Listing switch and financial performance of companies: evidence from the Warsaw Stock Exchange

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Abstract

Purpose – The purpose of this article is to present the results of empirical research concerning the identification of the impact of the transfer of companies from the alternative market to the regulated market of the Warsaw Stock Exchange on their operating and net performance.

Design/methodology/approach – The study was conducted based on the empirical data of the companies that changed the listing place on the Warsaw Stock Exchange. Data regarding the years before the transfer were collected from the prospectuses of companies prepared mandatorily in connection with the transition to the regulated market. Data regarding the years of the event and subsequent years were obtained from companies' annual reports. As in other studies in the analysis, the operational metrics were used (operating return on sale, operating return on assets, total asset turnover), which was further extended to net profitability ratios (net return on ale, net return on asset, net return on equity). The significance analysis was based on the Student's t-test and Wilcoxon's test.

Findings – The results show that before the transfer from the alternative market to the regulated market, companies improved financial performance. As a result of the change of listing venues, the results already collapsed in the year of the event. The downward trend continued in the following two years, with a noticeable improvement in the third year after the transfer.

Originality/value – The literature lacks such studies based on the Polish market. To the best knowledge of the author, this is one of the first studies in Poland showing the changes in operating and net performance of companies changing the stock listing venues. The research is based on a large group including all companies that have changed listing venues since the beginning of the alternative market in Poland. The article presents an original empirical result that can be used both by managers and investors in their decisions.

Keywords IPO, Listing switch, Listing venue, Operating performance, Net performance

Paper type Research paper

Introduction

Going public when a company undertakes the initial public offering (IPO) is an extremely important event in the company's life cycle. It provides a tremendous opportunity to raise capital, but at the same time, the issuer is under a huge responsibility for public disclosure and accountability to a wide range of retail and institutional investors (Cumming & Johan, 2018). Chemmanur and Fulghieri (1999) believe that since going public involves significant costs and disclosing a lot of confidential information to all investors, it is optimal to go public if a company is large enough rather than at the beginning of its existence. There are fixed costs for going public; therefore, according to Doidge, Karolyi, and Stulz (2017), only larger companies choose to go public and smaller companies do not. Thus, some companies go through the process of going

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public in two stages. First, they debut on an alternative market dedicated to smaller companies and second, after the maturity period, they move to a regulated market dedicated to larger companies.

Because the IPO is particularly susceptible to earnings management and offers entrepreneurs both motivation and opportunities to manage earnings, Teoh, Welch, and Wong (1998) suggest that a history of strong earnings signals future strong performance. They indicate that the firm has an incentive to boost earnings soon after the IPO to maintain a high market price as the original entrepreneurs may wish to sell some of their personal holdings in the secondary market at the end of the lockup period. Furthermore, Vismara, Paleari, and Ritter (2012) report that growth opportunity is one of the most important reasons for companies moving from Alternative Investment Market (AIM) to the London Stock Exchange's regulated market.

This is an interesting research field given that numerous empirical studies have observed that in the case of abnormally high returns during the IPO period, returns calculated over the medium and long term, i.e. several months to several years, were negative compared to the market benchmark (e.g. Ritter, 1991; Loughran & Ritter, 1995; Jenkinson & Ljungqvist, 1996; Ritter & Welch, 2002; Bhabra & Pettway, 2003). For example, Loughran and Ritter (1995) found that the average annual rate of return over the five years following an issue is only 5% for IPO companies, while it is 12% per annum for non-IPO companies with roughly the same market capitalization. The results of studies conducted in the domestic market on the relative returns of IPOs are similar to those from developed countries meaning that the returns on investments in IPOs are significantly lower than the returns on the stock market index in the medium term after the debut. Some of them are noteworthy. Sieradzki (2013) showed that holding shares one year after the debut after adjusting for changes in the Warsaw Stock Exchange Index (WIG) , resulted in an average negative abnormal return of −4.2% between 2003 and 2011. Rzewuska and Wrzesiński (2016) presented that on average investments in companies with IPOs conducted in 2006 yielded a return 9% lower than the stock market index over a 2-year period, and 26% over a 3-year period. Kwit (2006) proved that three years after the IPO, the average market valuation of the company decreased by 17% relative to the other companies listed on the Warsaw Stock Exchange (WSE).

The results of existing studies concerning the operating performance in terms of an IPO event indicate that companies' decision to conduct an equity offering usually follows a period of good operating performance, which deteriorates after the offering (Jain & Kini, 1994; Barber & Lyon, 1996; Loughran & Ritter, 1997; Dudycz, 2013; Pastusiak, Bolek, Malaczewski, & Kacprzyk, 2016). Loughran and Ritter (1997) suggest that multiples at the time of the offering do not reflect the deterioration expectation in this performance. Issuing companies are disproportionately fast-growing companies, so they exploit temporary opportunities by issuing shares when, on average, their value is significantly overvalued. This may mean that managers can create value for existing shareholders by taking advantage of de facto mispricing at the time of going public caused by market inefficiencies. Loughran and Ritter (1997) explain that to this end, issuing companies typically improve their operating performance in the final period before the issuing. The market seems to overestimate this improvement and underestimate long-term, medium-reversal trends in operating performance. Consequently, at the time of issuance, market prices reflect the capitalization of this temporary operational improvement, and when this specificity of the improved operational performance's temporariness becomes evident, the stock underperforms. Brycz, Dudycz, and Kowalski (2017) confirmed that mandatory financial and accounting information significantly impacts the valuation of the issued shares and thus the success of the share issue. They prove that companies with greater issue success due to the positive impact of pre-IPO return on equity (ROE) on investors' behaviors do not provide them with greater profitability after going public compared to companies with lower pre-IPO ROE and

consequently less successful issuance. They show that companies with high performance before IPO ensure the higher success of the issue. However, after IPO, they do not achieve higher performance than companies with evidently lower efficiency ratios before IPO. On the other hand, according to Peristiani and Hong (2004), firms with negative pre-IPO earnings were three times more likely to be dropped from an exchange than to be profitable.

Studies concerning switching companies from a trading venue to a more regulated market are based mainly on data from the US and UK markets, and they show that firms' announcements of such events are associated with positive price reactions, followed by negative returns in the medium and long term (Sanger & McConnell, 1986; Kadlec & McConnell, 1994; Jain & Kim, 2006; Campbell & Tabner, 2011; Vismara *et al.*, 2012; Mortazian, 2022). Moreover, a stream of research on the effects of transfers in the context of firms' operational performance suggests that firms perform worse in terms of operational performance after switching from a listing floor to a more regulated market (Papaioannou, Travlos, & Viswanathan, 2003, 2009).

In the light of above aspects, it becomes interesting to measure the financial performance of companies listed on the WSE that change the listing floor. It is important to verify whether before the transfer from the alternative market to the main market there was an improvement in operating and net performance and whether after the transition there was a negative change, meaning a deterioration in operating and net performance. The issue is even more interesting because studies of companies' transfers on the Polish market are extremely rare.

I aimed to investigate how transferring companies from the alternative market to the regulated market of the WSE affects their operating and net performance. Thus, I hypothesized:

H1. The intention to transfer a company from the alternative market to the regulated market improves its operating and net performance.

H2. The transfer of a company from the alternative market to the regulated market deteriorates its operating and net performance.

The rest of the article is organized as follows. The second section will contain the review of existing literature concerning the analysis of listing changes' effects. The third section will present the methodology and data collection. The fourth section will include the results. Finally, the fifth section will cover the conclusions.

Literature review

Companies' motives for going public vary. Thus, this research area generated a lot of literature, which shows that there are two main reasons for going public, namely, to raise capital and to take advantage of favorable market conditions (Ritter & Welch, 2002; Kim & Weisbach, 2008). Pagano, Panetta, and Zingales (1998) argue that the main reason for a company to go public is that shareholders want their shares to be liquid. Maksimovic and Pichler (2001) believe that public trading can add value to a company because it instills greater confidence in the company from other investors, customers, creditors and suppliers. Management's desire to gain the "prestige" of a listed company stems from managers' belief that their company will receive increased attention from financial analysts, institutional investors and the economic press once it has gone public. Baker, Powell, and Weaver (1999) studied such a notion of increased corporate visibility. Moreover, being on an organized stock exchange signals management's confidence in the company's future performance. Thus, managers who expect a significant increase in the company's assets list the company on the stock exchange, which facilitates new shares issuance (Ying, Lewellen, Schlarbaum, & Lease, 1977).

In the case of companies that go public in two stages at an earlier stage of their development, the debut takes place on a dedicated market for smaller companies, and when they reach maturity, they move to a regulated market for larger companies. However, this is

not a common phenomenon. In the United States, 196 companies switched from NASDAQ to New York Stock Exchange (NYSE) over the 2000–2015 period, and at the same time, 53 companies voluntarily changed listing locations from NYSE to NASDAQ (Dang, Michayluk, & Pham, 2018). In the United Kingdom, since the beginning of the AIM, i.e. from 1996 to 2009, only 90 companies have moved to the London Stock Exchange's regulated market, with companies citing shareholder interest, greater visibility and growth opportunities as reasons (Vismara *et al.*, 2012). In Poland, from the beginning of the establishment of the NewConnect alternative market, i.e. 2007, until June 2022, 77 companies, i.e. approximately 12%, out of all companies that debuted on it, moved to the main market. At the same time, this represented nearly 21% of all IPOs on the main market during this period. On the London Stock Exchange, companies usually transfer in the other direction, i.e. companies migrate in greater numbers from a more regulated exchange to an exchange with lower regulatory standards. There were 282 such companies between 1996 and 2009 (Vismara *et al.*, 2012). Among other reasons, issuers indicate a more flexible AIM environment, simplified reporting, cost savings and less regulation (Campbell & Tabner, 2011; Vismara *et al.*, 2012). Moreover, in the case of the German market, it is telling that companies start listing in the primary segment and then move to the lower segments of Deutsche Börse (Bessler, Beyenbach, Rapp, & Vendrasco, 2021).

Considering the existing literature on the migration of companies between smaller and larger stock exchanges, Park, Binh and Eom (2016) distinguish two strands of research: the firm's point of view and the market's point of view. Studies from the firm's point of view mainly focus on what motivated firms to switch listings and how much they benefited from the switch or how much stock returns or operating profits changed after the switch. In contrast, research from the market's point of view concerns the difference in the mechanism and rules of trading in these markets (i.e. the market's microstructure).

The literature on market reactions to migration dominates the first strand. Numerous studies using different approaches and periods mostly show that firms' announcements to switch trading venues to a market with stricter standards are associated with positive price reactions followed by negative returns after the change of listing venue. Meanwhile, the market usually poorly perceives the announcement of a transfer in the other, with positive returns dynamics afterward. Research on market reactions to the change of listing floor mainly encompasses the US and UK markets (Sanger & McConnell, 1986; Kadlec & McConnell, 1994; Dharan & Ikenberry, 1995; Jain & Kim, 2006; Campbell & Tabner, 2011; Vismara *et al.*, 2012; Jenkinson & Ramadorai, 2013; Mortazian, 2022). However, some works are based on data from other markets (Bacmann, Dubois, & Ertur, 2002; De Carvalho & Pennacchi, 2012; Park *et al.*, 2016, Ahmed, Aney, & Banerji, 2019; Kwok, 2020; Bessler *et al.*, 2021). Studies include the effects of switching from a less regulated to a more regulated market (for example Sanger & McConnell, 1986; Jain & Kim, 2006; Asyngier, 2015; Kwok, 2020; Podedworna-Tarnowska & Kaszyński, 2022) or from more regulated to less regulated markets (e.g. Mortazian, 2022; Bessler *et al.*, 2021). Researchers also study the effects of both transition directions (e.g. Vismara *et al.*, 2012; Campbell & Tabner, 2011; Jenkinson & Ramadorai, 2013).

Sanger and McConnell (1986) conducted one of the first research in this area. Based on over-the-counter (OTC) stocks listed on the NYSE over the period 1966–1977, they confirmed reducing the benefits associated with listing on a major stock exchange. According to their study, stocks earn significant positive abnormal returns following the initial announcement of listing and they earn significant negative returns immediately after listing. Dharan and Ikenberry (1995) observed a negative return performance measured by cumulative abnormal return within three years of a change in listing location of 12.39% of firms that moved from NASDAQ to NYSE or to American Stock Exchange (AMEX) and from AMEX to NYSE. With that said, the worst performers are smaller companies and those that do not appeal to institutional investors. It may be more difficult for them to meet the more stringent listing

criteria. Therefore, these companies may choose to change their listing at a time when they are performing well, which may not be sustainable in the future. Dharan and Ikenberry suggest that these findings support the opportunistic timing hypothesis.

An important research strand concerning the effects of changing the listing location in the context of operating performance shows that firms perform worse in terms of operating performance as measured by return on assets and return on sale after switching from a listing floor to a more regulated market (Papaioannou *et al.*, 2003, 2009; Jenkinson & Ramadorai, 2013; Bessler *et al.*, 2021). Observed increases in these results the year before the transfer suggest that it is managers who choose the timing of the decision to coincide with a period of exceptionally strong performance, followed by a period of declining performance. In a 2003 study, Papaioannou *et al.* confirmed the market timing theories that managers choose the timing of their decisions and that market expectations do not reflect the subsequent erosion of operational performance, which may explain the deterioration in return performance following a transfer. They also confirmed that postlisting change operating performance is related to firm characteristics such as institutional capital ownership and market capitalization, as well as relative valuation and prelisting operating performance growth. We may see these results coincide with those of Jenkinson and Ramadorai (2013) and Bessler *et al.* (2021), who confirmed a significant improvement in operating performance over the two years following the transition of firms moving from the up to the down-market segment of the German stock market. Contrary to this, in a 2009 study, Papaioannou, Travlos, and Viswanathan (2009) show that firms use listing location changes to generate positive investor reactions and less reason to engage in opportunistic timing. Papaioannou *et al.* also indicated that improved visibility is a strong managerial motivation for seeking listing opportunities in another market. Moreover, Kedia and Panchapagesan (2011) show that firms moving from the NASDAQ to the NYSE issued more equity and debt and engaged in more asset transactions such as mergers and acquisitions. Thus, firms' decisions to switch listings often relate to important corporate objectives. In the context of operational performance, it is also worth citing pre- and post-IPO research in the banking sector by Rosen, Smart, and Zutter (2005). They found that on average, companies that went through the IPO process did not grow faster after listing and their profitability deteriorated.

Moreover, research revealed another issue. It concerns broadening the investor base and increasing the recognition among investors as a result of transfers between two markets with different regulations (Kadlec & McConnell, 1994; Jain & Kim, 2006).

Researchers also investigated the context of share liquidity from a company perspective. Let us note here the research of Mortazian (2022), who, using data from the London Stock Exchange, demonstrated that the move from the Main Market to AIM reduces not only the liquidity but also the shares' volatility. Kwok (2020) reported that market reactions to the announcement of the switch of the listing floor depend on liquidity. Companies with high liquidity do not show a significant market reaction around the announcement, a much greater positive market reaction occurs for a company with low liquidity.

The research strand conducted from the market's point of view concerns the various solutions for the microstructure of a given stock market, which refers to a set of characteristics and mechanisms that affect the price formation process of financial instruments and influence the determination of transactions' terms and timing. Apart from the price formation process, exchange market microstructure solutions influence also the relative attractiveness of the market for different investor groups, prices' information content and the investment decisions made on their basis (Kasprzak-Czelej, 2012). Białkowska and Pipień (2015) indicate that the failure to consider a number of factors related to the organizational and technical structure or the applicable trading rules of the instrument results in strong simplifications leading to a distorted picture of the market and, consequently, inappropriate investors' decisions. By means of a theoretical model, He,

Huang, and Zhang (2022) demonstrate that a carefully designed market microstructure—including listing standards, disclosure requirements, trading mechanisms and market governance—can significantly reduce investor ambiguity. Among others, Amihud, Mendelson, and Lauterbach (1997) and Brennan and Subrahmanyam (1996) addressed the market microstructure context showing the impact of changes in trading venues on liquidity. In contrast, Muscarella and Piwowar (2001) studied the relationship between market microstructure and firm value. Bennett and Wei (2006) studied the impact of order flow fragmentation on liquidity and price efficiency. They found that if a small firm moves listings to a less regulated market, its operating costs decrease as a result of the difference in trading mechanism, and this ultimately affects its profits.

In the Polish market, researchers rarely address the topic of company transfers in the context of their performance. Among the exceptions, we may find the study by Kordela (2011), who assessed the capitalization, turnover ratio and return on investment in six-month intervals of five companies that changed their listing floor between 2007 and 2010, and the study by Asyngier (2015) based on 29 companies that changed their listing floor between 2008 and August 2014, which confirmed the occurrence of abnormal positive stock returns before the change of listing market and clearly negative ones after the transfer of listing to the regulated market. Such results were confirmed in a broader sample, i.e. 71 companies by Podedworna-Tarnowska and Kaszyński (2022), who showed also the liquidity improvement of shares after the listing switch. Wawryszuk-Misztal (2016) found that for companies migrating from NewConnect to the WSE's regulated market, there is no significant increase in the shareholding of financial institutions. Wawryszuk-Misztal (2015) observed negative changes in operating performance and improvement of growth in sales in 28 companies that switched listings. Using the data for four quarters before and four quarters after the change of the listing venue, Wawryszuk-Misztal (2015) proved the lack of statistically significant differences between the medians of the analyzed variables in the period before and after the transfer.

I am not aware of any other studies conducted on the Polish market regarding the impact of the companies' transfer on their operating and net performance. This research is based on a large group of 70 companies including all transfers that took place on the WSE, except for only one company for which the date was not available. My study covered the observation window of seven years, starting three years before the transfer and ending three years after the transfer.

Research method

I analyzed companies that changed their listing floor from the alternative market to the regulated market of the WSE. The research period was 2007–2020. It is noteworthy that in 2007 the alternative market (NewConnect) was established on the Polish capital market and then the first debuts took place. However, the first transfer of a company to the regulated market of the WSE took place in 2008. The original research sample included 71 companies, i.e. all companies that had changed their place of listing between the establishment of the NewConnect market and the year 2020. The adopted period of observation and measurement of economic categories resulted from the available studies. It extended from year −3 to year +3 in relation to the year of listing change, i.e. year 0 (−3; +3). I obtained the data for the period prior to the change of listing from the prospectuses of companies prepared mandatorily in connection with the transition to the regulated market. I obtained the data for the year of the event and subsequent years from the companies' published annual reports. In general, I obtained data for seven years from the indicated sources.

To check the change in operating performance of companies before the change of listing location for each company, I calculated the change in performance between years −3 and −2 and −2 and −1. Therefore, inspired by the research of Papaioannou *et al.* (2003, 2009), I excluded companies with missing data in years −3 and −2 from the operating performance tests before

the change of listing location but included them for the posttransfer performance tests. To test the change in operating performance for periods after the change of listing, I calculated the change in performance between year −1, i.e. before the change of listing, and each subsequent year, i.e. 0, +1, +2 and +3. Therefore, I analyzed the companies for which data were available regarding at least one year after the transfer, i.e. +1, +2 or +3. I excluded from the sample one company due to unavailable data.

A certain limitation of this study may be the lack of division by industry and the different periods of economic conditions or the failure to exclude certain industries from the analysis. I did not adopt a division into industries primarily because this market in Poland is shallow due to the short existence of the alternative market and the low number of transfers, and thus, the research group remains limited. Moreover, I assumed that regardless of the market condition and branch, each company wants to present profitability at the highest level. Moreover, Pastusiak *et al.* (2016) adopted the same approach. The other limitation of the study could be the fact that I did not exclude some companies with initial public offers in the three years before listing and seasoned equity offerings in the two years before and three years after the listing as proposed by Papaioannou *et al.* (2003). The reason was the short existence of the alternative market in Poland and its resulting shallowness.

The analyses adopted operational metrics used by other researchers (Barber & Lyon, 1996; Papaioannou *et al.*, 2003), such as operating return on assets, operating return on sales and total asset turnover. I measured operating return on assets as operating income (income before depreciation and taxes) divided by total assets. I measured operating return on sales as operating income (income before depreciation and taxes) divided by net sales. Finally, I measured total asset turnover as net sales divided by total assets. I further extended the analysis to net profitability ratios: net return on sales, net return on assets and net return on equity. I measured net return on assets as net income divided by total assets, the net return on sales—as net income divided by net sales, and net equity turnover—as net income divided by total equity.

Ratios that take into account the assets serve to determine whether the company can generate an adequate return on these assets. According to Hagel, Brown, and Davison (2010), they indicate that asset-heavy companies need a higher level of income to support the business relative to asset-light companies in which even thin margins can generate a very healthy return on assets, while ratios based on sales show return on sales. Return on equity focuses on the return to the shareholders of the company and it is quite easy to understand, thus, investors often use it to assess a company's performance. Special financial strategies could artificially maintain this metric at a high level and thus hide deteriorating performance in business fundamentals.

I counted each described ratio for each company in each analyzed year and expressed it as a percentage. Next, I calculated changes in analyzed ratios in compared intervals and expressed them as percentage points. For the pretransfer periods, I compared years from −3 to −2, from −2 to −1 and from −3 to −1. For the posttransfer periods, I compared years from −1 to 0, from −1 to +1, from −1 to +2 and from −1 to +3. Then, I calculated the means and medians based on both the levels of the indicators for each year and the previously calculated changes. The magnitude of the outlier observations found in the sample did not distort the medians due to the industry diversity and specificity of investment companies in particular, which affected the means. Therefore, I used the median mainly to interpret the trends. Moreover, I calculated the median of operating profit and net profit categories to provide a general illustration of the trend in performance. I based the significance analysis on the Student's *t*-test performed for means and Wilcoxon's test performed for medians.

Results

The analysis results show that between year −3 and year −1, the means of operating profit rose by 174% and the medians by 243% while the means of net profit by 206% and the

medians by 270%, respectively. The two following years after the change of trading floor show the erosion of performance meaning that the results of operating and net profit fell. Then, in year +3, the performance improved again (Figures 1 and 2).

Table 1 contains the means of levels and the medians of levels of the analyzed ratios before the listing switch. In the period from year −3 to year −1, companies experienced an improvement in the median operating profitability of assets and operating profitability of sales in each of the analyzed years. Moreover, asset turnover clearly improved in year −1. The medians for both operating return on assets increased from 5.67% to 7.69% and operating return on sales from 6.53% to 10.72%. The total asset turnover fell from 92.14% to 61.82% between the years −3 and −2 and then improved in year −1 to 70.60%. Noteworthy, large asset purchases in anticipation of higher growth may result in artificially deflating of total asset turnover ratio. Similarly, selling off assets to prepare for declining growth will artificially inflate the ratio. Analyzed companies increased their assets in year −2 versus year −3 by almost 100% on average (median 38.86%), and in year −1 versus year −2, the increase was lower and amounted on average to 78% (median 29.59%). We may draw the same conclusions by looking at the results measured by net profitability ratios as all of them improved in the period −3 to −1. Considering all the above facts, we may conclude that there is a period of relatively strong and improving financial performance following the decision to change the listing market. This also justifies the so-called waiting period from the decision of the General Shareholders Meeting to transfer the company to the actual first listing on the regulated market of 344 days on average (median 289 days).

The results presented in Table 2 show that with a few exceptions, the medians of changes and the means of changes in ratios were positive, especially when looking at comparison to year −1. It suggests an improvement in the performance of companies before the change of

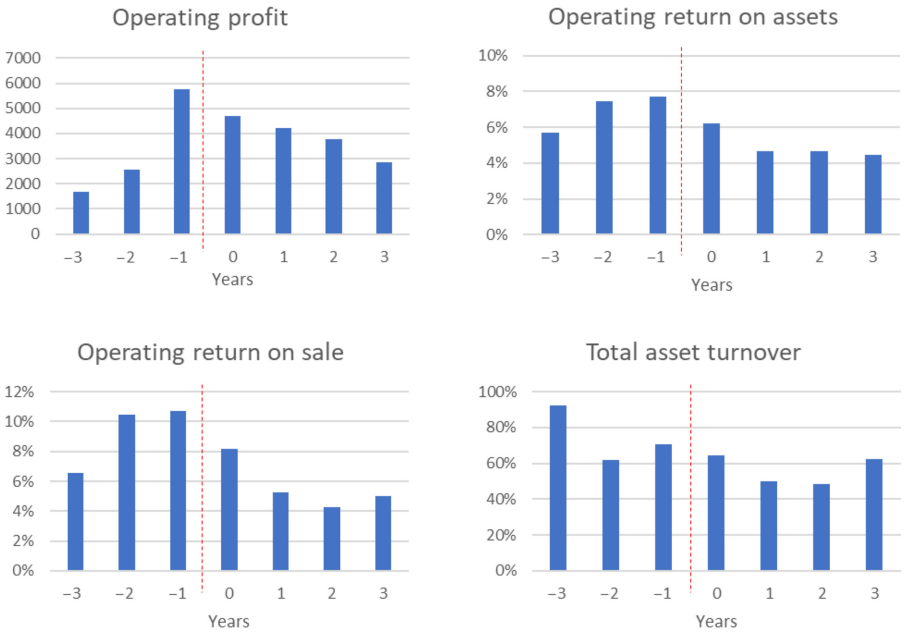
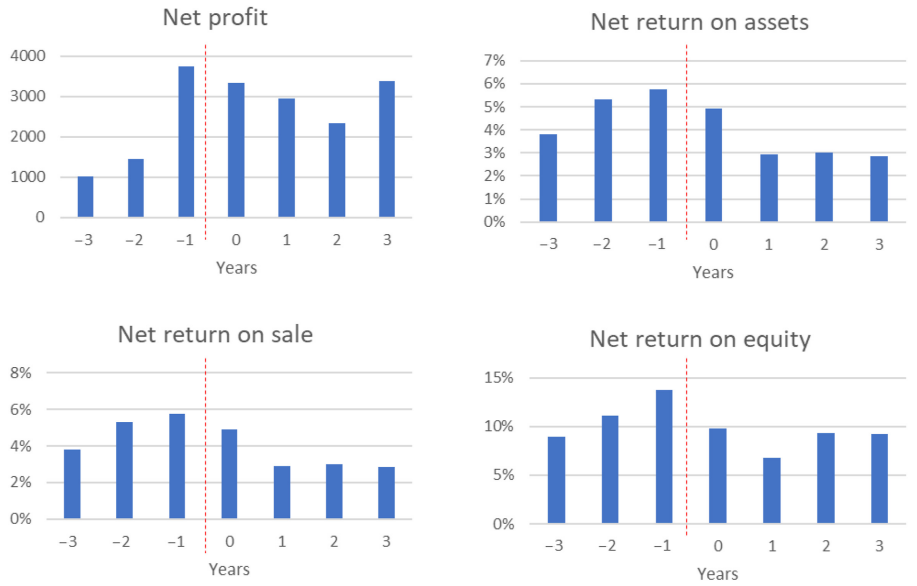


Figure 1.
Medians of operating performance of switching companies in the period −3; +3

Source(s): Own elaboration



Source(s): Own elaboration

Figure 2.
Medians of net performance of switching companies in the period −3; +3

Specification	Year −3	Year −2	Year −1
Operating return on assets			
Mean	4.56	4.43	6.69
Median	5.67	7.46	7.69
N	57	66	70
Operating return on sale			
Mean	319.56	−1240.75	−376.99
Median	6.53	10.43	10.72
N	56	61	68
Total asset turnover			
Mean	118.99	102.28	100.24
Median	92.14	61.82	70.60
N	57	66	70
Net return on assets			
Mean	2.23	2.27	4.33
Median	3.82	5.32	5.75
N	57	66	70
Net return on sale			
Mean	232.62	−1257.55	−408.81
Median	5.06	5.79	7.69
N	56	61	68
Net return on equity			
Mean	4.35	23.83	7.22
Median	8.96	11.13	13.72
N	57	66	70

Source(s): Own elaboration

Table 1.
Pretransfer financial performance of switching companies

Specification	Change from −3 to −2	Change from −2 to −1	Change from −3 to −1
Operating return on assets			
Mean	−1.6	2.03	0.56
t-stat	−0.65	0.86	0.15
p-value	0.2608	0.1967	0.4418
Median	−0.41	0.7	1.38
z-stat	−0.88	1.10	−0.09
p-value	0.1900	0.1352	0.4636
N	57	66	57
Operating return on sale			
Mean	118.99	1324.9	−844.52
t-stat	1.11	1.07	−0.81
p-value	0.1361	0.1446	0.2114
Median	1.06*	0.41	1.66
z-stat	1.45	0.94	1.40
p-value	0.0734	0.1743	0.0804
N	54	61	57
Total asset turnover			
Mean	−11.19*	1.03	−8.10
t-stat	−1.56	0.18	−0.90
p-value	0.0618	0.4303	0.1850
Median	−5.04**	0.03	−10.45**
z-stat	−2.32	−0.07	−2.05
p-value	0.0103	0.4733	0.0204
N	57	66	57
Net return on assets			
Mean	−1.38	1.82	0.48
t-stat	−0.57	0.85	0.13
p-value	0.2857	0.1995	0.4474
Median	0.14	0.56	0.26
z-stat	−1.00	1.13	−0.09
p-value	0.1594	0.1284	0.4636
N	57	66	57
Net return on sale			
Mean	112.64	1323.86	−684.99
t-stat	1.06	1.06	−0.79
p-value	0.1465	0.1465	0.2170
Median	0.89	0.41	0.65
z-stat	1.18	1.22	1.07
p-value	0.1182	0.1117	0.1426
N	54	61	56
Net return on equity			
Mean	22.33	−16.88	0.95
t-stat	0.89	−0.83	0.17
p-value	0.1886	0.2037	0.4335
Median	−1.05	0.85	−3.77
z-stat	−0.79	0.72	−0.41
p-value	0.2146	0.2362	0.3412
N	57	66	57

Note(s): Significance level: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$
Source(s): Own elaboration

Table 2.
Changes in the pretransfer financial performance of switching companies

the listing floor. However, among operating ratios, only changes in total assets ratio between year −3 and year −2 and between year −3 and year −1 were statistically significant. Importantly, no change among net ratios turned out to be statistically significant. Hence, we may draw only general conclusions about the direction of changes in the results.

Table 3 contains the means of levels, and the medians of levels of the analyzed ratios for years 0, +1, +2 and +3. Comparing to levels indicated for year −1 in Table 1, three years after the listing switch, the median of the operating return on assets decreased from 7.69% to 4.47%, the median operating return on sales from 10.72% to 5.01%, and the median total asset turnover from 70.60% to 62.17%.

In general, net profitability ratios also showed a deterioration in company performance. The median of the net return on assets deteriorated from 5.75% in year −1 to 2.92% in year +3, while the median net return on equity decreased from 13.72% to 9.22% and the median net return on sale from 7.69% to 3.20%. However, the greatest erosion of these ratios occurred in years +1 and + 2. After that, the performance improved.

The results of changes in the post-transfer performance of switching companies presented in Table 4 show that the means of changes and the medians of changes of analyzed ratios in the comparison intervals, year −1 to 0, year −1 to +1, year −1 to +2 and year −1 to +3, respectively, were negative. With very few exceptions, most of these changes were also statistically significant. These results are consistent with the already presented findings by Papaioannou *et al.* (2003, 2009), Rosen *et al.* (2005), and Jenkinson and Ramadorai (2013).

Specification	Year 0	Year +1	Year +2	Year +3
Operating return on assets				
Mean	−0.97	−45.15	−7.25	1.54
Median	6.19	4.68	4.66	4.47
N	70	70	65	57
Operating return on sale				
Mean	−1289.38	−532.74	−288.91	−77.81
Median	8.17	5.22	4.28	5.01
N	69	68	64	56
Total asset turnover				
Mean	87.84	86.50	96.19	88.94
Median	64.56	49.78	48.22	62.17
N	70	70	65	57
Net return on assets				
Mean	−2.46	−112.06	−9.92	−2.79
Median	4.92	2.92	3.01	2.85
N	70	70	65	57
Net return on sale				
Mean	−1374.18	−923.23	−197.10	−116.64
Median	6.49	3.33	3.69	3.20
N	69	68	64	56
Net return on equity				
Mean	1.11	−130.96	8.78	−19.84
Median	9.78	6.81	9.33	9.22
N	70	67	62	54

Source(s): Own elaboration

Table 3. Posttransfer financial performance of switching companies

Specification	Change from −1 to 0	Change from −1 to +1	Change from −1 to +2	Change from −1 to +3
Operating return on assets				
Mean	−7.66**	−51.84	−14.14*	−8.81***
t-stat	−1.96	−1.07	−1.56	−3.13
p-value	0.027	0.1432	0.0618	0.0014
Median	−2.45***	−3.58***	−3.66***	−6.65***
z-stat	−2.97	−2.98	−3.47	−3.19
p-value	0.0015	0.0014	0.0003	0.0007
N	70	70	65	57
Operating return on sale				
Mean	−871.47	−616.48	−356.23**	383.52
t-stat	−0.86	−1.24	−1.77	0.60
p-value	0.1977	0.1101	0.0413	0.2756
Median	−1.58**	−4.01***	−5.81***	−5.23***
z-stat	−1.65	−3.15	−2.91	−2.96
p-value	0.0495	0.0008	0.0018	0.0016
N	68	67	62	55
Total asset turnover				
Mean	−12.40**	−13.74**	−9.10	−19.74*
t-stat	−2.18	−2.33	−1.27	−1.50
p-value	0.0165	0.0114	0.1046	0.0699
Median	−2.72**	−3.08***	−0.82*	0.67
z-stat	−1.99	−2.66	−1.38	−0.72
p-value	0.0235	0.0039	0.0835	0.2361
N	70	70	65	57
Net return on assets				
Mean	−6.79**	−116.38	−14.51*	−10.92***
t-stat	−1.79	−1.06	−1.43	−2.71
p-value	0.0389	0.1472	0.0786	0.0045
Median	−2.37***	−2.15***	−3.38***	−4.81***
z-stat	−2.89	−2.56	−3.02	−2.99
p-value	0.0019	0.0052	0.0013	0.0014
N	70	70	65	57
Net return on sale				
Mean	−933.57	−890.33*	−129.17	383.22
t-stat	−0.95	−1.42	−0.62	0.72
p-value	0.172	0.0805	0.2690	0.2375
Median	−0.78*	−2.52**	−3.23***	−3.47**
z-stat	−1.42	−2.27	−2.36	−2.05
p-value	0.0782	0.0117	0.0092	0.0200
N	68	67	62	54
Net return on equity				
Mean	−6.11	−139.24	−1.50	−34.43
t-stat	−0.63	−1.02	−0.18	−1.24
p-value	0.2644	0.1562	0.4288	0.1107
Median	−3.39***	−3.54***	−6.85***	−11.28***
z-stat	−2.85	−2.39	−2.65	−2.71
p-value	0.0022	0.0084	0.004	0.0034
N	70	67	62	54

Note(s): Significance level: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$
Source(s): Own elaboration

Table 4.
Changes in the posttransfer financial performance of switching companies

Conclusions

The analysis results show an improvement in financial performance in the years preceding the change of listing floor from the alternative market to the regulated market. In most cases, the improvement reached a peak in the year preceding the transfer, which, when confronted with the collapse of results in the first year after the change of listing, confirms the hypothesis of companies' tendency to take conscious corporate actions and decisions and time them. Furthermore, in many cases, I observed that the net profit came to a large extent from other operating activities rather than the core business. The performance collapsed in the following year after the transfer. The last year of the analysis showed stabilization and performance improvement.

The most significant contribution of this study is partly explaining the phenomenon documented by previous studies, which suggests that the prelisting performance of most companies increases, and the postlisting performance of most firms decreases. The results suggest that good financial performance observed especially one year before the change of the place of listing is not a good short-run indicator confirming the company's intrinsic value. The research findings have practical implications as they may be useful for investors. They confirm that companies improve their accounting data to attract potential investors but such a policy is unsustainable. As confirmed in other studies presented in the article, the results of the research additionally support the strategy that only good long-run operating performance is an appropriate determinant for the favorable market performance of future stock prices.

During the analyzed period, 71 companies out of the 620 companies moved from the alternative market to the main market of the WSE. This accounted only for about 11.5% of the population of the alternative market and around 20% of all the initial public offers that occurred on the main market of the WSE. Therefore, as the alternative market develops and more migrations to the main market are likely to occur, scholars should conduct expanded research in this area considering diversification of the samples by branch, size or maturity of the companies or potentially changing the frequency of the data from annually to shorter periods. Another possible research direction is the analysis of the global COVID-19 crisis impact on the changes in financial performance of transferring companies.

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