PREDICTION OF RETURN OF INVESTORS IN MUNICIPAL BONDS IN TERMS OF GLOBALIZATION

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Abstract: *The global financial crisis has affected the capital markets of many countries of the world, including the capital market of Bosnia and Herzegovina. The consequences of the global financial crisis were felt strongly at the local level in the real sector. Lack of funding and quality of cash flow, particularly dominant. It is therefore necessary to find alternative sources of financing the real sector. Local authorities have the ability to emit municipal bonds, and thus collecting additional funds, which, through specific programs and under certain circumstances, can be directed to the local community. To raise the necessary funds, investors need to invest in municipal bonds. Such investment must be profitable for investors. It is therefore necessary to analyze the effective rate of return of investors in municipal bonds. Based on the results of the analysis, the bond shall be ranked in the capital market. Based on the ranking, the investor decides to invest.*

Keywords: *investment, municipal bonds, capital market development, rate of return*

Introduction

Bonds issued by states, local units of government and business organizations in crisis have become very attractive because they provide issuers with financial means to them so far come mainly getting loans from banks. Municipal bonds as a source of local development, have a lot of long strips and became especially popular in the capital markets and the U.S., where the available data in scientific research circles there's even more than a million shows these financial instruments with a total value of emissions over 1300 billion $. Municipal bonds in most cases carry certain tax benefits, which increases the attractiveness of this financial instrument to investors. Municipal bonds as a source of local development, have a lot of long strips and became especially popular in the capital markets and the U.S., where the available data in scientific research circles there's even more than a million shows these financial instruments with a total value of emissions over 1300 billion $. The aim is to point to the possibility of financing local development based on bond

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issues in capital markets development, what is the capital market of Bosnia and Herzegovina. Recognising that the issue of bonds as a source of financing development to benefit the most developed capital markets, the research will be carried out specific research and analysis of investments in bonds as a source of local development in emerging markets, what is the capital market Bosnia and Herzegovina, with special reference to: The problem of lack of funding for the local community, based on bond issues, and then primarily municipal and bonds of companies. Bank loans have become extremely expensive, variable interest rates to the detriment of the borrower, and the complicated procedures of obtaining loans, representing some of the negative characteristics that accompany this method of obtaining the necessary funds on the basis of loans. Problem definition of adequate instruments and funding programs for local development, based on collected funds issuing municipal bonds. Special attention must be paid to the definition of debtor-creditor relations between local authorities and users of all financial assets. The paper will use the scientific method of deduction, analysis and comparative analysis of good practices. Interpretation of results should indicate the importance of bond issues in capital markets as a source of development financing for local development, as well as for professional and scientific discussion on the issue of bonds in capital markets as a source of development financing for local development. Investors agrees with the simple concept of profit maximization, but almost all investments involve some degree of uncertainty and risk. In this paper, identify the type of municipal bonds and notes the arguments of broadcasting, as well as the advantages investment. Introduction municipal bonds in the capital markets in transition countries is part of a broader development strategy, aimed a deepening and diversifying capital markets and increasing competition between themselves financial instruments. Given that the main motive for offering investors investing in the capital market, the paper also presents a quantitative analysis of return investors in municipal bonds.

The issuer of municipal bonds, local government, a commitment to develop the maturity to pay the purchaser the amount of funds borrowed, the principal and accrued interest. Interest is usually paid periodically, usually annually, while the principal is in most cases, usually paid at maturity, although there is a possibility of periodic payments. When it comes to investing in bonds, in addition to risk, one of the fundamental questions that arises concerns the return of investors. In response to this question, this paper will perform a mathematical analysis of data on basic elements of the municipal bond market capital of Bosnia and Herzegovina. The aim is that through mathematical analysis of the nominal yield, current yield, yield to maturity and the effective yield investors in municipal bonds on the capital market of Bosnia and Herzegovina indicate the investment management of municipal bonds in the capital market of Bosnia and Herzegovina. On the financial point of view the meaning of municipal bonds is that the investor borrows funds by buying bonds the local community that agrees to repay the principal along with accrued interest depending on the time of issuing the bonds. Although all investors seek to achieve the highest possible rate of return, they also want to avoid risk. I was constantly exposed to investor choice in relation to risk and return that risk-return trade off. Increased risk in the capital market of Bosnia and Herzegovina in the global financial crisis has focused investors with a lower degree of tolerance for risk in a less risky financial instruments such as municipal bonds. The paper used the scientific method of deduction, analysis and comparative analysis of good practices. Interpretation of results should indicate the importance of analysis of investments in municipal bonds on the capital market of Bosnia

and Herzegovina and the development of capital markets in general, as well as for professional and scientific discussion.

1. Municipal Bonds Capital Market of Bosnia and Herzegovina

In recent years all over the world there is a tendency to give governments greater freedom to local authorities in spending money and raising additional capital. Most of the most developed municipalities in the U.S. and Western Europe solves problems by issuing its own securities, usually by issuing municipal bonds. The main role of local government is to open up, identify projects and obtain people with the necessary knowledge and experience in implementing such projects. It is often the case that local authorities address the investment banks and consultancies. In addition, the role of local authorities is to minimize bureaucracy, as it would not be a brake to those who wish to invest. Local authorities in the U.S. municipal bonds are first issued is the 1812 th and today, among other things, used to finance projects for environmental protection or renewable energy sources. Examples of this means of financing can be a long line up, as in the neighboring countries, and in most developed world economies. Since the investment in bonds represents a particular form of investment, they have developed methods for estimating their values related to the profitability and risk interdependence expressed through time preference theory of money and economic value of investments. When the internal rate of return is a certain level of rates of return as a static method of analyzing profitability at a given point in time as duration and convexity are used as a method of protection against the risk that the value of bonds when changing levels of market interest rates.

"Even after six months of trading in 2011. Still premature to talk about the recovery of the market, the results of the first half on the Sarajevo Stock Exchange - Stock Exchange provide reasons for optimism." Total turnover in this period amounted to 83.9 million, which is 32 million, or 62 percent over the same period last year[1]. Indices SASE until recently been a significant plus in the beginning of the year, although in the past two weeks experienced a decrease, albeit with reduced trading volume. According to the Law on securities market, securities are defined as debt securities that give the holder the right to pay principal and interest or other income in accordance with the law and decision on the issue[2]. Bond is an instrument of the issuer as a debtor (borrower) promises to repay the borrower (investor) money borrowed and pay interest for a certain period of time3. We can say that the bond is a document that contains the recognition of the existence of an obligation, and serves as proof that the buyer has assumed the obligation of the borrower. So, these are securities that reflect the debtor-creditor, that is, the credit relationship. In Table 1. presents an analysis of the total number of municipal bonds, nominal values and the calculations of market capitalization on the municipal bond market capital of Bosnia and Herzegovina since the first municipal bonds issued to date.

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[1] Analysis of the bond, http://www.ekapija.ba/website/bih/page/457521 (Access: 02.01.2012.)
[2] Zakon o tržištu hartija od vrijednosti RS, Službeni glasnik RS br. 92/06, члан 4.

Table 1. The market capitalization of municipal bonds in the capital market of Bosnia and Herzegovina (KM)

Stock market	Symbol	The issuer	Number of bonds	The nominal value	Market capitalization
BLSE	OZRN-O-A	Municipality Zvornik	30,000.00	100.00	3,000,000.00
BLSE	OLKI-O-A	Municipality Lopare - first issue	4,225.00	100.00	422,500.00
BLSE	OLKI-O-B	Municipality Lopare - second issue	2,775.00	100.00	277,500.00
BLSE	BNIF-O-A	Municipality Bijeljina	110,000.00	100.00	11,000,000.00
BLSE	OBDI-O-A	Municipality Brod	40,000.00	100.00	4,000,000.00
BLSE	OSBD-O-A	Municipality Osmaci	3,500.00	100.00	350,000.00
BLSE	NGRD-O-A	Municipality Novi Grad	20,000.00	100.00	2,000,000.00
BLSE	GRDS-O-A	Municipality Gradiška- first issue	27,000.00	100.00	2,700,000.00
BLSE	GRRZ-O-A	Municipality Gradiška - second issue	70,000.00	100.00	7,000,000.00
BLSE	ISKP-O-A	Municipality Istočni Stari Grad	5,150.00	100.00	515,000.00
BLSE	OKVI-O-A	Municipality Kotor Varoš	45,000.00	100.00	4,500,000.00
BLSE	OPNS-O-A	Municipality Petrovo	4,000.00	100.00	400,000.00
BLSE	OSFO-O-A	Municipality Srbac - second issue	10,000.00	100.00	1,000,000.00
BLSE	OKFO-O-A	Municipality Kneževo	56,000.00	100.00	5,600,000.00
SASE	OPCTKB	Municipality Tešanj	100,000.00	100.00	10,000,000.00
SASE	OPCTKC	Municipality Tešanj	100,000.00	100.00	10,000,000.00
BLSE	SMFO-O-A	Municipality Šamac	45,800.00	100.00	4,580,000.00
BLSE	LKSD-O-A	Municipality Laktaši- first issue	100,000.00	100.00	10,000,000.00
SASE	OPCTKA	Municipality Tešanj	100,000.00	100.00	10,000,000.00
BLSE	LKSD-O-B	Municipality Laktaši- second issue	45,000.00	100.00	4,500,000.00
BLSE	OSRM-O-A	Municipality Srbac - first issue	15,000.00	100.00	1,500,000.00
BLSE	KSFO-O-A	Municipality Kostajnica	10,800.00	100.00	1,080,000.00
In total			**944,250.00**		**94,425,000.00**

Source: http://www.blberza.com, www.sase.ba/ (access: 02.04.2012.)

The total number of municipal bonds issued in the capital market of Bosnia and Herzegovina is 944,250.00. Market capitalization, i.e. value of all issued municipal bonds, ie. value of all funds collected on the basis of municipal bonds is 94,425,000.00 KM[4]. The yield on municipal bonds is usually greater than the yield that would be achieved by investing in government bonds, or depositing in the bank. In addition to attractive rates, which is exercised, the investor is in most cases subject to taxation. Municipal bonds are

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[4] 1Euro = 1,9557 KM

traded in the secondary market so that investors enjoy the necessary liquidity. Interest rates on municipal bonds of the Republic of Srpska capital market, adapted to the level of interest rates in the banking sector in BiH. Total turnover in bonds on the Banja Luka Stock Exchange in 2008 amounted to 11,673,573 KM, i.e. 4.24% of total turnover. In contrast to 2008, turnover in bonds on Banja Luka Stock Exchange in 2009 rose to 30,251,177 KM, that is to 16.76% of total turnover, which supports a finding that the investors at the Banja Luka Stock Exchange in the global financial crisis in 2009 were turned to less risky financial instruments such as bonds[5].

Generally, there are three generic categories of long-term bonds, which are based on the certainty of repayment of debt[6]:

1. Binding Bonds (General obligation bonds)
2. Bonds that carry revenue (revenue bonds).
3. Special purpose revenue bonds.

General obligation bonds of issuers with a binding debt payments or principal and interest at maturity, from any source of revenue the local government unit or property. Since, the local government guarantees all their income to pay off your debt, especially tax revenues, a decision on borrowing (broadcast), the Assembly can only make (representative body) bodies or citizens of the local unit (self) vote through a referendum. Municipal bonds that carry revenue are issued with a view to generating revenue from a single capital project or an infrastructure facility which has yet to be built.

Principal and interest are usually insured, the insurance company for reference. These projects may include, for example, construction of highways, bridges, sewers, water and the like. With revenue bonds, which carry the principal and interest will be serviced from the proceeds that are realized from activated, built infrastructure, financed based on previous assignments. Dedicated revenue municipal bonds, secured by a lien on the basis of (guarantees) of one or more types of taxes or other revenue, or an issuer of general taxes.

2. Risk and Yield Investment in Municipal Bonds

Analysis of the bond is primarily related to the analysis of the value of bonds and bond analysis of the returns that investors make. The yield an investor can achieve when investing in a bond consists of two parts, interest and capital gain. A capital gain arises as the difference between the market price of more sales and the price at which the investor bought the bond, if the investor decides to sell bonds on the market before its maturity. The market price of bonds is expressed as a percentage of its nominal value and directly affects the amount of funds that will invest in a bond investor, which is directly reflected in the yield investors.Since, in practice usually the case that the bonds are sold at a premium or a discount and, therefore, at a price which differs from the nominal value on the importance of value analysis gets bonds.The essence of analysis is to determine the present value of future bond yields. To determine the present value is done by discounting cash flows that

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[5] Annual Report Banjalučke berze 2009., [Online]. Available from: URL:http://www.blberza.com [Access: 16.10 2011]
[6] Freire, M. – de la Torre, A. – Huertas, M. (1999): „Credit rating and bond issuing at the subnatio nal level. Training Manual". The World Bank, Washington,p.p. 225.

represent all future revenues. The nominal yield or coupon yield (Nominal yield, coupon yield) bonds, which represents the yield according to the amount of nominal (coupon) rate, there is relatively little analytical and practical value for investors who therefore attach real importance of the dominant, that is. effective yield. The first measure is the effective yield on the current yield (current yield). The rate of current yield is calculated very simply as the ratio of interest income (the value of the coupon interest rate for a given period, which is a standard bond does not change) and the price at which the investor bought the bond[7]. Because the current yield is very sensitive to changes in market prices, this ratio is a reliable indicator of current profitability of investment in the bond investors. The unreliability of current yield in making long-term investment in bonds is a consequence of the fact that, of all the market changes that affect bond yields, taking only one, the current market price. Measuring the return of investors in bonds, when deciding on the medium and long-term investment in bonds based on yield to maturity (yield to maturity). In other words, the yield at maturity is a standard measure of the overall rate of return investors in bonds. Its mathematical interpretation is identical to the internal rate of return for investments in real assets. Yield to maturity is the discount rate that equates the present value of cash flow and price of bonds. Thus, the yield to maturity is the internal rate of return bonds. The yield at maturity is calculated under the assumption that the bonds held to maturity. To calculate the average rate of return for bonds that can be recalled, is used to yield to the recall. The yield is calculated to recall the same as the yield to maturity, except that it takes into account the time to recall, not the time to maturity, and price recall replacing the nominal value.

Mathematical relationship to calculate the effective rate of return of investors in municipal bonds that are amortized based on the annuity perform the following relations.

Relation 1.

$P = P_{\%} * N_{\bar{u}v}$

P – Market prices for municipal bonds in KM;

$P_{\%}$ - Market prices for municipal bonds (expressed as % of nominal value);

$N_{\bar{u}v}$ - The nominal value (nominal value remaining);

Relation 2.

$Tv = Bo * P$

Where is:

Tv – The market value of municipal bonds purchased (Transaction Value)

Bo – Number of municipal bonds,

Relation 3.

$$Is = Tv + Tt$$

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[7] Šoškić, D., Živković, B., (2006.) Finansijska tržišta i institucije, CID Ekonomski fakultet Beograd, p.p. 236.

Where is:

Is – The amount of funds invested in the purchase of municipal bonds,

Tt - Transaktion costs.

Relation 4.

$$Tt = Tv * Bp$$

Bp - % Brokerage fee

Relation 5.[8]

$$SV = \frac{An_1}{1+\bar{u}_e} + \frac{An_2}{(1+\bar{u}_e)^2} + \frac{An_3}{(1+\bar{u}_e)^3} + ... + \frac{An_n}{(1+\bar{u}_e)^n}$$

Where is:

SV – The present value of future payments (annuity) that makes municipal bonds, discounted by the discount rate,

An_1, An_2,..., An_n - amount of the annuity in a given year(period),

$\bar{u}_e$ - discount rate,

n - number of years (periods) to maturity;

Let us start from the assumption that the amount of funds invested in the purchase of bonds equal to the present value of future payments that make the bond, discounted at the effective rate of return. Substituting relations 2 and 4 in relation 3 and equating with the relation 5, we obtain a mathematical relationship from which we can calculate the effective rate of return investors in bonds.

$$Is = SV$$

General relationships for calculating the effective rate of return of investors in municipal bonds that are amortized annuity:

$$Bo * P + Tv * Bp = \frac{An_1}{1+\bar{u}_e} + \frac{An_2}{(1+\bar{u}_e)^2} + \frac{An_3}{(1+\bar{u}_e)^3} + ... + \frac{An_n}{(1+\bar{u}_e)^n}$$

From the obtained relations, it is necessary to calculate the effective rate of return of investors in municipal bonds ($\bar{u}_e$). Having carried out the necessary operations, the effective rate of return is some times possible to directly read in the financial tables and when it is not possible, using the method of interpolation. When the solution is not possible to find even in this way, using the probe method. There we are Lagranž interpolation scheme, Ejtkin interpolation scheme, the most appropriate or practical to Newton's interpolation formul. In recent times we have calculators and computer programs, in which algorithms are built-in certain parts of the above formula, and as such greatly facilitate complex mathematical calculations.

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[8] Šoškić, D., Živković, B., (2006.) Finansijska tržišta i institucije, CID Ekonomski fakultet Beograd, p.p. 152.

3. Yield Analysis Investors in Municipal Bonds Capital Market
of Bosnia and Herzegovina

If we assume that the investor is 28.02.2010. he bought 100,000 old savings bonds at market price which is the day on Banja Luka Stock Exchange amounted to 89% of face value per bond. The aim of the analysis is to calculate the effective rate of return investors in the bonds of old foreign currency savings. Buying bonds is realized through a broker-dealer whose broker age commissions, according to the price list for the purchase transaction performed, totaled 0.70% of the market value of bonds purchased(transaction value). Foreign currency savings bonds maturing on there payment schedule, defined in the decision on the issue of old foreign currency savings, as follows:

Table 2. Payment Schedule for the investment of municipal bonds of 53 KM 773.80, on 28.02.2010.

Date	Payment of principal	Payment of interest	Payment of annuity
28.02.2010.	0.00	0.00	0.00
28.08.2010.	10,000.00	750.00	10,750.00
28.02.2011.	10,000.00	625.00	10,625.00
28.08.2011.	10,000.00	500.00	10,500.00
28.02.2012.	10,000.00	375.00	10,375.00
28.08.2012	10,000.00	250.00	10,250.00
28.02.2013.	10,000.00	125.00	10,125.00
Ukupno	**60,000.00**	**2,625.00**	**62,625.00**

To calculate the effective rate of return you need to annuities which become due every six months, reduce the present value and equate with the amount of invested funds. Interest rate to be used thereby to discount the annuity, is a semi-annual effective rate of return investors in the bonds of old foreign currency savings in the capital market. Mathematical relationship to calculate the effective rate of return investors in the bonds of old foreign currency savings create adjusting general relation to calculate the effective rate of return investors in bonds, and it looks like this:

Relation 6.

Bo * P + Tv * Bp

$$= \frac{An_1}{(1+\bar{u}_e)^1} + \frac{An_2}{(1+\bar{u}_e)^2} + \frac{An_3}{(1+\bar{u}_e)^3} + \frac{An_4}{(1+\bar{u}_e)^4} + \frac{A5_5}{(1+\bar{u}_e)^5} + \frac{An_6}{(1+\bar{u}_e)^6}$$

Where:

Bo = 100 000,

$P_{\%}$ = 89%

$N_{\bar{u}_в}$ = 0,60,inclusion in the relation 1 we obtain a market price per bond in KM

$P = P_{\%} * N_{\bar{u}\theta} = 89\% * 0,60 = 0,534$ KM

Substituting the number of bonds purchased and market price per bond in 2 is the relation to the market value of the bond is purchased:

$Tv = Bo * P = 100\ 000 * 0,534$ KM $= 53\ 400$ KM

Brokerage commission is:

$Bp = 0,70\%$.

The amount of annuity which six become due for payment in the future $A_{H_1}, A_{H_2}, A_{H_3},..., A_{H_6}$,

Substituting the previous data in relation 6, we obtain a mathematical expression for the calculation in this case, the effective half-year rate of return investors in the bonds of old foreign currency savings.

$100\ 000 * 0,534 + 53\ 400 * 0,70\%$

$$= \frac{10.750,00}{(1+\bar{u}_e)^1} + \frac{10.625,00}{(1+\bar{u}_e)^2} + \frac{10.500,00}{(1+\bar{u}_e)^3} + \frac{10.375,00}{(1+\bar{u}_e)^4} + \frac{10.250,00}{(1+\bar{u}_e)^5} + \frac{10.125,00}{(1+\bar{u}_e)^6}$$

From the obtained relations, it is necessary to calculate the semi-annual effective rate of return investors in bonds ($\bar{u}_e$). Having carried out the necessary operations, semi-annual effective rate of return of investors based on the interpolation method of testing is: $\bar{u}_e = 4.58391\%$.

4. The Ranking of Municipal Bonds on an Effective Yield Investors in the Capital Market of Bosnia and Herzegovina

Since the effective rate of return investors in the bonds of a real rate of return an investor realizes that the funds invested in the purchase of bonds, the effective rate of return investors in bonds is one of the most important parameter for expressing the quality of the bonds. The effective rate of return of investors in municipal bonds is one of the main criteria when making investment decisions on the purchase of municipal bonds in the capital market. In the world there are specialized rating agencies that deal with the ranking of municipal bonds by certain criteria. In the U.S. there is a very long tradition in the rating of bonds, and some of the best known rating agencies in the world are: Moody's Investors Service Inc., Standard & Poor's Division of the McGraw-Hill Companies Inc., Fitch Investor Service, and others. On the basis of general relations for calculating the effective rate of return of investors in municipal bonds, Calculation of annual effective rate of return of investors in municipal bonds on the capital market of Bosnia and Herzegovina on 04.04.2012.th. Based on the obtained results was performed ranking municipal bond market capital of Bosnia and Herzegovina.

Table 3. The ranking municipal bond market capital of Bosnia and Herzegovina on the basis of the effective annual rate of return of investors (the price is 100% of the residual nominal value)

Rank	Stock market	Symbol	The issuer	Price	The effective rate of return [9]
			Municipal bonds		
1	BLSE	OZRN-O-A	Municipality Zvornik	96,42	6,87%
2	BLSE	OLKI-O-A	Municipality Lopare – first issue	95,87	6,87%
3	BLSE	OLKI-O-B	Municipality Lopare – second issue	100,00	6,87%
4	BLSE	BNIF-O-A	Municipality Bijeljina	84,93	6,86%
5	BLSE	OBDI-O-A	Municipality Brod	88,89	6,86%
6	BLSE	OSBD-O-A	Municipality Osmaci	100,00	6,86%
7	BLSE	NGRD-O-A	Municipality Novi Grad	100,00	6,35%
8	BLSE	GRDS-O-A	Municipality Gradiška- first issue	50,00	6,09%
9	BLSE	GRRZ-O-A	Municipality Gradiška - second issue	100,00	6,09%
10	BLSE	ISKP-O-A	Municipality Istočni Stari Grad	100,00	6,09%
11	BLSE	OKVI-O-A	Municipality Kotor Varoš	100,00	6,09%
12	BLSE	OPNS-O-A	Municipality Petrovo	100,00	6,09%
13	BLSE	OSFO-O-A	Municipality Srbac - second issue	100,00	6,09%
14	BLSE	KSFO-O-A	Municipality Kostajnica	100.00	6.09%
15	BLSE	OKFO-O-A	Municipality Kneževo	100,00	6,08%
16	SASE	OPCTKB	Municipality Tešanj	100,00	5,99%
17	SASE	OPCTKC	Municipality Tešanj	100,00	5,99%
18	BLSE	SMFO-O-A	Municipality Šamac	100,00	5,98%
19	BLSE	LKSD-O-A	Municipality Laktaši- first issue	45,61	5,82%
20	SASE	OPCTKA	Municipality Tešanj	100,00	5,69%
21	BLSE	LKSD-O-B	Municipality Laktaši- second issue	100,00	5,06%
22	BLSE	OSRM-O-A	Municipality Srbac - first issue	95,44	5,06%

Source: http://www.blberza.com, www.sase.ba/, (access: 04.04.2012.)

Data obtained on the basis of the analysis yield investors in municipal bonds on the capital market of Bosnia and Herzegovina, according to the 04/04/2012. The maximum effective rate of return an investor brought bonds "Zvornik municipality" in the amount of 6.87%.

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[9] The effective rate of return of investors in municipal bonds

Concluding Remarks

The global financial crisis that has engulfed the capital market of Bosnia and Herzegovina, has influenced the decline in the liquidity of financial instruments which are traded on the Banja Luka and Sarajevo Stock Exchange. Municipal bond market is an alternative method of providing funds for investment in municipal infrastructure. As can be seen from this paper, bonds represent a very important capital market instrument.Its importance stems primarily from the fact that they can be important for both businesses and state and for the population. The importance of corporate and state is that they can serve as a means of raising funds to finance major projects, while the importance of the population is reflected primarily in that it may represent a relatively secure source of revenue (the interest). Here you can say because they are only timidly appear in the domestic market, primarily due to low populations of confidence in national institutions. The aim of this paper and is that to show the importance of these securities may have the overall development of society, which shows an example of developed markets, especially in the U.S. market. Each investor whose primary investment objective to protect their capital, and that it achieves a relatively high interest rate with minimal risk, you should consider investing in municipal bonds.Income from municipal bonds is, usually, is not taxed, which is another reason to invest in this type of securities.

Given the above and the current financial crisis that has engulfed the whole world, and our region, and the fact that share prices generally fall as well as reduced the level of trading equity securities, then investing in bonds is more significant. The market of securities with fixed income used to be pleasant for investors who did not want to risk a lot and also preferred a stable yield. Over time, these markets have become unstable and require issuers are permanent and comprehensive analysis of risks associated with such investments.Investing in bonds made with a safe yield, but no matter what people in this region do not yet have a habit of investing in the stock market and most of them will soon opt for some other kind of investments such as real estate, as there is still fear inherited from the past . The reason for this is very old foreign currency savings that we talked about the work, and that its owners have not yet been restored in full.

At the end of this paper, we can conclude that the markets of neighboring countries, and here we mean to Slovenia and Croatia that are advanced enough to popularize the bonds and other securities market instruments. This stems from the trust, which is very shaken by the local institutions. I am primarily referring to the confidence of the population that is the foundation of a healthy and successful market.

Literature

1. Bodie, Z., Kane i A., J., Mareus, (2009.) Osnovi investicija, Beograd, Datastatus,
2. Bradfield, James., (2007.) Introduction to the Economics of Financial Markets, Oxford University Press,
3. Van Horne, J.,Wachowicz, J., (2002.) Osnove finansijskog menadžmenta, Mate, Zagreb,
4. Erić, D., (2003.) Finansijska tržišta i instrumenti, Čigoja, Beograd,
5. Zakon o tržištu hartija od vrijednosti RS, Službeni glasnik RS br. 92/06
6. Ivanišević, M. (2008.) Poslovne finansije, Ekonomski fakultet, Beograd,

7. Mikerević, D., (2009.) Finansijski menadžment, Ekonomski fakultet Banja Luka, Banja Luka,
8. Paunović, B., Zipovski, D., (2008.) Poslovni plan, Ekonomski fakultet, Beograd,
9. Scott A. Hoover, (2006.) Stock valuation An Essential Guide to Wall Street's Most Popular Valuation Models, The McGraw-Hill Companies,
10. Fabozzi, F., J., Fabozzi, T., D., (1989.) Bond Markets, Analysis and Strategies, Prentice-Hall International Inc.
11. Freire, M. – de la Torre, A. – Huertas, M. (1999): „Credit rating and bond issuing at the subnatio nal level. Training Manual". The World Bank, Washington.
12. Frederic, S. Mishkin, Stanley, G., Eakins, (2006.), Monetarna ekonomija, bankarstvo i finansijska tržišta, Beograd, Datastatus.
13. Šoškić, D., Živković, B., (2006.) Finansijska tržišta i institucije, CID Ekonomski fakultet Beograd,
14. Šoškić, D., (2006.) Hartije od vrijednosti-Upravljanje portfoliom i investicioni fondovi, CID Ekonomski fakultet Beograd, Annual Report Banjalučke berze: [Online]. Available from: URL: http://www.blberza.com [Access: 16.10 2011]
15. Analiza municipalnih obveznica, [Online]. Available from: URL: http://www.bondmarket.com [Access: 16.10. 2011]
16. Obveznice u BiH, [Online]. Available from: http://www.ekapija.ba/website/bih/page/457521 [Access: 16.10. 2011]
17. http://www.blberza.com, http://www.sase.ba/ ,[Access: 02.02.2012.]
18. Analysis of the bond, http://www.ekapija.ba/website/bih/page/457521 [Access: 02.01.2012.]

PREDVIĐANJE PRINOSA INVESTITORA U MUNICIPALNE OBVEZNICE U USLOVIMA GLOBALIZACIJE

Rezime: Globalna finansijska kriza zahvatila je tržišta kapitala mnogih zemalja svijeta, pa tako i tržište kapitala Bosne i Hercegovine. Posledice globalne finansijske krize su se snažno osetile na lokalnom nivou u realnom sektoru. Nedostatak finansijskih sredstava i kvalitetnog novčanog toka, posebno je dominantan. Stoga je neophodno pronaći alternativne izvore finansiranja realnog sektora. Lokalne vlasti imaju mogućnost emitovanja municipalnih obveznica, a time i prikupljanja dodatnih finansijskih sredstava, koja se, kroz konkretne programe i pod određenim okolnostima, mogu usmjeriti u lokalnu zajednicu. Da bi se prikupila neophodna finansijska sredstva, potrebno je da investitori ulože u municipalne obveznice. Takva investicija mora biti profitabilna za investitore. Stoga je neophodno analizirati efektivnu stopu prinosa investitora u municipalne obveznice. Na osnovu rezultata analize, vrši se rangiranje obveznica na tržištu kapitala. Na bazi rangiranja, investitor donosi odluku o investiranju.

Ključne reči: Investicije, municipalne obveznice, razvoj tržišta kapitala, stopa prinosa