



NATIONAL BANK OF SERBIA

**INSURANCE SUPERVISION DEPARTMENT
PENSION FUNDS
SUPERVISION DIVISION**

**VOLUNTARY PENSION FUNDS
SECTOR IN SERBIA**

Fourth Quarter Report 2023

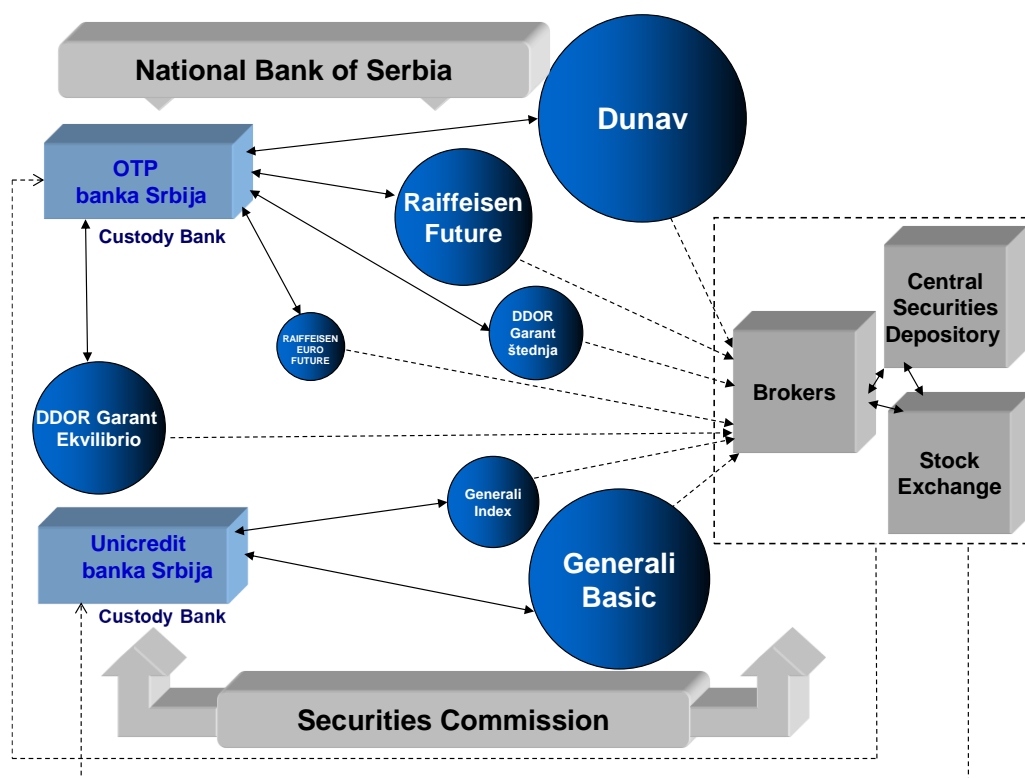
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1 Market participants

At end-Q4 2023, the market of voluntary pension funds (VPFs) included four companies managing seven VPFs, five intermediary banks, one insurance brokerage undertaking and¹ two custody banks, In 2022, only one custody bank (OTP Bank Srbija a.d. Novi Sad) provided custody services for all seven VPFs.

Diagram: Market participants



At end-Q4 2023, VPF management companies employed 128 persons, three persons less than in Q3 and four persons more than at end-2022.

The NBS licences sales agents, who passed professional examinations and fulfilled other requirements, to disseminate information about VPF operation. At end-Q4 2023, the number of sales agent licences remained the same (1085).²

As brokers – management companies, banks and insurance undertakings may engage sales agents. At end-Q4 2023 management companies hired 111 persons, intermediary banks 470 persons and insurance undertaking 90 persons.

¹ 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 Licensing examination for dissemination of information on VPF operations is organised, as a rule, twice a year (in May and December).

2 VPF net assets

VPF net assets at end-Q4 2023 **stood at RSD 53.8 bn, up by 11.5% from end-2022** and by 2.7% from end-Q3. The changes in the value of net assets reflect net contributions,³ withdrawals and investment returns. In 2023, total net contributions stood at RSD 4.3 bn (RSD 3.7 bn in 2022), while the members were paid the total of RSD 2.7 bn (RSD 3.5 bn in 2022). Total VPFs return (profit) on investments in 2023 stood at RSD 3.9 bn indicating that despite economic and geopolitical changes in 2023, the stability and profitability of the VPF sector were preserved.

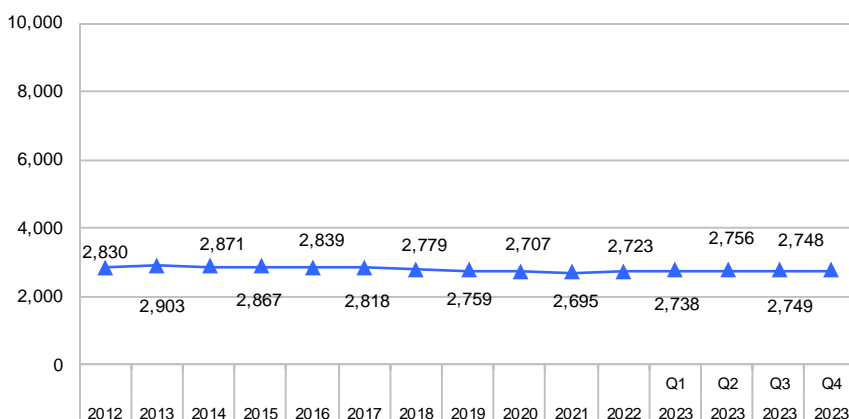
At end-2023, VPF net assets equalled RSD 53.8 bn.

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

2015	2016	2017	2018	2019	2020	2021	2022	2023			
								Q1	Q2	Q3	Q4
28.9	32.8	36.2	40.2	45.2	47.0	49.1	48.9	49.7	51.8	52.4	53.8

Source: National Bank of Serbia.

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



Source: National Bank of Serbia.

Measured by HHI, market concentration⁴ in the sector at end-Q4 2023 amounted to 2,748 points, which indicates high concentration in the VPF market.

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

Share in net assets (%)	2015	2016	2017	2018	2019	2020	2021	2022	2023				
									Q1	Q2	Q3	Q4	
Large (20 and above)	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
Small (0 - 4.99)	3	3	3	3	3	3	3	3	3	3	3	3	3

Source: National Bank of Serbia.

³ Net contributions are total contributions minus the front-load fee.

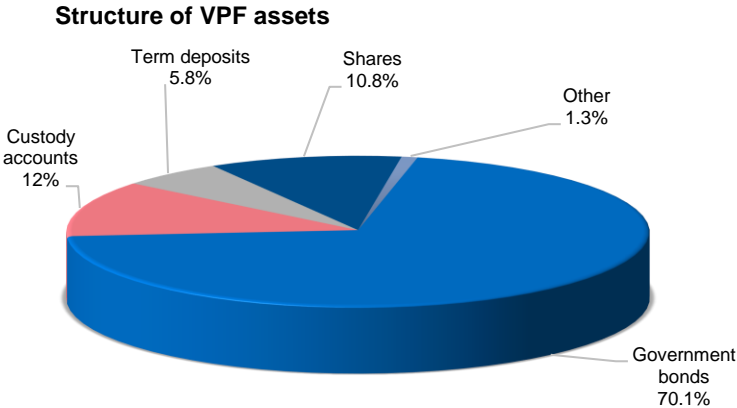
⁴ In terms of the share in total net assets.

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 91.2% of the market share, with the largest fund accounting for 41.6%.

3 Structure of VPF assets

At end-Q4 2023, the structure of investment of VPF assets remained broadly unchanged from the previous period. Government bonds accounted for the major part of VPF assets – 70.1%. Assets in custody accounts and termed deposits with banks accounted for 17.8%, investments in shares for 10.8%, investments in investment units of open investment funds for 0.9% and receivables for 0.4% of VPF assets.

Majority of assets were invested in government debt instruments – 70.1%.

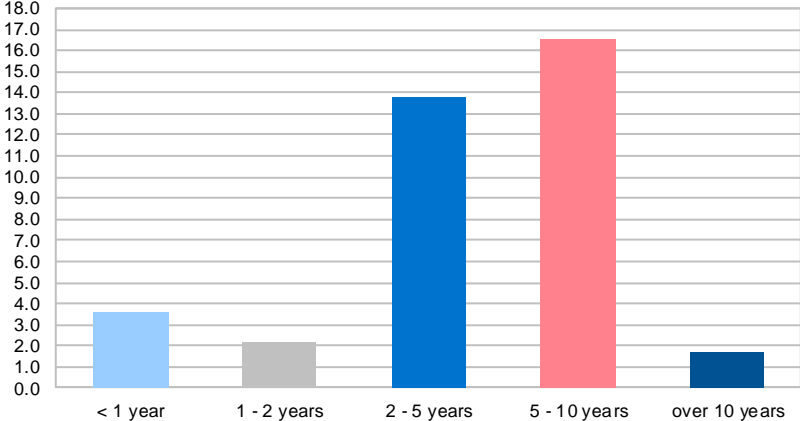


Source: National Bank of Serbia.

Portfolio of government debt securities (Republic of Serbia bonds) kept the dominant position in the total VPF assets at the end of this period as well, with a decline in the share from 74.5%, at the end of the previous quarter, to 70.1%, while this share stood at 76.6% in 2022.

Q-o-q, aggregate exposure to the shares of domestic legal persons stayed unchanged at 10.8% of total fund assets compared to 10.9% at end-2022.

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



Source: National Bank of Serbia.

The average maturity of assets⁵ invested in government debt instruments was 5.5 years.

At end-Q4 2023, 9.4% of government debt instruments were with the maturity of up to one year, 5.7% between one and two years, 36.5% between two and five years, 43.8% between five and ten years, and 4.6% over ten years.

At end-Q4 2023, 78.2% of total assets were in dinars and 21.8% in a foreign currency (EUR).

4 Return on investment

At end-Q4 2023, the FONDex⁶ reached 3,311.07 points⁷. FONDex return, which represents the weighted average return of all funds, was corrected by 8.1% in the past year. Since the start of VPF operation,⁸ the return of the FONDex has equalled 7.2%. Given the structure of VPF investment, the return is influenced by: the change in the value of government debt instruments⁹, 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.

In Q4 2023, one primary issue of debt government instruments denominated in dinars was realised in the primary market (8Y government bonds of the Republic of Serbia).

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

Maturity	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
3m	-	-	-	-	-
6m	-	-	-	-	-
12m	-	-	-	-	-
18m	-	-	-	-	-
24m	-	27.2	-	-	-
36m	-	-	-	-	-
60m	-	-	-	-	-
84m	-	-	-	-	-
96m	-	-	-	-	19.2
120m	-	-	-	-	-
144m	-	-	-	-	-
Total	-	27.2	-	-	19.2

Source: Ministry of Finance.

⁵ The maturity of instruments weighted by their share in total investment in government debt instruments.

⁶ FONDex is the index which indicates movements in investment units of all VPFs in the market.

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

⁸ Annual rate.

⁹ 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.

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

Maturity	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
3m	-	-	-	-	-
6m	-	-	-	-	-
12m	-	-	-	-	-
18m	-	-	-	-	-
24m	-	6.0%	-	-	-
36m	-	-	-	-	-
60m	-	-	-	-	-
84m	-	-	-	-	-
96m	-	-	-	-	6.4%
120m	-	-	-	-	-
144m	-	-	-	-	-

Source: Ministry of Finance.

There were also no issues of euro-denominated government debt instruments in Q4 2023.

Market value of issued euro-denominated government debt instruments, by maturity

(in EUR mn)

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

Source: Ministry of Finance.

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

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

Source: Ministry of Finance.

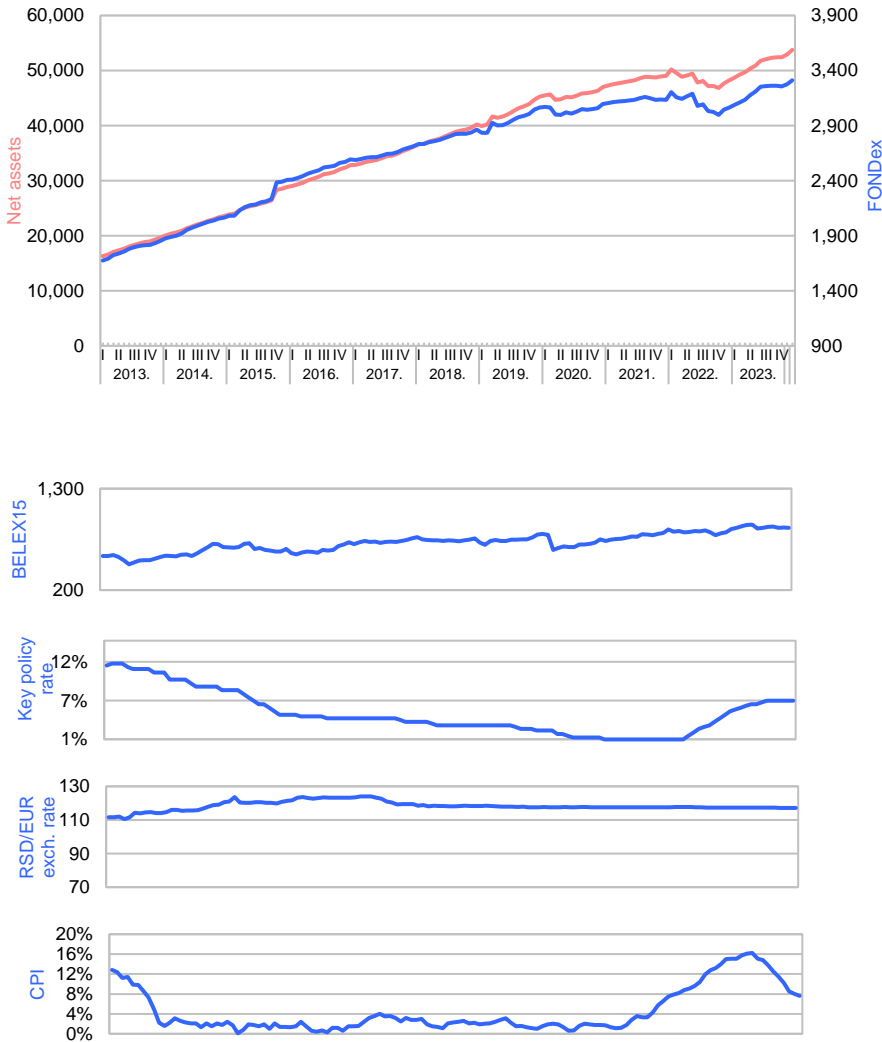
The prices of shares in the Belgrade Stock Exchange (BSE), measured by the BELEX15 index fell by 1.3% at end-Q4 2023 (the value of the index was 875.66 at end-December). The index rose by 6.2% over the past year.

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

In Q4 2023, the dinar value vis-à-vis the euro rose insignificantly from the quarter before (EUR 1 = RSD 117.20), so at end-Q4 2023 the dinar value amounted to RSD 117.17 for EUR 1. In the same period, the dinar gained 4.6% against the US dollar.

Price growth rates came at 0.3%, 0.5% and 0.1% in October, November and December 2023, respectively, compared to December 2022. Consumer prices gained 7.6% in December 2023 year-on-year.¹⁰

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



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

¹⁰ Source: Statistical Office of the Republic of Serbia.

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, 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 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.

The total amount of contribution fees paid in Q4 2023 amounted to RSD 26.9 mn and the level of the fee in the same period was 2.2% on average. Total contribution fees in 2023 equalled RSD 94.5 mn (in 2022 – RSD 85.1 mn).

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.

In Q4 2023, the total value of management fees equalled RSD 164.8 mn, which is around 86% of the total fees charged. Total management fees in 2023 amounted to RSD 633.4 mn, up by around 5.7% from 2022 (RSD 599.0 mn).

Fees charged by management companies

(in RSD mn)

	2015	2016	2017	2018	2019	2020	2021	2022	2023			
									Q1	Q2	Q3	Q4
Contribution fee	53.0	56.8	61.0	66.3	71.8	76.2	80.9	85.1	22.0	22.2	23.4	26.9
Management fee	514.9	614.4	678.7	474.0	526.7	567.9	599.4	599.0	149.6	156.4	162.6	164.8

Source: National Bank of Serbia.

6 Trading in securities

VPF trading volumes equalled RSD 9.6 bn in Q4 2023, while the average share of VPFs in BSE trading was 7% in the same period.

Total volume of trading in securities in 2023 measured RSD 27.9 bn while in 2022 trading volume was significantly lower, at RSD 11.9 bn.

VPF securities trading

(in RSD bn)

	2015	2016	2017	2018	2019	2020	2021	2022	2023			
									Q1	Q2	Q3	Q4
Securities trading	14.5	11.5	24.2	16.1	48.7	26.3	33.5	11.9	7.4	7.1	3.8	9.6
Purchases	7.9	6.4	14.7	9.3	27.1	13.8	18.6	6.0	4.6	4.1	1.5	3.8
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	0.1
Unregulated market	1.8	1.1	5.8	3.2	16.7	7.6	13.7	2.3	1.9	3.0	0.7	1.9
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	1.8
Sales	3.6	3.0	7.4	5.5	19.6	11.2	12.0	3.8	1.9	2.9	0.9	5.8
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	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	5.6
Maturity	2.9	2.1	2.2	1.3	2.1	1.4	3.0	2.1	0.9	0.4	1.5	0.0
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	0.7
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%	7.0%

Source: National Bank of Serbia, Belgrade Stock Exchange.

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 Q4 2023 amounted to RSD 1.1 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.

Total transaction costs in 2023 stood at RSD 6.3 mn, up by around 6% from 2022.

Amount of transaction costs

(in RSD mn)

	2015	2016	2017	2018	2019	2020	2021	2022	2023			
									Q1	Q2	Q3	Q4
Total	5.6	7.3	10.5	8.3	17.2	10.3	4.8	5.9	2.6	1.6	1.0	1.1
Brokerage fees	1.3	2.3	4.4	3.0	8.0	3.7	0.7	1.0	0.3	0.4	0.3	0.2
Custody bank fees	2.0	2.0	1.9	1.8	3.1	2.3	1.6	1.4	0.6	0.8	0.4	0.5
Stock exchange fees	0.8	1.0	1.8	1.3	1.9	1.3	0.5	0.6	1.0	0.2	0.1	0.1
Central Securities Depository fees	1.6	2.0	1.8	1.6	3.4	2.2	1.7	2.8	0.6	0.2	0.2	0.3
Other fees	-	0.0	0.6	0.6	0.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0

Source: National Bank of Serbia.

Number and structure of VPF users

At end-Q4 2023, in the accumulation phase¹¹ the number of users was 220,714¹² (2.4% users more than at end-2022), and the number of membership contracts 304.821¹³ in VPFs (3.5% contracts more than at end-2022).

VPF users accounted for 9.6%¹⁴ of the total number of employees.

Number of contracts and users

(in thousands)

	2015	2016	2017	2018	2019	2020	2021	2022	2023			
									Q1	Q2	Q3	Q4
No of contracts	258.1	250.5	253.9	261.7	275.8	279.5	288.7	294.5	296.6	299.0	301.6	304.8
No of users	190.5	183.6	185.4	192.3	201.6	205.0	210.7	215.5	217.3	217.4	218.4	220.7
Percentage of active users (in %)	25.3%	28.5%	33.6%	33.4%	34.4%	35.3%	35.9%	32.2%	32.6%	32.3%	30.6%	36.1%

Source: National Bank of Serbia.

Structure of users by payment dynamics

(in units and %)

	Period	No of users	Share (%)
3 months	84,882	38.46%	
6 months	90,354	40.94%	
12 months	96,712	43.82%	
From the start of membership (1)	197,850	89.64%	
No holdings (2)		22,864	10.36%
Total (1+2)		220,714	

Source: National Bank of Serbia.

The amount of accumulated funds depends on the amount of contributions, returns 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 271.7 thousand. At end-Q4 2023, the number of users who are members of two or more VPFs was 44,807 or 20.3% of the total number of users.

Average accumulated funds at end-period

(in RSD thousand)

2015	2016	2017	2018.0	2019	2020	2021	2022	2023			
								Q1	Q2	Q3	Q4
179.4	200.6	219.3	235.8	239.9	257.4	260.0	249.6	255.2	266.1	268.1	271.7

Source: National Bank of Serbia.

¹¹ VPF membership has two phases – the accumulation phase (when contributions are made) and the withdrawal phase (when the accumulated funds are withdrawn).

¹² 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 contracts in one or several VPFs.

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

¹⁴ The source for the number of employees: NBS.

In terms of gender composition and the respective amounts of funds, Q4 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	175,907
2	38,390
3	6,076
4	314
5	20
6	5
7	2
Total	220,714

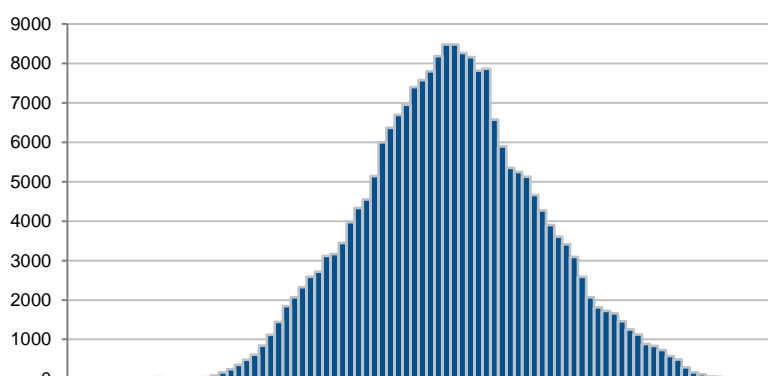
Source: National Bank of Serbia.

Number of users by membership contract
(in units)

No of contracts	No of users
1	157,462
2	49,173
3	9,435
4	3,174
5	1024
6	282
7	128
8	22
9	12
10	2
Total	220,714

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	212	545	11,346	39,022	76,189	60,943	31,960
Amount of funds (mln)	9.27	21.40	744.28	5,637.45	21,498.28	19,545.40	5,578.12
Average holdings	43,726	39,266	65,598	144,469	282,170	320,716	174,534

Source: National Bank of Serbia.

At end-Q4 2023, the average age of VPF users was around 48 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 31.4% of the total, while the percentage of persons beyond 58 years was 18.6%.

9 Contributions, withdrawals and transfers

In Q4 2023, of total contributions, individual payments accounted for 36.3%, employer contributions for 34.2% and pension schemes for 29.5%. The total contributions to VPFs in Q4 2023 amounted to RSD 1.2 bn.

Net contributions came at RSD 4.3 bn in 2023.

Total contributions

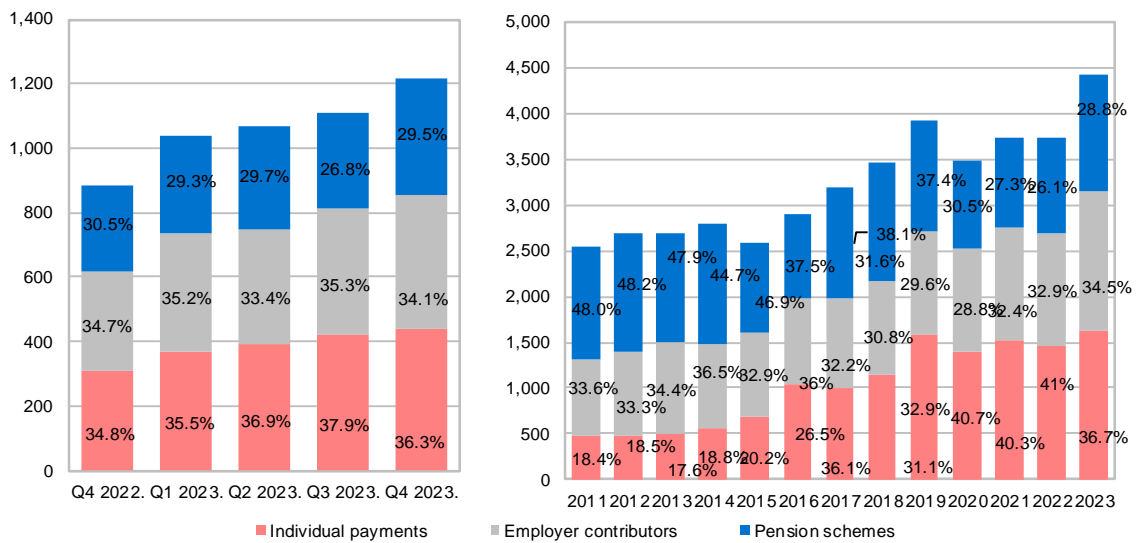
(in RSD bn)

2015	2016	2017	2018	2019	2020	2021	2022	2023			
								Q1	Q2	Q3	Q4
2.58	2.89	3.19	3.47	3.92	3.48	3.73	3.74	1.04	1.07	1.11	1.22

Source: National Bank of Serbia.

In Q4 2023 individual payments accounted for the bulk of total net contributions (RSD 4.3 bn), and pension scheme contribution payments also went up considerably.

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



Source: National Bank of Serbia.

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 7,529¹⁵ 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.

¹⁵ Under Government decree, this amount is adjusted for previous-year inflation once a year. Since February 2024 this amount stood at RSD 8.101.

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)

2015	2016	2017	2018	2019	2020	2021	2022	2023			
								Q1	Q2	Q3	Q4
1226.2	1195.6	1342.4	1412.0	1679.8	2159.6	2223.5	3530.1	628.75	832.3	608.2	616.3

Source: National Bank of Serbia.

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Q4 2023, the amount of assets transferred to another fund equalled RSD 616.3 mn. Lump sum withdrawals accounted for the bulk of withdrawals (RSD 486.9 mn), scheduled withdrawals measured RSD 113.3 mn while partial withdrawals stood at RSD 16.1 mn.

In 2023, total withdrawals amounted to RSD 2.7 bn.

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 2023, transfers came at RSD 260.1 mn.

The total amount of assets transferred to another fund equalled RSD 64 mn in Q4 2023 and RSD 260.1 mn in 2023, which is around 65% less than in 2022.

Total inter-fund transfers

(in RSD mn)

2015	2016	2017	2018	2019	2020	2021	2022	2023			
								Q1	Q2	Q3	Q4
219.7	267.5	263.0	229.7	210.3	252.6	199.0	748.4	43.1	98.1	54.9	64.0

Source: National Bank of Serbia.