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10 years of the NewConnect market – success or failure?

Introduction

The organization of Multilateral Trading Facilities (MTF) is defined by the European Union regulations (Directive 2004/39 WE, 2004; Directive 2014/65/EU, 2014) and implemented by the legislation of the member states. The NewConnect market, an alternative trading system (ATS), has been organized by the Warsaw Stock Exchange (WSE) for over ten years. Intended as a ‘small stock market’ for issuers of shares dynamically developing and representing high-tech industry sectors, it was to be a springboard for issuers to the further development and promotion to the regulated stock market. After ten years of functioning of this market, the time has come for an attempt to assess this project.

The aim of this article is to evaluate the over ten-year long operations of the NewConnect market from the perspective of its organizer and participants; to diagnose the most essential benefits and organizational problems of the Polish ATS; to map out the further prospects of development, and to suggest possible changes to mitigate the negative factors. To illustrate the problem, the aggregated statistics data from the period of 2007–2017 will be subject to a comprehensive analysis in order to show the changes and trends on this market, including the data comparing NewConnect with other alternative markets organized by European stock exchanges. The article is an extension and review of the studies on the market failures of the Polish ATS carried out by the author in 2012–2014.

To accomplish the above goals, the structure of the article is as follows: a review of the subject literature referring to the NewConnect market, the characteristics of its legal regulations, an analysis of the basic statistics of the market and issuers of shares, a comparison of the Polish ATS with other alternative markets in Europe, an evaluation of the benefits and failures of the market from

the perspective of its participants and the functions played, a discussion which is meant to emphasize negative aspects of the functioning of the Polish alternative market, followed by the summary.

1. Literature review

The first publications concerning NewConnect showed the dynamic development of the market measured with the numerous debuts of new issuers of shares with low volatility of the secondary trading (Gradoń, 2008; Pauka, 2008; Szczepankowski, 2008; Ziarko-Siwiek, 2010). Further publications pointed out on many occasions the chances created by the Polish ATS market for small and medium-sized companies, underlying at the same time the opportunities for the sector of innovations and modern technologies (Kicia, 2008; Nowacka, 2009; Swaczyna, Biedrzyński, 2010; Markiewicz, Zygmanski, 2013) as well start-up companies (Burżacka, Gąsiorowska, 2015). The role played by ATS in raising capital was analyzed by Kaszuba-Perz and Perz (2013) who paid attention to the ease of obtaining sources of financing, especially due to the procedures in private offerings chosen most often by issuers. The analysis of the benefit and costs as well as of the potential threats to issuers of shares was undertaken in the studies by, among others, Pyka (2008), Kordela (2012) and Wszelaki (2014). The aspects of investment risk for participants of the Polish ATS were underlined by Pastusiak (2010).

Over time other studies appeared, which apart from developing aspects, also emphasized the serious regulatory and organizational problems of the new share market (Asyngier, 2012 and 2013a). Attention was drawn to the fast growing number of issuers which was not translated into the quality of newly listed companies. This resulted in their problems with low profitability, fulfilling information obligations, limited volatility of stock trading, low market value and an excessive number of penny stocks. These conclusions were partly confirmed in a further publication by Kordela (2015) who, on the one hand, identified the positive aspect of fundraising for issuers and, on the other, the low volatility of the quoted shares and the failure to comply with information obligations. In the context of issuers quality, some studies investigated the problem of the failing companies of the small stock market (Mosionek-Schweda, 2014a), issuers' obligations to meet the terms of social agreements with investors (Hamernik, 2012), and the tools established for the protection of individual investors' interests (Kordela, 2013). Zygmanski (2016) pointed out that companies from outside high-tech and innovative industries were admitted to the NewConnect market, which was the key principle for creating this very market. Analyses reveal that innovative industries that base their operations on intangible assets were represented by less than 35% of the companies, and only in 7.21% of the companies did the

intangible assets account for over a half of their balance sheet (Zygmanowski, 2016). Earlier, a sector analysis of issuers on NewConnect was also undertaken by Szczepankowski (2010).

There appeared numerous publications comparing the Polish market with other alternative trading systems run by regulated stock markets in Europe (M. Sierpińska, A. Sierpińska, 2009; Pietrzyk, Knichnicki, 2010; Feder-Sempach, 2010; Mikołajczyk, Kurczewska, 2010; Panfil, 2013; Asyngier, 2013b and 2014; Małecka, 2016). Most often these comparisons were clearly favourable in terms of the number of debuts, but unfavourable in view, *inter alia*, of trade volatility, the size of listed companies and the return rates achieved by investors. Occasionally, the NewConnect market was analyzed in foreign studies (e.g. Harwood, Konidaris, 2015).

A number of studies addressed the issue of a particular advancement, i.e. companies moving from the NewConnect market to the main market of the WSE. Wawryszuk-Misztal (2015 and 2016) examined the changes in the operating results of companies migrating to the main market of the WSE as well as the changes in shareholding. Summarizing the research findings, she noticed that a change in the market leads to an increase of free float stock and a decrease in ownership concentration. Winnicka-Popczyk and Stradomska (2017) carried out research on the opportunities created by market changes for family businesses. There were also studies on how a change of the quotation market affects the return rates achieved by investors. Zygmanowski (2015) did not discover positive return rates for stockholders after a change of the market. He showed, however, that a change in the share quotation market has a positive effect on stock volatility and gives issuers opportunities to achieve additional capital. Very similar results were obtained by Buszko and Kołosowska (2013). The authors confirmed negative return rates in absolute and relative terms as well as a positive decrease in transaction spread which increases the possibilities of the transferability of shares. In turn, Asyngier (2015) proved positive abnormal return rates before a change of the quotation market, and at the same time, strong negative abnormal return rates after a change of stockholders.

The problem of the profitability of investment in companies from ‘the small stock market’ was revealed in research on underpricing (Fijałkowski, Muszyński, Pauka, 2013b). The authors observed the negative, different from those of the regulated markets, responses of prices in the first session after the admission of shares to trading. The negative quotations were justified, *inter alia*, by the high valuations of shares in private offers and the small number of investors who regarded the primary offer market as a source of quick and certain profits. Disappointing quotations after debut compelled them to sell shares acquired earlier. The same authors (Fijałkowski, Muszyński, Pauka, 2013a) in another study argued that underpricing is most affected by free float. Then, in his analyses, Zasepa (2013) noticed higher levels of undervaluation of shares, and thereby, for investors

higher rates of return on shares whose issue price did not exceed PLN1. Wołoszyn (2013) achieved very similar results within a group of penny stock companies at the time of stock issue. The analysis of return rates of debuting companies on NewConnect was also the subject of studies by Flotyński (2015). On the basis of research within different time horizons, he proved there is no clear evidence that small companies from an alternative trading system have higher return rates than companies with higher capitalization which are listed on the regulated WSE.

The issue of the weakness of the NewConnect market was raised in studies on dividend policy and the amount of dividends paid by companies. Mosionek-Szweda (2014b) calculated that out of the 484 companies listed on the market in 2013, only 11% of all the listed entities paid a dividend to shareholders, and their total value was slightly above PLN 63 million. In his analyses, Uchman (2015) did not show the long-term policy of dividend payment in most of the examined companies. Additionally, he stated that payment of dividends have no priority for issuers. The problem of the efficiency of the dividend policy applied by companies from the discussed market was also examined by Pauka and Żyła (2017). They concluded that the changes in the level of paid dividends have a positive effect on changes in revenues, yet their findings on changes in operational and net results are statistically non-significant.

2. The Polish ATS in respect of governing legal regulations and their changes over the years

When created, the NewConnect market was modelled on the biggest and the oldest ATS market in Europe – the London AIM. This was particularly the case with the liberal regulations referring to admission and the information obligations imposed on the issuers of shares. The market was meant for newly established companies with great technological and developing potential, which did not meet requirements of the regulated market (see Mosionek-Szweda, 2012). NewConnect, operating as a non-regulated market, is not subject to direct supervision by the Polish Financial Supervision Authority. This means that for its functioning certain domestic or EU provisions are not applicable. The Alternative Trading System Rules including Annexes¹, are the main documents governing the operations of this market, compiled by the organizer, i.e. the WSE (Mosionek-Szweda, 2013). The rules provide for all the aspects of admission, introduction and trading on the ATS, as well as the rights and obligations of entities participating in trading.

The obligatory document for admitting shares to trading on the NewConnect market is the information document. The form and scope of the information it

¹ Alternative Trading System Rules, with Annexes, in the wording adopted by Resolution No 147/2007 of the Warsaw Stock Exchange Management Board on 1 March 2007, as amended; Regulamin Alternatywnego Systemu Obrotu, 2007.

covers are set out in Annex 1 of The Alternative Trading System Rules. This document is approved by the Authorized Adviser who plays a specific role in the process of IPO and the early years of the issuer's operations in the ATS (detailed information in Annex No 5 of the ATS Rules). The most important obligations imposed on issuers by the ATS Rules is the obligation to report current and periodic information (Annex No 3 of the ATS Rules). Companies are bound to publish quarterly and annual reports within the prescribed time, the annual report must include the opinion of an audit firm. The general terms and conditions requiring publication of the annual report and specific cases of forwarding it are set out in § 3–4 of Annex No 3 (cf. Chamska, Ściński, 2017).

In the history of NewConnect, there are a few dates worth noting which are either milestones or essential for the implemented changes regulating the Polish ATS or changes in performing the obligatory regulations.

The first one refers to the scandal of Avtech Aviation & Engineering, which necessitated a number of regulatory changes of the Polish ATS. The British company debuted on the market in July 2011 and as early as January 2012 it was suspended by the Organizer's decision and then excluded from trading (Kaszuba, 2012). The reason was its fraudulent non-disclosure of information on insolvency proceedings brought against the issuer in the UK (Komunikat z 204. posiedzenia Komisji Nadzoru Finansowego, 2014) Worse still, the Authorized Adviser was GoAdvisers also listed on the NewConnect market. Following the scandal, in July 2012 the WSE tightened up its regulatory requirements, widening the scope of information obligation imposed on issuers who were to apply for admission to trading (cf. Piotrowski, Piotrowska, 2013). Issuers experiencing financial problems were obliged to submit reports with the analysis of their financial standing. A new segmentation of the NewConnect market was introduced, creating, apart from the already existing, NC Lead, NC High Liquidity Risk and NC Super High Liquidity Risk. Only companies whose average value of free float shares for the last three months was no less than PLN 1 million were qualified to NC HLR.

The NC SHRL segment additionally covered companies with an average share price lower than PLN 0.10, or an average volatility exceeding 10%, which declared their bankruptcy or opened the procedure of the Issuer's liquidation. As a consequence of the qualification, shares were excluded from the portfolio of indexes, and in the case of SHLR – transfer to the single-price auction system. The scope of sanctions and penalties imposed on companies and authorized advisers was increased. The WSE started to enforce regulatory provisions more strictly, and also to exercise its right to exclude from trade those issuers who notoriously infringed the rules. This brought about a number of exclusions of companies from the alternative trading system.

In February 2013 the organizer introduced essential changes in the conditions which issuers have to meet. The identified problem of private offers was reflected in the requirements concerning free float (15% of shares held by at least 10 investors not connected with the issuer and none of whom holds 5%). To some extent this curbed the practice of small private offers at the exceeded price directed to a narrow circle of persons often having some connections with the company. These offers differed from the company's actual valuation in order to pump up the quotation at the time of debut. It is necessary to sign an agreement with the authorised adviser for a period of three years since their debut on the market. A few months later the minimum of the issuer's equity was raised from PLN 100 000 to PLN 500 000 in order to prevent the emergence of micro-companies on the market.

Another important event was marked by the introduction of the Market Abuse Regulation (Regulation (EU) No 596/2014, 2014) which came into force in July 2016. The regulation covered alternative markets and changed the performance of information obligation on companies, with respect of, inter alia, the issue of identifying and disclosing confidential information. Non-compliance with this obligation gave the grounds for severe administrative sanctions.

In the second half of 2016, the WSE introduced a new segmentation of companies qualifying them into three segments: NC Focus, NC Base and NC Alert (Segmenty rynku NewConnect, 2018). The replacement of the already existing segments was actually a cosmetic treatment and qualification is not connected with the significant restrictions imposed on issuers. Only companies qualified to NC might face the exclusion of their shares from the index portfolio, and the transfer into single-price auction system is dedicated to, in particular, to companies with an extremely low share price of below PLN 0.05, negative equity value, and the announced or ongoing arrangement/ remedial/ liquidation/ bankruptcy proceedings. Qualification is also performed when the auditor's opinion on the financial statement is not provided and the ATS Organizer undertook disciplinary actions more than twice within the year. The NC Focus segment is dedicated to market leaders and companies which may change their quotation market in the near future. Issuers have to, inter alia, maintain high capitalization, equity value, positive dynamics of revenues and profits as well as market indicators at a specified level. All other companies are qualified into the NC Base.

At the beginning of January 2018 the MIFID II (Directive 2014/65/UE, 2014) and the MiFIR (Regulation (EU) No 600/2014, 2014) became effective, aimed mostly at increasing investor protection on the financial markets. With regard to the NewConnect market, the relevant provisions of the EU law were applied in the changes of the ATS Regulation.

3. Statistical data analysis of the NewConnect market

The early years of the NewConnect market with its low formal requirements, which the market organizer set for issuers, resulted in a whole wave of market debuts (Table 1). The peak of IPOs was in 2010–2012. Just during these three years on the ‘small market’ 347 companies debuted, which ranked the Polish capital market in the lead of the world stock markets. After the introduction of new regulations in 2013, there was a noticeable decrease in the number of debuting companies and in recent years it has stabilized at approximately 20 per year.

Table 1.
IPO’s on the NewConnect market in 2007–2017 (PLN)

Year	Debuts	New share offers	Existing share sales	Offers in total	Public offers
2007	24	145 428 993.45	5 173 450.00	150 602 443.45	11 150 000.00
2008	61	212 504 685.84	3 888 360.00	216 393 04.84	3 101 289.00
2009	26	52 334 788.00	100 200.00	52 434 988.00	161 532.00
2010	86	177 942 139.76	32 117 472.00	210 059 611.76	5 932 800.00
2011	172	592 389 147.00	120 684 989.00	713 074 136.00	120 855 238.30
2012	89	205 747 023.00	16 331 360.00	222 078 383.00	9 444 445.00
2013	42	95 442 036.83	103 250 228.83	198 692 265.66	10 918 383.00
2014	22	27 187 729.74	19 850 999.20	47 038 728.94	0.00
2015	19	60 077 155.00	15 690 533.20	75 767 688.20	0.00
2016	16	27 422 700.00	11 884 554.00	39 307 254.00	0.00
2017	19	83 686 128.00	72 238 951.40	155 925 07.40	21 809 848.00
Total	576	1 680 162 526.62	401 211 097.63	2 081 373 62.25	183 373 535.30

Source: own study based on the data available on the website of the market organizer (Debiuty spółek, 2018).

Altogether, in the years 2007–2017 a total number of listed 576 companies debuted on the Polish ATS market with an offer value exceeding PLN 2.08 billion. Out of this, PLN 1.67 billion accounted for offers of new shares raising issuers’ capital. The remaining PLN 401 billion accounted for the sale of already existing shares. In the analysed period only 22 offers were public and the value of the funds obtained in this way was PLN 183 billion (only 8.8% of the total). In 18 cases the debut was connected with the sale of neither already existing nor newly issued shares. Thus, it is evident that the vast majority of IPOs on the Polish ATS was private (537 offers earning nearly PLN 1.9 billion). The average value of the offers was only PLN 3.73 billion and the public offers were far bigger, with an average value of PLN 8.33 billion.

Basic Newconnect market statistics illustrating the number of stock market companies, their capitalization and the volume of shares are shown in Table 2.

Table 2.
Basic statistics of NC in 2007–2017 (data at the end of each year)

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Number of listed companies	24	84	107	185	351	429	445	431	418	406	408
of which domestic companies	24	83	105	182	344	421	434	421	408	398	401
of which foreign companies	0	1	2	3	7	8	11	10	10	8	7
Capitalization (PLN million)	1185	1 438	2 554	5 138	8 487	11 088	11 028	9 122	8 664	9 799	9 617
of which domestic companies (PLN million)	1185	1 396	2 457	4 971	8 384	10 805	10 445	8 752	8 417	9 476	9 409
of which foreign companies (PLN million)	0	41	97	167	104	283	583	370	248	323	208
Average capitalization of company (PLN million)	49.38	17.11	23.87	27.78	24.18	25.84	24.78	21.17	20.73	24.14	23.57
NCIndex at the year-end*	144.17	38.19	49.70	63.44	41.62	33.26	366.01	290.36	278.37	306.5	278.22
Return on NCIndex (%)	44.17	-73.51	30.14	27.65	-34.39	-20.09	10.05	-20.67	-4.13	10.11	-9.23
Total turnover value for the year (PLN million)	151	420	581	1 847	1 955	1 303	1 225	1 435	1 949	1 360	1 468
Average turnover value per session (PLN million)	1.82	1.67	2.31	7.30	7.79	5.23	4.96	5.76	7.76	5.42	5.87
The average value of turnover per one company (PLN million)	6.3	5.0	5.4	10.0	5.6	3.0	2.8	3.3	4.7	3.3	3.6
Number of transactions per session	719	980	1 285	3 471	4 312	3 107	2 917	3 475	4 381	3 418	3 403
Average value of transaction (PLN)	2 535	1 707	1 795	2 103	1 806	1 684	1 701	1 658	1 772	1 586	1 726
Turnover ratio (%)**	43.6	35.5	42.0	61.6	39.9	19.8	14.0	19.8	31.2	11.5	12.0
Number of session for the year	83	251	252	253	251	249	247	249	251	251	250
Number of IPOs	24	61	26	86	172	89	42	22	19	16	19
Number of entries	0	1	3	8	7	10	26	36	32	30	15

* In 2013 NCIndex value was increased ten times

** Annual figure for all listed companies (ratio calculated for domestic companies as a relation of yearly average turnover and average number of shares admitted to trading in a given period)

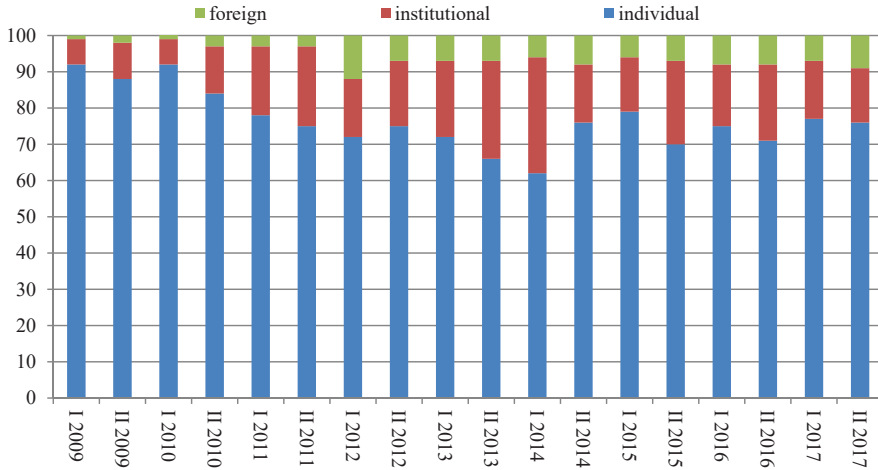
Source: own study based on the WSE annual reports (Roczniki Gieldowe, 2008–2018).

The capitalization of companies listed on the Polish ATS reached its maximum in 2012, when the value exceeded PLN 11 billion. At the end of 2017, with a slightly lower number of quoted companies, capitalization decreased by 13.3% to PLN 9.6 billion. Over the years, market capitalization was determined not only by the number of companies admitted and quoted on ATS market, but also by market sentiment. The highest average market capitalization (nearly PLN 50 million) was at the end of the functioning of this market. The bear market which was dominant in the financial world of 2008 did not leave the NCmarket untouched and reduced the value of its every company on average by 73.5% which lowered the average market value of a company to merely PLN 17 million. Apart from the first two years of the Polish ATS operations, the average capitalization of a company was relatively stable and fluctuated between PLN 20–28 million.

The analysis of the volume of trading reveals the problem of volatility on the Polish ATS. The annual value of trading of all the market shares in none of these years exceeded PLN 2 billion. It reached this value in 2011 and 2015. Then the highest value of the average session trading was recorded, at just under PLN 7.8 million, and the average number of transactions executed during trading sessions exceeded PLN 4.3 thousand. The average annual turnover realized on a single company reached PLN 10 million. However, the last six years, i.e. 2012–2017, look much worse as the average value of the volume per shares of a company did not exceed PLN 5 billion. As for the average transaction value, the best were the first few months of the NC operations. In 2007 this value reached as much as PLN 2.5 thousand. Sometime later only transactions from 2010 exceeded the average of PLN 2.5 thousand. The poor results reflecting the volatility of the market are supported by the turnover ratios, which in the last two years (2016–2017) were the lowest and came to only several percent. The above data prove that investors showed little interest in share trading on NewConnect.

NewConnect is primarily a market of Polish individual investors. This is proved by the statistics of the share of particular groups of investors in the trading of the Polish ATS (Figure 1). The share of individual investors in the analysed period, only at the turn of 2013/2014, fell below 70%. Also then, relatively, the highest share in the realized transactions was achieved by institutional investors (for the first half of 2014 by as much as 32%). Foreign investors represent a marginal part of the active market participants and account for only a few percent of trading. Only once, in the first half of 2012, their share was higher than 10%. Since then it has been at a similar level, fluctuating between 6–9%. The minimal share of foreign investors and the small number of institutional investors is a consequence of low capitalization and volatility, not sufficient enough to take a significant position in the market. The data from recent years do not indicate any changes in this respect.

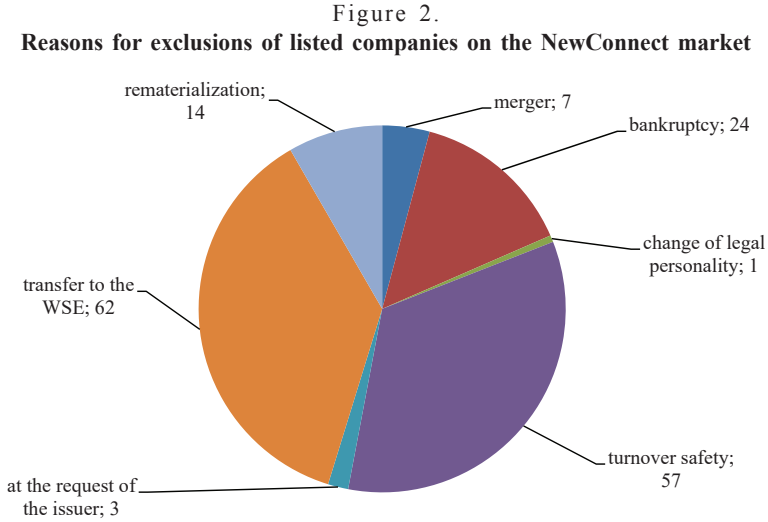
Figure 1.
Investors' in share trading on the NewConnect market in 2009–2017 (%)



Source: The author's own study based on the statistics by the WSE (Analiza – udział inwestorów w obrotach, 2018).

The above mentioned restrictions of the regulations from 2012, referring to performing the information obligation and penalizing companies which do not comply with the obligations imposed on public companies, helped to reduce the new wave of issuers of shares; it also brought a rapid growth in the number of exclusions due to the enforcement of penalties provided in the ATS market rules. It is worth noting that those applicable earlier allowed to reprimand issuers, impose fines on them, suspend trading or even exclude shares from trading because of the security of its participants. Yet these rules were not properly executed which resulted in the notorious infringements of the regulations, in particular those referring to information obligation. The first exclusions of companies, due to non-compliance with the principles and regulations of the NewConnect market and the safety of trading, were not performed until 2012.² This change was enforced by the case of Avtech as described above. In subsequent years these numbers rose significantly and the WSE started an actual battle with unreliable issuers.

² In 2012 and 2013 the WSE excluded nine companies on the grounds of non-compliance with the rules and regulations applicable in ATS. In the following years this reason did not appear at all and the organizer each time referred to the safety of trading as the reason for exclusion.

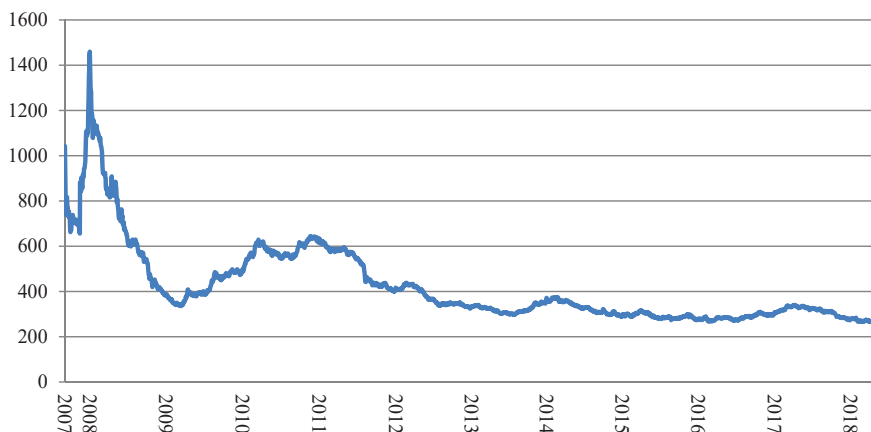


Source: own study based on annual reports of the WSE (Roczniki Gieladowe, 2008-2018).

In the last ten years of the ATS's functioning in Poland, the total number of companies excluded from trading was 168 (Figure 2). The spectrum of reasons for exclusions shows that the number of excluded companies because of the safety of trading is comparable with the number of issuers who transferred their quoting onto the main market. Considering that new stock exchange companies coming from the ATS market were to be an overriding objective of creating a 'small exchange market', it is difficult to recognize it univocally as a success, the more so when one also takes into consideration those companies excluded due to their declaration of bankruptcy (24 companies).

The listing of the broad NCIndex, (Figure 3), shows very negative trends. The market debuted in a highly unfavourable market environment, in fact at the peak of the global boom on the stock markets, just before the outbreak of the global financial crisis. Thus, under such circumstances, the slump in trading which occurred in 2008 came as no surprise. The annual decline by 73.5% of the average valuation of companies making up the index was not unusual, given that alternative markets are venture capital markets. In 2009–2010, investors partly covered their losses and the index recorded annual return rates of approximately 30%. However, already since 2011 (with short breaks for small increases) a long-term downward trend has been observed.

Figure 3.
NCIndex quotations in August 2007 – May 2018 (linear scale)



Source: own study based on the data drawn from the Emis data base (EMIS Intelligence, 2018).

The systematic decrease in quoting discourages investors from purchasing shares and the analysed earlier low average session trading, the number of transactions and the systematically falling turnover ratio, have all additionally enhanced the negative impact of the above figure. From the beginning of the market to the end of May 2018, the value of the main Polish index of ATS dropped by as much as 76%.

4. Research on issuers' quality

The data contained in Table 3 help to assess the quality of issuers whose shares are on the secondary market of NewConnect. The analysis of market indicators based on share prices as well as on aggregated net profit, book value and paid dividends reveals the problems of issuers while generating profits. Only in 2008 did the average P/E ratio reach a value which might be viewed as acceptable. Interestingly enough 2008, due to the financial crunch, was a very difficult year for the global economy, thereby also for small companies just at the start of their business. In 2012–2017 it was possible only once to calculate the average P/E ratio for the whole market, where the value achieved was absurdly high, and it could not be otherwise if one analyses the number of companies generating profits in a given year. The share of companies which recorded positive net financial results was around 50% for nearly the whole period of NewConnect's functioning. In recent years it has slightly exceeded this value only twice.

Table 3.
Aggregated figures and market indicators of companies listed on NC in 2007–2017 (data at the end of each year)

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Number of listed companies*	16	81	102	172	339	427	445	431	418	406	408
Average P/E ratio**	90	25.0	x	120.8	57.5	x	x	724.4	x	x	x
Average P/BV ratio**	27.95	3.44	18.05	10.59	5.98	3.93	3.69	2.92	2.71	2.80	3.69
Dividend yield (%)**	0	0.1	0.2	0.4	0.4	0.6	0.6	0.7	0.8	0.8	0.7
Companies with negative book value*	0	3	6	6	6	13	22	23	32	32	52
Companies with book value < PLN 1 million*	9	18	17	29	42	68	76	72	80	75	90
Companies with market value < PLN 1 million*	0	0	0	0	9	25	36	28	38	26	41
Companies with positive financial results*	8	49	38	85	171	196	221	224	215	180	182
Companies paying dividends*	0	2	8	15	27	40	49	52	61	50	48
Companies with negative book value* (%)	0.0	3.7	5.9	3.5	1.8	3.0	4.9	5.3	7.7	7.9	12.7
Companies with book value < PLN 1 million* (%)	56.3	22.2	16.7	16.9	12.4	15.9	17.1	16.7	19.1	18.5	22.1
Companies with market value < PLN 1 million* (%)	0.0	0.0	0.0	0.0	2.7	5.9	8.1	6.5	9.1	6.4	10.0
Companies with positive financial results* (%)	50.0	60.5	37.3	49.4	50.4	45.9	49.7	52.0	51.4	44.3	44.6
Companies paying dividends* (%)	0.0	2.4	7.5	8.1	7.7	9.3	11.0	12.1	14.6	12.3	11.8
Penny stocks***	1	33	41	70	166	221	221	212	217	221	229
Penny stocks*** (%)	4.2	39.3	38.3	37.8	47.3	51.5	49.7	49.2	51.9	54.4	56.1
companies with share prices PLN 0.01–0.09 (%)	0.0	3.6	5.6	4.9	8.0	12.4	14.4	11.8	11.7	9.6	13.0
companies with share prices PLN 0.10–0.99 (%)	4.2	35.7	32.7	33.0	39.3	39.2	35.3	37.4	40.2	44.8	43.1
companies with share prices PLN 1.00–9.99 (%)	75.0	56.0	50.5	50.8	41.6	39.2	40.4	42.0	39.2	35.0	31.6
companies with share prices > PLN 10.00 (%)	20.8	4.8	11.2	11.4	11.1	9.3	9.9	8.8	8.9	10.6	12.3

* excluding companies whose rights to shares have not been converted into shares;

** annual figure for all listed companies

*** number of shares with rights to shares, which have not been converted into shares

Source: own study based on the WSE annual reports (Roczniki Gieldowe, 2008–2018) and the session data from the last session in a given year (Statystyki GPW, 2018).

NewConnect was created for companies needing capital for research and development. Thus dividends are not, and should not be, the most essential element expected from return on investment. Nonetheless, even taking into consideration the above arguments, the indicators reflecting the dividend rate on the markets are very low. The dividend rate calculated for the whole market, despite showing an upward trend, did not exceed 0.8% in any year of the ATS's functioning. The percentage of issuers paying dividends does not look good, either. In the first five years of the ATS less than 10% of companies paid a dividend, and in the last five years this number rose by several percent, reaching the highest value in 2015 (61 companies which accounted for 14.6% of all the quotations).

This evident weakness of the alternative market in Poland was also recognized in the earlier research on dividends paid by issuers (cf. Mosionek-Szweda, 2014b). The most recent data do not indicate that the situation has improved with time. In 2017 only 48 companies paid dividends which accounted for 11.8% of all the issuers. The regularity of payment also appears to be a problem. Over the last five years only 14 companies paid regular dividends. On the other hand, the average for payments in this group was high and amounted to as much as 5.78% (Kwestarz, 2018).

Apart from the first years of NewConnect, the P/E ratio remained at a relatively steady level (range about 3–4) which, taking in consideration the specificity of the market, should be regarded as high. The value of the P/BV ratio itself does not show clearly the ongoing problems of issuers on the Polish ATS. One serious problem is the steadily growing number of companies with a negative book value. The share of these entities in the total number of issuers on the market in 2017 was as high as 12.7%. This means that every eighth company has a negative book value. If we add to that those companies with a book value below PLN 1 million, this share rises to over 22%. The continued decrease in book value in the group of the weakest insurers goes in line with the decrease of their market value. In the last year, for the first time in the history of the Polish ATS market, 'micro-issuers' accounted for 10% of all the companies. In most cases these are companies not running any operations or those which have declared bankruptcy. In March 2016 there were 95 companies on the list of companies qualified to NC Alert segment (Komunikat Giełdy Papierów Wartościowych w Warszawie S.A., 2018).

One of the most serious irregularities in the NewConnect's functioning is the excessive number of penny stocks. In 2011–2015, the percentage of companies with a market value below 1 PLN fluctuated around the level of 50%. A point of concern is not only the level of this indicator, but its upward trend observed in the last two years. The percentage of companies with a share price below PLN 0.1 is already 13% and is close to its historic high level from 2013. This share is alarmingly high despite the fact that recently many companies have made the reverse stock split (RSS). Just in 2014, following the changes in regulations

introduced on the market, a reverse stock split was made in 19 companies and since the beginning of the market the total number of companies which carried out such operations was 58. As many as seven were excluded from trading due to bankruptcy or participants' trade safety, and only one (Cube IT) moved its listings to the main market of the WSE. Interestingly, only one company (PF Medical) performed a reverse split at a market price higher than PLN 0.01. In 33 cases a RSS took place at the closing auction call with the market price lower than PLN 0.10.³

5. Comparison with other ATS markets in Europe

Undoubtedly the British AIM market organized by the London Stock Exchange is the unquestioned leader of alternative markets in Europe. Started in 1995, it is in the lead in terms of the number of listed companies, market capitalization and value of trading (Table 4). This market accounts for almost 70% of the total capitalization of European ATSs, generating nearly 80% of turnover.⁴ In 2017 each company out of the 980 listed, had an average turnover of more than € 80 million. As regards the average capitalization of companies, only the Irish ESM and German Scale have higher average valuations. The ESM market also leads in terms of the average value of performed transactions.

The data analysis of the NewConnect market compared with the European ATS markets looks negative. Although the NewConnect market is the second largest in terms of the number of listings, it is ranked only seventh in terms of capitalization among European ATSs, and eighth in terms of share trading. The analysis of the average valuations shows serious organizational problems of the Polish alternative trade market. In terms of the average capitalization of a company and the average value of transactions, the Polish ATS is ranked lowest. The data from the Polish market do not even make up one tenth of the European markets. In view of the average turnover of a listed company, worse results are only recorded for the niche ATS markets in Europe – Greece, Cyprus, Luxembourg and Hungary.

³ Own calculations based on the WSE annual reports and resolutions of the WSE Management.

⁴ It is worth noting this turnover would place AIM in the circle of the medium-sized European markets. The capitalization is close to the market value of companies from the Irish and Austrian markets. The WSE is higher than AIM in terms of companies' capitalization, but AIM generates higher turnovers.

Table 4.
Statistical data of MTF markets in Europe (data at the end of December 2017)

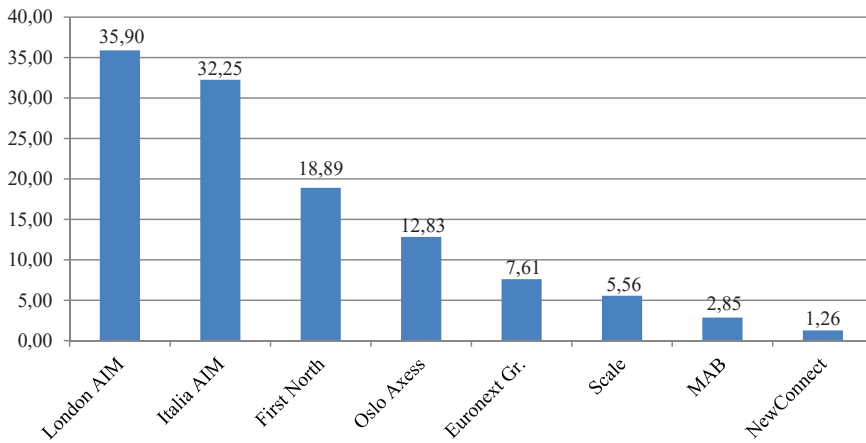
Stock Exchange managing MTF	MTF market	Number of companies	Market capitalization (€ million)	Size volume in 2017*		Average capitalization of company (€ million)	Average value of turnover per company (€ thousand)	Average value of transaction of transaction (€ thousand)
				Number of transactions	Turnover (€ million)			
Athens Exchange	Alternative Market (EN.A)	12	100.7	1100	1.4	8.39	0.12	1.27
BME (Spanish Exchanges)	MAB Expansión	41	1 734.7	–	–	42.31	n/a	n/a
Borsa Italiana	AIM Italia	95	5 579.0	560 934	1 980.5	58.73	20.85	3.53
Budapest Stock Exchange	BE'it	21	–	15722	20.9	n/a	1.00	1.33
CEESEG – Vienna	Dritter Markt	12	473.7	41273	207.2	39.48	17.27	5.02
Cyprus Stock Exchange	Emerging Companies Cyprus	34	978.3	582	1.6	28.77	0.05	2.75
Deutsche Börse	Scale	48	6 631.2	381 317	1 405.7	138.15	29.29	3.69
Euronext	Euronext Growth	196	12 754.0	2 694 520	5 928.0	65.07	30.24	2.20
Irish Stock Exchange	ESM	22	5 560.6	64 939	800.7	252.75	36.40	12.33
London Stock Exchange	AIM**	960	120 239.4	11 496 830	77 393.0	125.25	80.62	6.73
Luxembourg Stock Exchange	Euro MTF	126	2 120.1	670	3.3	16.83	0.03	4.93
NASDAQ Nordics & Baltics	First North Alternative Market	323	14 105.0	5 997 855	8 698.6	43.67	26.93	1.45
Oslo Bors	Oslo Axxess	23	1 560.9	245 763	629.5	67.87	27.37	2.56
Warsaw Stock Exchange	NewConnect	408	2 305.4	850 649	344.4	5.65	0.84	0.40
	Total/average	2 321.0	174 143.0	22 352 154	97 414.8	75.03	41.97	4.36

* Total data for electronic and off-electronic trading

** Data for AIM in GBP where calculated into EUR (for capitalization by EUR/GBP exchange rate at the end of the year, for turnovers by the average annual exchange rate)

Source: 'Statistical data' Federation of European Securities Exchanges, London Stock Exchange and Borsa Italiana (2018).

Figure 4.
IPO average value on the European ATS in 2015–2017 (EURO million)



Source: own study based on PwC ‘IPO Watch Europe’ (2015–2017) reports.

The figure shows the values of average primary offers on the European ATSs, where in 2015–2017 after an earlier IPO at least one company debuted per year. The data prove that among the leading European markets in Europe, the average value of primary offers is the highest on the most liquid markets. The leaders are AIM, British and Italian. The overview reveals the weakness of the Polish NewConnect, which with its average value of offers of merely € 1.26 million, is definitely an outsider.

6. Evaluation of NewConnect from the perspective of the participants and the functions played

From the perspective of the organizer, i.e. the WSE, the NewConnect market may be viewed as a success. The huge number of listed companies is a source of income for the company running the Polish ATS because of the fees for admission and the introduction of shares to trading as well as for listing in the secondary trade. The commissions paid by investors, and the fees for access to quotations are other sources of revenue. Trading stock also provides incomes for the members of the exchange market who arrange the transactions.

No doubt, the authorized advisors accrue benefits as no market debut (there were 576 debuts in 2007–2017) could be realized without them. The fees for the assistance in carrying out IPOs and the assistance for issuers in the first years of trading relate to performing duly the obligations imposed on public companies.

Obviously, the winners are also the issuers of the shares, who thanks to the share issue could obtain resources allowing them to start or intensify their

activities, extend their scope, run development and research, and obtain access to new technologies. The status of a public company may be associated with the prestige and bigger negotiating power with clients. Daily quotations are also a kind of promotion for a company. In many cases the winners were the initiators, founders, owners and investors who financed companies at the set-up stage who could sell shares and disinvest. Only within primary offers they disposed of shares for over PLN 400 million (Table 1). One may assume that still more were sold after a debut on the secondary market, when the agreements lock-up were no longer applicable.

However, the evaluation of the market by investors might look different. First of all, average investors did not receive a satisfactory return rates on investments. In the majority of cases, as the records of the NCIndex listings show, they were making significant losses on their investments. The low rate of paid dividends by no means compensates for the losses arising from falls in share prices.

A measure of success is the way one is perceived, and it is not favourable in the case of NewConnect. Investors' and experts' opinions on the market are far from positive. Pumping up prices in public offers (overpricing), falling prices of shares on the secondary market, some attempts to manipulate stock market prices and bankruptcies hit the headlines more often than news of successful companies.

One cannot assess the image of the NewConnect market abroad unambiguously, yet observations over the years and the analyses carried out allow for an initial hypothesis. Comparative studies on the Polish alternative market with similar European markets reveal its weaknesses. It is not a coincidence that NewConnect's average capitalization and average value of transactions are the lowest. Add to this the small number of foreign listed companies – and there are only seven of them – along with the small share of foreign investors in share trading (6–9% within the last five years), it seems reasonable to conclude that the Polish ATS is not an attractive place neither to gain nor to invest capital for foreign entities.

An assessment of NewConnect may also be made in respect of the functions the stock market is supposed to perform and, in particular, to mobilize capital and to assess companies⁵. Undoubtedly, the first one is executed, which is proved by the number of debuts and the value of means obtained by companies. Within the framework of the realized offers, the issuers gained the considerable amount of PLN 1.67 billion (Table 1). It is difficult, however, to state on the basis of the analysis carried out that the other function is duly performed. The low values of turnover ratio, the average turnover and transactions per issuer, together with the excessive number of penny stocks make the listing of many companies unstable, and at times even accidental. In 2017 only 31% of companies recorded an annual

⁵ Assessment of the allocation function goes beyond the scope of this study. For further research on the activity profiles of NC companies see also: Szczepankowski (2010), Zygmanski (2016).

value of turnover exceeding PLN 1 million, and the daily number of transactions was not higher than ten with shares of only 22.3% of issuers⁶.

7. Discussion on the research findings

One source of problems in trading on the secondary market of NewConnect is the very primary market of the shares of new issuers. The very low value of offers on the primary market, the vast majority of offers addressed to a narrow circle of investors, the considerable dilution of capital resulting in a low issue price or a low reference price are but a few of the disadvantages which in the secondary trading leads to low capitalization, low volatility, high number of penny stocks and the decrease in the interest of issuers. Foreign and institutional investors are not interested in the purchase of shares of such companies. The WSE should give more serious consideration to introducing limits of a minimum offer and capitalization of a company debuting on the NewConnect market. It should also increase the minimum amount of share capital of a company which is conducting an IPO⁷. The acceptance for years of debuts with a low issuance value contributed to the quantitative progress of the market but did not boost the interest of investors, hence the volatility of the Polish ATS.

One of the most serious problems of NewConnect is the huge number of penny stocks already exceeding 56% of the total number of issuers⁸. In this case the reasons lie in the lack of regulations against the issue of shares of a low market value, huge private issues diluting capital and, to a lesser extent, allowing split share issues. On the market, which actually from its start had to cope with the problem of penny stocks, as many as 173 offers of the primary market had an issue price (or in the case of debut with no share issue – a reference price) lower or equal to PLN 1.⁹ They accounted for as much as 30% of all the offers of the primary market. Besides, in the whole history of the Polish ATS there were 36 share splits, 27 of which were performed in 2009–2012.¹⁰ It should be stressed that the requirement of a minimum share price or market price has never been in force on NewConnect. The only regulatory provision refers to a nominal value which cannot be lower than PLN 0.10.¹¹ The WSE noticed the problem of penny stocks and introduced proper segments of the market with reference to

⁶ The author's own calculations based on annual statistics of NewConnect (Statystyki NewConnect, 2018).

⁷ This requirement is set at PLN 50 000.

⁸ For comparison, at the end of 2017 the share of companies with a market value below 2 GBP on the AIM market was only 5% (AIM Statistics, 2018).

⁹ The author's own calculations based on the data accessible on the organizer's website (Debiuty spółek, 2018).

¹⁰ The author's own calculations based on the WSE annual reports (Roczniki Giełdowe, 2008–2018).

¹¹ § 3 ATS Regulation.

the problem. Since 2012 it has been segment NC SHLR, and since 2016 – NC Alert. Classification into segments bears no consequences apart from transferring shares to a single-price auction and the exclusion of shares from the indexes. It seems that following the main market, the WSE should determine a minimum level of an issue price and introduce obligatory RSS of shares in the secondary market, especially when the share price is lower than PLN 0.10.

The problem for the Polish ATS is issuers' quality measured by the amount of their equity, profitability, or dividend payment. A number of small companies at the time of their debut become micro companies due to falling quotations of the stock market. The trends in aggregated statistics showing data for the whole market do not indicate any improvement of ratios. A growing number of companies with a low market value, low profitability of issuers, dividend yield stabilized at a low level sufficiently enough to reflect the weakness of the Polish ATS. This is also proved by the number of companies classified into NewConnect segments. According to the last classification made in March 2018 (Komunikat Giełdy Papierów Wartościowych w Warszawie S.A., 2018), shares of only 91 companies were classified into the most prestigious NC Focus, which accounted only for 22.5% of all the companies. The number of issuers classified into NC Alert was higher as it covered 95 companies, while NC Base was made up by the remaining 217 companies.

Compliance with the obligation of information imposed on companies on the 'small market' leaves much to be desired. Only because of the failure to submit an annual report for 2017, by resolution No 563/2018 of 5 June 2018, the WSE suspended quotations of as many as 25 companies (Uchwała Nr 563/2018 Zarządu GPW, 2018). Therefore on 5 June 2018, due to the suspension of quotations of as many as 74 companies (18.3% of all those listed)¹², no trading took place. In 58 cases quotations were suspended because of the interest and safety of the market participants or the infringement of applicable the ATS regulations. This means mainly the issuers' failure to fulfil their obligation of information. In light of the above data, one should expect a growing number of companies excluded from trade due to trade safety and bankruptcy. This number may be higher than the number of issuers who transfer their listing onto the main market of the WSE.

Conclusions

The statistical data analysis of NewConnect and the comparison of the Polish ATS with other alternative markets in Europe does not allow to view the NewConnect market as an organizational success. Despite unquestionable successes both for the issuers and the organizer, it reveals a wide range of problems in the functioning of the Polish alternative market. The introduced changes regulating

¹² Own study based on: Publikacja decyzji o zawieszeniu, 2018.

the market were not sufficient enough to improve its functioning. The irregularities disclosed in the earlier research (Asyngier, 2012, 2013a, 2014) still remain and there are no signs of changing the status quo. With hindsight, these regulatory changes are to be regarded as fairly proper and necessary. It seems, however, that the problem is deep and tightening up regulations is not sufficient enough to regain investors' confidence into the market. The bankruptcy of companies, spectacular manipulations (Elkop Energy; Komunikat KNF z dnia 6 listopada 2012 r., 2012) and fraud (Avtech; Komunikat z 204. posiedzenia Komisji Nadzoru Finansowego, 2014) are deeply rooted in the investors' awareness. Further changes to widen the scope of information obligation or sanctions imposed on investors, including penalties, lead to nowhere¹³. Apparently, much has been done in this matter and a lot of arguments have been raised by the critics of the market. Yet the subject for debate should relate to the regulations on admission (the minimum amount of equity, offer and capitalization as well as the issue price of the debuting company) in order to improve the issuers' quality and authorized advisors' duties.

The organizer's conduct should be well-balanced, in particular when a company is to be suspended or excluded from trade. Exclusion may no longer be a penalty for a company or its shareholders. Such companies may no longer run any business, capital may be taken out (a so called shell company) and the main shareholders sell their shares on the secondary market. In fact, exclusion is a penalty imposed on small investors who trust unrealistic forecasts of companies and who put their confidence in the market organizers. These are small investors who are left with shares they are not able to resell at the stock exchange and thus they are not able to account for such a loss in the tax return. Investors may only sell shares on the grounds of a civil-law contract, and even then it is hard to expect anyone willing to purchase worthless shares. Their sale at a symbolic price may, in turn, be questioned by the tax office as it would be a transaction executed at a price deviating from the last market valuations. The loss in this case is in fact higher than the total loss of invested capital. It is quite justifiable to start a discussion on the implementation of the legal solutions which make it possible for investors to treat these losses as tax losses.

Another issue is the role of the authorised investors during the NewConnect market's operations. On the assumption of ATS, authorized advisors were to guarantee trade safety, legitimizing the emergence of shares of new issuers on the market. They were and they are to verify documents and confirm the reliability of information such documents contain. They were also to assist in performing information obligation in the early stages of the company's functioning on the ATS. The data indicating the quality of issuers and their problems with information obligation, make one consider the need to change the regulations. The relevant legislation seems to be too liberal and they do not properly protect the

¹³ Since the beginning of NC, the ATS organizer imposed 1267 sanctions on issuers (Zestawienie sankcji nałożonych przez Organizatora ASO, 2018).

market. Authorized advisors bear little responsibility for the appearance of unreliable issuers. In NewConnect's history, the WSE imposed only 58 sanctions on authorized advisors (with 1267 on issuers). Penalty payments in the amount of PLN 20 000 were decided only once (Zestawienie sankcji oraz innych środków dyscyplinujących, 2018). Additionally, twelve authorised advisors were deleted from the list. Heavier penalties¹⁴ and the further continuation of their activities should be also considered by the market organizer, the authorized advisors themselves and other Polish ATS market participants.

It seems that all this will take some time and the companies listed on NewConnect must start to generate real profits and bring investors satisfactory return rates so that acceptance of the market could increase investors' awareness. The very liberal regulations, the mistakes made while creating the market as well as the improper execution of ATS regulatory provisions in the first years of its existence, irrecoverably affected the market by the poor quality of issuers. Restoring confidence into the market is going to be difficult, it will take years and it will require from the organizer to demonstrate long-term dedication.

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¹⁴ The maximum penalty payment the organizer may impose on an authorised advisor is PLN 50 000.

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10 years of the NewConnect market – success or failure?

Summary

The aim of the article to assess the functioning of the NewConnect market over 10 years from the organizer's and participants' perspective. This helps to diagnose the most important organizational advantages and problems of the Polish MTF, determine further development prospects and propose potential changes to neutralize the negative factors. To illustrate the problem, a comprehensive analysis will be made of aggregated statistical data from 2007–2017, which show the changes and trends on this market, and additionally include the data comparing the current state of the NewConnect market with other alternative markets organized by European stock exchanges.

The conducted research does not allow to view the NewConnect market as an organizational success. The analysis identified a number of problems in the functioning of the Polish MTF, ranging from the inappropriate organization of the primary market, resulting in the admittance of too high a number of issuers of dubious credibility, to the consequences appearing on the secondary shares market. It does not give unambiguous grounds to expect positive prospects for the market development in the future. In order to stop unfavorable trends and to improve the issuers' quality, a discussion on the regulations regarding issuers' admission, i.e. the size of the minimum equity, IPO, capitalization and the issue price of the debuting company, should be initiated.

Key words: NewConnect market, multilateral trading facility, capital market, statistical data analysis