2019

REPORT

On the developments in the fully funded pension insurance

Agency for Supervision of Fully Funded Pension Insurance

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

REPORT

On the developments in the fully funded pension insurance in 2019

Skopje, June 2020

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Abbreviations

GDP	gross domestic product
Second pillar	Mandatory Fully Funded Pension Insurance
VPF	voluntary pension funds
SSO	State Statistical Office
EU	European Union
MPF	mandatory pension funds
IOPS	International Organisation of Pension Supervisors
KB Prvo	KB First company for mandatory and voluntary pension funds management AD Skopje
KBPd	KB First Open Voluntary Pension Fund - Skopje
KBPz	KB First Open Mandatory Pension Fund - Skopje
MAPAS	Agency for Supervision of Fully Funded Pension Insurance
NBRNM	National Bank of the Republic of North Macedonia
OECD	Organisation for Economic Co-operation and Development
First pillar	Mandatory pension and disability insurance based on generational solidarity
SAVA	Mandatory and Voluntary Pension Funds Management Company Sava Pension Company AD Skopje
SAVAd	Open Voluntary Pension Fund Sava penzija plus
SAVAz	Open Mandatory Pension Fund Sava penziski fond
Third pillar	Voluntary fully funded pension insurance
TRIGLAV	Mandatory and Voluntary Pension Funds Management Company TRIGLAV pension company AD Skopje
TRIGLAVz	Triglav Open Mandatory Pension Fund- Skopje
PRO	Public Revenue Office
PDIFNM	Pension and Disability Insurance Fund of North Macedonia

Foreword

Dear reader,

You are reading the 2019 Report on the developments in the fully funded pension insurance of the Agency for Supervision of Fully Funded Pension Insurance - MAPAS. The Report contains a description of the characteristics of fully funded pension insurance, data on fully funded pension insurance, assessment of the implementation of regulations in the field of fully funded pension insurance and other data pertaining to this insurance inclusive of 2019. Providing continuous functioning, development and promotion of the second and third pillar, transparency and efficient supervision of the second largest segment in the financial sector in the Republic of North Macedonia we can emphasize that 2019 was an extremely important year in the operation of fully funded pension insurance.

The year 2019 marked the implementation of the adopted amendments to the Law on Mandatory Fully Funded Pension Insurance regarding the change of the criterion for access to mandatory fully funded pension insurance, as well as the definition of criteria for termination of membership of certain categories of members. Also, the amendments to the Law were followed by amendments to many bylaws and guidelines aimed at improving and specifying or simplifying certain procedures. We expect the implemented amendments to the regulations this year to further contribute to ensuring long-term stability of the pension system and security in the exercise of pension insurance rights in RNM.

Furthermore, in April 2019, following the issuance of a license by MAPAS, a third pension company started operating in RNM, TRIGLAV Pension Company AD Skopje. The operations of the third pension company are expected to encourage competition in the field of fully funded pension insurance, increase the choice available to members and citizens, and at the same time encourage better investment results within a transparent and effective pension system.

Also, in 2019, we note the second change in custodianship, i.e Sava pension company a.d. Skopje has signed an agreement with NLB Banka AD Skopje to act as a custodian to the assets managed by the two pension funds.

The results achieved in the second and third pillars in 2019 confirm the growing trend in fully funded pension insurance. Compared to last year, the total assets of the mandatory pension funds increased by 17% and reached 75.6 billion denars, while the total assets of the voluntary pension funds increased by 28% and reached almost 2 billion denars. Thus, the total assets of pension funds in the second and third pillars exceeded 11% of the gross domestic product for 2019. In 2019, the coverage of the population in the second pillar increased, i.e 87% of the total number of insured persons in PDIFNM or 53% of the total active population are members of the second pillar. Although there was noted growth, the share of the population in the third pillar is still scarce, i.e only about 2.6% of the total active population in RNM are members with a voluntary individual account and are participants in a pension scheme with a professional account in a voluntary pension fund.

The structure of the investment portfolio of mandatory pension funds does not differ significantly compared to last year, notwithstanding the start of operation of the third mandatory pension fund, whose portfolio significantly deviates from the investment structure of existing mandatory pension funds, given that the new fund disposes of small amounts of funds. The investment portfolio in 2019 consists of domestic investments that include government securities (59%), deposits (11%), stocks (3%), investment fund shares (0.02%) and corporate bonds (0.01%), as well as investments abroad that include investment fund shares

(21%) and stocks (6%). As a result of the operation of the mandatory pension funds, in the seven-year period 2013-2019, an annual yield was realized which for SAVAz represents 6.31% in nominal and 5.74% in real amounts, and for KBPz 6.29% in nominal i.e 5.72% in real amount.

Making savings for retirement is a long-term deal, and the challenges posed by fully funded pension insurance are inevitable. The situation in the pension field must be monitored continuously and closely, and appropriate measures must be taken to strengthen individual savings by encouraging competition, promoting effective and flexible portfolio management and expanding coverage, and also in protecting the interests of members and securing steadfast retirement pension.

We assure you that as a supervisory and regulatory body, in our daily work, we are guided by our mission and as in previous years, we will invest our resources in upgrading and promoting the fully funded pension insurance.

We believe that this Report containing detailed data and information on the second and third pillar will be useful to all interested parties.

Chairman of the Council of Experts,

Maksud Ali

Important 2019 dates

1.1.2019	*The maximum allowable fees allowed to be charged by pension companies in the second pillar were reduced (from 2.5% to 2.25% fees from contributions and from 0.035% to 0.030% fees from assets)*
1.1.2019	*The Law on Amending the Law on Mandatory Fully Funded Pension Insurance was enforced ("Official Gazette of RM" No. 2545/2018 of 28.12.2018)*
1.1.2019	*The criterion for membership in the second pillar was changed - the mandatory members are the insured persons who have entered mandatory pension and disability insurance for the first time after 1.1.2019 and who at the date of entry are under 40 years of age*
20.3.2019	*MAPAS issued a license for establishment of a company for management of mandatory and voluntary pension funds to Zavarovalnica Triglav DD Ljubljana, Republic of Slovenia and agreement for management of mandatory pension fund and agreement for management of voluntary pension fund.*
1.4.2019	*TRIGLAV pension company AD Skopje started with pension funds management activities and marketing activities for the mandatory and voluntary pension fund as well as conducted public opinion surveys*
1.4.2019	*Triglav Open Mandatory Pension Fund - Skopje started operations.*
4.4.2019	*NLB Banka AD Skopje is the new custodian of SAVAz and SAVAd*
2.9.2019	*The Law amending the Law on Mandatory Fully Funded Pension Insurance enters into force ("Official Gazette of the Republic of Macedonia" No. 180/2019 dated 2.9.2019)*

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. It is accountable before the Assembly of the Republic of North Macedonia.

MAPAS is responsible for issuing, withdrawing and cancelling licenses to Pension Companies for founding pension dunds, licenses for management of 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, in collaboration with the Ministry of Labor and Social Policy raises awareness of the public on the goals and principles of the pension companies and pension funds and on the benefits from participating in the mandatory and voluntary pension funds, including the benefits from participating in occupational schemes, the rights of the members of mandatory and voluntary pension funds and other fully funded pension insurance related issues. MAPAS passes acts in accordance with the laws governing the fully funded pension insurance and professional guidelines, manuals etc. and related to the fully funded pension insurance initiates adoption of other regulations for the pension companies and pension funds it manages. Also, MAPAS collaborates with relevant institutions in Republic of North Macedonia and abroad in order to provide efficient control over the fully funded pension insurance in the Republic of North Macedonia.

The Agency for supervision of fully funded pension insurance is steered by Council of Experts, consisted of four members and a Chairman as follows:

Maksud Ali- Chairman
Mentor Jakupi – member, with professional engagement
Darko Sazdov– member, with professional engagement
Borche Bozhinovski- 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

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

Most often, pension systems are defined as multi-pillar, in order to diversify the various risks affecting pension systems. In 2018, pension assets worldwide exceeded 44 trillion USD (42.5 trillion USD in OECD countries and 1.6 trillion USD in non-OECD countries). The main drivers of pension systems worldwide are still pension funds (assets in the amount of 28 trillion in 2018). The weighted average of pension assets in terms of GDP in 2018 is 126% in OECD member countries, i.e 41.5% in non-OECD countries. Pension assets were affected by the negative movements in the capital markets in 2018, but yet generated positive investment returns in the long run. The real yield rates (net of investment costs) of pension schemes on average in 2018 were negative in the OECD area (-3.2%) and in other countries (slightly less than 0%).

In 2019, discussions were also held on encouraging and developing the voluntary components of pension systems. Countries are promoting a variety of traditional tools, as well as new behavioral tools, in order to increase population coverage rates and payment of contributions in the voluntary components of the fully funded pension plans.

Pension systems around the world[1] are characterized by different structures as a result of the different socio-economic and demographic situation in the countries, the influence of the culture of the people and their habits and perceptions of savings for retirement. Policy makers encourage countries to diversify their sources of retirement income by combining ways of financing and calculating pensions. Publicly funded pension systems and fully funded private pension systems can be supplemented. They offer a variety of solutions to meet the competitive goals of pension systems and have different capacities to cover the different types of risks faced by people during their lifetime, before and after retirement. The key challenge is how to combine these different features into a comprehensive retirement system, which will be sustainable and fair to all generations. In order to achieve the goals of the pension systems - old-age insurance, it is necessary for the pension system to be fiscally acceptable in the short term, sustainable in the medium term and to provide adequate pensions in the long run. Experience shows that there is no one-size-fits-all solution, which is suitable for all countries, because countries use different combinations of elements (primarily in the ways and principles of financing pensions and in the ways they calculate and disburse them), in order to build an effective pension system, depending on their economic and social characteristics. However, most often, pension systems are defined as multi-pillar, in order to diversify the different risks that affect pension systems. The multi-pillar system framework usually consists of a combination of three pillars: basic pension (as minimum protection for all employees or the elderly), mandatory additional savings (either state or private fully funded) and voluntary additional savings (private fully funded, which includes agreements in various forms). In recent decades, the risks to the aging population and the changing nature of the labor market have prompted a wide range of pension reform reforms to alleviate such risks, but with the same ultimate goal - to ensure a sustainable pension system and adequate income for the insured persons upon retirement.

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

[1]Used sources: OECD Reports, World Bank, FIAP and IOPS and internal analysis and findings.

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 as part of the pension 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 total of 78 countries (e.g. Costa Rica, Croatia, Nicaragua, Holland, Norway, etc.). The other significant reform is the increase of the retirement age in 61 countries (like Saudi Arabia, Brazil, Vietnam, Sweden). 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 pensions, i.e. gradual reduction of fiscal expenses in 61 countries (like Argentina, Belgium, Brazil, Italy, Japan). 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 order to provide adequate income after retirement, as part of the undertaken reforms, the role of fully funded and private pension insurance is strengthened, by introducing private pension funds or by undertaking activities and measures to improve their operation. Thus, in 2018, in 17 of the 36 OECD member states, mandatory or partially mandatory private pension systems exist, which provide a high percentage of coverage of the population of working age. In 10 OECD member states, there are voluntary private pension systems that have a significant coverage (more than 40%) of the population of working age. In recent years, automatic inclusion programs have become increasingly popular, and more countries have recently introduced them (for example, Turkey (2017), Germany (2018), Lithuania, and Poland (2019)). According to IOPS and OECD research, most surveyed countries have both professional and individual schemes (32 of the 36 OECD member states) that can have defined benefits or defined contributions. More than 50% of the pension assets include DC schemes or in individual schemes in 18 of the 21 surveyed OECD member countries and Brazil. DC pension schemes and individual pension schemes are becoming increasingly important even in countries where historically DB pension assets were predominant (such as in the United States). The fastest transition from DB pension schemes in the last ten years was in Israel (from 84% in 2008 to 56% in 2018), where DB schemes were closed to new members since 1995. New insured persons in Israel are required to join DC pension schemes. Recently, in Iceland (at the end of 2016), the pension scheme for employees in state and municipal institutions was reformed from a DB scheme to DC scheme. In recent years, there have been other changes in the characteristics of schemes, such as changing the base of DB pension funds in the Netherlands, changing or excluding performance guarantees in pension funds with defined contributions such as in Denmark and Slovenia. So there are schemes with various features between DB traditional schemes and DC individual schemes. Pension schemes with defined contributions dominate in Central and Eastern Europe and Latin America, while DB pension schemes are still predominant in countries with large occupational pension sectors (60% of total pension assets in 2018 in Canada and 90% in Switzerland) are in DB pension schemes). There are also countries (mainly in Central and Eastern Europe) that have reduced, or almost closed, privately DC schemes. The main challenge for all types of pension schemes (both DB and DC) is how to deal with volatile financial markets.

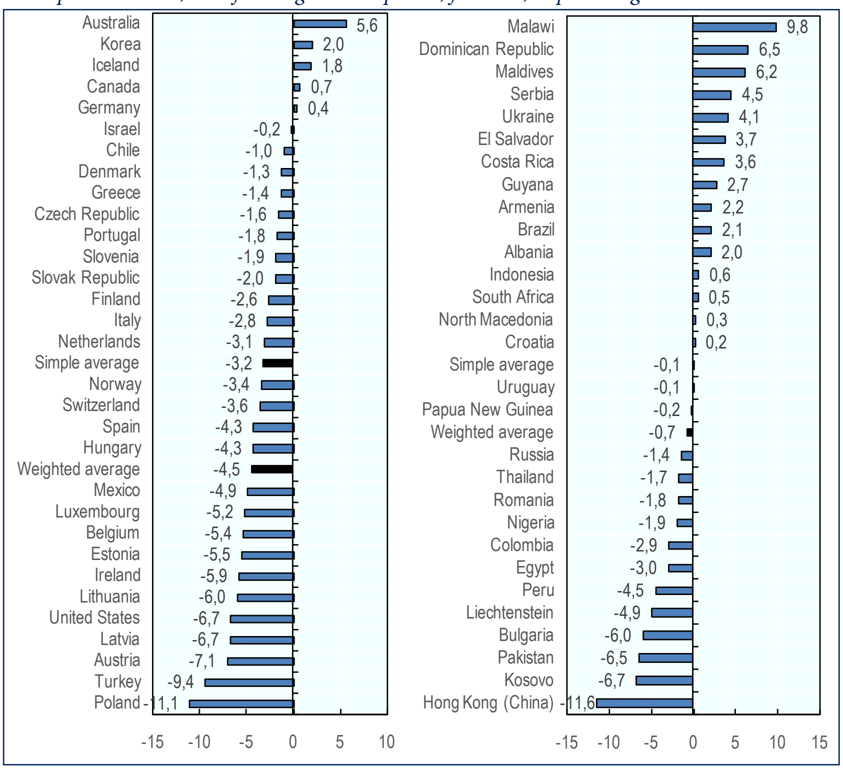
The main indicators that reflect the importance of pension systems are the coverage of the population and the amount of pension assets in the pension systems. In 2018, pension funds worldwide exceeded 44 trillion USD (42.5 trillion USD in OECD member countries and 1.6 trillion USD in non-OECD countries). The main drivers of the pension systems, worldwide, are still the pension funds (funds in the amount of 28 trillion in 2018). Some countries also use other ways to save upon retirement, such as pension insurance agreements with insurance companies (for example, Denmark, France) or products provided and managed by banks and investment companies. Total private pension funds in OECD member countries and in non-OECD countries in 2018 were higher than in 2008, despite the recent decline in 2018 compared to 2017.

The magnitude in value of private pension funds in all countries varies, most likely due to the different start of system establishment, whether inclusion in the pension scheme was mandatory or voluntary, and, of course, depending on the the investment results. In six OECD countries (Canada, the United States, the Netherlands, the United Kingdom, Australia and Japan), pensions exceeded one trillion USD. On the other hand, assets in private pension systems in 70 countries account for less than 0.2 trillion USD. The size of the value of the assets of private pension systems in all countries is different and relative. Eight of the 36 OECD member states by the end of 2018 had assets over 100% of their economy. In small countries like Iceland, the accumulated funds are small compared to other pension systems, but high in relation to their economy (161% of GDP). Pension funds in Switzerland were below 1 trillion USD, but accounted for 142% of the GDP. On the other hand, the pension funds are lesser than 20% of the GDP in 54 of the 87 countries surveyed, including some fast-growing countries (e.g China, India).

Comparing the value of private pension funds in terms of the size of the economy, expressed through gross domestic product, gives a better picture of the relative importance of the private pension segment in the country. The amount of pension assets in terms of GDP grew in 68 of the 71 countries surveyed in the last decade. In OECD member countries, the weighted average of pension funds (weighted in relation to pension funds in each country) in terms of GDP is 126% in 2018, compared to 87% in 2008. As in 2008, Denmark was in the leader in 2018 too, with 198.6% of GDP, followed by the Netherlands (173.3%) and Iceland (161%). On the other hand, pension funds are still less than 1% of Greece's GDP. The weighted average pension ratio in terms of GDP also increased in non-OECD countries by 35.2% in 2008 to 41.5% in 2018. In some non-OECD countries, pension assets have almost reached GDP levels (95.6% in Liechtenstein and 95.1% in South Africa). However, in 2018, the amount of pension assets dropped in 12 of the 65 OECD member countries and non-OECD countries. This decline was also observed in the large pension markets (the Netherlands (-1.4%), the United Kingdom (-0.3%) and the United States (-3.2%) and some smaller pension markets (eg Spain (- 4.1%)). The largest decline is observed in Poland (-10.1%).

Another indicator of the importance of fully funded and private pensions in a country is the coverage rate. The coverage rate can be measured by the number of active members in the pension schemes (persons who have assets in pension schemes and are not yet retired) in proportion to the able-bodied population (persons aged 15 to 64 years). Pension scheme access may be mandatory, voluntary or through automatic inclusion. Available data show that in 2018, in 17 of the 31 surveyed countries in the mandatory pension schemes, covered more than 70% of the working age population. Finland has the highest coverage rates (93% of the working age population) and Iceland (88%). In Latin America, Chile has the highest coverage rate of 87% of the working age population, which is not the case in other countries. High rates of informal work in Colombia, Mexico and Peru explain relatively low coverage rates in mandatory pension plans (45% in Colombia, 65% in Mexico, 33% in Peru). Additionally, in some of these countries, insured persons have the right to choose between the pay-as-you-go pension system and the private fully funded pension system (Colombia, Peru). Participation in voluntary pension schemes varies widely across countries. More than half of the working age population was covered by voluntary pension schemes in six OECD countries: Belgium (51%), the Czech Republic (64%), Germany (57%), Japan (just over 50%), and Lithuania (75%) and Poland (66%). Over the past ten years, the coverage rate has generally increased in most surveyed countries. The increase in coverage is particularly pronounced in countries that have a relatively new mandatory fully funded pension system (e.g Israel, Bulgaria, Latvia, Colombia and Northern Macedonia) or in countries that have automatic inclusion programs (e.g New Zealand). This trend may slow down in North Macedonia as the criterion changed for mandatory membership in the second pillar, and defined were certain categories of members who have had their membership in the mandatory pension funds terminated.The decline in pension funds in 2018 is most likely due to the investment results of fully funded and private pension schemes in 2018. The real investment return on pension funds (net of management costs) in 2018 was negative on average (-3.2%) in OECD member states and slightly below 0% in non-OECD countries. The weighted (in terms of pensions) real net investment return also recorded lower amounts, -4.5% in OECD member countries -0.7% in non-OECD member countries, reflecting that some of the largest pension markets also experienced larger losses (for example, the United States (-6.7%)). The real investment return on pension assets, net of management expenses, in 2017 was negative in 26 of the 31 OECD member states in 14 of the 29 surveyed non-OECD countries. The biggest losses in 2018 were recorded in Hong Kong, China (-11.6%), Poland (-11.1%) and Turkey (-9.4%). However, pension assets in some countries have managed to achieve extremely positive real investment results, such as in Malawi (9.8%). Poor real investment results are the result of low nominal investment results or inflation. In OECD member countries, fully funded and private pension schemes had positive results in nominal terms in Chile (1.5%), the Czech Republic (0.4%), Turkey (9.0%), but lower from inflation (2, 6% in Chile, 2.0% in the Czech Republic and 20.3% in Turkey).

Figure 1.1.Real investment return on pension assets, net of management expenses, for 2019, in percentages



Sourec: OECD, Pension market in focus, 2019.

The bad financial results of the pension schemes in 2018 may be a result of the fall in the capital markets in the last quarter of 2018. Some of the largest stock indices fell sharply in 2018 compared to 2017, perhaps one of the biggest declines since the financial crisis in 2008 (e.g S&P500, experienced a down of 6.2% in 2018). Pension assets in some countries (for example, Denmark, Latvia, the Netherlands) immediately saw better investment performance in the first half of 2019 with the recovery of stock markets, which could offset the losses of 2018. Figure 1.1 shows the real investment return of pension assets, net of management expenses for 2018, in selected OECD member countries and selected 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. Average nominal annual returns over the last 5, 10 and 15 years were positive in all surveyed countries, while average nominal annual returns for the same period adjusted for inflation were positive in almost all countries. Despite the relatively low and often negative investment results in 2018, pension schemes have achieved positive real annual investment returns in the last five years in 45 of the 51 surveyed countries.

The results of investing pension funds largely depend on the allocation of funds. In most surveyed countries, in 2018, pension assets were invested in bonds and stocks, more than half of the investments in 32 of the 36 OECD member countries, and in 39 of the 46 surveyed non-OECD countries. Therefore, the development of bond and stock markets plays a major role in the financial performance of pension schemes. The highest share of bonds and shares in the total portfolio of pension assets was in Chile (99.4%), Dominican Republic (99.2%), Estonia (96.4%), Mexico (96.3%), Albania (96.0%), the Maldives (95.9%) and India (95.7%). The percentage share of shares and bonds differs among countries in 2018. Although there is generally a greater inclination towards bondholders, in 7 OECD member states and 12 non-OECD countries, the percentage of stock share was higher than bond share. State bonds, unlike corporate bonds, accounted for the largest share of direct investment in bonds in a number of countries. For example, government bonds were 100% of direct investment in bonds in Albania and North Macedonia, 99.6% in Serbia, 96.9% in Hungary and 87.6% in the Czech Republic, but only 24.8% in Norway and 10,5% in New Zealand. Also, a significant share of the pension assets in some of the surveyed countries comprise cash and deposits (19.7% of the pension assets in the Czech Republic). In most surveyed countries, investments in loans, real estate and private investment funds account for a relatively small pension investment share. A significant share of real estate investment (direct or indirect) is observed, for example, in Canada (more than 10% of total assets). Investment regulation may also provide for restrictions on investment in non-traditional instruments. Most countries restrict or completely prohibit real estate investment (at least direct investment), private funds and/or loans. Some countries have reduced investment restrictions in recent years and encouraged investment in long-term projects or in companies that take into account social, ethical and environmental aspects, such as Mexico. In Croatia, the 2014 amendments to the law expanded investment opportunities for mandatory pension funds, direct investment in infrastructure projects and alternative investment funds.Factors of social, ethical and environmental aspects are key issues for investment and risk management of pension funds, and their implementation in the regulatory framework of pension systems around the world is relatively new. Factors in social, ethical and environmental aspects are developing dynamically and have different impacts and risks depending on the country. That is why, in the past few years, IOPS has been discussing this topic, based on research and analysis, defined guidelines for supervision related to the integration of social, ethical and environmental factors into investment and pension funds risk management. The guidelines encourage supervisors to be able to confirm that the explicit integration of social, ethical, and environmental factors into the investment process and risk management process is consistent with the fiduciary duty of managers and that it proposes increased transparency and disclosure of such factors by pension fund managers. These guidelines are non-binding and serve as a guide for pension supervisors. Retirement supervisors can apply them according to the structure of their pension system and regulation.

In 2019, one of the current topics in the pension sector was pension projection. Pension projections can be a powerful tool for managing the expectations of members of pension funds and can influence the decisions and choices that members need to make. They can educate members about the real values of future pension schemes and can offer advice on making pension related decisions. However, pension projections carry risks arising from incorrectly used methodology, incorrect assumptions or incorrect and unclear communication. According to the conducted research, in practice, the projections in the surveyed countries are usually deterministic, individualized and based on one scenario. In most countries, projections show future accumulated assets and pensions, expressed in today's monetary value, and in most countries, projections for one pillar only are displayed. The projection methodologies and assumptions used are developed by pension companies, pension supervisors or state institutions. Pension supervisors face major challenges in providing quality projections (relevant data, methodology, assumptions), finding appropriate methods for presenting results, standardizing, and ensuring compliance with regulations. The main questions of supervisors are mostly technical in nature and refer to the development of an appropriate methodology for long-term estimates, demographic assumptions (such as longevity) and macroeconomic assumptions (such as asset yields and annuity interest rates). Of great importance is the challenge of how to effectively communicate the results of projections to the pension fund members, and especially the presentation of the uncertainty of the projected results.

In 2019, discussions on encouraging and developing voluntary components of pension systems were trending. Voluntary pension insurance provides coverage to a larger group of people and provides additional savings for old age, which would increase material security in old age. States are promoting various traditional tools, as well as new behavioral tools, in order to increase the rates of population coverage and the payment of contributions to the voluntary components of fully funded pension schemes. Although traditional tools, such as tax incentives and additional contributions, can have a positive impact by encouraging retirement savings, their impact still remains limited in generating new voluntary pension savings. More importantly, they represent significant costs for state budgets. Due to these limitations of traditional economic stimuli, behavioral economists suggest a variety of nudging-based interventions that simplify decision-making related to pension insurance by changing the way we present the basic options to individuals. Existing evidence from research on this topic shows that, compared to traditional, behavioral tools can generate significantly more impact on the level of pension savings with a relatively lower impact on state budgets. Also, different experiences in the countries show that behavioral tools are effective in strengthening pension savings. For example, some countries (the United States, the United Kingdom, New Zealand, Italy, Canada, and Turkey) have introduced programs for automatic inclusion in their pension systems. According to such programs, employees are automatically included in the pension scheme of their employer, with the given opportunity to withdraw from the pension scheme for a certain duration. Several studies show a significant increase in the rate of participation after the introduction of such programs (such as in the United States).

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

2.1 Description of the pension system

2.2 Role of fully funded pension insurance in the pension system

2.3 Institutional infrastructure in a fully funded pension insurance

2. The structure of the fully funded pension insurance in the Republic of North Macedonia

The Macedonian pension system is a combined system of public, currently funded and private fully funded pension insurance. Fully funded pension insurance is based on the principle of capitalization of contributions paid in the name and at the expense of the member. Feature of this insurance is that the assets in it are privately and competitively managed by pension companies. Important features of fully funded pension insurance are the right to personal choice, the right to portability of funds, as well as ensuring a high degree of transparency.

In Republic of North Macedonia, there are three pension companies that manage one mandatory and one voluntary pension fund each.

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 pension system in RNP 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 in RNM 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. As a result older population participates at a higher rate in the total population of the world.

For the pension system, such demographic movements mean that while the number of retired persons shall increase with the increasing number of years when such persons shall be pension beneficiaries, the number of insured persons shall also decrease. The actuarial projections, which were prepared in the period of 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 of 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 and private fully funded pension insurance, 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 Role of fully funded pension insurance in the pension system

Fully funded pension insurance differs radically from current funded pension insurance both in terms of treatment and records of contributions paid and in terms of establishment and disbursement of pensions. In this insurance, each member has an individual account on which his/her funds are recorded and close connection and dependence is provided between the volume of paid contributions and future pensions eligible to each person. This method of insurance is based on the principle of accumulation of funds from contributions to individual accounts, which are further invested and the realized return on investment, deduced by the operating system costs, is fully added to the funds accumulated on individual accounts. The future pension depends on the accumulated funds on the individual account and on the expected life expectancy upon retirement, i.e the expected period of pension usage. It is important to note that this pension savings are long-term savings, during which there is a gradual but continuous increase in savings, which is why, in the beginning, while the insured person is young, the savings are small, but in future, when the insured person reaches retirement age, savings become significantly higher.

Typical of this insurance is that the funds in it are privately and competitively managed, so that the paid contributions are invested by specialized licensed pension companies that manage pension funds. In this way, it is provided for the economic goals to determine the investment strategy, creating an opportunity to maximize overall return in the interest of members. Investment risk diversification (including international diversification) is one of the more important features of this system.

Furthermore, important features of fully funded pension insurance are the right to personal choice and the initiative of the individual. All employees, before January 1, 2003, were given the opportunity to decide whether to join the second pillar of the pension system and to choose which mandatory pension fund they want to join, while all new employees after January 1, 2003 had the opportunity to choose a mandatory pension fund of their choice. Also with the amendments to the Law on Mandatory Fully Funded Pension Insurance from December 2018, the members of the mandatory pension funds who voluntarily joined the second pillar (employed for the first time before 1.1.2003) and who were born before 1.1.1967 , were given the opportunity to choose to terminate or resume their membership in the second pension pillar. All new employees after January 1, 2019 who on the date of joining the mandatory pension and disability insurance are under 40 years of age have the opportunity to choose a mandatory pension fund of their choice. Subsequently, membership in voluntary pension funds is at the discretion of the individual or through participation in a professional pension scheme, funded by the employer, or by a citizens' association.

The portability of the asset is also a significant right in a fully funded pension insurance system. All members of a mandatory or voluntary pension fund, are entitled to a transfer from one pension fund to another, and their savings are transferred too. And in case of participation in a professional pension scheme, the person has the right, during the transition to another insurer, to transfer the saved funds either to another professional pension scheme or to a voluntary individual account. Fully funded pension insurance provides a high degree of transparency, which is one of its most important features and useful news in the pension system. The companies have a legal obligation, at least once a year, to inform, in writing, the members and the retired members of the pension fund, about the condition of the funds on their individual accounts, by submitting the so-called "green envelope" with a pension savings report. The green envelope also contains data about pension fund investments, the collected fees and the realized pension fund returns.

2.3 *Institutional infrastructure in a 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 institution in fully funded pension insurance. MAPAS charges a fee from the pension companies, which is calculated as a percentage of the contributions paid to the pension funds. For 2019, this percentage was 0.8%. MAPAS supervises the second largest segment of the financial system, the pension fund sector. The total assets of the mandatory and voluntary pension funds represent 11.12% of the GDP for 2019.

• 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 PDIFNM total contributions for pension and disability insurance.

• Pension and Disability Insurance Fund of North Macedonia – allocates the pension insurance contributions between the first and the second pillar and allocates the contributions and data on membership to the selected mandatory pension fund. From January 2019, for each Mandatory Pension Company is reinstituted the obligation to pay a monthly fee to the PDIFNM in the amount of 0.1% from each paid contribution in the previous month in the mandatory pension fund under its management.

A pension company is a joint stock company established and operating in accordance with the Law on Trade Companies and the Law on Mandatory Fully Funded Pension Insurance, or the Law on Voluntary Fully Funded Pension Insurance. A pension company is established on the basis of a license from MAPAS and manages a pension fund pursuant to a pension fund management authorization. The company for management of mandatory pension funds is established and manages only mandatory pension funds, the company for management of voluntary pension funds is established and manages only voluntary pension funds, and the company for management of mandatory and voluntary pension funds is established and manages both mandatory and voluntary pension funds. Mandatory and voluntary pension fund management company should have an equity of at least 1.8 million euros in denar equivalent according to the average exchange rate of the National Bank of RNM, compulsory pension fund management company should have an equity of at least 1,5 million euros and a company for the management of voluntary pension funds should have an equity of at least 0.5 million euros. In the event of an increase in the assets of the mandatory and / or voluntary pension fund managed by the pension company, the company is obliged to increase the principal in accordance with the legal provisions. The only activity of the pension company is the management of pension funds, their presentation to third parties and activities that directly arise from the performance of the work of the management of pension funds. The basic responsibilities and activities of the pension company are: membership, asset management, risk management and control mechanisms for risk mitigation, administration and keeping records, compliance with laws and bylaws, regular notification of members, the public and MAPAS, payment of programmed withdrawals of retired members, etc. The pension company operates in accordance with the rules of good corporate governance of the company and has a fiduciary duty to work only for the benefit of the members and retired members of the pension fund it manages, which should be implemented by applying high standards of ethics and integrity and conflict of interest. To perform these functions, pension companies, in accordance with the law, charge three types of fees. (More details on fees are given in Chapters 5.7 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 consists 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 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 thereby in 2009 to those same pension companies which were established as mandatory pension companies, MAPAS granted licenses and approvals for management of 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"[2] Skopje were acquired by Pozavarovalnica Sava DD Ljubljana, Slovenia. In 2019, a third pension company was founded. By the end of March 2019, MAPAS granted the licesnce for establishment of a company for management of mandatory and voluntary pension funds of Zavararovalnica Triglav DD Ljubljana, Republic of Slovenia and authorization for management of a manadatory pension fund and approval for management of voluntary pension fund.

Inclusive of 31.12.2019, there are three pension companies in RNM who manage one compulsory and one voluntary pension fund each, as shown below in Table 2.1.

Table 2.1. Pension companies and pension funds in RNM

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	Company for Management of Mandatory and Volubntary Pension Funds TRIGLAV pension company AD Skopje
That manages:	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	• Triglav open mandatory pension funds- Skopje • Triglav open voluntary pension funds- Skopje
Pension Funds custodian of NLB Banka AD Skopje[3]	Pension Funds custodian of: Sparkasse Bank Macedonia AD Skopje	Pension Funds custodian of: Komercijalna Banka AD Skopje
Shareholder: • Pozavarovalnica Sava d.d. Ljubljana, Republic of Slovenia - 100% share in the company's capital.	Shareholder: • Skupina First zavarovalniski Holding dd Ljubljana, Slovenia - 51% share in the company's capital. • Komercijalna Banka AD Skopje, Republic of North Macedonia - 49% share in the company's capital.	Shareholder: • Zavarovalnica Triglav DD Ljubljana, Republic of Slovenia – 100% share in the company's capital.
Initial capital: 2.1 million euro	Initial capital: 1.8 million euro	Initial capital: 3 million euro.

One of the pension companies had the combination of domestic (49% share) and foreign (51%share) shareholders, while the two pension companies had a sole foreign shareholder (100% share). Shareholders of the three pension companies are listed 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. The three pension companies have selected custodian for the mandatory and for the voluntary pension fund under management, as shown on Table 2.1. In 2019, Sava pension fund AD Skopje signed a custody agreement for both pension funds with a new custodian – NLB Banka AD Skopje, for which MAPAS issued the approval. For their service, the custodians charge fees from the pension companies. These fees are calculated as a percentage of the pension funds, in accordance with the signed contracts for custody services. Table 2.2 gives an overview of the fees charged by the custodians from the pension companies in 2019.

[2] Shareholders of the Joint Penion Compnay for management of mandatory and voluntary pension funds "NLB Nov Penziski fond" Skopje were Nova Ljubljanska banka DD Ljubljana, Republic of Slovenia with 51% initial capital and NLB banka AD Skopje, Republic of North Macedonia with 49% initial capital of the pension company

[3] Up until 4.4.2019 custodian of assets of the Open mandatory pension fund Sava penziski fond and Open voluntary pension fund Sava penzija plus was Komercijalna Banka AD Skopje

Table 2.2 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
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%	to 100	12 June 2015
	0,087%	above 100 to 200	
	0,077%	above 200 to 300	
	0,070%	above 300 to 400	
	0,064%	above 400 to 500	
	0,060%	above 500 to 600	
	0,053%	above 600 to 700	
	0,046%	above 700 to 800	
	0,042%	above 800 to 900	
	0,034%	above 900	
NLB banka AD Skopje, as custodian of SAVAz	0,058%	to 100	4 April 2019
	0,055%	above 100 to 200	
	0,050%	above 200 to 300	
	0,048%	above 300 to 400	
	0,040%	above 400 to 500	
	0,037%	above 500 to 600	
	0,035%	above 600 to 700	
	0,032%	above 700 to 800	
	0,029%	above 800 to 900	
	0,025%	above 900 to 1000	
	0,024%	above 1000	
Komercijalna banka AD Skopje as custodian of TRIGLAVz	0,050%	to 50	1 April 2019
	0,041%	above 50 to 100	
	0,038%	above 100 to 200	
	0,035%	above 200 to 300	
	0,033%	above 300 to 400	
	0,028%	above 400 to 500	
	0,026%	above 500 to 600	
	0,025%	above 600 to 700	
	0,023%	above 700 to 800	
	0,020%	above 800 to 900	
	0,018%	above 900 to 1000	
	0,017%	above 1000	
For Voluntary Pension Funds	**Amount (annual)**	**For value of assets (in million denars)**	**Date of application**
NLB banka AD Skopje, as custodian of SAVAd	0,25%	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%	to 50	15 July 2009
	0,20%	above 50	

3 Amendments to the laws and bylaws, which regulate the fully funded pension insurance

3. Amendments to the laws and bylaws, which regulate the fully funded pension insurance

The amendments to the Law on Mandatory Fully Funded Pension Insurance in 2019, specify the time of termination of membership in the mandatory pension fund of members who are in job positions of extended duration of insurance. In order to improve and clarify or simplify certain procedures in 2019, amendments were made to the rules governing the areas of marketing, membership in the second pillar, then in the area of transfer of funds to the PDIFNM and untimely transfer of contributions, assessment of the assets of the pension funds, individual accounts, procedures for election of a member of the management and supervisory board of a pension company, etc.

In 2019, decisions were made for additional restrictions on the maximum investment restrictions that apply for a period of one year from the date of the first payment into a mandatory and voluntary pension fund.

In 2019, the Law on Mandatory Fully Funded Pension Insurance was amended. Also, the Council of Experts in MAPAS, during 2019 passed 13 secondary regulations or amendments to existing secondary regulations and 2 decisions for the mandatory and/or fully funded pension insurance.

The amendments to the Law on Mandatory Fully Funded Pension Insurance ("Official Gazette of the Republic of Macedonia" No. 180/2019 of 2.9.2019), specified occasions when members who are in job positions with insurance experience of extended duration will have their mandatory pension fund membership concluded. Namely, the members of the mandatory pension fund who have completed the insurance period with extended duration that enables reduction of the age limit for exercising the right to old age pension for a minimum of one year in accordance with Article 118 paragraph (3) of the Law on Pension and Disability Insurance, shall have the right to choose to continue their membership in the second pension pillar with a written statement on the extension of the membership in the mandatory pension fund within three months from the completion of the insurance period. If the members fail to give a written statement, their membership in the mandatory pension fund shall expire upon the expiration of this period. Also, the members of the mandatory pension fund, who until the day of entry into force of this law have completed the insurance period with extended duration which enables reduction of the age limit for exercising the right to old age pension for a minimum of one year in accordance with Article 118 paragraph (3) from the Law on Pension and Disability Insurance, may choose to extend the membership in the second pillar with a written statement for extension of the membership in the mandatory pension fund, no later than November 30, 2019. Otherwise, their membership in the mandatory pension fund shall cease after this deadline. After the termination of the membership, these insured persons remain insured only in the currently financed pension insurance based on generational solidarity.

During 2019, MAPAS prepared amendments to the existing bylaws regarding the mandatory and / or voluntary fully funded pension insurance, namely:

1. Rulebook on the manner of transfer of funds in the Pension and Disability Insurance Fund ("Official Gazette of the Republic of Macedonia" No. 9/2019 of 16.1.2019);
2. Rulebook amending the Rulebook on the manner and procedure of marketing of pension funds ("Official Gazette of the Republic of Macedonia" No. 9/2019 of 16.1.2019);
3. Rulebook amending the Rulebook on the manner and procedure of marketing of pension funds ("Official Gazette of the Republic of Macedonia" No. 41/2019 of 18.2.2019);
4. Rulebook amending the Rulebook on the manner and procedure of marketing of pension funds ("Official Gazette of RNM" No. 235/2019 of 13.11.2019);
5. Correction of the Rulebook for amending the Rulebook on the manner and procedure of marketing of pension funds ("Official Gazette of RNM" no. 244/2019 of 26.11.2019);
6. Correction of the Rulebook for membership in the mandatory pension fund ("Official Gazette of the Republic of Macedonia" No. 9/2019 of 16.1.2019);
7. Rulebook on amending the Rulebook for membership in the mandatory pension fund ("Official Gazette of RNM" No. 235/2019 of 13.11.2019);
8. Rulebook on untimely transfer of contributions ("Official Gazette of the Republic of Macedonia" No. 9/2019 of 16.1.2019);
9. Rulebook on amending the Rulebook on untimely transfer of contributions ("Official Gazette of RNM" No. 81/2019 of 22.4.2019);
10. Rulebook on amending the Rulebook for assessment of the assets of the mandatory and voluntary pension funds ("Official Gazette of the Republic of Macedonia" No. 41/2019 of 18.2.2019);
11. Rulebook on amending the Rulebook on assessment of the assets of the mandatory and voluntary pension funds ("Official Gazette of RNM" no. 250/2019 of 5.12.2019);
12. Rulebook on amending the Rulebook on individual accounts ("Official Gazette of the Republic of Macedonia" No. 41/2019 of 18.2.2019);

13. Rulebook on amending the Rulebook on the manner and procedure for election of a member of the Management Board and the Supervisory Board of a pension company ("Official Gazette of RNM" No. 154/2019 of 29.7.2019);

14. Rulebook on amending the Rulebook for agents of pension companies ("Official Gazette of RSM" no. 184/2019 of 6.9.2019);

15. Rulebook on the manner of transfer of funds in PDIFNM ("Official Gazette of RNM" No. 200/2019 of 1.10.2019);

16. Correction of the rulebook on the manner of transfer of funds in PDIFNM ("Official Gazette of RSM" No. 205/2019 of 7.10.2019);

17. Decision on additional restrictions on the investments of the assets of the obligatory pension fund in certain types of instruments ("Official Gazette of RNM" No. 81 of 22.4.2019) and

18. Decision on additional restrictions on the investments of the funds of the voluntary pension fund in certain types of instruments ("Official Gazette of RNM" No. 81 of 22.4.2019).

The amendments to the Rules of Procedure were made in order to specify certain procedures and harmonization with the amendments to the relevant acts. Namely, some of the amendments to the Marketing Rulebook specified deadlines and manner of reporting by some of the members of the mandatory pension funds whose membership was terminated in accordance with the amendments to the Law on Mandatory Fully Funded Pension Insurance dated 28.12.2018. Then, with some of the amendments to the Rulebook on Marketing of Pension Funds, the Rulebook on Membership in Mandatory Pension Fund and the amendment of the Rulebook on Agents the provisions of the Rules of Procedure were harmonized with the Law on the Use of Languages issued in bilingual form at the request of the member. The Rulebook for untimely transfer of contributions is a new rulebook and it prescribes the manner of transfer of contributions and the method of calculation and payment of fees in cases when PDIFNM has an obligation to pay fees for untimely transfer of contributions in accordance with the amended Law on mandatory fully funded pension insurance from 28.12.2018. The amendment of this Rulebook specifies the manner of transfer of contributions and the method of calculation and payment of fee for untimely transfer of contributions when for an insured person for whom a fee is calculated, there is a date of payment before the start of operation of the mandatory pension fund covering the said insured person. The amendments to the Rulebook on Assessment of Assets of Mandatory and Voluntary Pension Funds specify several provisions related to the compensation for untimely transfer of contributions. Then, with the amendments to this Rulebook, a pension company is enabled to determine the market value of certain securities traded on the EU market and OECD member states, in addition to Bloomberg, to use information from the financial and information service Refinitiv for the financial instrument. Also, with the amendment of the Rulebook on individual accounts, the provisions of this Rulebook were harmonized with the amendment of the Law on Mandatory Fully Funded Pension Insurance, which refers to supplementing the records for individual accounts with data on fee for untimely transfer of contributions and data on employer's tax number. With the amendment to the Rulebook on the manner and procedure for election of a member of the board of directors and the supervisory board of a pension company, the election of an acting member of the board of directors is envisaged not to be subject to approval by MAPAS. The obligation of the company is to notify MAPAS about the performed selection and to submit a program for operation of the pension company and the pension funds made by the proposed member of the board of directors for his/her scope of work. The Rulebook on the manner of transfer of funds in PDIFNM shall prescribe the manner of transfer of funds from the individual account of the member in PDIFNM in the cases provided by law.

MAPAS may prescribe restrictions on the investment of certain types of instruments other than the restrictions established by law, which will be valid for a period also prescribed by MAPAS, but not longer than five years. In 2019, decisions were made on additional restrictions according to which the maximum percentage of the value of the assets of the mandatory and voluntary pension fund that can be deposited in a bank be 100% provided are issued a licence by the NBRNM, and they bring interest or in bonds and other securities which are issued or guaranteed by RNM on the domestic market, in a period of one year from the date of the first payment in the mandatory and voluntary pension fund. During 2019, MAPAS updated the existing ones and prepared new ones, and adopted the following instructions:

1. Technical guide for the processes for untimely transfer of contributions (February 2019);
2. Technical instruction for submitting reports from the Custodian of asset of the pension funds to the Agency for Supervision of Fully Funded Pension Insurance (April 2019);
3. Technical guide for submitting the annual archive and reports from the databases maintained by the pension companies (April 2019);
4. Guidelines for assessing the risk of money laundering and terrorist financing in voluntary pension funds (May 2019) and
5. Technical guideline for pension company agents (October 2019).

4 Data on Financial Operations of the Pension Companies

Revenues and expenditures of pension companies for 2019 **4.1**

Pension companies' financial results **4.2**

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

Indicators **4.4**

4. Data on Financial Operations of the Pension Companies

Sava pension company a.d. Skopje and KB Prvo penzisko drustvo AD Skopje in 2019, achieved a positive financial result. Both pension companies ended 2019 with a net income and achieved a total comprehensive income, as follows: Sava pension company a.d. Skopje in the amount of about 94 million denars and KB Prvo penzisko drustvo AD Skopje in the amount of about 124 million denars. The new pension company, TRIGLAV PENSION COMPANY AD Skopje, recorded a negative financial result in the first year of its operation. This result is common and expected for the initial years of operation of a pension company.

4.1 Revenues and expenditures of pension companies for 2019

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 of the three pension companies inclusive of 31.12.2019.

When performing their sole activity – managing pension funds – the Pension Companies obtain 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 provided in Table 4.1.

Table 4.1. Revenues of pension companies for 2019 *(in denars)*

Grounds	SAVA		KB prvo		TRIGLAV	
Revenues from managing a mandatory pension fund						
Contributions Fee	91.958.270	37,93%	99.801.432	36,77%	3.661.234	66,84%
Assets Fee	116.260.166	47,95%	130.518.776	48,08%	452.723	8,27%
Transfer Fee	922	0,00%	0	0,00%	2.775	0,05%
Total revenue from managing a mpf	208.219.358	85,88%	230.320.208	84,85%	4.116.732	75,16%
Revenues from managing a voluntary pension fund						
Contributions Fee	4.437.293	1,83%	3.569.448	1,31%	0	0,00%
Assets Fee	10.368.428	4,28%	7.947.538	2,93%	0	0,00%
Transfer Fee	0	0,00%	0	0,00%	0	0,00%
Total revenue from managing a mpf	14.805.721	6,11%	11.516.986	4,24%	0	0,00%
Financial revenues	17.772.515	7,33%	28.321.952	10,43%	1.124.890	20,54%
Other revenues of the pension company	1.653.433	0,68%	1.291.277	0,48%	235.628	4,30%
Total revenues	242.451.027	100,00%	271.450.423	100,00%	5.477.250	100,00%

*Table 4.2. Expenditures of pension companies for 2019** *(in denars)*

Basis	SAVA		KB prvo		TRIGLAV	
Expenditures for managing a mandatory pension fund						
Sales agents	1.081.653	0,71%	1.229.345	0,92%	1.002.808	4,08%
Marketing	9.714.062	6,35%	8.426.584	6,29%	2.094.511	8,52%
Transactions	72.011	0,05%	0	0,00%	0	0,00%
MAPAS	32.795.724	21,45%	35.587.012	26,55%	1.307.169	5,32%
Custodian	13.518.182	8,84%	13.595.089	10,14%	64.599	0,26%
PIDFNM expenses	4.077.989	2,67%	4.456.889	3,33%	162.020	0,66%
Other expenditures for pension fund management	1.216.605	0,80%	1.221.821	0,91%	907.759	3,69%
Total expenditures for managing a mpf	62.476.226	40,86%	64.516.740	48,14%	5.538.866	22,54%

Expenditures for managing a voluntary pension fund						
Sales agents	3.643.638	2,38%	204.154	0,15%	0	0,00%
Marketing	1.444.544	0,94%	907.815	0,68%	0	0,00%
Transactions	110.445	0,07%	0	0,00%	0	0,00%
MAPAS	1.357.472	0,89%	1.073.100	0,80%	0	0,00%
Custodian	1.701.834	1,11%	530.305	0,40%	0	0,00%
Other expenditures for pension fund management	74.248	0,05%	73.147	0,05%	0	0,00%
Total expenditures for managing a vpf	8.332.181	5,45%	2.788.521	2,08%	0	0,00%
Pension company management expenditures						
Wages and fees for employees	51.946.140	33,98%	37.023.905	27,62%	8.816.307	35,87%
Non-material expenditures	14.899.422	9,74%	7.598.875	5,67%	4.762.596	19,38%
Material expenditures	1.230.374	0,80%	1.395.947	1,04%	324.877	1,32%
Depreciation	1.787.375	1,17%	3.572.840	2,67%	704.845	2,87%
Financial expenditures	1.179.453	0,77%	6.047.929	4,51%	22.106	0,09%
Other operational costs	10.820.404	7,08%	8.215.486	6,13%	3.538.619	14,40%
Reservation of expenses and risks	222.540	0,15%	2.865.439	2,14%	870.092	3,54%
Total expenditures for pension company management	82.085.708	53,69%	66.720.421	49,78%	19.039.442	77,46%
Total expenditures	152.894.115	100,00%	134.025.682	100,00%	24.578.308	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,*

While performing their activities, 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, PDIFNM and the custodian and, for 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 the three Pension Companies in 2019 are demonstrated in Table 4.2.

Within the revenue side of both SAVA and KB Prvo, there is an increase in total revenues in 2019 compared to 2018, by about 3% in both pension companies. Thereby, most of the revenues of SAVA and KB Prvo, in 2019, originate from the fee from assets from the mandatory and voluntary pension funds (about 52% with SAVA and 51% with KB Prvo), followed by the contribution fee in mandatory and voluntary pension funds (about 40% at SAVA and 38% at KB Prvo). Compared to the previous year, the percentage share of revenues from contribution fee, in total revenues, in both pension companies increased by about two percentage points in SAVA and about one percentage point in KB Prvo. Consequently, the percentage share of revenues from the fee from assets decreased by about three percentage points at SAVA and four percentage points at KB Prvo. Compared to 2018, the percentage share of revenues at SAVA remains at approximately the same level, while at KB Prvo it increased by about two percentage points. The percentage share of other revenues of the companies is the lowest and remains at approximately the same level compared to the previous year in both pension companies.

Within the expenditure side in 2019 compared to 2018, both SAVA and KB Prvo noticed an increase in total costs by about 14%. In SAVA, most of the costs, ie about 54% of the costs are related to the operation of the company in which the highest costs are for salaries and contributions for employees, followed by the costs of services and other operating costs. At KB Prvo in 2019, the costs related to the operation of the company are about 50%. Again, most of these costs relate to the costs of salaries and allowances for employees, and then to other operating costs and service costs. The remaining 50% of the costs of KB Prvo refer to the costs of managing pension funds. In SAVA, the management costs of pension funds were about 46%. At the same time, the costs for marketing and agents were about 10% of the total costs of SAVA and about 8% of the total costs of KB Prvo, which compared to the previous year means that both pension companies have a slight decrease in participation in these costs. About 35% of the costs with SAVA and 41% of the costs with KB Prvo, refer to the fees for MAPAS, the Pension and Disability Insurance Fund and the Custodians of the assets.

TRIGLAV started with activities for management of pension funds and works on marketing of mandatory and voluntary pension fund and examination of public opinion from 1.4.2019. Inclusive of the end of the year, no voluntary contributions have been paid to Triglav Voluntary Pension Fund - Skopje. During the nine months of its existence, only Triglav Open Mandatory Pension Fund - Skopje works. Hence, TRIGLAV's revenues and expenditures in 2019 are related only to the mandatory pension fund. There is a significant difference in the amounts and distributions on the basis of income and expenses in relation to SAVA and KB Prvo, who have been active for fourteen years. In TRIGLAV, the revenues from the contribution fee, ie about 67% of the total revenues, have the largest share on the revenue side. Revenues from cash benefits have a significantly lower share of about 8%. This is to be expected, because in the first years of the fund's operation, the funds in the mandatory pension fund are smaller. Revenues have a significant share (about 21%) in the total revenues of TRIGLAV, which is due to the amount of own funds invested by the company and the amount of initial capital. In terms of expenditures, most of the costs, ie about 77% of the costs are related to the operation of the company in which the highest costs are for salaries and allowances for employees, followed by the costs of services and other operating costs. The cost of managing the mandatory pension fund is about 23%. The cost of marketing and agents is about 13% of the total cost. About 6% of the costs are related to the compensations for MAPAS, the Pension and Disability Insurance Fund and for the custodians and about 4% are the remaining expenses from the management of the mandatory pension fund.

Figure 4.1. Structure of revenue and expenditures per company for 2018 and for 2019

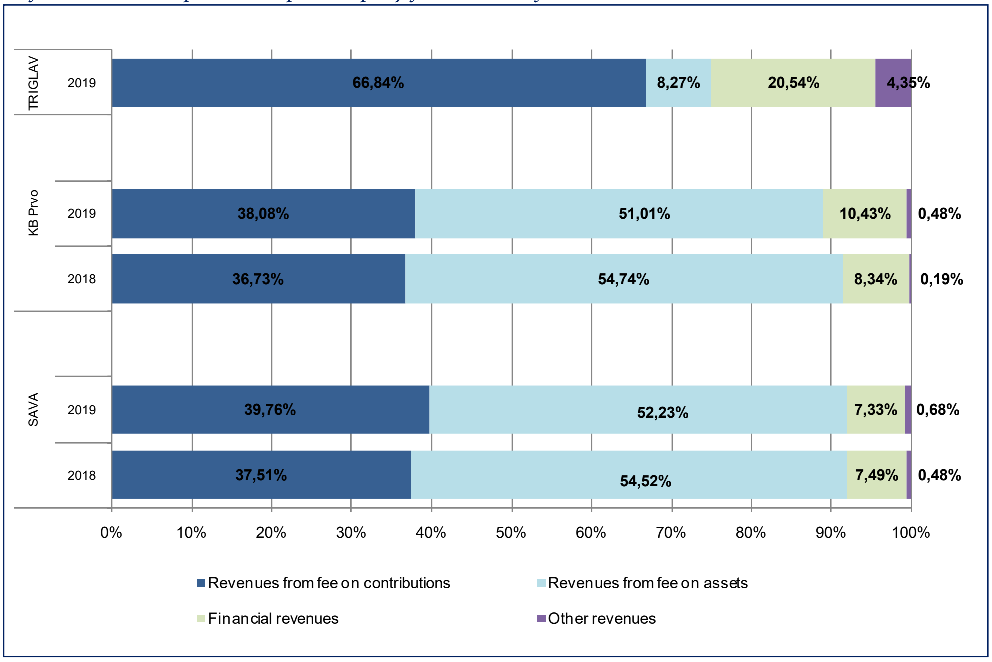
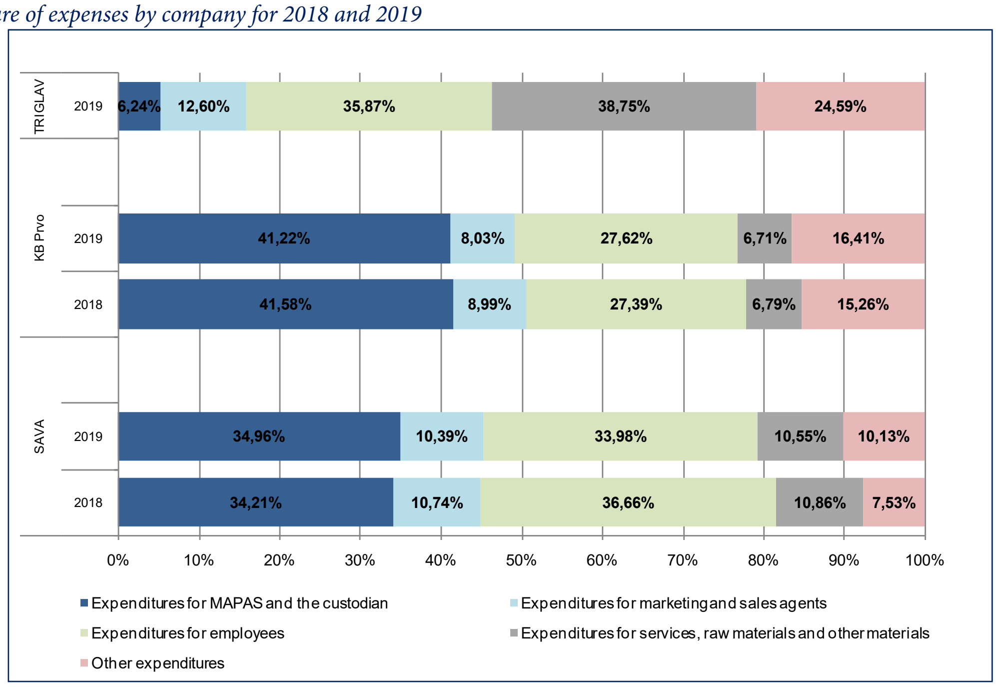


Figure 4.2. Structure of expenses by company for 2018 and 2019



4.2 Pension companies' financial results

SAVA and KB Prvo in 2019 achieved a positive financial result. Both pension companies ended 2019 with a net profit (profit after tax), whereas KB Prvo has achieved a higher net profit than SAVA, which is mostly due to the fact that KB Prvo had higher revenues, and at the same time lower costs than SAVA, for 2019. Both pension companies, in 2019, have a lower net profit compared to 2018, SAVA by 10% and KB Prvo by 5% Also, in terms of total comprehensive income, SAVA made about 94 million denars and KB Prvo in the amount of about 124 million denars, the accumulated profit (inclusive of 31.12.2019) of SAVA amounted to about 323 million denars and of KB Prvo - about 315 million denars. TRIGLAV had a negative financial result in the first year of its operation. This result was common and expected for the initial years of operation of the pension company. TRIGLAV works only with the mandatory pension fund, which includes a small number of members and assets are smaller, which on one hand affects the decrease in revenues, and on the other incurs significant costs for establishing the system, the infrastructure of the company and employees, marketing costs, as well as current fund management costs. More details on the financial result of the pension companies are shown in Table 4.3.

Table 4.3. Financial results of the pension companies for 2019 *(in denars)*

Description*	SAVA	KB Prvo	TRIGLAV
Profit (for 2019)	89.556.912	137.424.761	-19.101.058
Profit after tax (for 2019)	82.704.616	124.114.059	-19.101.058
Nonrecurring cots	0	0	0
Net profit (for 2019)	82.704.616	124.114.059	-19.101.058
Other comprehensive income **	11.182.000	0	0
Total comprehensive income***	93.886.616	124.114.059	-19.101.058
Accumulated profit (inclusive of 31.12.2019)	322.525.969	315.392.641	-19.101.058

**The data on the Other comprehensive income and the Total comprehensive income come from the audited financial reports of the pension companies for 2019.*
***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 three 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 North 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 legislation of RNM 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	TRIGLAV
Share capital and reserves	580.063.757	584.357.528	165.382.742
Share capital	130.001.478	110.459.024	184.483.800
Excess of share capital beyond statutory minimum	446,20%	529,03%	89,65%
Own assets *	514.145.964	540.196.024	148.681.172
Excess of own assets beyond statutory minimum **	145,87%	125,20%	168,62%

** 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 7.8 million Euros in denar counter-value, because the amount of assets of the mandatory and the voluntary pension funds under their management surpasses 600 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 the three pension companies for 2019.

From the analysis of the indicators for revenues and expenditures per member, it can be noticed that the average revenues per member, at KB Prvo, are higher by about 27 denars, while the average expenditures per member are higher at SAVA, by about 119 denars. Compared to 2018, the average per capita income has increased for KB Prvo (2%), while for SAVA it remained at approximately the same level. Then, compared to 2018, the average expenditures per member of both companies increased (11% for SAVA and 12% for KB Prvo). Thereby, in both companies there is a decrease in the profit per member compared to 2018 in the amount of about 14% for SAVA and 7% for KB Prvo. It is also noted that the efficiency coefficient in both companies shows an increase compared to 2018, by about 11% in both SAVA and KB Prvo. TRIGLAV recorded a loss per member in 2019, and the efficiency coefficient shows a large representation of the total costs in relation to the total revenues.

Figure 4.3 and Table 4.6 show the movement of profitability indicators ROA (net profit/total assets) and ROE (net profit/ capital), comparatively for SAVA and KB Prvo, for the period from 2006 to 2019. It can be noted that in 2019, in both pension companies, compared to 2018, the rates of return on assets and capital decreased. ROA and ROE coefficients for TRIGLAV are negative (-11% ROA and -12% ROE).

Table 4.5. Indicators *(in denars)*

Description	SAVA	KB Prvo	TRIGLAV
Indicators for revenues and expenditures per member			
Average revenues per member	967,57	994,38	597,63
Average expenditures per member	610,17	490,95	2.681,76
Profit per member	357,40	503,40	-2.084,13
Efficiency indicators			
Efficiency coefficient (total expenditures / total revenues)	63,06%	49,37%	44,.73%

Figure 4.3. ROA and ROE by company by year

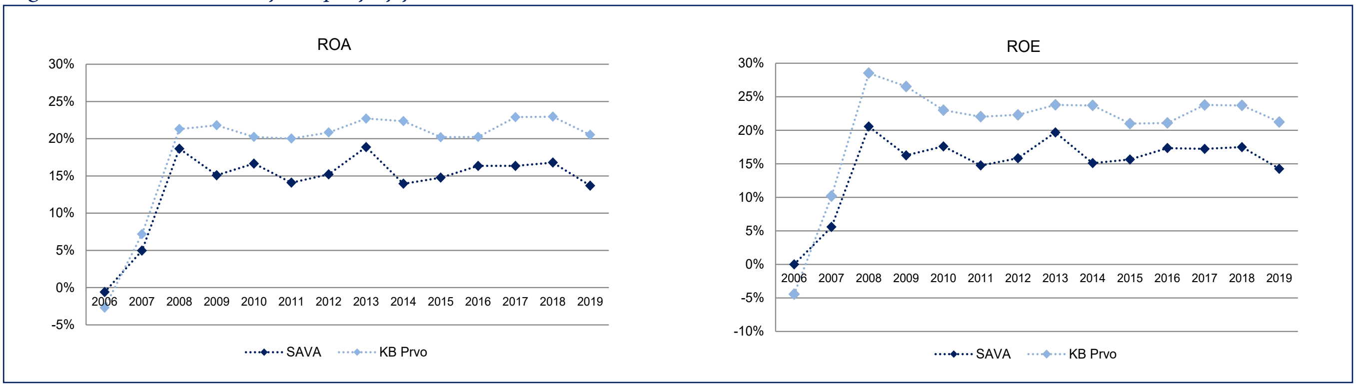


Table 4.6. Profitability indicators

Pension company	SAVA		KB Prvo		TRIGLAV	
Year / Description	ROA	ROE	ROA	ROE	ROA	ROE
2006	-0,60%	0,00%	-2,69%	-4,45%		
2007	4,97%	5,57%	7,19%	10,19%		
2008	18,66%	20,55%	21,30%	28,53%		
2009	15,09%	16,26%	21,80%	26,54%		
2010	16,66%	17,60%	20,24%	23,00%		
2011	14,09%	14,75%	20,02%	22,03%		
2012	15,21%	15,84%	20,84%	22,31%		
2013	18,88%	19,68%	22,71%	23,80%		
2014	13,94%	15,09%	22,35%	23,71%		
2015	14,77%	15,65%	20,20%	21,00%		
2016	16,34%	17,34%	20,23%	21,09%		
2017	16,35%	17,23%	22,89%	23,78%		
2018	16,79%	17,49%	22,96%	23,71%		
2019	13,70%	14,26%	20,52%	21,24%	-10,99%	-11,55%

5 Information on mandatory pension funds

5.1 Membership in mandatory pension funds

5.2 Data on membership in mandatory pension funds

5.3 Transfer of a member from one to another mandatory pension fund

5.4 Mandatory pension fund contributions

5.5 Investments and portfolio structure of mandatory pension funds

5.6 Net assets, accounting unit and rate of return on mandatory pension funds

5.7 Fees for mandatory pension funds

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

Information on mandatory pension funds

The total number of members and temporarily assigned insured persons in the mandatory pension funds, as of 2019, is 507,566, which is an increase of about 4%, compared to 2018. The reduced growth of membership in the second pillar in 2019 is mostly influenced by the termination of the membership of certain categories of insured persons in accordance with the amendments to the regulations. The new mandatory pension fund made a modest move in the transitions of members from one mandatory fund to another in 2019. Although the percentage share of members who have made a change in the mandatory pension fund in the total number of members was minimal in 2019, the number of members who made a change in the mandatory pension fund is significantly higher compared to previous years.

In 2019, the PDIFNM, in addition to the contributions it transferred to the mandatory pension funds, transferred a total of about 282 million denars as fee for untimely transfer of contributions to insurees not distributed, and who were mandatory members of the second pillar according to criteria before the adoption of amendments to the law.

As a result of the growth of paid contributions and investment results, the total assets of the mandatory pension funds in 2019 increased by 17% and reached 75.6 billion denars, which is about 10.84% of the GDP of RNM. The structure of the investment portfolio of the mandatory pension funds does not differ significantly compared to last year, despite the start of a third mandatory pension fund, whose portfolio significantly deviates from the investment structure of existing mandatory pension funds, given that the new fund disposes of assets of a small volume.

At the end of the year, the value of the accounting units of both SAVAz and KBPz increased significantly compared to the previous year by about 11%. The accounting unit of TRIGLAVz, in the first nine months of operation, also increased by approximately 2%, which is a more modest expectation compared to the growth of the accounting units of SAVAZ and KBPz, which have been operating for fourteen years.

In 2019, the pensions and payments were realized for only 245 members of the second pillar.

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 PDIFNM, 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

The amendments to the Law on Mandatory Fully Funded Pension Insurance ("Official Gazette of the Republic of Macedonia" No. 2545/2018 of 28.12.2018 and No. 180/2019 of 2.9.2019) provide for several substantial changes regarding the accession to mandatory fully funded pension insurance valid from 1.1.2019

Namely, there are two major categories of second pillar members:

• Mandatory members

o -insured persons who have been employed, ie who have joined the mandatory pension and disability insurance, for the first time, after January 1, 2003 and were born after January 1, 1967;

o -insured persons who have been employed, have become members of the mandatory pension and disability insurance, for the first time after January 1, 2019 and who are younger than 40 years on the date of membership

• Voluntary members

o insured persons who were first employed before January 1, 2003, who at their own choice, by concluding a membership agreement, entered into the mandatory fully funded pension insurance and were born after January 1, 1967;

o insured persons who were employed for the first time before January 1, 2003, who at their own choice by entering into a membership agreement joined the mandatory fully funded pension insurance, were born before January 1, 1967 and who signed a statement for extension of membership in the mandatory fully funded pension insurance.

Insured persons whose insurance length of service is considered to have extended duration and the insured persons belonging to Chapter VII - "Acquisition and exercise of entitlements for certain categories of insured persons under special conditions of the Law on Pension and Disability Insurance" (employees in service to the Ministry of Interior -penitentiary facilities, the Army, etc.) are not covered in the second pillar, if they have completed extended duration insurance which allows reduction of the age limit for exercising the right to retirement pension for a minimum of one year. When the insured persons who are members of the mandatory pension fund complete the insurance period with extended duration which enables reduction of the age limit for exercising the right to retirement pension for a minimum of one year in accordance with Article 118 paragraph (3) of the Law on Pension and Disability Insurance, the right to choose extension to their membership in the second pillar is allowed with a written membership extension statement in the mandatory pension fund to be sent within three months from the completion of the insurance period. If these members do not submit a written statement, their membership in the mandatory pension fund shall expire upon the expiration of this period.

5.1.1 Change of the criterion for membership in the mandatory pension funds

In the past years of operation of the second pillar, there have been cases of elderly insured persons who have joined the second pillar and have had several years of work experience in a single pillar system. These insured persons are elderly and do not have enough time to accumulate assets. Based on such cases and analyzes, it was determined that the membership in the second pillar for these insured persons is not favorable. Accordingly, amendments to the Law on Mandatory Fully Funded Pension Insurance were adopted, which refer to the criterion for membership in the mandatory pension funds.

Namely, with the amendments to the Law on Mandatory Fully Funded Pension Insurance ("Official Gazette of the Republic of Macedonia" No. 2545/2018 of 28.12.2018), several substantial changes were made regarding the accession to mandatory fully funded pension insurance. The criterion for membership in the second pillar was changed, ie the criterion for mandatory membership in the second pillar of the insured who have entered the mandatory pension and disability insurance for the first time after 1.1.2003 was replaced by the criterion for mandatory membership in the second pillar of the insured who have become members of the mandatory pension and disability insurance for the first time after 1.1.2019 and who at the date of joining the mandatory pension and disability insurance were younger than 40 years of age. Thereby, the insured persons who have acquired membership in the second pillar (obligatorily or voluntarily included in the second pillar) and who were born after 1.1.1967, shall continue their membership in the mandatory fully funded pension insurance.

Then, the criteria for termination of the membership of certain categories of members (elderly insured persons) were defined. Namely, the members of the mandatory pension funds who were obligatorily included in the second pillar (employed for the first time after 1.1.2003) and were born before 1.1.1967, had their membership in the mandatory pension fund discontinued in 1.1.2019. The pension company transferred the total amount of assets from the accounts of these members to the Pension and Disability Insurance Fund and these insured persons remained insured only in the current pay-as-you-go financed pension insurance. Whereas, the members of the mandatory pension funds who were voluntarily included in the second pillar (employed for the first time before 1.1.2003) and who were born before 1.1.1967, had the right to choose to discontinue or resume membership in the second pillar with written statement for termination or extension of the membership in the mandatory pension fund, no later than September 30, 2019.

Also, the members of the mandatory pension funds who until the day of enforcement of this Law (1.1.2019), during the insurance period acquired the capacity of an insured person in accordance with Article 11 items 9) and 15) of the Law on Pension and disability insurance (as an insured individual as an individual farmer or as a self-employed person for retail trade in stalls and markets) or they had insurance experience which is considered of extended duration, their membership in the mandatory fully funded pension insurance shall be discontinued on 1.1.2019. The pension company shall transfer the total assets from the accounts of these members to the Pension and Disability Insurance Fund and these insured persons shall remain insured only in the currently funded pension insurance based on generational solidarity.

Then, with the amendments to the Law on Mandatory Fully Funded Pension Insurance ("Official Gazette of the Republic of Macedonia" no.180/2019 from 2.9.2019) specifies that the members with job positions with extended insurance shall have their membership in a mandatory pension fund discontinued. Namely, insured persons who are members of a mandatory pension fund and who have completed an insurance period with extended duration that enables reduction of the age limit for exercising the right to retirement pension for a minimum of one year in accordance with Article 118 paragraph (3) of the Law on Pension and Disability Insurance , have the right to choose to discontinue or resume membership in the second pillar with a written statement for extension of membership in the mandatory pension fund within three months from the completion of the insurance period. If these members do not submit a written statement, their membership in the mandatory pension fund will expire after this deadline.

Also, the members of the mandatory pension fund, who until the day of entry into force of this law have completed insurance with extended duration which allows reduction of the age limit for exercising the right to a retirement pension for a minimum of one year in accordance with Article 118 paragraph (3) from the Law on Pension and Disability Insurance, may choose to continue the membership in the second pillar with a written statement for extension of the membership in the mandatory pension fund, no later than November 30, 2019. Otherwise, their membership in the mandatory pension fund will discontinue after this deadline. After the discontinuance of the membership, these insured persons will remain insured only in the currently financed pension insurance based on generational solidarity.

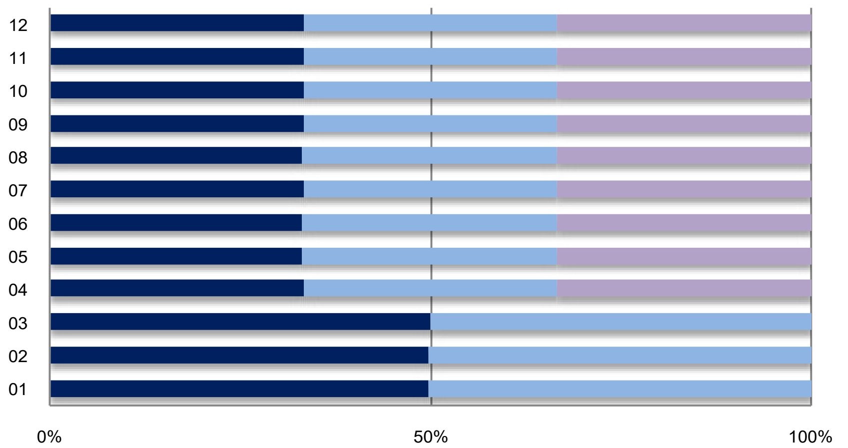
Also, the insured persons who during the insurance will be eligible for insurance according to Article 11 paragraph (1) items 9) and 15) of the Law on Pension and Disability Insurance (property of the insured as an individual farmer or as an independent retail and stall trader in markets) shall no longer be second pillar members.

5.2 *Data on membership in mandatory pension funds*

Insured persons who are mandatory members of the fully funded pension insurance are obliged to join a mandatory pension fund within three months, calculated from the date of first employment. The Pension and Disability Insurance Fund temporarily shall distribute these insured persons in the mandatory pension funds, at random, from the moment of their employment, in order for their funds to be invested immediately after employment. If they do not sign a membership agreement with any company within the legal deadline, the insured persons shall remain members of the mandatory pension fund in which they were previously temporarily allocated.

The weight, according to which the temporary distribution of the insured in the mandatory pension funds is made at random, is determined by MAPAS for each mandatory pension fund, on the first business day of each month. The weight depends on the value of the fee from the contributions charged by the pension company and the return in the nominal amount realized by the pension fund, whereby the return (70%) has a greater impact than the contributions fee (30%)[4]. The weights used for the distribution of the insured in the mandatory pension funds, during 2019, are shown in Figure 5.1.

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



	01	02	03	04	05	06	07	08	09	10	11	12
SAVAz	49,76%	49,75%	49,97%	33,26%	33,01%	33,01%	33,16%	33,13%	33,28%	33,30%	33,34%	33,38%
KBPz	50,24%	50,25%	50,03%	33,40%	33,66%	33,66%	33,51%	33,54%	33,39%	33,37%	33,33%	33,29%
TRIGLAVz				33,34%	33,33%	33,33%	33,33%	33,33%	33,33%	33,33%	33,33%	33,33%

As in previous years, in the first three months of 2019, the number of distributed members between SAVAz and KBPz is approximately the same, as the value of the two weights is around 50% (the value of the KBPz weight is slightly higher in relation to the value of the SAVAz weight). On April 1, 2019, the mandatory pension fund TRIGLAVz started operating, so starting from April 2019, the insured will be distributed in three mandatory pension funds. According to the defined provisions in the regulation, if the mandatory pension fund operates for less than 12 months (due to the calculation of the weight), the average yield is taken in nominal amount of the existing mandatory pension funds, in order to support operations in the early years of activity of the new mandatory pension fund. This principle of distribution of insured persons is justified in order to encourage competition in the fully funded pension insurance, in order to increase the choice of pension assets for members and to encourage better investment results of pension funds. In addition, despite the fact that the amount of contribution fees in 2019 decreased, given the fact that the three companies charged contribution fees at the same amount and the fact that the realized income in nominal amount, of pension funds, was not very different, the weights for the months April-December 2019 for the three pension funds were approximately the same.

[4]The formula for weight calculation is prescribed with the Rulebook for Membership in a Mandatory Pension Fund.

The total number of members and temporarily allocated insured persons in the mandatory pension funds, as of December 31, 2019, is 507,566, which means an increase in the number of members in the second pillar by 17,521, or about 4%, compared to 2018. The reduced growth of membership in the mandatory members on 31.12.2019 compared to 31.12.2018 is most affected by the termination of membership of certain categories of insured persons in 2019 in accordance with the amendments to the regulations described above in the Report. Table 5.1 provides detailed data on the number of members who are required to become members of a mandatory pension fund by category. These insured persons remain insured only in the Pension and Disability Insurance Fund.

Table 5.1. Insured persons with discontinued membership in the mandatory pension fund in 2019

Category/ Mandatory pension fund	SAVAz	KBPz	Total
Members employed for the first time after 1.1.2003 and born before 1.1.1967	6.090	6.589	12.679
Members employed for the first time before 1.1.2003, born before 1.1.1967, who signed a statement for discontinuance of membership in MPF	54	68	122
Members employed for the first time before 1.1.2003, born before 1.1.1967, who did not sign a statement	2.288	2.699	4.987
Members who during the insurance had completed an insurance period of extended duration, which enables reduction of the age limit for exercising the right to old age pension for a minimum of one year	1.841	2.467	4.308
Members with the status of insured persons as individual farmers	1.241	1.371	2.612
Total	11.514	13.194	24.708

The level of growth of the number of members in the second pillar compared to the previous year, in addition to the new mandatory members, was maintained by the distribution of untimely distributed insured persons. Namely, the insured persons who are obligatory members of the second pillar according to the criteria before the adoption of the amendments to the law (insured persons who are employed for the first time after 1.1.2003), but who were not distributed in the mandatory pension funds until the day of enforcement of the law, were distributed by the Pension and Disability Insurance Fund until June 30, 2019. For these members, the Pension and Disability Insurance Fund paid fee for an untimely transfer of contributions to their individual accounts, in the amount calculated in accordance with the defined method of assessment and calculation. Table 5.2 provides detailed data on the number of these members per mandatory pension fund.

Table 5.2. Untimely MPF distributed insured persons

Mandatory pension fund	SAVAz	KBPz	TRIGLAVz	Total
Insurees who are mandatory members of the second pillar in accordance with the criteria before the adoption of the amendments to the law, but who until the day of application of the law were not distributed in the MPF	6.220	6.234	1.702	14.156

Table 5.3 Members who signed a statement extending membership in the mandatory pension fund in 2019

Category/ Mandatory pension fund	No of members		
	SAVAz	KBPz	Total
Members employed for the first time before 1.1.2003, born before 1.1.1967, who signed a statement for extension of membership in MPF	433	658	1.091
Members who during the insurance had completed an insurance period of extended duration, which enables reduction of the age limit for exercising the right to old age pension for a minimum of one year and who signed a MPF membership extension statement	147	285	432
Total	580	943	1.523

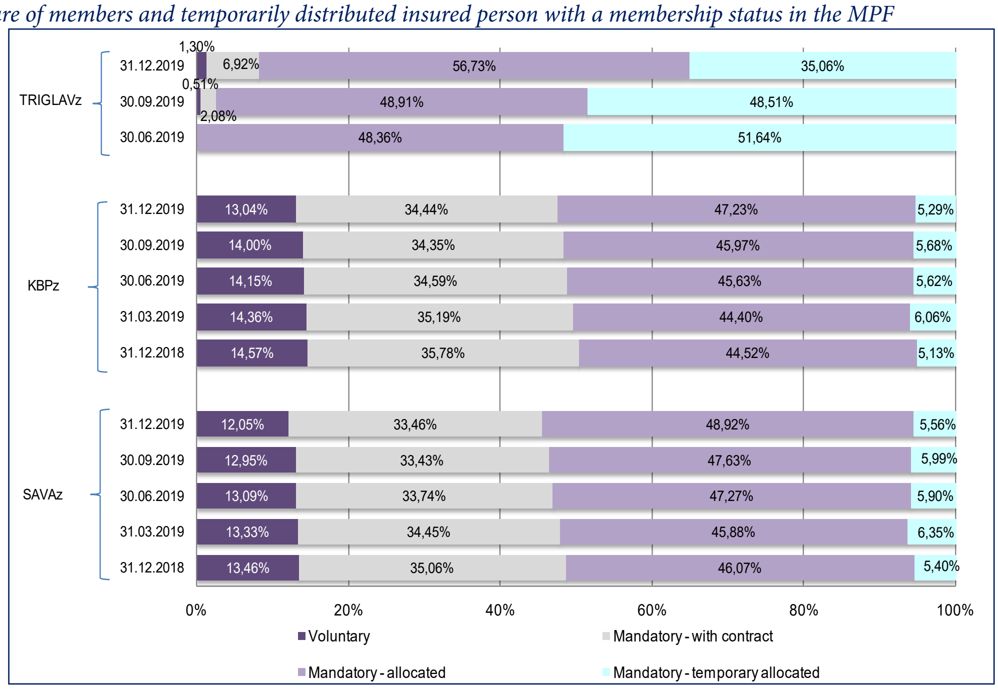
The members who had the right to choose and signed statements for extension of the membership in the mandatory pension fund also had a minimal participation in the growth of the membership. Table 5.3 provides detailed data on the number of these members by category and mandatory pension fund.

Regarding the distribution of membership by mandatory pension funds, it is expected that in 2019 the largest number of insured persons will be members of SAVAz and KBPz. So, out of the total number of members and temporarily distributed insured according to the mandatory pension funds, as of 31.12.2019, 51% are in KBPz, 47% are in SAVAz and 2% are in TRIGLAVz.

Of the total number of members in the second pillar, 62,735 or 12% are voluntary members, while 444,821 or 88% are mandatory members. Out of the total number of mandatory members, 169,937 members signed a membership agreement, 244,645 did not sign an agreement and are permanently distributed and 30,239 insured persons are temporarily allocated. In 2019, the trend of a small number of new insured persons signing membership agreements continues. Namely, it can be noticed that only about 4% of the insured persons who have the obligation to join the mandatory pension fund in 2019 and for which the deadline for selection of the mandatory pension fund has expired, have signed a membership agreement, while the others, about 96 %, have not sign a contract and remain in the fund where they were previously allocated.

In the structure of members and temporarily distributed insured persons by membership status, in 2019, for SAVAz and KBPz some unexpected and significant changes did not occur. The structure of the members and the temporarily allocated insured persons by membership status, in 2019, is similar to SAVAz and KBPz. At the same time, it can be noticed that in each quarter, the percentage of voluntary members decreases, while the participation of the obligatory members increases, which is expected, because the inflow of obligatory members increases every year. It can also be noted that the percentage of mandatory members who have signed a membership agreement is gradually decreasing from quarter to quarter, as opposed to the participation of mandatory members, which are permanently allocated, which is gradually increasing from quarter to quarter. The structure of the members and the temporarily distributed insured according to the membership status of the new mandatory pension fund TRIGLAV significantly differs compared to SAVAz and KBPz, which is expected. It can be noted that in the first quarter of the operation in TRIGLAV members are only mandatory members who are permanently or temporarily distributed. Although minimally, In the next two quarters the participation of voluntary members and obligatory members who have signed a membership agreement has gradually increased. Increased is also the percentage share of mandatory allocated members, while temporarily distributed insured persons' share has diminished. Voluntary members of TRIGLAVz are insured persons who have signed contracts for the transition from SAVAz or KBPz to TRIGLAVz. The structure of members and of temporarily distributed insured persons according to the mandatory pension funds and by membership status in 2019 is shown on a quarterly basis, in Figure 5.2.

Figure 5.2. Structure of members and temporarily distributed insured person with a membership status in the MPF



The structure of membership by age shows that the members, for the most part, are young people, for whom, in fact, the most favorable is the two-pillar system. Mandatory members are young people, with 81% of the mandatory members being under the age of 40, while the voluntary members are slightly older and 89% of them are under the age of 50. The average age of the obligatory members is 33 for men and 34 for women, and for volunteers is 45 years (for both men and women), and for all members, it is 35 years in total. The membership structure of the two-pillar pension system by age, gender, and membership category is shown in Figure 5.3.

According to the State Statistics Office , at the end of 2019, the total working age population in the RNM was 1,684,822, while the total active population[5] was 964,015. At the end of 2019, about 30% of the total working population in the RNM were members of the two-pillar system, ie about 53% of the total active population in the RNM are members of the two-pillar pension system. The structure of the members in the two-pillar pension system, in the total working age population and active population[6] in RNM, by age groups and by gender, as of 31.12.2019, is shown in Figure 5.4. From this graphic display it can be seen that a significant percentage (over 60%) of the active population aged 15 to 49 years is included in the two-pillar pension system.

Figure 5.3. Membership structure of the two-pillar pension system by age, gender and by category of membership

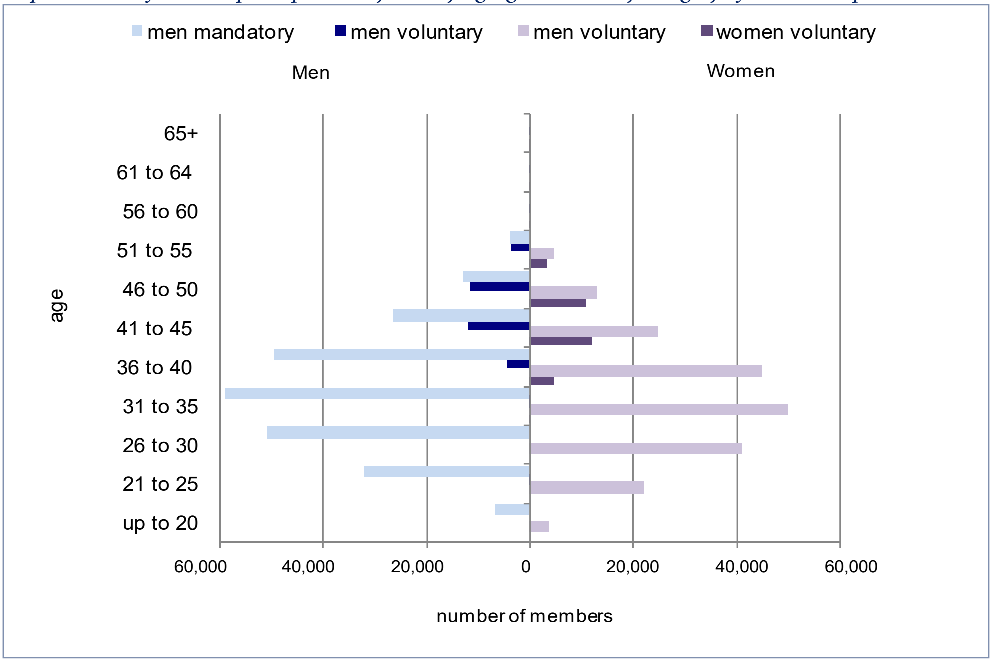
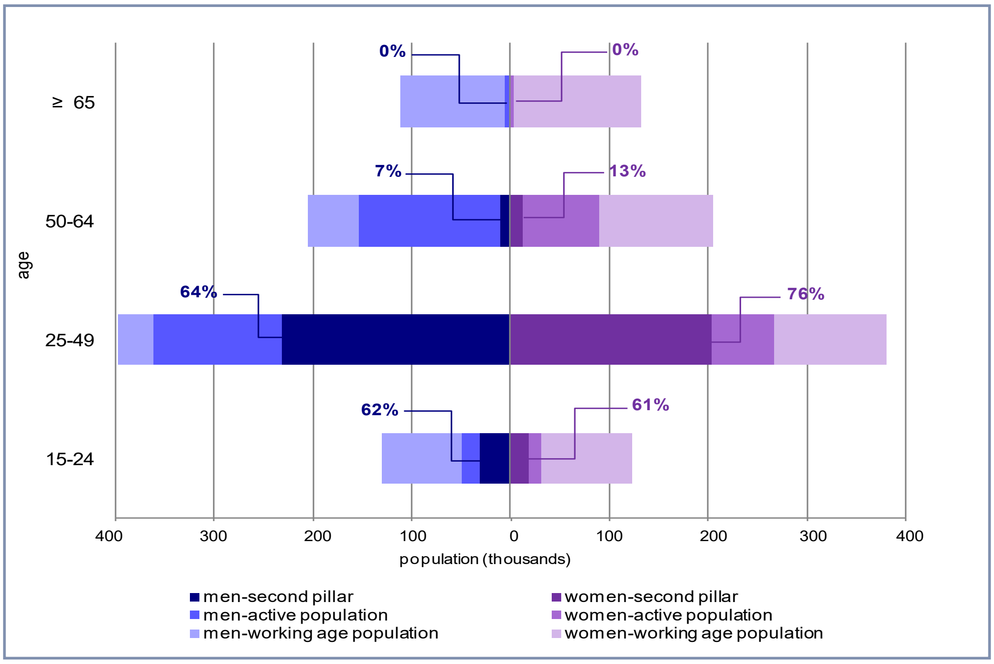


Figure 5.4. Structure of members in the two-pillar pension system in the total working age population and active population, by age groups and gender

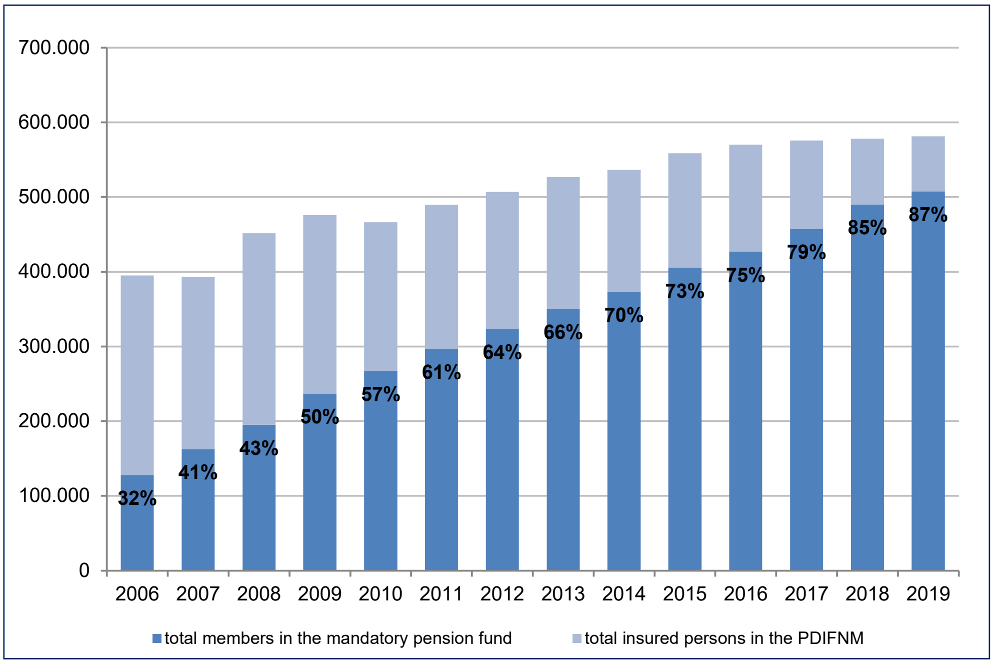


Source: State Statistics Office- active population in the RNM, results from the 2019 Workforce Survey

[5]*Woking age population – composed of all individuals aged 15-79*
[6]*Economically active population- composed of employed and unemployed persons*

According to the data of the Pension and Disability Insurance Fund for the number of insured persons inclusive of 31.12.2019, about 87% of the total number of insured persons in the Pension and Disability Insurance Fund are members of the two-pillar pension system. Figure 5.5. shows the increase in the share of members in the two-pillar pension system in the total number of insured persons in the Pension and Disability Insurance Fund from the beginning of work on the second pillar.

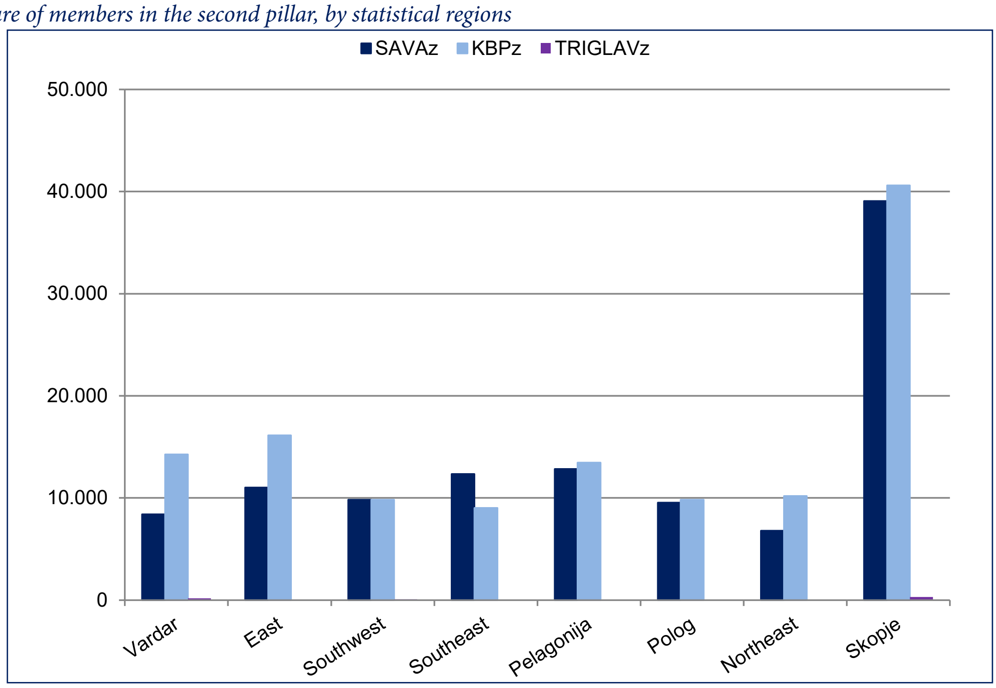
Figure 5.5. Participation of members in the two-pillar pension system of insured persons in the Pension and Disability Insurance Fund, by years, 2006-2019



Source: MAPAS and PDIFNM

The structure of the members in the mandatory pension funds, by statistical regions[7] in the RNM, is given in Figure 5.6. Most members in all three mandatory pension funds are from the Skopje region. The least number of SAVAz members are from the Northeast region, the lowest number of KBPz members are from the Southeast region, and the lowest number of TRIGLAVz members are from the Polog region.

Figure 5.6. Structure of members in the second pillar, by statistical regions



[7]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.

5.3 Transfer of a member from one to another mandatory pension fund

Each member of the mandatory pension fund has the right to switch to another mandatory pension fund, and if the member is not satisfied with the mandatory pension fund, the one s/he is a member of, ie. the company that manages it. If the person has been a member of the mandatory pension fund for less than 24 months, at the time of the transfer, s/he is obliged to pay a transfer fee. If the person has been a member of a fund for more than 24 months, then the transition to another fund is free of charge. During the transfer, the total assets from the member's account are also transferred.

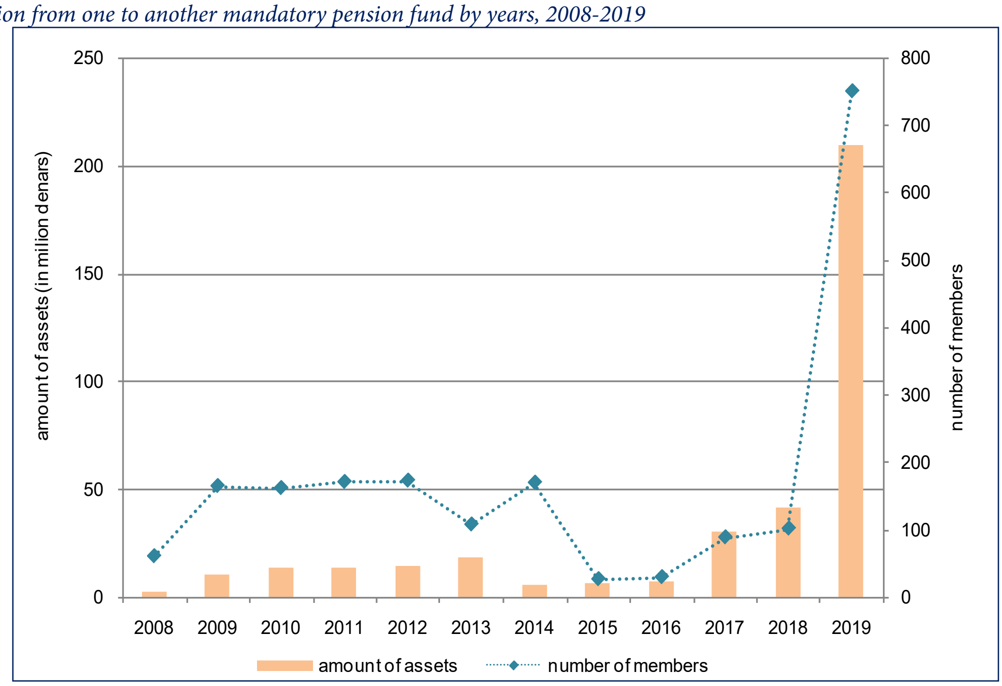
Table 5.4. provides 2019 data on the number of members who have transferred from one to another mandatory pension fund and the amount of assets transferred from one to another mandatory pension fund on that basis.

Table 5.4. Transfer of members from one mandatory to another pension fund

2019		Mandatory pension fund in which members or assets were transferred			
		SAVAz	KBPz	TRIGLAVz	Total
Members who have transferred from a mandatory pension fund	SAVA	-	77	309	386
	KBPz	56	-	305	361
	TRIGLAVz	1	2	-	3
	Total	57	79	614	705
Assets which were transferred from a mandatory pension fund (in denars)	SAVA	-	22.070.293	82.002.448	104.072.741
	KBPz	17.169.074	-	88.110.550	105.279.624
	TRIGLAVz	2.760	20.002	-	22.762
	Total	17.171.834	22.090.295	170.112.998	209.375.127

The new mandatory pension fund made a modest rise in the transition of members from one mandatory pension fund to another in 2019. Namely, during 2019, the total number of members in the mandatory pension funds, who have passed from one to another mandatory pension fund, is 750, which is 0.15% of the total number of members. Although the percentage of members who made a change in the mandatory pension fund in the total number of members is minimal, in 2019, the number of members who made a change in the mandatory pension fund is significantly higher compared to 2018. In addition, 57 members switched to SAVAz, 79 switched to KBPz and 614 members switched to TRIGLAVz. During the transition, about 17 million denars were transferred to SAVAz, about 22 million denars were transferred to KBPz and about 170 million denars were transferred to TRIGLAVz. In Figure 5.7. an overview is presented of all crossings of members from one to another mandatory pension fund and the total transferred funds from one to another mandatory pension fund from 2008 to 2019.

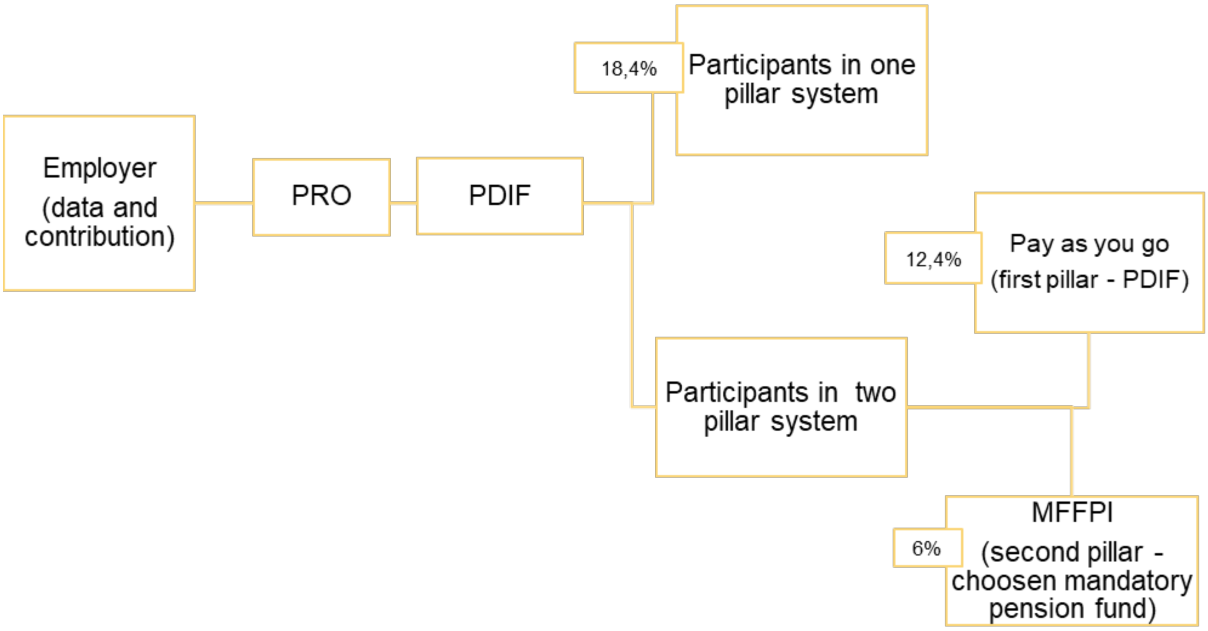
Figure 5.7. Transition from one to another mandatory pension fund by years, 2008-2019



5.4 *Mandatory pension fund contributions*

The payment of the contributions for the pension and disability insurance is performed by the debtor for payment of the contribution, ie the employer, on behalf of the employee. The Public Revenue Office makes integrated payment of mandatory social contributions (contribution for pension and disability insurance, health insurance contribution and employment contribution in case of unemployment) and personal income tax.

Figure 5.8. Schematics of payments and distribution of contributions



For the insured who participate in a one-pillar system, the total paid contribution remains in the Pension and Disability Insurance Fund (for 2019, 18.4% of the gross salary). For the insured persons who are included in the system with two pillars, the Pension and Disability Insurance Fund distributes the paid contribution between the first and the second pillar. The amount of the contribution, which is transferred to the mandatory pension fund, is 6% of the gross salary, and in the PDIFNM remains a contribution calculated as a difference between the total contribution for pension and disability insurance and the contribution paid to the mandatory pension fund (for 2019, it was 12.4% of the gross salary (12.4% = 18.4% - 6%)).

Immediately, and no later than five working days from the receipt of the contributions, the Pension and Disability Insurance Fund shall transfer the contributions of the members of the mandatory pension funds to the individual accounts of the selected mandatory pension funds, provided that appropriate data compliant with law are received within the same period, which enable the Pension and Disability Insurance Fund to perform that obligation. If the Pension and Disability Insurance Fund does not transfer the contributions of the members of the mandatory pension funds to the accounts of the selected mandatory pension funds immediately, and no later than five working days from the day of receipt of the contributions due to lack of relevant data, the Pension and Disability Insurance Fund is obliged within no longer than three months from the date of receipt of the contributions to provide appropriate data and to transfer the contributions of the members of the mandatory pension funds to the accounts of the selected mandatory pension funds with the custodian of the asset. Then, the Pension and Disability Insurance Fund submits data to the companies and MAPAS regarding the performed transfer of contributions.

During 2019, contributions in the amount of about 8.7 billion denars were transferred to the mandatory pension funds, or by months (in millions of denars), as shown in Table 5.5.

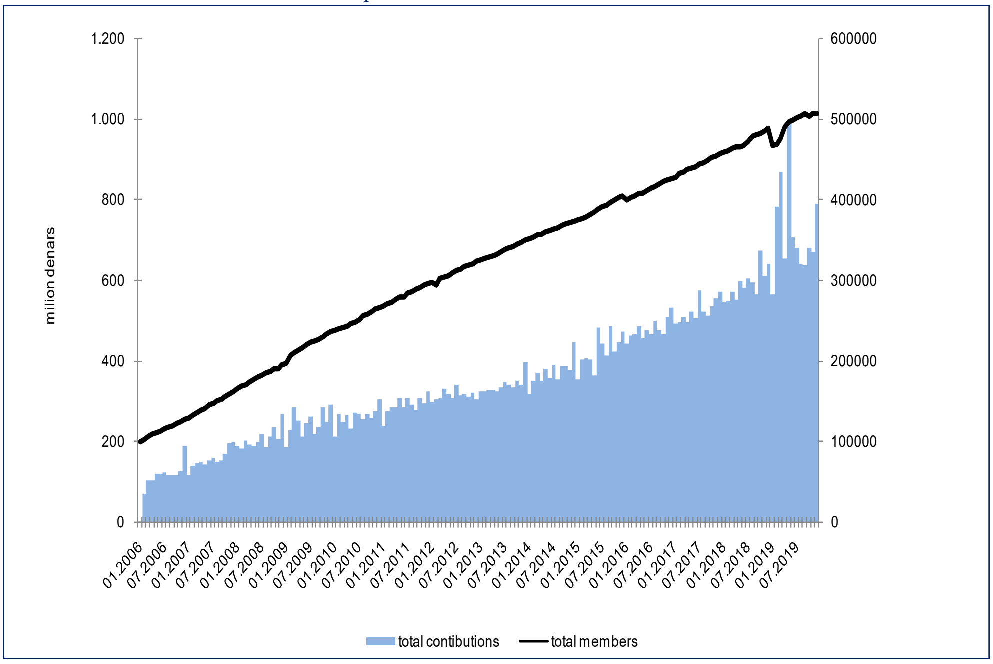
Table 5.5. Contributions paid in the second pillar *(in million denars)*

	Total 2018	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total 2019
SAVAz	3.383	269	379	425	315	455	308	323	305	302	323	316	370	4.090
KBPz	3.719	299	404	447	341	488	337	355	333	331	352	349	402	4.438
TRIGLAVz					0,15	50	64	4	5	6	7	8	18	163
Total	7.102	568	783	872	657	993	709	682	643	639	683	674	789	8.691

In Figure 5.9. the total contributions (in millions of denars) are shown, paid in the second pillar, every month, from the beginning of the work of the mandatory fully funded pension insurance until 31.12.2019 and the total number of members, at the end of each month, in the same period.

It can be noted that, in general, with the increase in the number of members, the paid contributions to the mandatory pension funds grow (although the trend of payments is not completely linear, but there are some declines and larger increases in certain months). The larger increases in the paid contributions in the months in the first half of 2019 are probably due to the paid contributions for the insured who were untimely distributed in the second pillar. Reduction of the membership status in the first month of 2019 is due to the termination of the membership of certain categories of insured persons on 1.1.2019 in accordance with the amendments to the law.

Figure 5.9. Paid contributions and members in the second pillar



5.4.1 Compensation for untimely transfer of contributions

Amendments to the Law on Mandatory Fully Funded Pension Insurance dated 28.12.2018 provide for a fee obligation of the Pension and Disability Insurance Fund for untimely transfer of contributions in case the Pension and Disability Insurance Fund has not distributed the insured persons who were mandatory members of the second pillar in accordance with the criteria prior to adoption of the amendments to the law, and in case the Pension and Disability Insurance Fund has not distributed the insured persons who are mandatory members of the second pillar in accordance with the new criteria for membership within three months after their entry into the mandatory pension and disability insurance and in case the Pension and Disability Insurance Fund does not transfers the contributions of the members of the mandatory pension funds to the accounts of the selected mandatory pension funds within three months from the day of receipt of the contributions. The funds for mandatory fully funded pension insurance, realized on the basis of untimely and incomplete payment of the contributions, are transferred to the individual account of the member of the mandatory pension fund.

The fee amount for untimely transfer of contributions is determined[8] based on the assessment of the condition of the hypothetical individual account of a member of the mandatory pension fund that has an identical history of payment of contributions with the insured with untimely distribution or on the basis of an assessment of the condition of part of the individual account assets of the member of the mandatory pension fund, the amount of the total untimely transferred contributions and the contributions fee charged by the pension company.

In 2019, in the mandatory pension funds, the Pension and Disability Insurance Fund transferred a total of about 282 million denars in fees for untimely transfer of contributions to insured persons who were not distributed, and who were mandatory members of the second pillar according to the criteria before amendments to the law were adopted. In Table 5.6. detailed data on the transferred contributions and transferred fees for untimely transfer of contributions for these insured persons by funds are shown. 4,165, ie 29% of the insured persons who were untimely distributed did not have paid contributions to the Pension and Disability Insurance Fund.

[8]The formula for calculating the fee for untimely transfer of contributions is prescribed in the Rulebook for untimely transfer of contributions..

Table 5.6. Fees paid for untimely transfer of contributions for untimely allocated insured persons in the second pillar before 2019 (in millions of denars)

Mandatory pension fund	Members	Contributions	Fee for untimely transfer of contributions
SAVAz	6.220	350,71	123,54
KBPz	6.234	346,38	121,49
TRIGLAVz	1.720	106,78	36,73
Total	14.154	803,87	281,76

Also, in 2019, in the mandatory pension funds, the Pension and Disability Insurance Fund transferred a total of about 13 million denars as fee for untimely transfer of contributions to members for which it did not transfer contributions to the accounts of the selected mandatory pension funds within three months of the day of receipt of contributions. In Table 5.7. detailed data on the transferred fees for untimely transfer of contributions by funds are shown.

Table 5.7. Fees paid for untimely transfer of contributions in the second pillar in 2019 (in millions of denars)

Mandatory pension fund	Untimely translfer of contributions fee
SAVAz	5,80
KBPz	7,18
TRIGLAVz	0,17
Total	13,15

5.4.2 Assets returned to the Pension and Disability Insurance Fund

During 2019, part of the assets paid in the mandatory pension funds (about 5 billion denars) were returned to the PPDIFNM for several reasons:

- exercising the right to disability or family pension;
- surplus of paid contributions in the second pillar due to technical errors or surplus of payments by the employer
- termination of membership agreements or annulment of distribution;
- termination of membership of certain categories of members in accordance with the amendments to the law that are described in detail in Chapter 5.1.1. Change of the criterion for membership in the mandatory pension funds.

In 2019, assets returned to the PDIFNM are significantly higher than the previous year. This is mostly due to the termination of the membership of certain categories of members in accordance with the amendments to the law. The structure of the returned funds in the PDIFNM, according to the mandatory pension funds, is shown in detail in Table 5.8.

Table 5.8. Structure of returned assets in the PDIFNM, by MPF *(in millions of denars)*

Cause	From the mandatory pension fund			Total
	SAVAz	KBPz	TRIGLAVz	
Realized pension	11,15	21,01	0,00	32,16
- disability pension	2,19	4,13	0,00	6,32
- Survivors pension	8,96	16,88	0,00	25,84
Surplus contribiution payment	0,61	0,81	0,001	1,41
Termination of contracts and annulment of distribution	0,98	0,02	0,00	0,99
Discontinuation of membership	2.193,35	2.750,72	0,00	4.944,07
- members employed for the first time after 1.1.2003 and born before 1.1.1967	507,57	575,42	0,00	1.082,99
- members employed for the first time before 1.1.2003, born before 1.1.1967, who signed a statement for termination of membership in MPF	22,67	28,20	0,00	50,87
- members employed for the first time before 1.1.2003, born before 1.1.1967, who did not sign a statement	545,03	760,24	0,00	1.305,27
- members who during the insurance had completed an internship with extended duration, which enables reduction of the age limit for exercising the right to retirement pension for at least one year	1.043,10	1.303,86	0,00	2.346,96
- members with the capacity of insured persons as individual farmers	74,98	83,01	0,00	157,99
Total	2.206,08	2.772,55	0,001	4.978,63

5.5 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 in mandatory pension funds by the companies. The maximum investment limits are given in table 5.9

Table 5.9. 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 RNM on the domestic market or NBRNM	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 RNM	5%
• participation shares in private investment funds	1,5%

MAPAS may prescribe restrictions on the investment of certain types of instruments other than the restrictions established by law, which will be valid for a period also prescribed by MAPAS, but not longer than five years. In 2019, decisions were made on additional restrictions according to which 100% is the maximum percentage of the value of the assets of the mandatory and voluntary pension fund that can be invested in bank deposits that have a license issued by the NBRNM, if they bring interest ie in bonds and other securities issued or guaranteed by RNM on the domestic market, within a period of one year from the date of the first payment in the mandatory and voluntary pension fund.

The structure of the investments of the mandatory pension funds SAVAz and KBPz, from the beginning of the functioning of the system (for the period 2006 - 2018, on an annual basis, and for 2019, on a quarterly basis) is shown in Figure 5.10. and Figure 5.11. The investment structure of the mandatory pension fund TRIGLAVz from the beginning of the fund's work (April 1, 2019) on a quarterly basis is shown in Figure 5.12.

Figure 5.10. Structure of investments of SAVAz

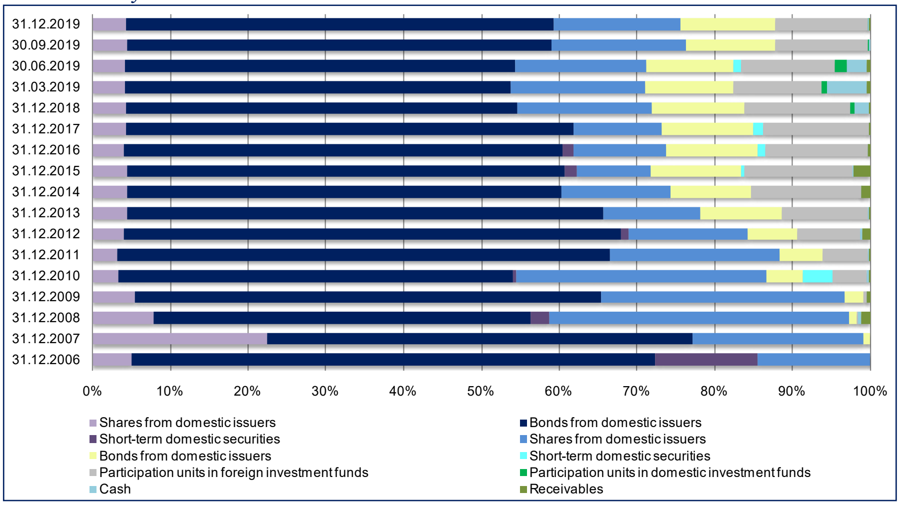


Figure 5.11. Structure of investments of KBPz

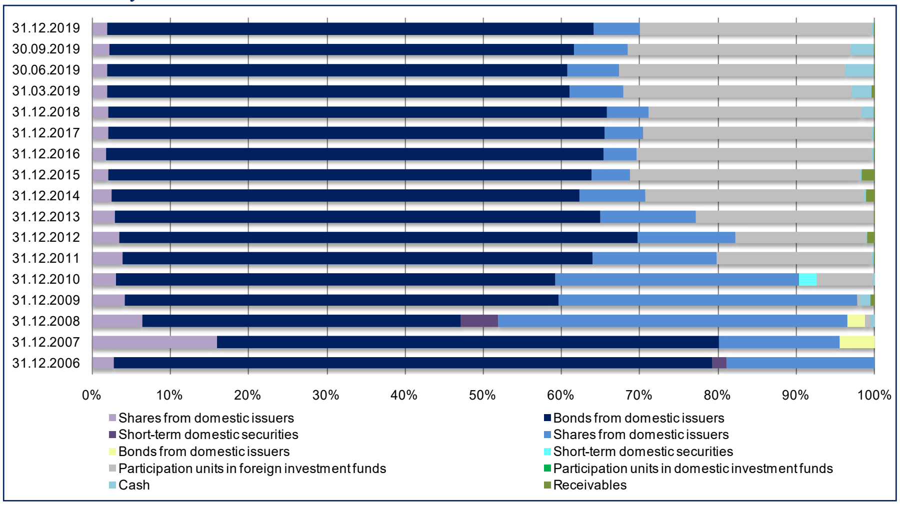
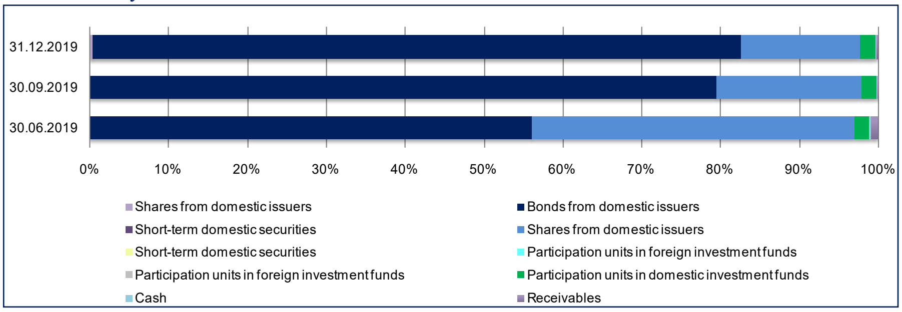
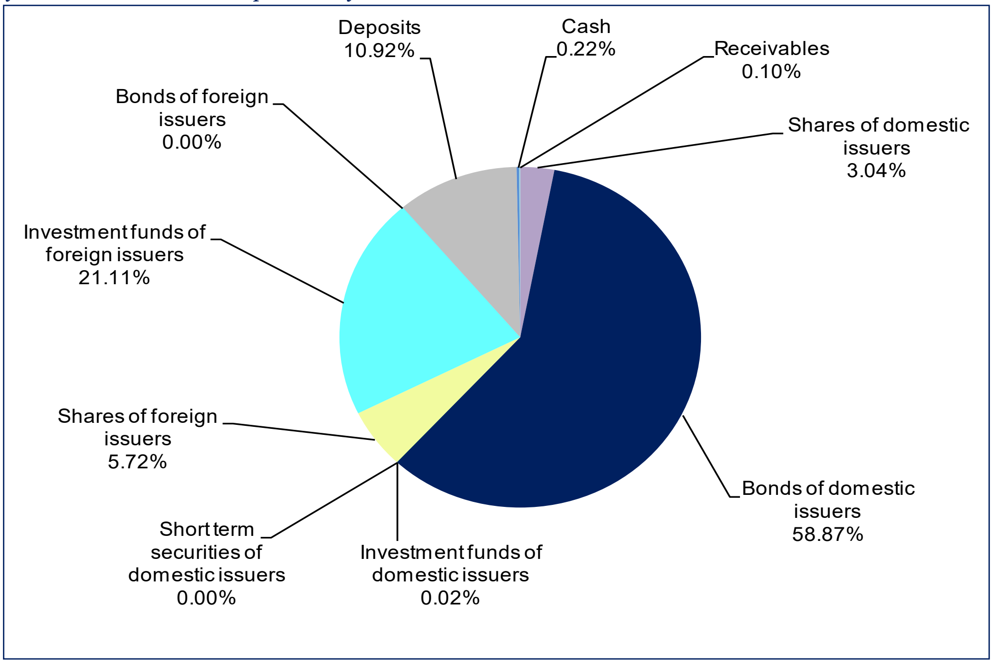


Figure 5.12. Structure of investments of TRIGLAVz



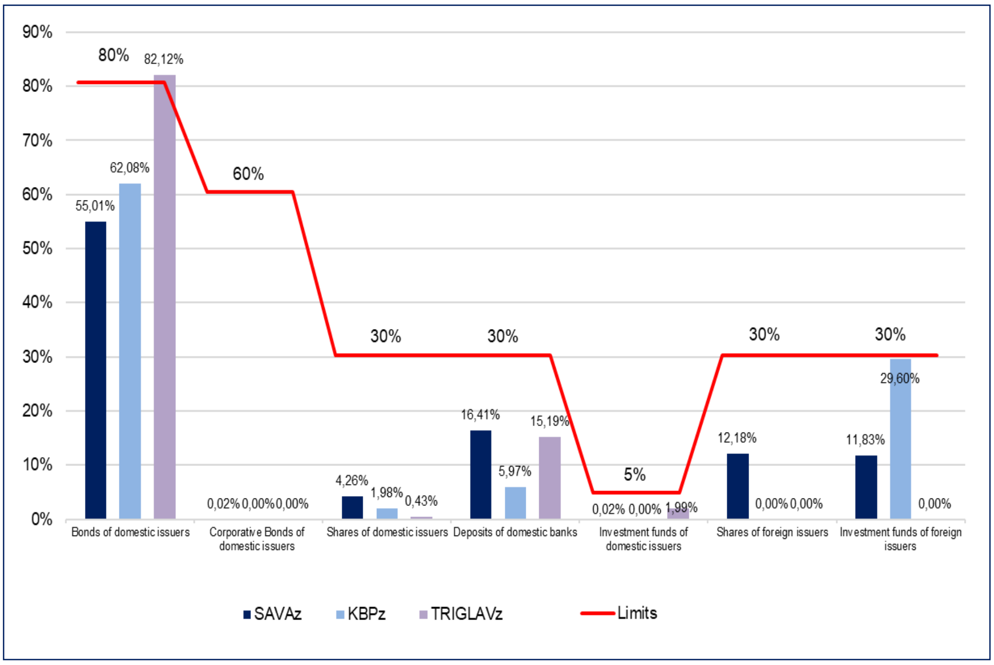
The structure of the investments of the mandatory pension funds, as of 31.12.2019, does not differ much compared to the structure of the investments of the mandatory pension funds, on 31.12.2018 and it is shown in Figure 5.13. The start of operation of the new mandatory pension fund did not affect the overall investment structure of mandatory pension funds given the fact that in the early years of work the new fund has small funds that represent a small share in the total assets of mandatory pension funds. The share of domestic bonds, which include domestic government bonds (58.86%) and corporate bond (promissory note issued by a bank - 0.01%) is 58.87%, which means that it has increased compared to the situation on 31.12.2018 (57,38%). The share of bank deposits is almost at the same level and is 10.92%. A small part of the portfolio (3.04%) belongs to the domestic shares and it remains almost at the same level in relation to the situation on 31.12.2018. A very small part of the investments of the mandatory pension funds belongs to investments in shares of domestic investment funds (0.02%). In 2019, the units of foreign investment is almost at the same level, compared to the previous year, and is 26.83%. Investments in foreign securities include investments in investment fund units (21.11%) and investments in shares (5.72%). The remaining assets are 0.22% cash and 0.10% receivables.

Figure 5.13. Structure of investment in the second pillar, as of 31.12.2019



During 2019, the three mandatory pension funds invested within the maximum investment restrictions. In Figure 5.14. the percentage participation in the portfolio by asset classes at SAVAz, KBPz and TRIGLAVz and the legal restrictions, as of 31.12.2019, is shown. Inclusive of 31.12.2019, TRIGLAVz has investments of 82.12% in domestic government securities, which is in accordance with the prescribed restrictions that are valid for a period of one year from the date of the first payment in the mandatory pension fund (100%).

Figure 5.14. Classes of assets in the portfolio of MPF compared to legal restrictions

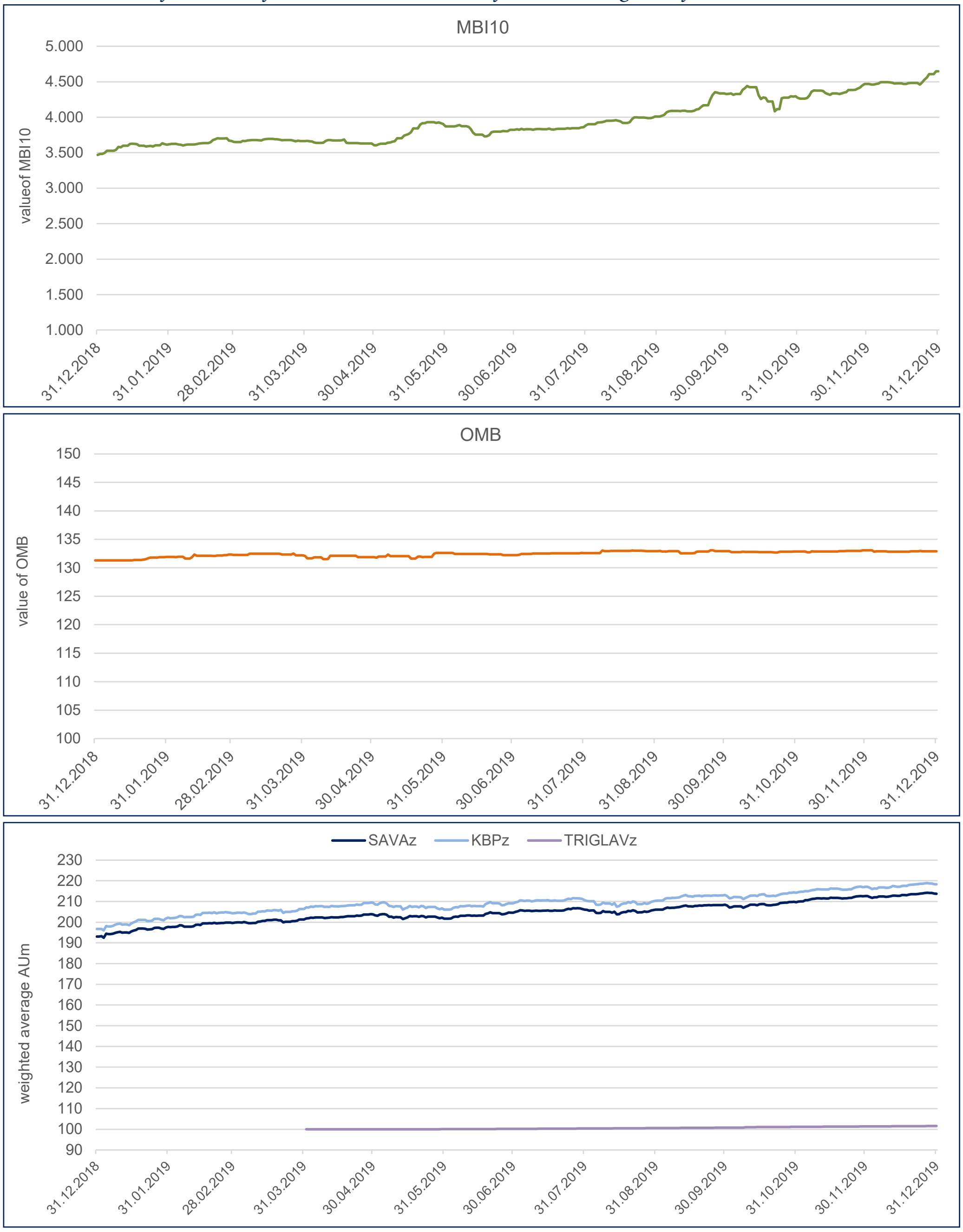


As in the previous year, so in 2019, a small percentage of the assets of the mandatory pension funds (3.04%) are invested in shares of domestic issuers. In 2019, both in SAVAz and KBPz, the exposure in shares, compared to 2018, is almost at the same level. At the same time, the exposure to shares of domestic issuers is twice as high as SAVAz (4.26%) compared to KBPz (1.98%). The exposure in shares of domestic issuers of TRIGLAVz in the first year of its operation is quite small and is 0.43%.

In previous years, a very small percentage of the total assets of the mandatory pension funds were invested in domestic government bonds traded on the Macedonian Stock Exchange (government denationalization bonds for). Starting from January 2019, the continuous government bonds are listed on the Official Market of the Stock Exchange.

In comparison, the movement of the value of the Macedonian Stock Exchange Index - MBI10, the Bonds Index of the Macedonian Stock Exchange - OMB and the values of the accounting units of the mandatory pension funds, during 2019, are shown in Figure 5.15. The value of the SAVAz accounting unit increased by 10.69%, the KBPz accounting unit increased by 10.99% and the TRIGLAVz accounting unit increased by 1.58%. MBI10, during 2019, increased by about 34.01%. OMB, during 2019, increased by about 1.22%

Figure 5.15. Comparative movement of the value of MBI10, OMB and value of the accounting unit of MPF, 2019



Source: MAPAS and Macedonian Stock Exchange – Annual Statistical Bulletin for 2019

More than half of the assets of the mandatory pension funds in 2019 were invested in government securities, namely domestic government securities (55.01% for SAVAz, 62.08% for KBPz and 82.12% for TRIGLAVz). In terms of sectors, then, about one third of the assets of SAVAz and KBPz are investments in instruments from issuers / joint stock companies from the financial sector, ie 35.57% with SAVAz and 30.91% with KBPz from the total assets of the fund. In TRIGLAVz, the share in instruments from issuers / joint stock companies from the financial sector is lower and amounts to 17.81%. Within this sector, SAVAz has the largest share of domestic bank deposits (53.1%) and shares in foreign and domestic investment funds (38.3%) and the share of financial services (7.1%) is lower, in shares in foreign banks (1.4%) and bonds issued by domestic banks (0.1%). In the case of KBPz, when it comes to the financial sector, foreign investment funds account for the largest portion (83.2%), followed by domestic bank deposits (16.8%). At TRIGLAVz, the overall share of investments in the financial sector is in domestic bank deposits. In addition to the above sectors, mandatory pension funds invest in other sectors: pharmaceuticals, consumer goods, industry, basic goods, information technology, communication services and energy, but with a much smaller share (from 0.09% to 3.15%). The investment structure of the mandatory pension funds by sectors is shown in Figure 5.16.

Figure 5.16. MPF's investment structure by sectors

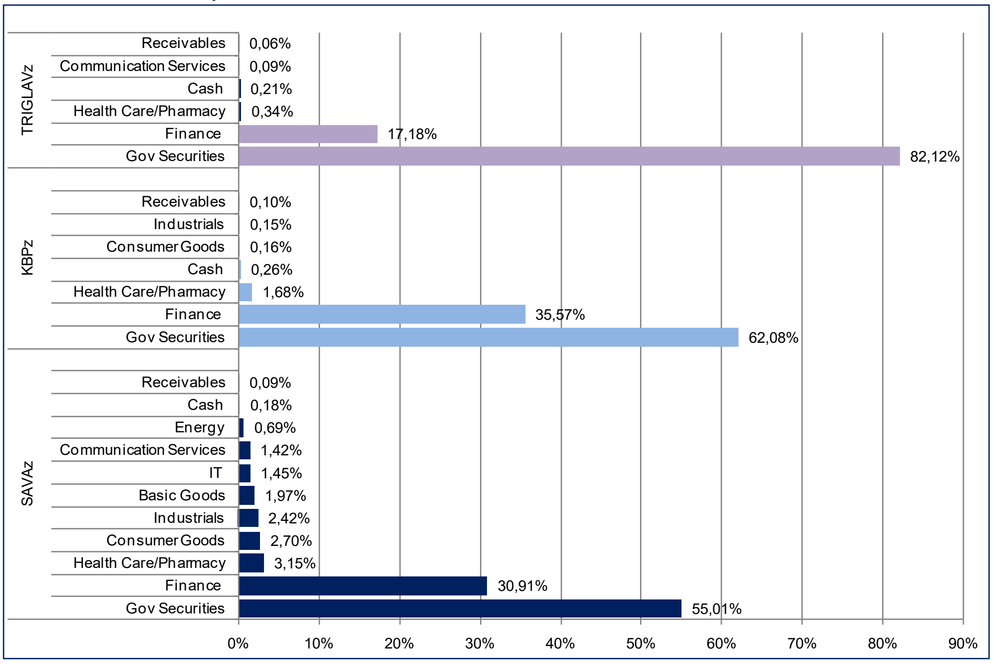
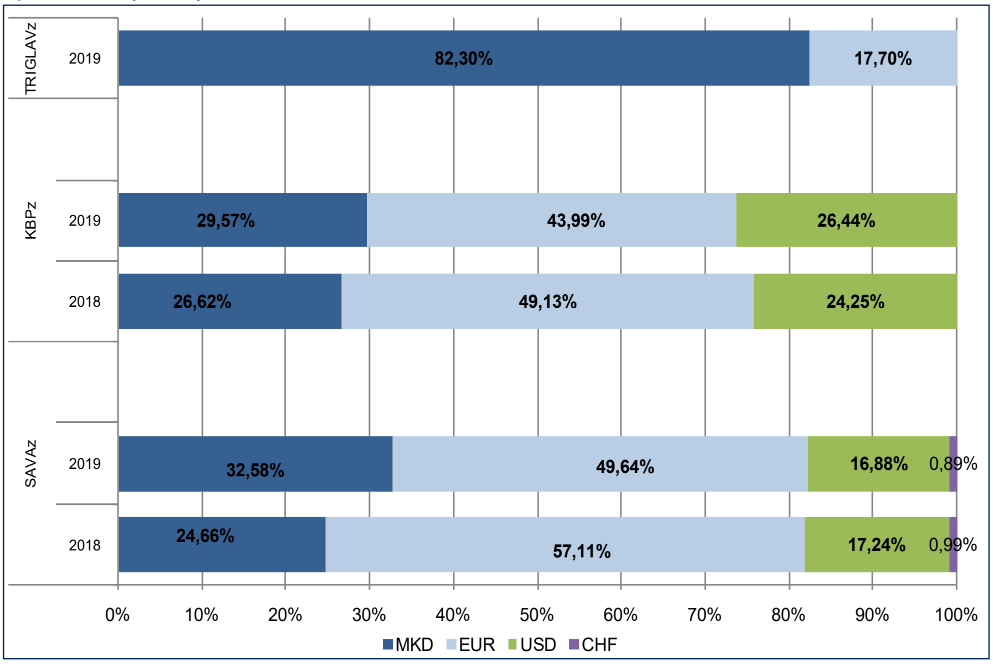


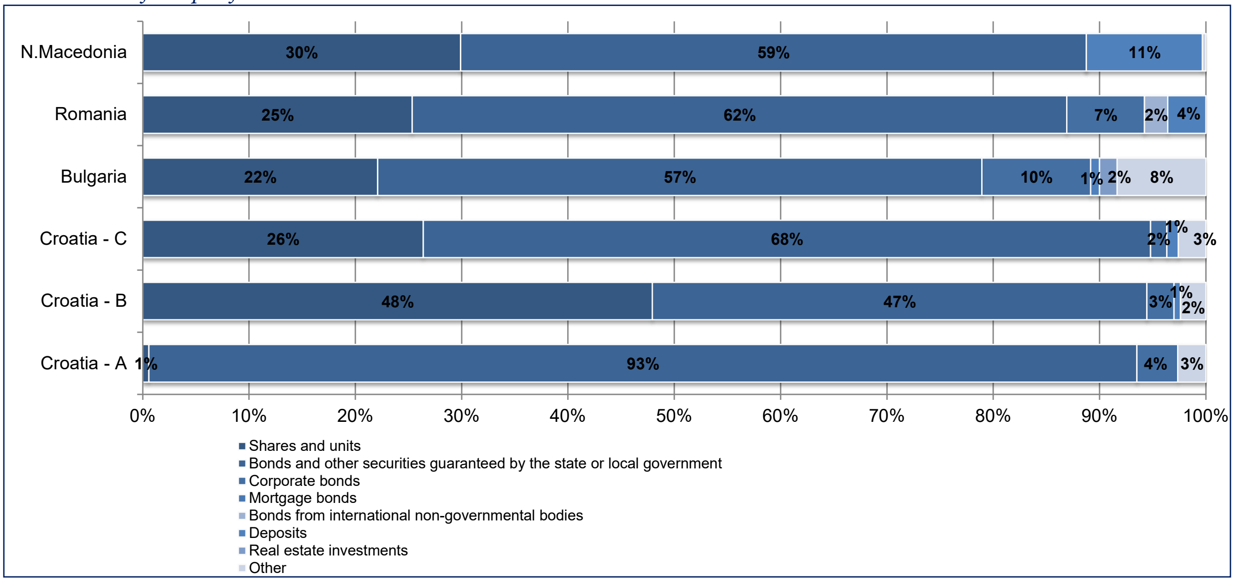
Figure 5.17. Currency structure of MPF funds, 2018-2019



According to the currency structure of the assets of the mandatory pension funds, shown in Figure 5.17, one can notice that in 2019 both SAVAz (49.64%) and KBPz (43.99%), most of the funds are invested in euros, with both pension funds showing a decrease in participation in instruments expressed in euros, compared to the previous year. Meanwhile, the share in instruments expressed in domestic currency was 32.58% for SAVAz and 29.57% for KBPz, with both pension funds showing an increase compared to the previous year. Then, there is a slight increase in the share of instruments in US dollars in KBPz (26.64%), while in SAVAz the share in instruments in US dollars is approximately at the same level compared to 2018. A very small portion of SAVAz's assets are invested in Swiss francs (0.89%). The currency structure of TRIGLAVz differs significantly from that of SAVAz and KBPz currency structures. The weight of TRIGLAVz's assets is on the side of the funds that are invested in instruments in denars (82.30%), and the remaining 17.70% of the funds are invested in instruments in euros. Such a currency structure is expected for a pension fund that is still at the beginning of its operation.

If a comparison is drawn with the countries in the region that have similar pension systems to the Macedonian, we can see similarities, but also significant differences in the investment portfolios of the mandatory pension funds. In Figure 5.18. portfolios of pension funds (corresponding to the mandatory pension funds in North Macedonia) are displayed in several countries and in RNM, on 31.12.2019.

Figure 5.18. Pension fund portfolios in several countries and in RNM



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

If the portfolios of mandatory pension funds are considered by type of instruments, it can be seen that in all countries more than 50% of the assets of pension funds are invested in bonds and other securities, guaranteed by the state or local government (68% in Croatia[9], 62% in Romania, 59% in North Macedonia and 57% in Bulgaria). The rest of the assets are invested in different ways. The level of investments in shares and stocks is the highest in North Macedonia (30%), followed by Croatia B (26%), Romania (25%) and Bulgaria (22%). Pension funds in North Macedonia have the largest investments in deposits (11%), followed by Romania (4%), while in Croatia and Bulgaria (1%) only a small part of the assets of pension funds are invested in deposits. Pension funds also invested in corporate bonds, 10% in Bulgaria, 7% in Romania, 2% in Croatia. Compared to pension funds in other countries, the share of investments in corporate bonds in North Macedonia is significantly lower, 0.01%. Only pension funds in Bulgaria (2%) have investments in real estate (in other countries, this instrument is usually not allowed). Regarding the exposure of the portfolios of the mandatory pension funds in instruments issued by foreign publishers[10], it can be seen that the largest exposures abroad are those of the pension funds in North Macedonia (27%), then in Croatia (16%) and Romania (14%).

[9]In Croatia, there are multi-funds, ie three categories of pension funds: A (with the highest risk), B (existing portfolios at the time of the introduction of multi-funds) and C (with the lowest risk).
[10]The data on investments abroad for Bulgaria as of 31.12.2019 was not available at the time of the analysis

5.6 Net assets, accounting unit and rate of return on mandatory pension funds

Contributions paid into mandatory pension funds, reduced for contribution fees, are immediately invested. The total actual return is attributed to the funds in the mandatory pension fund, ie to the individual accounts of the members. Once a month companies charge a fee for the management of the funds, which is calculated daily as a percentage of the net assets of the mandatory pension fund. Additionally, at each transaction there is a charge of transaction fees from the mandatory pension fund itself out of the assets of the mandatory pension fund. Daily assessment is made of the value of the assets of the mandatory pension fund. It is determined on the basis of the market value of each individual asset or on the basis of the depreciated value of the asset, if the instrument is held until maturity, or in the portfolio available for sale, or if an estimate cannot be made of its market value..

Changes in the assets of the mandatory pension funds from the beginning to the end of the year occur due to:

- inflow of contributions,

- inflow of fees charged for untimely transfer of contributions in case of untimely allocation of insured persons and in case of untimely transfer of contributions,

- outflow due to fees and transaction fees,

- inflow due to the transfer from the other mandatory pension fund (for persons who were previously temporarily allocated to another fund, and then signed an agreement with the current fund and for persons who were members of another fund, and then transferred to the current fund),

- outflow due to transfer to the other mandatory pension fund (for persons who were temporarily allocated to the relevant fund, but then signed an agreement with the other fund and persons who were members of the relevant fund, and then transferred to the other fund),

- outflow for persons who have terminated the membership agreement, due to excess of paid contribution, outflow due to exercising the right to disability or family pension and outflow for persons whose membership in the mandatory pension fund has been terminated in accordance with the amendments to the law,

- outflow due to inheritance payment,

- outflow due to one-time payments to persons who have not exercised the right to old-age pension,

- outflow due to old-age pension payment

- programmed withdrawals,

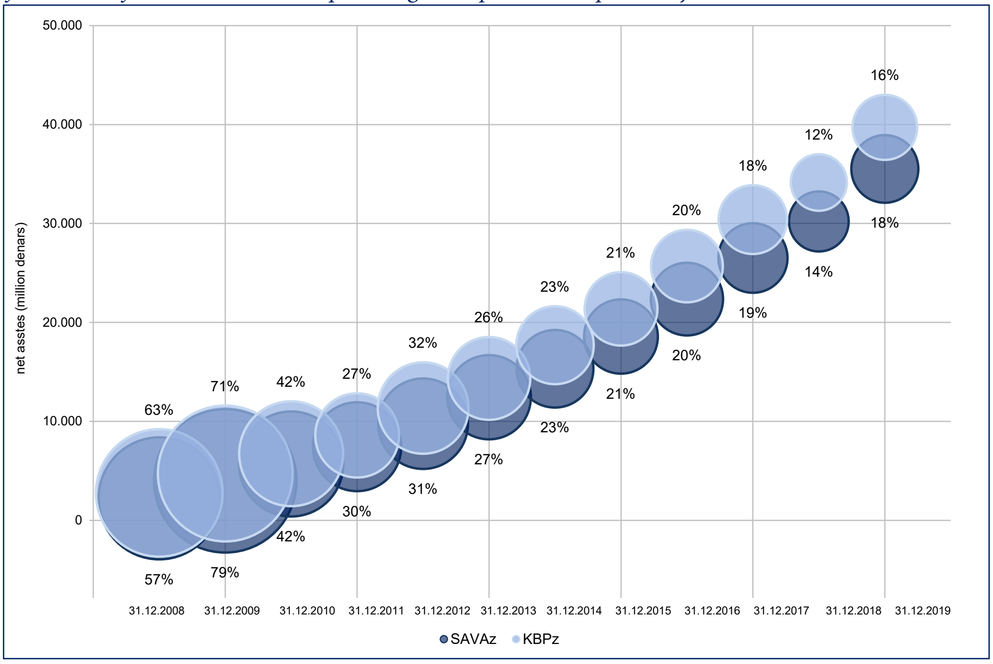
- (un) realized profits or losses from investments.

Starting from the value of the net assets at the end of the previous year, and taking into account all the above changes, the value of the net assets is reached at the end of the year, which is shown in Table 5.10.

Table 5.10. Changes in the assets of MPF (in millions of denars)

	SAVAz	KBPz	TRIGLAVz
Net assets as on 31.12.2018 /1.1.2019	30.205,96	34.146,71	0,00
Contributions	4.090,15	4.438,43	162,75
Contribution fees	91,96	99,79	3,66
Contributions minus contribution fees	3.998,20	4.338,63	159,08
Fee charged for late transfer of contributions	129,35	128,67	36,90
Fees from assets	116,26	130,52	0,45
Expenses for intermediary's fees	0,81	0,20	0,01
Transfers from another fund	18,45	23,31	170,12
Transfers to another fund	105,18	106,54	0,17
Transfer from the fund on the basis of termination of agreement, contribution refund, retirement and termination of membership	2.206,08	2.772,55	0,00
Payment on the basis of inheritance	7,39	6,97	0,00
Payment of old-age pension– programmed withdrawals	0,70	1,28	0,00
Lump sum payment	0,37	0,41	0,00
Gross profit from investments	3.597,14	4.096,46	3,69
Net profit from investments	3.480,07	3.965,74	3,23
Net assets as on 31.12.2019	35.512,31	39.715,32	369,17

Figure 5.19. Growth of net assets of SAVAz and KBPz in percentages compared to the previous year

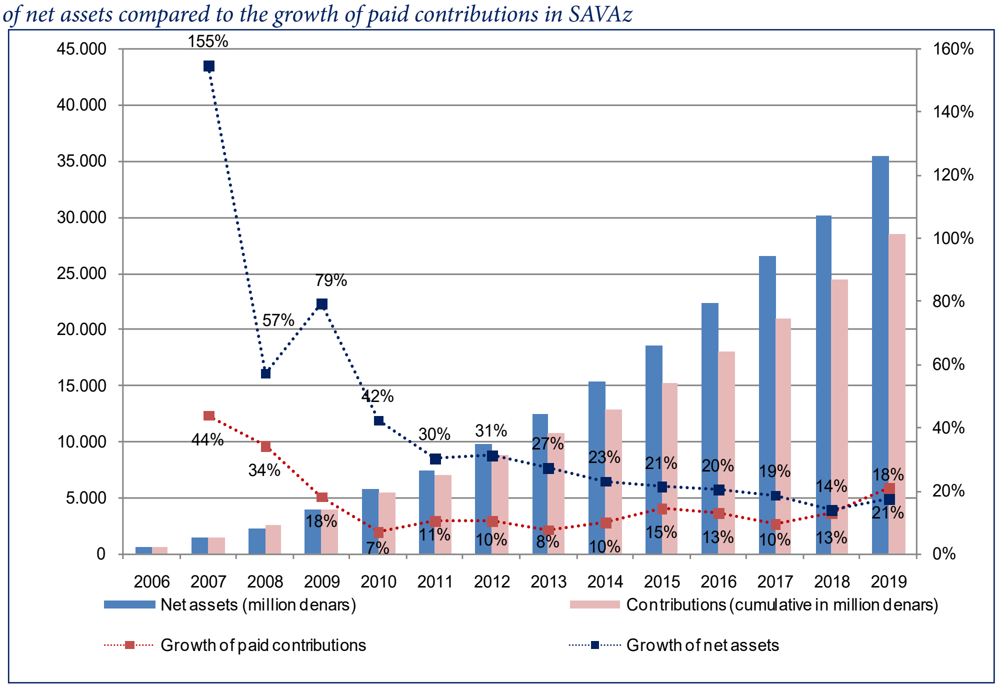


The total net assets of the mandatory pension funds, as of December 31, 2019, amounted to about 75.6 billion denars or about 1.23 billion euros, which is about 10.84% of RNM's GDP[11].

Figure 5.19. shows the values of net assets at each year end (2008-2019), and their growth in percentages compared to the previous year net assets for SAVAz and KBPz. One can notice thereby that the net assets of the two mandatory pension funds grow at a similar pace. The strongest growth is seen in 2009 compared to 2008.

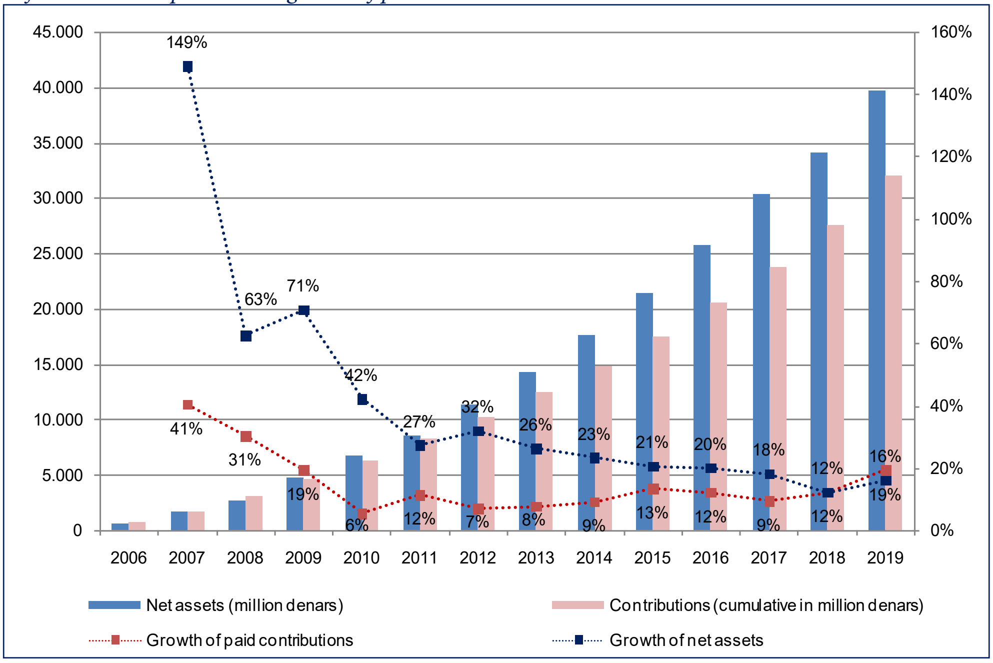
The movement in the value of net assets and cumulative contributions as well as the increase of the paid contributions and the increase of the net assets of SAVAz and KBPz, from the beginning of the operation of the system (ie from the date of first payment, on 1.1.2006) until 31.12.2019, are shown in Figure 5.20. and Figure 5.21. The growth of net assets of mandatory pension funds is implied by the growth of paid contributions and investment results. For 2019, most of the growth of net assets is due to the contributions paid. However, compared to the first years of the operation of the funds, the share of paid contributions in the total growth of net assets decreased gradually. It can also be noted that, during the first years, the share of cumulative contributions in total net assets is significantly higher, then gradually decreases, and in the last five years, the average is 80%.

Figure 5.20. Growth of net assets compared to the growth of paid contributions in SAVAz



[11]Source for GDP: State Statistical Office - Announcement - gross domestic product, fourth quarter of 2019 – data estimate.

Figure 5.21. Growth of net assets compared to the growth of paid contributions to KBPz



In SAVAz and KBPz, net assets and cumulative contributions have been continuously growing since the beginning of the system's operation. The highest growth in net assets (about 150%) and of paid contributions (40% in both SAVA and KBP was seen in 2007. This is probably due to the largest percentage increase in membership, ie contributions compared to the previous year, as well as the rather high growth of the unit. This is followed by a decline in growth of both net assets and contributions paid. Over the years there has been a gradual stabilization, so that the growth of net assets in the last six years, on average, is about 19%, while the growth of paid contributions in the same period, on average, is about 13%. Higher parameters are obvious compared to 2018, ie an increase in net assets of 18% in SAVAz and 16% in KBPz, while the increase in paid contributions is about 21% in SAVAz and 19% in KBPz.

Table 5.11. Value of the accounting unit from the beginning of the system

Date	Value of accounting unit (in denars)		
	SAVAz	KBPz	TRIGLAVz
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	
31.12.2017	189,686331	195,037486	
31.12.2018	193,113009	196,706281	
31.03.2019	201,314567	206,357553	
30.06.2019	204,635452	209,123002	100,190881
30.09.2019	208,481662	213,127708	100,775919
31.12.2019	213,757775	218,317207	101,578448

**In the second half of 2009, both SAVA and KB Prvo decided to reclassify the financial instruments held until maturity in the category of financial instruments available for sale and, in this procedure, the companies re-evaluated the value of the financial instruments by applying objective, fair value and thus determined the value of assets, net assets, the value of accounting units and the number of accounting units, which caused a relatively high correction in the value of accounting units*

Accounting units are used to keep records of the assets of the mandatory pension funds. One accounting unit is a proportionate share of the total net assets of the mandatory pension fund. The value of the accounting unit is equal to the value of the net assets divided by the total number of accounting units of all individual accounts and sub-accounts. The starting value of the accounting unit of the pension fund is 100 denars. Pension funds, including Macedonian, are subject to cyclical phenomena and movements, which means an increase or decrease in the values of their accounting units, depending on the investment of assets and the movement of the value of the instruments in which the assets are invested, as well as on the collection of fees and commissions.

The movement in the value of the accounting units of the mandatory pension funds, from the beginning of the functioning of the system until 31.12.2019, is given in Table 5.11., on Figure 5.22. and Figure 5.23. At the same time, since the beginning of the operation of SAVAz and KBPz, there has been a growth trend of accounting units. On April 1, 2019, the third mandatory pension fund, TRIGLAVz, commenced operations. During 2019, the accounting units of the three mandatory pension funds grew. At the same time, the accounting units of SAVAz and KBPz had a similar trend, so that, at the end of the year, the value of the accounting units of both SAVAz and KBPz increased significantly compared to the previous year by about 11%. TRIGLAVz's accounting unit also grew in the first nine months of business by approximately 2%, which is expected to be more modest compared to the growth of SAVAz and KBPz's accounting units, which have been operating for fourteen years. However, pension funds, by their nature, work in the long run, so their performance needs to be assessed in the long run.

Figure 5.22. Value of the MPF accounting unit from the beginning of the system

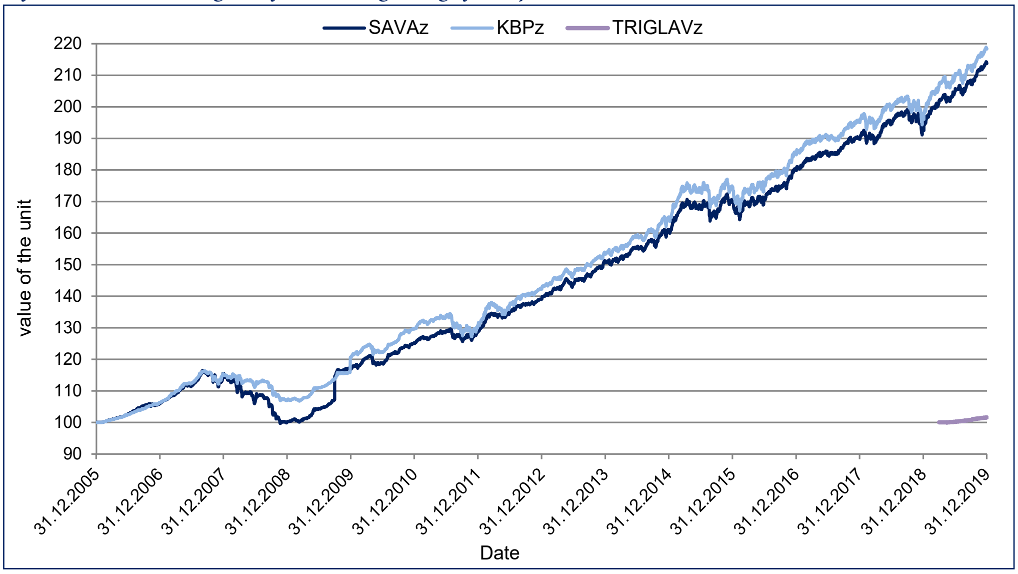
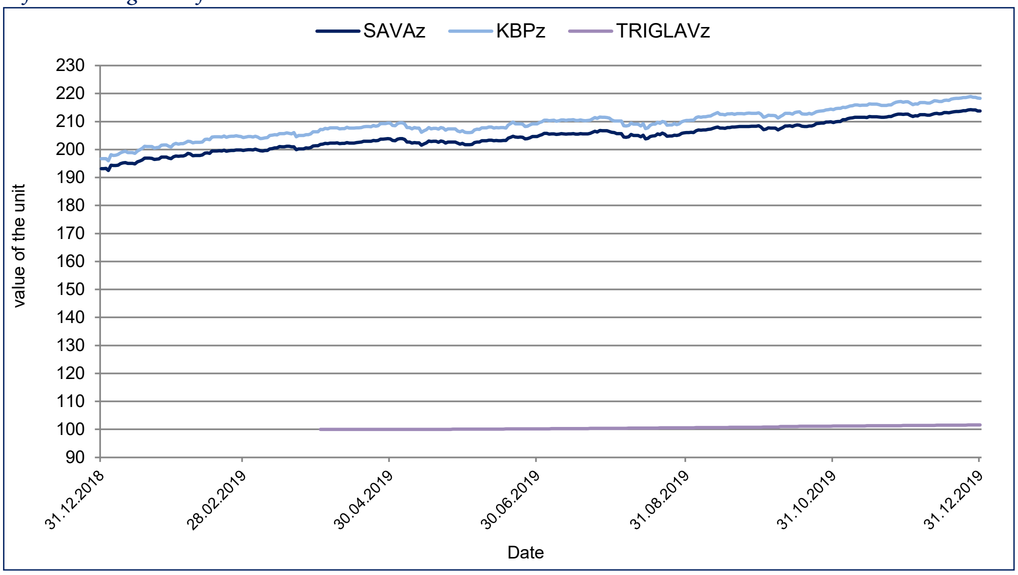


Figure 5.23. Value of accounting unit of MPF in 2019



Typically, the pension fund yield is calculated for the last few years, though it is expressed annually. Thus, in the Macedonian pension system, the yield is legally regulated to be calculated for a period of seven years (accounting period), expressed on a per anum basis, in nominal and real amount. If the fund has been in existence for less than 84 months, but longer than 12 months, the yield is calculated at the end of June, ie December, for the period from the first of June, ie December, after the establishment of the fund, until the end of June, ie December, when the calculation is made. In that case, the calculation period is 78, 72, 66, 60, 54, 48, 42, 36, 30, 24, 18 or 12 months.[12]

The yield in nominal amount[13] represents a change (increase) in percentage of the value of the accounting unit on the last valuation date of the accounting period and the value of the accounting unit on the last day of the month preceding the first month of the accounting period, converted to equivalent annual rate of return in nominal amount. The yield in real amount, for each accounting period, converted into an equivalent annual rate of return in real amount, is calculated based on the annual rate of return in nominal amount and the change in the level of cost of living in the accounting period, reduced annually. The yield on the mandatory pension funds, periodically, reduced annually, is shown in Table 5.12.

*Table 5.12. Yields of MPF**

Period**	SAVAz		KBPz	
	in nominal amount	in real amount	in nominal amount	in real amount
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%
31.12.2011 – 31.12.2018	5,93%	4,72%	6,01%	4,80%
31.03.2012 – 31.03.2019	5,96%	5,03%	6,00%	5,07%
30.06.2012– 30.06.2019	6,12%	5,22%	6,22%	5,31%
30.09.2012– 30.09.2019	6,16%	5,55%	6,18%	5,57%
31.12.2012 – 31.12.2019	6,31%	5,74%	6,29%	5,72%
Почеток*** - 31.12.2019	5,57%	3,63%	5,73%	3,79%

**Until the adoption of the amendments to the Law on Mandatory Fully Funded Pension Insurance from January 2013, the yield on the mandatory pension fund was calculated for a period of 3 years, only in nominal amount.*
***As of December 31, 2019, TRIGLAVz does not calculate and publish a yield because it has been in operation for less than 12 months..*
****Commencement date is 1.1.2006 for both SAVAz and KBPz.*

The yield on the individual account is variable and depends on the yield of the mandatory pension fund and the fees charged by the company. Yield, or gain, is a parameter that cannot be realistically predicted because it depends on the conditions of the capital market and the overall economy.

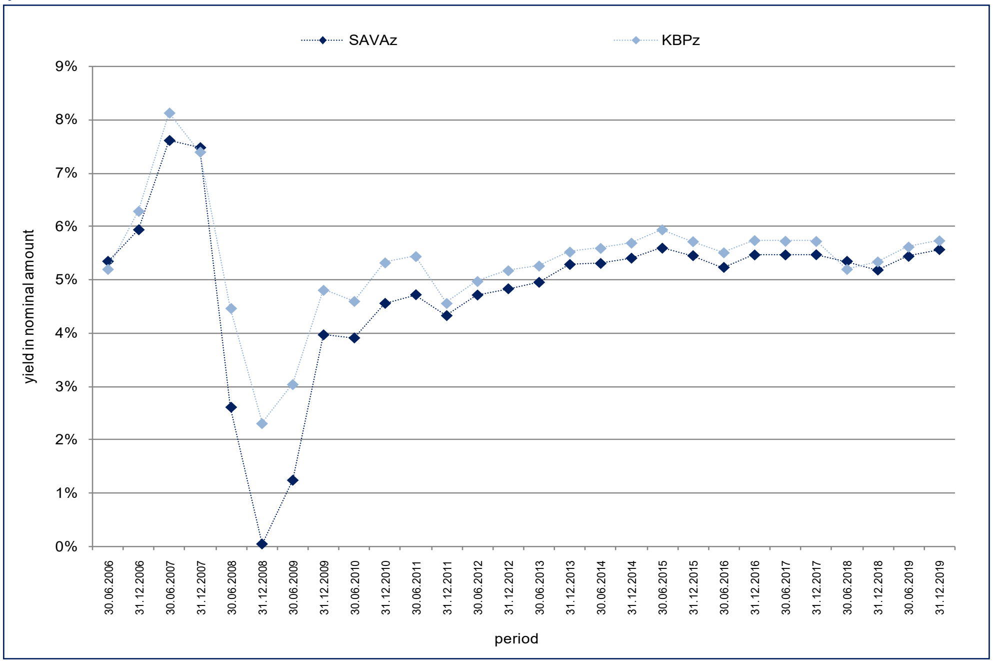
Given the long-term nature of pension insurance, it is important to calculate the yield of mandatory pension funds from the beginning of the system or from the beginning of the work of the mandatory pension fund expressed on a per anum basis, which for SAVAz is 5.57% in nominal or 3 , 63% in real amount, and for KBPz 5.73% in nominal amount, ie 3.79% in real amount.

The nominal yield during the fourteen years of mandatory capital funded pension insurance can be seen in Figure 5.24, which shows period yields (from the beginning of the system to the corresponding date), from the beginning of the system to 31.12.2019, by fund (for SAVAz and KBPz). At the beginning of the system's operation, there is yield growth so that, at the end of 2006 and 2007, there were high yields, while at the end of 2008, the lowest yields were recorded, as a result of the negative developments in domestic and foreign financial markets. This is followed by a gradual recovery from the crisis and increased yields by the end of 2009 and the end

[12]TRIGLAVz is not included in the comparative analysis of yield because as on 31.12.2019 TRIGLAVz has been in operation for less than 12 months
[13]The formulas for calculating the yield in nominal and real amount are prescribed in the Rulebook for assessment of the assets of the mandatory and voluntary pension funds.

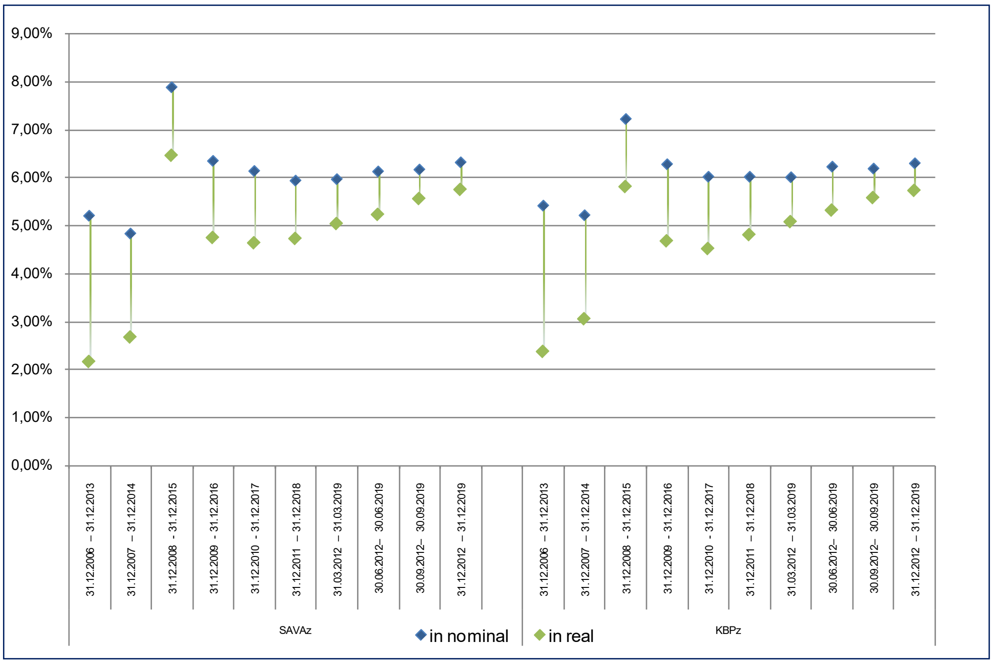
of 2010. At the end of 2011, there was a slight decrease in yield compared to the end of 2010. During the following years, there was an increase (with small deviations from the growth of yields as of the end of 2015 and the first half of 2016 and yields in 2018). The lower yields in 2018 are mostly due to the impact of prices on world financial markets, which recorded higher volatility during 2018 and a decrease at the end of 2018. During 2019, there is a gradual increase in yields.

Figure 5.24. Yields of SAVAz and KBPz (in nominal amount)



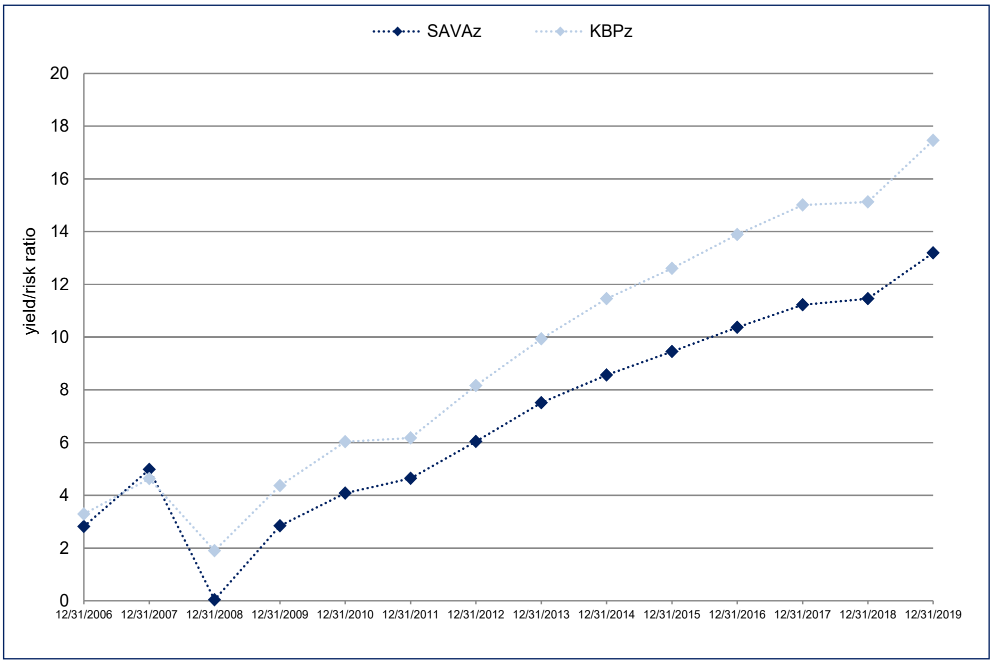
Yield movement in nominal and real amount in the period from 2013 to 2018 (annually) and in 2019 (quarterly), after seven-year periods, converted into an equivalent annual rate of return, after a mandatory pension fund, can be seen in Figure 5.25. In 2019, the yield in nominal amount and the yield in real amount increased in SAVAz (from 5.93% to 6.31% in nominal or from 4.72% to 5.74% in real terms) and in KBPz (from 6.01% to 6.29% in nominal or 4.80% to 5.72% in real terms). In 2019, the yields for the period 31.12.2012 - 31.12.2019 have the highest value. In the period under review (2013-2019), the change in the level of living costs in the accounting periods, expressed annually, decreased, which affects the gradual approximation of the yields in real amount to the yields in nominal amount.

Figure 5.25. MPF Yield in nominal and real amount, 2013 -2019



The main goal of investing in the assets of the mandatory pension funds is their growth. Yield is a measure of the growth of assets. But at the same time, the risk or uncertainty regarding the realization of the return on investment should be taken into account. In general, higher yields bring with it a higher risk of an investment, ie taking a higher risk may lead to a higher expected yield, which should compensate for the risk taken and vice versa. A common way to estimate uncertainty is the standard yield deviation, ie the deviation from the average yield value. Graphically, the ratio of return in nominal amount to risk (calculated through one of the possible calculation methods) of the mandatory pension funds, from the beginning to the end of 2019, is shown in Figure 5.26. Because pension funds are long-term in nature, pension fund returns have been calculated since the start of the pension fund's operation, and have been reduced annually, and the risk is shown as an annualized standard deviation of the annualized yields in nominal amount. The annualized standard yield deviation decreases as the review period increases, as yields are expected to move more stably in the long run. The higher the yield / risk ratio, the better the investment performance and the fund will potentially achieve higher yield per unit of risk.

Figure 5.26. Yield / risk ratio



5.7 Fees for mandatory pension funds

Under the law, companies, in order to perform the functions of managing the assets of the mandatory pension fund, assets appraisal, broadening the members' base, keeping individual accounts of the members and informing the members, as well as paying the fees for MAPAS, the PDIFNM Fund and the custodian of assets and covering of their own costs, charge a fee for contribution, a fee from assets and a fee for transfer.

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[14]. In the long run, the contribution fee will have insignificant impact on the amount of the pension benefit, while the assets management fee will gain on significance through the years.

The types and amounts of fees charged by the Mandatory Pension Companies in 2019 are shown in the Table 5.13.

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

Table 5.13. Fees charged by Mandatory Pension Management in 2019

Type of fee	SAVA	KB Prvo	TRIGLAV***
Fee from contributions	2,25%*	2,25%*	2,25%
Monthly fee from the assets of the mandatory pension fund	0,030%**	0,030%**	0,030%
Transfer fee			
Number of days****	Amount of transfer fee	Amount of transfer fee	Amount of transfer fee
number of days ≤ 720	15 Euros	15 Euros	15 Euros
number of days > 720	Transfer fee not charged	Transfer fee not charged	Transfer fee not charged

** The amount is equal to the legally set maximum for 2019 (previously it was 2.50% for both SAVAz and KBPz).*
*** The amount is equal to the legally set maximum for 2019 (previously it was 0.035% for both SAVAz and KBPz).*
**** The amount is equal to the legally set maximum for 2019. From April 2019*
***** The number of days is calculated from the date on which the member acquired the status of a member in the existing mandatory pension fund (or from the first of the month for which the member acquired the right to contribute to the existing mandatory pension fund, in case of first membership) to the transfer date of the funds on the individual account of the member in the future mandatory pension fund.*

Initially, the contribution fee was set at a tender, and the initial fee charged by SAVA and KB Prvo was 8.50%. Furthermore, with the development of the system and with the reduction of the fees charged by the state institutions from the companies, as well as with the growth of the contributions and funds, which are the basis for calculating the fees, there was a continuous gradual reduction of this fee. The amount of the contribution fees, which were charged from the beginning of the existence of the system, as of 2019, is shown in Table 5.14.

Table 5.14. Amount of the contributions fees charged by the pension companies in the second pillar

	Amount	Applicable on		Amount	Applicable on		Amount	Applicable on
SAVA	9,90%	Through a tender	KB Prvo	9,90%	Through a tender	TRIGLAVz	2,25%	Since April 2019
	8,50%	Since the commencement of the system (2006)		8,50%	Since the commencement of the system (2006)			
	7,90%	Since July 2007		7,90%	Since July 2007			
	6,90%	Since February 2008		6,80%	Since February 2008			
	6,50%	Since May 2009		5,50%	Since January 2010			
	5,50%	Since January 2010		4,50%	Since January 2011			
	4,50%	Since January 2011		4,00%	Since January 2012			
	4,00%	Since January 2012		3,75%	Since June2013			
	3,75%	Since June 2013		3,50%	Since January 2014			
	3,50%	Since January 2014		3,25%	Since January 2015			
	3,25%	Since January 2015		3,00%	Since January 2016			
	3,00%	Since January 2016		2,75%	Since January 2017			
	2,75%	Since January 2017		2,50%	Since January 2018			
	2,50%	Since January 2018		2,25%	Since January 2019			
	2,25%	Since January 2019						

The fee from the assets was determined by law and, as of May 2013, it was 0.05% per month from the value of the net assets of the mandatory pension fund, then as of December 2014, it was 0.045%. From January 2015, the fee was 0.04%, as of December 2016. As of January 2017, the fee from assets was 0.035%. From January 2019, the fee from assets is 0.030%.

Since 2013, the maximum amount of contribution fee and the fee from assets which pension companies may charge was set by law and for their gradual further reduction was envisaged. Namely, the maximum amount of the contribution fee will be 2.00%, while the maximum amount of the monthly allowance management fee will be 0.03% and they will be applied from 2020, ie from 2019 onwards.

The collection of fees (in millions of denars) by the companies, during 2019, is shown in Table 5.15..

Table 5.15. The fees from assets level was determined by law and, as of May 2013, it was 0.05% per month from the value of the collection of fees by the companies, in 2018 (in millions of denars)

	Jan.	Feb.	March.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
SAVAz- total	14,61	17,34	18,54	16,29	19,56	16,61	17,26	16,92	17,06	17,51	17,57	18,93	208,22
From contributions	6,04	8,53	9,55	7,08	10,22	6,93	7,26	6,87	6,80	7,27	7,10	8,32	91,96
From assets	8,57	8,81	9,00	9,21	9,34	9,69	10,00	10,05	10,26	10,24	10,47	10,61	116,26
KBPz - total	16,36	19,01	20,18	18,07	21,49	18,46	19,22	18,75	18,96	19,36	19,57	20,90	230,31
From contributions	6,73	9,08	10,05	7,67	10,98	7,57	7,97	7,48	7,44	7,92	7,86	9,03	99,79
From assets	9,64	9,93	10,13	10,39	10,51	10,88	11,24	11,26	11,52	11,44	11,71	11,87	130,52
TRIGLAVz – total					1,15	1,49	0,14	0,16	0,19	0,22	0,27	0,50	4,11
From contributions					1,13	1,45	0,09	0,11	0,13	0,16	0,19	0,40	3,66
From assets					0,02	0,04	0,04	0,05	0,06	0,06	0,08	0,10	0,45

Transaction fees, in connection with transactions for the acquisition or transfer of funds to the mandatory pension fund, are paid from the funds of the mandatory pension fund to selected legal entities that provide services with securities, at home and abroad. Transaction fees are calculated as a percentage of the value of each transaction concluded.

During 2019, a total of 0.81 million denars of transaction fees were collected from SAVAz, a total of 0.20 million denars were collected from KBPz and a total of 0.01 million denars of transaction fees were collected from TRIGLAVz.

5.8 *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 service.

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 PDIFNM. 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 PDIFNM.

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 PDIFNM. 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 PDIFNM.

In 2019, 30 disability pensions and 104 family pensions were claimede by members of the second pillar, ie family members of a deceased member, due to which their accumulated funds were transferred to the PDIFNM Fund, which pays the disability or family pension. In 2019, no member of the mandatory pension fund exercised the right to payment through programmed withdrawals. In 2019, a second-generation old-age pension was paid through programmed withdrawals, but only for 31 members who began withdrawing funds in previous years.

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.

During 2019, inheritance payments from the individual accounts of 93 deceased members were made. Also, one - off lump sum payments were made to 18 people.

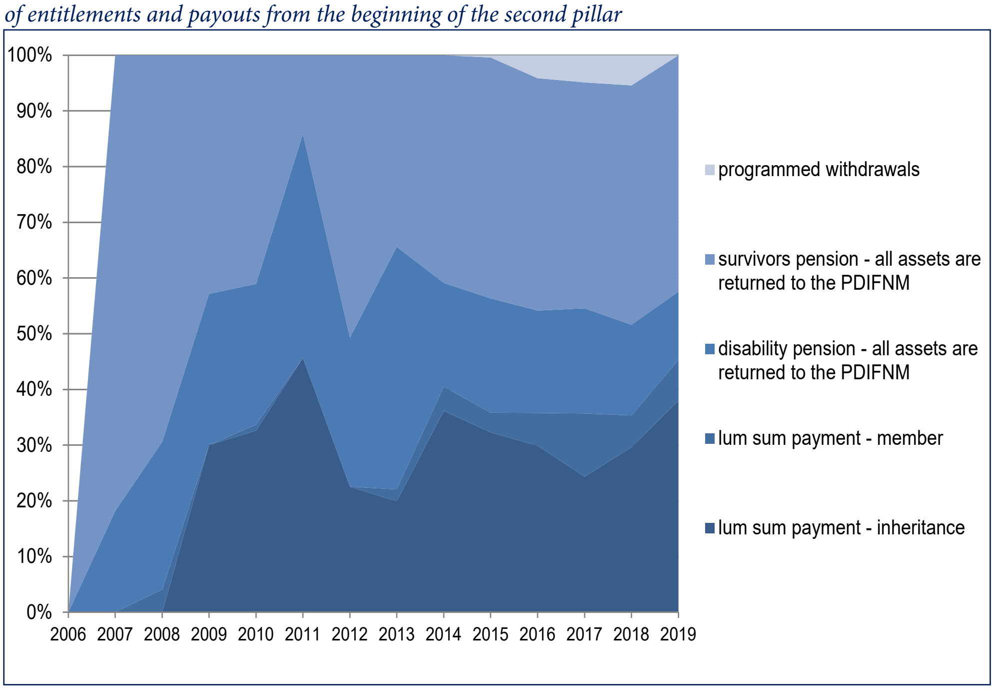
A more detailed overview of the realized pensions and payments for members of the second pillar in 2019, after mandatory pension funds, is given in Table 5.16.

Table 5.16. Pension entitlements and payments made for second pillar members in 2019

Type of pension/ Mandatory pension fund	SAVAz	KBPz	TRIGLAVz	Total
Disability	11	19	0	30
Survivors	39	65	0	104
Old age pension – programmed withdrawals	0	0	0	0
Lump sum payments – member	4	14	0	18
Lump sum payments – inheritance	49	44	0	93
Total	103	142	0	245

Figure 5.27. shows the structure of claimed pension benefits and payments from the second pillar, in the fourteen years of existence of the second pillar, with the ending year 2019. The number of payments is very small, because the members are young people. Most of the payments are in the cases of death of a member, through a claimed family pension, or payment of inheritance, and then payments on the basis of a claimed disability pension, and the lowest number of lump sum payments to members and payments to members through 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 Fees for voluntary pension funds

6.8 Pay outs of pensions from the voluntarily fully funded pension insurance

6. Information on the voluntary pension funds

In the voluntary fully funded pension insurance, as of 31.12.2019, there are a total of 25,181 members, which means an increase in membership for the year, by about 3.3%. Of the total number of members in the third pillar 10,205 or about 41% are members with a voluntary individual account, while 14,976 or about 59% are participants in a pension scheme with a professional account. Although there was growth, the share of the population in the third pillar is still modest, i.e only about 2.6% of the total active population in RNM are members with a voluntary individual account and are participants in a pension scheme with a professional account in a voluntary pension fund.

During 2019, a total of about 304 million denars were paid into the voluntary pension funds. The total assets of the voluntary pension funds increased by 28% and reached almost 2 billion denars, which is about 0.29 %% of the GDP of RNM. The structure of the investment portfolio of voluntary pension funds also does not differ significantly compared to last year and consists of domestic investments that include government securities (47%), deposits (15%), stocks (9%), corporate bonds (1%) and a very small investment fund units (0.001%), as well as investments abroad, which include investment fund units (21%) and stocks (6%).

During 2019, the accounting unit of both voluntary pension funds has an increase and a similar trend, so that, at the end of the year, the value of the accounting unit of both SAVAd and KBPd increased significantly compared to the previous year by about 11%.

In 2019, 271 pension benefits and payments from the third pillar were realized.

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 RNM 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 RNM, as well as for persons who are not citizens of RNM. As it provides for additional old-age income, this type of insurance increases a person's material security in the retirement days. Furthermore, in accordance with the usual practices in many European countries, where there are professional pension schemes, through which employers, or citizens' associations, organize and finance additional pension insurance for their employees, ie members, this is also possible in RNM. As European social security systems are under increasing pressure, professional pensions will, in the future, increasingly play the role of supplementing income after retirement. Therefore, professional pensions should be developed, in addition to social insurance, in order to provide safe, permanent and efficient social insurance, which should guarantee a decent standard of living in old age. In the third pillar, the employer, or the citizens' association (insurer), can organize and finance a professional pension scheme and pay a contribution to a voluntary pension fund for its employees and members. More employers, or more citizen associations, can jointly organize and fund professional retirement schemes. The insurer signs an agreement with the company he has chosen to manage the voluntary pension fund, which will include the professional pension scheme.a.

The voluntary fully funded pension insurance is expected 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.

Voluntary fully funded pension insurance became operational in the second half of 2009, when existing companies were granted licenses to manage voluntary pension funds. Open Voluntary Pension Fund "NLB Pension Plus" - Skopje started operating on July 15, 2009, while KB First Open Voluntary Pension Fund - Skopje, on December 21, 2009. In June 2018, MAPAS approved the change of the name of the pension fund Open Voluntary Pension Fund - "NLB Pension Plus" Skopje to the Open Voluntary Pension Fund SAVA pension plus.

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

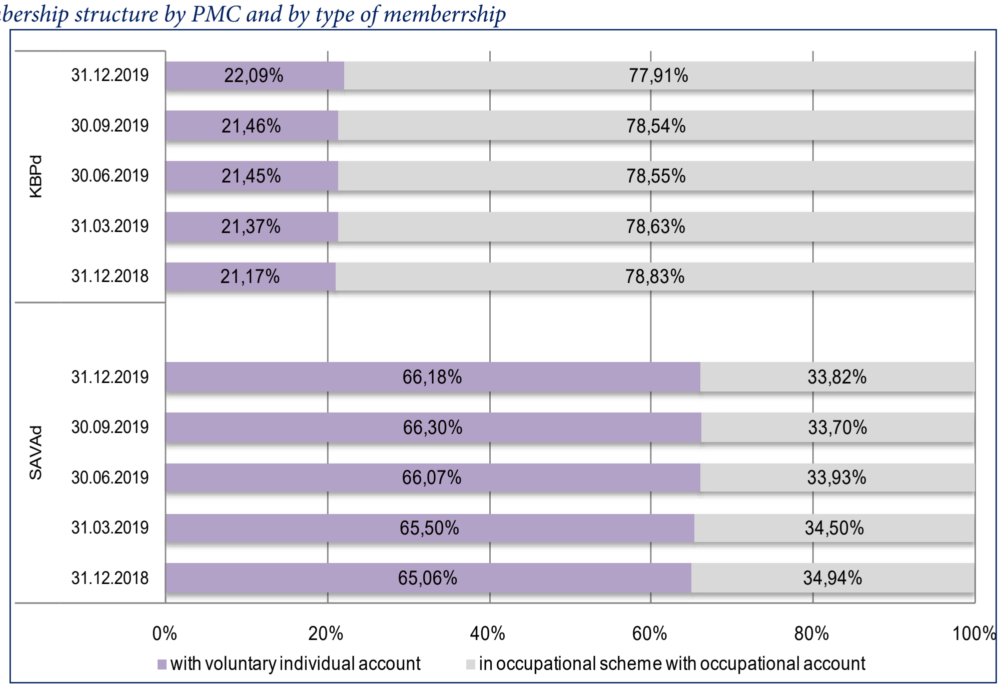
3) participating in an occupational pension scheme organized by his/her employer or association were he/she is a member and by opening an occupational account.

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

In the voluntary fully funded pension insurance, as of 31.12.2019, there are a total of 25,181 members, which means 793 more members compared to 31.12.2018, ie there is an increase in membership by about 3.3%. Of the total number of members in the third pillar, 10,205 or about 41% are members with a voluntary individual account, while 14,976 or about 59% are participants in a pension scheme with a professional account. Regarding the distribution of members according to the voluntary pension funds, as of 31.12.2019, there is no significant change in relation to the situation in the last year, ie about 42% of the members are in SAVAd, while about 58% are in KBPd.

Figure 6.1. shows the structure of members by voluntary pension funds and by type of membership, in 2019, on a quarterly basis, and we can see a significant difference in terms of the type of membership in the two voluntary pension funds. Namely, SAVA has more members with voluntary individual accounts (66%), while KBPD has more members in pension schemes with professional accounts (78%). Regarding the structure of members by type as of 31.12.2019, both SAVAd and KBPd have no significant change compared to the situation last year.

Figure 6.1. Membership structure by PMC and by type of memberrship



From the experience to date, in most cases, members who have individual accounts pay their own contributions, and in a small number of cases there are members for whom a payer contributes (out of a total of 10,205 members who have individual accounts, only 511 members or 5% have a payer). Voluntary fully funded pension insurance also allows members who are not citizens of the RNM to become members. In the existence of the third pillar so far, there are very few members who are foreign nationals (0.02% of the total number of members).

Regarding the participation of members in the professional pension schemes, in SAVAd, 3,580 members are participants in 1,216 professional pension schemes, and in KBPD, 11,396 members are participants in 2,861 professional pension schemes. There are professional pension schemes with several dozen members each and professional pension schemes with only 1 to 2 members each. Out of the total number of schemes, 14 professional pension schemes have over 100 members, two schemes have over 500 members, one of which has over 1,000 members. The distribution of the members in the professional pension schemes according to the funds is given in Figure 6.2, in which only the schemes that have more than 100 members are shown individually, while the other schemes are included in the item "others. ".

Figure 6.2. Allocation of third pillar members per occupational scheme

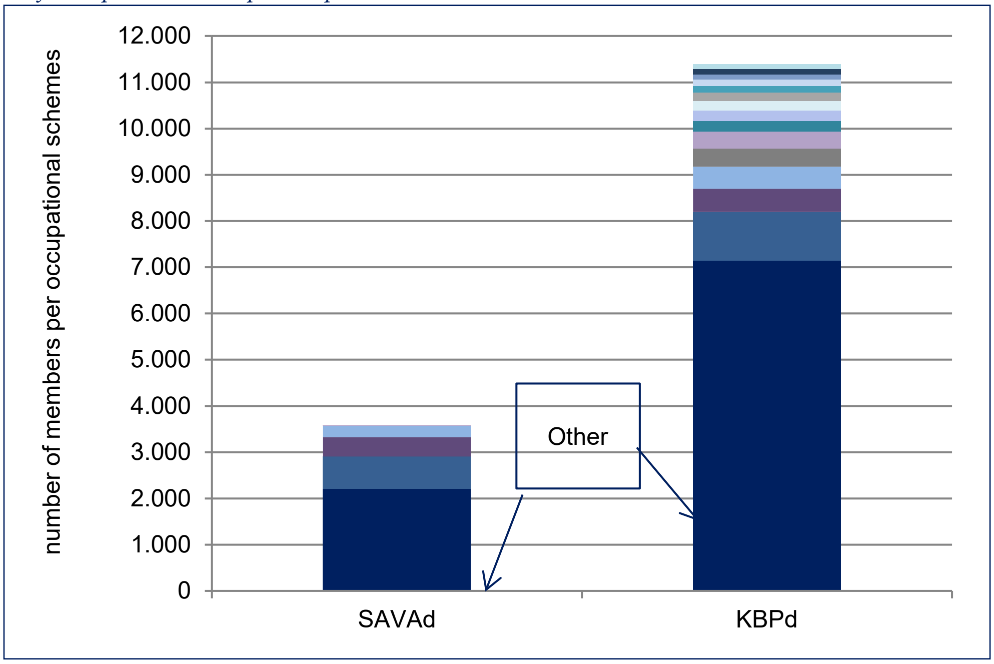
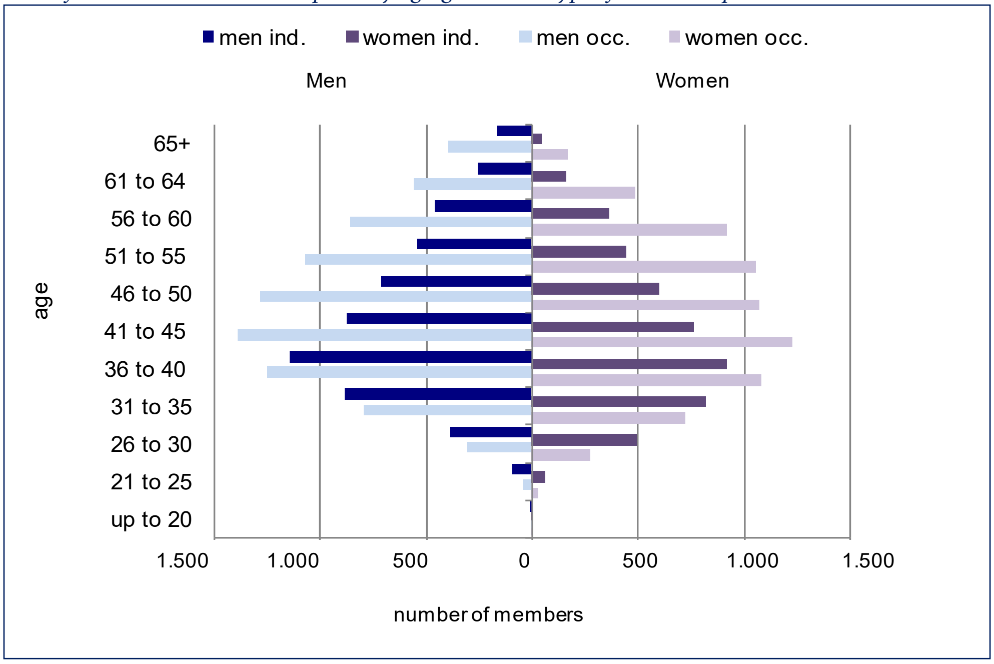


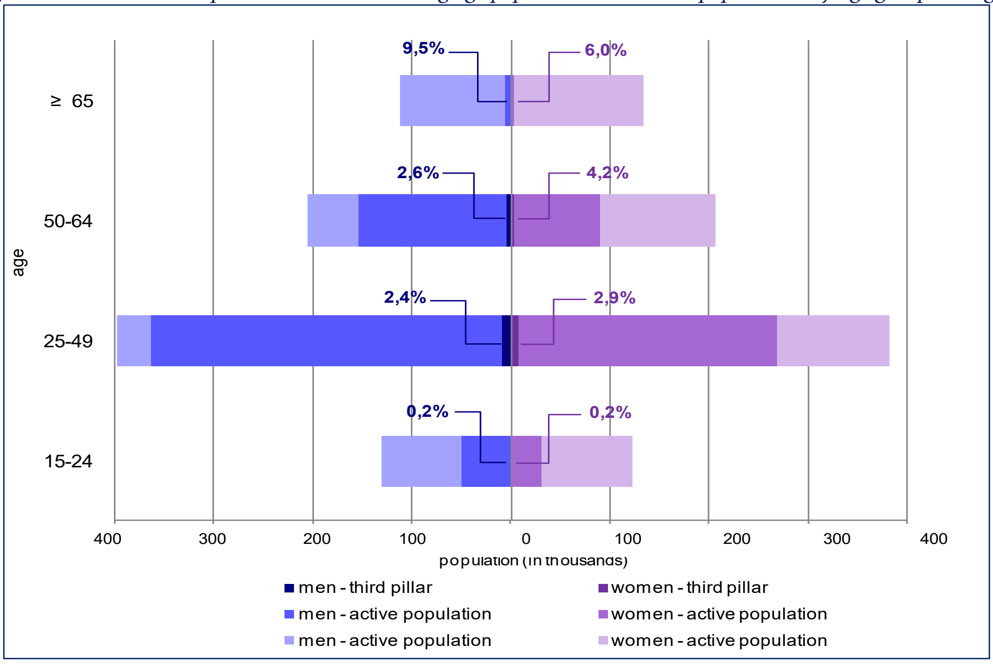
Figure 6.3. The structure of the members in the third pillar, by age, gender and type of membership



The structure of the members in the third pillar, by age, gender and type of membership, is shown in Figure 6.3. From this graphic display it can be seen that in the third pillar compared to the second pillar there are more older members. Over 60% of members with a voluntary individual account are up to 45 years old, while over 60% of members with a professional account are up to 50 years old. Members who have a professional account are older than members with an individual account. The average age of members with an individual account is 43 for men and 42 for women, and for members with a professional account it is 47 for both men and women, while the average age of all members is 45.

The share of the total number of members of the third pillar in the total able-bodied population and in the total active population is modest. At the end of 2019, only about 1.5% of the total working population in the RNM are members of the third pillar, ie about 2.6% of the total active population in the RNM are members of the third pillar. The structure of the members in the third pillar, in the total working age population and active population in RNM, by age groups and by gender, as of 31.12.2019, is shown in Figure 6.4.

Figure 6.4. Structure of members in the third pillar in the total working age population and active population, by age groups and gender

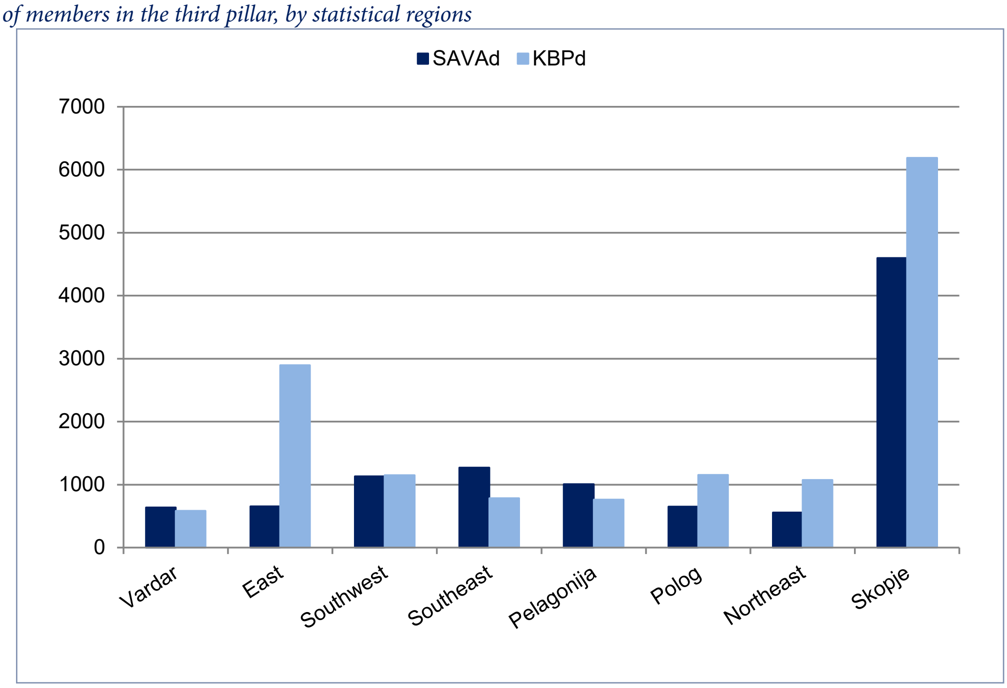


This chart shows that by age groups the largest share in voluntarily fully funded pension insurance is accounted for by the active population over 65 years of age (over 9% men and over 6% women) who are included in voluntary fully funded pension insurance. This result shows that there is significant potential for the development of the third pillar.

The structure of the members in the voluntary pension funds by statistical regions[15] in RNM is given to Figure 6.5.

Most members of the two voluntary pension funds are from the Skopje region, 6,186 members in KBPD and 4,596 members in SAVAd. The lowest number of members in SAVAd come from the Northeast region (557 members), while in KBPd, they come from the Vardar region. (583).

Figure 6.5. Structure of members in the third pillar, by statistical regions



[15]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 North Macedonia and it is harmonized with the EU classification.

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. shows data on the number of members who have switched from one voluntary pension fund to another and the amount of funds transferred from one voluntary pension fund to another during 2019. In 2019, 10 members switched from SAVAd to KBPd, while 16 members switched from KBPd to SAVAd (a total of 0.10% of the total number of members). During the transition, about 735 thousand denars were transferred from SAVAd to KBPd and about 3.5 million denars were transferred from KBPd to SAVAd. Also in 2019, there were transfers within the same pension fund from one to another professional scheme and from a professional to a voluntary individual account.

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

2019	Members who have transferred FROM a voluntary pension fund	Transferred assets FROM a voluntary pension fund	Members who have transferred TO a voluntary pension fund	Transferred assets TO a voluntary pension fund
SAVAd	10	735.400	16	3.473.885
KBPd	16	3.473.885	10	735.400

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.

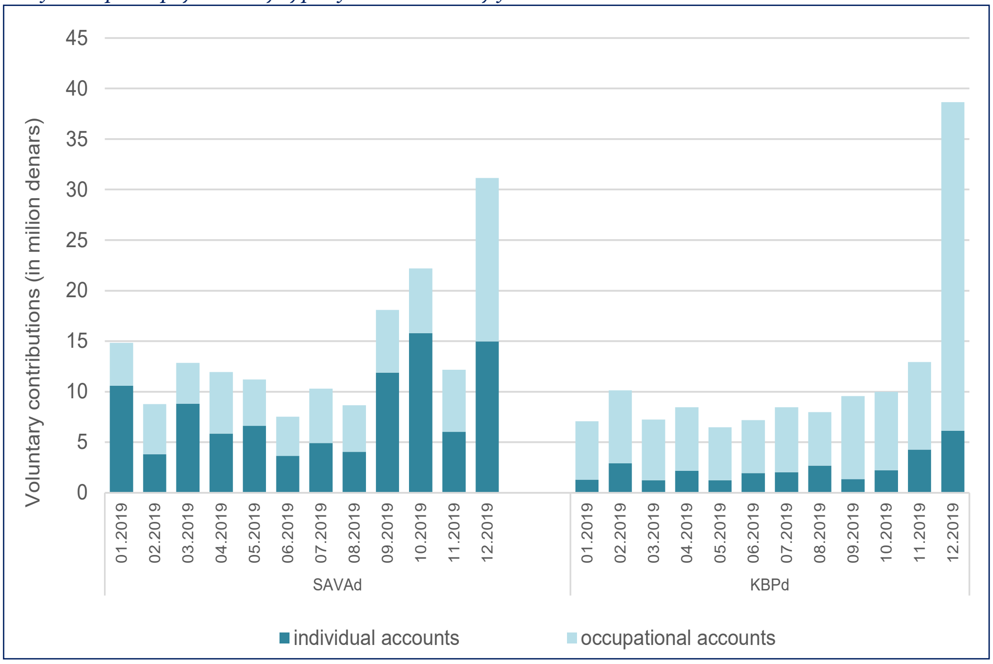
During 2019, a total of about 304 million denars were paid into voluntary pension funds, or per month, as shown in Table 6.2.

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

	Total 2018	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total 2019
SAVAd	158,94	14,84	8,76	12,86	11,93	11,22	7,53	10,31	8,65	18,08	22,18	12,17	31,15	169,68
KBPd	141,35	7,09	10,13	7,24	8,45	6,47	7,18	8,47	7,99	9,55	9,99	12,93	38,65	134,14
Total	300,29	21,92	18,89	20,11	20,39	17,69	14,71	18,78	16,64	27,63	32,18	25,09	69,80	303,83

In 2019, the total voluntary contributions paid in the third pillar increased minimally (by 1%) compared to 2018. Compared to the previous year, the amount of total paid voluntary contributions in SAVAd increased by about 7%, while KBPD recorded a reduced amount of total paid voluntary contributions by about 5%. In 2019, SAVAd recorded a higher amount of voluntary contributions than KBPD. In comparison with previous years, in 2019 the difference in the share of voluntary contributions in the two voluntary pension funds, which were paid to professional accounts (58%) in terms of participation in voluntary contributions paid to voluntary individual dividends (42%), was narrowed. However, there is a significant difference in this distribution in terms of funds, ie in SAVA this distribution is almost equal, while in KBP 84% of the total voluntary contributions are paid into professional accounts. The distribution of payments by type of account on which they are paid and per fund, on a monthly basis, is given in Figure 6.6.

Figure 6.6. Allocation of third pillar payments by type of account and by fund



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 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.

The structure of voluntary pension funds investments from the beginning of the system is shown in Figure 6.7. and Figure 6.8.

Table 6.3. Maximum investment limits

Type of instrument	Maкsimum limit
Investments abroad (EU, OECD)	50%
• bonds and other securities issued by foreign governments and central banks of foreign countries and debt securities issued by the European Central Bank, the European Investment Bank and the World Bank	50%
• debt securities issued by local self-government units, non-state foreign companies or banks, shares issued by foreign companies or banks and share documents, shares and other securities issued by investment funds	30%
Securities issued or guaranteed by RNM on the domestic market or NBRNM	80%
Bank deposits, deposit certificates, commercial papers, bonds and mortgage backed securities issued 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 units	10%
Bonds issued by domestic joint stock companies	30%
Participation units and shares in Macedonian investment funds	5%

Figure 6.7. Structure of voluntary pension fund investments SAVAd

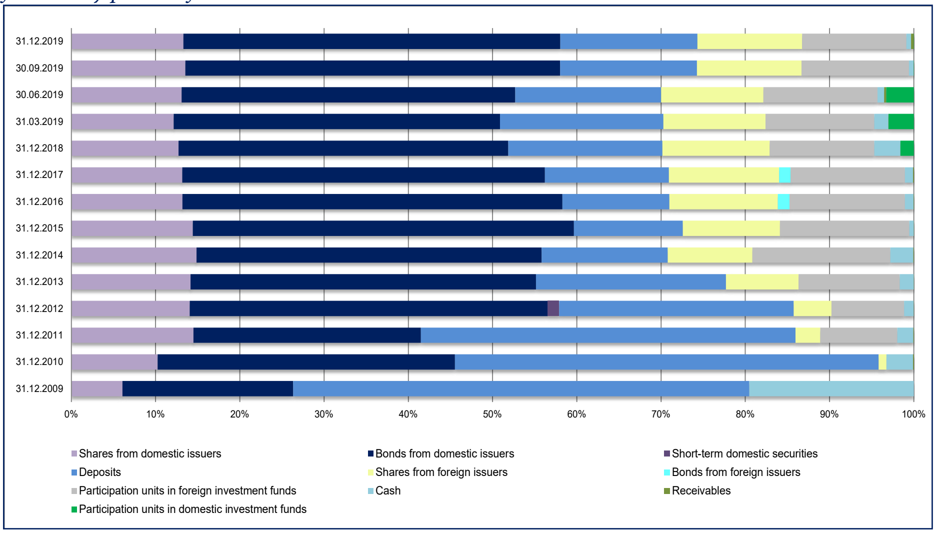
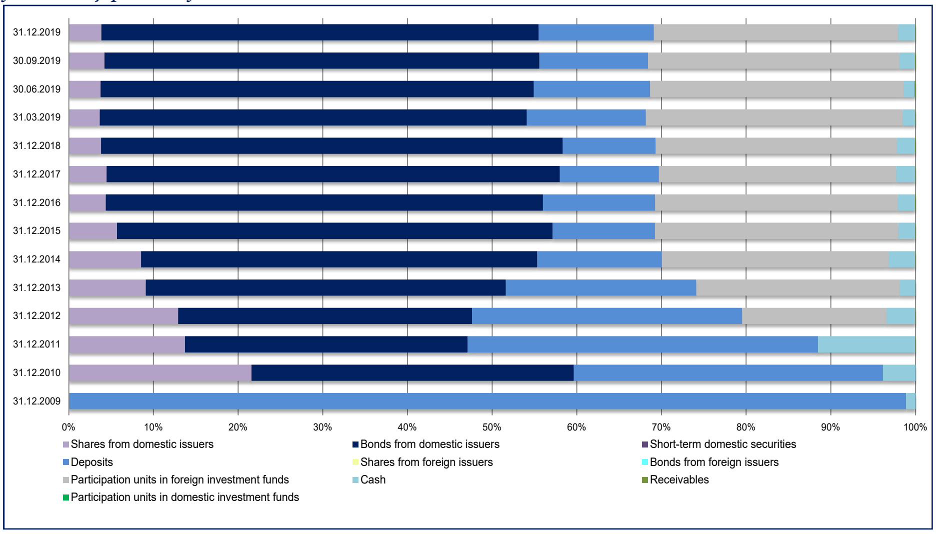
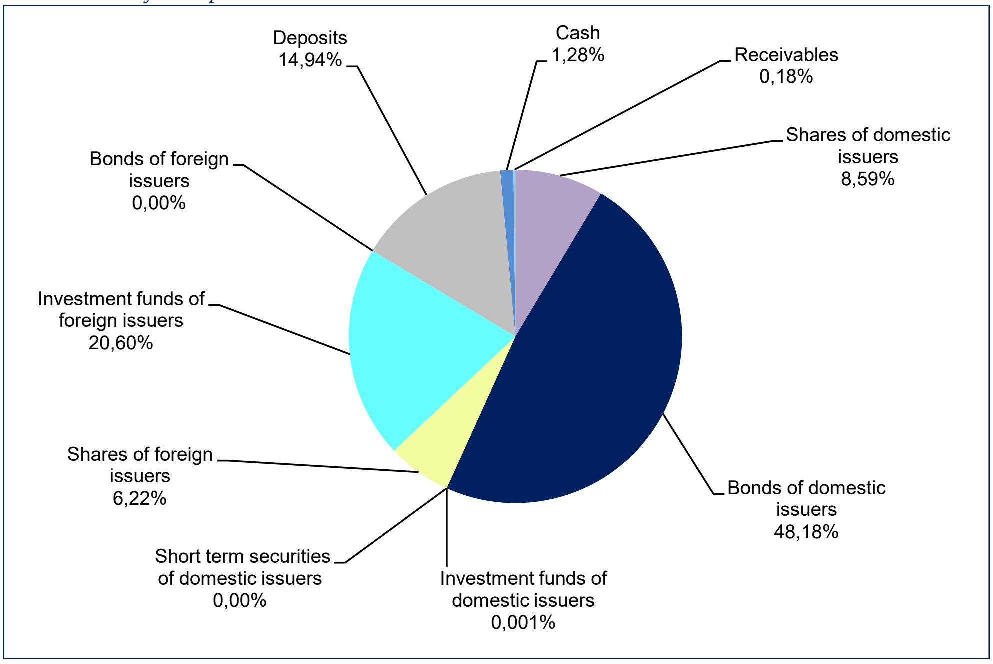


Figure 6.8. Structure of voluntary pension fund investments KBP



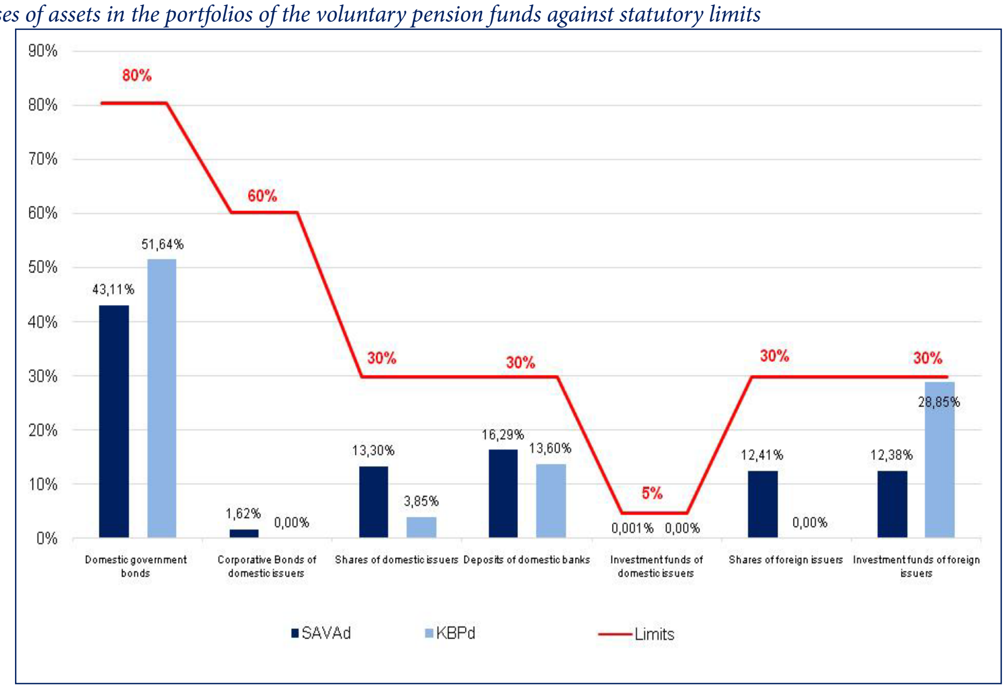
The structure of investments made by voluntary pension funds, as of 31.12.2019, does not differ much compared to the structure of investments by voluntary pension funds, as of 31.12.2018 and it is shown in Figure 6.9. In 2019, the share of bonds from domestic issuers, which include domestic government bonds (47.37%) and corporate bonds (a promissory note issued by a bank - 0.81%), compared to the previous year, increased slightly to 48 , 18%. The share of deposits in domestic banks remains almost at the same level, compared to the previous year and is 14.94%. Also, the share of securities issued by domestic publishers issuers remains almost at the same level, compared to the previous year, standing at 8.59%. A very small part of the investments of the voluntary pension funds is accounted for by investments in shares of domestic investment funds (0.001%). The share of investments abroad is 26.82% (20.60% in units of investment funds and 6.22% in shares). The rest of the assets of the voluntary pension funds consist of 1.28% cash and receivables 0,18%.

Figure 6.9. Investments structure of third pillar assets as on 31.12.2019



During 2019, both voluntary pension funds complied with the maximum investment restrictions. Figure 6.10. shows the percentage share in the portfolio by asset classes at SAVAd and KBPd and the legal restrictions with the situation on 31.12.2019.

Figure 6.10. Classes of assets in the portfolios of the voluntary pension funds against statutory limits



Voluntary pension funds have greater exposure to assets in shares of domestic issuers (8.59%) compared to mandatory pension funds. At the same time, the exposure to shares of domestic issuers is higher at SAVAd (13.30%) compared to KBPz (3.85%).

Compared to the mandatory pension funds, in the past years the voluntary pension funds have greater exposure to the funds in the domestic bonds traded on the Macedonian Stock Exchange (state bonds for denationalization). Starting from January 2019, the continuous government bonds are listed on the Official Market of the Stock Exchange.

In comparison, the movement of the value of MBI10, OMB and the value of the accounting unit of voluntary pension funds, during 2019, is shown in Figure 6.11. The value of the SAVAd accounting unit increased by 10.93%, and the value of the KBPD accounting unit increased by 10.82%. MBI10, during 2019 compared to 2018, increased by about 34.01%. OMB , during 2019, increased by 1.22%.

Figure 6.11. Comparative movement of the value of MBI10, OMB and the value of the accounting unit of DPF, 2019

Source: MAPAS and Macedonian securities exchange– Annual statistical bulletin 2019.

In the case of voluntary pension funds, most of the assets in 2019 were invested in domestic government securities (43.11% for SAVAd and 51.64% for KBPD). This is followed by investments in instruments from issuers / joint stock companies in the financial sector (32.85% for SAVAd and 42.45% for KBPd). Within this sector, SAVAd has the largest share of domestic bank deposits (49.6%) and shares in foreign and domestic investment funds (37.7%) and the share of financial services (6.7%), bonds issued by domestic banks (4.9%) and shares in foreign banks (1.1%) is lower. In the financial sector, the share of foreign investment funds (68%) predominates within the CBD, and the rest belongs to domestic bank deposits (32%). In addition to the above sectors, voluntary pension funds invest in other sectors: basic goods, pharmacy, consumer goods, industry, information technology, communication services and energy, but with a much smaller share (from 0.55% to 5.85%). The structure of the investments of the voluntary pension funds, by sectors, is shown in Figure 6.12.

Figure 6.12. Structure of investments by VPF by sector

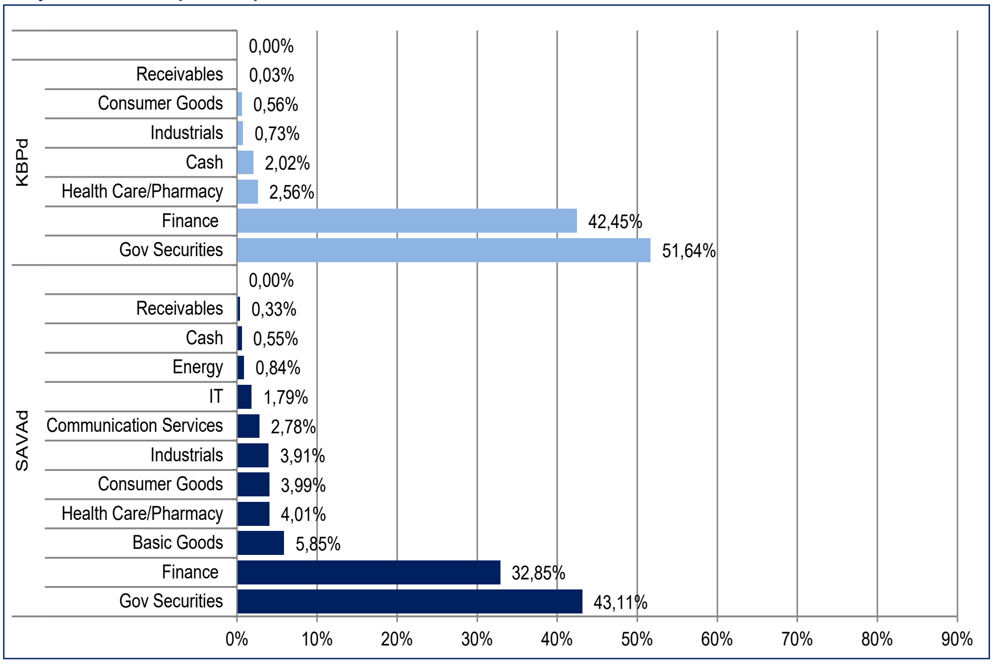
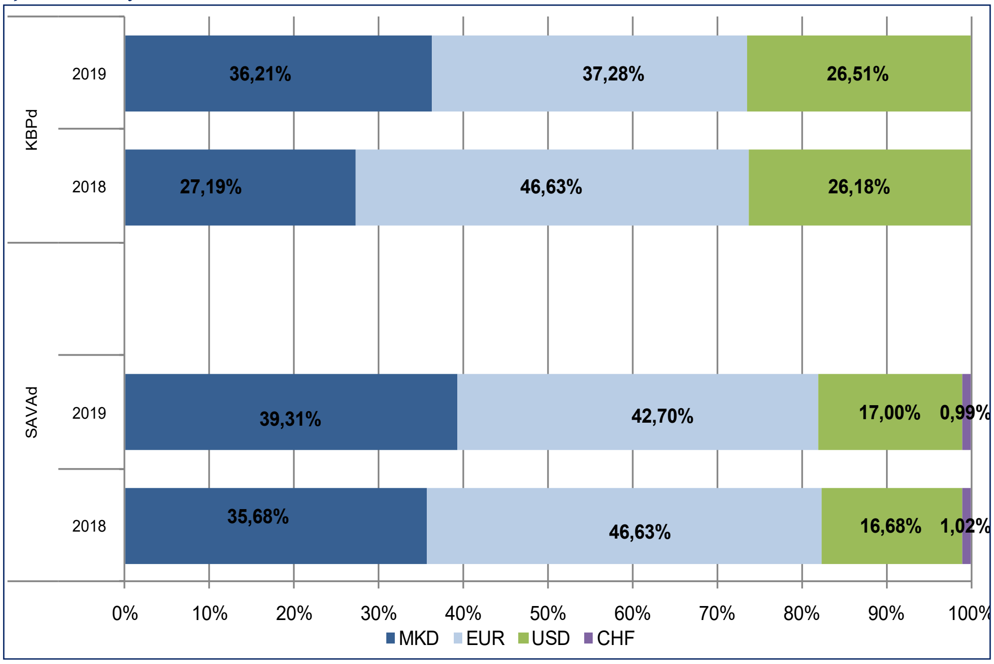


Figure 6.13. Currency structure of VPF, 2018-2019

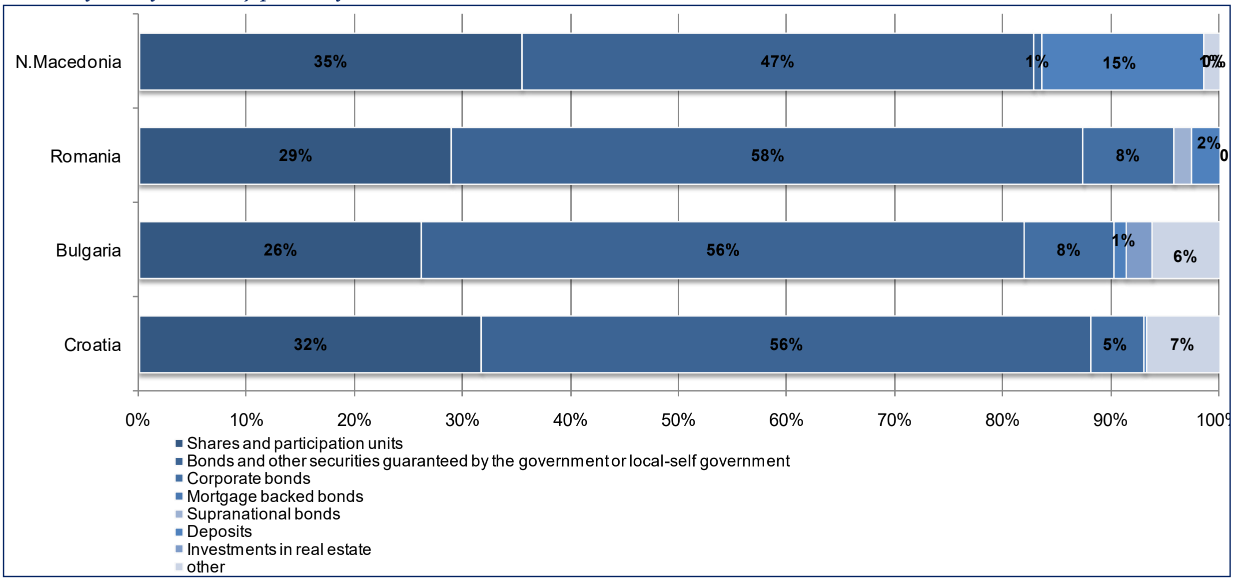


Regarding the monetary structure of the assets of the voluntary pension funds, shown in Figure 6.13, we can see that most of the assets, both of the voluntary pension funds, are invested in instruments in euros (42.70% in SAVAd and 37, 28% at KBPd) whereby both pension funds show a decrease in the share of instruments in euros, compared to the previous year. Meanwhile, the share in instruments, in domestic currency, was 39.31% at SAVAd and 36.21% at KBPd, with both pension funds increasing compared to the previous year. The share of investment in US dollars (17.00% at SAVAd and 26.51% at KBPd) remains at the same level compared to the previous year. SAVAd's currency structure includes a small share of instruments invested in Swiss francs 0.99%.

If we compare the countries that have similar pension systems with the Macedonian one, we can see similarities, but also differences in the investment portfolios of voluntary pension funds. Figure 6.14. shows a comparison of the investments, with the situation on 31.12.2019, of the voluntary pension funds in RNM, with the investments of the voluntary pension funds in some of the countries in the region that have implemented voluntarily fully funded pension insurance .

If the portfolios of voluntary pension funds are reviewed by instruments, it can be noted that pension funds in almost all countries have the highest exposure to bonds and other securities guaranteed by the state or local government (in Romania 58%, Croatia 56% , Bulgaria 56%, and with the lowest percentage in North Macedonia 47%). Exposure in bank deposits is highest in North Macedonia and is 15%. Unlike North Macedonia, in other countries deposit exposure is significantly lower: Romania (2%), Bulgaria (1%) and Croatia (0.2%). Regarding investments in shares and stocks, the largest percentage of funds in stocks and shares are invested in pension funds in North Macedonia (35%), followed by Croatia (32%), Romania (29%) and Bulgaria (26%). Pension funds also invested in corporate bonds, 8% in pension funds in Bulgaria and Romania and 5% in Croatia. Compared to pension funds in other countries, the share of investments in corporate bonds in pension funds in North Macedonia is significantly lower, 1%. Only in Bulgaria have pension funds invested in real estate (2%), and in other countries, most often, this instrument is not allowed. In terms of investing abroad[16], pension funds in North Macedonia have the largest exposure to foreign investment with 27%, followed by pension funds in Croatia 16% and Romania with 14%.

Figure 6.14. Portfolios of voluntary pension funds in several countries and in Northern Macedonia



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

[16]*The data on investments abroad for Bulgaria as of 31.12.2019 was not available*

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

The method of calculation of net assets, the accounting unit and the rate of return for the voluntary pension funds is 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 Tabl Table 6.4.).

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

	SAVAd	KBPd
Net assets as of 31.12.2018	755,38	797,74
Contributions	169,68	134,12
Fees from contributions	4,44	3,57
Contributions reduced for fees from contributions	165,25	130,55
Payments on individual accounts from personal tax returns	1,30	1,00
Fees from assets	10,37	7,95
Expenditures for intermediary commissions	0,14	0,00
Transfers from another fund	3,47	0,74
Transfers to another fund	0,74	3,47
Inheritance payout	1,17	0,26
Payout of old-age pension benefits – lump sum/ multiple payments	13,50	25,81
Gross profit from investments	99,28	97,52
Net profit from investments	88,77	89,57
Net assets as of 31.12.2019	998,78	990,04

The total net assets in the voluntary pension funds, as of 31.12.2019, amounted to about 1.98 billion denars or about 32 million euros, which is about 0.29% of GDP[17].

Figure 6.15. shows the values of the net assets at the end of all years and their growth in percentage compared to the net assets in the previous year. It can be noticed that the net assets of the two voluntary pension funds are growing at a similar pace. The largest increase was recorded in 2011 compared to 2010.

The movement of the value of net assets and cumulative contributions, as well as the growth of paid contributions and the growth of net assets in SAVAd and KBPd, are shown in Figure 6.16. and Figure 6.17. The growth of net assets of voluntary pension funds is implied by the growth of paid contributions and investment results. For 2019, most of the growth of net assets is due to paid contributions (about 70%). The share of cumulative contributions in total net assets during the first years is significantly higher, and then decreases.

[17] *GDP source: State Statistics Office - Announcement - gross domestic product, for 2019*

Figure 6.15. An increase in the net assets of SAVAd and KBPd in percentage compared to the previous year

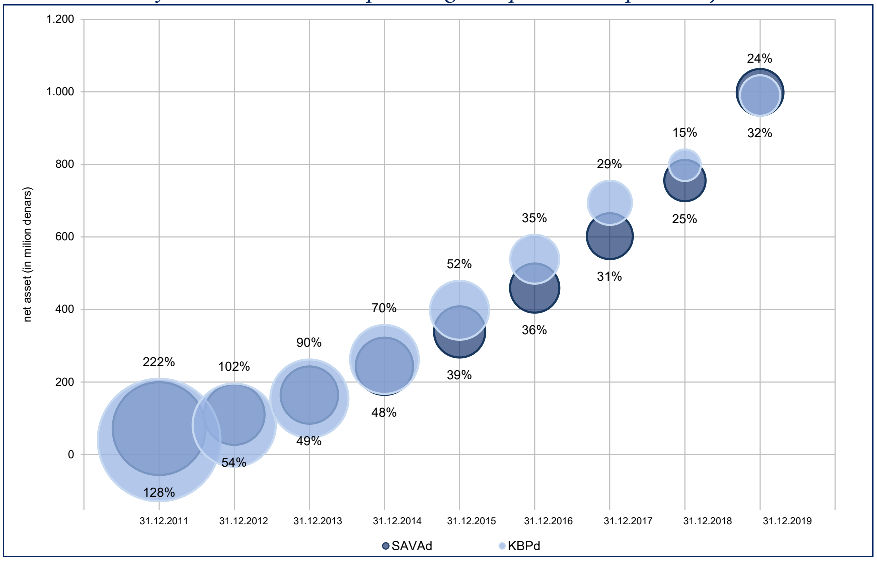


Figure 6.16. Growth of net assets compared to increase in paid contributions in SAVAd

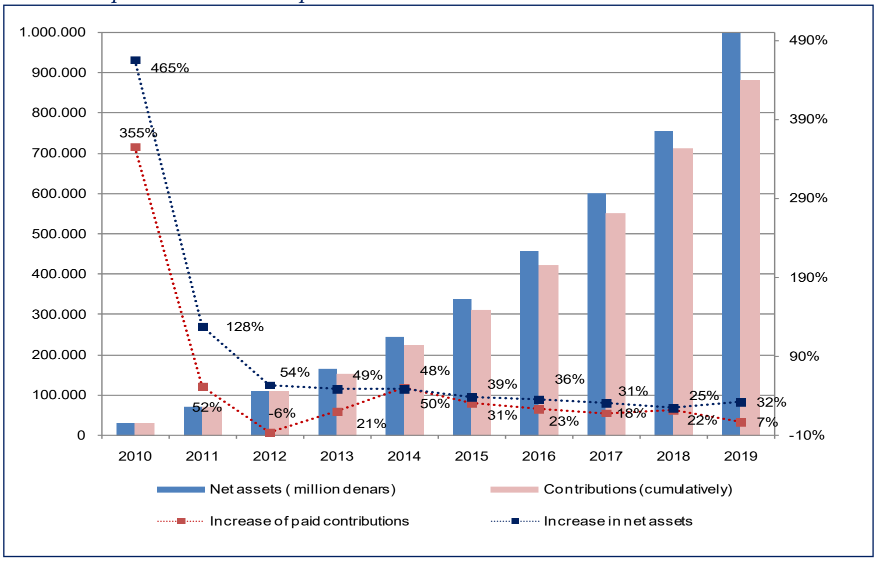
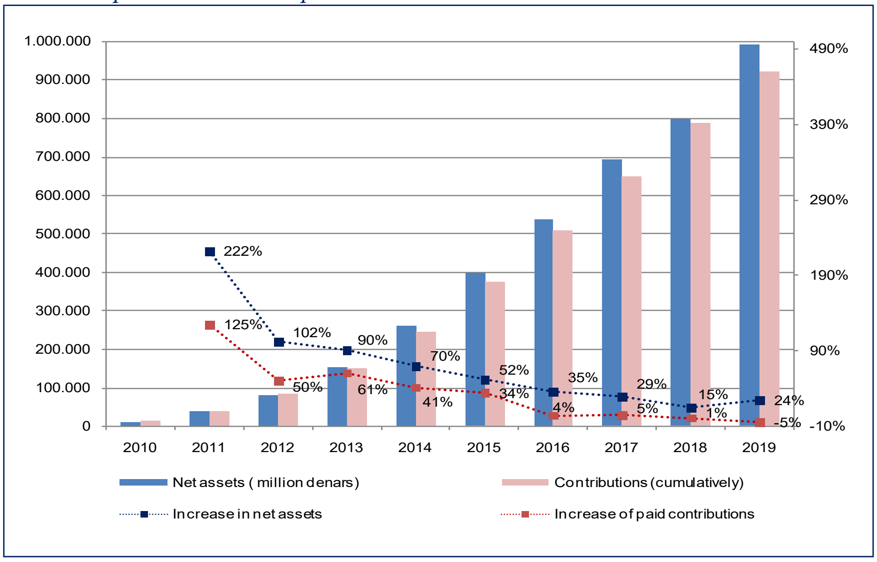


Figure 6.17. Growth of net assets compared to increase in paid contributions in KBPd



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. In 2019, a growth of 32% is noted. 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%, while in 2019 the growth decreased by 7%.

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 by 15%, while the paid contributions grew by 1%. In 2019, compared to 2018, at KBPd, the growth of net assets increased and amounted to 25%, but the amount of contributions paid decreased by 5%.

The movement of the value of the accounting units of the voluntary pension funds, from the beginning of operations of the voluntary pension funds, until 31.12.2019, is presented in Table 6.5., Figure 6.18. and Figure 6.19. The growing trend of accounting units is noticeable. During 2019, the accounting unit of both pension funds has increased and follows a similar trend, so that, at the end of the year, the value of the accounting unit of both pension funds increased significantly compared to the previous year by about 11%.

Figure 6.18. Value of the accounting unit at the start of the VPF

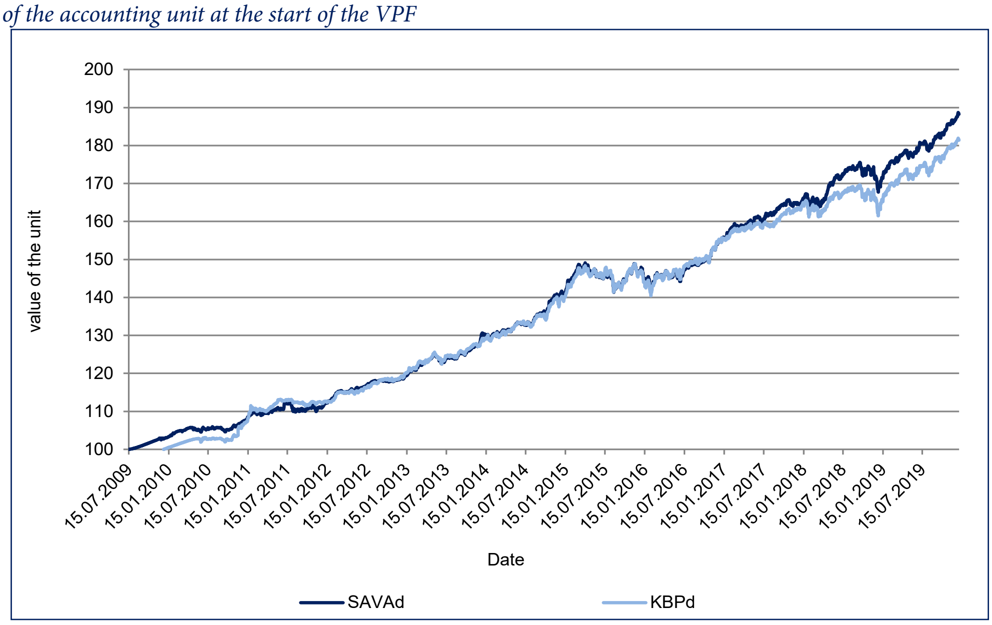


Figure 6.19. Value of the accounting unit of the VPF in 2019

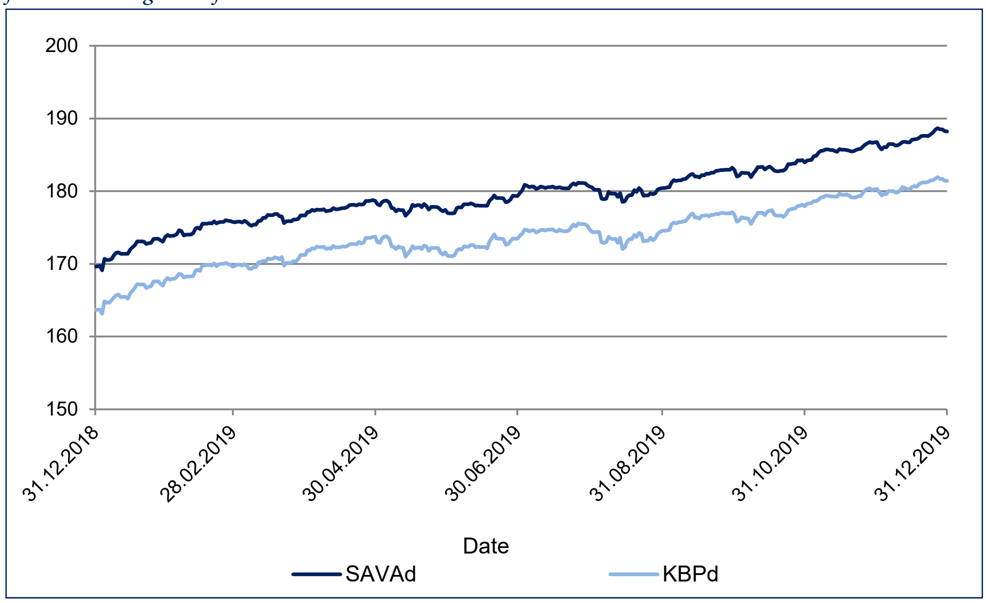


Table 6.5. Value of the accounting unit from the beginning of the existence of VPF

Date	Value of accounting unit	
	SAVAd	KBPd
15.09.2009	100,000000	0,000000
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
31.12.2018	169,649887	163,696595
31.03.2019	176,667581	171,226984
30.06.2019	179,343462	173,470228
30.09.2019	183,231822	177,109971
31.12.2019	188,197689	181,404697

The yield on voluntary pension funds by period, reduced annually, is shown in Table 6.6.

The yield on the voluntary individual and / or professional account is variable and depends on the yield of the voluntary pension fund and the fees charged by the company. Yield, or profit, is a parameter that cannot be realistically predicted because it depends on the conditions of the capital market and the overall economy.

The yield of voluntary pension funds is calculated in the same way and according to the same formula as the yield of the mandatory pension funds.

Given the long-term nature of pension insurance, it is good to calculate the yield of voluntary pension funds from the beginning of their existence, reduced annually, which for SAVAd is 6.24% in nominal terms and 4.76% in real terms , and for KBPd 6.11% in nominal amount, ie 4.61% in real amount.

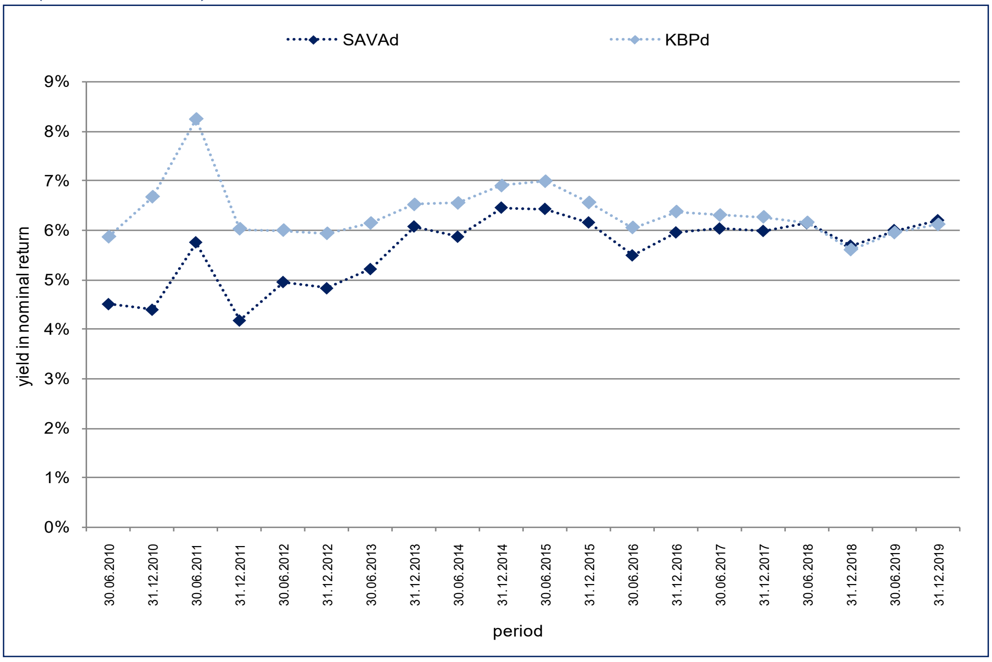
Table 6.6. VPF yield

Period*	SAVAd		KBPd	
	Nominal amount	Real amount	Nominal amount	Real amount
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	6,22%	4,72%	6,21%	4,71%
31.12.2011-31.12.2018	6,13%	4,91%	5,48%	4,27%
31.03.2012-31.03.2019	6,34%	5,40%	5,86%	4,93%
30.06.2012–30.06.2019	6,38%	5,47%	5,93%	5,03%
30.09.2012–30.09.2019	6,49%	5,89%	5,94%	5,34%
31.12.2012–31.12.2019	6,80%	6,22%	6,19%	5,62%
Start**– 31.12.2019	6,24%	4,76%	6,11%	4,61%

** Until the adoption of the amendments to the Law on Voluntary Fully Funded Pension Insurance, from January 2013, the yield on a voluntary pension fund was calculated for a period of 3 years, and only in nominal amounts.*
*** The start is 15.7.2009 for SAVAd and 21.12.2009 for KBPd.*

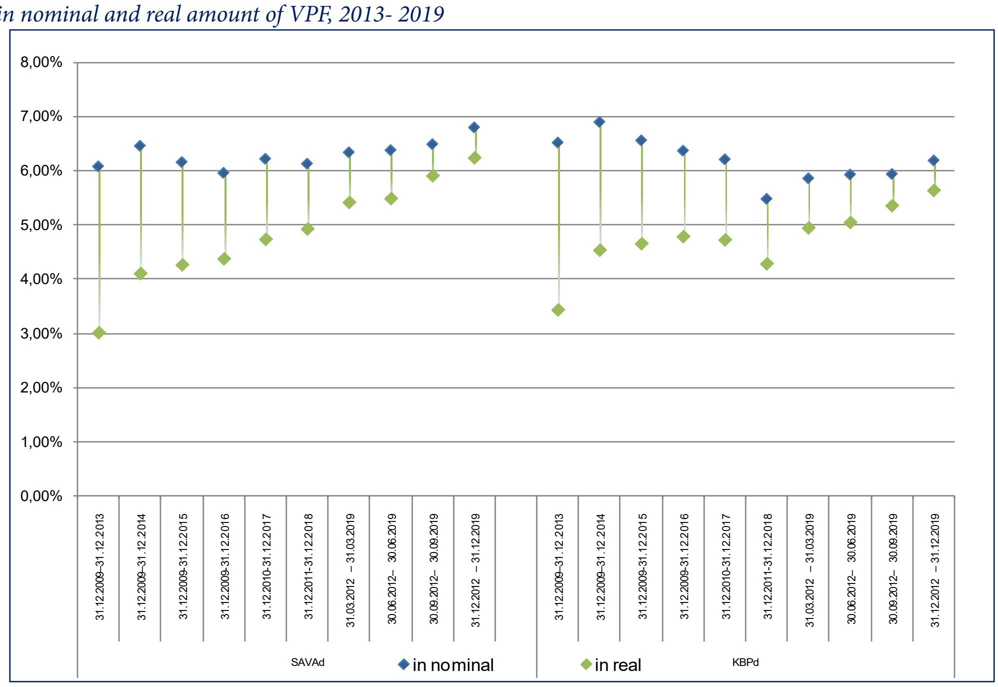
The movement of the yield in nominal amount, by periods, can be seen in Figure 6.20., where the yields by periods are presented, from 31.12.2009 to 31.12.2019, by funds. At the beginning, there was an increase in yields, so that, at the end of the first half of 2011, high yields were observed in both voluntary pension funds, while at the end of 2011, there was a decline in yields. Then, in the following years, there was a gradual increase in yields until the middle of 2015, followed by a decline in yields until the middle of 2016, and then again there was an increase in yields, as of the end of 2016. In 2019, there is an increase in yield compared to the yield at the end of 2018.

Figure 6.20. VPF yield (nominal amount)



The movement of yield in nominal and real amount, in the period from 2013 to 2018 (annually) and in 2019 (quarterly), according to statutory defined periods, converted into an equivalent annual rate of return, by a voluntary pension fund , can be seen in Figure 6.21. In 2019, the yield in nominal amount and the yield in real amount increased in SAVAd (from 6.13% to 6.80% in nominal or from 4.91% to 6.22% in real terms) and KBPd (from 5.48% to 6.19% in nominal or from 4.27% to 5.62% in real amount). In 2019, the yields for the period 31.12.2012 - 31.12.2019 have the highest value. In the period under review (2013-2019), the change in the level of living expenses in the accounting periods, annually, indicates a decrease, which affects the gradual approximation of the yields in real amount to the yields in nominal amount.

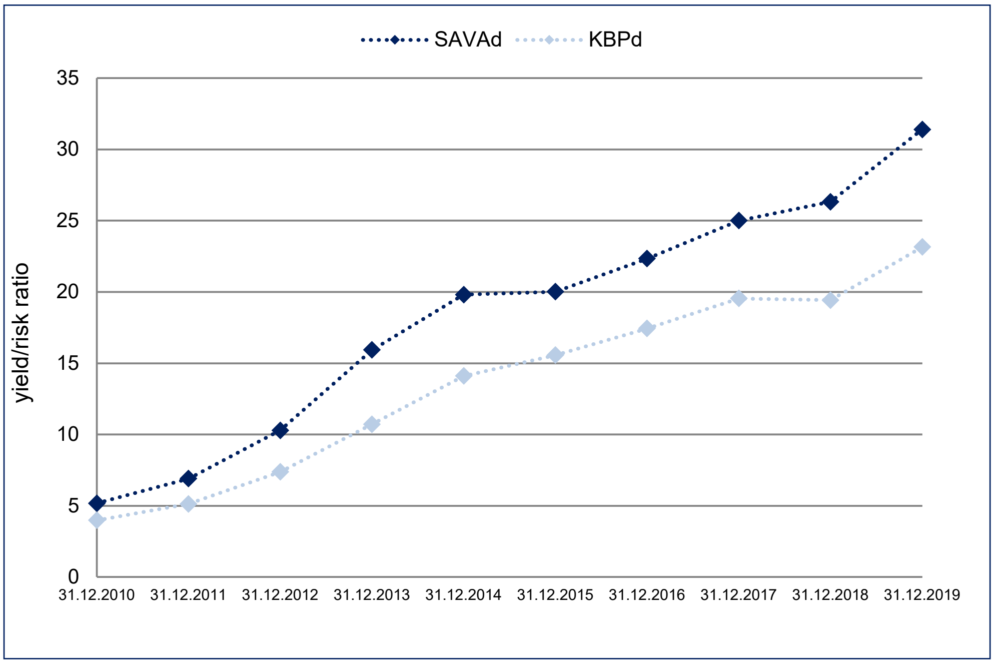
Figure 6.21 Yield in nominal and real amount of VPF, 2013- 2019



Graphically, the ratio of return in nominal amount to risk[18] (calculated through one of the possible calculation methods) of voluntary pension funds, from the end of 2010 to the end of 2019, is shown in Figure 6.22. Because pension funds are long-term in nature, pension fund returns have been calculated since the start of the pension fund's operation, and have been annually averaged, and the risk is shown as an annual standard deviation of the annual yields in nominal amount.

The annual standard yield deviation decreases as the review period increases, as yields are expected to move more steadily in the long run. The higher the yield / risk ratio, the better the investment performance and the higher the potential yield for a given risk unit.

Figure 6.22. Yield and risk ratio



6.7 *Fees for voluntary pension funds*

To perform its functions of managing assets of the voluntary pension fund, asset assessment, membership, managment of voluntary individual and professional accounts of the members and member notification, as well as fee payment for MAPAS and the custodian, the companies, in accordance with the Law on Voluntary Fully Funded Pension Insurance, shall charge fees from contributions, fees from the assets, and transfer fees.

The contribution fee is charged as a percentage of each paid contribution to a voluntary pension fund, before it is converted into an accounting unit. The company charges this fee in the same percentage, from all members of the voluntary pension fund, except in the case of members who are participants in a professional pension scheme or in case of multi-year membership. The monthly fee is a percentage of the value of the net assets of the voluntary pension fund, which is calculated on each date of the assessment of the assets of the voluntary pension fund (in accordance with the current bylaws, the assessment date is every day) and is charged once monthly. The transfer fee is charged in case of transfer of a member from one voluntary pension fund to another voluntary pension fund, provided that the member who is transferred has been a member of the existing voluntary pension fund for less than one year.

The law determines the maximum amounts, and the freedom of companies to determine the amounts of certain types of fees within the legal maximum.

The fees charged by the companies that manage the voluntary pension funds in RNM, for 2019, are shown in Table 6.7.

The amount of the contribution fees, which were charged from the beginning of the operation of the third pillar, as of 2019, is shown in Table 6.8.

[18] The yield risk ratio is calculated same as in mandatory pension funds.

Table 6.7. Fees charged by companies that manage voluntary pension funds in 2019

Type of fee	SAVA	KB Prvo
Fee from contributions *	2,90%[19]	2,90%[20]
Monthly fee from the assets of the mandatory pension fund	0,100%[21]	0,075%[22]
Transfer fee		
Number of days **	Amount of transfer fee	Amount of transfer fee
Number of days ≤ 360	10 Euros	10 Euros
Number of days > 360	Transfer fee not charged	Transfer fee not charged

** For members who are participants in a professional pension scheme, the company may specify a lower amount of this fee.*
*** The number of days is determined based on the number of days from the date when the member acquired the status of a member in the existing voluntary pension fund until the date of signing the membership agreement with the future voluntary pension fund.*

Table 6.8. Fee amount from the contributions charged by the pension companies in the third pillar

Pension company	Amount	Date of application
SAVA	5,25%	Beginning of operations of the fund (15 July 2009)
	3,80%	from 1 March 2011
	2,90%	from 1 January 2017
KB Prvo	5,50%	Beginning of operations of the fund (21 December 2009)
	4,00%	from 24 April 2010
	2,90%	from 1 June 2013

Since the beginning of the operation of the voluntary pension funds, the pension companies have halved the contribution fee. The fee from the beginning of the operation of the third pillar was 0.15% per month from the value of the net assets of the voluntary pension fund. Also, in 2011, the two companies reduced their compensation and now it is 0.100% for SAVA and 0.075% for KB Prvo.

The collection of the fees (in thousands of denars), by the companies that manage the voluntary pension funds, during 2019, by months and by type of compensation, is given in Table 6.9.

Table 6.9. Collection of fees in companies in 2019 *(in thousands of denars)*

	Jan.	Feb.	March	April.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
SAVA– total	1.172	1.015	1.157	1.131	1.133	1.041	1.131	1.092	1.376	1.524	1.256	1.780	14.807
From contributions	401	219	346	301	293	191	263	219	482	606	310	807	4.438
From assets	771	796	811	830	839	850	869	873	894	918	946	973	10.368
KB Prvo -total	789	901	830	877	823	844	891	884	932	957	1.057	1.734	11.517
From contributions	180	274	195	232	174	191	225	219	251	267	351	1.011	3.569
From assets	609	627	635	645	648	653	666	665	681	689	706	723	7.948

Transaction fees, in connection with transactions for the acquisition or transfer of assets to the voluntary pension fund, are paid from the assets of the voluntary pension fund, and are charged by appointed legal entities that perform securities services, at home and abroad. Transaction fees are calculated as a percentage of the value of each transaction concluded.

During 2019, a total of 145 thousand denars of transaction fees were collected from SAVAd, while a total of 4 thousand denars of transaction fees were collected from KBPd.

[19] From 1 January 2017 (previously was 3,80%).
[20] From 1 June 2013 (previously was 4,00%).
[21] From 1 March 2011 (previously was 0,15%).
[22] From 1 January 2011 (previously was 0,15%).

6.8 *Pay outs of pensions from the voluntarily fully funded pension insurance*

The conditions for acquiring the right to pension benefit and the manner of pension pay out from the third pillar are more liberal than the second pillar, but it should still be understood that they represent savings for the period after retirement. Namely, the funds can be paid out at the earliest ten years before the age for acquiring the right to old-age pension, in accordance with the Law on Pension and Disability Insurance, which would currently mean the earliest of 54 years for men and 52 years for women. Also, the funds can be paid out in case of an established worker's general inability to work by the Working Ability Evaluation Commission, at the PDIFNM, regardless of age. In case of a death of a member of a voluntary pension fund, the funds from the member's account become part of the estate assets and they are treated in accordance with the Law on Inheritance.The funds from the third pillar are used at the discretion of the member as the following types of pension benefits:

- one-time or multiple disbursement of assets;
- pension annuity paid by an insurance company authorized for that purpose;
- programmed payouts paid by the company that manages the voluntary pension fund, or
- a combination of the above options.

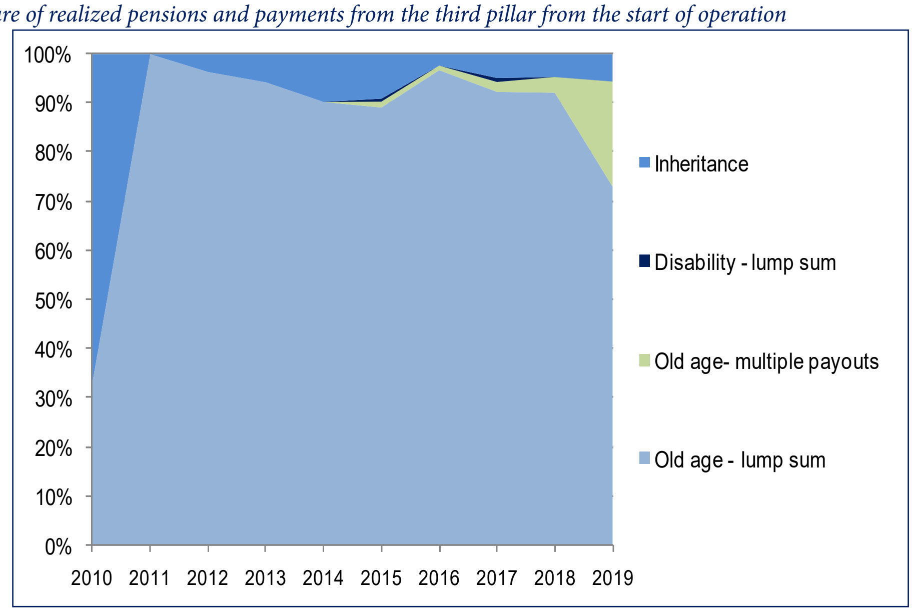
The provision of pensions and pension benefits, which are paid from the second and third pillar, is regulated by the Law on Payment of Pensions and Pension Benefits from the Fully Funded Pension Insurance. In 2019, 271 pension benefits and disbursements from the third pillar were realized. Most of the realized pension benefits were in upon met age- criteria, most of them as a lump sum, and a significant part as multiple payments. A small portion of the payments in the third pillar were in the event of a death of a member, with the distribution of the inheritance. Detailed overview of the realized pension benefits and payments for members of the third pillar, according to voluntary pension funds and type of account, for 2019, are given in Table 6.10.

Table 6.10. Pension benefits and distribution of payment for third pillar members

Type of pension benefit and payment/ Voluntary pension fund	SAVAd		KBPd		Total
	Individual account	Professional account	Individual account	Professional account	
Lump sum	52	14	37	95	198
Multiple payment	7	20	3	28	58
Inheritance	4	1	3	7	15
Total	63	35	43	130	271

Figure 6.25. shows the structure of realized pension benefits and payouts to members of the third pillar from the beginning of the operation of the third pillar, by years, inclusive of 2019. The number of payments is small, because the system is still young and the members are relatively young. Most payments are one-off payments in the case of fulfilled age criteria, and then payments in cases of a death of a member such as distribution of inheritance. There are also a small number of lump sum disability payments as well as multiple payments based on met age criteria.

Figure 6.23. Structure of realized pensions and payments from the third pillar from the start of operation



7 Marketing and pension company agents

7. Marketing and pension company agents

In order to protect the interests of the existing, future members and retired members of the fully funded pension insurance and in order to provide fair and objective information to the public, marketing is performed in a regulated manner, governed by law and bylaws.

During 2019, an exam for agents was organized and realized, in four exam sessions, where 41% of the present candidates passed the exam. The number of candidates who took the exam in 2019 was significantly higher than the previous year, which is mostly due to the start of operation of the third pension company.

During 2019, registration and annual renewal of the agents' registration were performed. Some of the agents have had their agent's status terminated.

In order to protect the interests of existing and future members and retired members of fully funded pension insurance and to ensure fair and objective reporting/information to the public, marketing is performed in a regulated environment, regulated by law and bylaws.

Marketing refers to all activities aimed at advertising the pension companies and the mandatory and voluntary pension funds and the process of notification as well as signing membership agreements in the mandatory and voluntary pension funds and payment of assets from the mandatory and voluntary pension funds. These activities include: advertising the operations of the pension companies and the pension funds they manage, notification about the characteristics of the mandatory and voluntarily fully funded pension insurance, information about fees and transaction fees, information about the yields of mandatory and voluntary pension funds, information about the investment portfolios of mandatory and voluntary pension funds, information about individual accounts, voluntary individual accounts and professional accounts, membership and transition of members from one mandatory to another pension fund, membership and transition of members from one voluntary pension to another fund, signing contracts for programmed disbursements, one-time/lump sum payment agreements and multiple payment agreements and other activities for the purpose of advertising and providing information related to the operation of the pension companies and the pension funds. The pension company can work on the marketing of the pension fund within its premises, in the premises of its business associates for marketing or outside them, directly or through an appropriate type of communication (telephone, fax, internet). The marketing premises must meet certain legally prescribed conditions.

In order for MAPAS to exercise control over the marketing materials, the pension company is obliged to submit to MAPAS, in a photocopy or on an appropriate external medium, any published marketing material, within three days of its publication. In the event that MAPAS considers an advertisement or other written material to cause confusion, can, by adopting a decision prohibit further publication, or distribution, and order the publication to be amended or modified to within a deadline set by MAPAS.

A person in charge of marketing, ie. an agent, can be a person employed in the pension company or another person who is contractually hired by a pension company. The agent may work on the marketing of pension funds and / or enter into membership agreements or payment of assets, only for pension funds managed by the pension company in which s/he is employed or contractually engaged. The agent must be present at the conclusion of the membership agreement in the pension fund, the transfer agreement, the program for programmed withdrawals, the lump sum payment agreement and the multiple payment agreement and is obliged to sign such an agreement. The agent is obliged to make all contacts with the member, with the retired member or with the persons who have the right to become members and with retired members of the pension fund, personally, and must not enter into agreements through another person. The agent also plays an important role in the selection of the type of pension benefit from the fully funded pension insurance to which the member is entitled, and is obliged to personally present the offers for projected future pension benefits to the member who submitted a request for listing, with a detailed explanation of the characteristics and the conjectures used for all types of pension payments.

A person can carry out marketing activities only after registering in the Register of Agents managed by MAPAS. MAPAS prescribes the manner and procedure for taking the agent exam and the manner and procedure for registering a person in the Register of Agents.

During 2019, an exam for agents was organized in four exam sessions, where out of a total of 366 candidates present, registered for the exam, 149 or 41% of the present candidates passed. The number of candidates who took the exam in 2019 is significantly higher than the previous year, which is mostly due to the start of work of the third Pension company. Table 7.1. shows detailed data for the present candidates who took the exam for agents in 2019, by pension company.

During 2019, a total of 145 agents were registered, of which 51 were SAVA agents, 47 KB Prvo agents and 47 TRIGLAV agents. There has also been an annual renewal of agent registration for a total of 388 agents, of which 228 are SAVA and 160 are agents of KB Prvo. During 2019, a total of 8 agents lost their agent status, of which 2 were agents of SAVA and 6 agents of KB Prvo. An overview of the number and average values of registered, renewed and terminated statuses of agents from 2015 to 2019 by pension company is given in Figure 7.1. It can be noticed that the number of registered agents at SAVA and KB Prvo in 2019 is significantly higher than in 2018.

Table 7.1. Candidates attending and taking the agent exam by pension company

Pension company	Attendees	Passed	Passed (in%)
SAVA	94	37	39%
KB Prvo	131	41	31%
TRIGLAV	141	71	50%
Total	366	149	41%

Regarding the number of membership agreements in the mandatory pension funds, which are concluded by agents from the start of operations of the system, Figure 7.2. indicates that the most agents, who on average concluded the most membership agreements, are in 2005, given that this was the beginning operations of the system, and inclusive of 31.12.2005, the deadline was presented for voluntary members to choose whether to join the two-pillar system and sign an agreement. In the following years, the number of agents concluding contracts continuously decreased from year to year, and at the same time the average number of concluded contracts per agent increased, until 2011. Then, by 2014, the average number of contracts per agent experienced a significant decline. In the following years, the number of agents who entered into contracts and the average number of contracts per agent remained at approximately the same level. In 2019, there is an increase in the number of agents who concluded contracts, as well as a minimal increase in the average number of contracts concluded per agent compared to 2018. One of the factors influencing this increase is the start of operation of the new pension company.

Figure 7.1. Number of registered, renewed and terminated statuses of agents by age and by pension companies

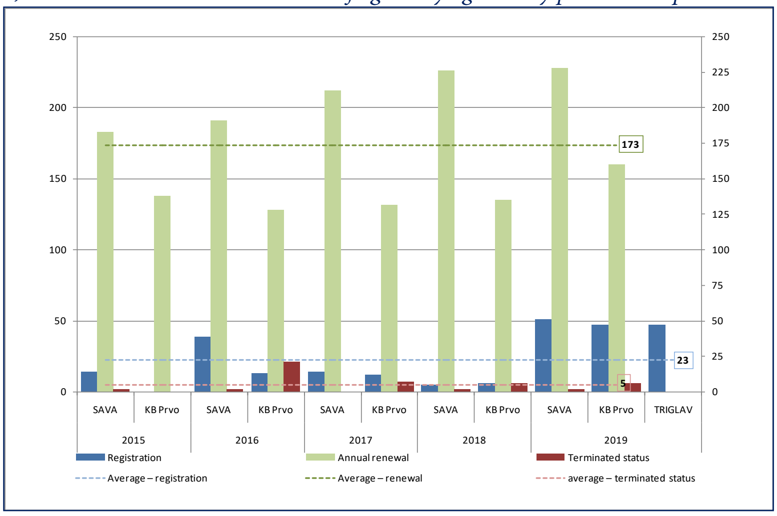


Figure 7.2 Number of agents that signed membership contracts for mandatory pension funds and average number of contracts per agent