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EXPECTED AND ACTUAL PROCEEDS FROM SHARE ISSUE ON THE WARSAW STOCK EXCHANGE

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Abstract:
The paper aims to assess the impact of the financial crisis of 2008 – 2009 on the possibilities of raising capital through the initial public offerings (IPOs) on the Warsaw Stock Exchange (WSE). The research carried out allowed to indicate the scale of divergences between the proceeds from the share issue in the process of IPO expected by enterprises and the actual proceeds. The adopted hypothesis states that the financial crisis not only added to the decrease in the number of IPOs, but also caused that enterprises issuing shares more often gained less capital than they originally aimed. The research sample consists of the companies which in the years 2006 – 2014 raised capital through IPO. The data used in the analysis was gathered from: 1) the prospectus with appendixes and current reports for each of the IPOs by the firms in the sample, 2) the WSE data, 3) the Central Statistical Office data. The analyses done allow to conclude that in the research sample both the number of the issues launched through IPO and their total value decreased, compared to the value from the pre-crisis period. While comparing the value of the expected proceeds from the share issue with the actual gross proceeds, one can clearly see that in the post-crisis period for companies which get proceeds at a lower than expected level their share increased. A similar correlation is observed for the issue price, i.e. more often the surveyed entities sold their shares at a lower than maximum price.

Keywords: IPO, raising capital, equity issue, financial crisis, Warsaw Stock Exchange

1. INTRODUCTION

Gaining capital to finance investment projects appears to be a prerequisite for the development of enterprises. One of the strategic decisions companies make while running their activities is the decision to go public or stay private. Going public means offering the shares in the equity of a company to the public for the first time (International Dictionary of Finance, 2003, p.134)[1].

The determinants of the decision to go public are the subject of many research studies (Pagano et al., 1998; Gill de Albornoz & Pope, 2004; Mayur & Kumar, 2013; Szyszka, 2014; Bancel & Mittoo, 2009). There are many different motives behind this decision. The most important benefits of going public is financing the growth and enhanced visibility and prestige. It also facilitates exit strategy for the pre-IPO owners.

With the assumption that the purpose of IPO is gaining capital for the enterprise's development, the measure of success of IPO is gaining capital sufficient to meet the requirements for financing investment projects. The issuer is then most interested in offering the lowest possible number of shares at the highest offered price. It results in the less stock dilution and leaving the minimum amount of money "on the table". The amount of money left "on the table" is calculated as the difference between the closing price on the first day of trading and the offer price, multiplied by the number of shares sold. This term is commonly used in the context of IPO's underpricing. Underpricing is a phenomenon observed by many researchers (see, for example, Ritter, 1984; Barry, 1989; Welch, 1989; Chahine, 2008). The more the company's shares are undervalued, the higher is the financial gain for their purchasers, and thereby, the likelihood that the offer will find their purchasers is also higher. However, the more the company's shares are undervalued, the less gross proceeds the issuer receives.

On the one hand, the success of IPO depends on the right preparation and involvement of the company seeking to be a public company, on the other, these are market conditions which play a significant role. There, one can observe fluctuations in the number of IPOs and the total proceeds raised. These fluctuations are defined as IPO waves, where "hot" and "cold" markets can be identified (Ibbotson & Jaffe, 1975). The hot markets are periods in which the volume of IPOs is high and the average aftermarket performance of new issues is abnormally high. By analogy, cold IPO markets are defined as periods of low volume of offerings and less underpricing. Hot and cold market issues are the subject of a number of academic research which try to explain its reasons and make the characteristics of all IPO performed under these different circumstances (Pastor & Veronesi, 2005; Gao et al., 2013; Alti, 2005).

Regardless of the appearance of IPO waves, Gao et al. (2013) observed that after 2000 there was a decrease in the number of IPOs in the US compared with the number from the period preceding that year. It is commonly believed that this phenomenon is the consequence of implementing regulatory changes in the US, but according to these authors, the decreasing number of IPOs results from market conditions which bring lower profitability of small enterprises. Small enterprises abandon the way of development which would lead them to become public companies and they become targeted companies for bigger entities. Small firms being a part of large organization can realize economies of scope and economies of scale. These effects do not occur when they operate as independent entities.

Existing cold and hot IPO markets determine the amount of equity capital raised during IPO process. Enterprises issuing shares during hot IPO market can raise more capital than during cold market. This means that the moment of taking decision on IPO is not accidental. Companies take into account market conditions and decisions on IPO are made when market conditions give chances for the IPO to be successful. The research in this area were carried out by, for example, Deeds et al. (1996) and Yang et al. (2013).

What is more, even after taking a decision on IPO, the speed of undertaking further activities connected with the procedure of IPO depends on market conditions as well as the company's preparation to the process itself. This regularity is confirmed by the studies on the WSE carried out by

[1] This process is also called Initial Public Offering (IPO). Public offer may be referred only to newly-issued shares (the issuer receives proceeds from the issue of shares) or already existing shares (existing shareholders are the sellers who by exchanging shares into cash reduce their share in the enterprises), or both new and old shareable.

Plotnicki and Szyszka (2014). They come to conclusion, that in the hot markets, managers tend to speed up the process of going public. On the contrary, if IPO markets fall during the going-public process, managers delay rather the IPO in the belief that high valuations will come back soon.

In the context of market conditions, there arises an issue of the impact of the financial crisis of 2008-2009 on the number of IPOs. It is assumed that the global financial crisis of 2008-2009 and the accompanying stock market decline correspond with a cold period in the IPO marketplace. Consequently, it leads to the issue of possibilities of financing companies' activities through the share issue.

There are studies which investigate the impact of financial crises on IPO performance or analyze financial characteristics of firms going public before and after the peak of the financial crisis (Fauzi et al., 2012; Henry & Gregorio, 2014). However, there are no studies which would compare the issuers' expectations as to the value of the gained capital with the value of capital actually gained before, during, and after the financial crisis. This paper aims to fill this research gap.

The purpose of this paper is to assess the impact of the financial crisis of 2008 – 2009 on the possibilities of raising capital through the initial public offerings on the Warsaw Stock Exchange (WSE). The adopted hypothesis states that the financial crisis not only added up to the decrease in the number of IPOs, but also caused that enterprises issuing shares more often gained less capital than they originally aimed.

2. AN OVERVIEW OF THE WARSAW STOCK EXCHANGE

The WSE is considered to be one of the most successful regional stocks (Glavina, 2013). It was founded in 1991. WSE organizes and operates trading on three markets: WSE Main Market (trade in equities, equity-related financial instruments and other cash markets instruments as well as derivatives), NewConnect (trade in equities and equity-related financial instruments of small and medium-sized enterprises) and Catalyst (trade in corporate, municipal bonds)[2]. Table 1 presents some data which describe the WSE main market of stocks in the period 2005-2014.

Table 1: The main share market on the WSE

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
No. of companies	255	284	351	374	379	400	426	438	450	471
of which foreign	7	12	23	25	25	27	39	43	47	51
No. of new listings (IPOs)	35	38	81	33	13	34	38	19	23	28
of which new listings and equity issues	29	37	67	24	12	23	22	10	13	12
No. of delistings	10	9	14	10	8	13	12	7	11	7
Market cap. of domestic companies (PLN mil.)	308 418	437 719	509 887	267 359	421 178	542 646	446 151	523 390	593 464	591 165
Market cap. of foreign companies (PLN mil.)	116 482	198 190	570 370	197 756	294 643	253 836	196 712	210 657	247 316	661 793
Value of IPOs (domestic and foreign companies) (PLN mil.)	6 981	4 158	18 257	9 327	6 989	15 864	8 530	3 438	5 136	1 290
of which value of capital raised (PLN mil.)	5 249	2 445	15 390	3 665	6 921	1 290	1 654	1 216	648	387
Market cap of domestic companies as a % of GDP	31,4%	41,3%	43,3%	21,0%	31,3%	38,3%	29,2%	32,8%	36,3%	-

Source: author's calculations based on the data of the Warsaw Stock Exchange and the Central Statistical Office.

[2] Retrieved from: http://www.gpw.pl/o_spolce_en

The highest number of IPOs was recorded in 2007. That year was also exceptional because of the number of companies raising capital and the value of the capital gained by them. The financial crisis of 2008-2009 contributed to the rapid fall of the number and value of IPO, including IPOs connected with the issue of shares.

Interestingly enough, in the years 2010-2014 the value of the capital gained by companies representing first listings on the WSE was decreasing systematically (the least capital was gained by companies issuing new shares in 2014). At the same time the number and value of IPOs fluctuated. One may also observe that in the post-crisis period that while the market capitalization of domestic companies as a percentage of GDP is higher than in the years 2008-2009, it did not reach the level of 2007.

3. DATA AND RESEARCH METHOD

The research sample consists of 150 domestic companies which in the years 2007 – 2014 raised new capital by IPOs on the WSE. This group did not cover those entities which offered for sale only already existing shares. The data used in the analysis was gathered from: 1) the prospectus with appendixes and current reports for each of the initial public offerings by the firms in the sample, 2) the WSE data, 3) the Central Statistical Office data, as well as other sources.

Achieving the assumed research objective was related to the main three areas:

1. comparing the value of raised capital as a result of the share issue with expectations,
2. comparing the number of new shares offered by the issuer with the number of shares subscribed by investors,
3. comparing the maximum issue price established for book building with the final issue price of shares.

The analyses assumed that expected proceeds from the issue of shares is the value determined in the prospectus by the issuer regardless of the way it was estimated. It was observed, that the researched entities determined expected proceeds from the share issue in various ways. One of the used approaches was that it is the product of the maximum issue price given in the prospectus and the maximum number of the issued shares. Another way was to give the most probable value which is usually lower than the product of the maximum issue price[3] and the number of the issued shares. In some cases, at the time of publishing of the prospectus the maximum share price, and occasionally also the final number of share from the new issue, were still not known, hence the issuers determined their proceeds as estimates.

The value of the actually raised capital is the product of the number of shares of the new issue taken up by investors and their issue price of these shares. Such information was published in current reports on the completion of the IPO.

Further on, a number of new shares offered within IPO and a number of shares actually purchased by investors were compared. There were two reasons for the difference between these quantities. One reason was the lack of interest in the offer on the part of investors. The other was the fact that due to the sufficiently high share price the issuer was able to raise capital sufficient enough for the needs of financing the investment but with no need to issue a large number of shares. In this case the issuer reduced the number of issued shares, even when the demand for them exceeded the supply.

On the basis of the collected data, it was possible to determine the differences between the maximum issue price which was fixed in the prospectus or its annex and the issue price at which the shares were purchased by investors.

Subsequently, the analysis period 2007-2014 was divided into three sub-periods: a) 2007, b) 2008-2009, c) 2010-2014. The division resulted in three groups of companies which were then compared taking into account three variables: gross proceeds from shares issue, offer price and volume of shares. In order to compare the identified samples the Kruskal-Wallis test was applied.

[3] Calculations are based on maximum offer price initially announced in the prospectus or appendix (sometimes the maximum offere price was changed after the prospectus was published).

4. RESEARCH FINDINGS

The data related to the sample are presented in Table 2.

Table 2: Characteristics of the sample

	2007	2008	2009	2010	2011	2012	2013	2014
No. of companies	59	23	10	19	13	6	10	10
Value of IPOs (PLN mil.)	5 197	2 944	6 729	733	1 154	2 198	472	635
of which value of capital raised (PLN mil.)	3 096	2 881	6 687	654	478	793	451	395
Average value of capital raised by company (PLN mil.)	52	125	669	34	37	132	45	39

Source: Research results.

The financial crisis added up to the rapid decrease in the number of companies raising capital through the share issue. While in 2008 this number is relatively high, in 2009 it decreases to merely 10 entities. However, it should not come as a surprise in view of the long-lasting process of getting listed on the stock exchange. In the years 2010-2014 a number of companies issuing shares was relatively stable although low. While analyzing the average value of capital gained by the researched entities, one can observe some unexpected regularity, i.e. the highest average value was recorded in 2009, but also relatively high in 2008 and 2012. High values for the years 2008-2009 result from privatization of big companies owned by the State Treasury, which through IPOs was decreasing its share in these entities. At the same time some of the privatized companies gained new resources for investments. In 2008 the resources gained by the privatized companies of the State Treasury accounted for as much as 69% of the total capital raised by the research sample, and in 2009 as much as 97%.

Table 3 presents the number of companies with their percentages and whose results of IPOs in the particular years in terms of three variables: gross proceeds, offer price and volume of shares were higher, equal or lower than expected.

Table 3: Actual and expected results of IPOs for researched sample

Variables		2007	2008	2009	2010	2011	2012	2013	2014
Gross proceeds									
AP>EP	No.	16	0	2	5	0	0	0	1
	Percentage	27%	0%	20%	26%	0%	0%	0%	10%
AP=EP	No.	14	8	0	0	2	0	0	0
	Percentage	24%	35%	0%	0%	15%	0%	0%	0%
AP<EP	No.	29	15	8	14	11	6	10	9
	Percentage	49%	65%	80%	74%	85%	100%	100%	90%
Offer price									
OP>MP	No.	0	1	0	1[a)]	0	0	0	0
	Percentage	0%	2%	0%	2%	0%	0%	0%	0%
OP=MP	No.	37	14	3	3	3	1	1	3
	Percentage	63%	61%	30%	16%	23%	17%	10%	30%
OP<MP	No.	22	8	7	15	10	5	9	7
	Percentage	37%	35%	70%	79%	77%	83%	90%	70%
Volume of new shares									
VSS=VSO	No.	53	12	7	15	11	1	8	8
	Percentage	90%	52%	70%	79%	85%	17%	80%	80%
VSS<VSO	No.	6	11	3	4	2	5	2	2
	Percentage	10%	48%	30%	21%	15%	83%	20%	20%

Notes: AP - actual gross proceeds, EP- expected gross proceeds, OP - offer price, MP- maximum price, VSO – volume of new shares offered by the issuer, VSS – volume of new shares sold by the issuer
Source: Research results.

On the basis of the data from Table 3, it may be noted that in the next years the entities issuing shares more often got proceeds from the issuance at a level lower than expected, e.g. in 2012 and 2013 all companies entering the exchange market gained less capital than expected.

Similarly, the issue price in the following years was more often lower than the maximum price determined earlier by the issuer. Only in 2007 and 2008 there were more companies which sold shares at the price equal to the maximum price than companies whose issue price was lower than the maximum price.

While comparing the volume of offered shares with the volume of shares actually purchased by the investors it would be worth noticing that in 2012 there were more companies which sold fewer shares than expected than those ones which successfully placed all their shares onto the market.

Subsequently, the analyzed period was divided into sub-periods, i.e. 2007, 2008-2009, and 2010-2014 to distinguish and compare the three groups of companies. In the first place, Shapiro-Wilk test was carried out to examine the normality of distribution of analyzed variances.

Table 4: The results of Shapiro-Wilk test

Variables	2007			2008 - 2009			2010 - 2014		
	W	n	p	W	n	p	W	n	p
AP/EP	,875	59	,000**	,913	33	,012*	,868	58	,000**
OP/MP	,708	59	,000**	,831	33	,000**	,926	58	,002**
VSS/VSO	,301	59	,000**	,685	33	,000**	,555	58	,000**

Notes: W – test statistic, n – the sample size, p - p-value
*distribution of variable diiffers signifficaly from a noramal distribution (p <0,05)
** distribution of variable diiffers signifficaly from a noramal distribution (p <0,01)
Source: Research results.

As demonstrated from the table above, distribution of all the analyzed variables differ significantly or highly significantly from a normal distribution. Therefore, Kruskal-Wallis test was applied to compare the particular periods. Kruskal-Wallis test indicates whether at least two of samples differ at statistically significant level. The table 5 presents the results of Kruskal-Wallis test.

Table 5: The results of Kruskal-Wallis test

Variables	2007		2008 - 2009		2010 - 2014		Kruskal-Wallis test		PS
	M	SD	M	SD	M	SD	H	p	
AP/EP	93,00	25,33	67,84	34,39	77,62	26,28	16,550	0,000**	1-2 1-3
OP/MP	92,47	10,76	88,73	15,08	84,82	15,59	10,712	0,005**	1-3
VSS/VSO	94,99	18,09	77,71	33,85	86,64	26,94	12,532	0,002**	1-2

Notes: M - mean, SD – standard deviation, H – test value, p – test significance, PS - pairs of samples, which differ from each other statistically significantly
* statistically significant differences p<0,05
** statistically significant differences p<0,01
Source: Research results.

The expectations as for the proceeds from the share issue in 2007 were met on average in 93%, in the years 2008-2009 – only in 67,84%, and in 2010-2014 - in 77,62%. Kruskall-Wallis test proved that the periods differ statistically significantly. This difference is evident between the first and the second period, i.e. between 2007 and 2008-2009, and between the first and the third period, i.e. between 2007 and 2010-2014. However, there is no significant difference between the second and the third period, i.e. the years 2008-2009 and 2010-2014.

The expectations as for the issue price in 2007 were met on average in 92,47%, in 2008-2009 - in 88,73%, and in 2010-2014 - in 84,82%. Kruskall-Wallis test proved that the periods differ statistically significantly. The difference is between the first and the third period, i.e. between 2007 and 2010-2014.

The expectations related to the number of shares purchased by investors in 2007 were met on average in 94,99%, in 2008-2009 – merely in 77,71%, and in the years 2010-2014 – in 86,64%. Kruskall-Wallis test indicated that the periods differ statistically significantly. The difference is between the first and the second period, i.e. between 2007 and the years 2008-2009.

5. CONCLUSION

The decision to go public is the most important decision in a company's life. If, at the same time, the company decides to issue new shares to finance investment projects, undoubtedly the success of the process is an essential factor influencing the company's future.

Certain expectations are connected with the share issue on the stock exchange. New investors hope for gaining possibly the highest return rate on investment (often in the short term), while both the company's Board and the existing shareholders hope for as much capital as possible with no need to transfer the control over the company in favor of the new shareholders.

Expected and actual effects of IPOs may differ depending on the situation on the IPO market. The assumed research hypothesis states that the financial crisis not only added to the decrease in the number of IPOs, but also caused that enterprises issuing shares more often gained less capital than they originally aimed. The data presented show that the financial crisis not only reduced the number of IPOs on the WSE but also the number of companies issuing shares within IPO as well the value of the gained capital.

While comparing the expectations related to the results of IPOs with their actual effects, a few conclusions may be formulated. Firstly, the year 2007 is to be viewed as particularly important in the history of the WSE, and especially in the history of the stock exchange. This is the year when the expectations as for gross value of proceeds from the share issue were met to a greatest extent. The majority of companies going public were able to sell their shares at the maximum price. What is more, the number of the shares placed was to the greatest extent in line with the expectations. This is the year when the difference between the expected and actual results of IPOs was not only the smallest but also when the examined period statistically significantly differs from other sub-periods. Secondly, during the financial crisis (2008-2009) the issuers' expectations were met to a lesser extent when compared to both the previous year and the subsequent years. In the period 2010-2014 the expectations of the tested entities were met to a greater extent than in 2008-2009. This difference may result from the fact that the financial crisis caused the issuers from 2010-2014 were more careful at assessing the proceeds from the issuance than the issuers from the previous periods. Yet, these appear to be only speculations because Kruskall-Wallis test does not confirm there are essential differences between the two groups of entities sharing issuers in these two sub-periods.

On this basis, it may be concluded that compared to 2007, the financial crisis of 2008-2009 caused the surveyed entities to gain less capital than expected not only during the crisis, as such a regularity also occurs in the post-crisis period.

The research carried out is not free from certain limitations. Firstly, the analyses took into account the estimated value of the assumed gross proceeds from the issuance of new shares which the surveyed entities indicated in their prospectuses while announcing planned investment projects. While carrying out the analyses, it was noticed that some issuers made optimistic estimates (the proceeds from the issuance were made by a product of the maximum number of new shares and the maximum issue price given in the prospectus). Other issuers assumed the most probable values (the proceeds from the issuance were estimated at a lower level than a product of the maximum number of new shares and the maximum issue price). These diverging approaches of issuers towards gaining capital were not reflected in the analyses. Secondly, it is impossible to state whether and how the changing conditions affected the enterprises' expectations as for the amount of proceeds. It is likely that the financial crisis caused the research entities to be more cautious about estimating proceeds from share issue while they were preparing their prospectuses. Providing the answer to this question would require carrying out additional surveys. Thirdly, the research sample covered privatized companies which performed issuances of high value and affected in this way the IPO market on the WSE.

In the course of further analyses, it is worth taking into consideration the influence of the characteristics of the examined entities on the possibilities of gaining capital, their financial results and their prospects for development. Some other interesting results might be achieved due to the analysis of the Second Public Offerings (SPOs) on the WSE in the years 2007-2014 and the comparison of the results of IPOs with the results of SPOs.

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