

20th International Scientific Conference Economics and Management - 2015 (ICEM-2015)

External Determinants of Going Public in the Czech Republic and in Poland

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Abstract

This study deals with Initial Public Offering (IPO) developments in the Czech Republic and Poland over the period 2000 – 2012 and aims to indicate the influence of external going public determinants, in particular the capital market size- and liquidity-indicators, on IPO numbers and values. Our sample includes enterprises that conducted an IPO on the main markets of the Prague and Warsaw Stock Exchanges. The following steps were undertaken to analyse the quantitative data. Firstly, we performed a quantitative analysis of the Czech and Polish capital market in order to draw attention to certain specific issues existing on these markets between 2000 and 2012. Next, we compared internal IPO characteristics on the particular capital markets with the empirical evidence on IPOs in the Central and Eastern Europe- and EU-wide capital markets. Our results indicate the favourable development of fundamental capital market indicators on the Warsaw Stock Exchange. This could be seen as a signal of increasing market attractiveness for both investors and potential issuers (IPO candidates) and thereby accelerate IPO activity. On the other hand, the size and liquidity of the Czech capital market still represents an investment barrier.

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Peer-review under responsibility of Kaunas University of Technology, School of Economics and Business

Keywords: IPO; Going Public; Capital Market; Poland; Czech Republic; Central and Eastern Europe; CEE.

Introduction

The number of Initial Public Offerings (IPOs) on the individual capital markets can be attributed to the following external causes: macroeconomic conditions, quantitative capital market characteristics such as capital market capitalisation, capital market liquidity and stock index returns, the quality of capital market legislation and the level

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of investment protection and access to alternative sources of corporate financing. Numerous academic studies on IPOs determinants covering developed and emerging capital markets have been conducted (Peterle, 2013; Ameer, 2012; Jargot, 2006; Jovanovic & Rousseau, 2004; Breinlinger & Glogova, 2002; Loughran et al., 1994; Rydqvist & Högholm, 1995; Ljungqvist, 1995; Bilson et al.; 2002).

Academic studies in the Central and Eastern Europe (CEE) mainly cover descriptive statistical analysis of individual markets (Paleari et al., 2010; IPO Watch Europe, PWC, 2003-2013), the privatisation process in the 1990s (Aussenegg, 2000) and analysis of determinants and consequences of going public (Dudko-Kopczewska, 2004; Jargot, 2006; Sejkora, 2013; Peterle, 2013).

The research questions we want to address in this paper are: Firstly, what are the IPO developments in the Czech Republic and Poland over the period 2000 – 2012? Next, what are the external going public determinants on these markets? In this paper we focus on the investigation of capital market factors and test the assumption whether fundamental capital market data had a positive impact on IPO activities in the Czech Republic and Poland after 2000. Therefore, we complement our previous investigation addressing the issue if there is a relationship between macroeconomic factors and IPO activities (Meluzín et. al., 2014). Concerning the data set no previous academic study (e.g. Peterle, 2013; Sejkora, 2013; Roženský, 2008) has, to our knowledge, either used such a long time series after 2000 or such a wide range of capital market indicators.

This study is organized as follows. The first section deals with research design, i.e. data and methodology. The second part provides a quantitative analysis of the Czech and Polish capital market. In the empirical part selected IPO characteristics are also compared with the empirical evidence on primary issues in the CEE and EU-regulated markets. In the last section, the findings are summarised, interpreted with concluding remarks.

1. Methodology and Data Sources

The nature of this study is based on the theory and previous empirical research. All IPO quantitative indicators analysed in this paper have sufficient support in the financial academic literature (Roženský, 2008; Groh, Lichtenstein & Lieser, 2010; Peterle, 2013; Sejkora, 2013). Our research included collecting of data, defining the sample, treating the data by descriptive statistical methods with respect to their nature and quantity and a comparison of results with empirical IPO evidence from other CEE countries and EU-regulated market. The CEE region includes six capital markets in our investigations – Poland, the Czech Republic, Hungary, Slovakia, Slovenia and Austria. Apart from Austria, all these countries share a similar historical background after World War II. The entire statistical evaluation was performed by Statistica software, version 10.

The quantitative analyses of CEE IPO developments are based on evidence over the period from 2000 to 2012. Our sample includes enterprises that conducted an IPO on the Main Markets of the Warsaw and Prague Stock Exchanges which are EU-regulated. Both the IPO and capital market data were obtained predominantly from Stock Exchange Fact Books, the Federation of European Securities Exchanges (FESE) and PwC (IPO Watch Europe 2003-2013).

In order to describe the IPO developments in the Czech Republic and Poland and to test our assumption whether fundamental capital market data had a positive impact on IPO activities in the Czech Republic and Poland, we will focus on capital market indicators, such as absolute and relative market capitalisation (market capitalisation in EUR, market capitalisation per capita, market capitalisation to GDP) and absolute and relative market liquidity (turnover in EUR, turnover to GDP, turnover velocity, number of transactions, number of domestic listed companies). A comparison of the Czech and Polish primary capital markets include the development of IPO numbers and values to the CEE and EU-regulated markets. All monetary indicators, such as the value of newly issued shares and market capitalisation, are expressed in Euros using exchange rates on the last day of the respective year.

2. Empirical Findings

2.1. Quantitative Market Analysis

The form and timing of privatisation fundamentally influenced market capitalisation in the 1990s. Aussenegg (1999), Kominek (2003), Roženský (2008) and Sejkora (2013) conclude that the successful development of the

Warsaw Stock Exchange (WSE) and the relative failure of the Prague Stock Exchange (PSE) are due a lack of regulatory authority and law enforcement in the Czech Republic compared to the Warsaw counterpart that resulted in mistrust in the Prague security market as a source of investment capital.

Table 1. Market Capitalisation Indicators.

Year	Market Capitalisation (in EUR m)		Market Capitalisation per Capita (in EUR)		Market Capitalisation as a Percentage of GDP	
	CZ	PL	CZ	PL	PL	CZ
2000	12,622	33,761	1,238	883	18.18	19.80
2001	10,640	28,846	882	754	13.59	13.03
2002	11,326	27,055	960	708	12.91	12.24
2003	13,995	29,350	1,373	768	15.31	14.56
2004	21,720	51,888	2,130	1,359	25.41	23.65
2005	31,060	79,354	3,045	2,079	32.47	29.69
2006	34,693	112,826	3,393	2,957	41.47	29.33
2007	47,987	144,323	4,680	3,785	46.41	36.38
2008	29,615	66,178	2,863	1,736	18.22	19.20
2009	31,265	105,157	2,999	2,757	33.85	21.99
2010	31,922	142,272	3,051	3,728	40.12	21.29
2011	29,203	107,483	2,785	2,790	28.98	18.78
2012	28,193	134,755	2,684	3,497	35.32	18.44
Total	334,241	1,063,248				
Mean	25,711	81,788	2,468	2,139	27.86	21.41
Median	29,203	79,354	2,785	2,079	28.98	19.80
Std. Dev.	10,623	43,450	1,061	1,135	10.99	6.71

Source: CEE Stock Exchange Group and its Capital Markets; Federation of European Securities Exchanges, Statistics & Market Research; Roženský (2008); Warsaw Stock Exchange, Fact Books (2003–2013); World Federation of Exchanges, Statistics; own calculations

In the second decade after the establishment of both capital markets, more precisely between 2000 and 2012, the market capitalisation (in EUR) increased by a factor of 4.0 in Warsaw and 2.23 in Prague (Table 1). Changes in the value of market capitalisation were affected by three main factors – the financial and economic crisis of 2008, the appreciation/depreciation of local currencies, and the privatisation programme implemented by Polish governments (see also Roženský, 2008).

The WSE amounted to 144,323 million EUR in the peak year of 2007 while the PSE amounted to 47,987 million EUR in the same year. However, in 2008, at the height of the financial and economic crisis, the decline recorded on the WSE was greater (–54 %) than in Prague (–38 %). Assuming that a bigger capital market is a prerequisite for a higher probability of successful subscription of the entire issue, we conclude that the WSE is a more attractive destination for IPOs than the PSE. A stronger dynamism on the Polish capital market can be documented by two other indicators, namely by the market capitalisation per capita and the market capitalisation as a Percentage of GDP. At the end of 2012, the market capitalisation per capita was 3,497 EUR in Poland and 2,684 EUR in the Czech Republic. In 2012, the value of market capitalisation to GDP attained also a significantly higher value in Poland (35.32 % compared with 18.44 % in the Czech Republic).

Another indicator of market attractiveness is represented by the market liquidity which has been considered as one of the three key aspects when deciding about investments. Table 2 point out the dynamism of the WSE in comparison to the PSE. On the Warsaw SE the annual turnover value increased by a factor of 2.38 between 2000 and 2012. On the other hand the value of this indicator was 1.35 on the PSE. When we consider average values of turnovers to GDP, turnover velocity (i.e. the ration between yearly turnover and average market capitalisation) and number of transactions, the much more favourable values for all these indicators were also achieved in Poland. In 2012, the number of transactions on the Warsaw SE was 12.72 times higher than in Prague.

The market liquidity is represented by the number of domestic listed companies since a growing market in terms of the number of traded shares is more attractive for both issuers and investors. Table 2 shows that an increasing number of listed companies could be seen only in Poland. The PSE experienced the opposite development. A massive delisting process was the consequence of the illiquidity of more than 50 % of shares in the Czech Republic. The relatively larger number of listed companies in Poland was driven by two main factors: firstly by privatisation and secondly by an increasing number of domestic and foreign investors.

Table 2. Market Liquidity Indicators.

Year	Yearly Turnover (in EUR m)		Yearly Turnover as a Percentage of GDP		Turnover Velocity		Number of Transactions		Number of Domestic Listed Companies (Dec Y)	
	CZ	PL	CZ	PL	CZ	PL	CZ	PL	CZ	PL
2000	7,390	21,054	n.a.	n.a.	0.5855	0.6236	n.a.	n.a.	50	211
2001	3,781	10,846	n.a.	n.a.	0.4020	0.3760	n.a.	n.a.	47	216
2002	6,414	8,308	n.a.	n.a.	0.5663	0.3071	n.a.	n.a.	44	202
2003	7,471	8,777	8.85	4.58	0.5338	0.2990	161,759	2,660,975	37	188
2004	15,073	13,147	17.86	6.86	0.6940	0.2534	233,464	3,632,477	53	211
2005	34,909	24,111	41.36	12.58	1.1239	0.3038	442,064	4,652,116	35	234
2006	30,015	43,235	35.56	22.56	0.8652	0.3832	571,031	10,282,650	26	253
2007	36,581	63,876	43.34	33.33	0.7623	0.4426	671,638	15,206,827	24	352
2008	34,179	47,854	40.49	24.97	1.1541	0.7231	1,396,184	9,839,800	19	432
2009	17,565	41,405	20.81	21.61	0.5618	0.3937	1,571,767	13,278,395	16	470
2010	15,391	59,693	18.23	31.15	0.4821	0.4196	1,162,643	13,123,810	16	570
2011	15,131	70,161	17.93	36.61	0.5181	0.6528	1,304,407	14,975,012	15	757
2012	9,984	50,169	11.83	26.18	0.3541	0.3723	969,306	12,324,727	17	844
Total	233,882	462,635					8,484,263	99,976,789		
Mean	17,991	35,587	25.62	22.04	0.6618	0.4269	848,426	999,7679	26	431
Median	15,131	41,405	19.52	23.77	0.5663	0.3832	820,472	11,303,689	22	392
Std. Dev.	11,386	21,400	12.45	10.36	0.2426	0.1420	476,188	448,2011	12	220

Source: CEE Stock Exchange Group and its Capital Markets; Federation of European Securities Exchanges, Statistics & Market Research; Roženský (2008); Warsaw Stock Exchange, Fact Books (2003–2013); World Federation of Exchanges, Statistics; own calculations

2.2. IPO Markets – A Quantitative Analysis

Table 3 shows that a total of 390 IPOs were listed during the period 2000–2012 on the EU-regulated Central and Eastern Europe (CEE) primary capital markets which represents a 25.34 % share of the whole EU-regulated market. The sum of the capital raised by the issuing companies was EUR 30,380 million between 2003 and 2012, i.e. 11.22 % of the new money raised through IPOs in Europe. Table 3 points out the leading role played by the Warsaw Stock Exchange (WSE) in terms of number and offering value, with 349 IPOs raising EUR 22,095 million over the observed period. The Polish primary capital market hosted almost 82 % of all IPOs in the CEE region and more than 23 % of primary issues in Europe.

Warsaw's share of the EU-regulated market by number of issues increased to 21 % in 2012 from 9 % in 2003. This placed the Polish IPO market among the most active primary markets in Europe. On the other hand, the IPO market share by offering value experienced significant growth only between 2007 and 2010. The 8 % share of offering value on the EU-regulated market, despite a 14 percentage points average increase in the number of IPOs, reflects the volume of relatively low-value IPOs Warsaw hosted on its Main Market. The PSE recorded poor results with only 8 issues that amounted to EUR 2,144 million.

Table 3. Distribution of IPOs (EU Regulated).

Year	Number of Issues		Number of Issues, % of CEE		Number of Issues, % of EU regulated		Value of Issues (in EUR m)		Value of Issues, % of CEE		Value of Issues, % of EU regulated	
	CZ	PL	CZ	PL	CZ	PL	CZ	PL	CZ	PL	CZ	PL
2000	0	8	0.00	50.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2001	0	7	0.00	46.67	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2002	0	4	0.00	57.14	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2003	0	6	0.00	50.00	0.00	8.82	0.00	287.89	0.00	22.32	0.00	5.32
2004	1	36	2.56	92.31	0.67	24.16	174.90	3,124.05	5.29	94.50	0.72	12.95
2005	0	35	0.00	83.33	0.00	15.28	0.00	1,808.64	0.00	60.88	0.00	4.04
2006	2	38	3.92	74.51	0.80	15.14	216.88	1,085.30	7.84	39.22	0.38	1.90
2007	2	81	2.22	90.00	0.56	22.50	90.16	5,096.87	1.27	71.70	0.14	7.81
2008	1	33	2.78	91.67	0.87	28.70	1,581.14	2,235.40	39.77	56.23	13.47	19.05
2009	0	13	0.00	86.67	0.00	31.71	0.00	1,701.23	0.00	98.85	0.00	39.20
2010	1	34	2.44	82.93	0.77	26.15	73.21	4,005.76	1.78	97.30	0.31	16.98
2011	1	38	2.08	79.17	0.85	32.20	7.90	1,931.26	0.34	83.78	0.03	7.82
2012	0	16	0.00	100.00	0.00	20.51	0.00	818.60	0.00	100.00	0.00	8.59
Total	8	349	1.87	81.54	0.52	22.68	2,144.18	22,095.01	7.06	72.73	0.79	8.16
Mean	0,62	26,85	1.46	80.70	1.46	22.52	214.42	2,209.50	5.63	72.48	1.51	12.36
Median	0,00	33,00	2.08	83.33	2.08	23.33	40.55	1,869.95	0.81	77.74	0.09	8.21
Std. Dev.	0,74	20,45	1.40	14.46	1.40	7.28	461.68	1,406.70	11.66	25.89	4.00	10.35

Source: CEE Stock Exchange Group and its Capital Markets; Federation of European Securities Exchanges, Statistics & Market Research; Roženský (2008); Warsaw Stock Exchange, Fact Books (2003–2013); World Federation of Exchanges, Statistics; own calculations

Discussion and Conclusions

The PSE and the WSE recorded fast growth in relation to their significance to the national economy over the observed period. However Poland outperformed the Czech Republic in all significant aspects of capital market development and going public activities. The Warsaw and Prague SEs reported a significant growth of market capitalisation between 2000 and 2012; however the growth rate at the WSE was almost twice as high in comparison with the Prague SE. When we compare both capital markets in terms of their relative significance in the national economy, Poland achieved slightly better results when we consider average values of market capitalisation to GDP and market capitalisation per capita. However, it is in particular the trend, which increases the attractiveness of the Polish capital market. This trend is also evident in the development of market liquidity indicators such as turnover and transaction growth rates, turnover velocity and the number of domestic listed companies. The more favourable development of these indicators at the Warsaw SE could be seen as a signal of increasing market attractiveness for both investors and potential issuers (IPO candidates) and thereby accelerate IPO activity. On the other hand, the size and liquidity of the Czech capital market represents an investment barrier. In this respect, we concur with the conclusions made by Groh et al. (2010).

Our main conclusion, that the external factors represented by fundamental capital market parameters increase the attractiveness of the Polish capital market and thus accelerate the number of primary issues complements the results of Peterle (2013). She investigated the CEE stock markets in the period 2000-2009 and concluded that the increasing attractiveness of CEE capital markets for investors has a positive impact on going public numbers. On the other hand she point out that even in Poland the fundamental capital market indicators “are characterized by a lower quality” as compared with developed EU markets (e.g. smaller, less liquid market, less important in the national economy than in developed EU markets) and that further investigations of this issue are required.

Roženský (2008) concluded, on the basis of descriptive statistics for the CEE capital markets between 2003 and 2008, that the contribution of primary emissions to market capitalisation growth cannot be considered essential in

view of the small value of new issues and their low performance: "Increasing market capitalisation on the Budapest, Warsaw and Prague SEs is more related to stock index returns". Roženský (2008) also points out the low liquidity of the stock of new listed companies in Poland between 2003 and 2007: "Only few new listed companies contributed significantly to market turnover. Moreover, these companies were either privatised or parallel listed by their foreign shareholders."

To sum up our conclusions, the Czech and Polish capital markets recorded strong dynamism over the observed period. The unambiguous leader in the CEE region is Poland with a flourishing IPO market. All fundamental capital market parameters increase the attractiveness of individual capital markets. However, our assumption that a growing and more liquid market has a positive impact on IPO activities should be further examined. A follow-up investigation requires empirical evidence covering future development of capital market indicators.

Acknowledgements

The research is financed by Internal Grant Agency of the Brno University of Technology. Name of the Project: Economic Determinants of Competitiveness of Enterprises in Central and Eastern Europe. Project Registration No. FP-S-15-2825.

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