



**NATIONAL BANK OF SERBIA**

INSURANCE SUPERVISION DEPARTMENT  
VOLUNTARY PENSION FUNDS  
SUPERVISION DIVISION

**VOLUNTARY PENSION FUNDS  
SECTOR IN SERBIA**

**Third Quarter Report 2023**

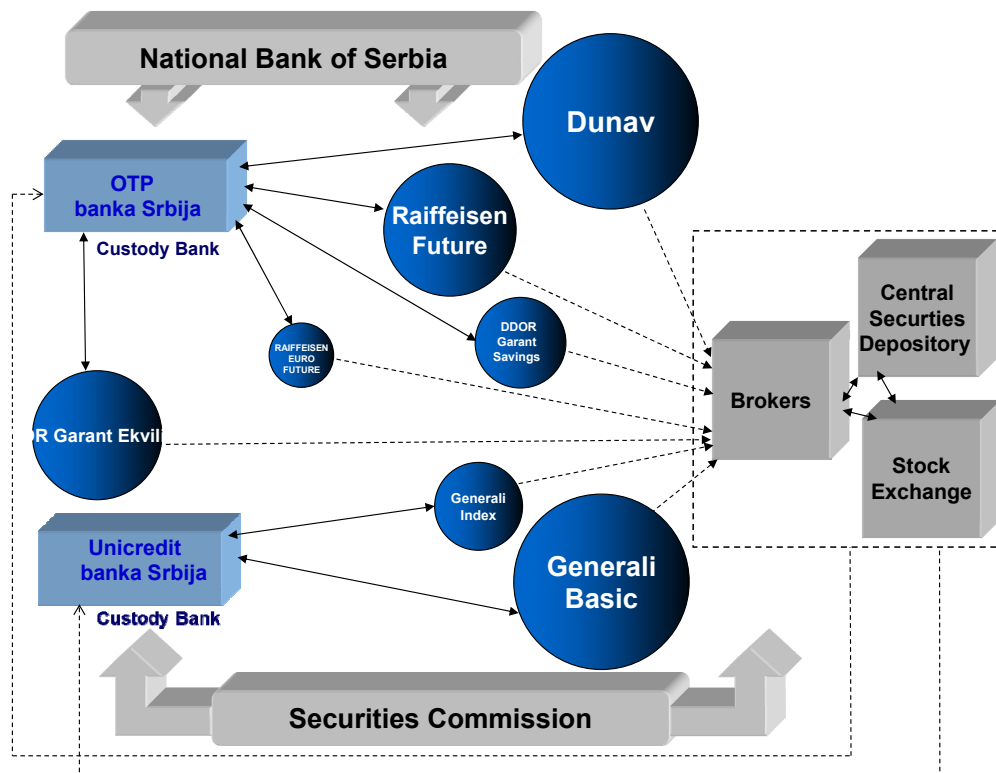
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# 1 Market participants

At end-Q3 2023, the market of voluntary pension funds (VPFs) included four companies managing seven VPFs, two custody banks, five intermediary banks and one insurance brokerage undertaking.<sup>1</sup>

Diagram: Market participants



At end-Q3 2023, total employment in VPF management companies was 131, up by two from a quarter earlier.

The NBS licenses sales agents, who passed professional examinations and fulfilled other requirements, to disseminate information about VPF operation. At end-Q3 2023, the number of sales agent licences remained the same (1085).<sup>2</sup>

As brokers – management companies, banks and insurance undertakings may engage sales agents. At end-Q3 2023, management companies employed 111 persons, intermediary banks 467 persons and insurance undertaking 93 persons.

<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.

<sup>2</sup> Licensing examination for dissemination of information on VPF operations is organised twice a year (in May and September).

## 2 VPF net assets

At end-Q3 2023, net assets of VPFs equalled RSD 52.4 bn, increasing by 1.2% q-o-q. The changes in the value of net assets reflect net contributions,<sup>3</sup> withdrawals and investment returns. In Q3 2023, total contributions amounted to RSD 1.1 bn, withdrawals to RSD 608.2 mn and investment returns to RSD 168 mn.

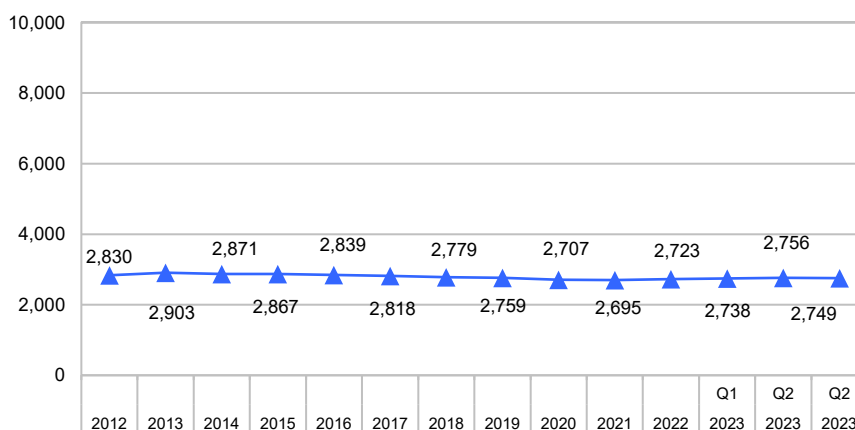
*At end-Q2 2023, net VPF assets equalled RSD 52.4 bn.*

### End-of-period net assets of the VPF sector (in RSD bn)

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
												Q1	Q2	Q3
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	51.8	52.4

Source: National Bank of Serbia.

### End-of-period sector concentration (Herfindahl–Hirschman Index)



Source: National Bank of Serbia.

Measured by HHI, market concentration in the sector<sup>4</sup> at end-Q3 amounted to 2,749 points, which indicates high concentration in the VPF market.

According to the size of net VPF assets relative to total net assets of the sector, two funds were classified as “large” and two as “medium”. Together, they held 91.4% of the market share, with the largest fund accounting for 41.4%.

### Number of funds by groups divided by market share (in units)

Share in net assets (%)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
												Q1	Q2	Q3
Large (20 and above)	2	2	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	2	2
Small (0 - 4.99)	5	2	2	3	3	3	3	3	3	3	3	3	3	3

Source: National Bank of Serbia.

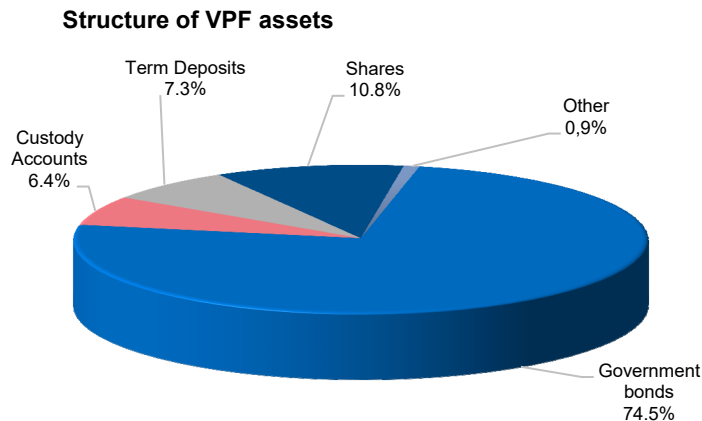
<sup>3</sup> Net contributions are total contributions minus the front-load fee.

<sup>4</sup> In terms of the share in total net assets.

### 3 Structure of VPF assets

At end-Q3 2023, the structure of investment of VPF assets remained broadly unchanged compared to the prior period. Government bonds accounted for the major part of VPF assets – 74.5%. Balances held in custody accounts and term deposits with banks made up 13.8%, and investment in shares 10.8%.

*Majority of assets were invested in government debt instruments – 74.5%.*



Source: National Bank of Serbia.

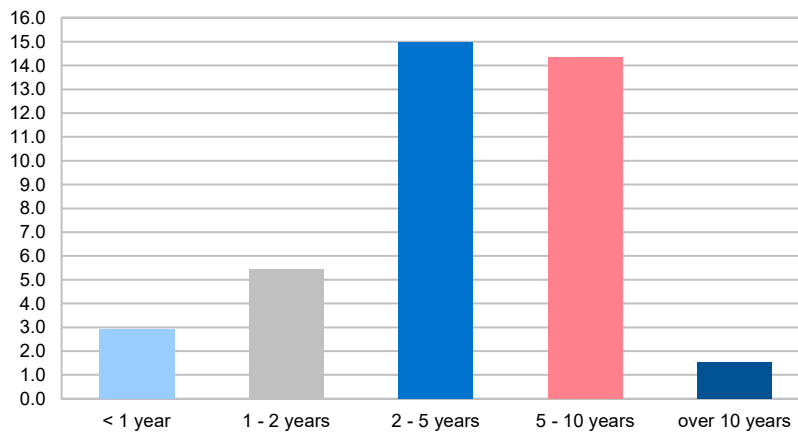
Portfolio of government debt instruments (bonds of the Republic of Serbia) kept the dominant position in total fund assets at the end of this period, too. The share of these financial instruments in fund assets went down from 77.4% at the end of the previous quarter to 74.5%.

Q-o-q, aggregate exposure to the shares of domestic legal persons edged down from 11.1% to 10.8% of total fund assets.

At end-Q3 2023, 7.4% of government debt instruments were with the maturity of up to one year, 13.9% between one and two years, 38.2% between two and five years, 36.6% between five and ten years, and 3.9% over ten years.

The average maturity of assets<sup>5</sup> invested in government debt instruments was 5.2 years.

**Maturity structure (government fixed income securities)**  
(in RSD bn)



Source: National Bank of Serbia.

At end-Q3 2023, 79.4% of total assets were in dinars and 20.6% in a foreign currency (EUR).

## 4 Return on investment

At end-Q3 2023, the FONDex<sup>6</sup> reached 3,262.61 points.<sup>7</sup> FONDex return, which represents the weighted average return of all funds, equalled 7.9% in the past year. Since the start of VPF operation,<sup>8</sup> FONDex return has equalled 7.3%. Given the structure of VPF investment, the return is influenced by the change in the value of government debt instruments,<sup>9</sup> change in the prices of shares, change in the value of investment units of open-end funds, level of the key policy rate, banks' interest rates, and changes in the dinar exchange rate against the euro.

In Q3 2023, there were no issues of dinar-denominated government debt instruments in the primary market.

There were no issues of euro-denominated government debt instruments in Q3 2023 either.

<sup>5</sup> The maturity of instruments weighted by their share in total investment in government debt instruments.

<sup>6</sup> FONDex indicates movements in investment units of all VPFs in the market.

<sup>7</sup> The initial FONDex value on the first business day of the first VPF, 15 November 2006, was 1,000.

<sup>8</sup> Annual rate.

<sup>9</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.

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

Maturity	Q3 2022	Q4 2022	Q12023	Q2 2023	Q3 2023
3m	-	-	-	-	-
6m	-	-	-	-	-
12m	317	-	-	-	-
18m	-	-	-	-	-
24m	-	-	27.2	-	-
36m	-	-	-	-	-
60m	-	-	-	-	-
84m	-	-	-	-	-
120m	-	-	-	-	-
144m	-	-	-	-	-
<b>Total</b>	<b>317</b>	<b>-</b>	<b>27.2</b>	<b>-</b>	<b>-</b>

Source: Ministry of Finance.

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

Maturity	Q3 2022	Q4 2022	Q12023	Q2 2023	Q3 2023
3m	-	-	-	-	-
6m	-	-	-	-	-
12m	3.9%	-	-	-	-
18m	-	-	-	-	-
24m	-	-	6.0%	-	-
36m	-	-	-	-	-
60m	-	-	-	-	-
84m	-	-	-	-	-
120m	-	-	-	-	-
144m	-	-	-	-	-

Source: Ministry of Finance.

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

Maturity	Q2 2022	Q3 2022	Q4 2022	Q12023	Q2 2023	Q3 2023
12m	-	-	-	-	-	-
24m	-	-	-	37.5	-	-
36m	-	-	-	-	-	-
60m	-	-	-	-	-	-
84m	-	-	-	-	-	-
120m	-	-	-	-	-	-
144m	-	-	-	-	-	-
180m	-	-	-	-	-	-
240m	-	-	-	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>37.5</b>	<b>-</b>	<b>-</b>

Source: Ministry of Finance.

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

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

Source: Ministry of Finance.

The prices of shares in the Belgrade Stock Exchange (BSE), measured by the BELEX15 index, rose by 2% in Q3 2023 (index value at end-September 2023 was 886.89). The index rose by 7.2% over the past year.

The key policy rate equalled 6.5% at end-September 2023. The level of interest rates earned by funds on dinar assets in custody accounts mirrored the movement in the key policy rate.

In Q3 2023, the dinar rose vis-à-vis the euro insignificantly from the quarter before (from RSD 117.23 to RSD 117.20 for EUR 1). In the same period, the dinar lost around 2.7% against the US dollar.

Price growth rates relative to December 2022 came at -0.1%, 0.4% and 0.3% in July, August and September 2023, respectively. Y-o-y, consumer prices gained 10.2% in September 2023.<sup>10</sup>

## 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.

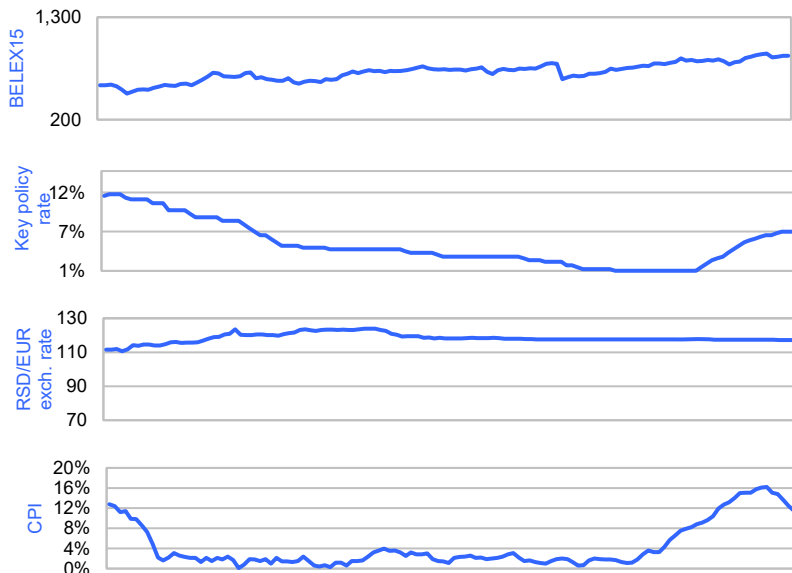
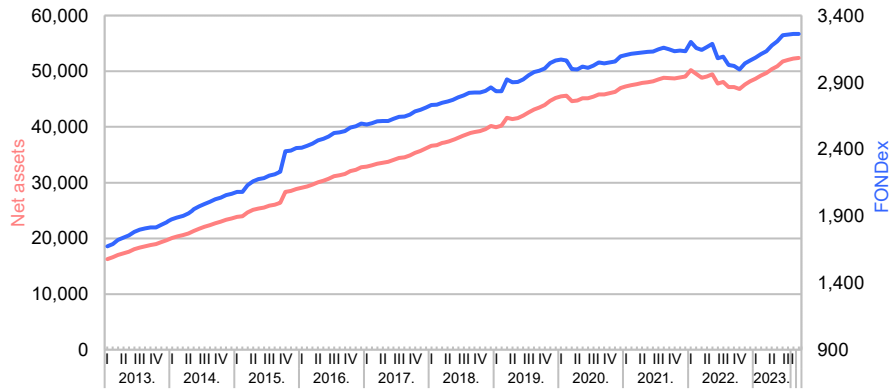
Though fees are among the parameters that members should consider when choosing a fund, they should not be viewed in isolation. The level of fees is also contingent on the fund's investment activity. As a rule, more active funds, intended for younger persons who will pay contributions over a longer horizon, invest more in more complex instruments, involving 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 front-load 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.

<sup>10</sup> Source: Statistical Office of the Republic of Serbia.



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



Source: National Bank of Serbia, Belgrade Stock Exchange, Statistical Office.

Contribution fees paid in Q3 2023 amounted to RSD 23.4 mn and the level of the fee in the same period was 2.12% 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-Q3 2023, the total value of management fees equalled RSD 162.6 mn, which is around 87.4% of the total fees charged.

## 6 Trading in securities

VPF trading volumes equalled RSD 3.8 bn in Q3 2023.

The average share of VPFs in BSE trading was 4% at the end of Q3 2023.

## Fees charged by management companies

(in RSD mn)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
													Q1	Q2	Q3
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	22.2	23.42
Management fee	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	156.4	162.6

Source: National Bank of Serbia.

## 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.

### VPF securities trading

(in RSD bn)

	2015	2016	2017	2018	2019	2020	2021	2022	2023		
									Q1	Q2	Q3
Securities trading	14.5	11.5	24.2	16.1	48.7	26.3	33.5	11.9	7.4	7.1	3.8
Purchases	7.9	6.4	14.7	9.3	27.1	13.8	18.6	6.0	4.6	4.1	1.5
Belgrade Stock Exchange	0.9	1.1	3.7	2.7	3.2	2.7	1.9	1.6	0.3	1.0	0.4
Unregulated market	1.8	1.1	5.8	3.2	16.7	7.6	13.7	2.3	1.9	3.0	0.7
Auctions of government secur	5.2	4.2	5.1	3.4	7.1	3.6	3.0	2.1	2.7	1.0	0.4
Sales	3.6	3.0	7.4	5.5	19.6	11.2	12.0	3.8	1.9	2.9	0.9
Belgrade Stock Exchange	0.5	1.9	2.7	3.2	1.4	3.1	3.7	0.8	0.2	0.5	0.2
Unregulated market	3.2	1.1	4.7	2.3	18.1	8.1	8.3	3.0	1.7	2.4	0.7
Maturity	2.9	2.1	2.2	1.3	2.1	1.4	3.0	2.1	0.9	0.4	1.5
Purchase to sale and maturity ratio	1.2	7.5	1.5	1.4	1.3	1.1	1.2	1.0	2.4	1.4	0.6
Share in total BSE trading (in%)	6.1%	6.7%	33.0%	9.4%	5.1%	11.9%	13.5%	6.1%	8.8%	12.1%	4.0%

Source: National Bank of Serbia, Belgrade Stock Exchange.

The total transaction costs in Q3 2023 amounted to RSD 1 mn. In the same period, speaking of fees charged against VPF assets, Central Securities Depository fees exceeded 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	Q2	Q3
Total	6.0	6.2	5.6	7.3	10.5	8.3	17.2	10.3	4.8	5.9	2.6	1.6	1.0
Brokerage fees	2.5	2.0	1.3	2.3	4.4	3.0	8.0	3.7	0.7	1.0	0.3	0.4	0.3
Custody bank fees	1.9	2.0	2.0	2.0	1.9	1.8	3.1	2.3	1.6	1.4	0.6	0.8	0.4
Stock exchange fees	0.6	0.6	0.8	1.0	1.8	1.3	1.9	1.3	0.5	0.6	1.0	0.2	0.1
Central Securities Depository fees	0.9	1.6	1.6	2.0	1.8	1.6	3.4	2.2	1.7	2.8	0.6	0.2	0.2
Other fees	0.1	0.0	-	0.0	0.6	0.6	0.7	0.9	0.0	0.0	0.0	0.0	0.0

Source: National Bank of Serbia.

## 8 Number and structure of VPF users

At end-Q3 2023, 218,442 users<sup>11</sup> were in the accumulation phase<sup>12</sup> (an increase by 1,021 from end-Q2 2023), with 301,639 membership contracts (2,603 contracts more than at end-Q2 2023).<sup>13</sup>

VPF users accounted for 9.3%<sup>14</sup> of the total number of employees.

### Number of contracts and users

(in thousands)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
										Q1	Q2	Q3
No of contracts	252.1	258.1	250.5	253.9	261.7	275.8	279.5	288.7	294.5	296.6	299.0	301.6
No of users	188.0	190.5	183.6	185.4	192.3	201.6	205.0	210.7	215.5	217.3	217.4	218.4
Percentage of active users (in %)	31.3%	25.3%	28.5%	33.6%	33.4%	34.4%	35.3%	35.9%	32.2%	32.6%	32.3%	30.6%

Source: National Bank of Serbia.

### Structure of users by payment dynamics

(in units and %)

	Period	No of users	Share (%)
	Users making contributions	1 month	73,366
3 months		83,476	38.2%
6 months		88,211	40.4%
12 months		94,645	43.3%
From the start of membership (1)		195,453	89.5%
No holdings (2)		22,989	10.5%
Total (#2)		218,442	

Source: National Bank of Serbia.

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 268.1 thousand. At end-Q3 2023, the number of users who are members of two or more VPFs was 44,502 or 20% of the total number of users.

### Average accumulated funds at period-end

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
												Q1	Q2	Q3
	105.3	127.3	148.3	179.4	200.6	219.3	235.8	239.9	257.4	260.0	249.6	255.2	266.1	268.1

Source: National Bank of Serbia.

<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>12</sup> VPF membership has two phases – the accumulation phase (when contributions are made) and the withdrawal phase (when the accumulated funds are withdrawn).

<sup>13</sup> The number of membership contracts is the sum total of individual membership contracts and the number of members of all pension schemes.

<sup>14</sup> The source for the number of employees: Statistical Office of the Republic of Serbia.

In terms of gender composition and the respective amounts of funds, Q3 2023 saw no significant changes relative to prior periods. Men remained dominant, accounting for around 57% of all users.

**Number of users by number of funds in which they are members**  
(in units)

No of funds	No of users
1	173,940
2	38,043
3	6,123
4	310
5	19
6	5
7	2
<b>Total</b>	<b>218,442</b>

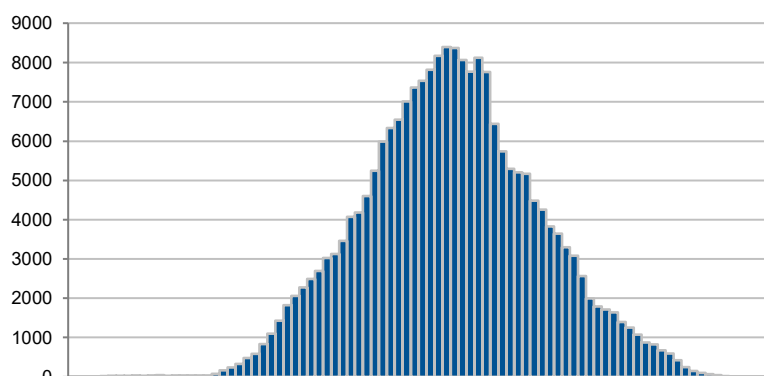
Source: National Bank of Serbia.

**Number of users by membership contract**  
(in units)

No of contracts	No of users
1	155,859
2	48,662
3	9,316
4	3,151
5	1,038
6	248
7	133
8	21
9	13
10	1
<b>Total</b>	<b>218,442</b>

Source: National Bank of Serbia.

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



	0-9	10-19	20-29	30-39	40-49	50-59	60+
No. of users	211	533	11,147	38,888	75,629	60,247	31,326
Amount of funds (mln)	8.67	20.97	712.13	5,601.94	21,064.57	18,929.87	5,337.61
Average holdings	41,090	39,343	63,885	144,053	278,525	314,204	170,389

Source: National Bank of Serbia.

At end-Q3 2023, the average age of VPF users was around 47 years, with users aged 40-60 making up the dominant share of 62.3%. The percentage of users above the age of 53 was similar as in prior years, accounting for 31.2% of the total, while the percentage of persons beyond 58 years was 18.4%.

## 9 Contributions, withdrawals and transfers

In Q3 2023, of total contributions, individual payments accounted for 37.9%, employer contributions for 35.3% and pension schemes for 26.8%. The total contributions to VPFs in Q3 2023 amounted to RSD 1.1 bn.

*Total contributions came at RSD 1.1 bn in Q3 2023.*

## Total contributions

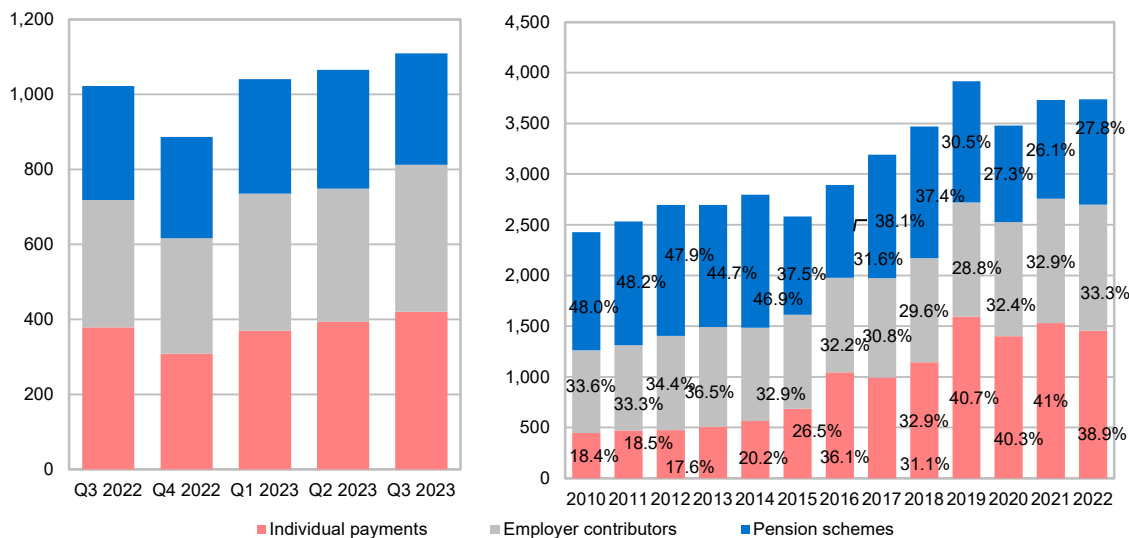
(in RSD bn)

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
											Q1	Q2	Q3
2.70	2.70	2.80	2.58	2.89	3.19	3.47	3.92	3.48	3.73	3.74	1.04	1.07	1.11

Source: National Bank of Serbia.

## Volume and structure of total contributions

(in RSD mn, %)



Source: National Bank of Serbia.

Q3 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 nine 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>15</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 tax-exempt. 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 next period is likely to see an increase in scheduled and other types of withdrawals, with lengthening of the accumulation periods and increase in the accumulated sums.

## Total withdrawals

(in RSD mn)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
										Q1	Q2	Q3
945.2	1213.4	1226.2	1195.6	1342.4	1412.0	1679.8	2159.6	2223.5	3530.1	628.75	832.3	608.2

Source: National Bank of Serbia.

<sup>15</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.

In Q3 2023, the amount of assets transferred to another fund equalled RSD 608.2 mn. Lump-sum withdrawals accounted for the bulk of withdrawals (RSD 481.1 mn), scheduled withdrawals measured RSD 112.5 mn, while partial withdrawals stood at RSD 14.7 mn.

*In Q3 2023, total withdrawals amounted to RSD 608.2 mn.*

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 Q3 2023, the transfers came at RSD 54.9 mn.*

In Q3 2023, the amount of assets transferred to another fund equalled RSD 54.9 mn.

### Total inter-fund transfers

(in RSD mn)

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
											Q1	Q2	Q3
72.3	137.2	126.3	219.7	267.5	263.0	229.7	210.3	252.6	199.0	748.4	43.1	98.1	54.9

Source: National Bank of Serbia.