importantly, on greater commitment to the civic shareholding concept not only by promoting privatization, but also by increased involvement in education in the field of capital market investment.

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³¹ www.stockwatch.pl/inwestor/Skarb-Panstwa.aspx [19.10.2015].

- Dębski W., *Stan i perspektywy rozwoju rynku kapitałowego w Polsce*, in: *Finanse – nowe wyzwania teorii i praktyki. Rynek finansowy*, ed. K. Jajuga, Wyd. UE we Wrocławiu, Wrocław 2011.
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Giełda Papierów Wartościowych w Warszawie jako element nowoczesnego rynku finansowego w Polsce

Streszczenie. W artykule dokonano oceny funkcjonowania rynku kapitałowego w Polsce, zwracając szczególną uwagę na czynniki zapewniające bezpieczeństwo jego uczestnikom. Wykorzystując wybrane wskaźniki opisujące znaczenie i rolę giełdy papierów wartościowych w gospodarce danego państwa, porównano również polską giełdę z wybranymi giełdami europejskimi i światowymi.

Słowa kluczowe: rynek kapitałowy, giełda papierów wartościowych, infrastruktura rynku kapitałowego, wskaźniki atrakcyjności

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