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# Factors Influencing IPO Decisions. Do Corporate Managers Use Market and Corporate Timing? A Survey

## Abstract

This paper explores the motives for Initial Public Offerings (IPOs); that is, whether market mispricing or the behavioral inclinations of investors and analysts impact corporate decisions about rising equity, with a particular focus on market and corporate timing practices of managers going public. To do so, an anonymous survey was conducted of 166 managers of firms that recently went public at the Warsaw Stock Exchange in Poland (being the second most active IPO market in Europe, after London). The resulting data reveals that managers attempt to time bullish markets and good historical corporate financial results.

**Keywords:** Behavioral corporate finance, managerial biases, IPO, going public

**JEL:** G32, G34

## Introduction

The behavioral finance literature broadly evidences investor irrationality and market anomalies. It has changed the way we look at investor behavior and asset pricing in capital markets, and must naturally also have implications for the second group of capital market participants, i.e., for corporations. One of the newest research directions – behavioral corporate finance – takes two distinctive approaches. The first one emphasizes the effect of market inefficiency on corporate policies, assuming that executives act as rational professionals. In other words, it focuses on how smart managers adapt corporate policy in order to exploit investor irrationality and market mispricing. The second approach replaces the assumption of managers' rationality with evidence-driven psychological foundations. It shows how managerial biases may impact managerial practice, and if particular distortions are actually beneficial or detrimental to shareholder wealth.

This paper takes the first approach of corporate behavioral finance in exploring the motives for Initial Public Offerings (IPOs). We assess whether market mispricing or the behavioral inclinations of investors and analysts impact corporate decisions about raising equity, with a particular focus on the market and corporate timing practices of managers going public.

In an efficient equity market, a company's cost of raising capital by selling shares is evaluated adequately in both bull and bear markets. Thus theoretically, it should not matter when the company decides to raise capital and go public because at any time the company should get the "right price" for its stock. But if we reject the efficient market hypothesis and assume that asset pricing may be inadequate, then it may impact the timing of the IPO. In bullish periods the cost of equity decreases, encouraging issuers to generate new shares supply. As the result of market timing, clustering of IPOs in periods of high market valuations can be observed.

Besides market timing, managers may also be tempted to engage in corporate timing, i.e., taking a company public after it has reported particularly good results. The willingness to capitalize on historically outstanding performance and translate it into a maximization of market valuation is supported by the extrapolation bias. Both individual investors and professional analysts tend to irrationally extrapolate past profitability and growth into the future. The interplay of corporate timing and extrapolation bias may lead to disappointing post-IPO operational figures, as well as negative abnormal long-term post-IPO stock returns.

In this paper we take a direct research approach by anonymously surveying 166 managers of firms that recently went public at the Warsaw Stock Exchange in Poland. Despite its relatively short history, the Warsaw Stock Exchange has been the second most active IPO market in Europe, after London.

The remainder of this paper is organized as follows. The next section presents a review of the literature on IPO clustering and market and corporate timing as related to IPOs. In section 3, we describe our survey sample and methodology. Section 4 sets forth, and discusses, the survey results. Section 5 concludes.

## Literature Review

The clustering of IPOs has been relatively well-documented in capital markets world-wide. Starting with Ibbotson and Jaffe [1975], a number of studies have demonstrated that IPOs tend to cluster in both time and sectors [Ritter, 1984; Ibbotson, Sindelar, Ritter, 1988, 1994; Derrien, 2010]. A rational explanation to this phenomenon is that IPO clustering is due to the clustering of real investment opportunities, which prompt companies to seek capital with a view to using these opportunities in similar periods of time. However, empirical evidence suggests that the connection to real investment is weak.

Decisions on equity issuance seem to be driven mainly by temporary overvaluation and market timing attempts. Lerner [1994] and Pagano, Panetta and Zingales [1998] argue that private firms decide to go public when listed companies from the same sector are valued favorably in terms of market comparable ratios. Loughran, Ritter and Rydqvist [1994] find

that aggregate IPO volume and stock market valuations are highly correlated in major stock exchanges worldwide. Plotnicki and Szyszka [2014] find that the current market situation may also impact the speed of the IPO process. In hot markets, the average time between the formal decision to go public and the IPO day is significantly shorter than in periods when markets are cooler. Firms tend to hurry to list their stock when the market situation is favorable (possibly fearing that a good valuation may soon vanish) and take more time if they get listed in a relatively worse market valuation period (they might wait for the market to go up a bit before the public offer is made or simply have trouble placing the offer).

The corporate timing hypothesis is supported by evidence of poor post-IPO performance both in terms of operational results [Jain, Kini, 1994; Mikkelsen, Partch, Shah, 1997; Pagano et al., 1998], as well as negative abnormal long-term post-IPO stock returns [Ritter, 1991; Loughran, Ritter, 1995]. However, the reliability of that evidence has been widely debated, with some poor post-IPO performance results questioned due to measurement issues. For example, Brav and Gompers [1997] argue that when the Three Factor Fama and French model is used to account for size and book-to-market effects, most of the abnormal negative post-IPO returns documented earlier actually disappear.

In any case, even if post-event long-term returns should be interpreted with caution as having low power, they should not be considered in isolation. The hypothesis of market overvaluation as one of the key drivers of equity issuance is strongly supported by survey evidence. In anonymous interviews conducted by Graham and Harvey [2001] and Brau and Fawcett [2006], Chief Financial Officers (CFOs) who went public clearly stated that overvaluation and general market conditions were important determinants in their timing of equity offerings. In the survey described in this paper, we explore further the motive of market timing, and also look for other determinants, such as the desire to capitalize the firm's good historical financial results, shareholder needs to partially or totally divest their stakes, and PR and marketing effects.

## Methodology and Sample

The questionnaires were either in hard copy or electronic specially designed webpage format with multiple choice options and rankings. All rankings used in the survey were transformed so that the greatest (lowest) value represents the most (least) important item. Preliminary analysis indicated that responses from different survey forms, that is, hard copy or webpage, were not statistically different. Therefore, we present the combined results.

The research procedure was organized in such a way as to guarantee the anonymity of the participants. Because revealing true corporate practices in publicly listed companies is highly sensitive, respondent anonymity was emphasized to participants to encourage them to provide honest answers.

Survey participants were the chief executive officers (CEOs) and chief financial officers (CFOs) of companies listed on the main market of the Warsaw Stock Exchange (WSE),

and also on the alternative market NewConnect (NC), which is also run by the Warsaw Stock Exchange in Poland. Typically, the firms listed in the alternative market are younger, less mature, and smaller, but usually have a higher growth potential. Still, we present combined results as the preliminary analysis showed that responses from WSE and NC were not statistically different.

Invitation letters were mailed to 749 companies, and followed up with e-mails and phone calls to increase the number of responses.<sup>1</sup> Managers were also motivated to participate in the survey by the promise that a fixed charity donation would be made for each completed questionnaire. The last survey question asked respondents to state their preferred charity purpose, and respondents were informed that the one with the largest number of votes was to receive the whole sum of money depending on the number of active participants. The survey was carried out between December 12, 2012 and January 11, 2013.

The response rate in our survey was 16.2 percent, which compares favorably with other financial executive surveys. For example, Trahan and Gitman [1995] obtained a 12 percent response rate in a survey mailed to 700 CFOs, and Graham and Harvey [2001] obtained a 9 percent response rate for 4,400 faxed surveys. Graham, Harvey and Rajgopal [2005] and Brav, Graham, Harvey and Michaely [2005] obtained 10 and 16 percent response rates, respectively. Eventually, a total of 116 surveys were carried out. Not all 116 questionnaires were completed in the full. Hence, the number of answers differs slightly as to individual questions. Our sample should be considered as a convenience sample of cases available for study rather than as representative of the entire population of corporate managers, although the relatively high response ratio could support treating it as a representative sample of managers from firms listed on the Warsaw Stock Exchange. We investigated for possible non-response bias, and concluded that our sample was representative of the population of managers from firms listed on the Warsaw Stock Exchange, excluding the financial sector. As no non-response bias was identified in terms of distribution of key variables (e.g., company size, industry etc.), we may assume a certain randomness in non-response to the survey invitations.

A two-stage procedure was applied to test statistical significance. The Friedman test<sup>2</sup> was followed by the Wilcoxon pair-by-pair post-hoc test<sup>3</sup>. This procedure was necessary to compare average ranks among items, while basic assumptions for ANOVA (e.g., normal distribution, interval scale) were not held. Applied tests are nonparametric and no additional assumptions about the nature of distribution need to be met.

## Results and Discussion

Managers were asked to rank the following motives that potentially had influenced their decision to go public:

- financing needs of the company;
- shareholders' need to partially or totally divest their stakes;
- favorable stock market situation, offering a possibly higher IPO valuation;
- desire to capitalize the firm's good historical financial results; and
- intention to strengthen the company's image (PR and marketing effect).

The results of the survey presented in Tables 1 and 2 indicate that the most important driver for the decision to go public was the need for capital. This factor was ranked number one by nearly 33 percent of responding managers and also enjoyed the highest average rank. This finding is in line with the classical approach to finance, and should not come as a surprise. Generally, companies issue equity and go public when their financing needs exceed their internal financing means and debt-capacity levels. More surprising is that financing need was the least important consideration for more than 21 percent of the firms in the sample.

The second most important factor by average rank was the desire to capitalize the firm's good historical result. It was the most important reason for 25 percent of firms going public. Managers tend to time a public offer to coincide with the moment when they can demonstrate very good financial results, in the hope that analysts and investors will extrapolate a favorable past into a rosy future, which would raise the IPO valuation. The evidence on extrapolation bias among market participants suggests that this approach does increase IPO valuations because investors are likely to be misled by a firm's good historical performance [Szyszka, 2013, pp. 61–62].

**TABLE 1. Rank distribution among items and rank parameters**

Question: The decision to go public resulted from:

Items	Percentage of answers indicating rank value						Rank statistics	
	1	2	3	4	5	N	mean	standard deviation
(1) Financing needs of the company	21.1	11.4	18.4	16.7	32.5	114	3.28	1.537
(2) Shareholders' need to partially or totally divest from their stakes	14.8	21.7	29.6	22.6	11.3	115	2.94	1.223
(3) Favorable stock market situation, offering possibly higher IPO valuation	18.1	15.5	30.2	17.2	19.0	116	3.03	1.351
(4) Desire to capitalize the firm's good historical financial results	14.7	25.0	14.7	20.7	25.0	116	3.16	1.426
(5) Intention to strengthen the company's image (PR and marketing effect)	29.6	26.1	8.7	20.9	14.8	115	2.65	1.463

Note: Respondents were required to order all the above mentioned items. The highest rank was assigned the value 5 and the lowest was assigned the value 1. No ties were accepted. Cases with missing values were excluded.

Source: own elaboration.

**TABLE 2. Results of Friedman and Wilcoxon test**

Question: The decision to go public resulted from:

Friedman Test statistic value: 3.1449 p-value:0.01446						
Wilcoxon post-hoc paired test						
		Item				
		1	2	3	4	5
Item	1	×				
	2		×			
	3			×		
	4				×	
	5	**			*	×

Note: The null hypothesis for the Friedman test stated that the difference between the mean rank profile and the global mean rank (equal to 3) is zero. The null hypothesis for the Wilcoxon post-hoc test stated that the mean difference between a given pair is zero. Item numbers correspond to the numbers in parenthesis in the previous table. Table 2 above presents relationships between all pairs of items in terms of statistical significance in mean rank difference: \*\*\*, \*\* and \* indicate significance at the level of 0.01, 0.05 and 0.1, respectively. Empty cells indicate no significant difference.

Source: own elaboration.

Corporate timing and market timing seem to be viewed similarly, as a favorable stock market situation and the desire to capitalize the firm's good historical financial results are not statistically different at 90 percent confidence level. Similar to surveys by Graham and Harvey [2001] and Brau and Fawcett [2006], our managers identified positive general market conditions, portending a higher possible valuation, as an important choice determinant in the timing of their equity offering. In fact, it was the most important reason for over 18 percent of the firms in our sample.

Both firm-specific timing and market-specific timing seek to facilitate possible overvaluation of the company going public. Consequently, post-IPO long-term returns should be low. Otherwise stated, where the firm-specific timing component is in place, the firm might be expected to disappoint in terms of future operational results [Jain, Kini, 1994; Mikkelsen et al., 1997; Pagano et al., 1998], resulting in abnormal negative stock returns; that is, lower returns relative to other companies exhibiting a comparable risk profile and other characteristics [Ritter, 1991, 2003; Loughran, Ritter, 1995]. However, if the market-specific (or industry-specific) timing component was predominant at the IPO date, absolute stock returns are likely to be low in the future. In this scenario, firm-specific negative abnormal returns might not be significant, as the mispricing correction occurs in the whole market or, at least, across a given industry. Obviously, both firm-specific and market-specific timing practices harm long-term investors participating in public offers.

The willingness to divest stock by current shareholders was fourth in the ranking of factors influencing the IPO decision. It was neither the top priority (11 percent of responses), nor the least important one (15 percent). It is worth noting that pre-IPO owners often cannot immediately capitalize on the favorable market valuation due to selling restrictions (lock-up periods declared when going public), or because information about a major shareholder disposing of stock just after the firm went public could harm stock valuation.

Least weighty among managers were public relations and marketing effect as an IPO driver. This factor had the worst average rank, was below all other averages, and significantly below item (1) and (4). Over 29 percent of managers identified it as the least important, and just under 15 percent as most important.

The Friedman test documents p-value of 0.01446 which is significant and allows further multiple comparisons testing. However, the Wilcoxon shows the significant difference only in two cases: between questions (1) and (5) and between questions (4) and (5). Therefore, the results of the survey in the respect to differences in ranks should be treated with some statistical caution. Overall, the survey documents that the most vital reason to go public is financing need. However, firm-specific and market-specific timing in order to capitalize potentially high firm valuations also seems to play an important role. These practices harm new long-term investors to a company while benefitting those who owned the firm before going public. However, this impact is only true if managers actually have the ability to time IPOs in this manner. It is one thing to state in a survey that one wants to capitalize on the good historical results of the firm or to take advantage of a good market situation. It may be another, much more difficult, thing to actually be able to choose the moment for an IPO that would, in fact, maximize firm value and allow the company to raise equity at the minimal cost. Not only do managers lack access to all relevant timing information (for example, they cannot predict how a market will perform even in the short-term), but also they may be subject to behavioral biases themselves.

For example, Hanley [1993], Loughran and Ritter [2002], Ljungqvist and Wilhelm [2005], Baker and Xuan [2011], and Płotnicki and Szyszka [2014] find evidence that managers anchor to historical levels of stock prices and are more likely to issue new equity if they consider their firm temporarily overvalued as compared to their reference level. However, behavioral biases in managerial decisions are beyond the scope of this paper.

## Conclusions

Behavioral corporate finance emerged within the behavioral framework only after the aspects of irrational investor behavior and asset mispricing were firmly established in the academic world. It offers a useful complement to other corporate finance theories. Findings in this area may have direct consequences not only for shareholder wealth, but

also for the entire economy. It is one thing to say that investor irrationality impacts capital market prices, which leads to transfer of wealth among investors, and quite another to suggest that mispricing leads to corporate under- or overinvestment, or the general misallocation of capital and heavy losses for the entire economy. It is the case when mispricing of assets actually influences the decisions of corporate managers and is a driver of corporate investment and financial policy. In an inefficient market, rational managerial attempts to exploit market inefficiency, as well as irrational biases in managerial behavior, might both be detrimental.

A focus by managers on market and corporate timing practices as an IPO driver does suggest that market mispricing or behavioral inclinations of investors and analysts are factors impacting corporate decisions about raising equity. Over one-fifth of the managers surveyed identified financing needs as the least import factor when deciding to go public, while one quarter were driven by the desire to capitalize the firm's good historical results. Corporate timing was closely followed by market timing as an IPO motivator. These results indicate that IPOs are occurring under circumstances. Corporate timing likely misleads investors into overvaluing firms based on historically good performance, because of the tendency to extrapolate impressive present results into rosy future projections of growth and profitability. Market timing also tends to misled investors about valuation. While corporate and market timing practices are beneficial for existing shareholders (at the expense of new shareholders), they also cause non-optimal allocation of capital and harm the efficiency of the entire economy.

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## Notes

<sup>1</sup> I am grateful to the team of SW Research Institute [www.swresearch.pl](http://www.swresearch.pl) for the design of the on-line version of the survey and handling of the responses.

<sup>2</sup> The Friedman test is a nonparametric statistical test developed by the US economist and Nobel Prize winner Milton Friedman. Similar to the parametric repeated measures ANOVA, it is used to detect differences in treatments across multiple test attempts. The procedure involves ranking each row together, then considering the values of ranks by columns. For more information, see Friedman [1937].

<sup>3</sup> The Wilcoxon signed-rank test is a nonparametric test used when comparing two related samples, matched samples, or repeated measurements on a single sample to assess whether their population mean ranks differ. See Wilcoxon [1945] and also Hollander and Wolfe [1999], p. 295.



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