## FIXED INCOME INSTRUMENTS IN THE CAPITAL MARKET IN ROMANIA

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#### Abstract

The presence of government bonds on the Bucharest Stock Exchange has changed the behavior of institutional investors on capital market and revenues from these titles made them more attractive than those with variable income, such as shares. In this paper is presented results of research on fixed income instruments in the capital market in Romania. In conclusion, are presented some opinions about the possibility of diversification of fixed income instruments and aspects of their use in portfolio management.

Keywords: fixed income securities, stock exchange indicators, index, trading volume, rate of liquidity

#### Introduction

In the current global economy, based increasingly on consumer debt and spending of anticipated future expected revenues, the role of fixed income instruments is more important, both for investors and for those who attract investment by such means. Further evidence was provided by the financial crisis over the 2007-2009 that the friction on financial market caused an economic blockade and a change in the behavior of buyers of goods and services.

Institutional investors such as pension funds, need adequate liquidity for investment instruments and any financial market can only succeed through a market with strong fixed-income instruments.

In the 15 years since the reinstatement of the stock exchange in Romania bull periods have managed to reduce the negative impact of the corrections from time to time, but given that most investments were made in shares. The existence of very few fixed-income instruments on the capital market has made very few international investors to be present here.

First is presented an analysis of the dynamics of capital market during the representative, in terms of structure, liquidity and the main indexes. The paper continues with the development of fixed income securities market, and the third is illustrated by some aspects of investment behavior in recent years. A representative picture of the dynamics of this behavior, the feeling of trust and loss aversion is given by the evolution of investment funds in diversified portfolios structure.

#### 1. Capital markets dynamics

From 1996 until now, the evolution of exchange transactions in Romania and investor confidence in capital markets is linked to a number of factors such as the yield obtained by placing the amount available in the financial instruments, the state economy, local exchange rate, integration at the European Union and other financial information or less financial, national, regional or global.

Romania's capital market still fails to fulfill the primary role of attracting the funds available in the economy, and most investments are made without any recourse to stock system. After four years of appreciation in share prices between 2003 and 2007, the global recession of 2008 demonstrated that emerging capital markets are more vulnerable to large capital inflows. At the same time prove the foreign investment often speculative and conjectural elements to produce a short-term impact of high volatility, which is not specific to long-term capital.

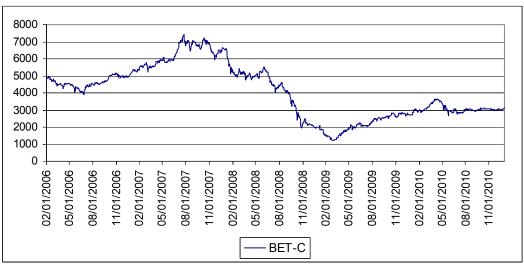
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Because of possible distortions in the BET analysis, from Bucharest Stock Exchange, caused by changing composition of the index in terms of the 10 companies included in the index, we considered more relevant BET-C index, which covers all listed companies. Even in those circumstances there could be a problem given the extremely low liquidity of shares, but this is partially solved by free-float factor included in the formula for calculating the index.

BET-C had the highest value on July 24, 2007 to 7432.63 points. February 25, 2009 was 1231.05 points recorded minimum, representing a decrease of 83.44%. (Fig.1)

BET-C index value has made a comeback in 2009 and the last trading session of December there were 2714.77 points, with 120.5% more than the minimum in February of that year. But 2010 was a year of stagnation, the year that ended BET-C index was 3111.17 points, up only 14.6% over the previous year. Note there are two moments in 2010, the minimum registered on 25 May of 2658.23 points, after the peak of 3655.27 points recorded on April 4.

Fig.1 The composite index of the Bucharest Stock Exchange, BET-C, during Feb.2006-Dec.2010



Source: Bucharest Stock Exchange (BSE), data series on the website: http://www.bvb.ro/

The stock exchange market in Romania is a heterogeneous, but with a reduced number of issuers, which belong to different economic sectors. Unfortunately the structure of capital market capitalization, by industry sector, does not reflect the structure of GDP. In some sectors the number of listed companies is much less to be representative of that area. An example is given by the service sector and information technology, each represented by a single issuer.

Table.1 Number of companies listed on the BSE, during the period 1995-feb.2011																
`95	`96	`97	`98	<b>`99</b>	`00	`01	`02	`03	`04	`05	`06	`07	`08	`09	`10	`11
9	17	76	126	127	114	65	65	62	60	64	58	59	67	71	70	75
			-													

Source: BSE, annual reports, 2000-2009 and public information on www.bvb.ro, feb.2011

Bucharest Stock Exchange showed good performance between 2000 and 2007, with a significant increase in the amount of equity, from 15 billion Euro in 2005 to over 24 billion Euro in 2007 (Table 2). Basically, the most important years of stock exchange, from its foundation until now,

have been 2004-2007. The financial crisis has brought the market capitalization value of the years 2004-2005, with a return in 2009 and strengthened in 2010.

Table.2 BSE capitalization in the period 2000-2010

-	- million Euro -											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
BVB Capit.	450	1.361	2.646	2.991	8.819	15.311	21.415	24.601	11.630	19.053	23.892	
Relative growth	-	202%	94%	13%	195%	74%	40%	15%	- 53%	64%	25%	

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

The BSE capitalization fell by 53% dec.2008 months, because in 2009 to recover 64% from year-end 2008.

Similar to the U.S. stock market, the depreciation recorded in October 2008 was approximately 40 percent, but some companies have registered over 90% discount to the values recorded in November 2007. Historical average decline on a global scale, the stock price is 55.9 percent, with a recession of about 3.4 years. (Reinhart, 2009: pp.226).

In absolute values, the value of transactions in shares of listed companies increased from U.S. \$ 8.89 billion in 2005 to 18.06 billion USD in 2007. A 68% increase in the volume of transactions was recorded in 2007 compared with 2006, due to both several initial public offerings, but also by price increases.

In 2008, the global financial crisis, most notably the withdrawal of foreign investors on BSE was made a modest volume of transactions under the 2005 level of 36%.

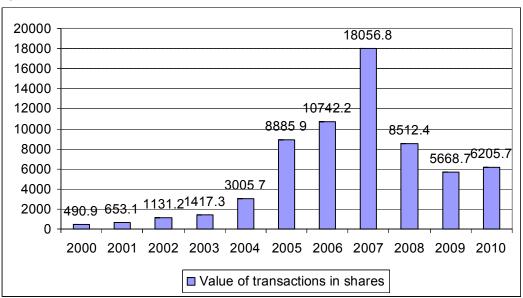


Fig.2 Evolution of the value of transactions in shares on the BSE during 2000-2010, million RON

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

Liquidity ratio, calculated as the ratio of annual turnover and market capitalization, declined from 16.4% at the end of 2007 to just 5.5% in 2010.

# $L = \frac{\text{Turnover value}}{\text{Market Capitalization}} (\%)$

- million RON -											
	2000	200	2002	2003	2004	2005	2006	2007	2008	2009	2010
		1									
Turnover value (TV)	491	653	1,131	1,417	3,006	8,886	10,74 2	18,057	8,512	5,669	6,206
Capitalizati on (CAP)	3,180	7,22 6	15,26 5	20,10 6	42,14 1	64,27 3	84,04 9	110,37 2	57,80 1	92,42 0	113,27 5
%TV/CAP	15.4 %	9.0 %	7.4%	7.0%	7.1%	13.8 %	12.8 %	16.4%	14.7 %	6.1%	5.5%

Table.3 Evolution of capitalization and turnover value in the period 2000-2009 - million RON -

Source: BSE+RASDAQ data series in the respective years

Even if the amplitude of which varied with the BET-C was significantly higher than S & P500, however, values were correlated to August 2010. From this month there is a mismatch due to continued stagnation in the capital market in Romania, while the U.S. to continue its growth in 2010 (Fig.3).

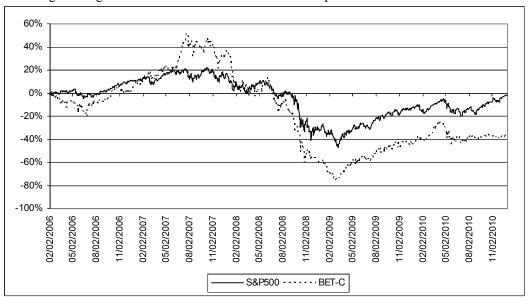


Fig.3 Changes in BET-C index and S & P500 over the period 2006-2010

Source: BSE, NYSE, the daily data series at the end of trading session

In 2011 it is possible to register some higher assessments on BSE, and this could lead to a further recovery and correlation with the market in Romania in the U.S.. The assessments are possible in light of new and attractive listings from the state, particularly in energy, utilities and telecommunications.

#### 2. Fixed Income Securities Market

The first fixed-income securities traded on the Bucharest Stock Exchange were municipal bonds since 2001. Until 2004, due to very low trading volume relative to the value of all capital markets in Romania, we can say that the bond market was insignificant. Under these conditions, no bonds were among the preferences of investors, while municipal bond yields have been consistently above the interest paid on bank deposits.

Because, if fixed-income securities, the number of transactions is not relevant, as in market shares, we will use in this study the volume of transactions in these securities. From this point of view, the 2006 bond issue was important for the International Bank for Reconstruction and Development, worth RON 525 million. At the same time, it also marked the first issue of securities made by an international body on the Bucharest Stock Exchange.

Year 2006 was a good year for corporate bond segment, and has contributed to these results definitely favor the International Bank for Reconstruction and Development. Launching a public issue of bonds, in September 2006, amounting to 525 million, doubled the value of fixed income securities markets at that time. The operation has a greater importance, since it is the first issue of international financial institutions through capital market in Romania and more, is the first on such a scale. Credibility assessment of the issuer and the AAA rate was the listing in October to be a success. Overwriting 21% of the issue, by a total of 635,948 bonds, compared to 525,000 allocated is still a positive factor in considering this issue as a success. Among domestic bond issues are made by the Romanian Commercial Bank, the important value of 200 million and approximately 21.5% by overwriting.

Volume and number of these issues in 2006 ranked first in the bond transactions, the creation of the stock exchange until 2008. Total value of transactions in bonds, of 281.67 million euros, close to the threshold of 10% of transactions in shares, but also far enough away from the practice of recognized exchanges encountered. At this time mention the existence of only two types of fixed-income instruments on the BSE, municipal and corporate bonds.

To assess the efficiency of such investments is provided taking into account three key elements. First, the risk associated with these instruments, and discusses the risk of bonds is given by the indebtedness of the issuer. Secondly interest loan offered by the issuer of that bond, and thirdly return correlation with the risk associated with each fixed income instrument.

*The average interest rate corporate bonds* in lei, at the end of 2006 was 9.24%, up from 6.89% at the end of 2005. The average municipal bond interest was the end of 9.84%, up from 8.05% in 2005. It may be noted an unusual situation with developed capital markets, higher interest granted by the municipal bonds from the corporate, but have a lower risk than the latter. One explanation is that sometimes the biggest bank in the country, as is the BCR, may have greater credibility than a municipality, which allocated funds and sometimes depends on the state budget.

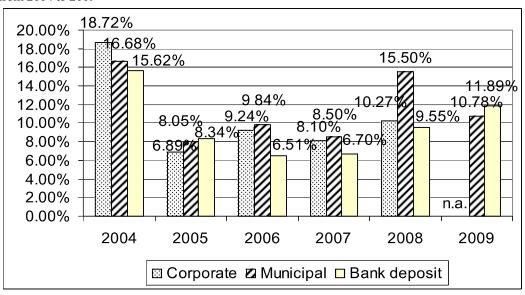


Fig.3 Average interest rates for the corporate bonds, municipal bonds and the bank deposit, from 2004 to 2009

Source: www.intercapital.ro (values for the month of December), not available interest rates for corporate bonds in 2009

The average interest rate for corporate bonds at the end of 2007 was 8.1%. The average interest rate for municipal bonds was 8.5% (compared with 9.8% in 2008 and 8.1% in 2005).

The relationship between specific data and household savings stock market is not very close, but can be a strong interest in reducing individuals to stocks in 2006, a period when household savings, volume compared to the population registered a slight increase, caused by investment in real estate.

In 2008, recorded the first issuance of state bonds, first due in 2007 and the existence of private pension funds, which are required by law in Romania to a prudent asset allocation, most of the funds must be invested in securities issued by state.

In 2010, as recorded on the stock market stagnation, there were no new issues of corporate bonds. For municipal bonds have been recorded four IPO, and traded a total of 35 bonds in 2010, compared with 31 in 2009, 20 in 2008, 16 in 2007 and 11 in 2006.

The average annual interest rate for municipal bonds has fallen from 10.78% at end 2009 to 7.43% at the end of 2010, virtually the values recorded before the financial crisis.

On the stock fund development stagnation in 2010, the total value of fixed income instruments registered a value of 620 million euros, an increase of 104% compared to 2009, when he recorded a value of 303 million euros. This historic high was supported by state securities representing an attractive low risk high in both, but especially by balancing the portfolios of private pension funds, which have an increasingly important presence in this market.

#### 3. The balanced funds

If loss aversion can be explained by reducing the number of investors, it is not sufficient to determine the low participation (Barberis, Huang and Thaler (2006)).

Maximum total net assets of the diversified investment funds was reached in December 2007, RON 343.57 million, about 95.17 million euros, 40% more than in February 2006. During this

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period, total net assets trend was correlated with the number of investors and BET-C evolution and shows that loss aversion is important for investors on BSE.

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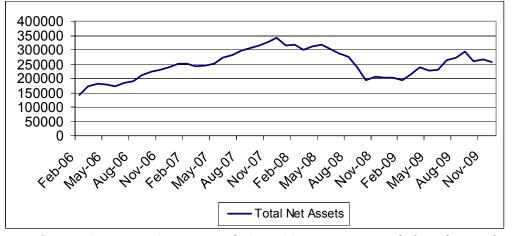


Fig.4 Total net assets from balanced funds (thousand RON), from Feb., 2006 to Dec., 2009

Source: Romanian Association of Asset Managers, series of data from web site: http://www.aaf.ro/index.php?option=com content&task=section&id=4&Itemid=35

Dynamic performance of shares is reflected in investor sentiment, as shown in Figure No. 5. With the reduction in average interest rate on bank deposits, bonds, interest rate stability and good results of stocks, investments are changing from August 2006 to bank deposits for stocks. A change of trend is observed in July 2008 when institutional investors have turned to bank deposits. Evolution and other assets for government securities was not significant.

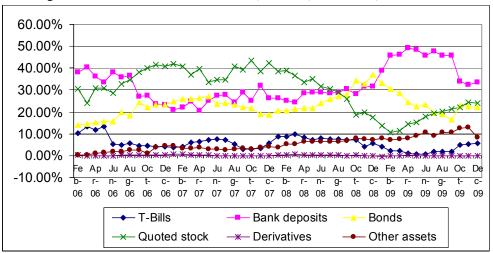


Fig.5 Portfolio structure of balanced funds, from feb, 2006 to dec, 2009

Source: Romanian Association of Asset Managers, series of data from web site: http://www.aaf.ro/index.php?option=com content&task=section&id=4&Itemid=35

If institutional investors, like those analyzed in this study, loss aversion and "tools" to preserve much of the profit, other investors have no faith that the stock market can be an alternative for their investments.

### Conclusions

Fixed income instruments market has grown much less than that of the stocks and is represented by a small number of issuers. As a diversified bond market in Romania can be compared with the U.S. more than the '60s, because it consists solely of government bonds, municipal bonds and some corporate bonds. Moreover, these bonds are characterized by a fixed maturity, a principal and coupon interest rate fixed or anchored to the average interbank interest rate at three or six months. Another feature of this market is almost non-existent secondary market because most buyers keep the bonds until maturity, because of low maturity, but also due to low offers, without the variations of interest.

The private pension funds will have larger amounts available to be placed on the capital market, fixed income instruments are known as greater liquidity, but also possible that more issuers to use this form to attract sources of investment money.

With the spot bond market development will be considered derivatives and structured to provide portfolio management capabilities found on all dedicated capital markets.

Not least of the market surveillance authorities must take an active role to prevent any slippage in this area, and the dynamics of the sector will require adaptation of specific tools to the requirements of investors and issuers.

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