REPORT

On the Development in the Fully Funded Pension Insurance

2018

Agency for Supervision of Fully Funded Pension Insurance
Republic of North Macedonia

REPORT

On the developments in the fully funded pension insurance in 2018

Skopje, Maj 2019

Stiv Naumov 100, 1000 Skopje, Republic of North Macedonia
Tel/Fax: (+389-2) 3224 229; 3166 452
www.mapas.mk

Contents

Foreword

Dear reader,

As 2018 ended, we completed thirteen years of operation of the second pillar and nine years of the third pillar. The growing trend of the fully funded pension insurance continued in 2018. The total assets of the mandatory and voluntary pension funds reached around 10% of the GDP for 2018; this puts the fully funded pension insurance among the relatively young pension systems, based on individual savings and with excellent growth potentials.

It is my honour and pleasure to present the thirteenth Annual Report on the Developments in the Fully Funded Pension Insurance of the Agency for Supervision of Fully Funded Pension Insurance-MAPAS. It encompasses the performances of the fully funded pension insurance as of 2018. According to the Law on the Mandatory Fully Funded Pension Insurance, MAPAS is obligated to prepare and publish an annual report on the fully funded pension insurance in the Republic of North Macedonia. This report is prepared by the Research and Institutional Cooperation Sector and it is adopted by the Council of Experts of MAPAS. Spread over seven chapters of the Report, you shall find information and data on the features of the fully funded pension insurance, assessment on the compliance with legislation as well as other useful data.

Financial security at old age is part and parcel of the individual wellbeing. The pension insurance aims at providing the beneficiaries with such security after they are no longer able to earn their living. In order to mitigate the risks of the aging population and volatility of the labor market, but also to accomplish their ultimate goal – to provide for sustainable pension system with adequate pension income, the policy makers stimulate the countries to diversify the pension income sources by combining financing and calculation of pensions. In that respect, the role of the fully funded pension insurance is getting stronger, thorough introduction of private pension funds and by undertaking activities and measures for improving their operations. The main indicators of the importance of pension systems, such as the coverage of population and the assets under management are still growing in 2018, which confirms the ever growing importance of pension systems. Globally, the main drivers of the private pension systems, are the pension funds, followed by the banks and investment companies, insurance companies and the reserves of the employers. The total private pension assets on a global level by the end of 2017 reached a record of 45 trillion USD, out of which two-thirds or 29.8 trillion USD are pension funds' assets.

In order to enhance and improve some of the procedures, in 2018 MAPAS introduced amendments to the rulebooks that regulate the areas of second pillar *fees, financial reports, election of members of management and supervisory boards, valuation of pension funds' assets, selection of local entities that will provide services regarding securities, membership etc. The end of 2018 was marked by the amendments of the Law on Mandatory Fully Funded Pension Insurance, which introduced crucial changes to the membership in this type of insurance and also introduced definitions and criteria for ending the membership of certain categories of members.*

One of the more important events of 2018 was the first sale of shares of a fully funded Pension Company. In 2018, 100% of the shares of NLB Nov Penziski Fond were transferred to Pozavarovalnica Sava d.d. from the Republic of Slovenia, and the titles of the pension company and both pension funds changed to Sava Pension Company AD Skopje, Sava Penziski Fond and Sava Penzija Plus. Also, in 2018 we mark the first change of custodian, namely the Pension Company KB Prvo signed the agreement for custody of assets for both pension funds with Sparkasse Macedonia AD Skopje.

Both Pension Companies had another successful year. They earned higher net profit and achieved a comprehensive profit of 99 million denars for Sava Pension Company and 131 million denars for KB Prvo Pension Company.

In 2018 the coverage of the population in the second pillar has also increased, which is demonstrated in increased membership in the second pillar for 7% (in respect to 2017) amounting to a total of 490,035 members, which is 85% of the total number of insured persons in the Pension and Disability Insurance Fund of Macedonia. The average age of the second pillar member is 35 years. As a result to this, the paid contributions have also increased in 2018, whereby the second pillar received 7.1 billion denars in contributions, which, together with the accumulated assets, were invested in accordance with the legal provisions on investments. The value of the assets in the mandatory private pension funds on 31.12.2018 was 64 billion denars which is 13% rise in respect to 31.12.2017 and is 9.75 of the GDP of the Republic of North Macedonia. The structure of the investment portfolio of the mandatory pension funds is not significantly different, compared to the previous years and it is consisted of domestic investments in government securities (57%), deposits (11%) and shares (3%) and participation units in investment funds (0.3%), as well as investments abroad, which include shares (6%) and participation units in investment funds (21%). The accounting units of both mandatory pension funds were rising constantly during 2018. In the 8-year period of their operations, from 2012 to 2018, the mandatory pension funds reached an average annual return of 5.97% in nominal value i.e. a real return of 4.76%. In 2018, the mandatory pension funds had realized around 314 payouts.

In 2018 the number of members in the third pillar had a modest increase of 2.5% in respect to 2017 and reached 24,388 members, out of which 61% are participants in occupational schemes and have occupational accounts. The average age of the third pillar members is 45, which is higher than those of the second pillar. In 2018, 300 million denars were paid in the third pillar pension funds, which were invested together with the rest of the accumulated assets, thereby following the legally established investment limits. As of 31.12.2018, the value of the voluntary pension funds assets reached 1.6 billion denars, which is 0.24% of the country's GDP. The structure of the investment portfolio of the voluntary pension funds is not significantly different from the portfolio of the mandatory pension funds and also it does not differ from last year's. It consists of investment in domestic government securities (47%), deposits (15%) and shares (8%), participation units in investment funds (0.8%) as well as in investments abroad which include shares (6%) and participation units in investment funds (21%). The accounting unit for both voluntary funds was *continuously rising throughout 2018. In the 7-year period of their operations, from 2012 to 2018, the mandatory pension funds reach an average annual return of 5.81%, i.e. a real return of 4.60%. In 2018, the voluntary pension funds realized around 281 payouts.*

The Law and the secondary regulations prescribe the terms and conditions under which Pension Companies may perform their marketing activities in order to provide for the protection of the interests of current and future pension fund members and to provide for fair and unbiased information for the citizens. In 2018, the Agency organized two examinations for sales agents, where 53% of the registered candidates passed the exam. Also, the Agency performed the regular activities of registration, renewal of registration and re-registration of sales agents. For some of the sales agents the status of agents was terminated in 2018.

In general, pension schemes, based on individual savings, have positive effects on the long-term stability of the pension systems and safety of the entitlements from the pension insurance, which meets the exceptions from the multi-pillar system in the Republic of North Macedonia. This is due to the fact that the fully funded pension insurance is part of the social insurance system, which enables better quality of life after retirement and coverage of other risks throughout the career. On the other hand, this type of insurance contributes to the development of the capital market, stimulates investments and the creation of new financial instruments, as well as consolidates the long-term investments. Pension savings are long-term savings (considering that the average career of a person is 30 to 40 years) so it is only reasonable to evaluate its impact on a long run as well. Still, all the developments in the pension area must be monitored closely and on a continuous basis, and adequate measures must be taken to enhance individual savings by: motivating competition, promoting efficient and flexible portfolio management and extension of coverage, all in the direction of protection of the interest of the pension fund members and safe pension benefits after retirement.

Please allow me to stress that pension savings are long-term savings (having in mind that the average career of a person is between 30 and 40 years), and so the results of the Pension Funds should be considered with a long-term perspective. However, the developments in the pension industry should be followed closely and on a continuous basis, and the measures should be undertaken for its improvement, in order to protect the interests of the pension funds members and to assure the pension benefits for old age.

Guided by our mission and motivated by the results accomplished thus far, we will engage all our resources for the improvement and enhancement of the second and third pillar operations. In that light, we shall continue with the daily supervision over the Pension Companies, Pension Funds and Custodians, we shall keep working on building the public awareness, on collaboration with other institutions from the industry and the financial world and when needed, we shall initiate measures for improvements of legislation in order to enhance the fully funded pension insurance and protect the interests of the active and retired pension funds members.

Chairman of the Council of Experts

Maksud Ali

MAPAS, mission and vision

The Agency for Supervision of Fully Funded Pension Insurance – MAPAS is a regulatory and supervisory body with a sole purpose to protect the interests of the members and the retired members of the pension funds and to enhance the development of the fully funded pension insurance. MAPAS was established in July 2002. MAPAS is a legal entity with public authorizations prescribed with the Law on Mandatory Fully Funded Pension Insurance and the Bylaws.

MAPAS is responsible for issuing, withdrawing and cancelling licenses to Pension Companies for managing Pension Funds, and for issuing, withdrawing and cancelling approvals for managing mandatory and voluntary pension funds. MAPAS supervises the operations of Pension Companies, Mandatory and Voluntary Pension Funds, Custodians and Foreign Assets Managers. Also, it promotes, organizes and enhances the development of the fully funded pension insurance in the Republic of North Macedonia, collaboration with the Ministry of Labor and Social Policy. Its responsibility is to build the awareness of the public on the goals and principles of the pension companies and pension funds and on the benefits from participating in the private pension funds, including the benefits from participating in occupational schemes. It informs the members on their entitlements and obligations as private pension funds' members and on other features of the fully funded pension insurance. MAPAS passes acts in accordance with the laws governing the fully funded pension insurance and initiates other regulations for the pension companies and pension funds. Also, it collaborates with relevant institutions in the country and abroad in order to provide efficient control over the fully funded pension insurance in the Republic of North Macedonia.

Until 27.6.2018, the Agency was steered by the Council of Experts, consisted of four members and a Chairman:

Bulent Dervisi, PhD – Chairman
Mentor Jakupi – member, with professional engagement
Elizabeta Vidovikj– member, with professional engagement
Silvana Mojsovska, PhD- external member
Tome Nenovski, PhD - external member

With the Decision for appointment of the Chairman and the members of the Council of Experts, published in the Official Gazette of the Republic of Macedonian No. 118 from 27.6.2018, the Parliament of the Republic of Macedonia appointed the new Council of Experts of the Agency, as follows:

Maksud Ali - Chairman

Mentor Jakupi – member, with professional engagement
Darko Sazdov – member, with professional engagement
Borche Bozhinoski - external member
Marina Makenadzieva - external member

Our Mission is to protect the interests of the current and retired members of the pension funds and to stimulate the development of the fully funded pension insurance towards safer retirement days.

Our vision is MAPAS to be recognized as independent, expert and transparent institution, which protects and enhances the pension system in the Republic of North Macedonia.

1

Brief overview of the global conditions and trends in the pension industry with accent on the fully funded pension insurance

The economic safety at old age is part and parcel of the individual wellbeing. The pension insurance aims at providing this security, after people are unable to earn their own income. Generally, this type of security can be provided from the private or the public sector. It can be financed from public revenues or from contributions of current insured persons, or it can be fully funded by payment of individual contributions and their accumulation. The pension benefits can be defined per a predefined formula (defined benefits principle) or they may depend upon the amount of accumulated individual assets (defined contribution principle). In parallel with the economic security at old age, the pension systems have other multiple and often competitive goals. They have to provide adequate security and income for the pensioners and also, they have to be financially sustainable. They need to offer mechanisms to the persons in order for them to have sufficient savings in order to cover financially their future. At the same time, they need to be sufficiently flexible when it comes to long-term demographic and economic changes and challenges. They can be used to overcome certain social conditions such as poverty, but also to provide for inter-generational solidarity. Pension systems may provide for insurance from multiple risks. Saving for retirement is saving for the future. The future is unknown, and thereof it implies risks. Those risks may be common for the system as a whole, such as macroeconomic or financial market risks, or those may be individual and personal. The operational risks exist in the public as well as in the private pension systems. The pay-as-you-go pension insurance, the fully funded pension insurance, the DC and DB principles, public and private systems they all play a significant role in addressing the goals and risks of the pension systems.

Various socio-economic and demographic circumstances in the countries, as well as the influence of the culture on the people and their habits and perception of savings for old age, generally, imply different structures of the pension systems in different countries. However, the policy makers encourage countries to diversify the sources of retirement income by combining the financing and the benefit calculation. The public pay-as-you-go pension systems and the fully funded private pension systems can complement each other. They offer various solutions for having competitive prices of the pension systems and have multiple capacities for covering different types of risks which people face during their lives, before and after retirement. The major challenge is how to combine these various features in a comprehensive pension system, which would be sustainable, but also fair to all generations. In order to accomplish its goal – insurance for old age – the pension system must be fiscally acceptable on a short term, sustainable on a mid-term and on a long term it should provide for adequate pensions. The experience demonstrates that there is no one solution for all, there is no one design of a pension system that will fit each country, as each country uses different combination of elements (principles of financing of pensions, calculation and payment), to build an effective pension system, depending on its economic and social specifics. Still, usually, pension systems are defined as multi-pillar systems, in order to provide for diversification of risks that affect the pension system. The general framework is usually consisted of three pillars: basic pension (as a minimum protection for all employees or elderly people), mandatory additional savings (state or private fully funded financing, which includes various forms of contracts). In the last decades the risks of aging population and volatility of the labor market initiate various pension system reforms, in order to mitigate such risks, but with the same end goal – sustainable pension system and adequate old-age income.

According to the research of the major reforms, approved and implemented in the last twenty-three years (between 1995 and 2018), the basic pay-as-you-go systems underwent several changes, in order to increase the financial and fiscal stability. One of the reforms is the increase of the contribution rate in the PAYGO systems in 78 countries (e.g. Iceland, Canada, Costa Rica, Bulgaria in 2018, etc.). The other significant reform is the increase of the retirement age in 57 countries (like Russia, Croatia, the Netherlands, United Kingdom and Kazakhstan in 2018). Also, another trend is the adjustments of the formulas for promised pensions i.e. a gradual decrease of the pension benefits or changes in the indexations of promised pensions, i.e. gradual reduction of fiscal expenses in 61 countries (like Brazil, Vietnam, Denmark in 2018). These measures are introduced in parallel with the motivation for longer careers, which influence the increase of pensions. Of course, one of the significant endeavours is to extend the coverage of the pension system and to stimulate the regular payments of pension contributions.

In parallel with the abovementioned and the undertaken reforms, the role of the private fully funded components is increasing, through the introduction of private pension funds or through activities and measures for improving their operations towards provision of adequate old age income. So, in 2016, in 17 OECD (Organisation for Economic Co-operation and Development) countries, there are mandatory or partly mandatory private pension systems, while in 10 member countries there are voluntary pension systems (organized individually or through occupational schemes) which have a significant coverage (over 40%) of the working population. Per the research made by IOPS and OECD, in most countries included in the research, co-exist individual and occupational schemes, which may be with defined benefits or defined contributions. In 2017, some of the largest pension systems still have a significant part of their assets in DB schemes (in 7 out of 40 researched countries). In the United States, the DB occupational schemes cover around 32% of the pension assets, still more than those of DC plans, which cover 26% of the pension assets. However reforms take different directions, so, in the past years, some countries decided to introduce defined contribution pension schemes. The DC pension schemes and the individual pension schemes are becoming more important even in the countries where, historically, the pension schemes are predominantly DB (such as the US). Also, there are still continuous transfers from DB pension schemes to DC pension schemes (such as the 2016 reform in Island). Recently, some of the countries introduced new types of DC pension plans. For example, Germany introduced new DC pension plans in 2018 where the employers are only responsible to pay the contributions in the pension fund or the insurance company. The employers

[1]Used sources: OECD, EIOPA, World Bank, FIAP and IOPS and own analyses.

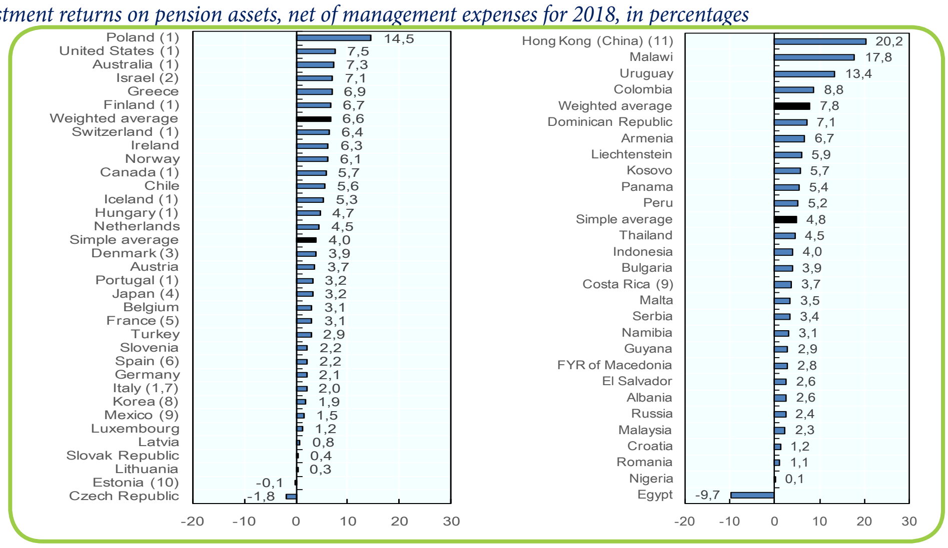
sponsoring such schemes are not liable to guarantee the pension benefits. The DC components dominate East Europe; while DB pension components still dominate those countries which have highly developed occupational pension schemes (like the United Kingdom and the Netherlands). Also, there are countries (mostly in Central and Eastern Europe) which closed partially or entirely the privately managed DC schemes. The major challenge of any type of pension scheme (either DC or DB) is the correct handling of the volatile financial markets.

The main indicators that reflect the role of the private pension systems are the coverage of the population and the size of pension assets in the pension systems, which in 2017 have increased significantly, and this is yet another confirmation of the role of the pension systems. Still, the main drivers of the pension systems, on a global scale, are the pension funds, followed by the banks and investment companies, insurance companies and the reserves of the employers. The total amount of the private pension funds assets, in the OECD countries continued to grow, almost every year after the financial crises (except in 2015) , by the end of 2017, they reached a record of 43.4 trillion USD, out of which, two-thirds or 28.5 trillion USD are pension funds assets. The value of the pension funds assets is significantly lower in the selected 47 non-OECD countries and in 2017 it was 1.6 trillion USD, where still the majority of the assets or 1.3 trillion USD are assets in pension funds. The size of the private pension funds assets varies from country to country, which, most probably is due to the various dates of establishment of the systems, depending on whether the participation in the pension scheme is mandatory or voluntary and, of course, on the investment results. Thereby, in seven countries – members of OECD (Australia, Canada, Japan, the Switzerland, Netherlands, United Kingdom and USA) pension assets surpassed 1 trillion USD. Pension assets have increased in 2017. All researched countries have growths in real amounts except for Egypt, Japan and Malaysia where pension assets have been growing only in nominal amounts. The highest growth of pension assets is registered in Armenia (63% in real amounts) after the introduction of the fully funded pension schemes in 2014.The value of pension assets has increased with the enrollment of insured persons in mandatory schemes and with the accumulation of contributions. In the past ten years, the pension funds have grown in real amounts in 51 out of 53 selected countries, whereby the biggest growths were registered in Republic of Macedonia, Romania and Greece. In the first two countries the reason for such growth may be the introduction of the fully funded pension insurance in 2006 in Macedonian and in 2008 in Romania. When it comes to Greece, the huge growth of pension assets is due to the transformation of four funds from pay-as-you-go to fully funded schemes in 2013.

The comparison of the size of the private pension funds assets in relation to the size of the economy, expressed through the GDP gives a clearer picture on the relative importance of the private pension segment in the country. On average, the pension assets in the OECD member countries are 50.7% from the GDP, while the pension assets in the selected non-OECD countries are 19.7% of BDP. The weighted average used to be higher; it was 133.6% in the OECD- member countries and 41.3% in the non-OECD countries. In eight OECD-member countries the pension assets are higher than the GDP. Denmark is the leader in this group with 208.4% of GDP, followed by the Netherlands (184.2%) and Iceland (164.5%). On the other hand, the lowest amounts are spotted in Greece (from the OECD-member countries) and Pakistan (from the non-OECD countries), with assets lower than 1% of GDP. The percentage of pension assets in relation to GDP is lower than 20% in more than 50 countries, and in 12 countries it is lower than 2% (including China, India and Indonesia).

Another indicator on the importance of the fully funded pension insurance and private pensions in one country is the coverage rate. It can be measured by the number of active members in the pension schemes (persons who have assets in the pension schemes and who are not yet retired) in ratio to the population able to work (at the age from to 65 years). From the available data it is seen that in 2017 the coverage is most comprehensive in those countries where enrollment is mandatory. In 2017, more than 70% of the population able to work is included in the pension schemes

Figure 1.1. Real investment returns on pension assets, net of management expenses for 2018, in percentages



Source: Pension markets in focus, 2018 in most of the OECD countries, where the enrollment is mandatory (Australia, Chile, Denmark, Estonia, Finland, Iceland, and Israel). However, in some OECD and non-OECD countries the coverage rate was relatively low. For example, in Armenia the coverage rate was 16% because the mandatory pension schemes have been introduced recently. The high rates of informal employments in Mexico and Peru explain the relatively low coverage of mandatory pension schemes in comparison to other countries, members of OECD. In Slovakia, the low coverage rate may be a consequence of the various opportunities for exiting the system. The real investment return, of the pension funds, net from management fees, in 2017 was positive for 57 out of 60 surveyed countries, where in 22 surveyed countries (12 OECD and 10 non-OECD countries) it surpassed 5%. The average real net investment return and the weighted (in relation to pension assets) real net investment return was 4% in the OECD countries and the non-OECD countries. The positive results on the global stock exchange in 2017 most probably had positive influence on the pension assets, globally. In 2017, the highest returns were achieved, generally, in those countries where pension assets are mostly invested in shares, such as Poland (14.5%), USA (7.5%) and Australia (7.3%) from the OECD countries, while from the non-OECD countries Hong Kong, China (20.2%) and Malawi (17.8%). In these five countries the participation of shares in the investment is from 30% to 85% (33% of assets are in USA САД, 70% in Hong Kong, China and 85% in Poland). On the other hand, in three countries, the pension assets did not reach positive real investment results, like the Czech Republic, Egypt and Estonia, which might be justified by the conservative investment policy which results in low income under the inflation rate (in the Czech Republic) and high inflation (more than 20% in Egypt).

Figure 1.1 shows the real investment returns on pension assets, net of management expenses for 2017, in selected OECD countries and non-OECD countries.

The long-term returns are more relevant indicators than the short-term ones due to the long-term nature of the pension schemes. The average nominal annual returns in the last five years (from December 2012 to December 2017) were positive in 48 surveyed countries, while the average real annual returns for the same period are positive in all countries except in the Czech Republic Nigeria, Russia and Turkey. The average nominal annual returns in the last 10 years (from December 2007 until December 2017) were positive in all 37 countries where it was possible to calculate the. The average real net investment returns in the last ten years were negative only in four countries: Bulgaria, Czech Republic, Estonia and Slovakia. The average nominal annual returns in the last 15 years were positive in all 21 countries for which it was possible to calculate the returns. The highest average net-investment return in the last 15 years was reached by the pension funds in Columbia (6.9%), Canada and the Netherlands (above 5%) and Chile (around 5%).

The results from investment of pension assets mostly depend on the allocation of assets. In the half of the surveyed countries (36 of 79) the pension assets are being invested directly into fixed return securities, mostly bonds or shares. The bonds and notes generally are perceived as safe source of income, and therefore in most countries the pension assets are invested in bonds and notes. In 2017, in the Dominican Republic almost all assets were invested in bonds and notes, while Albania, Costa Rica, and the Maldives had over 90% of the pension assets invested in bonds and notes. One of the reasons for the high percentage of investments in bonds and notes may be attributed to the lack of instruments on the domestic markets (e.g. in Albania, Serbia, Malawi). In five surveyed countries, in 2017, over 50% of the assets of the pension funds were invested directly into shares (Australia (58.2%), and Poland (85.2%), as OECD countries and Hong Kong, China (63.4%), Namibia (65.1%) and Mauritius (56.0), as non-OECD countries. The investment regulation may stipulate limits for investments in nontraditional instruments. Most of the countries limit or prohibit the investments in real estate (at least direct investments), private funds and/or loans. Also, the regulation may prescribe minimum participation of pension assets in certain instruments (e.g. in Poland pension funds have to invest at least 15% of their assets in shares). In the last years some of the countries have lowered the investment limits and encourage investments in long-term projects or companies which consider social, environmental and ethical aspects, like the example of Mexico. In Croatia, with the amendments to the Law in 2014, the investment possibilities of the mandatory pension funds were broadened to direct investments in infrastructural projects and in alternative investment funds. Also, the pension assets in three countries in Africa (South Africa (51.3%), Tanzania (51.3%) and Zambia (40.3%)) invested more than 40% of their assets in alternative investments. In Tanzania most of the alternative investments are in land and buildings, as well as loans.

Pension asset managers are major players on the financial markets, considering that they manage around 43.4 trillion[2] USD (in 2017) and play a key social role in the financing of the retirement income. For this reason, this year as well as previous years, the focus of discussions and analysis is the improvement of investment results of the pension funds together with maintaining the safety of the pension assets though monitoring, improvement and enhancement of the existing regulation, connected with the investment limits. According to the IOPS and OECD research the set rules and regulations for the investment limits may vary depending on the type of scheme (occupational, personal, mandatory, voluntary, DC, DB etc.). At the end of 2017, the majority of countries have set quantitative limits of the pension funds investments, even though there are countries which do not impose quantitative investment limits for certain classes of assets, but in those cases, the pension assets' managers should analyze and consider the diversification in the assets allocation, or, they need to avoid potential conflicts of interest between the employer and the creditor. The quantitative limits exist for most of the asset classes, which are generally defined depending on the level of class risk, as well as the risk appetite of the pension fund. Also, in some countries, besides the maximum limits there are minimum limits for investments in certain classes of assets, like minimum limits for investments in bonds, or minimum limits depending on different levels of risk; in the cases of multi-funds, there are minimum limits to investment in high-risk portfolios. The investment regulation also includes specific rules for investment abroad, which

[2]Trillion 10^{12}

goes even as far as prohibiting investments abroad in some non-OECD countries. Also, the investments abroad may be allowed in restricted geographical zones only, such as OECD-member countries, regulated EU markets or the European Economic Area (EEA). Regarding the limits for investments abroad, some countries have specific limits per type of class of assets and limits on the participation of investments abroad in the total investments. Some regulation also stipulate limits to the investment in one type of issuer, as well as other regulations on quantitative limits to the investments concerned with the exposure of affiliated persons, foreign currency exposure, derivatives and concentrations. In the past years, most of the legal changes concerning the investments of pension funds assets have brought upon liberalization and loosened limits, as well as they allow for more discretion for pension funds. Some countries have loosened the limits to the investments abroad or got rid of them entirely, some have loosened the limits on shares etc. Also, a lot has been drawn from experience and suggestions have been given for alternative investments as well as measures for expanding the scope of financial instrument in which pension assets may be invested.

One of the topics that never cease to raise interest is the fees and expenses of pension systems, as they have influence on the pension income of the future pensioners. The results from the latest research and comparative analysis in the published IOPS documents for the period 2014-2017 demonstrate a general trend of decreased average fees charged within the pension system, which leads to more efficient pension funds. The fees that are usually charged by the pension funds of the researched countries are fees from assets (in 23 countries), fees on return (in 11 countries) and fees on wages (in 7 countries). Additionally, some schemes charge the transfer fees, buyout fees, exit fees, which most usually are fixed fees. Over 60% of the researched countries introduced maximum limits of fees defined with regulation and in most cases the average fees which are actually charged are different from the legal limits, which may be explained as positive influence of the market competition. Anyway, in the rest of the countries the average returns are very close to the maximum limits. In the period of research 2014-2017, it may be observed that eight countries (Bulgaria, Costa Rica, Macedonia, Lithuania, Poland, Slovakia, Spain and the United Kingdom) have reduced the maximum limits and only one country (Columbia) has increased them, while six countries (Albania, Ghana, Hungary, Israel, Romania and Serbia) have not done any changes to the legal maximum limits. The assessment of the expenses coefficient may be one of the ways of assessing the efficiency of the pension system. With this indicator the influence of the fees and expenses over the final pension amounts may be analyzed. For example, the expenses coefficient over a period of 40 years demonstrates how much higher the amounts of pension savings would be at the end of the period had the fees had not been charged from the member. Actually, the cost coefficient illustrates the increased effect of the received fees on a long run. The results show that the DC occupational schemes and the individual schemes where the grounds for enrollment is connected to employment or other professional activity, generally, are more efficient in terms of costs than those of individual pension schemes where the grounds for enrollment is not directly connected to employment. The cost coefficient (for a 40 year period is 5% return rate) compared to the results from 2014, demonstrates a decrease in 18 out of 23 surveyed schemes. This result is in accordance with the tendency to decrease the average fees in most surveyed countries. Such analysis only confirm the concerns of the pension supervisors to act towards decreasing of fees charged from the private pension funds and to increase the transparency in the structure and publishing of costs, in order to enable the members to discover and compare fees easily.

One of the main characteristics of the individually financed programs are characterized with the freedom to make decisions through the entire membership stage – from enrolment, to accumulation and payouts – which will influence their future retirement incomes. Therefore, much attention is put also on the pension education. Namely, due to the reallocation of risks and responsibilities among occupational schemes organizers and the members, now members bear more risks and their decisions have direct influence on their potential pensions. Hence, potential members' and potential pensioners' awareness must be raised in order to understand the importance of the system in general, and, their personal role in it, as presented through their decisions. Members must know how to make the optimum choice in accordance with their needs for the future and the acceptable risk level, and in accordance with the economic, financial and social environment. Unfortunately, there is a general agreement on the insufficient and very limited financial and pension culture of the average pension fund member, in the context of increased individual responsibility. The solution to these issues should be long-term; it should include systemic efforts by all authorities in charge of improving the pension education and culture. In that light, and especially after the financial crisis, large numbers of countries have focused on developing national strategies for financial education, including pension education and culture.

So, again last year, one of the hottest topics of the World Bank, OECD and IOPS, still, was the protection of the consumers of financial services, including the pension and financial education in general. In 2018, IOPS, based on research and analyses, defined the principles or good practices of the supervising activities, in the field of protection of the pension systems' consumers. The proposed good practices of IOPS focus on five key areas of the high level principles of G20, which are pointed out as most relevant from the supervisor's perspective, towards strengthening the consumer protection in the private pensions sector - legal framework and supervisor authorizations, publications and transparency, financial education and awareness, responsible behaviour of pension companies and their agents, complaints, and damages.

The technology rapidly transforms the functioning of the financial sector, and so, the pension sector, i.e. the management of pension funds and payout of pension benefits, are no exception. Compared to other segments of the financial sector, the private pensions are still in their inception, even experimental stage, and they influence on certain activities connected to the pension companies' services, as well as on their interaction with the supervisors. For that reason, in the focus of 2018 discussions were the analyses of how to use technology and improve the design and the “delivery” of pension services and information and how regulators can initiate, support and manage such changes. Considering the complexity of the private pensions and the difficulties of the insured persons to make the right decision, some of the innovative technologies (such as mobile applications, interactive platforms and digital announcements) might help in facilitating some of the challenges, as they may facilitate the access to key information in real time, and enable the insured persons to plan and mange their pension savings better. In addition, the innovative technologies have the potential to improve the efficiency of the administrative procedures, like data collection, safekeeping and fast processing of data and to provide for better quality of services with lower costs. The new technologies may also be used to facilitate the communication between the supervisors or regulators and to automate and improve the compliance (RegTech). Still the innovations in the pension sector attract more attention of the supervisors. First, the supervisors offer support and stimulate financial innovation by organizing regular meetings as well as innovation centers. In parallel, there are intentions to follow the development of technologies and detect the risks which might occur due to development of the financial technologies, like cyber-attacks, steeling of pension assets, steeling personal data etc. Even though the technological solutions are still in the early stage of development (SupTech) in most of the countries, they are still considered as important tools for improvement of the quality of services and for more efficient time and cost management. For example, enabling on-line supervising services, like licensing/ registration, managing and acting upon complaints, rationalization of processes on reporting and make automatic processes for data collection for supervising purposes, analysis of collected data, developing of a centralized pension data base, which will enable use of data from insured persons and of other stakeholders for supervising or regulating purposes, development of technological platforms for facilitating on-site supervisions etc. In some of the countries that have introduced some of the SupTech solutions, it was discovered that these contributed to a more efficient, proactive supervising model, early and improved detection of risks, improved access and on-line review of the operations of the entities and market data, as well as improved communication between the supervisors and supervised entities. In that direction it is necessary that the current knowledge is strengthened, that there is expertise and technological tools established and solutions for development of digital projects with the supervisors and of course that supervisors and regulators collaborate closely. The financial technology („FinTech”) and related technological accomplishments, like the technology for mitigation of regulatory compliances („RegTech”), have the potential to change the design and the “delivery” of the private pensions. Globally, there are innovative applications for financial services in place which can improve the interaction among members (users) and the pension companies. The financial technology has great potential to help pension companies become more efficient in the area of internal processes and risk management. The opportunities offered with the new technologies are driving changes in the business models and in the delivery of the financial products to the consumers. The technological changes lead to increased advantages for the consumers with lower costs and increased access to opportunities for retirement savings. On the other hand, the technological development in the pension industry creates risks. The members with lower level of education and lower income may be excluded from the technological progress due to their inability to participate in the new methods of communication. Another concern is the protection and safety of the data, consumer protection and adequacy of offered services and products. Therefore, while regulators are willing to promote innovative ideas that might be beneficial to the consumers, they, at the same time, need to approach them with caution, and provide for the protection of members. In many countries significant resources are being spent on following changes which are instigated with technology in order with the regulation to obtain the needed balance with the new environment. The centers for innovation are the key component for supporting new businesses in connecting the existing regulation with their idea. The mechanisms for development of new regulations are also growing fast, as it is necessary for the regulation to keep up to speed with the fast development of innovations and to be flexible in the application to the new business-models. Anyway, this is just a beginning of such new programs and time will tell if they were truly efficient in providing full protection of consumers without stifling the innovations.

2

The structure of the fully funded pension insurance in the Republic of Macedonia

2.1 Description of the pension system

The pension system in the Republic of North Macedonia is part of the comprehensive social insurance and it has the following structure:

- Generational solidarity – based insurance (first pillar)
- Mandatory fully funded pension insurance (second pillar)
- Voluntary fully funded pension insurance (third pillar)

This structure is the product of a thorough reform of the pension system, which had been prepared for several years and its legal framework had been actually established in 2000. The pension system in the Republic of North Macedonia is regulated with four laws and numerous secondary regulations. These regulations are: the Law on Pension and Disability Insurance, the Law on Mandatory Fully Funded Pension Insurance, the Law on Voluntary Fully Funded Pension Insurance, the Law on Payment of Pensions and Pension Benefits from the Fully Funded Pension Insurance and the secondary regulations that further regulate relevant areas of the pension system.

The Macedonian pension system has a long history of existence; it has a rather extensive coverage of the labour force and in the provision of pension benefits for the retirees. However, the social and economic turmoil at the beginning of the '90s left their mark on the pension system, causing financial difficulties for the system. These difficulties were caused by the unfavourable developments of the economy and the reduction of the active insured members participating in the system, reduced contribution collection and increased number of retired persons. This led to increased costs for the payout of pension benefits.

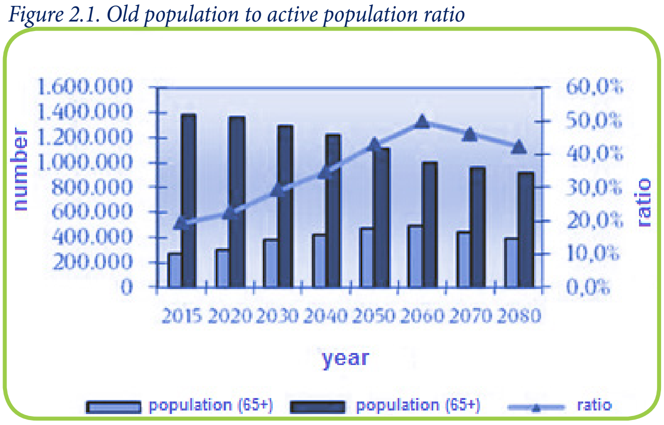
Also, demographics have strong influence over the pension system. It is already a global trend that due to improved living and medical conditions, people tend to live longer, however, the number of newly-born is constantly decreasing, leading to older population participating at a higher rate in the total population of the world.

The projections of the Actuarial Unit in the Pension and Disability Insurance Fund (PDIF) demonstrate that this trend shall persist in the future. One of the most common indicators for measuring the aging of the population is the ratio of old population (above 65 years of age) to the active population (at the age from 18 to 64). The Figure 2.1 shows both groups in numbers and in relation to each other.

It is expected that in 2060, the ratio of these two groups shall increase from the current 19.45% to 49.74% in 2060, while in 2080 it will decrease to 42.28%, which means that on a long-run one half of the population above the age of 18 years will be old population.

For the pension system, such demographic movements mean that the number of retired persons shall increase with the increasing number of years when such persons shall be pension beneficiaries as well. At the same time, this means that the number of insured persons shall decrease. The actuarial projections, which were prepared in the period of

Figure 2.1. Old population to active population ratio



Source: PDIF – Report on the pension system in the Republic of Macedonia with actuarial projections (short version – December 2015

contemplation of the pension reform, demonstrate that on a long run, such factors might have huge negative impact on the solvency of the PDIF and, without reforms the system might face a huge and increasing deficit over the years.

In order to be prepared for such changes, the pension and disability insurance in our country was thoroughly reformed, which resulted in the introduction of a three-pillar pension system. This system includes a combined financing of the future pension benefits and diversification of the economic and demographic risks, which should provide for a safer retirement income for the current and future generations of pensioners and a long-term stability of the pension system as a whole.

The first pillar is financed on a generational solidarity basis (PAYG), which means that the pension benefits for the current pensioners are paid out from the contributions of the current insured persons. This pillar is a defined benefit pillar, which means that it provides the benefits according to a predetermined formula. The first pillar pays out the following benefits: part of the old age pension, disability and survivors pension benefits, as well as the minimum pension benefit.

The second and the third pillars constitute the fully funded pension insurance, which capitalizes the paid in contributions on the insurers' accounts. These two pillars are defined contribution pillars, which means that the contribution is predefined, while the pension benefit is determined based on the accumulated amount on the insurer's account. The second pillar pays out part of the old age pension. The third pillar provides financial protection from old age, disability and death of the insured person.

It is expected that the reform of the pension system and the introduction of the multi-pillar pension system, as a combination of public financing (generational solidarity) and private financing (fully funded), will bring long-term stability of the system and safety in the provision of pension and disability entitlements. This should be realized through the long-term gains for the individual members, for the pension system and for the economy as a whole. Such a reformed system brings higher safety to the individual participant, who will receive the pension benefit from more than one source, when retired, as it provides for risk diversification. At the same time, the reform provides for more transparency and information for the members of the pension funds. The reform should lead to a solvent pension system, increased savings and boost the investments and therefore the economic growth.

2.2 *The role of the fully funded pension insurance in the pension system*

The fully funded pension insurance is very different from the PAYGO insurance in these respects: treatment and recording of contributions and benefit payouts. In this insurance, each member has his individual account on which the assets are recorded and which provides the base for the future pension benefit, based on the amount of paid in contributions. The fully funded pension insurance is based on accumulation of assets from contributions on individual accounts, which are further invested and the return from the investments, decreased for management expenses, which is added to the assets accumulated on the individual account. Therefore, the future pension depends on the amount of accumulated assets and the life expectancy upon retirement. It is very important for this type of pension saving that it is a long-term saving; it develops gradually, where at the start, while the member is very young, the savings are small, but, in the future, when the member reaches retirement age, the savings are significantly higher.

This type of insurance is privately managed by licensed pension companies, which manage the pension funds and invest the paid in contributions. Thereby, it is guided by economic goals, which determine the investment strategy, creating the possibility for maximizing the entire return, in the best interest of the pension fund members. One of the main features of this type of insurance is the investment risk diversification (including international diversification).

Other important features of the fully funded pension insurance are: the right to personal choice and the initiative of the individual. Namely, all persons employed before January 1, 2003, were given the opportunity to join the second pillar and to choose the pension fund of their preference, while the persons who were newly employed after January 1, 2003, were given the chance to choose their private pension fund. With the amendments to the law on Mandatory Fully Funded Pension Insurance from December 2018, all members of the mandatory pension funds who had joined the second pillar voluntarily (and who were first employed before January 1, 2003) and who were born before January 1, 1967, were given the chance to choose to terminate or continue their membership in the second pillar. All newly employed persons after January 1, 2019 who on the day of entering the mandatory pension and disability insurance were younger than 40 years of age have the opportunity to choose their own pension fund. And, the membership in the voluntary pension funds is also by choice of the individual or by participation in an occupational scheme, sponsored by the employer or by a citizens' association.

The portability of assets is another important feature of the fully funded pension insurance. All members of the mandatory or voluntary pension funds have the right to transfer from one to another pension fund, together with their savings. When a person is participating in an occupational scheme, he has the right to transfer his savings to another occupational scheme or to his individual account, in case of change of employer.

The fully funded pension insurance provides for high level of transparency, which is one of the most important characteristics and a novelty for the pension system, in general. The pension companies have the legal obligation to inform their members and the retired members in writing, at least once a year, for the balance of their accounts, by submitting the so called "green envelope". The green envelope contains data on the investments of the pension fund, the charged fees and the return of the pension fund.

2.3 Institutional infrastructure of the fully funded pension insurance

The three-pillar pension system is consisted of the following institutions:

• Ministry of Labour and Social Policy – responsible for creating and enforcing the policy governing the pension and disability insurance and for supervising of the legality of operations within this insurance.

• Agency for Supervision of Fully Funded Pension Insurance (MAPAS) – regulatory and supervisory body of the fully funded pension insurance

• Pension Company – joint stock company founded by financial institutions with large capital and experience, whose sole activity is managing pension funds' assets. The reformed pension system offers the opportunity for establishing three types of pension companies:

o Mandatory Pension Company - manages only mandatory pension funds

o Voluntary Pension Company - manages only voluntary pension funds

o Joint Pension Company - manages mandatory and voluntary pension funds

• Custodian of pension fund assets – safely keeps pension funds' assets, on a separate account, apart from the assets of the Pension Company.

• Public Revenue Office (PRO) – PRO undertakes centralized contribution collection and submits to the PDIF total contributions for pension and disability insurance.

• Pension and Disability Insurance Fund of Macedonia (PDIF)[3] – allocates the pension insurance contributions between the first and the second pillar and allocates the data on membership to the selected mandatory pension fund.

MAPAS is a regulatory and supervisory body, established to protect the interests of the current and retired pension funds' members, and to enhance public awareness about the characteristics of this type of insurance and to promote the development of the fully funded pension insurance. MAPAS initiates and passes regulations and acts, grants licenses to pension companies and approvals for pension fund management, performs off-site and on-site supervision of the pension companies, pension funds and custodians, organizes exams and registration of sales agents, performs pro-active controls over the activities of the pension companies etc. For its performance, MAPAS reports to the Parliament. MAPAS charges a fee from the pension companies, which is calculated as a percentage of the contributions paid in the pension funds. For 2018, this fee was 0.8%. MAPAS is a regulatory body that supervises the second biggest segment of the financial market – the pension funds. The total assets of the mandatory and voluntary pension funds present almost 10% of the GDP for 2018 with a potential for further growth.

A pension company is a joint stock company, which is established and operates as per the Law on Companies and the Law on Mandatory Fully Funded Pension Insurance or the Law on Voluntary Fully Funded Pension Insurance. A Pension Company is established upon a granted license from MAPAS and it manages a pension fund upon prior approval for pension fund management. A mandatory pension company is established to manage only mandatory pension funds; a voluntary pension company is established to manage only voluntary pension funds, while a joint pension company is established to manage mandatory and voluntary pension funds. A joint pension company must have a share capital of at least 1.8 million Euro in denar counter-value; a mandatory pension company's share capital should be 1.5 million euro in denar counter-value, while a voluntary pension company's share capital should be 0.5 million Euro. In case of increased assets under management, the pension company is obligated to increase the share capital according to the Law. The sole activity of the pension company is pension fund management, its representation in front of third parties and other activities, which derive directly from the pension fund management. The main responsibilities of the pension company are: membership, assets management, risk management and risk mitigation, administration and record keeping, abiding by the laws and secondary regulations governing the fully funded pension insurance, regular reporting to members, public and MAPAS, payout of programmed withdrawals to the retired members etc. A pension company operates according to the rules of good corporate governance and it has a fiduciary duty to work only in the best interest of the members and the retired members of the pension fund under management. This fiduciary duty is rendered thorough high level of ethics and integrity and without any conflicts of interest. For performing these functions, the pension companies charge three types of fees (More details in Chapters 5.6 and 6.7)

A pension fund (mandatory or voluntary) is an open-end investment fund, which is established and operates according to the Law on Investment Funds if not otherwise regulated with the Laws on Mandatory or Voluntary Fully Funded Pension Insurance. A mandatory pension fund is consisted of contributions and assets of the members, assets of the retired members and returns on the invested contributions and assets, reduced for the fees charged from the mandatory pension fund. A voluntary pension fund is consisted of voluntary contributions paid in the name

[3]From January 2019, for each Mandatory Pension Company is reinstituted the obligation to pay a monthly fee to the PDIF in the amount of 0.1% from each paid contribution in the previous month in the mandatory pension fund under its management.

and on behalf of the members, assets of the members, assets of the retired members and returns on the invested contributions and assets, reduced for the fees charged from the voluntary pension fund. The owners of the pension fund are its current and retired members, and their individual ownership entitlements are determined with the amounts of their accounts. The pension fund assets cannot be subject to claims, nor can they be subject to execution by the pension company's creditors.

In 2005, on an international public tender, MAPAS granted two licenses for establishment of pension companies. And in 2009, those same pension companies, which were established as mandatory pension companies, were granted licenses and approvals to manage voluntary pension funds in addition to the existing mandatory pension funds. In 2017, and the first half of 2018, 100% of the shares of the Joint Stock Company for Management of Mandatory and Voluntary Pension Funds "NLB NOV PENZISKI FOND" Skopje were acquired by Pozavarovalnica Sava DD. In June 2018, MAPAS issued the approval for change of title of the Joint Stock Company for Management of Mandatory and Voluntary Pension Funds "NLB NOV PENZISKI FOND" Skopje in Joint Stock Company for Management of Mandatory and Voluntary Pension Funds "SAVA Pension Company" Skopje. Also, MAPAS granted the approval of change of title of Open Mandatory Pension Fund "NLB PENZISKI FOND" Skopje in Open Mandatory Pension Fund "SAVA PENZISKI FOND" Skopje and the change of title of Open Voluntary Pension Fund "NLB Penzija Plus" Skopje in Open Voluntary Pension Fund "SAVA Penzija Plus" Skopje.

Thus, as of 31.12.2018 we have two pension companies[4], which manage one mandatory, and one voluntary pension fund each[5] as seen in Table2.1.

Since the begging of the system until March 2018, both pension companies had mixed ownership of domestic (49%) and foreign (51%) shareholders. Since March 2018, SAVA has a sole shareholder, with 100% of equity ownership. The shareholders of both pension companies are given in Table 2.1.

Pension fund assets are completely separated from the assets of the pension company managing that pension fund, and those assets are kept with a custodian bank. This segregation of assets is essential to the safety and control of the transactions with the pension funds' assets. Any commercial bank, meeting the statutory requirements and having a contract with the pension company, may be a custodian bank for the mandatory and the voluntary pension funds' assets. Each pension company has a selected custodian for the mandatory and for the voluntary pension fund under management, as shown on Table 2.1. In 2018, KB Prvo signed a custody agreement for both pension funds with a new custodian – Sparkasse Macedonia, for which MAPAS issued the approval. For their service, the custodians charge fees from the pension companies. These fees are calculated in accordance with the signed contracts for custody services. In Table 2.2 are given the fees that were charged by the custodians in 2018.

Joint Stock Company for Management of Mandatory and Voluntary Pension Funds "SAVA Pension Company" AD Skopje	KB Prvo Company for Management of Mandatory and Voluntary Pension Funds AD Skopje
that manages:	that manages:
• Open Mandatory Pension Fund "SAVA PENZISKI FOND" • Open Voluntary Pension Fund "SAVA Penzija Plus"	• KB Prv Open Mandatory Pension Fund • KB Prv Open Voluntary Pension Fund
Pension Funds custodian: Komercijalna banka AD Skopje[6]	Pension Funds custodian: Sparkasse Macedonia AD Skopje[7]
Shareholder[8]: -Pozavarovalnica Sava d.d. Republic of Slovenia - 100% of equity	Shareholders: -Skupina Prva zavarovalniski holding DD Ljubljana, Republic of Slovenia- 51% of equity -Komercijalna banka AD Skopje, Republic of Macedonia, - 49% of equity
Share capital: 2.1 million Euro	Share capital: 1.8 million Euro

[4]HAt the end of March 2019, MAPAS granted a license for establishment of a Joint Pension Company to Zavarovalnica Triglav DD Ljubljana, Republic of Slovenia, and also an approval for management of a mandatory and voluntary pension fund

[5]SHerein after for the names of the Pension Companies, mandatory and voluntary pension funds the following abbreviations shall be used: SAVA for the Joint Stock Company for Management of Mandatory and Voluntary Pension Funds "Sava Pension Company" Skopje, KB Prvo for KB Prvo Company for Management of Mandatory and Voluntary Pension Funds AD Skopje, SAVAz for Open Mandatory Pension Fund - „SAVA penziski fond" Skopje, KBPz for KB Prv Open Mandatory Pension Fund – Skopje, SAVAd for Open Voluntary Pension Fund "SAVA penzija plus" Skopje and KBPd for KB Prv Open Voluntary Pension Fund - Skopje

[6]Since 4.4.2019 the custodian of Open Mandatory Pension Fund "SAVA PENZISKI FOND and Open Voluntary Pension Fund "SAVA Penzija Plus was NLB banka AD Skopje

[7]Until 2.10.2018 г.custodian KB Prv Open Mandatory Pension Fund and KB Prv Open Voluntary Pension Fund was NLB banka AD Skopje.

[8]Shareholders of the Joint Penion Compnay "NLB Nov Penziski fond" Skopje were Nova Ljubljanska banka DD Ljubljana, Republic of Slovenia with 51% equity and NLB banka AD Skopje, Republic of Macedonia with 49% equity of the pension company

Table 1.1 Fees charged by the custodians from the Pension Companies for safekeeping of the pension funds' assets

For Mandatory Pension Funds	Amount (annual)	For value of assets (in million denars)	Date of application
NLB banka AD Skopje, as custodian of KBPz	0.081%	up to 100	2 July 2015
	0.076%	above 100 up to 200	
	0.070%	above 200 up to 300	
	0.066%	above 300 up to 400	
	0.059%	above 400 up to 500	
	0.055%	above 500 up to 600	
	0.053%	above 600	
	0.046%	above 700 up to 800	
	0.040%	above 800 up to 900	
	0.035%	above 900 up to 1000	
	0.033%	above 1000	
Sparkasse Macedonia AD Skopje as custodian of KBPz	0.038%		3 October 2018
	0.036%		3 October 2019
	0.034%		3 October 2020
	0.032%		3 October 2021
	0.030%		3 October 2022
Komercijalna banka AD Skopje as custodian of SAVAz	0.092%	up to 100	12 July 2015
	0.087%	above 100 up to 200	
	0.077%	above 200 up to 300	
	0.070%	above 300 up to 400	
	0.064%	above 400 up to 500	
	0.060%	above 500 up to 600	
	0.053%	above 600 up to 700	
	0.046%	above 700 up to 800	
	0.042%	above 800 up to 900	
	0.034%	above 900	
For Voluntary Pension Funds	**Amount (annual)**	**For value of assets (in million denars)**	**Date of application**
NLB banka AD Skopje, as custodian of KBPd	0.25%	up to 50	21 December 2009
	0.20%	above 50	
Sparkasse Macedonia AD Skopje as custodian of KBPd	0,06%		3 October 2018
Komercijalna banka AD Skopje as custodian of SAVAd	0.25%	up to 50	15 July 2009
	0.20%	above 50	

3

Amendments and additions to the legislation and secondary legislation regulating the fully funded pension insurance

In 2018, the Law on Mandatory Fully Funded Pension Insurance was amended twice. Also, the Council of Experts in MAPAS passed 9 secondary regulations or amendments to existing secondary regulations for the mandatory and/or fully funded pension insurance. Also, in 2018 one rulebook was corrected.

The amendments to the Law on Mandatory Fully Funded Pension Insurance (Official Gazette of the Republic of Macedonia No. 21/2008 from 2.2.2018) closely regulate the criteria for command of a foreign language of a member of the Council of Experts of MAPAS. With the amendments and additions to the Law on Mandatory Fully Funded Pension insurance (Official Gazette of the Republic of Macedonia No. 245/2018 from 28.12.2018 г.), some crucial changes were introduced to the enrollment in the mandatory fully funded pension insurance. The criteria for enrollment was changed for those insured persons who enter the mandatory pension and disability insurance for the first time after January 1, 2003 whereby the condition for mandatory membership in the second pillar for these persons was replaced with the condition for mandatory membership in the second pillar of insured persons who entered the mandatory pension and disability insurance for the first time after January 1, 2019, and who on the day of entering in the system are younger than 40 years of age. Also, the insured persons who are already members of the second pillar (who joined mandatorily or voluntarily) and who are born after January 1, 1967 remain to be members of the second pillar. In addition, the criteria for termination of membership, for certain categories of members, were also defined with the amendments. Namely, for those members of mandatory pension funds who were mandatorily enrolled in the second pillar (employed for the first time after January 1, 2003) and who are born before January 1, 1967, the membership in the second pillar is terminated as of January 1, 2019. However, the members of the mandatory pension funds who joined the second pillar voluntarily (employed for the first time before January 1, 2003) and who are born before January 1, 1967, have the right to choose whether to terminate or continue their membership in the second pillar with a written statement not later than September 30, 2019. Also, for those members of the voluntary pension funds who until the enforcement of the amendments have acquired the status of insured persons as individual farmers or individual retailers in green markets, or during the insurance period had insurance for increased career duration, their membership in the second pillar ceases as of January 1, 2019. The pension company transfers the entire amount to the PDIF and these insured persons remain insured only in the pay-as-you-go insurance based on generational solidarity. These amendments of the Law stipulate an obligation for the PDIF to pay a penalty fee for late transfer of contributions when PDIF did not allocate the insured persons who were mandatory members of the second pillar per the criteria in effect before these amendments to the Law, also, when PDIF did not allocate the insured persons who are mandatory members of the second pillar per the new membership criteria within three months after they entered the mandatory pension and disability insurance and, when PDIF did not transfer the contributions for the members of the mandatory pension funds within three months from the day of receipt of such contributions.

In 2018, MAPAS amended the existing secondary regulations for the mandatory and/or fully funded pension insurance, as follows:

1. Rulebook for amendments to the Rulebook on Mandatory Pension Funds' Fees ("Official Gazette of the Republic of Macedonia No.32/2018 from 19.2.2018);
2. Rulebook for amendments to the Rulebook on the form and content of Pension Company's financial reports ("Official Gazette of the Republic of Macedonia No.32/2018 from 19.2.2018);
3. Rulebook for amendment to the Rulebook on the accounting plan, the form and contents of financial reports and additional reports for the mandatory and voluntary pension funds ("Official Gazette of the Republic of Macedonia No.32/2018 from 19.2.2018);
4. Rulebook on additions to the Rulebook on the procedure for issuing approvals to the changes of licensing documents ("Official Gazette of the Republic of Macedonia No.32/2018 from 19.2.2018);
5. Rulebook on additions to the Rulebook for the procedure of election of a member of the Management and Supervisory Boards of the Pension Company ("Official Gazette of the Republic of Macedonia" No.32/2018 from 19.2.2018);
6. Rulebook on amendments to the Rulebook for selection of domestic legal entities which provide securities' services („Official Gazette of the Republic of Macedonia" No.32/2018 from 19.2.2018);
7. Correction to the Rulebook for reporting to the Agency for Supervision of Fully Funded Pension Insurance by the Pension Company ("Official Gazette of the Republic of Macedonia" No. 38/18 from 28.2.2018);
8. Rulebook for amendments and additions to the Rulebook on evaluation of assets of Mandatory and Voluntary Pension Funds ("Official Gazette of the Republic of Macedonia" No. 218/2018 from 28.11.2018);
9. Rulebook on Mandatory Pension Fund Membership ("Official Gazette of the Republic of Macedonia" No. 247/2018 from 31.12.2018);
10. Rulebook on transfer of assets after termination of Mandatory Pension Fund membership ("Official Gazette of the Republic of Macedonia" No. 247/2018 from 31.12.2018);

The amendments to the Rulebooks were done in order to further regulate certain procedures and to align them with the amendments of adequate regulations. Namely, with the amendments to the Rulebook on fees from second pillar, the obligation of the Pension Companies was further regulated to publish the changes of fees from contributions, charged by the Pension Companies. The amendments to the rulebooks on financial reports of pension companies and pension funds were made in order to align them with the rulebook on reporting to MAPAS by the pension company, whereby the submission of financial reports is simplified, as it is allowed for the pension companies and pension funds to submit them via e-mail. The amendments of rulebooks regulating the licensing documents and election of members of the management and supervisory boards give precise deadlines for destruction of documents containing personal data, in accordance with the personal data regulations. The amendments to the rulebook on domestic entities providing services for securities refer to simplification of the procedure for selection of such entities. The amendments to the rulebook on valuation of pension funds assets define the selection of a financial and information service when the Bloomberg service does not publish the price for a certain financial instrument and the valuation of participation units of domestic open-end investment funds. The amendments to the rulebook on mandatory pension fund's membership is alignment of the rulebook with the amendments to the Law on Mandatory Fully Funded Pension Insurance which concern the category of insured persons who can become members of a mandatory pension fund. With the adoption of the rulebook on transfer of assets after the termination of membership in a mandatory pension fund the transfer of such funds to the PDIF and from account of the member in the mandatory pension fund is closely regulated, as per the amendments to the Law on Mandatory Fully Funded Pension Insurance.

In 2018, MAPAS updated and passed the following instruction:

1. Technical instruction for definition of processes from the Rulebook on transfer of assets after termination of Mandatory Pension Fund membership (December 2018);

2. Technical instruction for submitting annual records and from the data base marinated by the pension companies (December 2018).

3. Instruction on procedure for allocation of insured persons in a mandatory pension fund (December 2018)

4. Instruction on compiling reports for pension savings (December 2018).

4

Financial data for the Pension Companies

4.1 *Revenues and expenditures of pension companies for 2017*

Pension companies prepare financial reports on their financial performance in accordance with the Law on Companies, the Rulebook on the Form and Contents of the Financial Reports of a Pension Company, the Rulebook on Accounting and, the effective international accounting standards. The data which underlie this chapter come from the unaudited annual financial reports for both pension companies as of 31.12.2018.

When performing their sole activity – managing pension funds – the Pension Companies get their finances from fees, charged in accordance with Law, from contributions, pension funds' assets and transfers. Also, Pension Companies gain financial revenues as a result of their investing of free assets in deposits and securities, which are allowed according to the Law on Voluntary Fully Funded Pension Insurance. The revenues of both pension companies for 2018 are given in the Table 4.1.

Table 4.1. Revenues of Pension Companies for 2018 *in denars*

Basis	SAVA		KB prvo	
Revenues from managing a mandatory pension fund				
Contributions Fee	84,651,914	35.81%	93,129,454	35,34%
Assets Fee	120,743,223	51.07%	137,470,652	52,17%
Transfer Fee	950	0.00%	923	0,00%
Total revenue from managing a mandatory pension fund	205,396,087	86.88%	230,601,029	87,51%
Revenues from managing a voluntary pension fund				
Contributions Fee	4,022,830	1.70%	3,663,997	1,39%
Assets Fee	8,150,550	3.45%	6,782,101	2,57%
Transfer Fee	0	0.00%	0	0,00%
Total revenue from managing a mandatory pension fund	12,173,380	5.15%	10,446,098	3,96%
Financial revenues	17,710,678	7.49%	21,976,349	8,34%
Other revenues of the pension company	1,124,193	0.48%	503,017	0,19%
Total revenues	236,404,338	100,00%	263,526,493	100,00%

*Table 4.2. Expenditures of pension companies for 2018** *in denars*

Basis	SAVA		KB prvo	
Expenditures for managing a mandatory pension fund				
Sales agents	882,490	0.66%	475,319	0.40%
Marketing	10,293,036	7.65%	9,237,114	7.84%
Transactions	107,615	0.08%	46,946	0.04%
MAPAS	26,999,031	20.06%	29,681,932	25.20%
Custodian	16,063,695	11.94%	16,637,711	14.13%
Other expenditures for pension fund management	1,239,211	0.92%	1,135,573	0.96%
Total expenditures for managing a mandatory pension fund	55,585,078	41.30%	57,214,595	48.58%

Expenditures for managing a voluntary pension fund				
Sales agents	2,590,235	1.92%	14,116	0.01%
Marketing	684,698	0.51%	857,140	0.73%
Transactions	46.120	0.03%	410.381	0.35%
MAPAS	1.271.490	0.94%	1.130.807	0.96%
Custodian	1.704.708	1.27%	1.515.813	1.29%
Other expenditures for pension fund management	55.729	0.04%	69.395	0.06%
Total expenditures for managing a voluntary pension fund	6,352,980	4.72%	3,997,652	3.39%
Pension company management expenditures				
Wages and fees for employees	49,338,374	36.66%	32,251,113	27.39%
Non-material expenditures	13,403,366	9.96%	6,753,770	5.73%
Material expenditures	1,216,252	0.90%	1,239,678	1.05%
Depreciation	1,760,048	1.31%	2,166,872	1.84%
Financial expenditures	870,196	0.65%	3,792,617	3.22%
Other operational costs	5,639,573	4.19%	8,771,509	7.45%
Reservation of expenses and risks	418,381	0.31%	1,578,572	1.34%
Total expenditures for pension company management	72,646,190	53.98%	56,554,131	48.02%
Total expenditures	134,584,248	100.00%	117,766,378	100.00%

** Some data cannot be shown separately, In order to isolate some data, the pension company uses the number of members in the mandatory or voluntary pension fund as a weighted value.*

Naturally, Pension Companies have expenditures, which in general are dedicated to managing pension funds' assets, valuation of assets, membership, keeping of members' accounts, reporting to the members, payment of fees for MAPAS and the custodian and, operational costs of pension companies. The expenditures are divided into three categories: expenditures for managing mandatory pension funds, for managing voluntary pension funds and for managing the Pension Company. The expenditures for both Pension Companies in 2018 are demonstrated in Table 4.2.

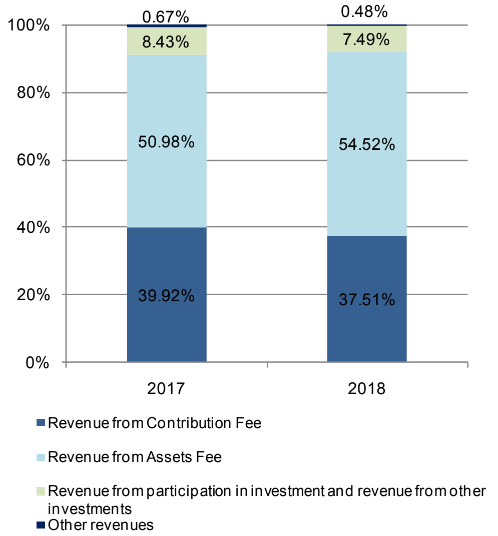
In 2018, both Pension Companies earned higher revenues in respect to 2017 for around 10% in SAVA and 7% for KBP. The largest portion of the revenues of the pension companies came from fees from assets of mandatory and voluntary pension funds (around 55% for SAVA and KB Prvo), followed by fees from contributions in mandatory and voluntary pension funds (around 38% for SAVA and 37% for KB Prvo). In respect to the previous year, the percentage participation of the revenues from fees from contributions in the total revenue has decreased for approximately two percentage points in both pension companies, while the participation of the revenues from fees from assets has increased for 4 percentage points for both pension companies. In respect to 2017, the perceptual participation of financial revenues and other revenues of pension companies have increased for 1 percentage point for SAVA and for around two percentage points for KB Prvo. Both Pension Companies had the same percentage participation of the other revenues as in 2017.

As far as the expenses are concerned in 2018, SAVA had increase of total expenditures for around 6%, and KB Prvo for around 2% in. Most of the expenses of SAVA, i.e. around 54% are operational costs for wages and fees for employees, followed by expenditures for services and other expenditures. For KB Prvo, in 2018 the operational costs of the company are 48%, which are less than 2017. In this pension company, also, most of the costs are for wages and fees of employees, and other operational costs and services costs. Most of KB's expenses are for pension fund management, i.e. 52%, while in SAVA these expenses are 46%. Also, the expenditures for marketing and sales agents are 11% out of the total expenditures for SAVA and around 9% of the total expenditures for KB Prvo, which means that they increase slightly for both companies in respect to the previous year. Around 34% of SAVA's and 42% KB Prvo's expenditures are for payment of fees to MAPAS and the custodians.

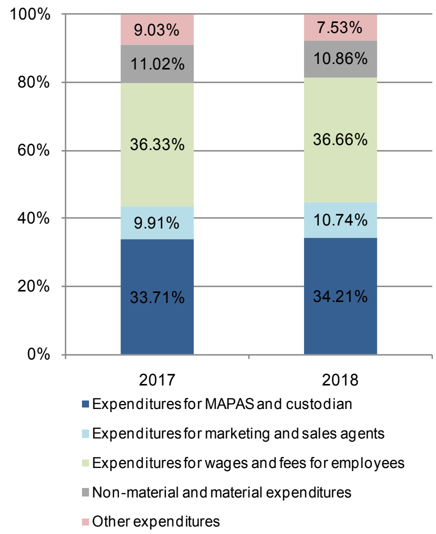
Figure 4.1. Structure of revenue and expenditures per company for 2017 and 2018

SAVA

Revenue

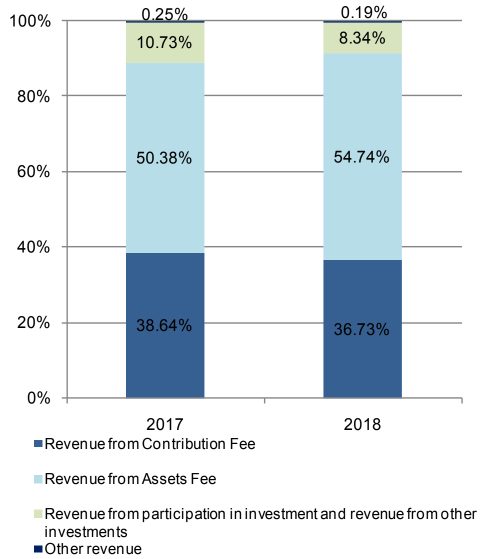


Expenditures

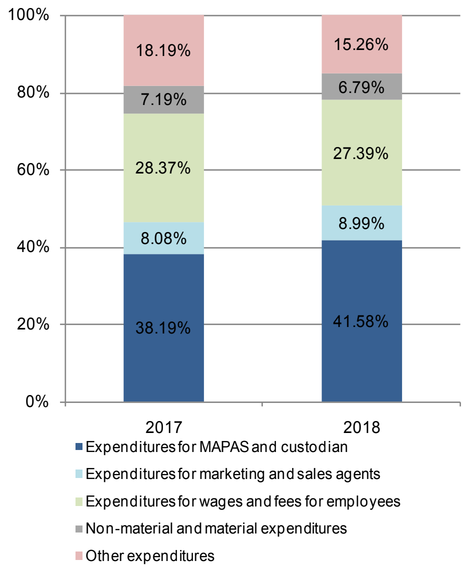


KB Prvo

Revenue



Expenditures



4.2 Financial results of the pension companies

In 2018, both pension companies demonstrated positive financial results. Table 4.3 gives more detailed information on the financial results.

Both Pension Companies ended 2018 with net profit (profit after tax). KB Prvo's net profit is higher than SAVA's, which is due to the fact that KB Prvo has more revenues than SAVA, and less expenditure for 2018. In 2018, both Pension Companies had higher net profit than 2017, SAVA for 17% and KB Prvo for 16%. Also, the pension companies earned total comprehensive income in the amount of 269 million denars for SAVA and 289 million denars for KB Prvo. The accumulated profit (as of 31.12.2018) for SAVA is around 269 million denars and for KB Prvo is around 289 million denars.

Table 4.3. Financial results of the pension companies for 2018 *in denars*

Description*	SAVA	KB Prvo
Profit (for 2018)	101,820,090	145,760,115
Profit after tax (for 2018)	91,476,196	130,992,710
Nonrecurring cots	0	0
Net profit (for 2018)	91,476,196	130,992,710
Other comprehensive income**	7,761,000,00	0,00
Total comprehensive income***	99,237,196,00	130,992,710,00
Accumulated profit (as of 31.12.2018)	268,606,304,00	288,949,931,00

**The data on the Other comprehensive income and the Total comprehensive income come from the Audited financial reports of the pension companies for 2018.*
***The data on the Other comprehensive income includes unrealized income or losses not shown in the Balance Sheet.*
****The data on the Total comprehensive income includes net income and other comprehensive income.*

4.3 Share capital, initial capital and own assets of pension companies

It is crucial for the system and the members of the system that pension companies are strong and stable institutions, which have adequate share capital. The existing pension companies should have a minimum of 1.8 million Euros in denar counter-value as share capital, exchanged per the middle exchange rate of the National Bank of the Republic of Macedonia. In case of increased assets under management, the pension company is obligated to increase the share capital according to the Law.

The share capital of the pension company is paid only in cash. In order to increase the financial strength of the pension companies it is not allowed that the share capital is procured from loans or credits and it may not be burdened in any manner. The share capital must come from legal sources and it must be taxed in accordance with the Macedonian legislation and the legislation of the country in which each shareholder is registered as a legal entity.

The Pension Company is obligated, at any time, to maintain the share capital at a minimum of the total amount, Also, the Pension Company is obligated to maintain, at any time, its own assets at the minimum of the total amount of the share capital.

Table 4.4. Share capital, initial capital and own assets of pension companies *in denars*

Description	SAVA	KB Prvo
Share capital and reserves	523,077,129	552,493,469
Share capital	130,001,478	110,459,024
Excess of share capital beyond statutory minimum	402,36%	500,18%
Own assets*	466,797,657	506,030,859
Excess of own assets beyond statutory minimum**	123,22%	141,98%

** Own assets are calculated according to the Rulebook on the Methodology for Calculation of Own Assets of the Pension Company .*
*** According to the statutory obligation, from September 2018, SAVA, are obligated to maintain increased share capital i.e. share capital in the amount of 6.8 million Euro in denar counter-value., because the amount of assets of the mandatory and the voluntary pension funds under their management surpasses 500 million Euro. From December 2017, KB Prvo is obligated to maintain increased share capital i.e. share capital in the amount of 6.8 million Euros in denar counter-value, because the amount of assets of the mandatory and the voluntary pension funds under their management surpasses 500 million Euro.*

4.4 Indicators

In analyzing the financial data of the Pension Companies it is important to observe the indicators per member and the efficiency coefficient. Table 4.5 gives the more important indicators per member and the efficiency coefficient for both Pension Companies for 2018.

The above indicators prove that the average indicators per member are higher for around 16 denars for KB Prvo, while for SAVA the average expenditures per member are higher for 111 denars. Compared to 2017, the average revenues per member have increased for both pension companies (3% for SAVA and 1% for KB Pro). The average expenditures per member, compared to 2017, have slightly decreased for both pension companies (1% for SAVA and 8% for KB Prvo). Both Pension Companies marked an increase in the profit per member in respect to 2017, for around 9%. Both Pension Companies have decreased their efficiency coefficient in respect to 2016, 4% for SAVA and 9% for KB Prvo.

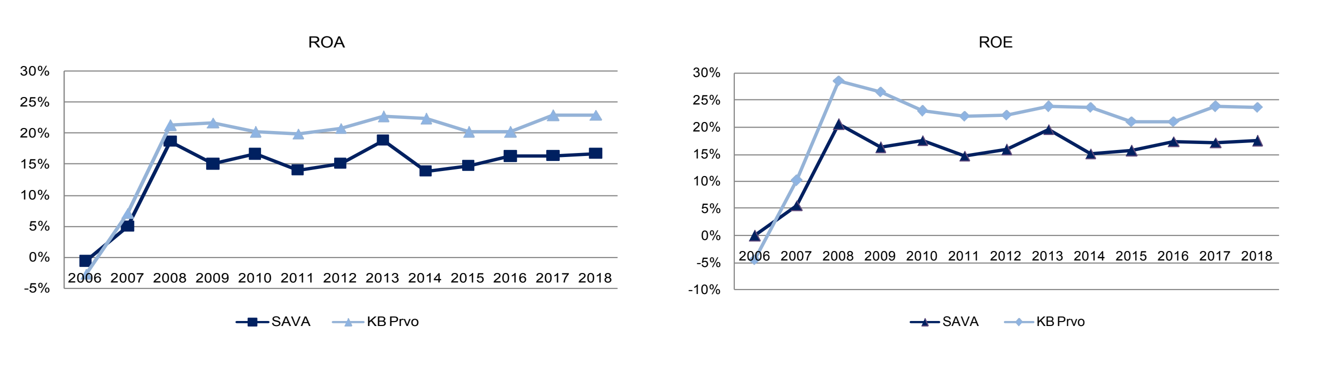
Figure 4.2 shows the movement of profitability indicators, ROA (net profit/total assets and ROE (net profit/capital), compared for both companies for the period 2006-2018.

Compared to 2017, in 2018 for both pension companies the rate of return on equity are at the same level as in 2017.

Table 4.5. Indicators *in denars*

Description	SAVA	KB Prvo
Indicators for revenues and expenditures per member		
Average revenues per member	963.43	979.48
Average expenditures per member	548.48	437.72
Profit per member	414.95	541.77
Efficiency indicators		
Efficiency coefficient (total expenditures / total revenues)	56.93%	44.69%

Figure 4.2 ROA and ROE per company and per year



5

Information on mandatory pension funds

5.1 Membership in mandatory pension funds

5.2 Transfer of members from one to another mandatory pension fund

5.3 Contributions in the mandatory pension funds

5.4 Investments and portfolio structure of mandatory pension funds

5.5 Net assets, accounting units and rates of return of the mandatory pension funds

5.6 Fees for mandatory pension funds

5.7 Pay outs of pensions from the mandatory fully funded pension insurance

5.1 *Membership in mandatory pension funds*

An insured person may be entitled to a membership in a pension fund upon:

1) signing a membership contract and upon registration in the Membership Register kept by MAPAS;

2) random allocation in a mandatory pension fund by the PDIF, when the insured person is obligated to become a member but had not signed a membership agreement in the prescribed period for selecting a mandatory pension fund, followed by registration in the Membership Register kept by MAPAS.

As of 31.12.2018[9] there are two major categories of second pillar members:

• Mandatory members – insured persons who got employed, and entered the mandatory pension and disability insurance for the first time after January 1, 2003

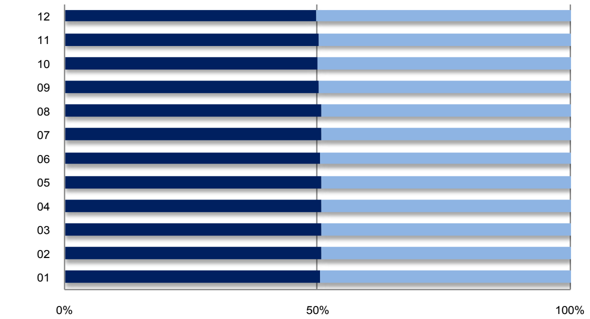
• Voluntary members – insured persons who were employed for the first time before January 1, 2003

Insured persons as per Chapter VII - Acquisition and realization of entitlements of some categories of insured persons under special conditions of the Law on Pension and Disability Insurance (employees with increased pension service working for the Ministry of Interior, Penitentiary-Corrective institutions, the Macedonian Army and similar) and individual farmers - cannot be members of the second pillar. As an exception, if such persons change their status of insured persons as per Chapter VII or as individual farmers, they may sign a membership contract with a pension fund by their choice, within one year from the status change. Also, persons that have already joined the second pillar and afterwards have changed their status into one of the above-mentioned categories have the right to switch back to the mono-pillar system within one year from the status change.

On September 20, 2005 the membership in the second pillar started. The voluntary members had the possibility to make their choices until December 31, 2005. Mandatory members are obligated to sign a membership contract within three months from their first employment. Once these categories of insured persons are employed, the. PDIF temporary allocates them to a randomly chosen mandatory pension fund, in order for their assets to be invested immediately after their employment. The mandatory members, who will not sign a membership contract with the expiration of the statutory deadline, shall remain members in the pension fund to which they were temporarily allocated.

MAPAS prescribes the weight, which is used for allocation of members to pension funds. This is done the first working day of each month. The weight depends on the value of the fee from contributions, charged by the Pension Company and from the nominal return of the pension fund, where the impact is higher from the return (70%) rather than the fee (30%)[10]. Figure 5.1 presents the weight used in 2018 for allocation of insured persons in mandatory pension funds.

Figure 5.1 Weight used in 2018 for allocation of insured persons in mandatory pension funds.



	01	02	03	04	05	06	07	08	09	10	11	12
SAVAz	50,36%	50,67%	50,73%	50,67%	50,71%	50,51%	50,59%	50,56%	50,26%	49,86%	50,09%	49,74%
KBPz	49,64%	49,33%	49,27%	49,33%	49,29%	49,49%	49,41%	49,44%	49,74%	50,14%	49,91%	50,26%

Figure 5.1 Weight for allocation of insured persons in mandatory pension funds.

Just like in the previous years, in 2018 the number of allocated members between the two mandatory pension funds is almost equal. Considering that the value of both weights is around 50% (with exception for the months of October and December, throughout the entire year, the value of the weight for SAVAz is slightly higher than the one of KBPz). Even though the contribution fee was reduced in 2018, the weights have almost the same value, because both companies charge the same fee from contributions and the nominal return for booth pension funds is almost the same.

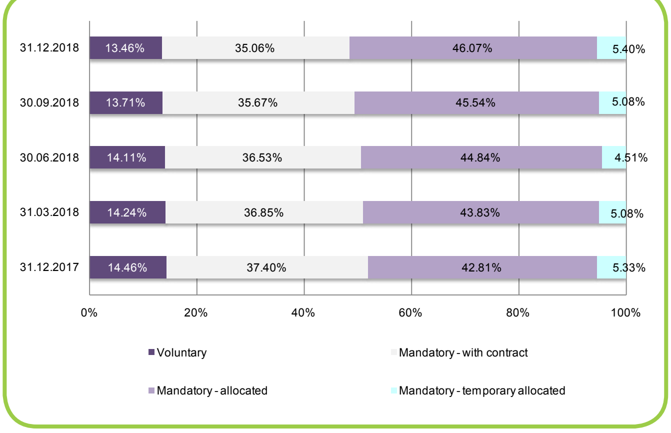
The total number of members and temporarily allocated members in the mandatory pension funds as of December 31, 2018 is 490,035, which is an increase of 132,769 second pillar members or 7% in respect to 2017. This means that around 85% of all insured persons in the PDIF are members of the two-pillar pension system. The allocation of members and temporarily allocated insured persons among the pension funds in 2018 remained almost the same as in 2017, where on 31.12.2018the total number of members and temporarily allocated insured persons in the mandatory pension funds are 52% in KBPz, while 48% are in SAVAz.

[9]The amendments to the Law on Mandatory Fully Funded Pension Insurance (Official Gazette of Republic of Macedonia No.245/2018 from 28.12.2018.), stipulates several crucial changes regarding the enrollment in the mandatory fully funded pension insurance starting from 1.1.2019.
[10]The formula for weight calculation is prescribed with the Rulebook for Membership in a Mandatory Pension Fund.

Out of the total number of second pillar members, 68,790 or 14% are voluntary members, while 421,245 or 86% are mandatory members. Out of the total number of mandatory members, 173,629 members have signed a membership agreement, while 221,824 are members permanently allocated to a pension fund, and 25,792 are temporarily allocated members. In 2018, only 4% of the persons who got their first employment and/or became mandatory members of the second pillar in 2018, signed a membership agreement with a mandatory pension fund, while the rest or 96% remained in the pension funds as allocated.

In terms of the structure of members and temporarily allocated insured persons in the mandatory pension funds and per membership status there were no unexpected or significant changes in 2018, as shown on the Figures 5.2 and 5.3.

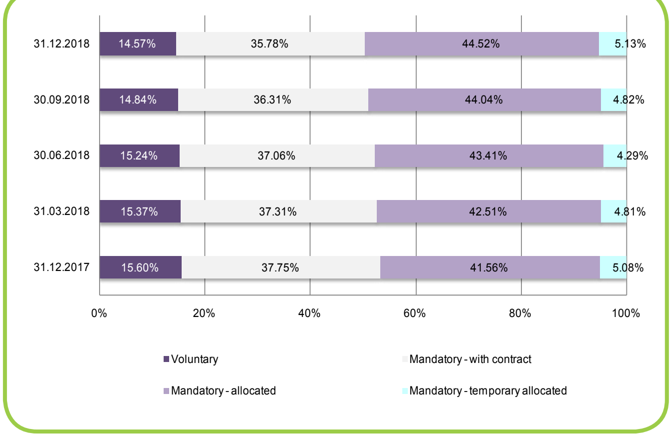
Figure 5.2 Structure of members and temporarily allocated insured persons per membership status in SAVAz



The structure of members and temporarily allocated insured persons per membership status in 2018 is similar in both pension funds. It is obvious that with every quarter the participation of voluntary members is decreasing, while that of the mandatory members is increasing. This is to be expected because each year the number of newly employed persons is increasing, which automatically increases the mandatory membership. Also, it is evident that the number of mandatory members who signed membership agreements is slightly decreasing in each quarter, unlike permanently allocated members whose participation is growing gradually in the total membership in each following quarter.

The analysis of the membership structure by age demonstrates that the largest group of members is composed of those of young age, as for them the second pillar is most

Figure 5.3 Structure of members and temporarily allocated insured persons per membership status in KBPz



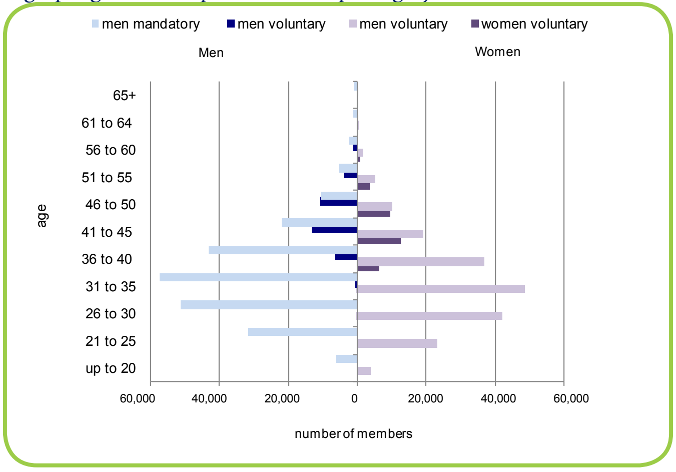
favourable. The mandatory members are young people, at the age from 26 to 35 years, while voluntary members are slightly older at the age from 41 to 50 years. The average age of mandatory members is 34 years (for men and for women), the average age of the voluntary members is 44 years (for men and women), and of all members it is 35 years. The membership structure of the two-pillar pension system per age, per gender and per membership category is shown on Figure 5.4.

According to the projections of the State Statistical Office, the total population of the Republic of Macedonia at the end of 2017 is 2,075,301. Out of the entire population at the end of 2017, around 22% are members of the two-pillar pension system. The membership structure of the second pillar out of the total population, per age and per gender, as of 31.12.2017 is demonstrated on Figure 5.5.

This figure demonstrates that a small percentage of the population participates in the two-pillar pension system and the majority of the members are young persons, at the age from 25 to 34 years. This is the case because the reformed pension system is still very young and it has been operational only for thirteen years.

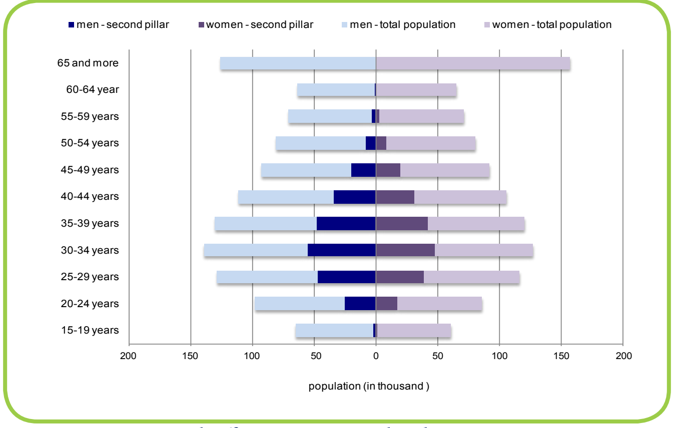
The membership structure of mandatory pension funds per statistical regions[11] in the Republic of Macedonia is given on Figure 5.6. The majority of members are from the region of Skopje, while for SAVAz least of the members are from the North-eastern part of the country, and for KBPz from the South-eastern part of the country.

Figure 5.4 Membership structure of the two-pillar pension system per age, per gender and per membership category



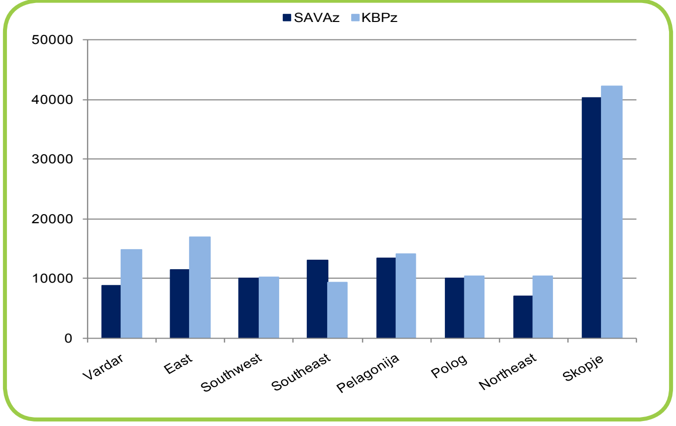
[11]The statistical regions are defined by the State Statistical Office as territorial units, the nomenclature of the territorial units is based on the territorial organization of the local self-government in the Republic of Macedonia and it is harmonized with the EU classification.

Figure 5.5 Membership structure of the second pillar out of the total population, per age and per gender



Source: State Statistical Office – MAK STAT data base – Statistics per regions – Population – Estimations of population

Figure 5.6 Membership structure of mandatory pension funds per statistical regions



5.2 *Transfer of members from one to another mandatory pension fund*

Each member of a mandatory pension fund is entitled to transfer to another mandatory pension fund if that member is not satisfied with the pension fund or with the pension company managing that pension fund. If a person had been a member in a mandatory pension fund less than 24 months, he is obligated to pay a transfer fee; otherwise, the transfer is free of charge. Upon such transfer, all of the assets on the members' account are transferred to the other pension fund.

Table 5.1 gives data on the number of members who transferred from one to another pension fund and the amount of assets that were transferred with those members, throughout 2018.

Even though the number of members who transferred from one to another mandatory pension fund in 2018 is bigger than 2017, still the number of persons who have changed the mandatory pension fund remains to be very small. During 2018, the total number of persons who have transferred from one to another mandatory pension fund is 102, which is 0.02% of the total number of members. Out of those who transferred, 48 went from KBPz to SAVAz and 54 members transferred from SAVAz to KBPz. Upon such transfers, around 22 million denars were transferred from KBPz to SAVAz, while from SAVAz to KBPz around 19 million denars were transferred.

Table 5.1 Transfer of members from one to another mandatory pension fund

2018	Members who have transferred FROM a mandatory pension fund	Transferred assets FROM a mandatory pension fund (in denars)	Members who have transferred TO a mandatory pension fund	Transferred assets TO a mandatory pension fund (in denars)
SAVAz	54	19,310,116	48	22,134,413
KBPz	48	22,134,413	54	19,310,116

5.3 *Contributions in the mandatory pension funds*

The taxpayer is obligated to pay the pension and disability contribution –in the Republic of North Macedonia the employers pay the contributions on behalf of the employees. The Public Revenue Office is in charge of the centralized collection of the social insurance contributions (pension and disability insurance, health insurance and insurance in the event of unemployment), as well as of the personal income tax.

For those who are members only in the mono-pillar system, their contributions remain with the PDIF (which for 2018 was 18% of the gross wage). For those persons who are part of the two-pillar system the PDIF divides the contribution between the first and the second pillar. The contribution transferred to the mandatory pension fund is 6% of the gross wage and the rest of the contribution for pension and disability insurance remains with the PDIF (for 2018 it was 12% of the gross wage (12% = 18% – 6%)).

During 2018, 7.1 billion denars were transferred to the mandatory pension funds, as presented in the Table 5.2 below, broken down by months:

Figure 5.8 shows all contributions (in million denars) paid in the second pillar, each month, from the very start of the reformed system until 31.12.2018, as well as the total number of members at the end of each month, in the same period.

Figure 5.7 Payment and allocation of contributions

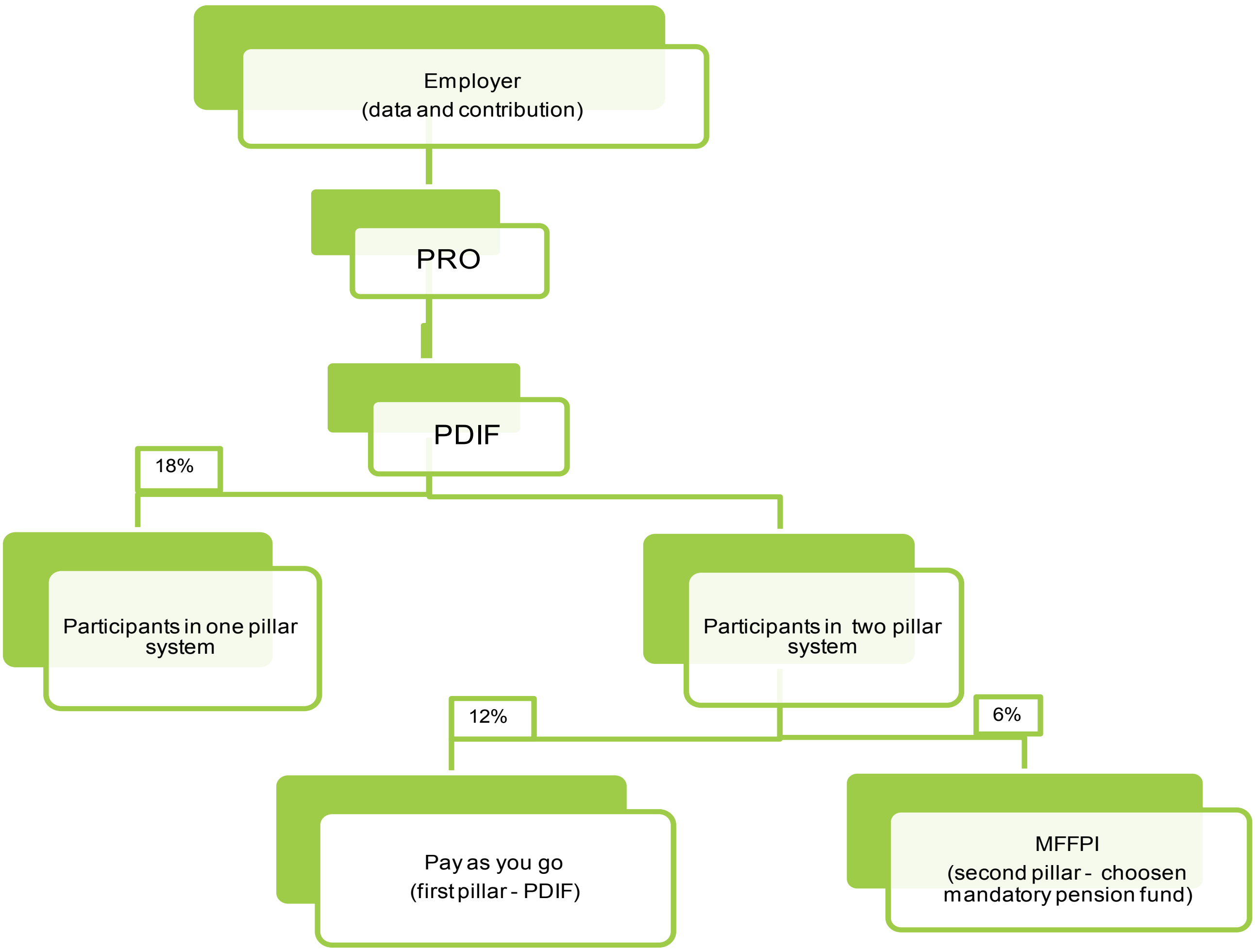


Table 5.2 Paid in contributions in the second pillar *in million denars*

	Total 2017	Jan	Feb	March	April	May	June	July	Aug	Set	Oct	Nov	Dec	Total 2018
SAVAz	2,995	259	258	275	262	285	276	288	284	270	324	292	308	3,383
KBPz	3,312	288	291	297	290	313	308	318	311	298	350	322	335	3,719
Total	6,307	547	549	572	552	598	584	606	595	568	675	614	643	7,102

It is evident that with the increase of membership the paid contributions grow as well (though the trend of payments is not linear, but it has certain peaks and valleys in some months).

In 2018, one part (around 127 million denars) of the paid in contributions in the pension funds was returned to the PDIF for several reasons:

- Entitlements to disability pension benefits;

- Termination of membership contracts or cancellation of allocation of a member;

- Excess of paid contributions in the second pillar due to technical errors or excess of payments by employers

The structure of the returned assets to the PDIF, per mandatory pension fund, is shown in the table below.

Figure 5.8 Paid contributions and second pillar members

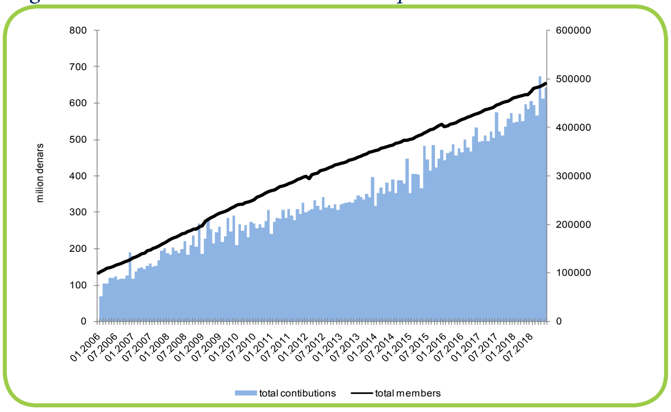


Table 5.3 Structure of returned assets to PDIF, per mandatory pension funds

Reasons	From a mandatory pension fund	
	SAVAz	NLBz
Entitlements	16.057.995	22.575.021
• Disability pension	4,671,577	6,194,831
• Survivors pension	11,386,418	16,380,190
Termination of contracts and cancellation of allocations	39,776,321	44,124,109
Contributions paid in excess	2,208,226	2,132,570
Total	58,042,542	68,831,700

5.4 Investments and portfolio structure of mandatory pension funds

It is very common for mandatory fully funded pension systems to introduce proactive control and quantitative and qualitative investment limits in the initial stages of implementation. Thus, the law and the secondary regulations define: the investment principles and goals, as well as the allowed types of investment instruments, the conditions that the regulated secondary markets must meet in order for the pension funds assets to be traded on such capital markets, the quality of instruments, countries or groups of countries in which pension funds assets may be invested, investment limits per instruments and per issuers, prohibited investment, allowed excesses of investment limits etc.

The pension company is obligated to invest the assets of the mandatory pension fund in accordance with the legal provisions and its investment strategy in order to earn the highest return for the benefit of the active and retired members. Also, it is obligated through diversification and due diligence, to minimize the risks from losses which might occur due to default of the issuer or other contractual parties, from the influences of the domestic or foreign markets, losses in the real value for the mandatory pension fund assets due to inflation and losses due to selling of assets for securing liquidity of the mandatory pension fund. In doing so, the members of the management and supervisory boards are obligated to employ care, efficiency and skills of prudent men upon discharging their duties of control and management over the investment of the pension funds' assets. Each member of the management or supervisory board of the pension company must meet their obligations in accordance with their fiduciary duties and they must provide for their application by each employee or contractor of the company.

The law and the secondary regulation stipulate that the pension fund's assets may be invested in bank deposits, certificates for deposits, bonds or other debt securities, shares and commercial notes issued by issuers with headquarters in the Republic of North Macedonia or abroad, in the countries of the EU or OECD. Having in mind the necessary diversification that must be attained among different types of investment, there are maximum limits for investing in one company and maximum limits on the amounts that might be invested in certain types of instruments. In order to prevent investing in instruments that might be disadvantageous to mandatory pension funds, the law prohibits investments in shares, bonds and other securities that are not traded on official markets or that are not publicly traded, instruments that are not legally disposable, instruments that cannot be assessed, most types of property that cannot be immediately assessed and other items with uncertain values, like antiques, art etc.

Pension funds' assets are constantly growing and the domestic market is becoming smaller for their investments. So, the pension funds can afford to trade on large scale foreign market, and thus provide for diversification due to bigger choices of instruments and companies for investing of their assets. The maximum investment limits are given in table 5.4.

Figures 5.9 and 5.10 give the investment structure of the mandatory pension funds from the beginning of the system (for the period 2006-2017 annually and for 2018 the structure is given on a quarterly basis).

Table 5.4 Maximum investment limits

Type of instrument	Maкsimum limit
Investment abroad (EU and OECD)	50%
• bonds and other securities issued by foreign governments and central banks	50%
• securities issued by non-state foreign companies, banks or investment funds	30%
Securities issued or guaranteed by RM on the domestic market or NBRM	80%
Bank deposits, deposit certificates, mortgage backed securities, and other securities issued by domestic banks	60%
• bank deposits	30%
Bonds issued by local self-government and domestic joint stock companies, which are not banks and, commercial notes from domestic joint stock companies, which are not banks	40%
• bonds issued by local self-government	10%
Shares issued by domestic joint stock companies	30%
Participation units and shares of open-end, close-end and private investment funds in RM	5%
• participation shares in private investment funds	1.5%

Figure 5.9 Investment structure for SAVAz

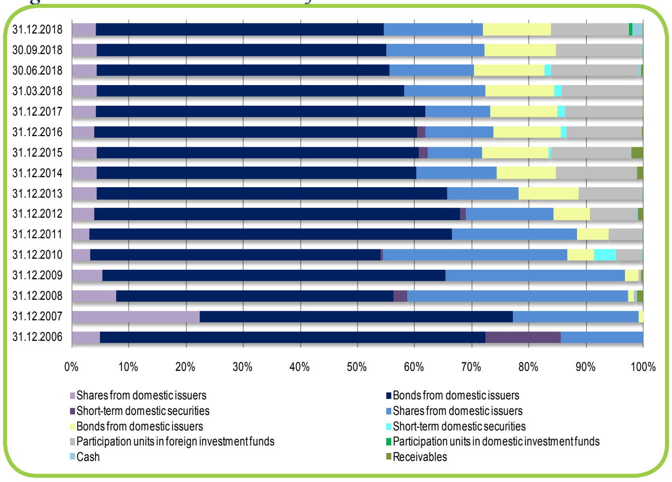
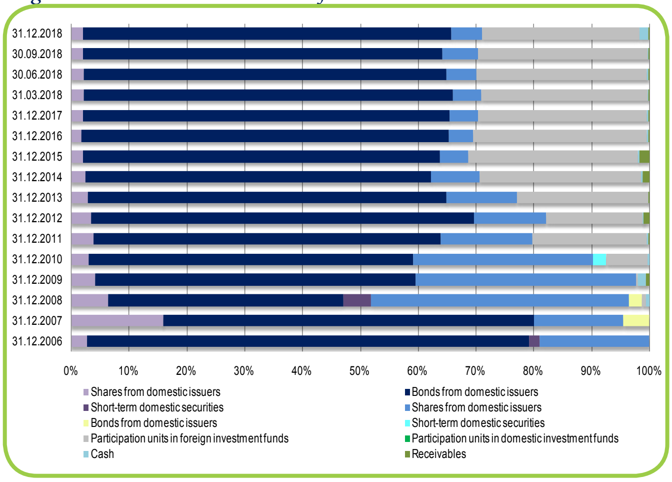


Figure 5.10 Investment structure for KBPz



The structure of investments of the mandatory pension funds, as of 31.12.2018 is given in Figure 5.11, and it is similar to the structure as of 31.12.2017. Still, the participation of domestic securities, which include only domestic government bonds, has decreased in respect to 31.12.2017 and it amounts to 57.38%. The participation of bank deposits has increased and it is 11.05%. Domestic shares' participation in the portfolio is rather low (3.12%) in the investment portfolio, and it is almost the same as of 31.12.2017. A very small portion of mandatory pension funds' investments is in domestic investment funds (0.25%). In 2018, the investments abroad have slightly decreased in comparison to 2017, and they were 26.41%. The investments in foreign securities include investments in participation units of foreign investment funds (20.85%), investments in shares (5.56%) and investments in government bonds (0.62%). The rest were investments in cash and cash equivalents (1.72%) and receivables (0.09%).

In 2018 the investments of both pension funds were in compliance with the statutory maximum investment limits. Figure 5.12 demonstrates the percentage participation in the portfolio per classes of assets for SAVAz and KBPz and the statutory limits on 31.12.2018.

In 2018 just like in 2017, a very small portion from the assets of mandatory pension funds (3.12%) was invested in shares

Figure 5.11 Structure of investments of the mandatory pension funds, as of 31.12.2018

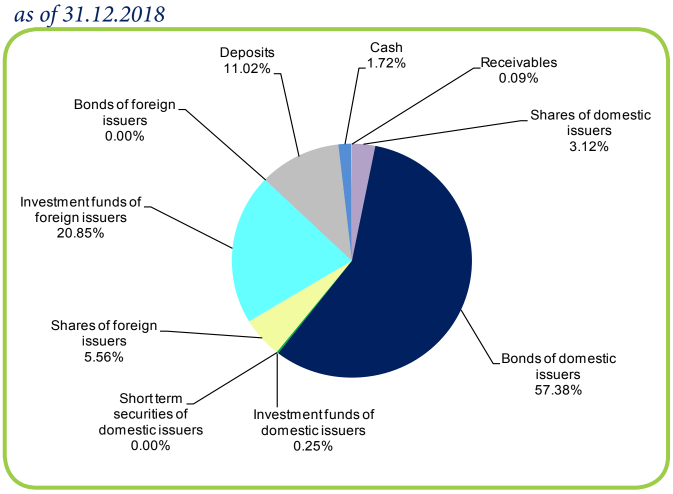
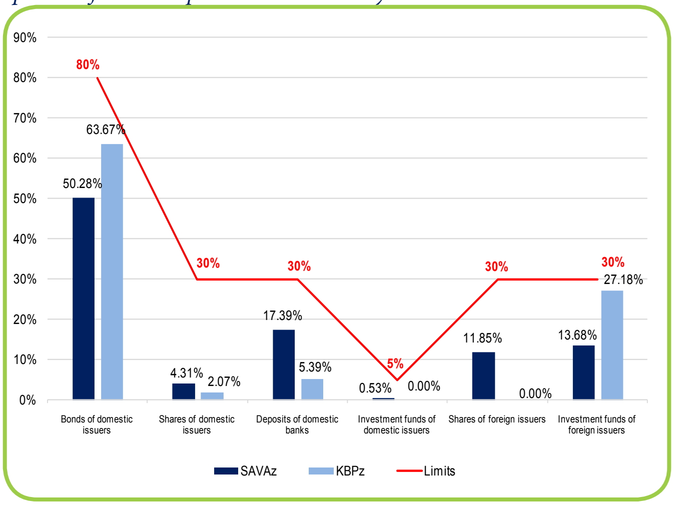


Figure 5.12. Classes of assets in the portfolios of the mandatory pension funds compared to the statutory limits

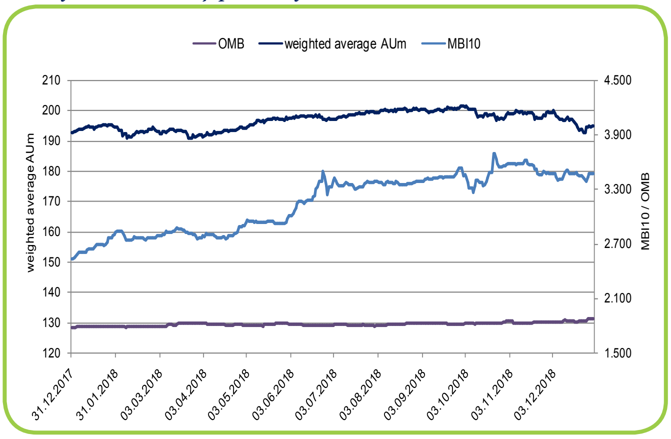


of domestic issuers. In 2018, both mandatory pension funds had almost the same exposure to shares in respect to 2017. Considering that this exposure is very limited, the changes in the Macedonian Stock Exchange Index (MBI 10) did not have any significant impact on the average value of the accounting unit of the mandatory pension funds. Namely, in 2018, MBI10 marked a growth of 36.64% , while the average increase in the value of the accounting unit of the mandatory pension funds[12] in respect to 2017was 1.29%.

Also, the value of the bond index of the MSE – OMB, does not have a significant impact on the average value of the accounting unit of the mandatory pension funds, considering that only 0.73% of the assets are invested in domestic bonds traded on the Macedonian Stock Exchange. The rest of the portfolio is invested in domestic bonds which are parts of the continuous domestic bonds. In 2018, OMB had a growth of 2.1311%, while the average increase in the value of the accounting unit of the mandatory pension funds was 1.29% in respect to 2017.

[12]The average value is calculated as weighted average of the accounting units of the mandatory pension funds in respect to the net assets of the mandatory pension funds.

Figure 5.13 MBI10, OMB and the average value of the accounting unit of the mandatory pension funds



Source: Macedonian Stock Exchange – Annual Statistical Bulletin for 2018

The Figure 5.13 shows the movements of the MBI10, OMB and the average value of the accounting unit of the mandatory pension funds in 2018.

In 2018, more than half of the mandatory pension funds' assets were invested in domestic securities (50.28% for SAVAz and 63.67% for KBPz). Then, around one third of their assets are investments in instruments from issuers/ shareholders from the financial sector – in which SAVAz invested 34.62% and KBPz 32.98% of the total pension funds' assets. In this category, in the investments of SAVAz domestic banks have highest participation (50%) as well as the participation units in foreign and domestic investment funds (41%) while the participation of the financial services is lower (7%) and the shares in domestic and foreign banks (2%). In the financial sector, for KBPz, there is a prevalence of the participation of the foreign investment funds (82%), followed by domestic bank deposits (16%) and a very small participation of shares of domestic banks (1%). Besides these investments, the mandatory pension funds invest in other sectors as well: pharmacy, consumer goods, industry, basic goods, IT, communication services and energy, however with very low participation (from 0.12% to 3.08%).

Per the currency structures of the mandatory pension funds' assets (as shown on Figures 5.16 and 5.17), it can be noticed that in 2018 the largest amount of the SAVAz assets (57.11%) and of KBPz (49.13%) are invested in Euros. From this, it can be noticed that both pension funds decreased their investments in Euros in respect to 2017. The investments in instruments in domestic currency are higher for both pension funds in respect to 2017 and they are 24.66% for SAVAz and 26.62% for KBPz. The participation of instruments in USD has slightly decreased compared to the previous year, whereby it is24.25% for KBPz and 24.25%, for SAVAz. A small part of SAVAz assets is invested in CHF (0.99%).

Figure 5.14 Investment structure per sectors for SAVAz

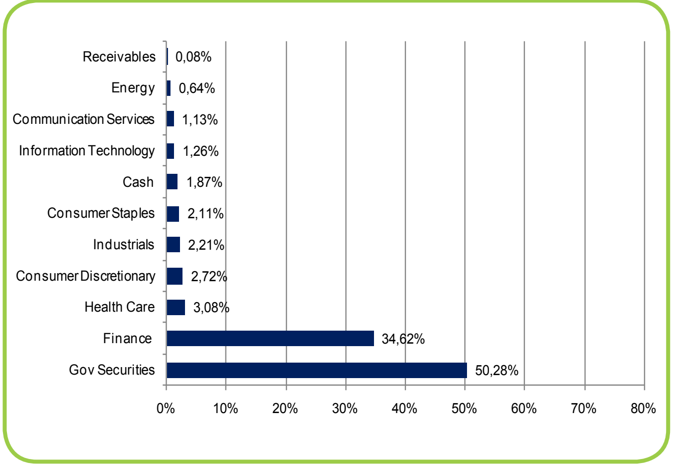


Figure 5.15 Investment structure per sectors for KBPz

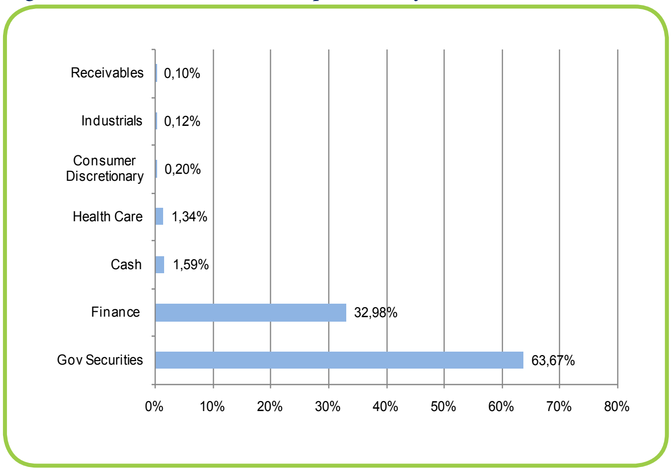


Figure 5.16 Currency structure for SAVAz

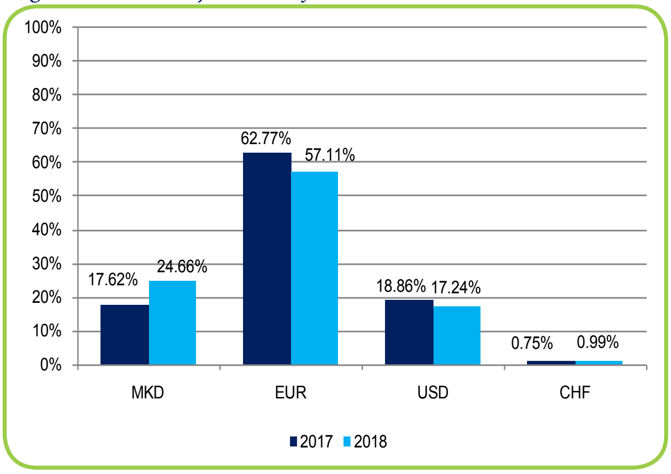


Figure 5.17 Currency structure for KBPz

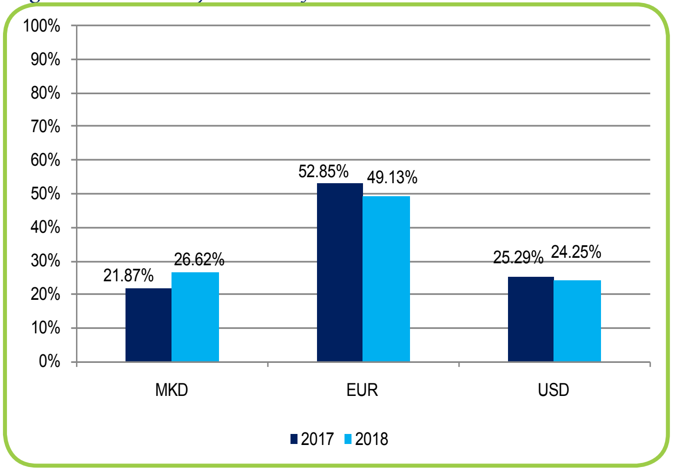
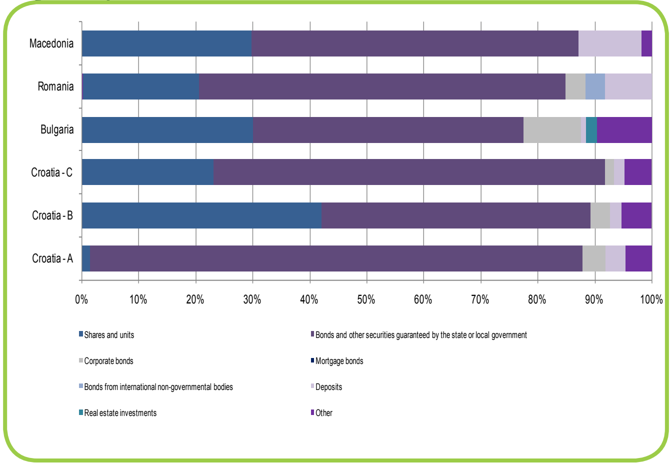


Figure 5.18 Pension funds portfolios in several countries and in Republic of Macedonia



Source: www.hanfa.hr ; www.fsc.bg ; www.asfromania.ro and own calculations

In terms of investment portfolios the Macedonian system shows similarities but also significant differences when compared to global experiences or to countries with similar pension systems. Figure 5.18 shows pension funds portfolios (similar to the Macedonian pension funds) in several other countries and in Macedonia, as of 31.12.2018 . It is evident that the structure of the investments of mandatory pension funds in the researched countries, is not very different at the end of 2018 in respect to 2017.

Analyzing the portfolios from types of instruments perspective, it is obvious that Bulgaria has least investments in bonds and other securities guaranteed by the government or the local authorities (47%). On the other hand, the rest of the countries invested more than 50% in bonds and other securities guaranteed by the government or the local authorities (Croatia B[13] 69%, Romania 64% and Macedonia 57%). The rest of the assets were invested in various ways. Most investments in shares and units are observed in the following countries: Macedonia (30%) and Bulgaria (30%), Croatia C (23%) and Romania (21%). The following countries are leaders in deposit investments: Macedonia (11%) and Romania (11%), while Bulgaria (1%) and Croatia C (2%) have invested only a small portion of their assets in deposits. Unlike pension funds in Macedonia, the pension funds in other countries invested in corporate bonds (Bulgaria 10%, Romania 3% and Croatia B 2%), but it should be noted that the Macedonian market is scarce in such instruments. Only Bulgarian pension funds invested in real estate (2%). (In other countries this instrument is mostly prohibited). The portfolio structure from the perspective of investing at home or abroad[14], demonstrates the largest exposure of Macedonian (26%), Croatian B (12%) and Romanian (10%) funds.

[13]Croatia introduced multi funds, i.e. three categories of pension funds A (with highest risk), B (with current portfolios at the moment of introduction of the multi funds) and C (lowest risk).

[14]The data on investments abroad for Bulgaria as of 31.12.2018 was not available at the time of the analysis

5.5 Net assets, accounting units and rates of return of the mandatory pension funds

The contributions transferred in the mandatory pension fun

The contributions transferred in the mandatory pension funds, reduced for the fee from contributions are invested immediately upon transfer. The earned return is allocated in the mandatory pension fund i.e. on the members' individual accounts. Once a month, pension companies charge a management fee, which is calculated daily as percentage from the pension funds' assets. Also, transaction fees are charged from the pension fund upon each transaction. The valuation of the pension funds assets is done on a daily basis. It is done based on the market value of each asset, or based on the depreciated value of the assets if the instrument is kept until maturity or in a portfolio available for sale or if it is not possible to determine the market value.

The assets of the mandatory pension fund might change throughout the year for the following reasons:

- inflow of contributions;

- outflows due to fees and transaction commissions;

- inflows as a result of transfers from another pension fund (for persons who were temporarily allocated to another pension fund and have signed a contract with the current pension fund and for persons that were members in another pension fund and then transferred to the current pension fund);

- outflows due to transfers to another pension fund (for persons who were temporarily allocated to the current pension fund and have signed a contract with the other pension fund and the persons that were members of the current pension fund and then transferred to another pension fund);

- outflows of persons who have terminated their membership contracts, surplus of paid contributions or entitlements for disability or survivor pensions);

- outflows due to payouts of inheritance;

- outflows due to lump sum payments to persons who are not entitled to old-age pensions

- outflows due to payouts of old age pensions – programmed withdrawals

- (un) realized incomes or losses from investments

The value of the net assets at the end of the year is derived from the net assets at the end of the previous year and all the changes to them, as mentioned above. This is demonstrated in Table 5.5:

The total net assets of mandatory pension funds as of 31.12.2018 are approximately 64 billion denars or around 1.05 billion Euro, which is approximately 9.75% of the GDP of the Republic of Macedonia[15].

Table 5.5 Changes in the assets of the mandatory pension fund (in million denars)

	SAVAz	KBPz
Net assets as of 31.12.2017	26,519.03	30,392.74
Contributions	3,383.22	3,719.26
Fees from contributions	84.65	93.06
Contributions reduced for fees from contributions	3,298.56	3,626.20
Fees from assets	120.74	137.47
Expenditures for intermediary commissions	1.59	0,43
Transfers from another fund	22.53	20.00
Transfers to another fund	20,00	22.53
Transfers to PDIF due to termination, return of contributions or retirement	58.15	68.93
Inheritance pay out	4.04	7.61
Old-age pension benefit payouts – programmed withdrawals	0.96	1,19
Lump sum payouts	0.20	1.82
Gross profit from investments	571.51	347.74
Net profit from investments	449.18	209.84
Net assets as of 31.12.2018	30,205.96	34,146.71

Figures 5.19 and 5.20 demonstrate net assets at the end of each year as well as their annual increase in percentage in respect to the previous year. It is evident that the net assets of both mandatory funds grow with almost the same pace. The biggest growth is marked in 2009 in respect to 2008.

Figures 5.21 and 5.22 demonstrate the changes in the value of the net assets and the cumulative contributions, accompanied by the growth of contributions paid in the mandatory pension funds and the growth of the net assets, from the start of the system (i.e. the first payment on January 1, 2006) until 31.12.2018. Evidently, in the first years the net assets grow proportionally with the cumulative contributions, while in the last seven years the assets of the pension funds are growing faster than the growth of the cumulative contributions.

[15]Source for GDP: State Statistical Office – announcement on the GDP fourth quarter of 2018- estimated data.

Figure 5.19 Annual growth of the net assets of SAVAz in respect to the previous year, in %

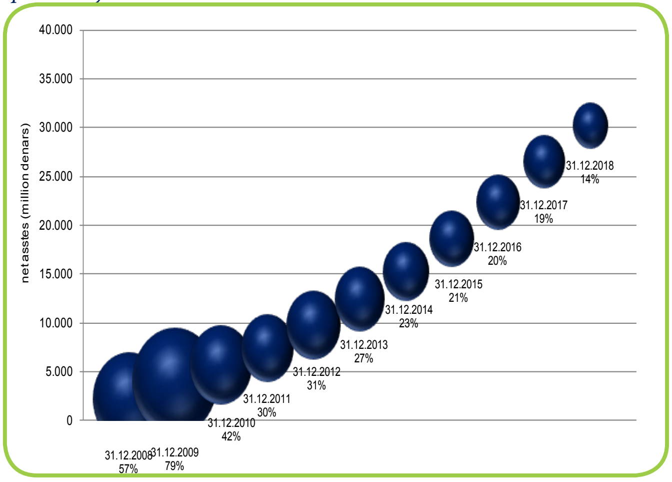
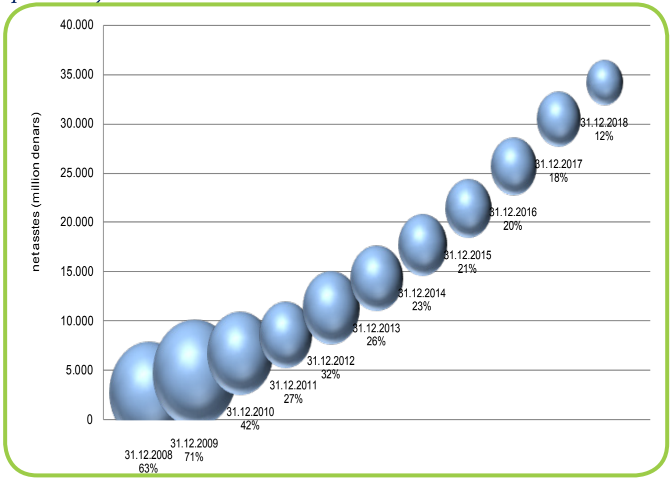


Figure 5.20 Annual growth of the net assets of KBPz in respect to the previous year, in %



For both mandatory pension funds (SAVAz and KBPz), the net assets and the cumulative contributions have been growing since the start of the system. The biggest growth of net assets for both pension funds (around 150%) and of paid contributions (around 40%) was noticed in 2007. This is due to the large increase in membership and contributions, as well as of the accounting unit. Then there is a decrease in the net assets and the paid contributions. Trends stabilize over the years, and in the last five years the average increase of the net assets is 19% and the average increase of the cumulative paid contributions is 12%. In 2018, the growth of the net assets was the smallest thus far and it is 14% for SAVAz and 12% for KBPz, while the growth of the paid contributions is 13% for SAVAz and 12% for KBPz.

Accounting units are used for record keeping of the mandatory pension funds assets. One accounting until is a proportionate share of the total net assets of the fund. The value of the accounting unit is equal to the value of the net assets divided by the number of accounting units on all individual accounts and sub-accounts. The starting value of the accounting unit was 100 denars. Pension funds, Macedonian ones as well, are subjects to cyclical movements, which mean changes in the values of the accounting units, depending on the investments and the changes in the values of the instruments in which the assets are invested, as well as the dynamics of collecting contributions and fees.

The changes in the value of the accounting units of the mandatory pension funds, from the beginning of the system until 31.12.2018 are given in Table 5.6 and Figures 5.23 and 5.24. Since the beginning of the operations of the mandatory pension funds there is a growing trend of the accounting units. In 2018, the accounting unit was growing and had a similar trend, so, by the end of the year, the value of the accounting unit for both pension funds has increased in respect to the previous year. It can be noticed that the growth in 2018 is lower than the one in 2017, which is mostly due to the price influence on the global financial market, as they were more volatile during 2018, and their volatility started to decrease at the end of the year. Still, we have to stress that the pension funds have a long-term nature and therefore their performance should be analysed and considered on a long run.

Usually, the return of the pension funds is calculated for several years and it is presented annually. So, the legislation for the Macedonian pension system, stipulates that the return shall be calculated for a seven-year period (calculation period) and it will be presented annually in real and nominal value. In case a pension fund is younger than 84 months, but older than 12, the return is calculated at the end of June i.e. at the end of December for the period from the first June i.e. December, after the establishment of the pension fund until the end of June i.e. December when the calculation period ends. In such case, the calculation period is 78, 72, 66, 60, 54, 48, 42, 36, 30, 24, 18 or 12 months.

Figure 5.21 Net asset growth compared to the growth of paid contributions in SAVAz

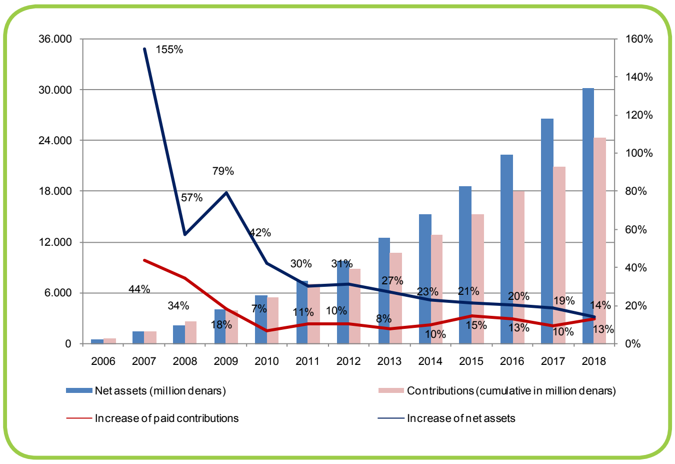


Figure 5.22 Net asset growth compared to the growth of paid contributions in KBPz

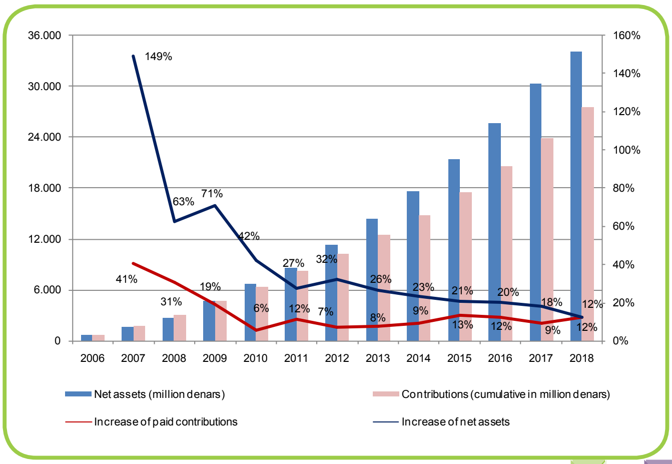


Table 5.6. Value of the accounting unit from the beginning of the system

Date	Value of the accounting unit	
	SAVAz	KBPz
31.12.2006	105,929336	106,265900
31.12.2007	115,511364	115,303221
31.12.2008	100,155213	107,116421
31.12.2009*	116,874672	120,667142
31.12.2010	125,009646	129,590887
31.12.2011	129,003093	130,697013
31.12.2012	139,225567	142,372582
31.12.2013	151,117506	153,757419
31.12.2014	160,733889	164,578077
31.12.2015	170,193521	174,392410
31.12.2016	179,771032	184,786292
30.12.2017	189,686331	195,037486
31.03.2018	189,451992	194,354965
30.06.2018	194,695778	199,406252
30.09.2018	199,091693	203,387061
31.12.2018	193,113009	196,706281

** In the second half of 2009, both pension companies decided to reclassify the financial instruments held to maturity, into financial instruments available for sale. In this procedure, the pension companies actually re-evaluated the financial instruments, by applying fair value and have determined the value of assets, net assets, value of accounting units and number of accounting units, which caused a significant correction in the value of the accounting unit.*

The nominal return[16] is the change (growth) in percentage in the value of the accounting unit, on the last valuation date of the calculation period and the value of the accounting unit on the last day of the month preceding the first month of the calculation period, converted into equivalent annual nominal rate of return.

The real return for each calculation period, converted into equivalent annual real rate of return is calculated based on the annual rate of return in nominal value and the change in the living costs of the calculation period, on annual basis.

Table 5.7 demonstrates the return of the mandatory pension funds, per periods, presented annually.

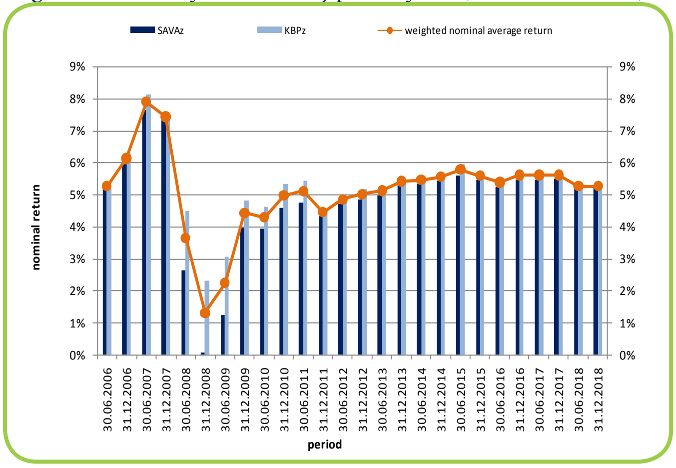
The return on the individual account is variable, it depends on the return of the mandatory pension fund, and the fees charged from the pension company. The return or the yield is a parameter, which cannot be predicted realistically as it depends on the conditions on the capital markets and the economy as a whole.

Considering the long-term nature of the pension insurance, it is important to calculate the return from the start of the system (thirteen years) and in average[17] it is 5.72% in nominal value and 3.49% in real value.

The changes in the nominal return during these thirteen years of existence of the system are shown with the Figure 5.25. Plotted on the Figure are the returns per periods (from the start of the system until the adequate period), from the beginning of the system until 31.12.2018), per funds and with the weighted average return. It is obvious that at the beginning of the system, the return is growing, so by the end of 2006 and 2007 the rates are high, while by the end of 2008 the rates are at their lowest, due to the negative developments on the domestic and foreign financial markets. By the end of 2009, the rates recover and start growing until 2010. In the following years there is an increase (with minor deviations in the contributions' growth until the end of 2015 and the first half of 2016 and the returns in 2018) and a movement of the average weighted return above 5% as of 2018.

The movements in the real and nominal rates of return for 2018 for the period of seven years, per mandatory pension fund and compared to the average return are shown on Figure 5.26.

Figure 5.24 Return of the mandatory pension funds (in nominal amount)



[16] The formulas for calculating the nominal and real return are prescribed with the Rulebook on valuation of assets of mandatory and voluntary pension funds.
[17] The average return is calculated with the same formula used to calculate the rate of return of mandatory pension fund, where instead of the accounting unit, the weighted average of the accounting unit is used in respect to the net assets.

Figure 5.23. Value of the accounting unit from the beginning of the system

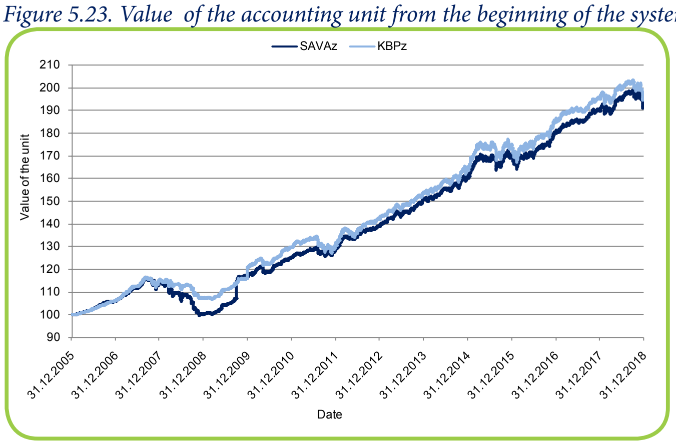


Figure 5.24. Value of the accounting unit in 2018

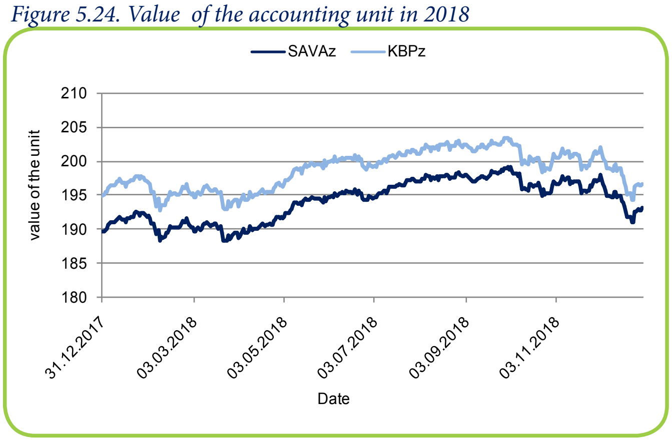
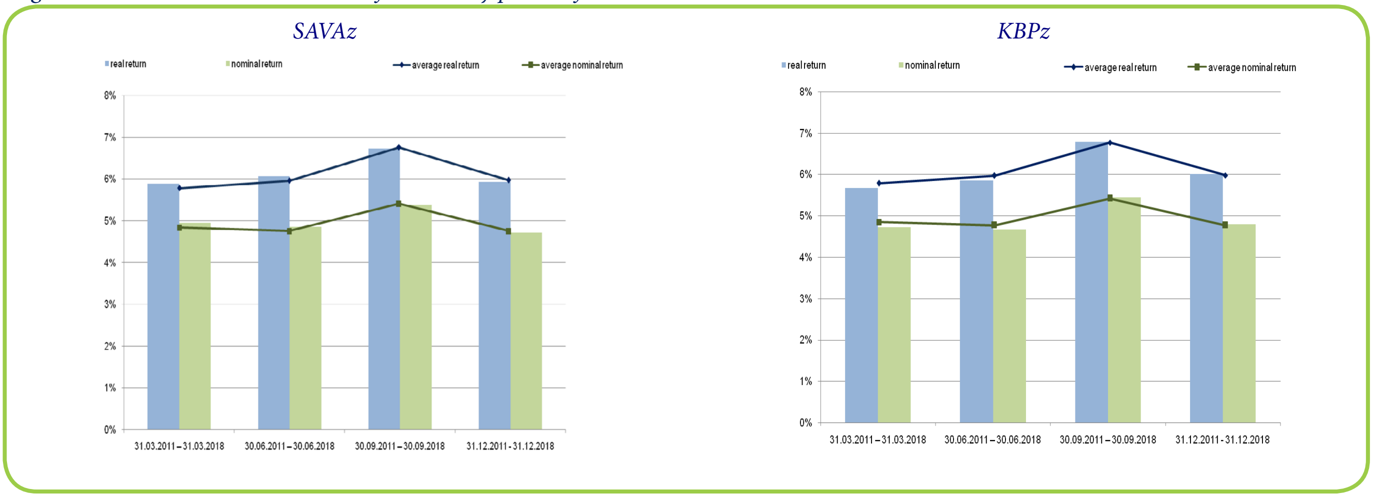


Table 5.7 Return of the mandatory pension funds

Period*	SAVAz		KBPz	
	In nominal value	In real value	In nominal value	In real value
01.01.2006 - 31.12.2008	0.05%		2.32%	
31.12.2006 – 31.12.2009	3.33%		4.32%	
31.12.2007 – 31.12.2010	2.67%		3.97%	
31.12.2008 - 31.12.2011	8.80%		6.86%	
31.12.2009 – 31.12.2012	6.00%		5.66%	
31.12.2006 – 31.12.2013	5.20%	2.16%	5.41%	2.37%
31.12.2007 – 31.12.2014	4.83%	2.67%	5.21%	3.05%
31.12.2008 - 31.12.2015	7.87%	6.45%	7.21%	5.80%
31.12.2009 - 31.12.2016	6.34%	4.74%	6.27%	4.67%
31.12.2010 - 31.12.2017	6.13%	4.63%	6.01%	4.51%
31.03.2011 – 31.03.2018	5.89%	4.95%	5.67%	4.73%
30.06.2011– 30.06.2018	6.06%	4.86%	5.86%	4.66%
30.09.2011– 30.09.2018	6.73%	5.38%	6.79%	5.44%
31.12.2011 – 31.12.2018	5.93%	4.72%	6.01%	4.80%
Start* -31.12.2018	5,19%	3,14%	5,34%	3,28%

** Until the amendments to the Law on mandatory, fully funded pension insurance in 2013, the return was calculated for a period of 3 years, only in nominal value.*
*** For SAVAz and KBPz the start is on January 1, 2006*

Figure 5.25 Nominal and real returns of mandatory pension funds in 2018

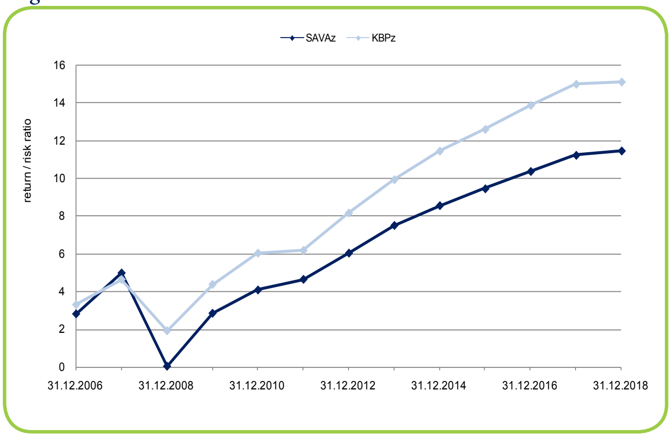


In 2018, the nominal return is extending in the range from 5.67% to 6.79%, while the real return is in the range 4.66% to 5.44%. The highest values are noticed in the returns for the period 30.09.2011 – 30.09.2018.

The main goal of investing the assets of the mandatory pension funds is to cause growth of such assets. So, the return is the measure of such growth. At the same time, one should consider the risk from investments. The risk represents the inability to predict the earning of the return on the invested assets. The risk to return ratio is direct, which means that higher risk brings higher return and vice versa. The nominal return to risk[18] ratio (calculated by one of the possible calculation methods) from the beginning of the system until the end of 2018 is shown on Figure 5.27.

Higher return to risk ratio is an indicator of the better investment performance of the fund and the potentials of the fund for higher returns per risk unit.

Figure 5.26 Return to risk ratio



[18]The return is calculated on annual level from the growth of the accounting unit and from the beginning of the system. The risk represents the volatility of the accounting unit and it is calculated as annualized standard deviation of the pension funds' return.

5.6 *Fees for mandatory pension funds*

According to the Law, Pension Companies charge three types of fees: fee from contributions, fee from assets and fees for transfers. They use these fees to cover the following functions: manage the mandatory pension funds assets, valuation of assets, membership, keeping of individual accounts, reporting to members, payment of fees to MAPAS and the custodian and covering of own expenses.

This type of financing of pension companies is common for pension systems similar to Macedonian. The entry fee (fee from contributions) is charged as a percentage from the contributions, it is paid once, upon payment of the contribution and then the contribution is invested until the assets are withdrawn. The management fee is charged at the end of each month from the total assets under management. The burden of the contribution fees is felt at the beginning, as they are relatively high in the beginning years. Management fees however, are more burdensome at the end, since the accumulated assets are much bigger towards retirement[19]. On a long run, the contribution fee will have insignificant impact on the amount of the pension benefit, while the assets management fee will gain on significant with the years. However, at the beginning of the system, the impact of the contribution fee on the individual accounts is quite evident. This is expected, since in the first years of operation of the pension fund, the assets are limited and, the company has a lot of set-up expenses, which are covered from the company's own assets and from the fees charged from the members. As the system develops in the future, the assets of the mandatory pension fund will grow and it can be expected that they will earn more profit for the individual accounts of the members. The short-term results are of no significance, because the system is designed for savings that are accumulated for e period of 30 to 40 years. The members start saving while they are young, and get their pension at 64 (for men) or 62 (for women) years of age. Thus, one should look for the advantages of this type of insurance solely on a long run.

Table 5.8 Fees charged by Mandatory Pension Companies

Type of fee	SAVA	KB Prvo
Fee from contributions	2.50%*	2.50%*
Monthly fee from the assets of the mandatory pension fund	0.035%**	0.035%**
Transfer fee		
Number of days***	Amount of transfer fee	Amount of transfer fee
number of days ≤ 720	15 Euros	15 Euros
number of days > 720	Transfer fee not charged	Transfer fee not charged

** Amount equal to the maximum amount prescribed by law for 2018 (previously it was 2.75% for both – SAVAz and KBPz)*
*** Amount equal to the maximum amount prescribed by law for 2018 (previously it was 0.04% for both – SAVAz and KBPz)*
**** The number of days is calculated from the day in which a person became a member of the existing pension fund (or in case of first membership, the first day in the month in which the contributions started for the member in the current pension fund) until the date of transfer of assets to the individual account of the member in the future pension fund.*

The types and amounts of fees charged by the Mandatory Pension Companies in 2018 are shown in the Table 5.9.

Table 5.9 Contribution fees charged by pension companies in the second pillar

Pension company	Fee	Effective from
SAVA	9.90%	Tender
	8.50%	Beginning of the system (2006)
	7.90%	July 2007
	6.90%	February 2008
	6.50%	May 2009
	5.50%	January 2010
	4.50%	January 2011
	4.00%	January 2012
	3.75%	June 2013
	3.50%	January 2014
	3.25%	January 2015
	3.00%	January 2016
	2.75%	January 2017
	2.50%	January 2018
KB Prvo	9.90%	Tender
	8.50%	Beginning of the system (2006)
	7.90%	July 2007
	6.80%	February 2008
	5.50%	January 2010
	4.50%	January 2011
	4.00%	January 2012
	3.75%	June 2013
	3.50%	January 2014.
	3.25%	January 2015
	3.00%	January 2016
	2.75%	January 2017
	2.50%	January 2018

[19]*Administrative Charges for Funded Pensions: An International Comparison and Assessment, Edward Whitehouse, June 2000.*

At the very beginning of the system, the contribution fee was set by a public tender at 8.5%. Further on, as the system developed the authorities decreased the fees charged from the Pension Companies, and as the contributions continued to grow, this fee was decreased several times. The fees from contributions from the beginning of the system until 2018 are shown in Table 5. 10.

The fee from assets was set in the Law, and until May 2013, it was 0.05% from the net assets of the mandatory pension fund and then until December 2014 it was 0.045%. From January 2015, the fee is 0.04%, until December 2016. Since January 2017, the fee on assets is 0.035%

Since 2013, the Law regulates the contribution and the asset management fees as statutory maximum limits beyond which pension Companies are not allowed to charge and certain reductions of the fees are stipulated to happen in time. Also, the amendments stipulate their gradual reduction over several years. So, the maximum amount of the contribution fee will not surpass 2%, while 0.03% is the maximum for the asset management fee, which will be implemented from 2019-2020 onward. Until these amounts are reached, the fees will be reduced gradually from their current values, as seen in Table 5.11.

Table 5.10 Maximum amounts of contribution and management fees for the second pillar, stipulated by law.

Year	Fee from contributions	Monthly fee from assets
2018	2.50%	0.035%
2019	2.25%	0.030%
2020	2.00%	0.030%

Transaction commissions for acquisitions or transfers of assets of a mandatory pension fund are charged from the pension fund and paid to selected service providers. These fees are calculated as a percentage from the value of each transaction. For each transaction on the Macedonian Stock Exchange, the pension fund pays commissions to the Macedonian Stock Exchange and the Central Securities Depository. During 2018, SAVAz paid 1.59 million denars for transactions commissions and KBPz paid 0.43 million denars in commissions.

Table 5.11 Collection of fees in 2018 by pension companies (in million denars)

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
SAVAz- total	15.92	15.91	16.41	16.17	17.01	16.97	17.41	17.49	17.23	18.64	17.93	18.30	205.40
From contributions	6.49	6.47	6.89	6.55	7.13	6.92	7.21	7.11	6.75	8.11	7.31	7.71	84.65
From assets	9.42	9.44	9.51	9.62	9.88	10.05	10.20	10.38	10.48	10.53	10.62	10.59	120.74
KBPz - total	18.00	18.06	18.30	18.25	19.12	19.17	19.56	19.57	19.37	20.69	20.08	20.37	230.53
From contributions	7.20	7.27	7.43	7.26	7.84	7.70	7.95	7.77	7.45	8.76	8.05	8.38	93.06
From assets	10.80	10.79	10.88	10.99	11.28	11.47	11.60	11.80	11.91	11.94	12.03	11.99	137.47

5.7 Pay outs of pensions from the mandatory fully funded pension insurance

The retirement conditions are the same for the first and for the second pillar: age – 64 years for men and 62 years for women, and at least 15 years of career.

The first pillar pays the following benefits: part of the old age pension, survivors, disability and minimum pensions. The pension from the first pillar is calculated as a defined benefit per a predefined formula (percentage depending on the career years multiplied by the pension basis, determined from the valorised wages earned in the entire career of the person).

The second pillar pays out part of the old age pension, in a form chosen by the member:

- as a pension annuity; determined from the entire amount of money accumulated on the individual account; the annuity is paid out for the rest of the member's life by an authorised insurance company; or

- as programmed withdrawals provided by the pension company managing the mandatory pension fund , or

- as a combination of both .

The provision of pension annuities and programmed withdrawals is regulated with the Law on Payment of Pensions and Pension Benefits from the Fully Funded Pension Insurance.

In case an insured person is entitled to a disability pension and is a member of the second pillar, the total amount of assets on the member's account is transferred to the PDIF and the payout of the total amount of the disability pension is done by the PDIF. As an exception, if the amount of assets on the member's account surpasses the amount for disability pension regulated with the Pension and Disability Insurance Law, than the member can choose to receive a second pillar pension benefit instead of the disability pension from the PDIF.

In case a second pillar member dies and his/her family members are entitled to a survivor's pension, the total amount of assets on the member's account is transferred to the PDIF and the benefit payout is done by the PDIF. As an exception, if the amount of assets on the member's account surpasses the amount for survivor's pension regulated with the Pension and Disability Insurance Law, than the member can choose to receive a second pillar pension benefit instead of the survivor's pension from the PDIF.

Table 5.12 Pension entitlements for second pillar members

Type of pension/ Mandatory pension fund	SAVAz	KBPz	Total
Disability	22	29	51
Survivors	61	74	135
Old age pension – programmed withdrawals	5	12	17
Lump sum payments – old age	4	14	18
Lump sum payments – inheritance	48	45	93
Total	140	174	314

In 2018, the second pillar members i.e. close family members of the deceased members acquired 51 disability pensions and 135 survivor's pensions, respectively. Their accumulated assets were transferred to PDIF that pays the disability and survivors' pensions. In 2018, 17 members of the second pillar started to receive their old age pension from the second pillar through programmed withdrawals.

Additionally, the legislation stipulates payouts from the member's individual accounts without entitlements to a pension, in the following cases:

- when a deceased pension fund member has no family members entitled to a survivors pension, and the assets on that member's account become a part of his/her property and will be managed in accordance with the Law on Inheritance.

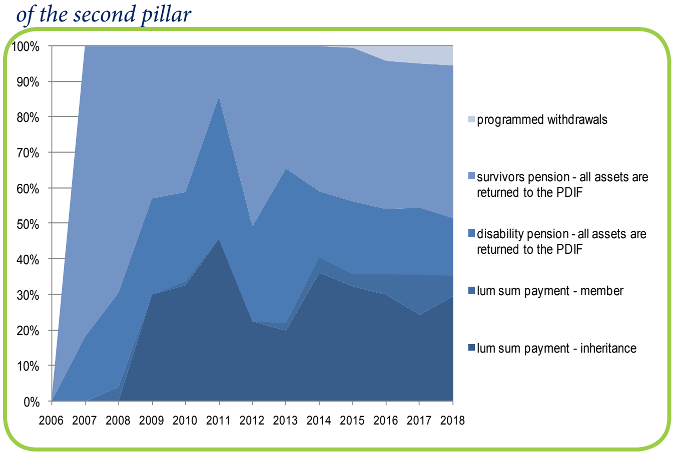
- when a pension fund member has not acquired the entitlement to an old-age pension according to the Law on Pension and Disability Insurance because he/she does not have at least 15 years of service, he/she can get a pension benefit only from the second pillar, if the pension is higher or equal to 40% of the minimum pension. In case the calculated amount of the pension is lower than 40% of the minimum pension, the mandatory pension fund shall pay a lump sum of the accumulated assets on the member's account. In such cases when the pension is obtained only from the second pillar it may be paid out of the accumulated assets after reaching 65 years of age.

In 2018, the inheritance for 93 deceased members was paid out from the individual accounts. Also, there were 18 lump sum payouts.

Table 5.13 gives a detailed overview on the acquired pension entitlements for the second pillar members per mandatory pension fund in 2018.

Figure 5.28 gives the structure of entitlements and payouts from the second pillar in its thirteen years of existence, as of 2018. The number of payouts is low, because its members are very young. Most of the payouts are for survivors' pensions due to death of second pillar members, followed by disability pensions and lump sum payments and payouts to members with programmed withdrawals.

Figure 5.27 Structure of entitlements and payouts from the beginning of the second pillar



6

Information on the voluntary pension funds

6.1 The goal of voluntary fully funded pension insurance

6.2 Membership in the voluntary pension funds

6.3. Members transferring accounts in the same or other voluntary pension fund

6.4. Contributions to the voluntary pension funds

6.5. Investments and portfolio structure of voluntary pension funds

6.6. Net assets, accounting unit and rate of return of the voluntary pension funds

6.7. Voluntary pension fund fees

6.8. Payout of pension benefits from the voluntary pension insurance

6.1 The goal of voluntary fully funded pension insurance

The primary goal of the voluntary fully funded pension insurance is to provide higher old-age income at retirement to the persons who are already insured in the mono-pillar and/or in the two-pillar pension system; to provide a pension for those individuals who are not covered by the mandatory pension system and to provide conditions for establishment of occupational pension schemes in the process of the harmonization of the Macedonian social insurance with the European Union systems. The basic principles of this insurance: to provide an additional old-age income, membership on a voluntary base, voluntary fully funded insurance on defined contribution basis, investment of assets based on safety, diversification of risk and maintaining of adequate liquidity, as well as transparency.

The voluntary fully funded pension insurance offers coverage for a larger group of the population in the Republic of Macedonia, as well as for persons who are not citizens of the Republic of Macedonia. As it provides for additional old-age income, this type of insurance increases a person's material security in the retirement days. Macedonia, like many European countries has occupational pension schemes sponsored by the employers or the citizens associations, which provide and finance additional pension insurance for their employees or members. Due to the ever increasing pressure over the European social insurance systems, the occupational pensions will play more significant role in the provision of old-age income. Therefore, the occupational pensions have to be developed in addition to the social insurance, in order to ensure reliable, permanent and efficient social insurance, one that will provide for a decent living standard after retirement. In the third pillar, an employer or a citizens association (sponsor) can organize and finance occupational pension schemes and pay the contributions in the voluntary pension funds for their employees or members. A group of employers or citizens associations can organize and finance occupational pension schemes together. Thus, the sponsor signs a contract with the chosen pension company that manages the pension fund in which the occupational scheme of the sponsor shall be included.

The voluntary fully funded pension insurance should have a broad impact on the entire national economy, as the savings of the population will increase, investments will be boosted and they will additionally stimulate and deepen the capital markets, which will lead to an increase in the demand for new instruments and new financial services, etc.

The voluntary fully funded pension insurance became operational in the second half of 2009 and the existing pension companies were granted licenses for management of voluntary pension funds. Therefore, Open Voluntary Pension Fund "NLB penzija plus" Skopje started on July 15, 2009 while KB Prv Open Voluntary Pension Fund – Skopje on December 21, 2009. In June 2018, MAPAS issued the approval for the change of title of the pension fund Open Voluntary Pension Fund "NLB Penzija Plus" Skopje in Open Voluntary Pension Fund "SAVA Penzija Plus" Skopje.

6.2 Membership in the voluntary pension funds

A person may become a member of a voluntary pension fund by:

1) signing a contract for membership in a voluntary pension fund with the Voluntary Pension Company or Joint Pension Company and by opening a voluntary individual account

2) signing a contract for membership in a voluntary pension fund with a third person (payer), who shall pay in the name and on behalf of the person and with the Pension Company and by opening of voluntary individual account

3) participating in an occupational pension scheme organized by his/her employer or association were he/she is a member and by opening an occupational account.

One person can have only one voluntary individual account and one occupational account. These accounts can be in the same or in different voluntary pension funds.

As of 31.12.2018, the third pillar has 24,388 members or 588 members more than on 31.12.2017. This means that the third pillar membership has grown for around 2.5%. Out of the total membership, 9,579 members or 39% have individual accounts and 14,809 members or 61% are participants in occupational schemes and have occupational accounts. On

Figure 6.1 Membership structure per voluntary pension fund and per membership type in SAVAd

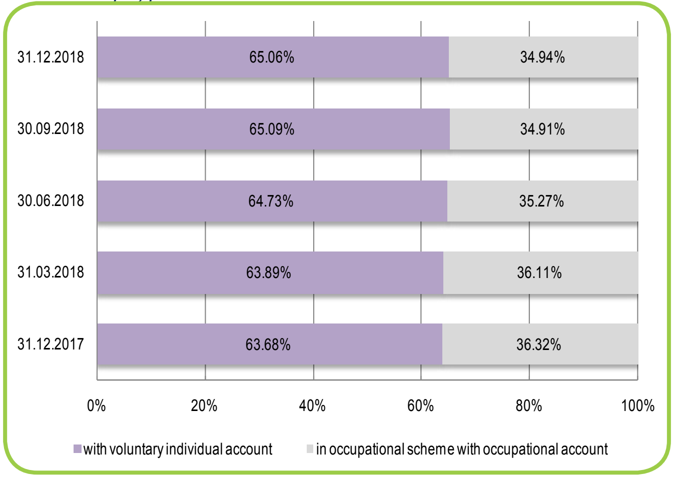
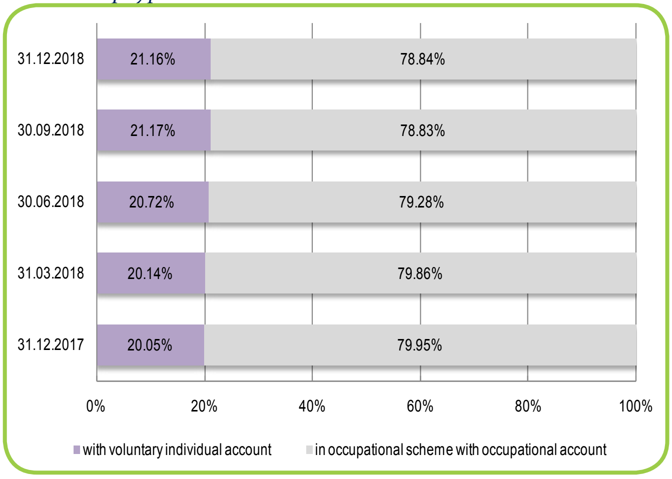


Figure 6.2 Membership structure per voluntary pension fund and per membership type in KBPd



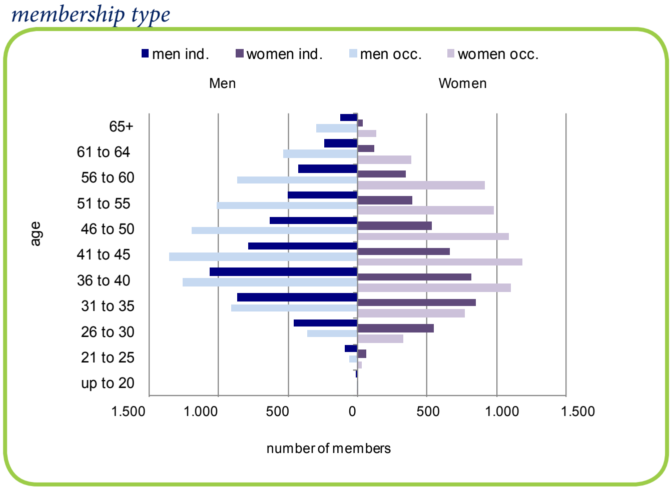
31.12.2018, around 41% are members in SAVAd and 59% are members in KBPd, which is almost the same as the previous year.

Figures 6.1 and 6.2 show the membership structure in the voluntary pension funds per membership type in 2018 on quarterly level. It is evident from the figures that there is a significant difference in both types of membership for both voluntary pension funds. SAVAd has more members with individual accounts (65%), while KBPd has more members with occupational accounts (79%). It is evident that the membership structure in SAVAd has increase for one percentage point compared to 2017, while in KBPd the percentage participation in occupational schemes has decreased for almost one percentage points in respect to 2017.

The third pillar membership structure per age, gender and type is shown on Figure 6.3.

This figure demonstrates that most members are young people (at the age from 36 to 40). Still, compared to the second pillar, the third pillar has more mature members. The members with occupational accounts are older than those with individual accounts. The average age of the members with individual accounts is 43 years for men and 41 years for women; while for the members with occupational accounts the average age is 46 years for men and 45 for women. The average age for all members is 45 years.

Figure 6.3 Third pillar membership structure per age, gender and membership type



From the experience so far, the members with individual account mostly pay their own contributions, while in a very few cases a third party (payer) pays their contributions (out of 9,579 members with individual accounts only 473 members or 5% have a third party as a payer). The third pillar allows membership to persons who are not Macedonian citizens; however this percentage is very small so far (0.02% out of the total number of members).

In SAVAd 3,517 members participate in 1,209 occupational schemes, and in KBPd 11,292 members participate in 2,803 occupational schemes. Some schemes have many members, while other have only 1 or 2 participants. Out of the total number of occupational schemes, 17 of them have over 100 members, three schemes have over 500 members and only one scheme has over 1,000 members. The average number of members per scheme is 4. The allocation of members per occupational scheme per fund is given on the Figure 6.4, which gives individually only schemes of over 100 members, while the rest is given in the category "others".

The structure of the third pillar membership per statistical regions[20] is given on the Figure 6.5.

The majority of members are from the region of Skopje, where KBPd has 6,047 members and SAVAd has 4,422 members. NLBd has least members in the North-eastern region, with 538 members, while KBPd in the South-eastern region with 539 members.

[20] Statistical regions are defined by the State Statistical Office – as territorial units, the nomenclature of the territorial units is based on the territorial organization of the local self-government in the Republic of Macedonia and it is harmonized with the EU classification.

Figure 6.4 Allocation of third pillar members per occupational scheme

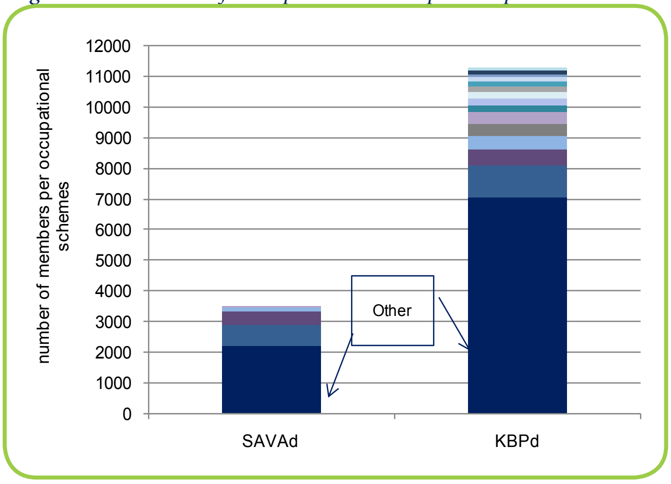
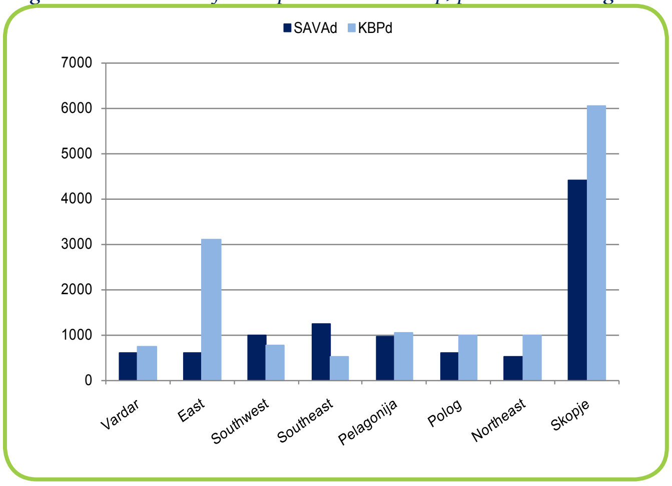


Figure 6.5 Structure of third pillar membership, per statistical regions



6.3 *Members transferring accounts in the same or other voluntary pension fund*

A person has the right to choose a voluntary pension fund and to change it at any time during the membership. If the member has stayed with one voluntary pension fund less than 12 months, he will be required to pay a transfer fee upon transferring to another fund. Otherwise, transfers are free of charge. When a member transfers to another fund, all the assets from his account are transferred as well. When a participant in an occupational scheme changes employers he has the right to transfer the savings from his occupational account to another occupational account or to an individual account, in case the new employer does not have an occupational scheme or does not wish to include the person in his occupational scheme. A participant in an occupational scheme has the right to transfer his assets to an individual account in case he remains unemployed or is not associated with any citizens association.

Table 6.1 gives data in the number of members who transferred to another Voluntary Pension Fund and the amount of transferred assets from one to another Voluntary Pension Fund during 2018. So, in 2017, 19 members transferred from SAVAd to KBPd, and 7 members transferred from KBPd to SAVAd (0.11% of the total membership). Also, in 2018, there were transfers within the same pension fund but from one to another occupational scheme and from occupational to individual accounts.

Table 6.1 Transfer of members from one to another voluntary pension fund

2018	Members who have transferred FROM a voluntary pension fund	Transferred assets FROM a voluntary pension fund (in denars)	Members who have transferred TO a voluntary pension fund	Transferred assets TO a voluntary pension fund (in denars)
SAVAd	19	1,406,149	7	1,232,757
KBPd	7	1,232,757	19	1,406,149

6.4 *Contributions to the voluntary pension funds*

The payment of the voluntary contribution is allowed only for the person that meets the membership requirements per the Law on Voluntary Fully Funded Pension Insurance. So, the members owning voluntary accounts may pay the voluntary contributions on their own, or a payer may do it on their behalf. Only a sponsor may do the payment of the voluntary contribution for a member who has an occupational account. The payments are done from the transaction account of the member and/or from the payer's or sponsor's accounts. The voluntary contribution is paid on a special account of the voluntary pension fund, kept with the custodian, from where the assets are allocated to the individual or to the occupational accounts of the member, depending on the type of membership, and only after the person had met the membership requirements.

The member, the payer and the sponsor are free to determine the amount of the contribution and the dynamics of payments and, the change in the amounts of payment or the termination of payments do not influence the right to a membership in a voluntary pension fund. The amounts of voluntary contributions are set by the sponsor for all participants in the occupational scheme and are set as a percentage from the wages of the occupational scheme members.

During 2018, in the voluntary pension funds were paid 300 million denars, or per months as shown in Table 6.2.

In 2018, more contributions were paid in SAVAd than in KBPd. In respect to 2017, the contributions paid in SAVAd grew for 22%, while for KBPd they increased only for 1%. In both pension funds, a significantly higher percentage of paid contributions in 2018 is made towards occupational accounts (71%).The allocation of payments per type of account, on a monthly basis is presented with the Figure 6.6.

Figure 6.6 Allocation of third pillar payments per type of account

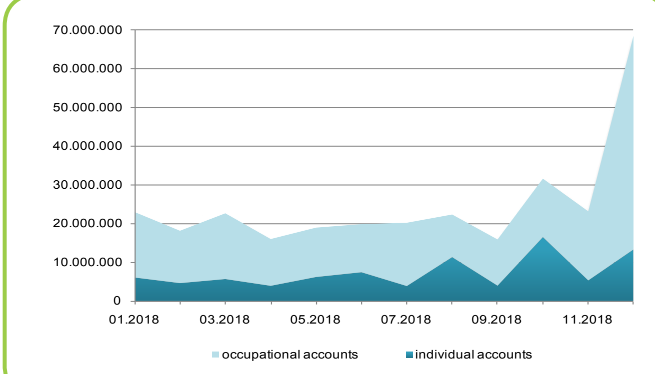


Table 6.2 Contributions in the third pillar per months and per funds *(in million denars)*

	Total 2017	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Total 2018
SAVAd	129.82	11.25	8.92	9.59	8.09	10.57	10.29	9.42	14.86	7.84	23.16	12.08	32.86	158.94
KBPd	139.67	11.71	9.21	13.05	7.90	8.37	9.55	10.78	7.47	8.04	8.43	11.06	35.78	141.35
Total	269.49	22.97	18.13	22.61	15.99	18.94	19.84	20.20	22.33	15.88	31.59	23.14	68.64	300.26

6.5 *Investments and portfolio structure of voluntary pension funds*

The voluntary fully funded pension insurance, just like the mandatory one, is subject to proactive control and, qualitative and quantitative investment limits in their start-up stage. However, the voluntary fully funded pension insurance has more liberal investment rules in respect to the mandatory one.

Besides investment instruments allowed for the mandatory pension fund, the voluntary pension funds are also allowed to invest their assets in debt securities issued by the European Central Bank, European Investment Bank, the World Bank, as well as in debt securities issued by local authorities. In order to obtain certain level of diversification among different

Table 6.3 Maximum investment limits

Type of instrument	Mksimum limit
Investments abroad (EU, OECD)	50%
• bonds and other securities issued by foreign governments and central banks and other debt securities issued by the European Central Bank, European Investment Bank and the World Banks	50%
• debt securities issued by the local-self government, non-state foreign companies or banks, shares issued by foreign companies or banks or participation units, shares and other securities issued by investment funds	30%
Securities issued or guaranteed by RM on the domestic market or NBRM	80%
Bank deposits, deposit certificates, mortgage backed securities, and other securities is-sued by domestic banks	60%
Bonds issued by local self-government and domestic joint stock companies, which are not banks and, commercial notes from domestic joint stock companies, which are not banks	40%
• bonds issued by local-self government	10%
Shares issued by domestic shareholders	30%
Participation units and shares in Macedonian investment funds	5%

types of investment, voluntary pension funds must follow prescribed maximum limits for investing in one company and maximum limits on the amounts that might be invested in certain types of instruments. In order to prevent investing in instruments that might be disadvantageous to voluntary pension funds, the law prohibits investments in shares, bonds and other securities that are not traded on official markets or that are not publicly traded, instruments that are not legally disposable, instruments that cannot be assessed, most types of property that cannot be immediately assessed and other items with uncertain values. The maximum investment limits are shown in Table 6.3

Figures 6.7 and 6.8 present the structure of voluntary pension funds investments from the beginning of the system.

Figure 6.9 presents the structure of investments of the voluntary pension funds, as of 31.12.2018, which is not very different from the voluntary pension funds' investments in 2017. In 2018, the participation of bonds from domestic issuers is almost the same in respect to 2016 and it is 47.05%. The participation of investments abroad is 26.85% (20.66% in units of investment funds and 6.20% in shares and 0.63% in bonds). The participation of deposits in domestic banks remains almost the same at 14.53%, followed by shares from domestic issuers 8.15%,. In 2018, 0.77% of the voluntary pension finds' assets were invested in participation units of investment funds from domestic issuers. The rest of the assets of these pension funds are cash 2.63% and receivables 0.02%.

In 2018, both pension funds complied with the maximum investment limits. Figure 6.10 presents the percentage participation in the portfolio per classes of assets for SAVAd and KBPd and the statutory limits as of 31.12.2018.

Figure 6.7 Structure of voluntary pension fund investments - NLBd

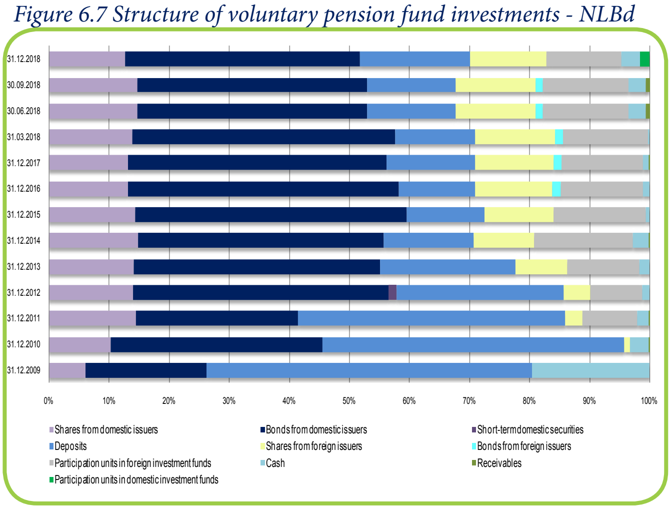


Figure 6.8 Structure of voluntary pension fund investments - KBPd

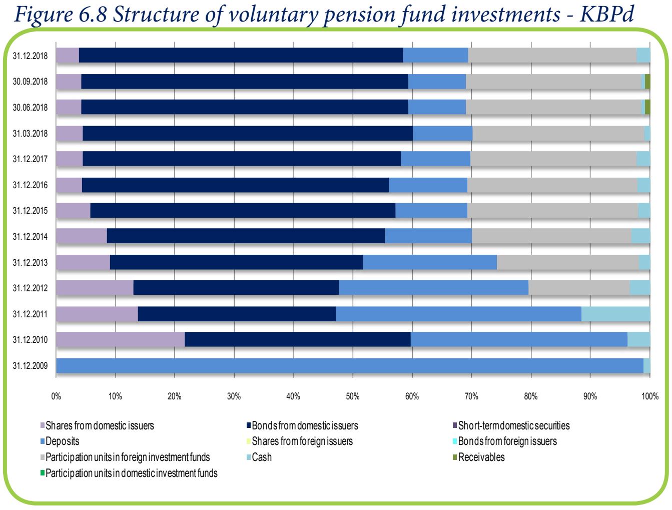
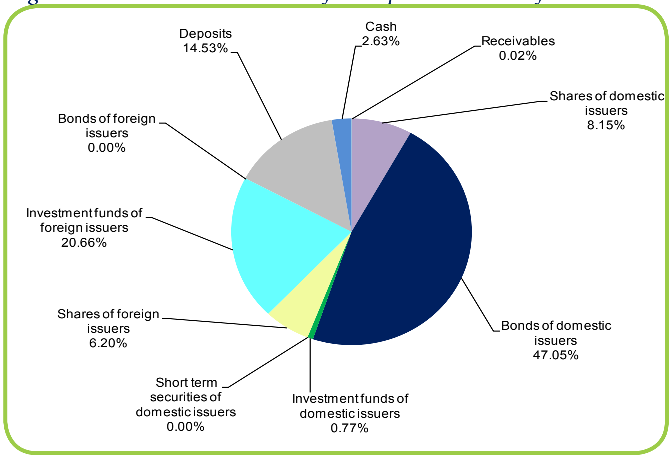


Figure 6.9 Investments structure of third pillar assets as of 31.12.2018



Voluntary pension funds have a slightly higher exposure to domestic shares (8.15%) than the mandatory pension funds. In 2018, MBI10 had a rise for around 36.64% , while the average value of the accounting unit of the voluntary pension funds in 2018 grew for 1.87% in respect to 2017.

Compared to the mandatory pension funds, the voluntary ones are more exposed to domestic bonds traded on the Macedonian Stock Exchange (6.39% of the total assets of the voluntary pension funds). The reminder of the portfolio invested in domestic bonds is continuous domestic bonds. In 2018, OMB, had an increase of 2.13%, while the average value of the accounting unit of the voluntary pension funds[21] grew for 1.87% in respect to 2016.

The next Figure shows the comparison in the changes of the value of MBI10, OMB and the average value of the accounting unit of the voluntary pension funds in 2018.

In 2018, the assets of the voluntary pension funds were mostly invested in state securities, which were from domestic issuers (SAVAd 39.15% and KBPd 54.53%). This is followed by the instruments from issuers/shareholders in the financial sector (36.59% for SAVAd and 39.62% for KBPd). Within the financial sector, for SAVAd the highest participation have the bank deposits in domestic banks (59%) and the participation units of domestic and foreign investment funds (38%), less participation have the investments in financial services (7%) and shares of domestic and foreign banks (5%). For KBPd the highest participation have those of units of foreign investment funds (72%), followed by domestic bank deposits (28%), and a very small participation of shares in domestic banks (0.5%). Voluntary pension funds invest in other sectors, such as: basic goods, pharmacy, consumer goods, industry, IT, communication services and energy, however with much smaller participation (from 0.65% to 4.96%).

The structure of investments of the voluntary pension funds per sectors is given in Figures 6.12 and 6.13.

According the currency structure of voluntary pension funds assets, shown on Figures 6.14 and 6.15, we can conclude that there are not any significant changes in respect

Figure 6.10 Classes of assets in the portfolios of the voluntary pension funds compared to the statutory limits

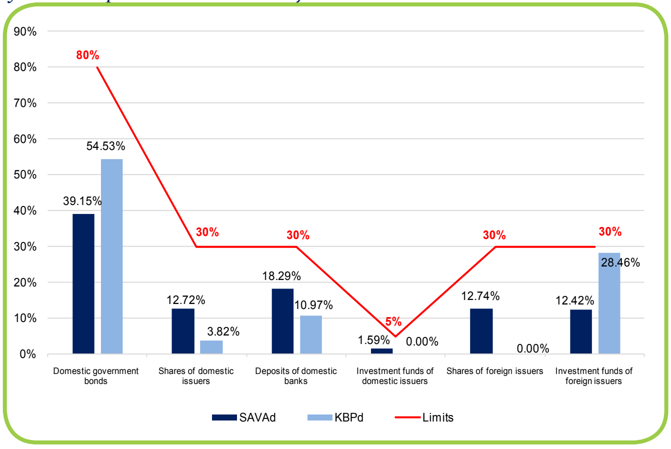
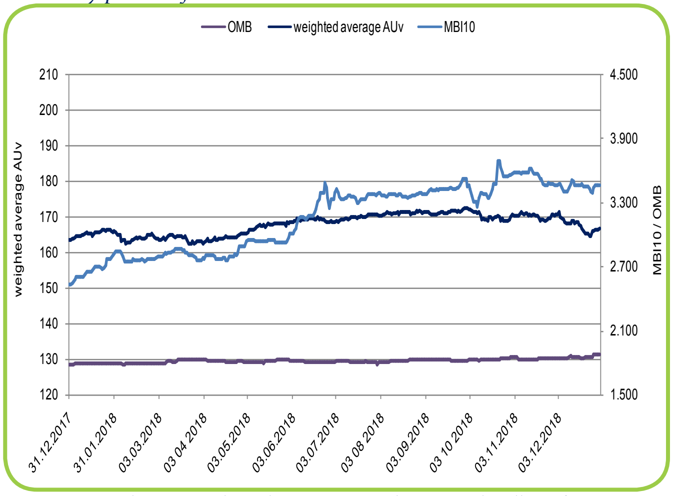


Figure 6.11 MBI10, OMB and average value of the accounting unit of voluntary pension funds



Source: Macedonian Stock Exchange – Annual Statistical Bulletin for 2018

to the previous year. Namely, the majority of assets of both voluntary pension funds are invested in instruments in Euro (46.62% for SAVAd and 46.63% for KBPd). This is followed by investments in domestic currency (SAVAd 35.68% and KBPd 27.19%). Next in line are the investments in US dollars (16.68% for SAVAd and 26.18 for KBPd). In the currency structure of SAVAd a very small part includes investments in Swiss Francs (1.02%).

The Macedonian investment portfolios of the voluntary pension funds have many similarities but they also have differences with similar pension systems abroad. Figure 6.16 compares investments of voluntary pension funds assets in Macedonia as of 31.12.2018, with the investments of such assets in other countries in the region, which have implemented the voluntary fully funded pension insurance. It is evident that the investment structure of the voluntary

[21] *Average value is calculated as a weighted average of the accounting units of the voluntary pension funds in respect to the net assets of the voluntary pension funds*

Figure 6.12 Investment structure per sectors for SAVAd

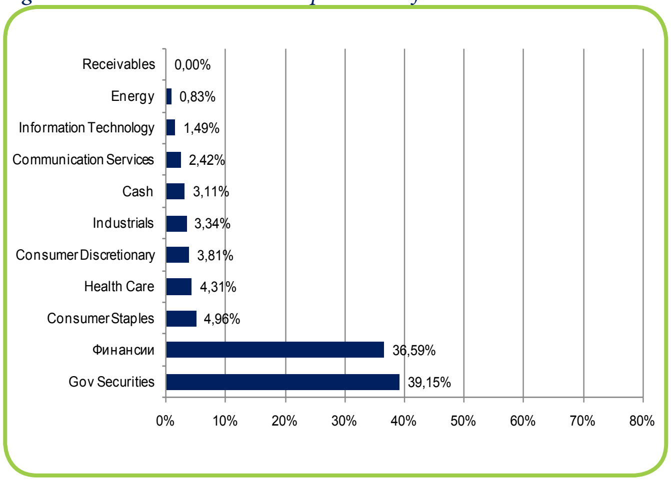


Figure 6.13 Investment structure per sectors for KBPd

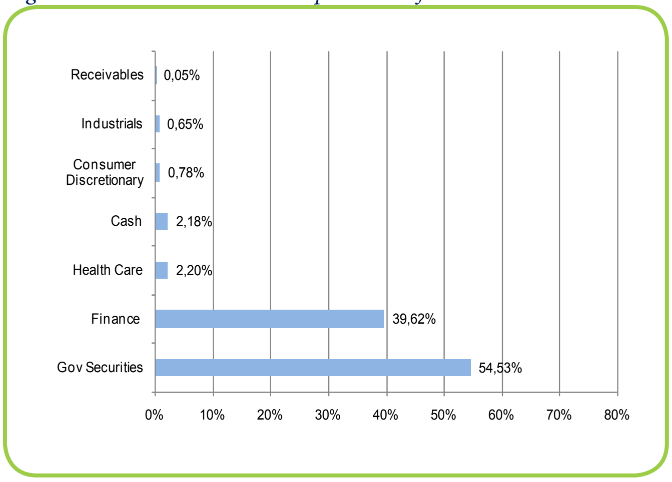


Figure 6.14 Currency structure for SAVAd

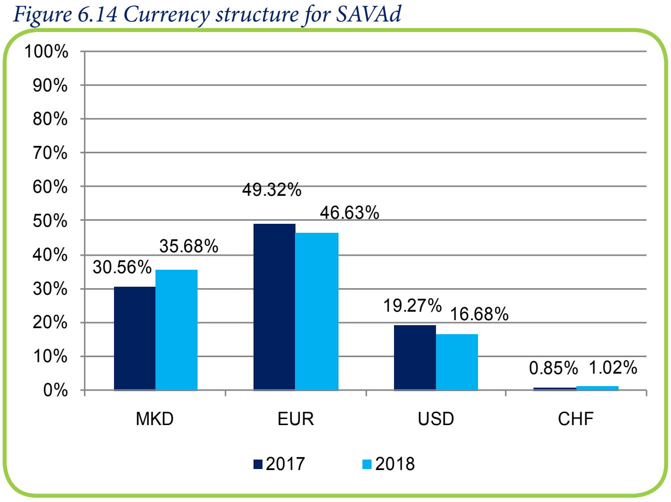
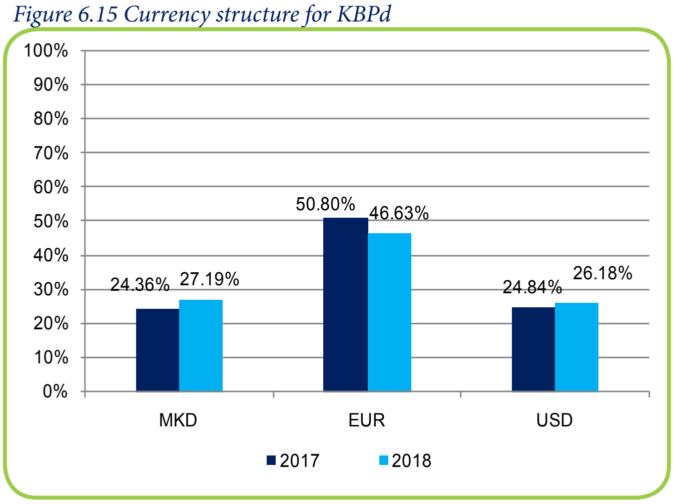


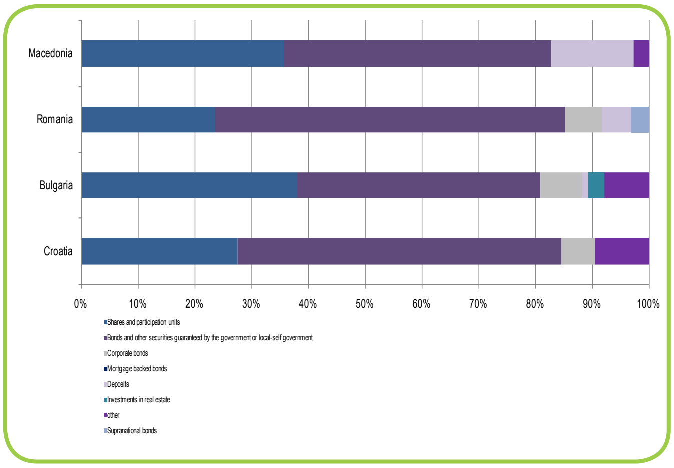
Figure 6.15 Currency structure for KBPd



pension funds in 2018 in the analysed countries is not very different from the one in 2017.

It is obvious from the portfolios of most countries that the largest exposure is in government bonds and other securities guaranteed by the state or the local self-government (in Romania 62%, Croatia 57%, and Bulgaria 43%). In Macedonia, the exposure to such instruments is 47%, while the exposure to bank deposits is 15%. Unlike Macedonia, the exposure to bank deposits in the other countries is lower: Romania (5%), Bulgaria (1%) while Croatian pension funds do not invest in deposits. When it comes to shares and participation units, Bulgaria has the highest percentage (38%), followed by Macedonia, (36%), Croatia (28%) and Romania (24%). It can be observed that most countries invest in corporate bonds (Bulgaria 7%, Romania 6% and Croatia 6%), except for Macedonia where such instruments lack on the market. Only the pension funds in Bulgaria invest in real estate (3%), while in other countries this instrument is generally prohibited. Regarding investments abroad[22], Macedonia has the highest exposure of 27%, followed by pension funds in Romania with 12% and Croatia with 11%.

Figure 6.16 Voluntary pension funds portfolios in Macedonia and other countries



Sources: www.hanfa.hr; www.fsc.bg; www.asfromania.ro and own estimates

[22]The data on investments abroad for Bulgaria as of 31.12.2018 was not available at the time of the Report.

6.6 *Net assets, accounting unit and rate of return of the voluntary pension funds*

The calculations of the net assets, the accounting unit and the rate of return for the voluntary pension funds are the same as the mandatory pension funds.

The assets of the voluntary pension fund might change throughout the year for the following reasons:

- inflow of contributions;

- outflows due to fees and transaction commissions;

- inflows from personal tax returns;

- inflows as a result of transfers from another pension fund (for persons who were members in another pension fund and have transferred to the current pension fund);

- outflows due to transfers to another pension fund (for persons who were members in the current pension fund and have transferred to another pension fund);

- outflows due to payment of inheritance

- outflows due to payouts of old age pension benefits (lump sum and multiple payments);

- (un) realized incomes or losses from investments.

The value of the net assets at the end of the year is derived from the net assets at the end of the previous year and all the changes as mentioned above. This is demonstrated in Table 6.4:

On 31.12.2018, the total net assets of the voluntary pension funds were approximately 1.6 billion denars or 25 million Euros, or 0.24% of the GDP[23].

Table 6.4 Changes in the voluntary pension funds assets (in million denars)

	SAVAd	KBPd
Net assets as of 31.12.2017	602.23	694.24
Contributions	158.94	141.35
Fees from contributions	4.02	3.66
Contributions reduced for fees from contributions	154.91	137.69
Payments on individual accounts from personal tax returns	1.31	1.13
Returns of erred contributions	8.15	6.78
Expenditures for intermediary commissions	0.20	0.05
Transfers from another fund	1.23	1.41
Transfers to another fund	1.41	1.23
Inheritance payout	0.14	3.16
Payout of old-age pension benefits – lump sum/ multiple payments	22.29	34.34
Gross profit from investments	27.88	8.85
Net profit from investments	19.53	2.01
Net assets as of 31.12.2018	755.38	797.74

Figures 6.17 and 6.18 demonstrate net assets at the end of each year as well as their annual increase in percentage in respect to the previous year. It is evident that the net assets of both mandatory funds grow with almost the same pace. The biggest growth is marked in 2011 in respect to 2010.

Figure 6.17 Annual growth of the net assets of NLBd in respect to previous year, in %

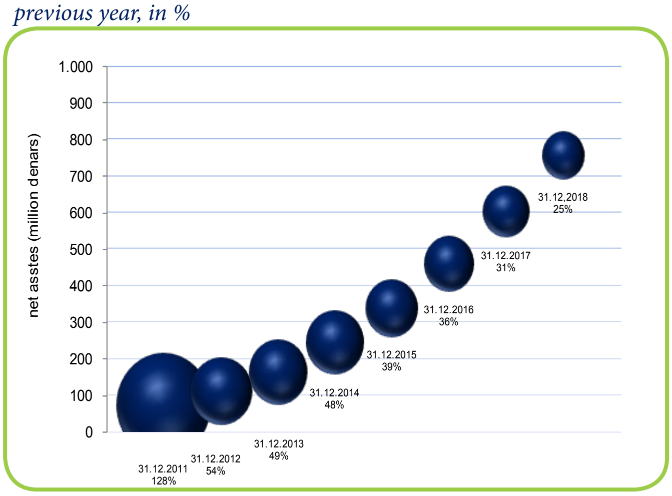
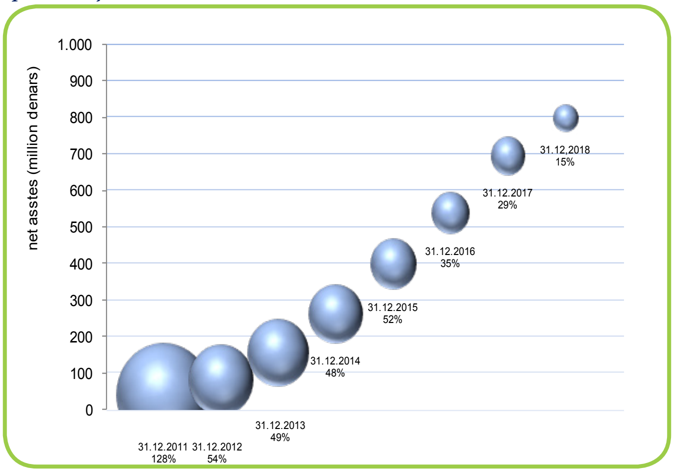


Figure 6.18 Annual growth of the net assets of KBPd in respect to previous year, in %



[23] *Source for GDP: State Statistical Office – announcement on the GDP fourth quarter of 2018- estimated data*

Figure 6.19 Net asset growth compared to the growth of paid contributions in SAVAd

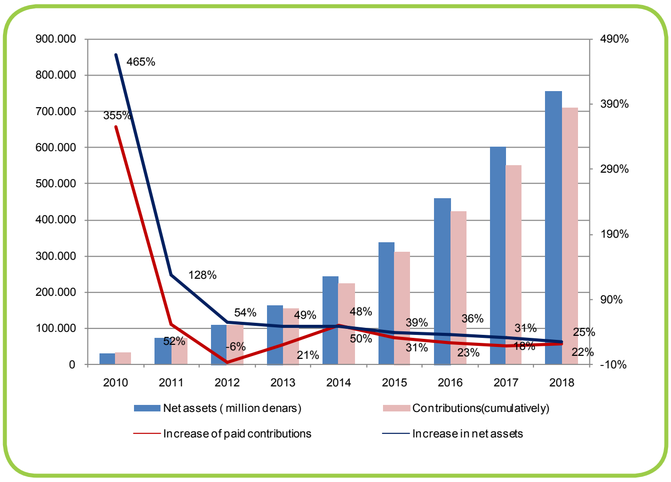


Figure 6.20 Net asset growth compared to the growth of paid contributions in KBPd

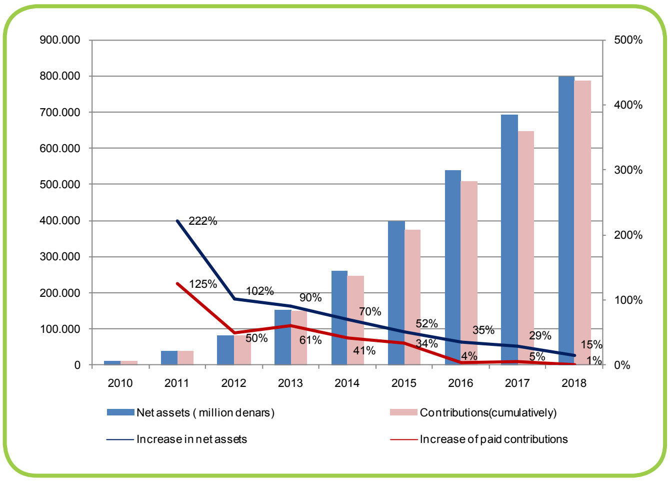


Table 6.5. The value of the accounting unit of the voluntary pension funds from the beginning of the system

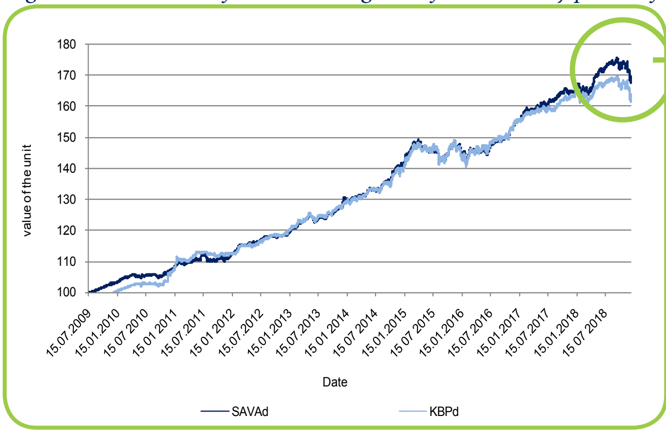
Date	Value of the accounting unit	
	SAVAd	KBPd
15.09.2009	100.000000	
21.12.2009	102.815757	100.000000
31.12.2009	103.061825	100.204385
31.12.2010	107.592926	106.891617
31.12.2011	111.854726	112.639593
31.12.2012	118.742851	119.129537
31.12.2013	130.511147	129.015451
31.12.2014	140.946772	139.908803
31.12.2015	147.535595	146.709341
31.12.2016	154.578083	154.465341
31.12.2017	164.155073	162.989756
31.03.2018	164.597733	162.237620
30.06.2018	171.076024	166.466419
30.09.2018	175.548053	169.659093
31.12.2018	169.649887	163.696595

Figures 6.19 and 6.20 demonstrate the changes in the value of the net assets and the cumulative contributions, accompanied by the growth of paid contributions growth of the net assets in SAVAd and KBPd.

In the initial period of operations (2009 – 2011), SAVAd had a huge growth of net assets and paid contributions. In 2012, compared to 2011, the growth of the net assets was 54%, while the paid contributions had a fall of 6%. In the six five years the growth of the net assets of SAVAd has decreased gradually from 49% to 25% in 2018, compared to 2017. While the paid in contributions in 2014 have higher increase, of 50% in the following years, and the growth of the paid contributions has decreased gradually until 2017. In 2018, compared to 2017 the growth of the paid contribution increased again, to 22%.

For KBPd as well, the initial period (2010-2012) is marked by significant growth of the net assets and paid contributions. In 2013, compared to 2012, the growth of net assets was 90%, while the growth of the paid contributions was 61%. In the following years the growth of the net assets and paid contributions slowly decreased. In 2018 compared to 2017, the net assets of KBPd grew for 15%, while the paid contributions for 1%.

Figure 6.21 The value of the accounting unit of the voluntary pension funds from the beginning of the system



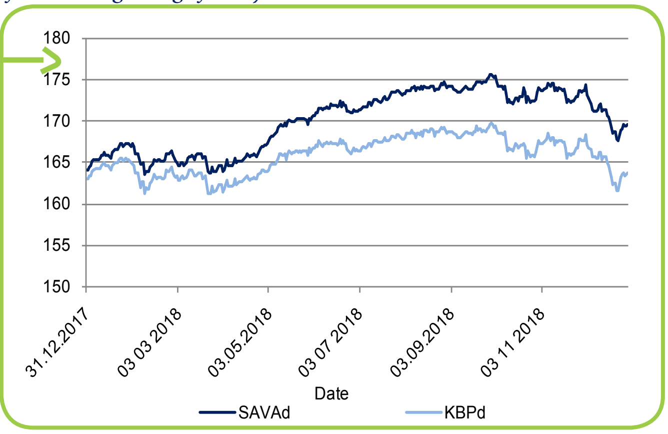


Table 6.6. Returns of voluntary pension funds

Period*	SAVAd		KBPd	
	In nominal value	In real value	In nominal value	In real value
31.12.2009 - 31.12.2010	4.40%		6.67%	
31.12.2009 – 31.12.2011	4.18%		6.02%	
31.12.2009 - 31.12.2012	4.83%		5.93%	
31.12.2009 – 31.12.2013	6.08%	3.00%	6.52%	3.42%
31.12.2009 – 31.12.2014	6.46%	4.09%	6.90%	4.52%
31.12.2009 - 31.12.2015	6.16%	4.25%	6.56%	4.64%
31.12.2009 - 31.12.2016	5.96%	4.36%	6.37%	4.77%
31.12.2010 - 31.12.2017	6.08%	4.65%	6.46%	5.01%
31.03.2011-31.03.2018	5.98%	5.04%	5.67%	4.73%
30.06.2011-30.06.2018	6.22%	5.02%	5.71%	4.51%
30.09.2011-30.09.2018	6.88%	5.53%	6.11%	4.77%
31.12.2010-31.12.2018	6.13%	4.91%	5.48%	4.27%
Start** -31.12.2018	5.75%	4.17%	5.60%	3.99%

** Until the amendments to the Law on voluntary, fully funded pension insurance in 2013, the return was calculated for a period of 3 years, only in nominal value.*
*** The start is on 15.7.2009 for SAVAd and on 21.12.2009 for KBPd.*

The changes in the value of the accounting units of the voluntary pension funds, from the beginning of the system until 31.12.2018 are given in Table 6.5 and Figure 6.21. As shown on the Figure, the accounting units have a growing trend. In 2018, the accounting unit was growing and this growth was particularly obvious by the end of the year for both pension funds. It can be noticed that there is slower growth of the accounting units in 2018 compared to 2017. Just like the mandatory pension funds, the voluntary ones also have a decreased growth as a consequence of the volatility of prices on the financial markets during 2018, easing down by the end of 2018.

Table 6.6 presents the annual return of the voluntary pension funds, per periods.

The return on the individual account and/or occupational account is variable and it depends on the return of the

Figure 6.22. Voluntary pension funds returns (in nominal value)

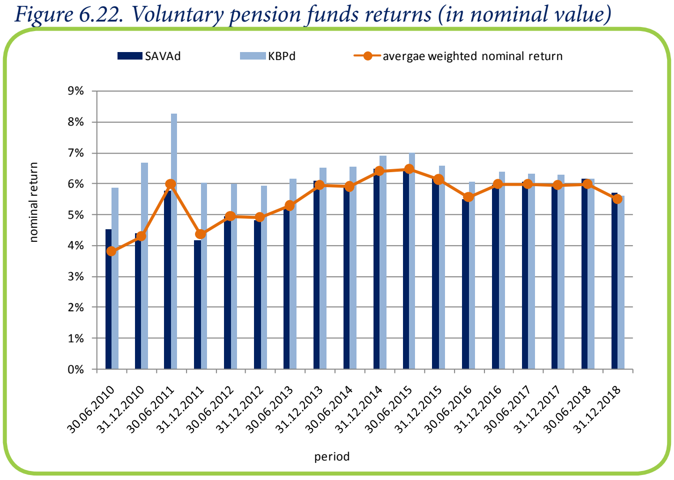
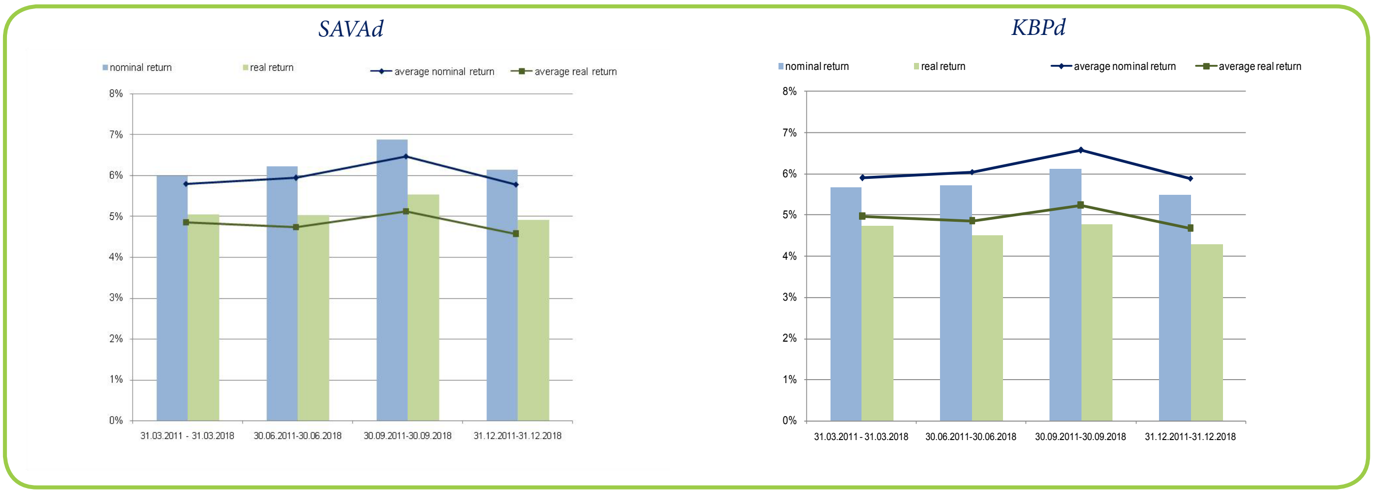


Figure 6.23. Returns in nominal and real values for the voluntary pensions funds in 2018



voluntary pension fund and the fees charged by the pension company. The return or the yield is a parameter, which cannot be predicted realistically because it depends on the conditions on the capital markets and the economy as a whole.

The return of the voluntary pension funds is calculated in the same way as the one of the mandatory pension funds.

Considering the long-term nature of the pension insurance, the return of the voluntary pension funds should be calculated from the beginning of their existence, and presented annually. So, for SAVAd the return is 5.75% in nominal value and 4.17% in real value, while for KBPd it is 5.60% in nominal value and 3.99% in real value.

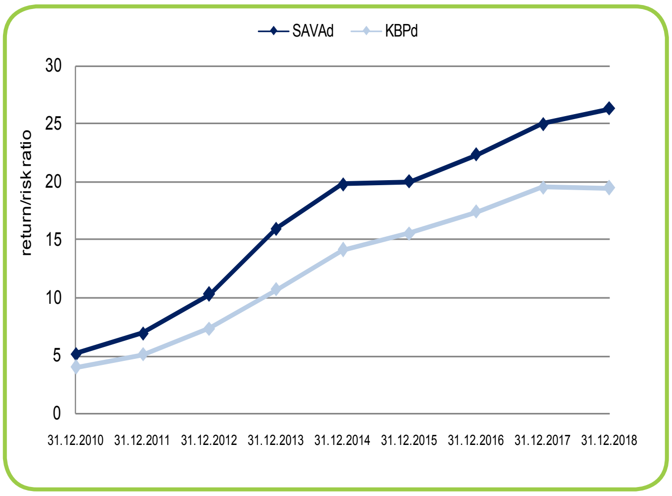
Figure 6.22 shows the changes in the nominal return in the last seven years, giving the returns per periods from 31.12.2009 until 31.12.2018, per funds and the average weighted return. At the beginning, the return is growing, so, at the end of the first half of 2011, both funds have high returns, while at the end of 2011, the returns start to fall. Then, in the following years, the returns start to pick up gradually by mid 2015, and then to drop again by mid 2016, until the end of 2016. The return in 2018 has decreased compared to the end of 2017.

The changes in the nominal and in real values of the return for 2018, per periods, and presented annually per voluntary pension fund and compared to the average return and are given on the Figure 6.23. In 2018, the nominal returns for both pension funds was between 5.48% and 6.88%, while the real return was from 4.27% to 5.53%. The lowest value of the returns is noticed for the period 31.09.2011 – 30.09.2018.

The main goal of investing the assets of the voluntary pension funds is to cause growth of such assets. So, the return is the measure of growth. At the same time, one should consider the risk from investments. The risk represents the inability to predict what kind of return the invested assets would earn. The risk to return ratio is a direct ratio, which means that higher risk brings higher return and vice versa. The nominal return to risk[24] ratio (calculated by one of the possible calculation methods) from the end of 2011 until the end of 2018 is shown on Figure 6.24.

Higher return to risk ratio is an indicator of the better investment performance of the fund and the potentials of the fund for higher returns per risk unit.

Figure 6.24. Return to risk ratio



[24]The return is calculated on annual level from the growth of the accounting unit and from the beginning of the system. The risk represents the volatility of the accounting unit and it is calculated as annualized standard deviation of the pension funds 'return.

6.7 *Voluntary pension fund fees*

According to the Law, voluntary pension companies charge three types of fees: fee from contributions, fee from assets and fees for transfers. They use these fees to cover the following functions: manage the voluntary pension funds assets, valuation of assets, membership, keeping of voluntary individual and occupational accounts, reporting to members, payment of fees to MAPAS and the custodian and covering of own expenses.

The fee from contributions is charged upon payment of contributions before it is converted into accounting units. Generally, this fee is charged in the same percentage from all members of the voluntary pension fund. However, there are exceptions for those members who are part of occupational schemes or in cases of multi-year membership. The monthly fee from assets is a percentage from the value of the net assets in the voluntary pension fund and it is calculated on each valuation day of the voluntary pension fund's assets (in accordance with the secondary regulation each day is a valuation day) and it is charged once a month. The transfer fee is charged in cases of transfers of members from one to another pension fund, provided that those members have been part of the current pension fund less than a year.

Table 6.7 Fees charged by the pension companies that manage voluntary pension funds

Type of fee	SAVA	KBP
Fee from contributions*	2.90%[25]	2.90%[26]
Monthly fee from the net assets of the voluntary pension fund	0.100%[27]	0.075%[28]
Fee from transfers		
Number of days**	Transfer fee	Transfer fee
Number of days ≤ 360	10 euro	10 euro
Number of days> 360	Free of charge	Free of charge

** For members in occupational schemes the pension company may set fees lower that this fee .*
*** The number of days is calculated based on the number of days passed from the date the member became a member in the current pension fund until the date of transfer of assets on the voluntary individual account or occupational account of the member in the future pension fund.*

Table 6.8. Amount of fees charged by pension companies in the third pillar

Pension Company	Amount	Date of application
SAVA	5.25%	From the beginning f operations of the fund (15 July 2009)
	3.80%	From 1 March 2011
	2.90%	From 1 January 2017
KB Prvo	5.50%	From the beginning f operations of the fund (21 December 2009)
	4.00%	From 24 April 2010
	2.90%	From 1 June 2013

The Law stipulates the maximum amounts and the pension companies have the freedom to determine the amounts they will charge within the given statutory maximum amount.

Table 6.7 presents the fees charged by the pension companies that manage the voluntary pension funds for 2018.

The amount of fees from contributions, charged from the beginning of the third pillar as of 2018, are given in Table 6.8

From the beginning of operations of the voluntary pension funds, they have decreased the fee from contributions twice. The fee from assets was 0.15% at the beginning, as a monthly percentage of the net assets of the voluntary pension fund. Also, in 2011 both companies reduced the asset management fee which now is 0.100% for SAVA and 0.075% for KBP.

Table 6.9 gives the fees charged by the pension companies managing the voluntary pension funds (in thousand denars), for 2018, per month and per type of fee.

Transaction fees for acquisition or transfer of assets to a voluntary pension fund are charged from the pension fund and paid to selected legal entities, which render services with securities. These fees are calculated as a percentage from the value of each transaction. The pension fund is also charged for each transaction on the Macedonian Stock Exchange, by the Macedonian Stock Exchange and the Central Securities Depository. In 2018, SAVAd paid 0.20 million denars in transaction fees, and KBPd paid 0.05 million denars in transaction fees.

[25] *From January 1, 2017 (previously it was 3.5%)*
[26] *From June 1, 2013 (previously it was 4.00%)*
[17] *From March 1, 2011 (previously it was 0.15%)*
[28] *From January 1, 2011 (previously it was0.15%)*

Table 6.9 Fees charged by pension companies for 2016 (in thousand denars)

	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
SAVA – total	890	840	859	833	927	943	921	1.105	914	1.349	1.039	1.554	12.173
From contributions	277	221	233	198	267	267	233	398	199	622	298	810	4.023
From assets	613	619	626	635	660	676	688	707	715	727	741	743	8.151
KB Prvo – total	819	770	883	755	776	816	841	787	797	816	879	1.508	10.447
From contributions	289	238	345	211	220	248	267	203	209	228	287	919	3.664
From assets	530	532	538	544	556	567	574	584	589	588	592	589	6.782

6.8 *Payout of pension benefits from the voluntary pension insurance*

The third pillar is more liberal than the second pillar in terms of entitlements to pension benefits and their payouts. Nevertheless, the third pillar savings are old-age savings. Therefore, the assets on the accounts may be withdrawn not sooner than ten years before the statutory retirement age, as per the Law on Pension and Disability Insurance. At this moment, this means that the assets may be withdrawn at 54 years of age for men and at 52 for women. In addition, when the Commission for Assessment of the Working Capacity in the Pension and Disability Insurance Fund of Macedonia assess a member to be generally incapacitated to further his career, that member, regardless of the age, is entitled to withdraw the assets. In case of death of a voluntary pension fund member, the assets on the member's account shall form part of his/her estate and will be managed in accordance with the Law on Inheritance.

A third pillar member may chose from the following types of benefit payout:

- lump sum payment or payments in several instalments;

- pension annuity in a form of a life-time annuity paid from an authorized insurance company;

- programmed withdrawals provided by the pension company that manages the voluntary pension fund where the insured person is a member on the day of retirement; or

- a combination of the above mentioned methods.

The provision and payout of pensions and pension benefits from the second and the third pillar is regulated with the Law for Payment on Pensions and Pension Benefits from Fully Funded Pension Insurance.

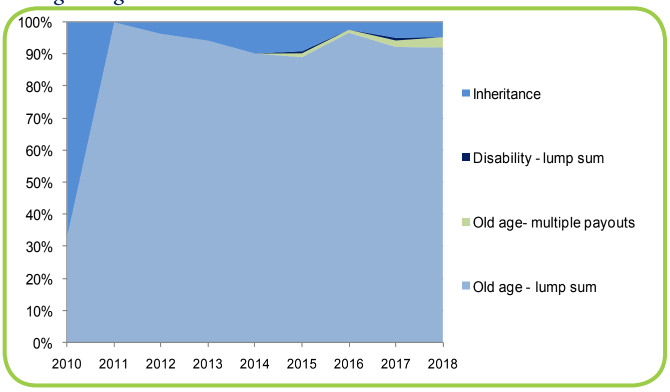
In 2018, the third pillar paid out 281 pension benefits. Most of the pension benefit payouts are old-age benefits, mostly paid as lump sums, and small number of members had their benefits paid as multiple payouts. Small part of the payouts of the third pillar was made for cases of death of a member, by payouts of inheritance. Table 6.10 gives the details on the third pillar payouts in 2018, per voluntary pension fund and per type of account.

Figure 6.25 shows the structure of the pension benefits and payouts for the members of the third pillar from the beginning of the voluntary pension insurance, per years, until 2018. The number of payouts is small, because the system I still very young and the members are relatively young people. Most of the payouts are lump-sum for old-age, followed by payouts in case of death of a family member, as payout of inheritance, there are a very small number of payouts for disability and multiple payouts for old-age.

Table 6.10. Pension benefit entitlements and payouts from the third pillar

Type of pension benefit and payout / voluntary pension fund	SAVAd		KBPd		Total
	Ind. account	Occ. account	Ind. account	Occ. account	
Old age – lump sum	36	50	32	141	259
Old age – multiple payouts	2	2	1	4	9
Disability – lump sum	0	0	0	0	0
Inheritance	0	2	0	11	13
Total	38	54	33	156	281

Figure 6.25. Structure of pensions and payouts from the third pillar from its beginning



7

Marketing and Sales Agents of Pension Companies

The protection of the interests of current, future and retired members of the fully funded pension insurance is a primary concern of all the system's stakeholders. In that light, the provision of fair and objective information to the public is essential.

The marketing of the pension companies entails all activities for advertising of the mandatory and voluntary pension companies and pension funds, information and signing of membership contracts with the mandatory and voluntary pension funds and payout of assets from such pension funds. These activities include more specifically: advertising for the pension companies' operations and pension funds under their management; disseminating information on the characteristics of the mandatory and voluntary fully funded pension insurances; disseminating information on the fees and transactions commissions; disseminating information on the mandatory and voluntary pension funds returns; giving information on the mandatory and voluntary pension funds' investments portfolios; providing information on the individual accounts, voluntary individual accounts and occupational accounts; enrolment and transfer of members from one to another mandatory pension fund; enrolment and transfers of members from one to another voluntary pension fund; signing of contracts for programmed withdrawals, lump sum payouts and payouts in instalments, as well as other activities for advertising and provision of information related to the pension companies and the pension funds. A pension company may perform marketing activities of pension funds in its premises, in the premises of its marketing associates, directly or via appropriate forms of communication (telephone, fax, Internet). The premises where such marketing activities take place must meet certain conditions prescribed by law.

MAPAS controls all marketing activities of the pension companies. For that purpose, the pension companies must submit all marketing materials to MAPAS in photocopy, or on appropriate medium, not later than three days after such material has been published. In case MAPAS finds some marketing materials or advertisements to be misleading, it can prohibit their further publication or distribution and it may request alterations to the material in a given deadline.

A sales agent is any person who performs marketing activities on behalf of a pension company. Sales agent may be an employee of the pension company or another person otherwise engaged by the pension company. Such sales agent may perform marketing activities for the pension fund and/or sign membership or payout agreements but only for those pension funds that are managed by the pension company on which behalf the sales agent is acting. A sales agent must be present upon the signing of the agreements for membership, transfer, programmed withdrawals, lump sum payouts, or payouts in instalments. Also, the sales agent is obligated to make personal contacts with members, retired members, potential members and he must not subcontract the signing of the agreement to another person. The sale agent plays an important role in the selection of the type of pension benefit payout, therefore he is obligated to present the options to the member who submitted a quotation request and must explain in detail all characteristics and assumptions for all types of payouts.

A person can perform marketing activities after he is registered in the Sales Agent Register kept by MAPAS. MAPAS prescribes the sales agent exam's methodology and procedure as well as the registration in the Sales Agents Register.

In 2018 there were two examination sessions, with 131 candidates, out of which 71 (53%) passed the Sales Agent Exam.

In 2018, 11 agents got registered out of which SAVA registered 5 sales agents and KP Prvo 6. Then, 361 renewed their annual registration, out of which 226 sales agents for SAVA and 135 for KB Prvo. In 2018, 8 agents had terminated their status as sales agents, out of which 2 were agents of SAVA and 6 of KBP. Figure demonstrates the number and average values of registered, renewed and terminated statuses of sales agents from 2015 until 2018, per Pension Company.

Figure 7.2 demonstrates the number of signed contracts for the mandatory pension funds since the beginning of the system. From this Figure it can be concluded that most of the contracts were signed in 2005, considering that then the system started and the deadline for voluntary pension members was 31.12.2005 to join the second pillar. In the following years the number of agents that sign contracts has been decreasing continuously until 2011. Then, in 2013 and 2014 it can be observed that the average number of singed contracts per agent has decreased. In the years that follow, the number of sales agents who signed membership contracts the average number of signed contracts per sales agent remained almost at the same level.

Figure 7.1. Number of agents that signed membership contracts for mandatory pension funds and average number of contracts per agent.

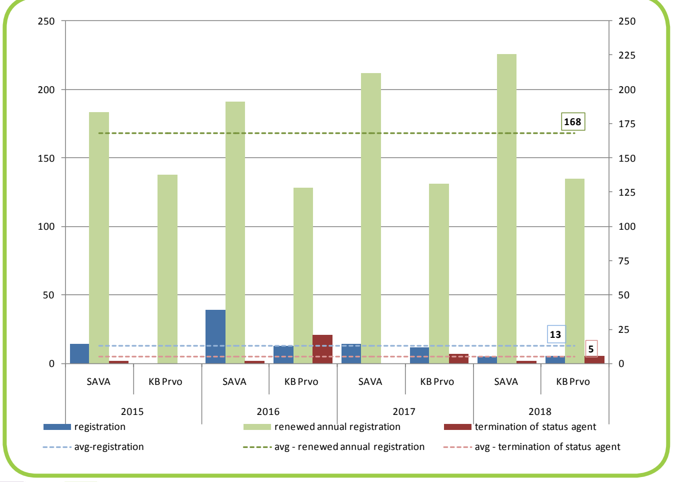


Figure 7.2. Number of agents that signed membership contracts for voluntary pension funds and average number of contracts per agent