Investments and portfolio structure of private pension and insurance companies in North Macedonia

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A B S T R A C T

The financial market in general is where supply and demand for funds are met. In other words, funds saved in the financial market are directed to investments in order to contribute to the economy. In the Macedonian financial market, the banking sector is really dominant but also pension funds and insurance funds have an active role. This research aims to assess the distribution of pension funds’ portfolios in the North Macedonian financial market. The global financial crisis in 2008 negatively affected the economies and financial markets of many countries, including the USA and Europe, and the effects of the crisis continued until 2013. This negatively affected the confidence in the financial markets, and the current surplus of funds was directed towards low-risk but fixed or low-yield financial instruments. As of 31.12.2018, fund accumulation in private pension funds amounted to 1.04 billion euros, corresponding to approximately 10 percent of GDP. The total premium production of insurance companies is around 157 million euros, while the GDP ratio of premium production is around 1.5 percent. Funds collected in both sectors are generally used in treasury bills, bank deposits, and stocks traded on the Macedonia Stock Exchange and foreign financial markets.

Introduction

Financial market is where supply and demand of funds are met. New investments cannot be made in the absence of financial markets or in case of undeveloped financial markets. Therefore, financial markets are essential for economic efficiency and productivity. Financial institutions operating in the financial system and whose main function is intermedidation are very important for economic growth.

While the financial systems work in developed countries, financial markets remain as shallow and limited in developing countries such as in North Macedonia. The pension system, which is an important part of the Macedonian social security system existed for more than 60 years and it was established to ensure the financial and social security of the employees in the country in case of retirement, disability and death. Within the framework of the European Union reform process, in order to ensure the financial and social security of current and future retirees in the long term, the Macedonian pension system has been reorganized and the state pension fund, as well as mandatory fully private pension and individual pension funds have started to operate since 2006.

As of June 2019, there have been three pension companies in the country and mandatory and voluntary pension funds managed by these companies. As pension companies (funds) manage long-term pension fund investments by the nature, investment tools do not differ much in the short term. Contributions collected by the pension companies are evaluated in pension mutual funds after management expense deductions are made. A return is earned at the end of the period as a result of the accrual of interest or dividends on investment funds and instruments. While the banking sector maintains its dominance in the financial markets of North Macedonia, the private pension funds rank second. Another area that transfers funds to financial markets is the insurance sector.

The insurance sectors assist the institutions and individuals in risk management, and play an important and critical role in terms of the flow of funds provided to financial markets due to the size of the investments made. The insurance sector in North Macedonia...
has started to take place in the financial markets since 2009 together with the establishment of the new legislation and the enforcement of the supervision and regulation,

In North Macedonia, the insurance transactions are regulated according to the Insurance Law. A total of 16 insurance actively companies operate in the country, 10 of which are non-life, 5 are life insurance and 1 is non-life and reinsurance.

Theoretical Background and Conceptual Framework

After North Macedonia had declared its independence (in 1991), the negative changes in the socio-economic field, the decrease in the pension cuts received by the state due to the high and rapid increases in the unemployment rate made the pensions to be paid, while this caused large deficits in the state pension fund budget, the share allocated for pension insurance from the state budget had gradually increased. In the pension system in Macedonia, despite the increasing number of retirees and the long-term use of retirement, the structural problems have arisen as a result of the decline in the young population and the number of insured workers. As a result of the actuarial projections made at the beginning of the 2000s, it has been stated that if the pension system is not rearranged, these negative developments will cause problems in pension payments in the long term and will put heavy burdens on the state budget. The pension system, which is a part of the social security reform is one of the structural reforms in Macedonia that was added to the existing state pension fund as a result of the legal regulations made in 2000 with a mandatory private pension fund and a individual pension fund.

After the reforms, there is a three-pillar pension system in N. Macedonia.

'Mandatory state pension insurance' ‘Pay as you go’ (First pillar)

The income obtained from the pension insurance (18 percent of the gross salary) paid by the employers on behalf of the employees is not collected in a place (fund), but paid as retirement pension to those who have gained the right to pension through the state pension fund.

Mandatory private pension insurance (Second Pillar)

Employers must pay 18 percent of the gross salary as retirement insurance for every citizen who is employed and whose insurance is paid. 6% of the 18% is mandatorily paid invested in the private pension fund of which the individual is a member and the owner of the account. This process continues regularly every month as long as the individual is employed (hired) as insured.

The second pillar has been operational as of January 1, 2006. Those who are registered for the first time as insured after January 1, 2003 must participate in the second pillar.

Individual pension insurance (Third pillar)

The main purpose of Individual Pension Insurance, which is a part of the pension reform, is to provide retirement pension/pay to people who are not covered by mandatory pension insurance, and to provide an additional income other than normal retirement pension in old age to participants who work in insurance in the first and second pillar pension funds.

Persons with legal capacity can participate to the individual pension system. To join the system it is sufficient to sign a pension contract with a pension company. The Individual Pension Insurance in North Macedonia started operating in the second half of 2009.

Figure 1: Distribution of mandatory pension deduction by first and second pillar

The above figure demonstrates the distribution of pension deductions to the first and second pillar system. If the person takes place only in the first pillar the entire pension deduction is transferred to the state pension fund. If the individual is a participant or a

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1 The total pension deduction is 18 percent of gross salary.

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member of the second pillar, the part of the pension deduction (12 percent) is transferred to the state pension fund and the other part (6 percent) to the pension fund of which the individual is a member, is accumulated and directed to the investments.

Although the insurance trend in North Macedonia has seen a slight increase in recent years, it is far from the insurance levels in the world, especially in developed countries. In North Macedonia, where financial literacy is low, citizens often encounter the term insurance when they need motor vehicle insurance or short-term insurance policies on holidays. Because many people do not know all the opportunities insurance companies have to offer we can say that the insurance sector in the country is in its infancy. Insurance transactions in North Macedonia are regulated according to the Insurance Supervision Law. According to the legislation, we can mention two basic types of insurance in the state (Insurance Supervision Law, Article 6):

- Life Insurance (life insurance, rent, additional life insurance, voluntary pension insurance, etc.) and
- Non-Life Insurance (Accident Insurance, Motor Insurance, Motor Own Damage Insurance, Property, Fire and Other Hazards, Liability Insurance, etc.)

As of 31.12.2018, a total of 16 insurance companies actively operate in North Macedonia. The table below shows the distribution of existing companies by insurance types (fields of activity).

**Table 1: Active Operating Insurance Companies in North Macedonia**

<table>
<thead>
<tr>
<th>Insurance type</th>
<th>Number of companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Life Insurance</td>
<td>10</td>
</tr>
<tr>
<td>Life insurance</td>
<td>5</td>
</tr>
<tr>
<td>Non-Life and Reinsurance</td>
<td>1</td>
</tr>
</tbody>
</table>

**Source:** ASO www.aso.mk

**Research and Methodology**

Data was collected from primary and secondary sources between the period of 2006-2018.

**Number of Participants and Fund Pool Formation in Mandatory Private Pension Funds**

It is a legal requirement for pension companies to choose a custodian bank where the portfolio accumulated in pension funds is kept. Pension shares deducted from employees are accumulated in a separate custodian bank. Pension companies make use of these deductions using certain investment tools.

The table below shows the total number of participants who were members of mandatory private pension funds and the total fund amount of the participants between 2006 and 2018.

**Table 2: Total number of participants and total fund number of participants in the mandatory private pension funds**

<table>
<thead>
<tr>
<th>Years</th>
<th>Total number of participants</th>
<th>The total amount of funds of the participants (million €)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>128.031</td>
<td>20,187</td>
</tr>
<tr>
<td>2007</td>
<td>162.333</td>
<td>50,796</td>
</tr>
<tr>
<td>2008</td>
<td>196.140</td>
<td>81,376</td>
</tr>
<tr>
<td>2009</td>
<td>237.024</td>
<td>142,098</td>
</tr>
<tr>
<td>2010</td>
<td>266.970</td>
<td>202,302</td>
</tr>
<tr>
<td>2011</td>
<td>296.631</td>
<td>260,474</td>
</tr>
<tr>
<td>2012</td>
<td>323.480</td>
<td>343,481</td>
</tr>
<tr>
<td>2013</td>
<td>330.040</td>
<td>435,767</td>
</tr>
<tr>
<td>2014</td>
<td>373.151</td>
<td>537,037</td>
</tr>
<tr>
<td>2015</td>
<td>405.288</td>
<td>649,626</td>
</tr>
<tr>
<td>2016</td>
<td>427.025</td>
<td>798,2</td>
</tr>
<tr>
<td>2017</td>
<td>457.266</td>
<td>926,15</td>
</tr>
<tr>
<td>2018</td>
<td>490.035</td>
<td>1,047,3</td>
</tr>
</tbody>
</table>

**Source:** Pension funds annual reports (2006-2018), MAPAS, www.mapas.mk
The total mandatory private pension assets increased by 13% compared to the previous year and reached approximately 1 billion 50 million Euros as of 31.12.2018. The rate of GDP of its funds increased to 9.75%.

Contribution margins collected by the pension company, are evaluated in pension mutual funds after management expense deductions are made. Pension companies invest in the types of investments specified in the law and on behalf of the participants, provided that they do not exceed the maximum rates determined by the legislation.

**Insurance Premium and Claimed Damages**

Insurance premium in the most general sense is the amount paid by the policyholder in money. The table below shows the total insurance premium generated and total claims paid for the years 2017 and 2018.

<table>
<thead>
<tr>
<th>Total Insurance Premium and Total Claims Paid</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Life Insurance</td>
<td>122.8</td>
<td>134.4</td>
</tr>
<tr>
<td>Life insurance</td>
<td>23.5</td>
<td>27.1</td>
</tr>
<tr>
<td>Total Premium Production</td>
<td>146.3</td>
<td>161.5</td>
</tr>
<tr>
<td>Damage Paid (Million €)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount of Damage</td>
<td>58.3</td>
<td>63.8</td>
</tr>
</tbody>
</table>

**Source:** ASO www.aso.mk

The North Macedonian insurance industry generated 15.2 million TL direct insurance premium production in 2018, with an increase of 10.4 percent compared to the previous year. While 9.5 percent of this was due to non-life branches, an increase of 15.3 percent was recorded in the life branch in 2018.

The total damage payment paid increased by 9.4 percent in 2018 compared to the previous year and reached 63.8 million Euros.

As can be seen in the above figure, 83.7 percent of the total premium was obtained from non-life branches, while more than half of it (44 percent of the total insurance premium) was obtained from the traffic insurance branch. While home insurance is around 17 percent, the share of insurance in total premium production is around 8 percent.

**Result of Portfolio Distribution**

**Portfolio Distribution of Mandatory Private Pension Funds**

The assets to be invested by the pension companies according to the mandatory pension law and their maximum limits are given in the table below (Mandatory Private Pension Law, articles 105–107).
Table 4: Investment tools and maximum investment limits

<table>
<thead>
<tr>
<th>INVESTMENT TOOLS</th>
<th>MAXIMUM LIMIT (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment abroad (EU and OECD)</td>
<td>50</td>
</tr>
<tr>
<td>Bonds and other securities issued by foreign governments and central banks</td>
<td>50</td>
</tr>
<tr>
<td>Securities issued by non-state foreign companies, banks or investment funds</td>
<td>30</td>
</tr>
<tr>
<td>Securities issued or guaranteed by RNM on the domestic market or Central Bank of RNM</td>
<td>80</td>
</tr>
<tr>
<td>Bank deposits</td>
<td>30</td>
</tr>
<tr>
<td>Shares issued by domestic joint stock companies</td>
<td>30</td>
</tr>
<tr>
<td>Bonds issued by local self-government</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: MAPAS, www.mapas.mk

Pension companies evaluate the contributions collected from participants and accumulated in pension funds within the framework of their investment strategies with the investment instruments and limits specified in the table above in order to provide more income for the participants.

The following figure shows the tools invested by pension funds as of 31.12.2018.

![Investment tools used by the private pension funds and their rates 31.12.2018](image)

**Figure 3:** Investment tools used by the private pension funds and their rates 31.12.2018; Source: MAPAS, www.mapas.mk

Considering the portfolio distribution of pension funds in 2006, when pension companies started their operations, it is observed that a large part of the funds are used in government bonds, another part in deposits and a small part in stock investments. In 2007, it is observed that the portfolio distribution of pension funds started to shift from government bonds to stocks and foreign investments. The global financial crisis that broke out in the world in 2008, especially in the USA and Europe, adversely affected the economies and financial markets of many countries. This ongoing financial crisis later affected the Balkans and the North Macedonian government had to take many measures. Capital and financial markets, particularly the real economy, were affected by the financial crisis.

In this period when pension companies showed their ability to manage funds (2009 - 2012), as a result of investing in investment instruments (government bonds) that are more closed and low risk compared to previous years, Pension funds in Macedonia compared to many countries closed the international financial crisis with little loss or even less return.

As pension companies manage long-term pension fund investments by nature, investment tools in the short term do not differ much. It seems that pension companies did not invest much in domestic stocks in 2018, as in 2017. Considering this investment policy carried out by pension companies, it cannot be said that the changes in the Macedonian Stock Exchange index affect the pension fund investments.

Government bonds are one of the instruments in which mandatory private pension companies invest the most. It is predicted that pension companies will continue to use these investment tools in the coming years.
As of the end of 2018, there is a fund accumulation of approximately 1 billion 50 million Euros in pension funds. Since the average age of participants is 35 and the retirement age is 64 for men and 62 for women, funds will accumulate in the next 25-30 years without paying pension.

According to the predictions made, it will be difficult to find tools for pension funds to invest, considering that the fund accumulation in compulsory pension will exceed 2 billion euros in the next 2-4 years.

Unless there is a change in legislation and given the fact that the Macedonian stock market is shallow, pension funds will necessarily turn to treasury bills and foreign investments.

**Portfolio Distribution of Insurance Funds**

In order for insurance companies to fulfill their obligations to their members, they are required to keep a minimum level of assets under legal obligation under the name of technical provision. These assets held by insurance companies can be directed to different investment areas in a way that does not exceed the limits determined by the insurance supervision law.

**Table 5:** Assets that insurance companies can invest in

<table>
<thead>
<tr>
<th>Investment Tools</th>
<th>Maximum Ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank accounts and bank deposits</td>
<td>60</td>
</tr>
<tr>
<td>Government securities</td>
<td>80</td>
</tr>
<tr>
<td>Shares issued by domestic joint stock companies</td>
<td>35</td>
</tr>
<tr>
<td>Long-term securities issued by EU or OECD</td>
<td>20</td>
</tr>
<tr>
<td>Investment funds</td>
<td>20</td>
</tr>
</tbody>
</table>

**Source:** ASO www.aso.mk

In the above table, the assets and maximum limits that insurance companies will invest in are shown in accordance with the Insurance Supervision Law.

**Figure 4.** Investment tools and their rates used by the insurance companies 31.12.2018; **Source:** ASO www.aso.mk

When the fund accumulation increases, insurance companies are expected to turn to different investment tools. We can see that companies operating in the North Macedonian insurance sector are generally oriented towards the assets with low risk and return. Approximately 95 percent of the total fund amount is held in fixed income assets (59 percent government bonds and 34.6 percent bank deposits), so we see that insurance companies take a cautious attitude in their asset portfolios by keeping funds in low-risk investment tools.

While 5 percent of the total fund is directed to investment funds, only 1 percent is kept in the North Macedonia stock exchange. This shows us that movements or thrills in the North Macedonian stock market will not affect the insurance funds as well as the pension funds.
Figure 5: Portfolio distribution according to types of insurance 31.12.2018; Source: ASO www.aso.mk

When we look at the portfolio distribution by types of insurance, it is seen that non-life insurance funds are preferred more in the short-term investment tools. Among these short-term investment tools, the share of bank deposits in total funds is approximately 45 percent. On the other hand, since life insurance is a longer-term insurance due to its nature, most of the funds (76 percent) in these insurance companies are being evaluated in state/government bonds.

Stock certificates and long-term bonds issued by the EU and OECD countries are not preferred by the insurance companies in the country as of the end of 2018.

Conclusions

While the banking sector plays a large and important role in the financial markets of North Macedonia, the pension funds are in the second place, which constitute 9.75 percent of GDP as of the end of 2018.

Since pension companies manage long-term pension fund investments by nature, in the short-term investment tools do not much differ. Therefore, in the long term it is necessary to evaluate the returns of the investment.

Private pension companies and pension funds managed by these companies actively operate in the mandatory private pension system. Although the contribution fee of all employees registered in the system is paid over the gross salary, 12 of the 18 percent deduction according to the state pension fund goes to the state fund, while the remaining 6 is transferred to the mandatory private pension fund selected by the participant.

The said capital (fund) accumulation is utilized by using investment instruments that are determined by law and whose limits are limited. Looking at the investment portfolio of North Macedonian pension funds, we can see that there are five basic investment tools being used.

In general, the most preferred and used investment tools by pension companies in Macedonia are the state/government bonds as in many countries implementing this system. Thus, approximately 60 percent of the total fund accumulation has been invested in government bonds. In addition, in recent years there was a noticeable increase in the foreign investment funds, and the investment made in the mentioned investment tool was based on the maximum rate of 30 percent determined by law.

As of the end of 2018, the total assets of insurance companies constituted 3.3 percent of GDP.

Insurance companies rank third after banking and pension funds in terms of using the fund accumulation resulting from premiums or technical provisions (reserves).

When we look at the fund situation created by insurance companies, we see that approximately 95 percent of the existing funds consist of government bonds and bank deposits, and that foreign investment and stock investment tools are almost never used.

As the North Macedonian stock market is shallow and the trading volume in the stock exchange is very low, the pension funds and the insurance companies do not prefer domestic stocks. It is expected that the existing fund accumulation in both sectors will increase further in the upcoming period. If the current legal regulations continue, in the light of the events we have mentioned above, it is predicted that the maximum limit (80 percent) in government bonds. will be approached. In Macedonia, the very low interest rates, especially the deposit rates (between 2 and 3 percent), inhibit pension funds from using these investment tools. However, we can say that insurance companies use bank deposits as short-term investment tools, especially for non-life insurance funds.

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