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Service sector in terms of changing environment

Municipal bonds as an investment opportunity for life insurance companies on capital market in Macedonia

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Abstract

The capital market in the Republic of Macedonia is characterized as shallow and weak due to the small range of financial instruments for investment. This situation particularly affects the investment opportunities of life insurance companies because on one hand, they cannot achieve the desired diversification of investment portfolio and on the other hand, they are legally bound to the total amount of assets covering technical provisions to be adequately placed. The experiences of some countries in the region and beyond point out municipal bonds as a particularly attractive investment opportunity. This financial instrument would be appropriate for life insurance companies in terms of their investment policy and for managing the risks that occur during the maturity mismatch between assets and liabilities. In the Republic of Macedonia conditions are created for the emergence of municipal bonds, both in terms of legislation and in existence of opportunity in some municipalities to borrow through the issuance of bonds.

Keywords: life insurance, capital markets, financial instruments, municipal bonds, diversification

1. Introduction

The capital market in the Republic of Macedonia is relatively young market and it is in its early stage of development. The two most important features that the capital market should have in terms of investors

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are: liquidity – investors will be able to convert their investments into cash, as soon as possible and with the lowest costs; and a variety of investment opportunities – investors will be able to choose between different instruments and to reduce their risk by investing their assets through several types of financial instruments, i.e. achieving diversification. In the Republic of Macedonia, the process of introducing new financial instruments and innovations is difficult and it needs a lot of time. On the market, the most frequent traded instruments are stocks and bonds, in recent years has the issue of corporate bonds arises, whereas there is a complete absence of municipal bonds or derivative financial instruments, although there is an opportunity for their issuance**.** The main reasons for this situation are the low level of general knowledge of such instruments and the low stage of market development. All of this has consequences for portfolio investors who leave very little space in terms of flexibility in investment, which in turn is a major determinant of how this market will evolve in the medium and long term.

Life insurance companies appear as a significant institutional investor in the capital markets, primarily because of the accumulation of capital which can be invested in various investment opportunities. In the Republic of Macedonia life insurance companies on liabilities side most have capital invested by owners (shareholders) and the technical provisions that used to cover the liabilities of insurance contracts for a longer period of time. For capital assets and the assets covering technical provisions legal restrictions exist for their placement on the capital market in Macedonia. Companies' investments that offer life insurance are mainly long-term, due to the nature of their liabilities which are long term and predictable. Investments usually cover a period of five to thirty years. Therefore, a key element in the investment strategy of life insurance companies is duration of liabilities because insurers need to invest in assets that are adequate to cover obligations to policyholders over time. These companies have a conservative investment policy or long-term investments with low, but secure return. According to experiences in other countries, they hold in their assets more loans and financial instruments with fixed income, and lower levels of cash than other financial institutions. In order to successfully achieve its investment policy a developed capital market requires a wide range of financial instruments which will enable the creation of diversified portfolio where the risk would be reduced to a minimum and achieve some return.

The aim of this paper is to show investors, particularly life insurance companies, the benefits which they would have with the introduction of a new instrument of capital market that would in particular fit their investment policy, and such financial instrument is municipal bonds. In the beginning of this paper a picture of the capital market in Macedonia will be given in terms of the diversity of the offered financial instruments, and their characteristics with main focus on yields. Then, municipal bonds, which offer advantages for investors and issuers and opportunity to be introduce on the capital market in Macedonia, will be defined. In the next section follows the analysis of the effects of the introduction of municipal bonds on life insurance companies. The final section of the paper is reserved for conclusions.

2. Financial Instruments On Capital Market In Macedonia

The capital market is a very significant financial market. It is an efficient instrument for financing the needs of companies, by financing provided by banks. Individuals and firms save part of their income and invest. Another feature of this market is the funding of the state for its internal needs as well as an instrument for re-financing the national debt. When financing, state and companies create financial instruments to attract the interest of investors. On the other hand, an increasing interest in buying such instruments requires their diversity and liquidity. The capital market in Macedonia is still in an early stage of development and has traditional financial instruments such as stocks, bonds and unit certificates in investment funds.

Stocks. In the Republic of Macedonia, in 2010, the interest of the private sector to achieve new issues of stocks has been reduced making the total value of new issues decrease. The largest share in the issue of stocks have non-financial companies, the banks were the most active with a total of three new issues of stocks (total stocks amounted to 3.327 million MKD of which 414 million were issued by banks, 17 million by other financial companies and 2.897 million by non-financial companies)[1]. The secondary market (Macedonian Stock Exchange) recorded a drop in the trade of stocks. At the end of 2010 the official listing on the stock market quoted stocks of 34 companies. Market capitalization of listed stocks reached 30.44 billion (about 494.93 million). [2] Investors' weak activity on the Macedonian Stock Exchange indicates their caution in taking risks. Potential increase of their interest is associated with the speed of recovery of world economy and global stock markets could reflect on the near environment, achieving a steady and sustainable growth of the domestic economy, the positive achievements of domestic enterprises and achieving higher yields by investing in domestic securities[3]. Price movements on the capital market cause reduction in the market capitalization of listed companies on the Stock Exchange. In 2010 a decline was recorded in MBI 10 (Macedonian stock exchange index) that includes the ten most liquid shares of companies listed. The following chart will show the movement of the yield of MBI 10 on a quarterly basis for the period from early 2008 until late 2010 (Figure 1) where great variability can be seen.

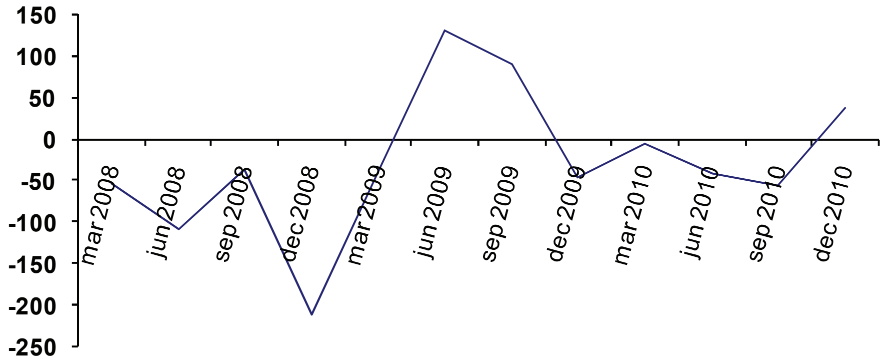

Figure 1: Yield of MBI 10 for the period 2008-2010

Bonds. On the capital market in Macedonia the government bonds that carry the lowest yield because of low credit risk are the most traded, and there is one issue of corporate bonds in 2008, and no issuance of municipal bonds. In 2010 issuance of government bonds was made amounting to 1.848 million MKD and by the end of 2010 the market capitalization of government bonds reached 12,51 billion MKD (203.41 million EUR)[4]. In the same year no new issues of corporate and municipal bonds were made, mostly due to poor interest of companies and municipalities to issue bonds and lack of expertise in structuring and promoting these types of securities. The following chart shows the movement of the yield to maturity of four bonds (Figure 2) issued by the Republic of Macedonia for the period from 2008 to 2010 on a quarterly basis.

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[1]National Bank of Macedonia, Report on financial stability in Macedonia for 2010, June 2011, pg. 69
[2] Macedonian Stock Exchange, Report of the Macedonian Stock Exchange AD Skopje 2010, Skopje, February 2011, pg. 4
[3] National Bank of Macedonia, Report on financial stability in Macedonia for 2010, June 2011, pg. 70
[4] Macedonian Stock Exchange, Report of the Macedonian Stock Exchange AD Skopje 2010 Skopje, February 2011, pg. 4

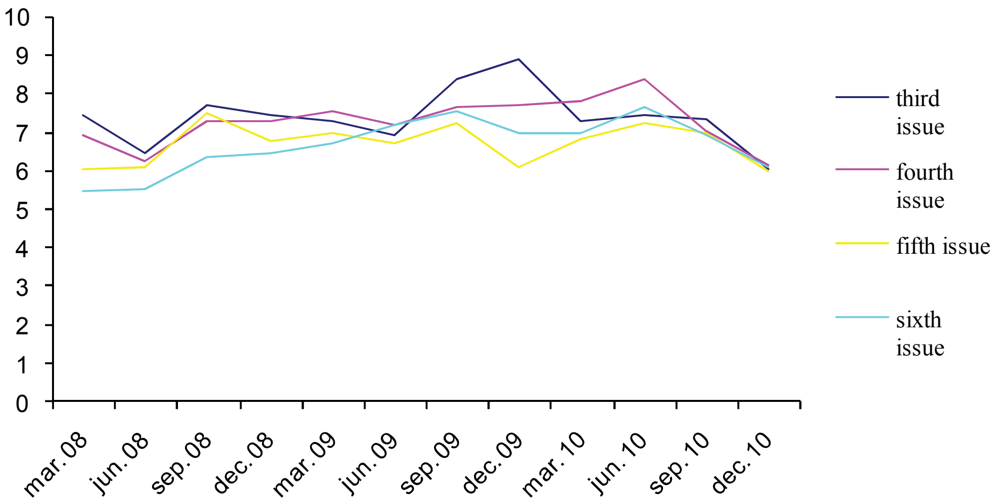

Figure 2: Yield to maturity of government bonds for the period 2008-2010

Mutual funds. In Macedonia the mutual funds are still in an early stage of development. The low amount of financial assets of this segment is still due to the lack of interest of investors to invest in mutual funds, which in turn adversely affects the profitable operation of companies that manage these funds. In 2010, in Macedonia the four companies which worked managed six open mutual funds and eight companies managed private funds with thirteen private mutual funds. There is an increase in founding mutual funds which are mostly due to realized net inflows of funds on the basis of net sales of shares. Net inflows of funds at the end of the year were 71 million MKD[5]. At the same time, the movement of the net value of the shares of open investment funds in 2010 is much less volatility, primarily due to the more stable financial markets, and balanced portfolios of the investment funds. On the other hand, this resulted in more stable yields annually ranging from 2.98% to 13.59%, depending on the fund, or the strategy for investing the assets of the fund[6].

3. Municipal Bonds

Local governments just as state and firms often spend more income than they receive. In order to finance its needs, an opportunity arises to issue bonds that can be classified as: general obligation bonds, which are characterized by an obligation of the issuer to repay the debt from any source of revenue for local governments, and municipal revenue bonds issued for a specific project whose implementation is expected to generate revenues that will serve to repay debt. Both types of municipal bonds carry a credit risk. If the municipality is unable to raise taxes or other revenues, the debt could not be repaid according to the general obligation bond. Also, if municipality issues revenue bonds, and the project does not generate enough income, the debt could not be repaid. Some municipal bonds can be insured against

[5] National Bank of Macedonia, Report on financial stability in Macedonia for 2010, June 2011, pg. 80
[6] Securities Commission, Report on the Securities Commission in Republic of Macedonia 2010, Skopje, July 2011, pg. 31

credit risk where issuer pays premium for protection and can sell bonds at a higher price paid by investors or investors indirectly bear the cost of insurance. Other types of municipal bonds that can be tailored to the needs of investors or the issuers: no coupon bonds, bonds with floating interest rate and bonds with a "put" or "call" clause.

According to the Law on Financing of Local Government (Official Gazette of the Republic of Macedonia no. 61/2004, 96/2004, 67/2007 and 156/2009), municipalities with a contract can borrow or issue bonds. Municipal bonds' characteristics that can be issued in Macedonia are: interest is usually paid semi-annually, while the principal can be paid at maturity or periodically, yield on municipal bonds is usually greater than the yield to be achieved by investing in a bank deposit, the investor is exempt from paying personal income tax and municipal bonds can be listed on the secondary market so that investors have the necessary liquidity. In the Republic of Macedonia the basic preconditions for development and issuance of municipal bonds are largely met. These include: existence of investors (demand for securities) having a need for financing local government units (offer of securities); mechanisms and participants of the capital market (process of issuance and trading), and institutional framework and market infrastructure[7]. Benefits of municipal bonds are multiple, as issuer, and for investors. They are presented in the following table:

Table 1: Advantages of issuance / buying municipal bonds

Benefits for issuers	**Benefits for investors**
• Mobilizing resources • This source of financing is cheaper than conventional borrowing from banks • It is issued to finance projects that bear or generate revenues to cover the deficit of the municipal budget • Accelerate the local and regional economic growth • Improving the economic situation of local citizens • Gaining greater financial independence from central government	• Return that depends on the quality of the issuer and maturity • Low risk investment • Liquidity • Relatively high earnings • Development of capital market and better opportunities for diversification of portfolios • The return is exempt from personal income tax • Investing in development environment in which they live

3.1. Experiences in the region

Poor representation of the municipal bond on capital market is true not only in Macedonia but also in the region. The following will show some experiences of countries in the region that began with issue of municipal bonds.

In the Republic of Croatia on the secondary capital market are traded eight issues of municipal bonds, while bonds issued by Istria and Opatija already matured. All issuances are motivated by a lack of resources for resolving important and costly problems related to local infrastructure. To emphasize the importance of this financial instrument will briefly display already matured municipal bonds and the

7 John Earle Petersen, Precondition for an Active Municipal Bonds Market in the Philippines, A chapter in Information Paper #2: Local Government Credit Finance and Private Commercial Banks, Development Banks, Investment Houses, and Government-Financed Banks and Programs, May 1992, pg. 53

purpose for which they were issued. Municipality Istria issued two bonds, one in 1995 and another in 1996. The first issue was to finance the problem of communal infrastructure, specifically to resolve the problem of wastewater of the city Pazin. These bonds were called Eco-bonds issued in the amount of 2 million DEM in HRK equivalent. The nominal value amounted to DEM 1,000 with a maturity of 2.5 years and annual interest rate of 11%. For bonds guaranteed Pula Istrian Bank, which later listed on the Zagreb Stock Exchange. The second issue was aimed at resolving the debt of the hospital in Pula. The amount of issuance was 2.8 million DEM in HRK equivalent (HRK 10 million). Issued in two series, one of which matured for 2 years and the other for 3 years. According to the method of payment, bonds were one-off payment of principal and during the amortization period paid out semi-annual interest on both series. The third issue of municipal bonds issued in the Republic of Croatia by municipality Opatija in 1997 was to finance the reconstruction and construction of water supply and the collector. That was issued in the amount of HRK 14 million, while overall emissions bought the agent at a price of 98.15% of the nominal amount. In the period 2004-2008 in Republic of Croatia were eight issues of municipal bonds and as issuers appear towns Koprivnica, Rijeka, Split (three issues), Zadar, Osijek and Vinkovci. All are listed on the secondary capital market.

In Republic of Srpska recorded two issues on municipal bonds. There were bonds of the city Banja Luka and municipality Laktashi which are listed on the secondary capital market. The total amount of municipal bonds on capital market is 17.03 million KM. Municipal bonds issued by the city of Banja Luka finance the construction of the bridge over the river Vrbas. The amount of emission is 7 million KM. The nominal value is 100 KM, interest rate 5.75% and maturity of 3 years. Payment of principal and interest are made semi-annually. The issue is approved by the Ministry of Finance of the Republic of Srpska.

In the Republic of Serbia has no issues of municipal bonds, and as primary reasons for this are reluctance and ignorance, because no legal obstacles. The same problem was also observed in Macedonia. In both countries, municipalities have no own property because it is owned by the state. The essence of the municipal bond lies in the low risk, where the municipality stands behind them with its entire property and budget. Because of this situation municipalities can borrow with prior approval of the Government of Republic of Macedonia, after received a positive opinion from the Ministry of Finance. It also defines and limits on borrowing, where the total amount of outstanding long-term debt of the municipality including all guarantees cannot exceed the total income of the currently-operating budget of the municipality in the previous year. In the Republic of Macedonia are clearly defined procedures for issuance of municipal bonds as a means of private offering and through a public offer.

4. Perspectives On Life Insurance Companies With The Emergence Of Municipal Bonds On The Capital Market In The Republic Of Macedonia

The nature of obligations is crucial in understanding how institutional investors differ in their activities. Obligations represent a cash outflow made in the specific period to meet the contractual obligations undertaken by the institutional investor. Responsibilities vary according to the uncertainty and the time when they arise. The institutional investors take into account the nature of its obligations to earn a satisfactory return from the invested funds and to maintain a certain amount of assets over its liabilities. The risk of the investment should be sufficient to provide adequate return, but not too high to threaten solvency. The nature of liabilities also determines the needs for liquidity.

The nature of the liabilities of life insurance companies in terms of their predictability and long term confirms the conservative investment policy of those companies. Besides the limitation which results from obligations, life insurance companies face with the following restrictions: (1) liquidity - despite the inflow of premiums, investment is an important source of liquidity for the insurer, where the financial instruments traded publicly provide greater liquidity; (2) Time horizon - insurers invest in financial instruments whose pay period is consistent with the expected obligations to policyholders; (3) Foreign currency risk - insurers operating in multiple countries whose investment portfolio is denominated in a mix of currencies that differ from the currency in which their liabilities are denominated; (4) Taxation - if investment returns are taxed they affect the allocation of funds to the insurer, (5) Regulation - specifies the allocation of funds to the insurer through a variety of financial instruments. For the allocation of funds that is appropriate to the goals of investment and restrictions on investment, insurers generally use modern portfolio theory (MPT) and management of assets and liabilities (ALM). A key to modern portfolio theory is the concept of efficient investment portfolio, as defined portfolio maximizes expected return for a given level of risk. Efficient portfolios are diversified in a way that takes into account the risk and expected return on any investment, and the correlation between these instruments. On the other hand, ALM enables managing the cash flows and managing interest rate risk. The insurer must provide cash flows to match its liabilities or obligations may be covered with a portfolio of bonds maturing at the same time with its obligations. In terms of interest rate risk management key role plays synchronization of the duration of assets and liabilities. But this is not a complete solution, because the full compliance in duration will certainly change with the interest rates movements because of convexity[8]. In order to invest optimally, insurers need to have flexibility in investing in different classes of financial instruments. Any unnecessary restriction on their ability to invest will affect investment performance and on their ability to achieve returns that will best suit the insured and the owners (shareholders).

In the Republic of Macedonia on the insurance market three life insurance companies operate, one of which started in 2011. In total liabilities of life insurance companies dominate the technical provisions (636 million MKD) with share of 52.356% and total capital (536.6 million MKD) or 44.17% of total liabilities which confirms the large amount of long-term sources of funds[9]. There is a favorable amount of assets covering technical provisions, or fully covering future liabilities that arise from insurance contracts, and possible loss in relation to those risks associated with the performance of insurance for which the insurance undertaking is obliged to set aside funds for technical provisions. Life insurance companies placed investments from its funds in the amount of 286 million in form of bank accounts and deposits in banks, then 380 million MKD in government securities and 356 thousand in securities of foreign issuer[10].

The emergence of municipal bonds on the capital market in Macedonia will have the following implications for life insurance companies:

- Regulatory Compliance - life insurance companies under point 2 of Article 86 of the Law on Insurance Supervision are obliged to invest the assets covering technical provisions in the amount of at least equal to the value of technical reserves. On the other hand, in Article 89 of Law on Insurance Supervision limits are defined by which individual investments may not exceed. Due to poor choice of financial instruments on capital markets, life insurance companies are facing difficulties in meeting its obligation. The emergence of new financial instruments of capital market, such as municipal bonds, will facilitate the allocation of assets of life insurance companies, and as a consequence the obligations of the law in terms of investment will be fulfilled.
- Immunization - due to the maturity mismatch of assets with maturity of liabilities, life insurance companies are exposed to significant interest rate risk. As noted, the Macedonian companies generally have long-term liabilities, and on the other hand they do not have adequate financial instruments to

[8] The pace with which the duration of the portfolio changes as a result of changing interest rates is called convexity.

[9] Agency for Insurance Supervision, Annual Report on the status and trends of the insurance market in Republic of Macedonia 2010, Skopje, June 2011, pg. 19

[10] Agency for Insurance Supervision, Annual Report on the status and trends of the insurance market in Republic of Macedonia 2010, Skopje, June 2011, pg. 20

invest, which will increase the duration of assets and comply with the duration of liabilities. Municipal bonds as well as long-term fixed income instruments will significantly contribute to the implementation of this of companies' policy.

- Liquidity - the most liquid securities on the capital market in Macedonia are government bonds, with well developed capital markets and municipal bonds it may arise as highly liquid financial instrument in respect of corporate bonds, stocks, share documents, real estate etc. The premature cancellation of insurance contracts by policyholders as a consequence would have an increased need for liquidity of life insurance companies.
- Higher yield – yield bearing by municipal bonds is different from the yield of government bonds with the same maturity because of three reasons: first, the municipal bond contains risk premium to compensate the probability that the municipality does not repay the debt; second, municipal bonds, also contain a risk premium due to poor liquidity in respect of government bonds, and third, the income earned from municipal bonds is exempt from paying tax. Government bonds carry the lowest yield, because they have low credit risk and can easily be liquidated on the secondary market. On the other hand, yield from stocks in recent years has seen a great variability so such instrument does not match the life insurance companies. Because of this feature it can be expected to improve the companies' profitability.
- Diversification of the portfolio - life insurance companies invested most of the assets covering technical provisions in government securities and bank accounts and deposits. Life insurance companies are not exposed to higher risk by investing in government bonds and bank deposits; however the inclusion of one more tool in their investment portfolio will increase the benefits of diversification. Municipal bonds given the use that they offer to investors will adequately fit into a conservative investment strategy of life insurance companies, than to include in their portfolios a significant amount of variable-yield stocks or unit certificates of investment funds that are characteristic for small investors.
- Financing of public works - in the Republic of Macedonia public works are financed mainly from the budget of the Republic of Macedonia. With the emergence of municipal bonds will reduce the dependence of the municipalities from central government, and will increase their financial independence, and on the other hand will reduce the financial burden of the state in terms of costs to municipalities. Purpose of municipal bonds is the collection of funds for construction of local infrastructure such as schools, hospitals, roads, sports facilities, municipal infrastructure and financing of other projects that have characteristics of public goods or services. This gives the opportunity for life insurance companies to participate with excess of accumulated capital and to invest in the infrastructure of their city or municipality.

5. CONCLUSION

Lack of financial instruments on the capital market in Macedonia appears to be a major obstacle in the formulation of appropriate investment policies of life insurance companies. Therefore, they concentrate their assets to certain classes of financial instruments which exposes them to risk and leads them to inadequate diversification of placements. In their assets in respect of investments the greater amount of bank accounts and deposits has a positive influence because they provide liquidity, but on the other hand there is a disproportion in the maturity of assets with a maturity of liabilities that results in a significant exposure to interest rate risk. Also, the large share of government securities in their investment portfolios as a consequence has low yields.

The introduction of municipal bonds on the capital market in Macedonia, will positively affect not only the life insurance companies as a significant institutional investor but also all investors participating on the capital market and the overall economy. With that investors receive another financial instrument which will positively reflect on the diversification of their portfolios due to credit and liquidity risk, which will carry higher yields offered by government securities and finally offer the best opportunity for all investors - exemption from paying income tax. In Macedonia, there is legislation for the issuance of municipal bonds, and other conditions for their development as creditworthy municipalities, market infrastructure, demand, etc and life insurance companies that will gradually evolve to orient themselves to managing assets and liabilities as an important concept of risk management, which will increase interest for long-term financial instruments such as municipal bonds.

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