DOI:10.17951/h.2023.57.4.145-159

ANNALES
UNIVERSITATIS MARIAE CURIE-SKŁODOWSKA
LUBLIN – POLONIA

VOL. LVII, 4 SECTIO H 2023

DOROTA PODEDWORNA-TARNOWSKA

dpoded@sgh.waw.pl
SGH Warsaw School of Economics
Al. Niepodległości 162, 02-554 Warszawa, Poland
ORCID ID: https://orcid.org/0000-0001-5945-403X

Listing Switch on the Warsaw Stock Exchange: Raising Capital and Financial Leverage

Keywords: listing switch; raising capital; equity; debt; financial leverage

JEL:G10; G30; G31; G32

How to quote this paper: Podedworna-Tarnowska, D. (2023). Listing Switch on the Warsaw Stock Exchange: Raising Capital and the Financial Leverage. *Annales Universitatis Mariae Curie-Skłodowska, sectio H – Oeconomia*, *57*(4), 145–159.

Abstract

Theoretical background: Much attention has been paid in the finance literature to the issue of raising capital through the capital market. However, there is still not much focus on the analysis of this issue in the context of the transition of companies from the lower to the higher end of the stock market, e.g. the switch from the alternative market to the regulated market. In the Polish literature, the analysis of the going public in two stages is relatively unexplored.

Purpose of the article: The purpose of the study is the identification of the impact of switching listing venue from an alternative market to the regulated one on the possibility of raising capital and the financial leverage. The research presents the results of the analysis of raising capital by the companies firstly entering the NewConnect and then transferring to the main market of the Warsaw Stock Exchange.

Research methods: The analyses used the following metrics: debt-to-asset ratio and debt-to-equity ratio calculated over a longer time horizon covering the observation window beginning 3 years before the transfer and ending 3 years after the transfer (in total, 7 years). To examine if the ratios differ significantly between before and after the change, the significance analysis was based on the parametric tests: *t*-student's paired test for means and the Wilcoxon matched-pairs signed-rank test for medians.

Main findings: Listing switch on the Warsaw Stock Exchange and entering a regulated market has triggered the growth of companies but did not lead in equity being raised by companies during the debut on the regulated market. Companies did not reduce financial leverage, debt-to-asset-ratios and debt-to-equity ratios increased in the years following the change of listing venue from the alternative market to the regulated market.

Introduction

The issue of raising capital through the stock market in the context of both shaping the optimal capital structure or optimal allocation of savings to investment opportunities has been discussed in the literature for decades and the interest has not decreased over time. Raising capital through initial public offer (IPO) and seasoned public offer (SPO) as consequence of the decision to go public has also been the subject of numerous theoretical and empirical studies. Although there are many explanations in the literature of the motives for a company to go public (Zingales, 1995; Pagano et al., 1998; Chemannur & Fulghieri, 1999; Maximovic & Pichler, 2001; Lowry, 2003; Brau & Fawcett, 2006; Kim & Weisbach, 2008; Bancel & Mitoo, 2009; Celikyurt et al., 2010; Doidge et al., 2017), raising capital is one of the most important reasons (Ibbotson et al., 1988; Ibbotson & Ritter, 1995; Ritter and Welch 2002; Kim & Weisbach, 2008 among others). The stock exchange is the place where Ibbotson and Ritter (1995) noted that once the stock is publicly traded, this improved liquidity enables the company to obtain capital on more favorable terms than if it had to make up for investors' lack of liquidity while dealing with a privately held business. According to Pagano et al. (1998), companies go public to rebalance the capital structure. However, Ravasi and Marchisio (2003) pointed out the financial aspect of the phenomena has caused scholars to undervalue other possible benefits of going public and, as a result, to ignore other potentially significant consequences. They argued that going public could actually enhance a company's reputation and social capital by raising its visibility, reputation, and perceived trustworthiness. This could also have a positive impact on the company's ability to access outside resources, complementary skills, and investment opportunities. Consequently, going public also has a positive impact on the prospects for raising debt capital as it increases the company's borrowing power and strengthens its bargaining power to reduce borrowing costs. Furthermore, since shares are more easily tradable, banks are more willing to accept shares as a guarantee.

Companies are going public to attract widely dispersed savings, to support their business ideas. But according to Doidge et al. (2013, 2017), smaller companies do not go public since there are fixed costs for a company to do it, hence only larger companies could afford to carry out this process. Therefore, to enable smaller entities to operate on the public listing markets and raise capital the alternative markets have been designed, for example, NASDAQ in the US, Alternative Investment Market in the UK or NewConnect in Poland. The conditions to be met by issuers listing shares on selected European alternative markets and their comparison were described by Asyngier (2013).

Some companies first debut on an alternative market dedicated to smaller companies and second, after a period of maturity, they move to a regulated market dedicated to larger companies. The motives for switching differ but growth opportunity as reported by Vismara et al. (2012) is one of the most important reasons for companies moving from AIM to the London Stock Exchange regulated market. Shifting between markets is not a common phenomenon both in US and in Europe (Dang et al., 2018; Vismara et al., 2012). Since the beginning of sustaining the alternative market (NewConnect) in Poland, e.g. in 2007 until 2022 668 companies debuted on that and then 81 switched to regulated market of the Warsaw Stock Exchange.

In the Polish literature, the analysis of going public in two stages is relatively unexplored. The research presents the analysis of raising capital by these companies which firstly entered the NewConnect and then transferred to the regulated market of the Warsaw Stock Exchange. The purpose of the study is the identification of the impact of switching listing floor from an alternative market to the regulated one on the possibility of raising capital and the financial leverage. The author is not aware of any other studies conducted on the Polish market regarding this issue. The study contributes to the literature by examining the theoretical and empirical aspects of listing switch in the context of capital raising by switching companies.

The rest of this paper is structured as follows: Section 2 reviews theoretical foundation and hypotheses development. In Section 3, the research method is designed together with data description and data source. Section 4 shows the results. Section 5 concludes.

Theoretical foundation and hypotheses development

It is well accepted in the literature that one important reason private firms go public is to obtain better and cheaper access to external equity capital. As Healy and Palepu (2001) pointed out, matching savings to business investment opportunities is complicated because entrepreneurs frequently have better information about the value of business investment opportunities than savers do, and they have incentives to inflate those values, whereas savers encounter an "information problem" when investing in business ventures. The choice to raise capital by issuing shares to the public is one of the most significant decisions made in the context of shaping the capital structure, regardless of the fact that, as Bień (2011) notes, neither in financial theory nor in practice is there a single universal formula that would enable the determination of the most favorable capital structure for a given company, reconciling both the optimal profitability of its own capitals and a reasonable scale of risk. As Duliniec (2015) points out, each enterprise pursues an individual capital structure strategy tailored to its own needs and capabilities based on considerations that are relevant from its point of view and consequently the current capital structure results from the cumulative effects of a company's previous decisions regarding the choices of financing sources internal or

external including equity or debt. Many studies have provided theoretical empirical evidence of predictions concerning the composition and characteristics of the securities that companies issue, the level of financial leverage and its impact on corporate performance. The pecking order theory (Myers & Majluf, 1984) predicts that the more asymmetric information between insiders and outsiders is, the less firms will rely on the information-sensitive instrument – equity, and the more firms will rely on debt, which is the information-insensitive instrument. Barry and Brown (1986) suggest that organizations may be able to minimize their cost of external capital and loosen their financing limitations by lowering information asymmetry and risk. Korajczyk et al. (1992) state that a firm issues equity only when the advantages of raising such source of capital exceed the direct costs of issuance as well as any selection costs that might be unfavorable. Therefore, when it anticipates very minor information asymmetry, it might decide to issue equity. Fewer businesses prefer to go public when information asymmetry is extremely severe, which increases the adverse selection costs involved with doing so. As a result, these businesses are more likely to find it advantageous to raise capital through alternate means. Brav (2009) reported that compared to their public counterparts, private firms rely almost exclusively on debt financing, have higher leverage ratios, and tend to avoid external capital markets, leading to a greater sensitivity of their capital structures to fluctuations in performance. He argued that private equity is more costly than its public counterpart due to information asymmetry and the desire to maintain control.

The expected reduction of equity cost is one of the most important motives for firms to disclose information (Diamond & Verrecchia, 1991; Leuz & Verrecchia, 2000; Verrecchia, 2001). Diamond and Verrecchia (1991) indicated the link between disclosure and firms' cost of capital based on market liquidity showing how disclosure can improve or worsen liquidity of stocks depending upon dealers' decisions. Lambert et al. (2007) reported that information quality has a direct impact on a company's cost of capital, and increases in information quality by specific companies have a clear impact on their non-diversifiable risk. That is why companies changing voluntarily from a lower- to a higher-regulated listing market accept a higher level of disclosure to reduce information asymmetry. Therefore, the demand for shares increases and resulting in higher liquidity.

Several studies examine the relation between listing switches and liquidity. Amihud and Mendelson (1986), Sanger and McConnell (1986), Baker and Edelman (1992), Kadlec and McConnell (1994), Jain and Kim (2006) confirmed that trading liquidity improves when shares start to be traded on an organized exchange. It was confirmed on the Polish market, as a result of the transfer of companies and the analyzed events preceding the transfer, there is an improvement in the liquidity of the shares (Podedworna-Tarnowska & Kaszyński, 2022).

Because of its connection to transaction costs, liquidity is one of the elements influencing investment returns attained by investors. Due to the greater transaction costs associated with less liquid assets, they must provide correspondingly higher expected returns in order to be attractive as more liquid investments (Amihud & Mendelson,

1991). Investors favour investments that are more accessible, easier to trade and at a lower cost. Consequently, by switching to a larger exchange, firms can easily acquire less expensive external capital. Several studies concerning switching companies from a lower trading venue to a more regulated market show that such movement was followed by negative returns in the medium and long term (Sanger & McConnell, 1986; Baker & Edelman 1992; Kadlec & McConnell, 1994; Jain & Kim, 2006; Campbell & Tabner 2011; Vismara et al., 2012, Mortazian, 2022). As mentioned in the introduction, studies of companies' transfers on the Polish market are extremely rare but also 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 (Asyngier, 2015; Podedworna-Tarnowska & Kaszyński, 2022).

Merton (1987) argues that if investors do not have equal information, they invest only in those securities of which they are aware, stocks that have a wide investor base and higher institutional ownership have lower expected returns. According to Gruning (2011), annual report disclosure improves market liquidity by altering investors' expectations, causing portfolio changes, and demonstrating a capital-cost reduction effect of transparency. The model of Easley and O'Hara (2004) demonstrates how in equilibrium the quantity and quality of information affect asset prices, resulting inpossibility of influencing by the companies their cost of capital by choosing features like accounting treatments, analyst coverage, and market microstructure. Healy and Palepu (2001) also reported that changes in accounting standards induce price reactions at the capital market.

The consequence of moving from a smaller to a more highly regulated market is increased visibility for the company, which can also lead to a lower cost of capital for the company. Baker et al. (1999a, 1999b) examined the relation between listing switch and visibility. In the first indicated study concerning changes in listing from the OTC to the NYSE they found that increased visibility in a firm is primarily due to changes in market capitalization not due to the listing itself. In the second study concerning firms switching from the AMEX to the NYSE they found a positive and significant relation between switching and visibility gains. Baker and Edelman (1992) divided the research group of companies switching from AMEX to NYSE into low-volume and high-volume sub-samples and reported that market reacts more favorably for the low-volume group. According to them, such results may reflect not only greater visibility and market interest but also temporary increases in information flows, expectations of liquidity gains, and reduced systematic risk. Baker et al. (2002) reported that firms listing their stocks on the NYSE or the London Stock Exchange (LSE) increased analyst coverage and media attention representing a visibility proxy. The broadening of the investor base and increasing the recognition among investors as a result of transfers between two market with different regulations was studied by Kadlec and McConnell (1994), Jain and Kim (2006), Wawryszuk-Misztal (2016) analyzed companies migrating from NewConnect to the Warsaw Stock Exchange regulated market in the context of increasing in the shareholding of financial institutions.

According to Kedia and Panchapagesan (2011), arising from an increase in visibility and liquidity reduction in the cost of capital, will be most valuable when the firm is planning capital raising activities. A reduced cost of capital suggests that, after the company listings on the NYSE, it will be able to raise capital, both debt and equity, at a lower rate of return. As a result, businesses are more likely to switch to the NYSE if they plan to raise financing and equity immediately following the switch. A reduced cost of capital is desirable in general, but it is particularly desirable when the company is issuing additional shares or debt. As a result, businesses are more likely to relocate to the NYSE if they plan to raise a sizable amount of money in the coming years. Consequently, firms are more likely to move to NYSE when they anticipate raising significant capital in the years ahead. They reported that firms moving from NASDAQ to the NYSE issued more equity and debt and were engaged in more asset transactions such as mergers and acquisitions what means that companies' decisions to switch listings are often linked to important corporate objectives.

Yang et al. (2009) investigated the relation between listing switches and investment-cash flow sensitivity by analysing a sample of NASDAQ-to-NYSE switches over the period 1992–2002. Their results show that the sensitivity to investment opportunities does not differ significantly before versus after switching. Based on pooled data over 1992–2002, they showed the evidence that NASDAQ-to-NYSE switchers experienced significantly lower investment-cash flow sensitivity. According to this result, businesses who make the changeover rely less on internal funding and have an easier time obtaining external financing. Consequently, firms may profit in terms of a lower cost of external capital after the switching because of such factors as increasing visibility, liquidity, and reputation.

In the light of above presented factors shaping the access and cost of capital, an interesting research question is whether the switchers changing the listing floor from the alternative market to the regulated market of the Warsaw Stock Exchange raised capital through the stock market in the manner of seasoned public offers or whether they used debts to finance. Therefore, two hypotheses are examined:

H1: The switching from the alternative market to the regulated market of a company results in raising capital through the stock market during the debut on the regulated market.

H2: As a result of the switching from the alternative market to the regulated market, companies reduced leverage by raising capital through the regulated market.

Research method

The subject of the analysis are companies that changed their listing floor from the alternative market to the regulated market of the Warsaw Stock Exchange. This research is based on a large group of companies including all transfers that took

place on the Warsaw Stock Exchange over the period 2007–2020, except for only one company for which the date was not available.

The study is conducted over a longer time horizon covering the observation window beginning 3 years before the transfer and ending 3 years after the transfer (in total, 7 years). The period of observation and measurement of economic categories extending from year -3 to year +3 in relation to the year of listing change, i.e. year 0 (-3; +3) was adopted. All the data for companies are hand collected. Data for the period prior to the change of listing was obtained from the offering prospectuses of companies prepared mandatorily in connection with the transition to the regulated market. Data for the year of the event and subsequent years was obtained from the published annual reports of the companies. General data for the market were obtained from the *Warsaw Stock Exchange Yearbooks*.

The analyses used the following metrics: debt-to-asset ratio and debt-to-equity ratio as the extent of financial leverage is influenced by them. Debt-to-asset ratio was measured as total liabilities divided by total assets. Debt-to-equity ratio was measured as total liabilities divided by equity. The ratios were counted for each company in each analysed year and was expressed as a percentage. Then, the changes in analysed ratios were calculated in compared intervals and expressed as percentage points.

To test the change in ratios for periods after the change of listing, 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, was calculated. Therefore, those companies for which data were available in at least one year after the transfer, i.e. +1, +2, or +3, were included in the tests. Finally, data for 70 companies was obtained. Then the means and medians were calculated based on both the levels of the indicators for each year and the previously calculated changes. Such approach was used by Papaioannou et al. (2003, 2009). Similar method authors used to examine the operational and net performance of switching companies (article forthcoming, 2023). The reference to year -1 is justified for two reasons. First, companies in year -1 already know that a transfer will be made – the waiting period from the decision of the General Shareholders Meeting to transfer the company to the first listing on a regulated market is on average 344 days. Secondly, research shows that when companies decide to transfer, they improve their financial results one year prior to the transfer, which may be the result of purposeful restructuring activities or efforts to artificially inflate accounting results.

The analysis was further extended by calculating the means and medians based on the pooled levels of the indicators gathered for three years before and three years after the listing switch (-3, -2, -1, and +1, +2, +3). Then, for comparison purposes, pooled two years of data before and two years after the switch (-2, -1 and +1, +2) and one year of data before and one year after the switch (-1 and +1) where used. Such approach was inspired by Yang et al. (2009). In this method 44 companies were included, for which there were complete data for the analyzed years.

To examine if the analyzed ratios differ significantly between before and after the change, the significance analysis was carried out using the parametric tests: *t*-student's paired test for means and the Wilcoxon matched-pairs signed-rank test for medians.

Results

Capital derived from initial public offerings is an important source of funding worldwide. Between 1998 and 2015, more than 36,000 IPOs worldwide raised more than USD 4.1 trillion in this way (Bhagat & Rangan, 2018). The Warsaw Stock Exchange is also an important channel for companies to obtain financing from share issues. In the years 2007–2020, companies entering its main floor raised nearly PLN 34.6 billion from new issues. The total value of IPO was PLN 88.81 billion and SPO PLN 218.15 billion (Table 1). In Poland, smaller companies going public to the NewConnect raised over PLN 1.73 billion during the debuts in the years 2007–2020. The total value of IPO was PLN 2.12 billion and SPO PLN 218.15 billion (Table 1). The data concerning Seasoned Public Offers presented also includes offers to executives, which are part of the execution of incentive programs and can hardly be considered as the implementation of a financing strategy for capital sourcing selection. Surprisingly, only 23 companies switching from the alternative market to the regulated market made a new share issue at the time of debut (PLN 555.7 million). In most cases (e.g. 48 companies), there was no offer during the switch to regulated market.

Table 1. The comparison of the IPO value and SPO value of the regulated market and alternative market of the WSE (million PLN)

Year	Regulated market			Alternative market		
	IPO offer	New issue in IPO	SPO offer	IPO offer	New issue in IPO	SPO offer
2007	18,256.79	15,390.38	5,094.08	150.60	145.43	0
2008	9,326.62	3,665.11	2,052.89	179.50	175.53	18.34
2009	6,784.39	6,921.35	20,017.30	52.85	56.83	67.38
2010	15,457.20	1,280.63	22,582.60	237.15	177.94	126.16
2011	8,507.38	1,654.11	3,485.10	727.28	592.39	653.02
2012	3,438.16	833.08	3,889.51	224.22	206.79	458.16
2013	5,135.44	648.01	2,602.15	102.13	95.44	521.67
2014	1,310.76	400.30	3,245.35	47.69	27.19	374.90
2015	1,989.33	1,143.45	42,809.70	75.70	60.08	323.50
2016	1,096.15	548.81	3,810.60	48.88	27.42	142.20
2017	7,578.26	754.82	90,643.67	152.63	83.69	148.56
2018	301.54	114.65	5,254.94	43.94	34.52	101.50
2019	45.22	34.77	8,051.19	30.72	29.86	52.97
2020	9,580.53	1,271.84	4,609.79	46.96	19.65	133.33
Total	88,807.77	34,661.31	218,148.87	2,120.25	1,732.76	3,121.69

Source: Author's own study based on the *Warsaw Stock Exchange Yearbooks*.

General results of the research show that between year -3 and year +3 companies increased their assets by 244%, however, equity rose by 272% and debt by 225% (Figure 1). However, compared to year -1, equity increased by 60% and debt by as much as 107%, respectively. Simultaneously, the share of equity in financing assets decreased by 6.4 pp between the years -1 and +3 (Figure 2).

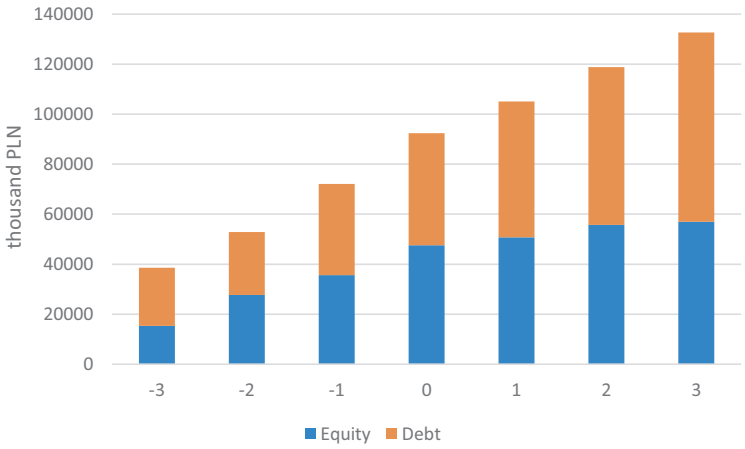

Figure 1. The size of equity and debt in years -3 to +3

Source: Author's own study.

Figure 2. The structure of equity and debt in years -3 to +3

Source: Author's own study.

Table 2 includes post transfer means and medians of debt ratio levels for the years -1, 0, +1, +2, and +3. The results show that the debt-to-asset ratios and debt-to-equity ratios increased after the change of listing location.

Table 2. Post-transfer debt ratios of switching companies

Specification	Year -1	Year 0	Year +1	Year +2	Year +3
Debt-to-asset ratio					
mean	41.2%	41.9%	46.7%	60.4%	54.0%
median	40.7%	41.1%	42.6%	40.8%	47.6%
N	70	70	70	65	57
Debt-to-equity-ratio					
mean	107.23%	116.10%	178.48%	134.11%	178.08%
median	68.62%	69.37%	64.73%	62.98%	85.58%
N	70	69	67	62	53

Significance level: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Source: Author's own study.

This may suggest that there was significant amount of potential growth through borrowing, not by equity. To test whether the differences in the indicators were significantly different, statistical tests were conducted. Table 3 contains the post transfer debt ratios for years 0, +1, +2, and +3 compared to year -1 before the change of listing venue. The differences in means of debt to asset ratio are not statistically significant. The results show statistical significance for the differences in medians of the ratios for majority of years. The median can be considered a category that is not distorted by the outlier observations found in the sample due to the industry diversity and specificity of investment companies.

Table 3. Changes in post-transfer debt ratios of switching companies in comparison to year $t = -1$

Specification	Change from -1 to 0	Change from -1 to +1	Change from -1 to +2	Change from -1 to +3
Debt-to-asset ratio				
mean	0.77	5.52	19.56	11.69**
t-stat	0.40	1.49	1.32	2.60
p-value	0.6884	0.1397	0.1922	0.012
median	-0.94	4.18**	3.20***	7.25***
z-stat	-0.43	2.22	3.45	8.22
p-value	0.6665	0.0266	0.0006	0.0000
N	70	70	65	57
Debt-to-equity ratio				
mean	11.84	74.21	28.52	70.92
t-stat	0.81	1.36	1.44	1.46
p-value	0.4232	0.1794	0.1552	0.149
median	-2.02	5.4***	9.49***	12.59***
z-stat	-0.14	2.92	4.24	9.88
p-value	0.8907	0.0035	0.0000	0.0000
N	69	67	62	53

Significance level: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Source: Author's own study.

Table 4 presents the tests for values of means and medians for the pooled data for three different time horizons (e.g. one year of data before and one year after the switch, two years of data before and two years after the switch, three years before and three years after the switch). The differences in means of debt to asset ratio are not statistically significant. Similar to the previous approach, differences in medians of this ratio are statistically significant. The findings are stronger when using data from two or three years before and after the switch. The results for debt-to-equity ratio are not statistically significant for any analyzed observed time horizon.

Table 4. Summary statistics and tests of switching companies for pooled data

	Before switching	After switching
Debt-to-asset ratio		
one year before and one year after		
mean	43.12%	42.84%
t-stat	0.11	
p-value	0.9128	
median	42.26%	44.96%
z-stat	-2.50**	
p-value	0.0125	
two years before and two years after		
mean	43.29%	43.57%
t-stat	-0.12	
p-value	0.9073	
median	42.65%	41.92%
z-stat	-2.65***	
p-value	0.0081	
three years before and three years after		
mean	42.71%	45.15%
t-stat	-1.00	
p-value	0.3233	
median	42.25%	44.50%
z-stat	-2.80***	
p-value	0.0051	
Debt-to-equity ratio		
one year before and one year after		
mean	116.05%	121.39%
t-stat	-0.21	
p-value	0.8379	
median	73.19%	81.71%
z-stat	0.02	
p-value	0.9814	
two years before and two years after		
mean	116.96%	123.87%
t-stat	-0.31	
p-value	0.7588	
median	74.37%	72.18%
z-stat	0.46	
p-value	0.6490	

three years before and three years after		
mean	123.73%	148.21%
t-stat	-0.81	
p-value	0.4237	
median	73.16%	80.19%
z-stat	0.35	
p-value	0.7263	

Significance level: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Source: Author's own study.

Conclusions

Listing switch on the Warsaw Stock Exchange and entering a regulated market has triggered the growth of companies. Their assets increased, both equity and debt rose as well. However, the structure of financing changed showing the decrease of the share of equity in financing assets. The decision to switch did not lead in equity being raised by companies during the debut. As indicated only few companies decided to raise capital through the stock market during the switch from the alternative market to regulated market.

Companies did not reduce financial leverages by raising capital through the regulated market. The results of the analyses show an increase in financial leverage presented in two ratios: debt-to-asset ratio and debt-to-equity ratio in the years following the change of listing floor from the alternative market to the regulated market. This means that there was higher debt financing which is regarded as a preferred option source of funds. This finding means that firms rely more heavily on debt financing after switching and find accessing to this type of external financing easier. It seems, as it was confirmed in the research of Yang et al. (2009), that firms may benefit from switching in terms of a lower cost of external capital due to such factors as increasing visibility, liquidity, and greater reputation.

The results of the study are consistent with the research conclusions of Brav (2009) who predicted, that specifically, relative to public companies in developed stock markets such as those in the US and the UK, public firms in underdeveloped stock markets will rely less on equity capital will have higher debt ratios, and will visit the capital markets less addition, their leverage will be more sensitive to operational performance exhibit greater persistence. As the author (article forthcoming 2023) reported improving operating and net performance before the switch from the alternative market to the regulated market and their collapsing in the year of the change of listing venues with the maintaining of the downward trend in the following two years, the examining above indicated sensitivity of the leverage to financial performance on the Polish market for switchers could be the area for the future research.

References

Amihud, Y., & Mendelson, H. (1986). Asset pricing and the bid-ask spread. *Journal of Financial Economics*, *17*(2), 223–249. **doi:10.1016/0304-405X(86)90065-6**

Amihud, Y., & Mendelson, H. (1991). Liquidity, asset prices and financial policy. *Financial Analysts Journal*, *47*(6), 56–66. **doi:10.2469/faj.v47.n6.56**

Asyngier, R. (2013). Floating shares onto the NewConnect market in comparison with leading multilateral trading facilities in Europe. *Annales Universitatis Mariae Curie-Skłodowska. Sectio H – Oeconomia*, *47*(2), 7–16.

Asyngier, R. (2015). Wpływ zmiany rynku notowań na cenę akcji polskich spółek giełdowych. *Zeszyty Naukowe Uniwersytetu Szczecińskiego. Finanse, Rynki Finansowe, Ubezpieczenia*, *862*(75), 19–30. **doi:10.18276/frfu.2015.75-02**

Baker, H.K., & Edelman, R.B. (1992). AMEX-to-NYSE transfers, market microstructure, and shareholder wealth. *Financial Management*, *21*(4), 60–72. **doi:10.2307/3665841**

Baker, H.K., Nofsinger, J.R., & Weaver, D.G. (2002). International cross-listing and visibility. *The Journal of Financial and Quantitative Analysis*, *37*(3), 495–511. **doi:10.2307/3594990**

Baker, H.K., Powell, G.E., & Weaver, D.G. (1999a). Does NYSE listing affect firm visibility? *Financial Management*, *28*(2), 46–54. **doi:10.2307/3666194**

Baker, H.K., Powell, G.E., & Weaver, D.G. (1999b). Listing changes and visibility gains. *Quarterly Journal of Business and Economics*, *38*(1), 46–63.

Bancel, F., & Mittoo, U.R. (2009). Why do European firms go public? *European Financial Management*, *15*(4), 844–884. **doi:10.1111/j.1468-036X.2009.00501.x**

Barry, C.B., & Brown, S.J. (1986). Limited information as a source of risk. *The Journal of Portfolio Management*, *12*(2), 66–73. **doi:10.3905/jpm.1986.409052**

Bhagat, S., Lu, J., & Rangan, S. (2018). IPO valuation: The international evidence. In D. Cumming & S.A. Johan (Eds.), *The Oxford Handbook of IPO* (pp. 108–145). New York: Oxford University Press.

Bień, W. (2011). *Zarządzanie finansami przedsiębiorstwa*. Warszawa: Difin.

Brau, J.C., & Fawcett, S.E. (2006). Initial public offerings: An analysis of theory and practice. *The Journal of Finance*, *61*(1), 399–436. **doi:10.1111/j.1540-6261.2006.00840.x**

Brav, O. (2009). Access to capital, capital structure, and the funding of the firm. *The Journal of Finance*, *64*(1), 263–308. **doi:10.1111/j.1540-6261.2008.01434.x**

Campbell, K., & Tabner, I.T. (2011). Bonding, firm value and liquidity: An analysis of migrations between the AIM and the official list of the London Stock Exchange. *SSRN Working Paper Series*, *1608403*. **doi:10.2139/ssrn.1608403**

Celikyurt, U., Sevilir, M., & Shivdasani, A. (2010). Going public to acquire? The acquisition motive in IPOs, *Journal of Financial Economics*, *96*(3), 345–363. **doi:10.1016/j.jfineco.2010.03.003**

Chemmanur, T.J., & Fulghieri, P. (1992). A theory of the going-public decision. *The Review of Financial Studies*, *12*(2), 249–279. **doi:10.1093/rfs/12.2.249**

Dang, V.A., Michayluk, D., & Pham, T.P. (2018). The curious case of changes in trading dynamics: When firms switch from NYSE to NASDAQ. *Journal of Financial Markets*, *41*, 17–35. **doi:10.1016/j.finmar.2018.07.001**

Diamond, D.W., & Verrecchia, R.E. (1991). Disclosure, liquidity, and the cost of capital. *Journal of Finance*, *46*(4), 1325–1359. **doi:10.2307/2328861**

Doidge, C., Karolyi, G.A., & Stulz R.M. (2017). The U.S. listing gap. *Journal of Financial Economics*, *123*(3), 464–487. **doi:10.1016/j.jfineco.2016.12.002**

Doidge, C., Karolyi, G. A. & Stulz R. M. (2013). The U.S. left behind? Financial globalization and the rise of IPOs outside the U.S. *Journal of Financial Economics*, *110*(3), 546–573. **doi:10.1016/j.jfineco.2013.08.008**

Duliniec, A. (2015). Wybór źródeł finansowania a optymalna struktura kapitału w przedsiębiorstwie. *Zeszyty Naukowe Uniwersytetu Szczecińskiego, Finanse, Rynki Finansowe, Ubezpieczenia*, *74*(2), 73–82. **doi:10.18276/frfu.2015.74/2-06**

Easley, D., & O'Hara, M. (2004). Information and the cost of capital. *The Journal of Finance*, *59*(4), 1553–1583. **doi:10.1111/j.1540-6261.2004.00672.x**

Gruning, M. (2011). Capital market implications of corporate disclosure: German evidence. *Business Research*, *4*(1), 48–72. **doi:10.1007/BF03342726**

Healy, P.M., & Palepu, K.G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, *31*(1–3), 405–440. **doi:10.1016/S0165-4101(01)00018-0**

Ibbotson, R.G., & Ritter, J.R. (1995). Initial public offerings. In R.A. Jarrow, V. Maksimovic, W.T. Ziemba (Eds.), *Handbooks in Operations Research and Management Science* (Vol. 9: *Finance*, pp. 993–1016). North Holland.

Ibbotson, R.G., Sindelar, J.L., & Ritter, J.R. (1988). Initial public offerings. *Journal of Applied Corporate Finance*, *1*(2), 37–45. **doi:10.1111/j.1745-6622.1988.tb00164.x**

Jain, P.K., & Kim J. (2006). Investor recognition, liquidity, and exchange listings in the reformed markets. *Financial Management*, *35*(2), 21–42. **doi:10.1111/j.1755-053X.2006.tb00140.x**

Kadlec, B.G., & McConnell, J.J. (1994). The effect of market segmentation and illiquidity on asset prices: Evidence from exchange listings. *Journal of Finance*, *49*(2), 611–636. **doi:10.1111/j.1540-6261.1994.tb05154.x**

Kedia, S., & Panchapagesan, V. (2011). Why do only some NASDAQ firms switch to the NYSE? Evidence from corporate transactions. *Journal of Financial Markets*, *14*(1), 109–126. **doi:10.1016/j.finmar.2010.07.002**

Kim, W., & Weisbach, M.S. (2008). Motivations for public equity offers: An international perspective. *Journal of Financial Economics*, *87*(2), 281–307. **doi:10.1016/j.jfineco.2006.09.010**

Korajczyk, R.A., Lucas, D.J., & McDonald, R.L. (1992). Equity issues with time-varying asymmetric information. *Journal of Financial and Quantitative Analysis*, *27*(3), 397–417. **doi:10.2307/2331327**

Lambert, R., Leuz, C., & Verrecchia, R.E. (2007). Accounting information, disclosure, and the cost of capital. *Journal of Accounting Research*, *45*(2), 385–420. **doi:10.1111/j.1475-679X.2007.00238.x**

Leuz, C., & Verrecchia, R.E. (2000). The economic consequences of increased disclosure. *Journal of Accounting Research*, *38*, 91–124. **doi:10.2307/2672910**

Lowry, M. (2003). Why does IPO volume fluctuate so much? *Journal of Financial Economics*, *67*(1), 3–40. **doi:10.1016/S0304-405X(02)00230-1**

Maksimovic, V., & Pichler, P. (2001). Technological innovation and initial public offerings. *The Review of Financial Studies*, *14*(2), 459–494. **doi:10.1093/rfs/14.2.459**

Merton, R.C. (1987). A simple model of capital market equilibrium with incomplete information. *The Journal of Finance*, *42*(3), 483–510. **doi:10.1111/j.1540-6261.1987.tb04565.x**

Mortazian, M. (2022). Liquidity and volatility of stocks moved from the main market to the alternative investment market (AIM). *Asia-Pacific Financial Markets*, *29*(2), 195–220. **doi:10.1007/s10690-021-09344-6**

Myers, S.C., & Majluf, N.S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, *13*(2), 187–221. **doi:10.1016/0304-405X(84)90023-0**

Pagano, M., Panetta, F., & Zingales, L. (1998). Why do companies go public? An empirical analysis. *Journal of Finance*, *53*(1), 27–64. **doi:10.1111/0022-1082.25448**

Papaioannou, G.J., Travlos, N.G., & Viswanathan, K.G. (2003). The operating performance of firms that switch their stock listings. *Journal of Financial Research*, *26*(4), 469–486. **doi:10.1111/1475-6803.00069**

Papaioannou, G.J., Travlos, N.G., & Viswanathan, K.G. (2009). Visibility effects and timing in stock listing changes: Evidence from operating performance. *The Quarterly Review of Economics and Finance*, *49*(2), 357–377. **doi:10.1016/j.qref.2007.09.007**

Podedworna-Tarnowska, D., & Kaszyński, D. (2022). Stock returns and liquidity after listing switch on the Warsaw Stock Exchange. *Economics and Business Review*, *8*(4), 111–135. **doi:10.18559/ebr.2022.4.6**

Ravasi, D., & Marchisio, G. (2003). Going public and the enrichment of a supportive network. *Small Business Economics*, *21*(4), 381–395. **doi:10.1023/A:1026119221991**

Ritter, J.R., & Welch, I. (2002). A review of IPO activity, pricing, and allocations. *The Journal of Finance*, *57*(4), 1795–1828. **doi.org:10.1111/1540-6261.00478**

Sanger, G.C., & McConnell, J.J. (1986). Stock exchange listings, firm value, and security market efficiency: The impact of NASDAQ. *The Journal of Financial and Quantitative Analysis*, *21*(1), 1–25. **doi:10.2307/2330987**

Verrecchia, R.E. (2001). Essays on disclosure. *Journal of Accounting and Economics*, *32*(1–3), 97–180. **doi:10.1016/S0165-4101(01)00025-8**

Vismara, S., Paleari, S., & Ritter, J.R. (2012). Europe's second markets for small companies. *European Financial Management*, *18*(3), 352–388. **doi:10.1111/j.1468-036X.2012.00641.x**

Warsaw Stock Exchange Yearbooks. Retrieved from https://www.gpw.pl/biblioteka-gpw-lista?gpwlc_id=10

Wawryszuk-Misztal, A. (2016). Zmiany w strukturze akcjonariatu polskich spółek giełdowych zmieniających rynek notowań akcji. *Acta Universitatis Lodziensis. Folia Oeconomica 4*(323), 141–154. **doi:10.18778/0208-6018.323.10**

Yang, C, Baker, H.K., Chou, L., & Lu, B. (2009). Does switching from NASDAQ to the NYSE affect investment-cash flow sensitivity? *Journal of Business Research*, *62*(10), 1007–1012. **doi:10.1016/j.jbusres.2008.05.006**

Zingales, L. (1995). Insider ownership and the decision to go public. *Review of Economic Studies*, *62*(3), 425–448. **doi:10.2307/2298036**