

THE SHORT-RUN PERFORMANCE OF THE IPO SHARES OF NUCLEARELECTRICA AND ROMGAZ. AN EMPIRICAL ANALYSIS

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Abstract

This paper is proposing an empirical analysis of the short-run performance of the shares subsequent to the two IPO's in the Romanian capital market in 2013, specifically the IPO of S.N. NUCLEARELECTRICA S.A. and of S.N.G.N. ROMGAZ S.A. It will be analyze if these two IPO's, the most important ones in Romania in the last 5 years, present the same general characteristics of underpricing that have been determined and documented by researchers like Jay R. Ritter or Kristian Rydqvist. This research will be realized by applying the models proposed in their works and by making an empirical determination of the short-run performance of the two stocks mentioned relative to the evolution of the market and to the initial price, observed until December 2014.

Keywords: IPO, short-term performance, equity, stocks, BVB

JEL Classification: G12

1. Introduction

An initial public offer is the act of a selling a security for the first time on reglemented capital market, for creating liquidity. One of the best-known phenomenon pertaining to IPO's is the high frequency of substantial initial returns (the difference between the price of the IPO and the market price set on the first day of trading) for the investors. This phenomenon has been documented by numerous studies and analysis that have determined an asymmetric distribution of initial returns on investments. For example in the US the medium initial return for IPO's is about 15% (Ritter, 1998).

The phenomenon mentioned, which is specific to IPO's (initial public offerings), is called „underpricing” and it is particular to each capital market, but the degree of underpricing differs from country to country. Also a tendency has been identified for securities listed

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through an IPO to have a lower performance than the average of the stock market, in the first 5 years of trading. This article will focus on the shares of S.N. NuclearElectrica S.A. and S.N.G.N. Romgaz S.A listed on the Bucharest Stock Exchange by initial public offer in 2013 and on a subsequent analysis of the underpricing and short term performance specific to these shares, so it can be verified if the described phenomenon specific to IPO's are also applicable to the Romanian capital market.

The Romanian stock exchange has been characterized in the last years by a low liquidity and in 2013, when the two IPO's that are the subject of analysis, the first ones on the Romanian capital market in the last five years (that were successful), the investors considered this a sign for a new era of prosperity. That is why it was considered that this study of the performance managed by these two stocks launched in 2013 can verify if the expectations of the investors ring true and if the two IPO's managed to reignite the Romanian Stock Exchange.

2. Underpricing

One of the best-known characteristics of initial public offerings is the "underpricing", which is pricing the stock in the initial public offering below the real market value of the newly issued stock. Thus, when trading starts of said stock, the price will increase significantly in comparison with the rest of the capital market, which produces high returns for the investors. This is just temporary because the laws of offer and demand will drive the price to its intrinsic value.

Regarding underpricing, the phenomenon that influences the short term performance of initial public offerings, which will be analyzed in this article for the stocks issued by NuclearElectrica and Romgaz, it's generally considered that it is generated to alleviate the concerns of the investors regarding liquidity and the concerns of the issuers about the attraction that the new stocks will generate for investors. Basically investors are concerned that they will lose money with the new stocks and the issuers are concerned that nobody will buy their new stocks. But this is just one very general theory that doesn't account for all the variables. What is certain is that the process of going public is very stressful for the entrepreneurs and an unknown stock can make investors very wary.

Economists have proposed many hypotheses and models for the appearance and determination of underpricing, that aren't necessarily mutually exclusive. What is certain is that certain theories

are better suited for certain IPO's. The most widely accept theories for underpricing are:

a) "Winner's curse" – this is one of the best-known hypothesis for underpricing and it was proposed by Rock (1986) and it's sustained by analyses like the ones of Koh and Walter (1989). The idea is that if the demand for an IPO is substantial and it exceeds the quantity offered (oversubscribed), then rationing will occur. In this case the investors that are at an informational disadvantage from the others (being unable to correctly measure the value of the new stock and subsequently decide on the value of their investment) can be affected by the "winner's curse" in case of rationing: being allocated a small part of the attractive stocks and/or a lot of unattractive ones. Although rationing by itself don't lead to underpricing, if informed investors try to buy as much attractive stock as possible in an IPO, the lesser informed investors will get a smaller number of stock. This is why uninformed investors will only make an offer to buy if on average the initial public offerings are underpriced enough for them to be compensated in case of an unequal allocation.

b) Market feedback – when the book building method is used to form the price of an initial public offering, investment banks use underpricing to determine the investors in giving accurate information in the pre-sale period for setting the price. Furthermore, to determine a fair evaluation from the investors of a certain IPO, the investment banker needs to underprice more the issues for which favorable information has been revealed than the ones with unfavorable information. This aspect leads to the presumption that there will be a change in in the offer price in the final prospectus, from the preliminary one. Thus, an IPO for which the price was revised up (raised) will be more under priced than one for which the price was revised down (lowered). This hypothesis comes form Rock's (1986) analysis and has been tested by Van Bommel and Vermaelen (2003).

c) The bandwagon effect – this hypothesis, proposed by Welch (1992) and Ritter (1998), considers that the market for an IPO can be characterized by a bandwagon effect. This means that if investors pay attention not only to their own personal information, but also to the actions of other investors, if they are buying or not, their decision can be influenced, thus creating a bandwagon effect. If some investors won't buy the stock from the IPO they can influence others to do the same. This is why an issuer, to counter such an effect, can underprice it's own issue to try to recreate the same bandwagon

effect in reverse and determine other investors to also buy they're stock, regardless of the information they might have.

d) The hypothesis of the investment banker's monopsony – this theory refers to the possibility that investment bankers or brokers, that are charged with setting the initial price, can use their superior knowledge of the market to underprice the IPO's they manage so that they can lower their marketing costs/effort and also they can indebt the buyers, thus creating a close business relation with them. According to the analyses of Ritter (1998 and 2011) and of Fische and Boehmer (2001), while there is some partial truth to this theory, especially in the case of less sophisticated issuers, even when an investment firm is listed on the stock market through an IPO, it is underpriced to a comparative level to the rest of the market. Even so, investment bankers and brokers that run IPO's say that the underpricing phenomenon is normal and is not artificially induced.

e) The hypothesis of lawsuit avoidance – Tinic (1988) and Hughes and Thakor (1992) have considered that underpricing can represent a method, although a costly one, to reduce the frequency and severity of lawsuits that can be generated by an IPO, because through underpricing a loss on the stock market is less likely and the investors are tempted to ignore any potential errors of the issuers or the investment bank, because of the profits generated. Ritter (1998) suggests that this hypothesis is derived from the regulations of the U.S. stock market, Securities Act from (1933), which states that all the participants to an initial public offering that sign the prospectus are responsible for that issue

f) The "signaling" theory – this hypothesis and the "winner's curse" one have the most followers for explaining the underpricing phenomenon, citing the works of Garfinkel (1993), Welch (1989) and Allen and Faulhaber (1989). According to the models they proposed, underpriced initial public offerings create for themselves a good reputation in the eyes of the investors, which permits those issuers and their affiliated persons to sell those stocks in the future for a better price than normal. This signaling theory has also been formalized in signaling models, which consider that the issuers have knowledge pertaining to the issue, if it has a small or large value and they can follow a dynamic investment strategy through which the initial public offering will be followed by a secondary public offering that will capitalize on the reputation created. Even so, a number of empirical studies have not been able to identify a relation between the initial return of an IPO and the price of

subsequent public offerings, raising some question marks regarding this “signaling” theory.

g) The hypothesis of ownership dispersion – issuers could deliberately underprice their IPO, according to the analysis of Booth and Chua (1996), to generate an excess of demand and oversubscription that will lead to rationing of the stock and creating a large number of minority shareholders. This dispersion of ownership will increase liquidity of the issue and it will make it difficult for new shareholders to gather and question the management decisions.

These are, according to Ritter (1998), the main accepted theories for the underpricing of initial public offerings. Although the majority can be criticized and arguments against them can be made, they all have an element of truth to them. The underpricing phenomenon persists for a long time on the international capital markets and there are no signs that it will soon be over.

Also, in the specialized literature there has also been identified a characteristic of initial public offerings of having a lower return on investment, comparatively to the rest of the stock market. Ritter (1998) discovered, based on the analysis of the performance in the first 5 years of trading of 5.281 initial public offerings in the U.S.A. in the 1970-1993 time frames, that these IPO's have a growth¹ that is 20% lower than that of other comparative stock on market. This phenomenon is more pronounced for firms that have gone public in years of high liquidity on the market and for “young” firms.

There have been a lot of analyses based on the phenomenon specific to initial public offerings that confirmed their presence even in the case of IPO's on different international capital markets, but with different degrees of underpricing. This study will verify the existence of underpricing for the issues of Romgaz and NuclearElectrica, listed through initial public offerings, and also their short-term performance, if in the first year of trading they had a tendency to grow that was below the market average.

3. Methodology

To do an analysis of the short term performance of stocks issued by S.N. NuclearElectrica S.A. (symbol B.V.B. - SNN) and S.N.G.N. Romgaz S.A (symbol B.V.B. - SNG) first the underpricing of the two stocks has been determined using a model proposed by Saunders/Lim (1996) and Lee/Taylor/Walter (1996), which takes into

¹ For this analysis, the closing price of the first trade day has been considered and not the price established in the initial public offering.

account the closing price of the first trading day and the price of the initial public offer.

$$UN_i = \frac{(PI_i - PO_i)}{PO_i} \times 100$$

- UN_i = underpricing
- PI_i = closing price of the first trading day
- PO_i = price of the initial public offer

It can be observed that for the stocks symbol SNG there has been an underpricing of **15%** and for SNN of **3%**, which is 5 times lower. If we also take into consideration the underpricing of the initial public offer of Electrica S.A. (the only other successful IPO in Romania in the last 5 years), which was in 2014 with a **2.3%** underpricing, we have an average underpricing specific to the capital market of Romania of **6.8%**. Considering the results of the analysis done by Loughran, Ritter and Rydqvist (1994), this value is comparable to the underpricing specific to Austria (6.5%), Denmark (7.7%) and Holland (7.2%).

The significant difference between the underpricing of the two initial public offers that are analyzed makes it extremely difficult to approximate an average underpricing specific to the capital market of Romania. However, such an average can't be determined with a high degree of confidence because of the very reduced sampling data for a statistical analysis (only four IPO's in the last five years and only 3 of those were successful), which can't determine findings of statistical relevance that can be considered representative.

To do an empirical analysis of the short term performance of the two stocks (SNN and SNG) data has been collected, regarding the evolution of their price, into a database of their closing price at the end of the month, for the analyzed period. This information was obtained from the stock markets monthly publications. This model is based on the official evaluation method of a stock that is listed on a regulated market, according to article 113 paragraph 1 point 1 of Regulation no. 9/2014 of the Romanian Financial Supervisory Authority (ASF), which states that stocks are assessed at their closing price on their main market segment, for the day in question. To eliminate any abnormal variations, which could be generated by various current situations, only the closing price at the end of the month was considered, because for the current analysis only the general evolution of the price is necessary for the two stocks and not all the price variances in the analyzed period.

To be able to make a comparison with the general evolution of the capital market in Romania, the BET index of the Bucharest Stock Exchange has been taken into consideration, which is the reference index for the capital market in Romania and is comprised of the top 10 most liquid companies from the principal market of the Bucharest Stock Exchange (excluding the five listed financial investment funds – SIF). This is a price index weighted with the capitalization of the free float, the main criteria for selection of the companies included in this index being their liquidity (the two analyzed companies, Romgaz and NuclearElectrica, are a part of this index).

Figure 1

SNG stock performance

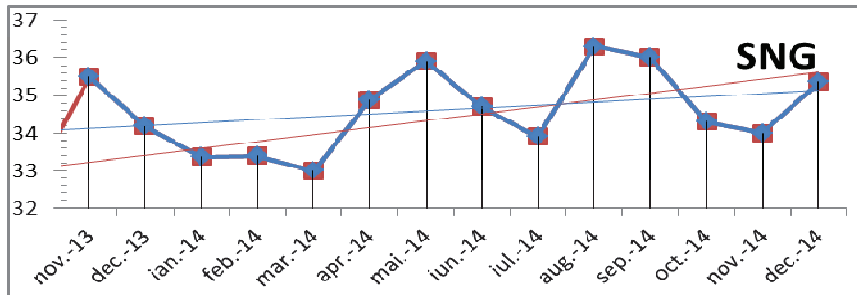


Figure 2

BET index evolution

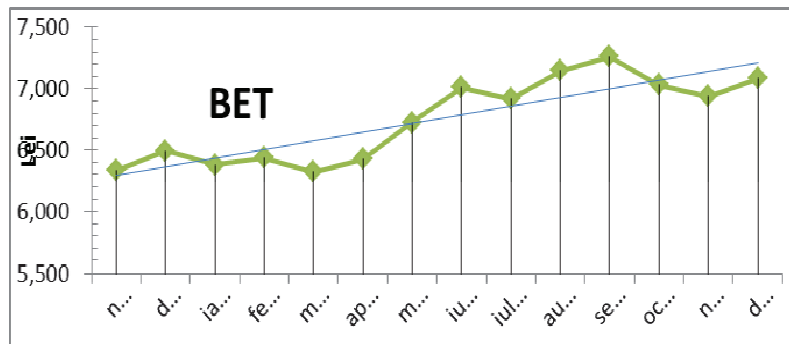
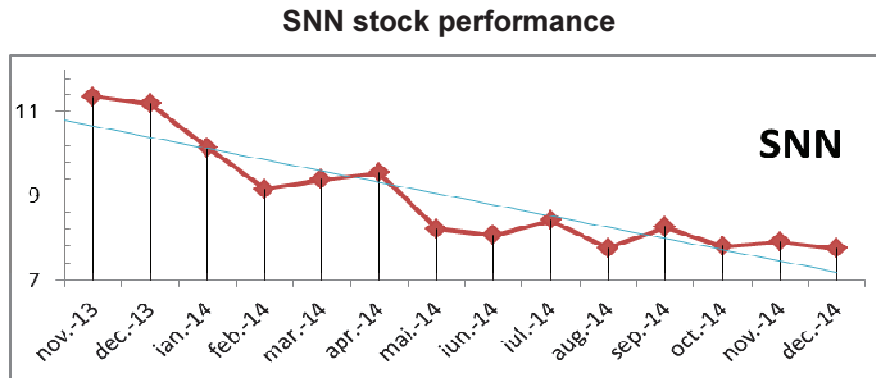


Figure 3



As can be observed from Figure 1, the stock of SNGN ROMGAZ SA had a fluctuating price evolution in the analyzed period, but if we observe the trend line (marked with blue) it was overall ascending. Also, the price fluctuations, especially the minimum and maximum spikes, have a correspondent in the evolution of the BET index in Figure 2, concluding that this variations can be attributed to the evolution of the national economy and current events that have perspired in the analyzed period. It can be observed that the trend of economic growth is more pronounced for the whole capital market, represented by the BET index, than for the SNG stock. In conclusion we can identify the premise for the phenomenon of poor short run performance for IPO's in the first 5 years of trading, comparative to the rest of the market, according to the model proposed.

If we take into consideration the price of these shares in the initial public offering as a starting point, for which an underpricing of 15% has been calculated, we can observe that the new trend line (marked with red) of the price is much more similar to the one of the BET index. That is why, if we start from the premise that this company should have an economic growth comparable to the average of the national economy, we can observe that the price established in the initial public offer was much closer to a fair market value considering the normalization of the price that is generated by the capital market (offer and demand).

In contrast to the stocks of Romgaz, the ones of the company NuclearElectrica, Figure 3, had a pronounced negative trend, being the exact opposite of the trend registered by the stock market in the same period of time. Thus, taking into account the premise of adjusting the value of a share in a market of free capital at it's real

value, we can conclude that the stock issued by NuclearElectrica by initial public offering were actually overvalued. The low underpricing, calculated at only 3 %, can be explained, most likely, by an increased initial interest of the investors in these shares.

4. Summary

For the two IPOs analyzed, the degree of underpricing has been identified as 15% for Romgaz and 3% for NuclearElectrica. The wide variation between these two values, and low sample available for analysis, only 3 IPOs successfully deployed in Romania in the last five years, makes it impossible to calculate or estimate a specific degree of underpricing for the Romanian capital market that would be relevant statistically.

From the empirical analysis of the short-term evolution of the two shares examined in comparison with the economic development of the capital market (represented by the B.S.E. BET index), it can be observed that Romgaz had a much lower than average growth, while NuclearElectrica registered a significant decrease of approximately 32%.

In the case of the shares issued by Romgaz, if you don't take in account the phenomenon of underpricing and for the starting price of the analysis we consider the price from the initial public offer, the adjusted growth trend is the same as the one recorded by the capital market. Thus the underpricing registered was most likely generated by the huge interest among investors. Considering the normalizing process for the value generated by offer and demand, the price stated in the offer was actually very close to the real value of these securities. Also, if you consider the closing price of the first trading day as the starting price of the analyses, the resulted decreased growth trend compared with that of the capital market, we can identify the premise of the phenomenon of low short-term performance (5 years) of shares issued by public offer compared to the rest of the capital market.

Also, the increased interest generated among investors may explain the degree of underpricing of 3% registered by NuclearElectrica shares.

Thus, it can be seen that the stock of Romgaz was offered for sale at a real value, and the stock of NuclearElectrica was actually overvalued. The success of both IPOs and registered underpricing phenomenon can be attributed to high interest shown by investors because these IPOs were the first ones successfully deployed in

Romania in the last 5 years. The characteristics of initial public offerings, identified by Jay R. Ritter, apply, on the basis of this empirical analysis, for the IPOs conducted on the Bucharest Stock Exchange, although, because of a very small sample, the results pertaining to the characteristics of the underpricing phenomenon specific to the Romanian capital market cannot be considered statistically relevant.

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