

# NATIONAL BANK OF SERBIA

INSURANCE SUPERVISION DEPARTMENT SUPERVISION DIVISION

# **VOLUNTARY PENSION FUNDS IN SERBIA**

First Quarter Report 2023

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## 1. Market participants

At end-Q1 2023, the market of voluntary pension funds (VPFs) included four companies managing seven VPFs, one custody bank, five intermediary banks and one insurance brokerage undertaking.<sup>1</sup>

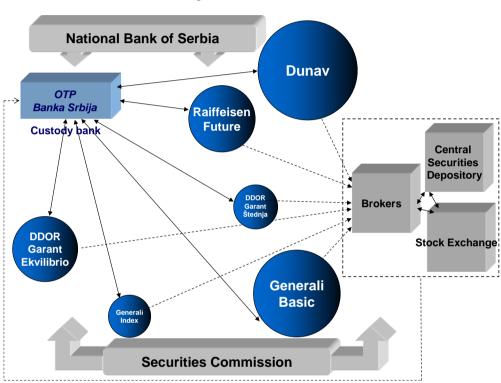


Diagram: Market participants

At end-Q1 2023, VPF management companies employed 125 persons, up by one from a quarter earlier.

The NBS licenses sales agents, who passed professional examinations and fulfilled other requirements, to disseminate information about VPF operation. By end-Q1 2023, the total of 1051 sales agent licences were granted.

As brokers – management companies, banks and insurance undertakings may engage sales agents. At end-Q1 2023 management companies hired 109 persons, intermediary banks 551 persons and the insurance undertaking 96 persons as sales agents.

<sup>&</sup>lt;sup>1</sup> Raiffeisen Bank a.d. Beograd, OTP banka Srbija a.d. Novi Sad, NLB Komercijalna banka a.d. Beograd, Addiko Bank a.d. Beograd and AIK Banka a.d. Beograd, as well as joint-stock insurance undertaking DDOR Novi Sad, Novi Sad.

#### 2. Net VPF assets

At end-Q1 2023, net assets of VPFs equalled RSD 49.7 bn, up by 3.1% from end-2022. The change in the value of net assets reflect net contributions,<sup>2</sup> withdrawals and investment

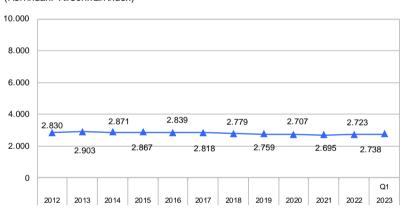
At end-Q1 2023, net assets equalled RSD 49.7 bn.

returns. In Q1 2023, total contributions amounted to RSD 1.04 bn, withdrawals to RSD 628.75 mn and investment returns to RSD 1.1 bn.

#### End-of-period net assets of the VPF sector

Source	NBS.											
12.5	16.1	19.7	23.6	28.9	32.8	36.2	40.2	45.2	47.0	49.1	48.9	49.7
2011	2012	2013	2014	2013	2010	2017	2010	2013	2020	2021	2022	Q1
2011	2012	2013	2014	2015	2016	2017	2018	2010	2020	2021	2022	2023





Source: NBS.

Measured by HHI, market concentration in the sector<sup>3</sup> at end-Q1 2023 amounted to 2,738 points, indicating high concentration in the VPF market.

According to the size of VPF net assets relative to total net assets of the sector, two funds were classified as "large" and two as "medium". Together, they held 92% of the market share, with the largest fund accounting for 41%.

Number o	of funds	by groups	divided by	market share
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(in units)												
Share in net assets (%)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Q1
Large (20 and												
abov e)	2	2	2	2	2	2	2	2	2	2	2	2
Medium (5 - 19.99)	2	2	2	2	2	2	2	2	2	2	2	2
Small (0 - 4.99)	5	2	2	3	3	3	3	3	3	3	3	3
Source: NBS.												

<sup>&</sup>lt;sup>2</sup> Net contributions are total contributions minus the front-load fee.

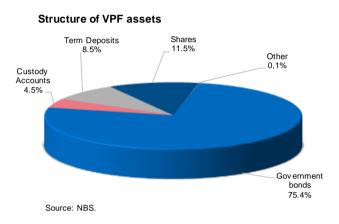
<sup>&</sup>lt;sup>3</sup> In terms of the share in total net assets.

## 3. Structure of VPF assets

At end-Q1 2023, the structure of investment of VPF assets remained broadly unchanged compared to the prior period. Government bonds accounted for the major part

Majority of assets were invested in government debt instruments – 75.4%.

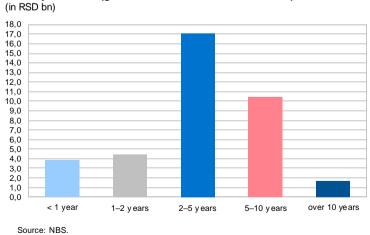
of VPF assets -75.4%. Balances held in custody accounts and term deposits with banks made up 13%, and investment in shares 11.5%.



Portfolio of government debt instruments (bonds of the Republic of Serbia) kept the dominant position in total fund assets at the end of this period, too. The share of these financial instruments in fund assets edged down from 76.6% at the end of the previous quarter to 75.4%.

Q-o-q, aggregate exposure to shares of domestic legal persons edged up from 10.9% to 11.5% of total fund assets.

At end-Q1 2023, 10.4% of government debt instruments were with the maturity of up to one year, 11.7% between one and two years, 45.5% between two and five years, 28% between five and ten years, and 4.4% over ten years.



Maturity structure (government fixed income securities)

The average maturity of assets<sup>4</sup> invested in government debt instruments was 5 years.

At end-Q1 2023, 83.3% of total assets were in dinars and 16.7% in a foreign currency (EUR).

#### 4. Return on investment

At end-Q1 2023, the value of FONDex<sup>5</sup> reached 3,132.78.<sup>6</sup> FONDex, which represents the weighted average return of all funds, was corrected by -0.3% in the past year. Since the start of VPF operation,<sup>7</sup> the return of the FONDex has equalled 7.2%. Given the structure of VPF investment, the return is influenced by: the change in the yield curve on government debt instruments,<sup>8</sup> change in the prices of shares, change in the value of investment units of open investment funds, level of the key policy rate, banks' interest rates, and changes in the dinar exchange rate against the euro.

Accepted rate of issued dinar-denominated government debt instruments, by maturity

Maturity	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023
3m	-	-	-	-	-
6m	-	-	-	-	-
12m	-	-	3.9%	-	-
18m	-	-	-	-	-
24m	2.8%	-	-	-	6.0%
36m	-	-	-	-	-
60m	-	-	-	-	-
84m	-	-	-	-	-
120m	-	-	-	-	-
144m	-		-	-	-

Source: Ministry of Finance.

Maturity	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023
3m	-	-	-	-	-
6m	-	-	-	-	-
12m	-	-	31.7	-	-
18m	-	-	-	-	-
24m	9.9	-	-	-	27.2
36m	-	-	-	-	-
60m	-		-	-	-
84m	-	-	-	-	-
120m	-	-	-	-	-
144m	-		-	-	-
Total	9.9	-	31.7	-	27.2

Market value of issued dinar-denominated government debt instruments, by maturity (in RSD bn)

Source: Ministry of Finance.

<sup>&</sup>lt;sup>4</sup> The maturity of instruments weighted by their share in total investment in government debt instruments.

<sup>&</sup>lt;sup>5</sup> FONDex is the index which indicates movements in investment units of all VPFs in the market.

<sup>&</sup>lt;sup>6</sup> The initial FONDex value on the first business day of the first VPF, 15 November 2006, was 1,000.

<sup>&</sup>lt;sup>7</sup> Annual rate.

<sup>&</sup>lt;sup>8</sup> A decline in interest rate leads to an increase in the prices of debt instruments and vice versa. The prices of longer-maturity instruments are more sensitive to interest rate changes.

In Q1 2023, in the primary market of dinar-denominated government debt instruments, government securities with a two-year maturity (RSD 27.2 bn) were issued at the rate of 6%.

Q1 2023 saw an issuance of two-year euro-denominated government debt instruments (EUR 37.5 mn) at the rate of 2.5%.

Maturity	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023
12m	-	-	-	-	-	-
24m	-	0.8%	-	-	-	2.5%
36m	-	-	-	-	-	-
60m	-	-	-	-	-	-
84m	-	-	-	-	-	-
120m	-	-	-	-	-	-
144m	-	-	-	-	-	-
180m	-	-	-	-	-	-
240m	-	-	-	-	-	-
-						

Accepted rate of issued euro-denominated government debt instruments, by maturity

Source: Ministry of Finance.

# Market value of issued euro-denominated government debt instruments, by maturity (in EUR mn)

Maturity	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023
12m	-	-	-	-	-	-
24m	-	200.0	-	-	-	37.5
36m	-	-	-	-	-	-
60m	-	-	-	-	-	-
84m	-	-	-	-	-	-
120m	-	-	-	-	-	-
144m	-	-	-	-	-	-
180m	-	-	-	-	-	-
240m	-	-	-	-	-	-
Total	-	200.0	-	-	-	37.5

Source: Ministry of Finance.

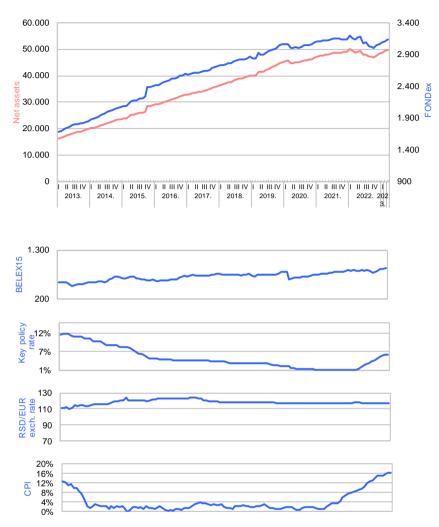
The prices of shares in the Belgrade Stock Exchange (BSE), measured by the BELEX15 index, rose by 8.1% in Q1 2023 (the value of the index was 891.29 at end-March). The index rose by 6% over the past year.

The key policy rate equalled 5.75% at end-March 2023. The level of interest rates earned by funds on dinar assets in custody accounts mirrored the movements of the key policy rate.

In Q1 2023, the dinar value vis-à-vis the euro remained almost the same as in the quarter before, coming at RSD 117.29 per euro. In the same period, the dinar gained around 2.4% against the US dollar.

Price growth rates came at 1.4%, 1.4% and 0.9% in January, February and March, respectively. In March 2023, consumer prices gained 16.2% year-on-year.<sup>9</sup>

<sup>&</sup>lt;sup>9</sup> Source: Statistical Office of the Republic of Serbia.



Movements in net assets, FONDex and key indicators of VPF (in RSD mn, units, %)

Sources: NBS, Belgrade Stock Exchange, Statistical Office.

#### 5. Fees charged by management companies

The Law on Voluntary Pension Funds and Pension Schemes sets out that management companies charge fees for their services and account transfer to fund members. Management company fees entail contribution and management fees. The account transfer fee may not exceed the actual transfer costs.

Though fees are among the parameters that members should consider when choosing a fund, they should not be viewed in isolation. The level of fees is contingent on the fund's investment policy and its investment activity. As a rule, more active funds, intended for younger persons who will pay contributions over a longer horizon, invest more in more complex instruments, assuming a higher degree of risk. Such funds are expected to post higher returns, hence their fees are higher. On the other hand, a fund investing passively in safer financial instruments should charge lower fees. A fund's investment policy, i.e. planned investment of the fund members' assets, the expected return, the level of risk assumed by funds (and members), and fees charged by companies, should all be taken into account when opting for a fund.

The contribution fee is paid as a percentage of each executed payment as a frontload fee. Though visible in the first instance, i.e. with each payment of assets into the fund, it is not the largest cost incurred by a member.

The total amount of contribution fees paid in Q1 2023 amounted to RSD 22 mn and the level of the fee in the same period was 2.16% on average.

The management fee is calculated daily against the value of net VPF assets and is included directly in the investment unit value, meaning that the calculated and published investment unit value is exclusive of the management fee.

At end-Q1 2023, the total value of management fees equalled RSD 149.6 mn, which is around 87% of the total fees charged.

# Fees charged by management companies

(in RSD mn)

	2011	2012	2012	2014	2015	2016	2017	2019	2010	2020	2021	2022	2023
	2011	2012	2013	2014	2015	2010	2017	2010	2019	2020	2021	2022	Q1
Contribution fee	57.9	60.1	58.7	55.4	53.0	56.8	61.0	66.3	71.8	76.2	80.9	85.1	22.0
Management f ee	220.0	284.1	357.8	432.8	514.9	614.4	678.7	474.0	526.7	567.9	599.4	599.0	149.6
Source: NBS.													

## 6. Trading in securities

VPF trading volumes equalled RSD 7.4 bn in Q1 2023.

The average share of VPFs in BSE trading was 8.8% at the end of the quarter.

#### **VPF** securities trading

(in RSD bn)

	2015	2016	2017	2018	2019	2020	2021	2022	2023
	2015	2010	2017	2010	2019	2020	2021	2022	Q1
Securities trading	14.5	11.5	24.2	16.1	48.7	26.3	33.5	11.9	7.4
Purchases	7.9	6.4	14.7	9.3	27.1	13.8	18.6	6.0	4.6
Belgrade Stock Exchange	0.9	1.1	3.7	2.7	3.2	2.7	1.9	1.6	0.3
Unregulated market	1.8	1.1	5.8	3.2	16.7	7.6	13.7	2.3	1.9
Auctions of government secur	5.2	4.2	5.1	3.4	7.1	3.6	3.0	2.1	2.7
Sales	3.6	3.0	7.4	5.5	19.6	11.2	12.0	3.8	1.9
Belgrade Stock Exchange	0.5	1.9	2.7	3.2	1.4	3.1	3.7	0.8	0.2
Unregulated market	3.2	1.1	4.7	2.3	18.1	8.1	8.3	3.0	1.7
Maturity	2.9	2.1	2.2	1.3	2.1	1.4	3.0	2.1	0.9
Purchase to sale and maturity ratio	1.2	7.5	1.5	1.4	1.3	1.1	1.2	1.0	2.4
Share in total BSE trading (in%)	6.1%	6.7%	33.0%	9.4%	5.1%	11.9%	13.5%	6.1%	8.8%

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## 7. Transaction costs

Transaction costs incurred in the purchase, sale and transfer of securities (Central Securities Depository fees, stock exchange fees, tax charges) and the costs of current maintenance of real estate property that fund assets are invested in are charged against fund assets. Other costs are charged against the assets of management companies.

The total transaction costs in Q1 2023 amounted to RSD 2.6 mn. In the same period, speaking of fees charged against VPF assets, Central Securities Depository fees were lower than stock exchange fees, whereas in costs paid by management companies from their assets, custody bank fees made up a larger share compared to brokerage fees.

#### Amount of transaction costs

(in RSD mn)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Q1
Total	6.0	6.2	5.6	7.3	10.5	8.3	17.2	10.3	4.8	2.5	0.6
Brokerage fees	2.5	2.0	1.3	2.3	4.4	3.0	8.0	3.7	0.7	0.6	0.1
Custody bank fees	1.9	2.0	2.0	2.0	1.9	1.8	3.1	2.3	1.6	0.5	0.3
Stock exchange fees	0.6	0.6	0.8	1.0	1.8	1.3	1.9	1.3	0.5	0.4	0.1
Central Securities Depository fees	0.9	1.6	1.6	2.0	1.8	1.6	3.4	2.2	1.7	1.1	0.1
Other fees	0.1	0.0	-	0.0	0.6	0.6	0.7	0.9	0.0	0.0	0.0
Source: NBS.											

# 8. Number and structure of VPF users

At end-Q1 2023,<sup>10</sup> 217,308 users were in the accumulation phase<sup>11</sup> (an increase by 1,857 from end-2022), with 296,603 membership contracts (2,084 contracts more than at end-2022).<sup>12</sup>

lumber of use of funds in wh nembers in units)	ers by number ich they are	Number of users membership con (in units)	•
No of funds	No of users	No of contracts	No of users
1	173.414	1	157.550
2	37.326	2	46.069
3	6.268	3	9.369
4	274	4	3.243
5	19	5	730
6	4	6	269
7	3	7	55
		8	20
		9	3
Total	217.308	Total	217.308
ource: NBS.		Source: NBS.	

<sup>&</sup>lt;sup>10</sup> VPF membership has two phases – the accumulation phase (when contributions are made) and the withdrawal phase (when the accumulated funds are withdrawn).

<sup>&</sup>lt;sup>11</sup> The number of users is the number of people who are members of VPF(s). This number is lower than the number of membership contracts, as there is a significant number of users with more than one membership contract in one or several VPFs.

<sup>&</sup>lt;sup>12</sup> The number of membership contracts is the sum total of individual membership contracts and the number of members of all pension schemes.

	Period	No of users	Share (%)		
ص	1 month	78.634	36.2%		
akin tions	3 months	85.015	39.1%		
Jsers making contributions	6 months	89.682	41.3%		
cont	12 months	94.394	43.4%		
2	From the start of membership (1)	194.684	36.2% 39.1% 41.3%		
No holdings	(2)	22.624	10.4%		
Total (1+2)		217.308			

VPF users accounted for 9.45%<sup>13</sup> of the total number of employees.

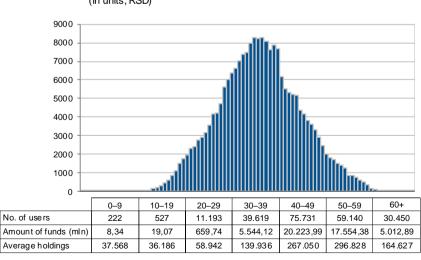
Structure of users by payment dynamics

The amount of accumulated funds depends on the amount of contributions, return earned by funds, level of fees, and the length of the accumulation phase. As the level of contributions and the period of accumulation increase and funds earn returns, average balances in members' individual accounts go up. The average amount of funds accumulated in the accounts of members who have made at least one contribution payment was RSD 255.2 thousand. At end-Q2 2023, the number of users who are members of two or more VPFs was 43,894 or around 20% of the total number of users.

#### Average accumulated funds at end-period

2012 2	2010	2011	2010	2010	2011	2010,0	2010	2020	2021	2022	Q1
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In terms of gender composition and the respective amounts of funds, Q1 2023 saw no significant changes relative to prior periods. Men remained dominant, accounting for 56.3% of all users.



Distribution of users and accumulated funds by age (in units, RSD)

Source: NBS.

<sup>&</sup>lt;sup>13</sup> The source for the number of employees: NBS.

At end-Q1 2023, the average age of VPF users was around 47 years, with users aged 40-60 making up the dominant share of 62%. The percentage of users above the age of 53 was similar as in prior years, accounting for 30.6% of the total, while the percentage of persons beyond 58 years was 18%.

#### 9. Contributions, withdrawals and transfers

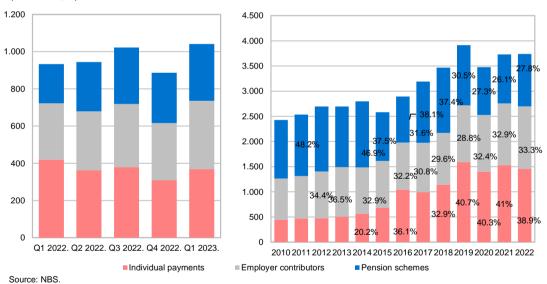
In Q1 2023, of total contributions, individual payments accounted for 35.5%, employer contributions for 35.2% and pension schemes for 29.3%. The total contributions to VPFs in Q1 2023 amounted to RSD 1.04 bn.

Net contributions came at RSD 1.04 bn in Q1 2023.

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
2012	2013	2014	2015	2010	2017	2010	2013	2020	2021	2022	Q1	
2.70	2.70	2.80	2.58	2.89	3.19	3.47	3.92	3.48	3.73	3.74	1.04	

Source: NBS.

(in DCD hn)



Volume and structure of total contributions (in RSD mn, %)

**Total contributions** 

Most contributions are made through employers who place the assets in their employees' fund, thus displaying a high level of responsibility. Q1 2023 saw a noticeable increase in individual contributions compared to a quarter before. In this sense, there is ample potential for a further increase in the number of VPF members both via individuals, who increasingly recognise the importance of saving for old age, and via companies, especially bearing in mind that only one in ten employees have an account in a VPF. This way, employees and employers can save up since contributions

from employer's funds up to RSD 7,529<sup>14</sup> per employee per month are exempt from the household income tax and contributions for mandatory social insurance. Payments in the same amount made by the employer through wage garnishment are also taxexempt. This represents an additional incentive to employees and employers to direct a part of the wage to saving in VPFs.

Withdrawals are generally lump-sum. Since the withdrawals are made by the members who fulfil the requirements, and are usually not long-standing fund members, their accumulated sum is relatively small, and this kind of withdrawals is expected, even though it contradicts the nature of VPFs which assumes the use of accumulated funds over a longer period. The share of scheduled and other types of withdrawals rises with the lengthening of the accumulation periods and increase in the accumulated sums. In Q1 2023, lump sum withdrawals accounted for the bulk of withdrawals (RSD 507.4 mn), scheduled withdrawals measured RSD 107.9 mn and partial withdrawals stood at RSD 13.5 mn.

Total withdrawals
(in RSD mn)

Source: NBS.											
751.7	945.2	1213.4	1226.2	1195.6	1342.4	1412.0	1679.8	2159.6	2223.5	3530.1	628.75
2012	2012 2013	2014	2015	2010	2017	2010	2019	2020	2021	2022	Q1
2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023

Total withdrawals rise from year to year. In O1 2023 they amounted to RSD 628.75 mn as a result of system development. Namely, as contributions and net assets increase and the VPF system matures, the amount of withdrawals will also rise in absolute terms.

Transfers represent inter-fund transfers. A member may transfer a part or all of his assets from one fund to another, covering only the actual transfer costs.

In Q1 2023, the amount of assets transferred to another fund equalled RSD 43.05 mn.

**Total inter-fund transfers** 

In Q1 2023, total withdrawals amounted to RSD 628.75 mn.

In Q1 2023, transfers came at RSD 43.05 mn.

(in RSD mn)											
2012	2013	3 2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2012	012 2013 2	2014	2010								Q1
72.3	137.2	126.3	219.7	267.5	263.0	229.7	210.3	252.6	199.0	748.4	43.1
Source	Source: NBS.										

<sup>&</sup>lt;sup>14</sup> Under Government decree, this amount is adjusted for previous-year inflation once a year. As of February 2023, it amounts to RSD 7,529.