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ASYMMETRIC INFORMATION AND UNDERPRICING OF INITIAL PUBLIC OFFERINGS: EVIDENCE FROM CROATIA

Abstract:

Information asymmetry between issuing firm, the investment bank and the various classes of investors brings about the problem of Initial Public Offerings (IPO) underpricing. The empirical research determined that the degree of underpricing is dynamic and various markets forces interact simultaneously in observing the variation in pricing the new equity issues. By covering the twelve-year period, this paper gives analytical evidence of underpricing of initial public offerings in Croatia. By identified determinants of IPO underpricing, which are explained with the help of agency theory, signaling and behavioral theories, the paper points out to the significance of regulatory framework in this corporate governance segment.

Keywords:

IPO, Croatia, IPO underpricing, corporate governance

JEL Classification: G10, G24, G34

1. Introduction

From the position of corporate governance, going public presents the company with new challenges of change and adjustment in both organizational and business model terms. Due to the exposure to the capital market and the daily evaluation of business results, management efforts and time dedicated to data collection, analysis and reporting have to increase. However, the exposure of the public is expected to have a positive effect on increasing business transparency as well as improving the corporate governance system.

Viewed from the position of the investment public, the listing of new shares on the stock exchange strengthens the capital market and opens opportunities for capital investment (Supriya, Phani, 2016). Although investors expect earnings, investing in stocks is not a safe deal. In the event of an exit, i.e. the sale of shares at an unfavorable moment or a long-term decline in the value of shares, investors are exposed to the risk of losing the engaged funds.

The interest of investors can be the realization of short-term or speculative earnings or, for example, the engagement of free funds according to investment savings. Some investors also see the potential for short-term earnings in initial private offerings (IPOs) due to the phenomenon of underpricing.

Underpricing is the determination of the price when issuing shares in the IPO process below their estimated market price. In the event that the share price is lower than the price achieved on the first day of trading on the stock exchange, the share is considered undervalued. The phenomenon of underpricing on the Croatian capital market can be explained by rather conservative pricing due to the lack of experience and the subsequent caution of IPO teams when preparing a public offer. The conservative setting of the public offering price enabled a strong rise in stock prices after the start of trading on the stock exchange. This paper analyzes underpricing in the case of most important IPOs in last 20 years in Croatia.

2. Initial Public Offering as a Corporate Governance Mechanism

The advantages and disadvantages of using the initial public offering mechanisms can be observed from the aspect of the company, i.e. the issuer, then the investment public, as well as the corporate governance system. Under the public offering mechanism, companies can raise the necessary capital for business growth and development, with the expected lower cost of capital. Also, the public offering of shares increases the company's exposure to both the investment public and the general public, and enables the increase of the company's image in the public, which can help attract better management and employees, improve business results and make socially beneficial synergies.

From another point of view, after the IPO, the company's shares are freely traded, the company can perhaps acquire shares in other companies and carry out acquisitions more easily because of new funding, but it can also become the target of takeovers by other companies or investors. Besides that, existing owners can use the public offering as an exit strategy, so that as founders and first owners they can make a profit as a reward for taking early risks in their entrepreneurial venture. Therefore, it is not uncommon for shares owned by founders or other early investors to be put up for sale in initial public offerings. In contrast, individual owners may be reluctant to dilute their own level of interest in the enterprise, due to the weakening of the potential impact on the business of an aliquot ownership interest. In this case, from the position of existing owners, the effect of changing ownership can be seen as a lack of IPO process. There is also a risk that the company will not raise the desired level of capital if the market does not accept the share price or end up in failure.

In addition to the many advantages of the IPO process for the company conducting it, there are also disadvantages, among which the main and mostly directly visible are the various costs associated with the process of issuing securities and preparing comprehensive information about the company, necessary to present to potential investors. Otherwise, all relevant information related to the business, as well as the issue of shares, the company is obliged to summarize in the form of a prospectus. An example of the benefits that going public can bring to a company, but also the possible negative impacts on business as presented by Levis and Vismara (2013) are given in Table 1.

Table 1 Advantages and Disadvantages of a Company Going Public

	Advantages of a Company Going Public	Disadvantages of a Company Going Public
1	Facilitated access to credit and capital markets in the future through new issues of shares or borrowings that can be converted into capital.	Possible occurrence of short-term management decisions aimed at achieving or exceeding quarterly market goals.
2	Use of shares in the future as an instrument to finance business expansion and acquisition.	Presenting key company information to competitors, suppliers and customers.
3	Achieving greater management discipline.	Company exposure to detailed business analysis by shareholders and market analysts.
4	Better adherence to corporate governance rules.	Exposure to the risk of hostile takeovers.
5	Increasing the importance and prestige of companies in the market.	Increase in administrative costs associated with additional reporting requirements to regulators and the market.

Source: Levis and Vismara 2013, 67

According to Zingales (1995) the decision of a company to go public is related to understanding the tradeoff between the costs and benefits that companies can thus realize. The costs include preparation of the issue, registration, the cost of underpricing, annual costs of publishing important business information and financial statements, but also the agency costs arising from the separation of ownership and control or supervision of the company, etc. The same source states and identified uses of public offerings of shares for the company such as diversification of ownership and related reduction of influence of individual large shareholders, the possibility of financing capital above the initial investment of the owners, cheaper access to the capital market, increased liquidity of shares and an increased level of external control.

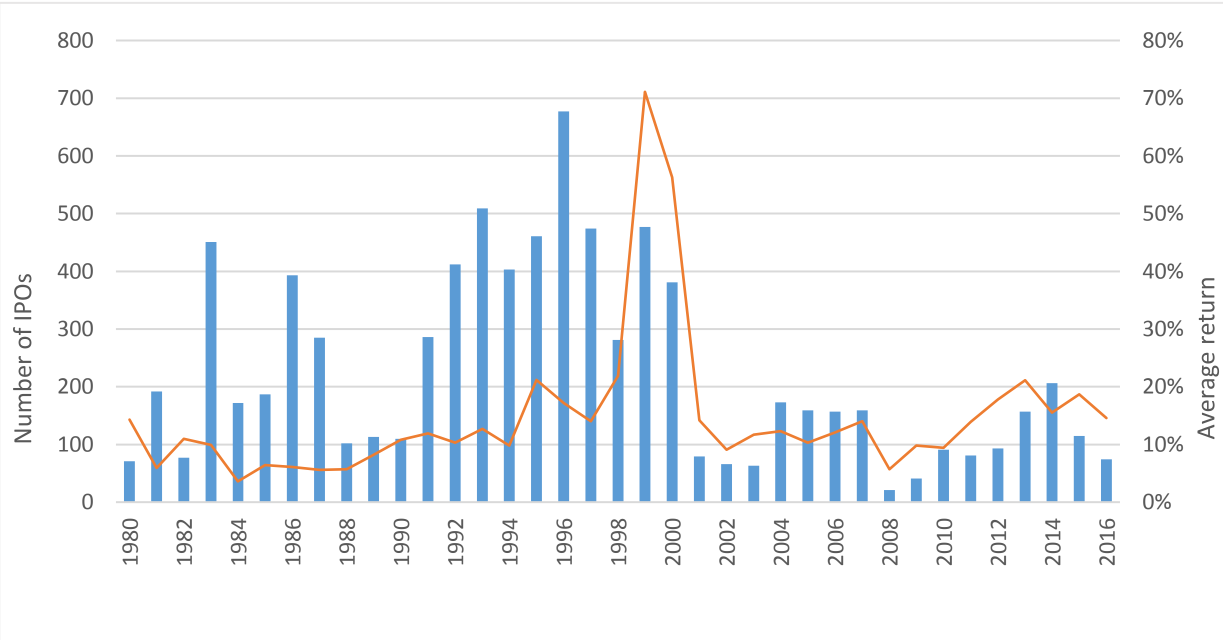
3. Stock Underpricing Mechanism

Underpricing is the determination of the price when issuing shares in the IPO process below their estimated market price. In the event that the share price is lower than the price achieved on the first day of trading on the stock exchange, the share is considered undervalued. It is also important to note that this is a temporary category because due to the action of market mechanisms of supply and demand, the share price moves towards intrinsic value.

Underpricing is the case of information asymmetry (Akerlof, 1970) because the issuer is in a position to have more comprehensive information on the value of shares than the average investor, so the issuer through the mechanism of underestimating the value of shares seeks to attract investors to participate in the IPO process, while successfully meeting its own expectations from the IPO issue.

A positive initial return after the first trading day is certainly a desirable scenario for investors. The initial return is all the greater the more pronounced the effect of underpricing. The effect of underestimation is not constant, but has oscillations over time. According to the data presented on Exhibit 1 covering the number of IPOs in the US and the realized average values of returns during the first day of trading in the period 1980 - 2016, underpricing in the US market are visible. The average effect of underpricing shows value of about 7% in the period 1980-1989, doubled, i.e. to an amount of about 15%, during 1990-1998 and after the internet bubble, i.e. in the period 2001-2003 the underpricing fell to about 12%. The differences in underpricing levels show changes in behavior and expectations of issuers and investors.

Exhibit 2 Overview of the number of IPOs in the USA and the realized average values of returns during the first day of trading in the period 1980 - 2016



Source: Ritter 2017, 3

In their study, Loughran and Ritter (2004) state that the dynamics of change in undervaluation can be related to, among other things, three phenomena: changes in the risk structure, changes in motives, and changes in the issuer's goals. From a risk point of view, the share of the IPO that represents the riskier shares should, as expected, have a higher level of underpricing. Underpricing in this case is in the function of motivating investors to participate in the IPO market given the risk structure. When it comes to prioritizing between different issuer motives and goals, they relate to a company's willingness to accept underpricing. In case of toleration of significant underpricing, the signatories of the issue can also expect a higher reward for the service provided. When it comes to the motivations of company managers to tacitly tolerate significant underpricing during the internet bubble in 1999 and 2000, motives such as increased ownership fragmentation, which allow managers to retain control, and increased frequency and size of share allocation to some manager's desirable shareholders. Such changes in motives make key decision makers in a company less motivated to negotiate with the signatories of the issue and achieve a higher share price in the IPO offer. Another important goal is to motivate key decision makers for the success of IPO issues, such as hedge funds or CEOs of issuing companies, by supporting the choice of a targeted signatory of the issue prone to underpricing, who in turn will seek to benefit them through personal acquisition or allocation of quality IPOs. This phenomenon of spinning has been significantly reduced by legislation in the period after the Internet bubble, and underpricing has fallen to the previously mentioned level of 12% as before the Internet bubble.

According to the Draho (2004) there are several theories that try to explain the phenomenon of underpricing. Theories are grouped into three general categories: institutional underpricing, publisher goals, and behavioral messages. According to empirical findings, the formation of the share price from the offer is influenced by information obtained from investors, and they are only partially corrected in response to good information from the market. In developed capital markets, institutional investors obtain the majority of allocated shares. Larger allocations of shares are given to regular investors and probably those willing to give in advance the prices at which they are willing to buy. Large initial returns are often the result driven by the issuer's goals, and according to some data, issuers also use the stock underpricing as a mechanism to disperse the ownership base. This have limited influence at IPOs in transition countries since the institutional investors are still on the rise in respect to their influence on capital market. Although this influence is becoming stronger in each year.

The increase in the use of underpricing and the significant large initial returns achieved after the first day of trading during the Internet bubble in 1999 and 2000, may be associated with a lower sensitivity to wealth. Financial motives, including taxes, have been seen as a motivator for CEOs to be more tolerant of stock underpricing. Managers are also more prone to underestimation if this attracts the attention of financial analysts or encourages better allocation in future attractive IPOs. The author also states that behavioral factors influence the formation of the market price on the first day of stock trading. Issuers are shown to be inclined to accept lower stock prices on offer, while small investors can raise stock prices to irrational values through speculative investments.

4. Underpricing of Initial Public Offerings in Croatia

The phenomenon of underpricing on the Croatian capital market can be explained by rather conservative pricing due to the lack of experience in this way of raising money and the caution of IPO teams when preparing a public offer. The conservative setting of the public offering price enabled a strong rise in stock prices after the start of trading on the stock exchange.

Underpricing, and thus earnings during the first trading day, were most pronounced for INA shares with an increase of 28.4% and HT shares with an increase of 43.4% at the end of the first trading day, as shown in Table 2. The effect of undervaluation was not recorded in the case of the issue of Atlantic shares, which speaks in favor of the argument that the price of the IPO is set at the level of market expectations.

Table 2 Review of the effect of underpricing and change in market capitalization from the day of listing to 31.12.2017. year of historically significant IPO releases

Company	Final price in public offer (HRK)	Number of shares in the issue	Date of IPO	Price at the end of first day of trading (HRK)	Trend in respect to initial price (5/2)	Market capitalization at the end of first day of trading (mil. HRK)	Price at the end of the end of 2019. (HRK)	Market capitalization at the end of 2019 (mil. HRK)	Trend in respect to initial price (10/5)
1	2	3	4	5	6	7	8	9	10
INA d.d.	1.690,00	10.000.000	01.12.2006.	2.170,00	28,40%	21.700,00	3.250,00	32.500,00	49,77%
HT d.d.	265,00	81.888.535	05.10.2007	380,00	43,40%	31.117,64	165,40	13.544,36	-56,47%
Atlantic Grupa d.d.	935,00	2.469.995	19.11.2007	935,00	0%	2.309,44	862,00	2.129,13	-7,81%

Source: Zagreb Stock Exchange, Grubišić, 2008

By the end of 2019, Atlantic shares lost 7.81% of their value to their investors, HT shares 56.47%, while the value to investors in INA shares increased almost 50%. Although this observation has no implication for underpricing mechanism we have mentioned it here to emphasize how the long-term investment component should certainly be taken into account when it comes to the actual profitability of investing in individual stock issues.

5. Conclusion

Taking into account the uncertainty of the actual market reaction to the IPO, i.e. the liquidity and the price that the shares will actually achieve, the formation of the price for the IPO below the expected market price is actually a realistic expected approach. That is especially truth in transition economies where capital markets are not as developed.

From the position of an investor, buying IPO shares is a risky business for the simple reason that IPO shares generally do not have a trading history. It can be said that if the predictability related to the liquidity or stock market performance of the share is lower, the underpricing of the value of the share by the issuer is more certain, as a compensatory mechanism for the investor's risk. Of Croatian companies, underestimation, and thus earnings during the first trading day, were most pronounced in the shares of INA with an increase of 28.4% and HT with an increase of 43.4% at the end of the first trading day. In the case of the issue of Atlantic shares, the price did not change, which speaks in favor of the argument that the price of the IPO is set at the level of market expectations. As experience in IPO issues increases, the effect of underpricing should be reduced as expected, except in the case of targeted use of this mechanism by issuers.

Given so far modest IPO activity in Croatia, there is no representative sample to monitor the undervaluation mechanism, as is the case with some large capital markets with significant IPO activity. However, by going through analytical evidence of underpricing of initial public offerings in three most important IPO cases in Croatia we can determine that higher underpricing levels were present in the case when the IPO was used as a privatization mechanism; that is where the sold shares were in the ownership of state. Private issuers do not use underpricing mechanism to such high extent. Reason for this is probably a double agency problem present in the state owned companies as well as political motives behind initial public offerings of state owned companies.

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