

FACTORS INFLUENCING THE PROFITABILITY OF SECURITIES ON THE ROMANIAN STOCK EXCHANGE

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Abstract: The situation of the stock exchange is important in assessing the internal and international trends, as well as in determining the possibilities of short-term economic growth, although it is difficult to establish a direct relation between the indicators. The evolution of stock exchange transactions in Romania and of the investors' trust in the capital market is connected to a series of factors such as the return obtained by investing the available sums of money in financial securities, the state of the national economy, as well as other types of financial or non-financial information of national, regional or international relevance. A good assessment of the situation of the stock exchange is crucial for investors in the decision-making stage, when they have to decide if they want to invest, in the portfolio management, or if they want to "withdraw" from a specific market. Thus, it is necessary to measure the volume, the quality and the intensity of the activity of the capital market through a series of specific quantitative and qualitative indicators. By monitoring the evolution of these indicators it is possible to characterise the performance of the stock exchange and of its level of development at a specific moment. This paper focuses on presenting the main factors influencing the profitability of securities on the Romanian stock exchange.

Illustrating the activity of the capital market through stock exchange indicators represents a barometer which measures daily the results of the entire economy at national and international level.

The characterization of the capital market is done through several general and technical indicators which measure the size, the width, the flows, the structure, the organisation and the results of the activity carried out in the framework of an organised market dealing with trading securities.

The overall assessment of a capital market is done through general indicators that provide investors an overview of the volume and dynamics of that specific market. The number of available financial instruments – both in terms of categories of instruments and of the number of instruments for each category – is essential for institutional and specialised investors in their diversifying, arbitrage and hedging operations.

The number of listed companies indicates the number of economic agents or other types of companies, such as banks and funds or investment firms, which are listed on one of the organised markets. This number reflects the qualitative structure of the legal organisation of economic agents and public companies that use the capital market as a means of capitalization. A well-developed market economy is based on public companies, organised and financed by a large number of investors, and the capital market offers this possibility to finance an effective development, especially when its functioning is a transparent one.

Thus, a small or a decreasing number of companies listed on the stock exchange system of a country reflects the diminishing of the capacity of economic development, by eliminating the possibility to raise and invest capital through the public offer.

The Romanian stock exchange is a heterogeneous market, with a reduced number of issuers, who belong to various sectors. In some fields of activity the number of companies is too reduced for the potential average values calculated to be representative. An example in this respect is the service sector, represented by a single issuer.

Table 1

The number of companies listed on BVB quotation in the period 1995-2007

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
9	17	76	126	127	114	65	65	62	60	64	58	59

Source: BVB, annual reports, 2000-2006 and public information on www.bvb.ro, Oct.2007

The number of listed securities is an indicator of the volume of the market, which shows the degree of diversification of the use of the capital market by issuing companies that are listed on the respective market.

The listing rate is an indicator used by some stock exchanges for their periodical reporting activities and it is calculated as a ratio between the number of listed securities or instruments and the number of listed companies. The listing rate has by its definition a supra-unitary value, as it is assumed that any listed company owns at least the ordinary shares when transactions occur.

On developed markets, every listed company presents several types – classes and sub-classes of real estate assets – at the quotation of the stock exchange.

Table 2

The number of financial instruments listed at the BVB quotation, 2007

Type	Category	Number of financial instruments
Shares		95
	Issued by entities from Romania	95
	I	20
	II	39
	III	0
	Unlisted	36
Rights		0
Bonds		19
	Issued by entities from Romania	17
	Corporate	5
	I	0
	II	2
	III	2
	Unlisted	1
	Municipal	12
International	2	

Source: BVB, public information on www.bvb.ro, Oct.2007

$$RL_{BVB} = \frac{\text{No. financial instruments}}{\text{No. listed companies}} = \frac{63}{59} = 1.07$$

In the case of the Romanian capital market, the value of this indicator is very close to 1, because companies only have their ordinary shares when transactions occur. The

only indicator which increases the value above 1 is represented by 4 (listed) issues of corporate bonds (Table 2).

Company capitalization is the indicator which reflects the value granted by investors to a company listed on an organized market. The value of the indicator is calculated by multiplying the number of shares with the price of that respective share. Thus, a company's capitalization varies according to the number of shares and the evolution of the value of the share. Most of the companies listed on the Bucharest Stock Exchange registered a growth of capitalization based on the increased value of the shares, while a small number of listed companies also increased their capital, which had as a result a higher number of shares.

Stock exchange capitalization represents the sum of the capitalizations of all companies listed at the stock exchange quotation. The indicator offers an overview of the volume of the respective market at a given moment.

$$M = \sum_{i=1}^n C_i N_i$$

where: M – stock exchange capitalization,
 C_i – share price of company i ,
 N_i – number of ordinary shares of company i .

The stock exchange capitalization indicator is normally put in practice by a long-term monitoring of the registered values or by making comparisons with other stock exchanges.

The first method involves monitoring the evolution of the indicator on the same market, when it expresses a growth of the companies' preference to use the capital market in order to raise financial resources – if the value of the indicator increases, or a preference to attract investments through other means than through the stock exchange system – if the value of the indicator decreases. If the increase or the decrease of the values of the stock exchange capitalization is determined only by the evolution of the share price, than it can be stated that there is an appreciation of the value of the society listed at the stock exchange quotation, respectively a depreciation of this value in the second case.

In the case of BVB, the appreciation of capitalization was mainly due to the increase of the share value, although there were also increases in the owners' equity or new issues, whose contribution was not a significant one.

The second method of using the stock exchange capitalization is to calculate its weight of the gross domestic product (GDP) and to make comparisons with other stock exchanges. A reduced percentage shows that the market is still not sufficiently developed.

Double registration can represent a problem in calculating the correct values, which appears in the case of private investment funds listed on the stock exchange, because the content of the assets is represented by shares belonging to other companies listed on the stock exchange, which means that the increase of the share value of these companies is reflected directly in the formula and indirectly by influencing the price of the fund assets, a price which is also used in calculating the capitalization. This double registration is a major problem only on those capital markets where the weight of the capitalization of listed private investment funds represents a high percentage of the total value of the capitalization of listed companies. In Romania, the double registration only

occurs in the case of the five SIFs, as they own shares belonging to other companies listed on BVB and RASDAQ.

The Bucharest Stock Exchange registered a good performance between 2000 and 2007, with an important increase of the capitalization value, from €15 bill. in 2005 to over €21 bill. in 2006 (Table 3). Practically, the most important years of the stock exchange, since it was set up and until the present, were the years 2004-2006.

Table 3

The evolution of BVB capitalization in the period 2000-2007

	2000	2001	2002	2003	2004	2005	2006	2007
BVB Capit.	450.51	1,361.08	2,646.44	2,991.02	8,818.82	15,311.35	21,414.91	24,600.75
Relative growth	-	202%	94%	13%	195%	74%	40%	15%

Source: BVB data after the last trading session in the respective years

As it can be seen in Figure 1, the evolution of the capitalization respects the configuration of an exponential function, a trend sustained by several factors, starting with those concerning the globalisation of financial markets and the access of foreign capital, and including also positive macro-economic indicators registered in the last years.

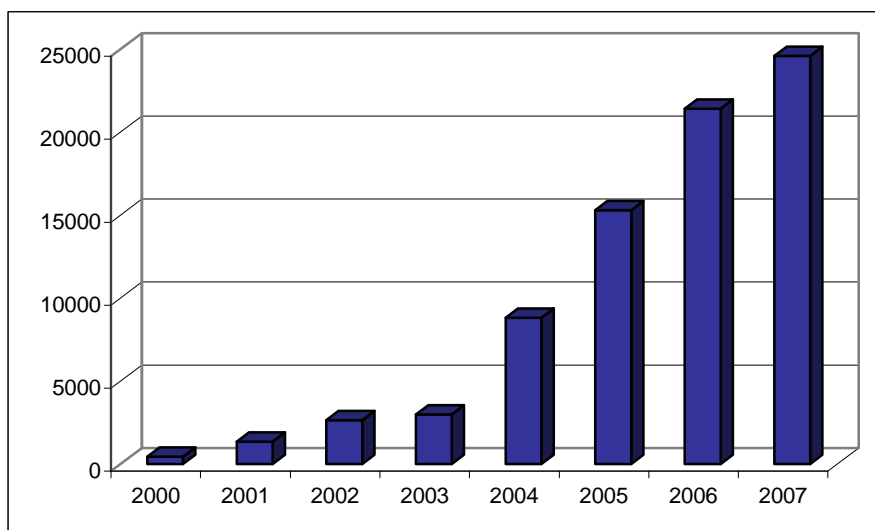


Fig. 1 Nominal evolution of the BVB capitalization in the period 2000-2007

Source: BVB data after the last trading session in the respective years

In a comparative analysis of the three most important parameters of the Bucharest Stock Exchange we notice a decrease in the growth rhythm of the traded value (which increased only by 30.7% in 2006/2005 compared to 64.5% in 2005/2004), an increase of capitalization and a decrease of the appreciation rhythm of the share prices, reflected by the BET index (an increase of just 22.2% in 2006/2005, compared to 50.9% in 2005/2004 and 212.9% in 2004/2003).

Table 4

**Evolution of capitalization, the traded value and the BET index
in the years 2004-2007***

	2004	2005	2006	2007*
Capitalization:				
- value (bill. lei)	34.1	56.1	73.3	87.9
- growth year/ previous year (%)	180.2	64.5	30.7	59.3
- weight in GDP (%)	13.9	19.5	21.4	n/a
Traded value:				
- value (bill. lei)	2.7	7.9	10.7	7.49
- growth year/ previous year (%)	164.7	192.6	35.4	63.5
BET:				
- points	4,364.7	6,586.1	8,050.1	6,665.6
- growth year/ previous year (%)	212.9	50.9	22.2	37

Source: BVB, CNVM reports, summary of transactions on www.bvb.ro, for the years 2004-2006 and the 1st quarter of 2007, statistical yearbooks

The structure of the stock exchange on economic sectors does not reflect the way in which the value of the gross domestic product is obtained. The figures available in September 2006 showed that from the weight of 87.8% represented by the entire economy, approximately 26% of GDP is represented by industry, 49% by services, 5.8% by construction and only 2% by financial and banking services. On the other hand, stock exchange capitalization is concentrated on industry – with 48% represented by oil companies, and only 15.6% by other companies in the industrial field. This reflects the dependence of the stock exchange on oil companies and the insufficient level of representation of industry on the stock exchange. The services are mostly represented by the financial and banking sector (36%), and the construction sector has a weight of only 0.7% of the stock exchange capitalization.

Table 5

Structure of the stock exchange on economic sectors in the period 2005-Sep.2006

	GDP structure on industries		Capitalization structure on sectors	
	2005	sep.2006	2005	sep.2006
Agriculture	8.9%	7.0%	-	-
Industry	24.4%	25.8%	63.9%	62.7%
Construction	6.5%	5.8%	0.6%	0.7%
Services	48.3%	49.1%	35.5%	36.6%
Total economy	88.1%	87.8%	100.0%	100.0%

Source: the National Forecast Commission

As already shown, an important part of the capital market is sustained by the energy sector, with only two companies – Petrom and Rompetrol Rafinare Constanța – owning together 48% of the total capitalization. Practically, a volatility registered in these companies will determine changes in the volatility of the stock exchange indicators with important values. Due to this, the stock exchange fulfils at a low level

its role as a barometer of the economy, and its correlation with external markets rather than with the Romanian economy proves this fact.

The weight of capitalization in GDP is one of the indicators which express the level of development reached by the capital market in a specific country, or by the respective stock exchange in comparison with other markets in the same category. At the level of the European Union, the stock exchange capitalization of companies listed on the stock exchange represented in 2005 64.8% of the total GDP, registering a decrease compared to 2000, when the weight was of 87.5%¹.

According to statistical data regarding the annual value of GDP and to data from the last trading session of the respective year, we notice an increasing growth of the capitalization of companies listed on BVB as a weight of GDP (Table 6). In 2006 the BVB capitalization represents 21.42% of GDP, while the gross domestic product itself registers an important increase in value from one year to the other.

Table 6
Evolution of BVB capitalization in GDP in the period 2005-2006

- million lei -

	2000	2001	2002	2003	2004	2005	2006
BVB Capit.	1,101.9	3,857.3	9,158	12,186.6	34,147.4	56,065.6	73,341.8
GDP	80,377.3	116,768.7	151,475.1	197,564.8	246,371.7	287,186.3	342,418.0
%	1.37%	3.30%	6.05%	6.17%	13.86%	19.52%	21.42%

Source: BVB, INS

Although the situation seems to be an optimistic one, the growth of capitalization resulted more from the appreciation of the share price of the already listed companies and less from the entry of new companies on the market.

The growth rhythm of capitalization registered a slowing down trend in the years 2005-2006, mainly due to the fact that *individual ownership declined in the favour of companies controlled by groups of persons and firms, and that the level of ownership was limited to 1% of the owners' equity of the SIF*. This measure also determined a slowdown of the positive trend of the BET-FI index, which registered at the end of September 2006 an appreciation of just 2.1% compared to February in the same year.

Another measure which discouraged those investors that focused on speculative trading and capital turnover at short time intervals was represented by *the implementation of the provisions of the new fiscal code, which mentions that the taxation rate of incomes obtained from investments and from the transfer of alienated real estate properties in a period shorter than one year after the acquisition date increased to 16%*.

The transaction volume represents the volume of traded securities and is calculated for a specific period of time in order to offer an overview of the activity carried out in one or all the segments of the market. Its value is usually calculated on types of transactions: standard, individual and multiple share packages, divided in their turn into special transactions and offers. The value of the indicator can be calculated for intervals between one day and one year, but also as an average indicator for the stock exchange trading sessions (usually 250 days).

¹ World Bank Group, *World Development Indicators database*, April 2007

The transaction volume is an important indicator for the participants in the share transactions and it represents together with the price one of the main elements used in the technical analysis of the market.

In the case of the derivatives, the volume indicator is represented by the number of negotiated contracts on classes: options, futures, etc..

For the credit securities the volume indicator is calculated on classes of securities (bills, treasury certificates and bonds), and it focuses on the value of the transactions, because the number of transactions is not significant.

The transaction volume of shares listed on BVB displayed a similar dynamics as that of the stock exchange capitalization, registering a growth of 27% in 2006, compared to a growth of 223% in 2005 and one of 140% in 2004. In absolute values, *the value of transactions involving shares* listed on the stock exchange increased from ROL 7.81 bill. (€2.15 bill.) in 2005 to ROL 9.89 bill. (€2.80 bill.) in 2006, the causes of this phenomenon being largely similar with those which determine price evolution²: *the lack of new listings and the setting of correct prices for many of the stock exchange "stars"*.

Theoretically, *the liquidity of securities* and of the market is represented by the facility with which assets are converted into cash in a short time interval and with minimal costs. For the financial instruments to be considered liquid, they have to be easy to convert into cash, the cost of the transformation has to be as reduced as possible and the value of the financial asset has to remain stable in time. The increased liquidity of financial securities is also due to the existence of strongly developed financial markets on which these instruments can be sold or bought.

Regarding *market liquidity* – a very important indicator which influences to a great extent the decision of investing on a market or in a certain financial security – we can notice that due to the above mentioned reasons, all the records in this respect were broken in 2006. Thus, the maximum number of transactions negotiated at BVB reached in the last trading session of the year the value of 11,246.

The maximum turnover for one trading session was registered on 17 January 2006, when it reached the value of ROL 210 million. For the first time the average daily turnover of all the types of transactions carried out through the electronic platform *Arena* was above the value equivalent to €13 million.

For the second consecutive year, we notice a seasonality of the number of transactions, with investors showing their preference for the first and the last months of the year. Once with the integration in the European Union it is likely that this seasonality will disappear or suffer modifications, due to the gradual access of several European intermediaries on the Romanian capital market.

The liquidity rate, which is calculated as a ratio between the annual traded value and capitalization, registered a decrease from 14% at the end of 2005 to 13% at the end of 2006.

Market concentration has become a usual phenomenon from one year to the other. The most liquid companies have generated over 60% of the total turnover of the market. The top of the most traded securities at BVB includes securities issued by three of the five Financial Investment Societies (Table 7). This situation was also created due to the fact that most of the companies with an important capitalization have a relatively low free-float level.

² Source: www.intercapital.ro, Paşol, Răzvan, January 2007

Table 7

The most traded securities at BVB in the year 2006

Symbol	Weight of the total value of transactions (%)
SIF5	15.50
SIF2	15.22
SNP	10.47
SIF3	10.46
TLV	9.64
Total	61.30

Source: BVB report on 2006

In the first quarter of 2007 the market concentration on a small number of companies increased, and the investors showed their preference for the financial and banking sector. The weight of this sector in the total volume of transactions performed on BVB was of 80.3%, while the oil sector registered a decline (from 17% in 2005 to 10.9% in 2006 and to only 7.8% at the end of March 2007), especially due to difficulties faced by Petrom and Rompetrol Rafinare Constanța.

The free float indicator indicates the shares available for transactions on the market as a percentage from the total number of a company's shares. Among any listed company's group of shareholders there are also some investors who own a significant number of shares that they do not offer permanently for standard trade on the market, but only in special transactions and secondary offers. The types of shareholders who influence this indicator are the state, the investment funds, the significant or the strategic shareholders.

Calculating the value of this indicator has become necessary in order to determine how much of the stock exchange or the company's capitalization is represented by shares available for current standard transactions in normal market conditions.

This indicator represents the basis for the setting and the trading of the normal market reference price, the price/ earning ratio (PER), the current profitability of the share and the capitalization.

The share turnover ratio is an indicator connected to the transaction volume, and it expresses how many shares change their owner in a given period of time. It is calculated as a ratio between the volume of traded shares and the total number of listed shares in the same series. In emerging market economies, where a more reduced number of companies are generally traded, the share turnover ratio should be calculated according to the number of shares available for trade, compared to the total number of listed shares. This formula would express better the shareholders' interest in owning property and their attachment towards participating in the increase of the capital.

The transaction value is the general value indicator of the market and it is calculated as a sum of the values of transactions carried out in a given period of time. By comparing the annual value of transactions with the gross domestic product it is possible to illustrate the size and the importance of the capital market.

The size of the primary market is an indicator used to measure the value of new share issues through which companies listed on a market expand their operational capacity, financing real investment projects. According to the periods necessary for the development of the listed companies, it is considered that the value of primary issues should represent between 6%-20% of the secondary market capitalization.

Conclusions

In the last years, the evolution of the Romanian stock exchange has been characterised by a decreasing dynamics, usually registered after the first quarter. In 2007, the decrease occurred earlier due to internal political factors, and it was aggravated by the external international situation. In February 2007, a change of trend was noticed, and some trading sessions were dominated by feelings of panic. Despite all these fluctuations, the capitalization and the total value of transactions were in the middle of 2007 above the levels recorded in December and in the similar period of 2006. After this period – which may be one of consolidation – an ascending evolution is expected to follow.

The liquidity rate at the Bucharest Stock Exchange is very low and oscillating, which determines an aversion to this market, especially in the case of foreign investors and portfolio investments. BVB does not fully fulfil its role in the efficient allocation of the available capital, and the dominant aspect is the speculative character of the stock exchange.

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