



NATIONAL BANK OF SERBIA

**INSURANCE SUPERVISION DEPARTMENT
PENSION FUNDS SUPERVISION DIVISION**

VOLUNTARY PENSION FUNDS IN SERBIA

First Quarter Report 2022

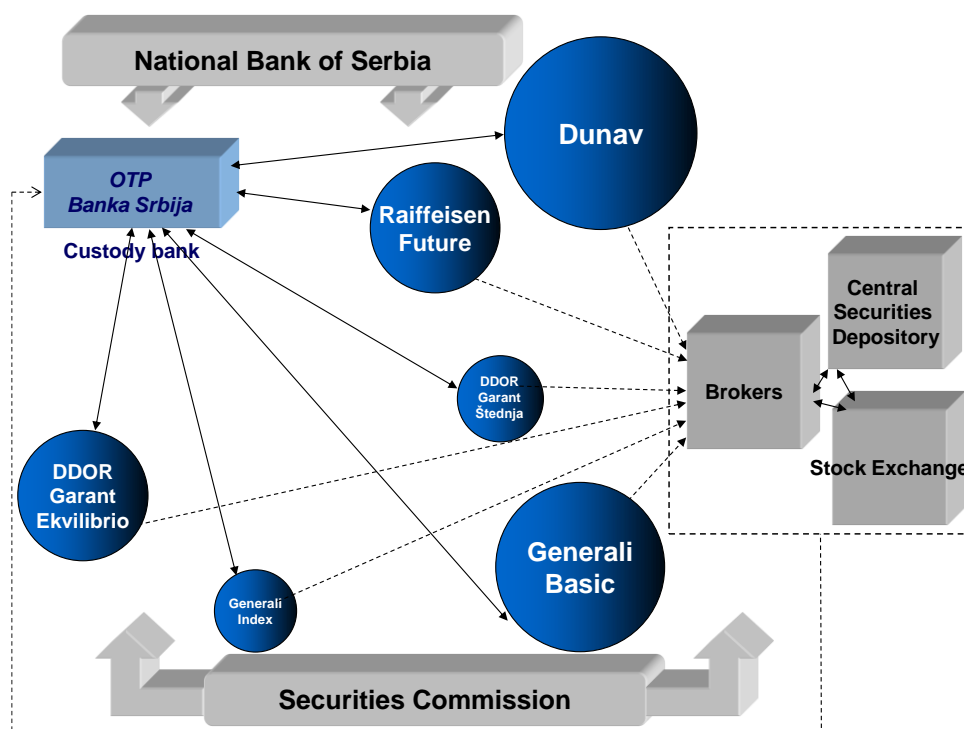
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1. Market participants

At end-Q1 2022, the market of voluntary pension funds (VPFs) included four companies managing seven VPFs, one custody bank, five intermediary banks and one insurance brokerage undertaking.¹

Diagram: Market participants



At end-Q1 2022, VPF management companies employed 124 persons, down by one from a quarter earlier.

The NBS licenses sales agents, who passed professional examinations and fulfilled other requirements, to disseminate information about VPF operations. By end-Q1 2022, the total of 971 sales agent licences were granted.

As brokers – management companies, banks and insurance undertakings may engage sales agents. At end-Q1 2022 management companies hired 110 persons, intermediary banks 533 persons, and an insurance undertaking 100 persons as sales agents.

¹ Raiffeisen Bank a.d. Beograd, OTP banka Srbija a.d. Novi Sad, NLB banka a.d. Beograd, Addiko Bank a.d. Beograd and Naša AIK Banka a.d. Beograd, joint-stock insurance undertaking DDOR Novi Sad, Novi Sad.

2. Net VPF assets

At end-Q1 2022, net assets of VPFs equalled RSD 48.9 bn, down by 0.4% q-o-q. The change in the value of net assets reflect net contributions,² withdrawals and investment returns. In Q1 2022, total contributions amounted to RSD 932.85 mn, withdrawals to RSD 1,227.25 mn and investment returns to RSD 113.56 mn.

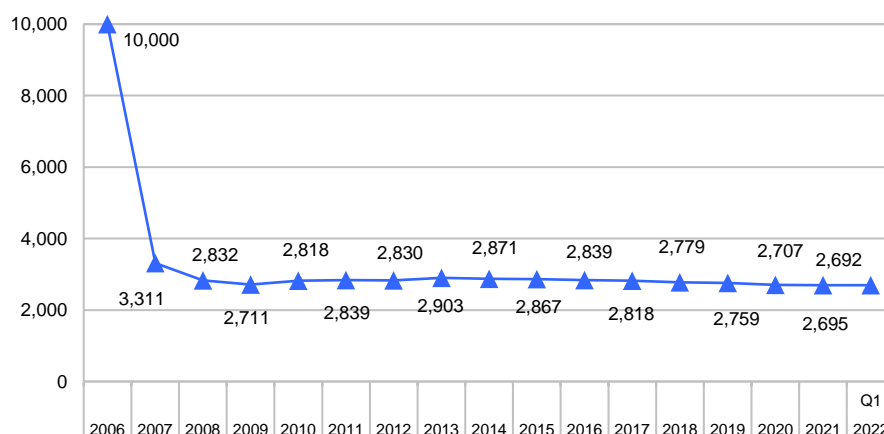
At end-Q1 2022, net assets equalled RSD 48.9 bn.

End-of-period net assets of the VPF sector

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Q1
12.5	16.1	19.7	23.6	28.9	32.8	36.2	40.2	45.2	47.0	49.1	48.9

Source: National Bank of Serbia.

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



Source: National Bank of Serbia.

Measured by the HHI, market concentration in the sector³ at end-Q1 2022 amounted to 2,692 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 around 40%.

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 Q1
Large (20 and above)	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
Small (0 - 4.99)	5	2	2	3	3	3	3	3	3	3	3

Source: National Bank of Serbia.

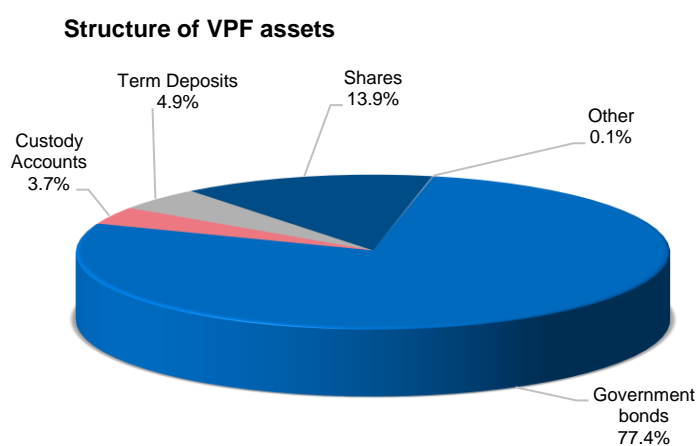
² Net contributions are total contributions minus the front-load fee.

³ In terms of the share in total net assets.

3. Structure of VPF assets

At end-Q1 2022, 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 – 77.4%. Balances held in custody accounts and term deposits with banks made up 8.6%, and shares 13.9%. Investment in units of open-end investment funds and receivables made up the category “other” which accounted for 0.1%.

The bulk of assets was invested in government debt instruments – 77.4%.



Source: National Bank of Serbia.

The 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 increased mildly from 77.0% at the end of the previous quarter to 77.4%.

Q-o-q, aggregate exposure to shares of domestic legal persons edged up from 13.6% to 13.9% of total fund assets as a result of recent trends in the Serbian financial market.

At end-Q1 2022, 3.6% of government debt instruments were with the maturity of up to one year, 12.6% between one and two years, 51.0% between two and five years, 16.4% between five and ten years, and 16.3% over ten years.

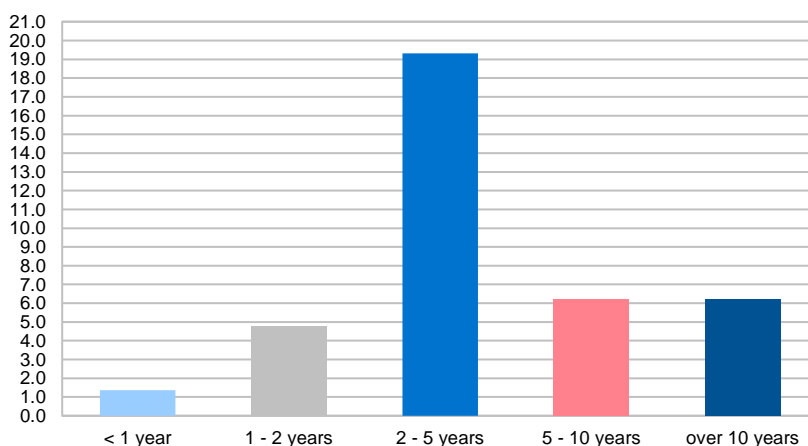
The average maturity of assets⁴ invested in government debt instruments was 5.15 years.

At end-Q1 2022, 85.7% of total assets were in dinars and 14.3% in a foreign currency (EUR).

⁴ The maturity of instruments weighted by their share in total investment in government debt instruments.

Maturity structure (government fixed income securities)

(in RSD bn)



Source: National Bank of Serbia.

4. Return on investment

At end-Q1 2022, the value of FONDex⁵ reached 3,143.28.⁶ The rise in FONDex is the weighted average return on all funds, and it came at 0.8% for the past year. Since the start of VPF operation,⁷ FONDex return has equalled 7.7%. Given the structure of VPF investment, the return is influenced by: the change in the yield curve on government debt instruments,⁸ 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 Q1 2022, in the primary market of dinar-denominated government debt instruments, government securities with a two-year maturity (RSD 9.9 bn) were issued at a rate of 2.8%.

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

Maturity	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022
3m	-	-	-	-	-
6m	-	-	-	-	-
12m	-	-	-	-	-
18m	-	-	-	-	-
24m	1.6%	1.6%	-	-	2.8%
36m	-	-	-	-	-
60m	-	-	-	-	-
84m	-	-	-	-	-
120m	-	-	-	-	-
144m	-	-	-	-	-

Source: Ministry of Finance.

⁵ FONDex is the index which indicates movements in investment units of all VPFs in the market.

⁶ The initial FONDex value on the first business day of the first VPF, 15 November 2006, was 1,000.

⁷ Annual rate.

⁸ 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 RSD bn)

Maturity	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022
3m	-	-	-	-	-
6m	-	-	-	-	-
12m	-	-	-	-	-
18m	-	-	-	-	-
24m	9.1	21.0	-	-	9.9
36m	-	-	-	-	-
60m	-	-	-	-	-
84m	-	-	-	-	-
120m	-	-	-	-	-
144m	-	-	-	-	-
Total	9.1	20.1	-	-	9.9

Source: Ministry of Finance.

Q1 2022 saw an issuance of two-year euro-denominated government debt instruments (EUR 200 mn) at a rate of 0.75%.

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

Maturity	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022
12m	-	-	-	-	-	-
24m	-	-	-	-	-	200.0
36m	-	-	-	-	-	-
60m	-	-	-	-	-	-
84m	-	-	-	-	-	-
120m	-	-	-	-	-	-
144m	-	24.9	-	8.9	-	-
180m	-	-	-	-	-	-
240m	-	30.4	55.5	-	-	-
Total	-	55.2	55.5	8.9	-	-

Source: Ministry of Finance.

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

Maturity	Q4 2020	Q1 2021	Q1 2021	Q3 2021	Q4 2021	Q1 2022
12m	-	-	-	-	-	-
24m	-	-	-	-	-	0.8%
36m	-	-	-	-	-	-
60m	-	-	-	-	-	-
84m	-	-	-	-	-	-
120m	-	-	-	-	-	-
144m	-	1.7%	-	1.6%	-	-
180m	-	-	-	-	-	-
240m	-	2.3%	2.3%	-	-	-

Source: Ministry of Finance.

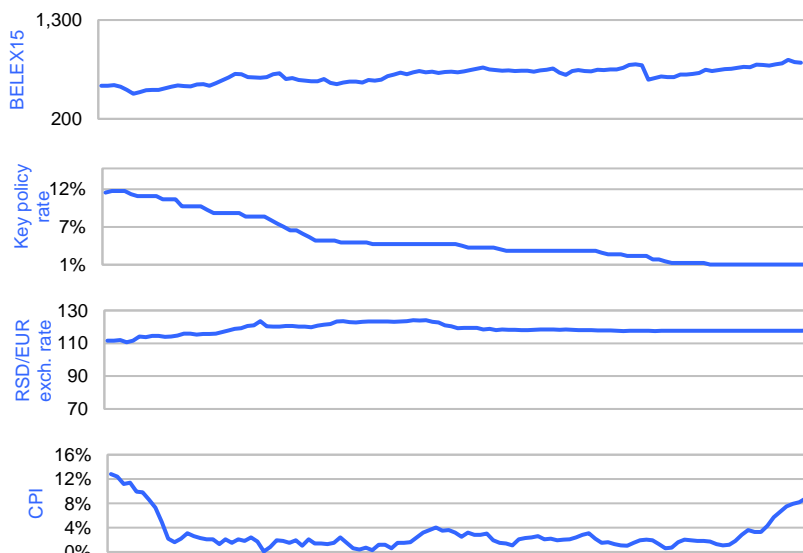
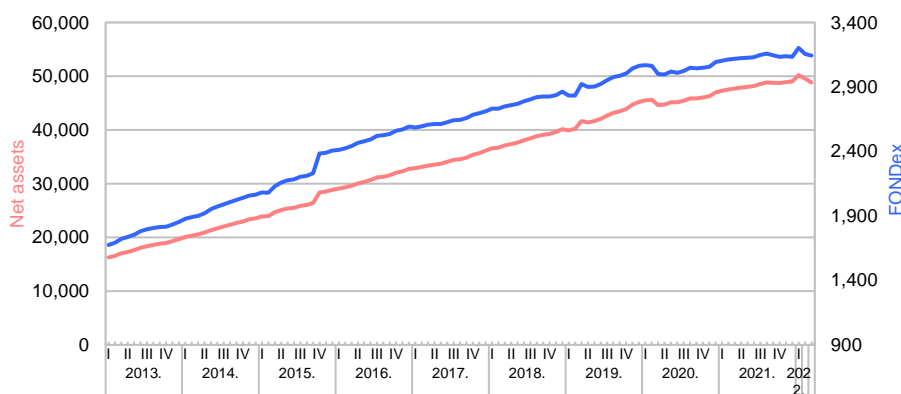
The prices of shares on the Belgrade Stock Exchange (BSE), measured by the BELEX15 index, rose by 2.4% in Q1 2022 (the value of the index was 840.53 at end-March). The index rose by 11.4% over the past year.

The key policy rate equalled 1.0% at end-March 2022. The level of interest rates earned by funds on dinar assets in custody accounts mirrored the movements of the key policy rate.

In Q1 2022, the dinar remained 0.14% lower than the euro, therefore its value vis-à-vis the euro at the end of the quarter was RSD 117.75 for EUR 1. In the same period, the dinar lost 1.52% against the US dollar.

Price growth rates came at 0.8%, 1.1% and 0.8% in January, February and March, respectively. In March 2022, compared to the corresponding month a year ago, consumer prices rose 9.1%, while relative to December 2021 they increased 2.8% on average.⁹

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



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

⁹ 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 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 only once, as a front-load fee. Though visible in the first instance, it is not the largest cost incurred by a member.

The total amount of contribution fees paid in Q1 2022 amounted to RSD 20.2 mn and the level of the fee in the same period was 2.2% 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 2022, the total value of management fees equalled RSD 151.56 mn, which is around 88% of the total fees charged.

Fees charged by management companies

(in RSD mn)

	2011	2012	2013	2014	2015	2016	2017	2018	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	20.2
Management fee	220.0	284.1	357.8	432.8	514.9	614.4	678.7	474.0	526.7	567.9	599.4	151.6

Source: National Bank of Serbia.

6. Trading in securities

VPF trading volumes equalled RSD 5.6 bn in Q1 2022.

The average share of VPFs in BSE trading was 17.0% at the end of the quarter.

VPF securities trading

(in RSD bn)

	2015	2016	2017	2018	2019	2020	2021	2022 Q1
Securities trading	14.5	11.5	24.2	16.1	48.7	26.3	33.5	5.6
Purchases	7.9	6.4	14.7	9.3	27.1	13.8	18.6	3.2
Belgrade Stock Exchange	0.9	1.1	3.7	2.7	3.2	2.7	1.9	0.8
Unregulated market	1.8	1.1	5.8	3.2	16.7	7.6	13.7	0.4
Auctions of government securities	5.2	4.2	5.1	3.4	7.1	3.6	3.0	2.1
Sales	3.6	3.0	7.4	5.5	19.6	11.2	12.0	0.9
Belgrade Stock Exchange	0.5	1.9	2.7	3.2	1.4	3.1	3.7	0.6
Unregulated market	3.2	1.1	4.7	2.3	18.1	8.1	8.3	0.2
Maturity	2.9	2.1	2.2	1.3	2.1	1.4	3.0	1.6
Purchase to sale and maturity ratio	1.2	7.5	1.5	1.4	1.3	1.1	1.2	1.3
Share in total BSE trading (in%)	6.1%	6.7%	33.0%	9.4%	5.1%	11.9%	13.5%	17.0%

Sources: 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 Q1 2022 amounted to RSD 2.5 mn. In the same period, Central Securities Depository fees and stock exchange fees, charged against VPF assets, have a bigger share in stock exchange fees, whereas brokerage fees made up the bulk of costs paid by management companies from their assets compared to custody bank fees.

Amount of transaction costs

(in RSD mn)

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

Source: National Bank of Serbia.

8. Number and structure of VPF users

At end-Q1 2022, 211,888 users¹⁰ were in the accumulation phase,¹¹ with 290,186 membership contracts¹² in VPFs.

¹⁰ 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.

VPF users accounted for 9.5%¹³ of the total number of employees.

Number of contracts and users

(in thousands)

	2014	2015	2016	2017	2018	2019	2020	2021	2022 Q1
No of contracts	252.1	258.1	250.5	253.9	261.7	275.8	279.5	288.7	290.2
No of users	188.0	190.5	183.6	185.4	192.3	201.6	205.0	210.7	211.9
Percentage of active users (in %)	31.3%	25.3%	28.5%	33.6%	33.4%	34.4%	35.3%	35.9%	32.4%

Source: National Bank of Serbia.

Structure of users by payment dynamics

(in units and %)

	Period	No of users	Share (%)
Users making contributions	1 month	68,607	32.4%
	3 months	81,084	38.3%
	6 months	85,630	40.4%
	12 months	90,693	42.8%
	From the start of membership (1)	189,604	89.5%
No holdings (2)		22,284	10.5%
Total (1+2)		211,888	

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 257.7 thousand. At end-Q1 2022, the number of users who are members of two or more VPFs was 43,541 or around 21% of the total number of users.

Average accumulated funds at end-period

	2010	2011	2012	2013	2014	2015	2016	2017	2018.0	2019	2020	2021	2022 Q1
	70.5	84.5	105.3	127.3	148.3	179.4	200.6	219.3	235.8	239.9	257.4	260.0	257.7

Source: National Bank of Serbia.

In terms of gender composition and the respective amounts of funds, Q1 2022 saw no significant changes relative to prior periods. Men remained dominant, accounting for 56.3% of all users.

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

¹³ The source for the number of employees: NBS.

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

No of funds	No of users
1	168,347
2	36,698
3	6,555
4	261
5	20
6	5
7	2
Total	211,888

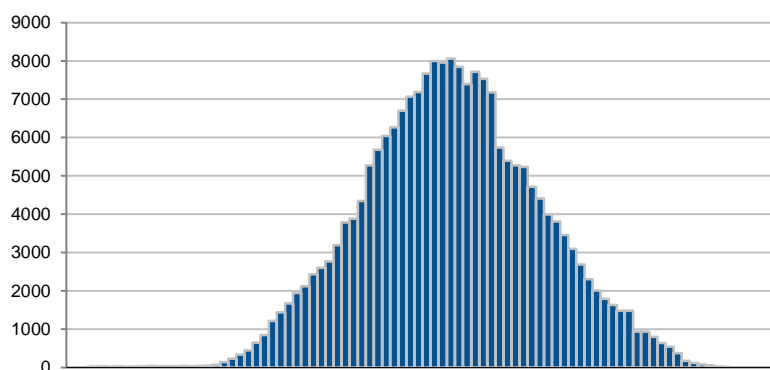
Source: National Bank of Serbia.

Number of users by membership contract
(in units)

No of contracts	No of users
1	152,800
2	45,336
3	9,654
4	3,119
5	699
6	203
7	54
8	22
9	1
Total	211,888

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	240	516	10,922	40,024	74,148	57,197	28,507
Amount of funds (mln)	10.12	14.74	574.43	5,813.88	20,031.97	17,012.97	4,723.33
Average holdings	42,167	28,566	52,594	145,260	270,162	297,445	165,690

Source: National Bank of Serbia.

At end-Q1 2022, the average age of VPF users was around 47 years, with users aged 40–60 making up the dominant share of around 62%. The percentage of users above the age of 53 was similar as in prior years, accounting for 29.9% of the total, while the percentage of persons beyond 58 years was 17.4%.

9. Contributions, withdrawals and transfers

In Q1 2022, of total contributions, individual payments accounted for 45.0%, employer contributions for 32.5% and pension schemes for 22.5%. The total contributions to VPFs in Q1 2022 amounted to RSD 0.93 bn.

Net contributions came at RSD 0.9 bn in Q1 2022.

Total contributions

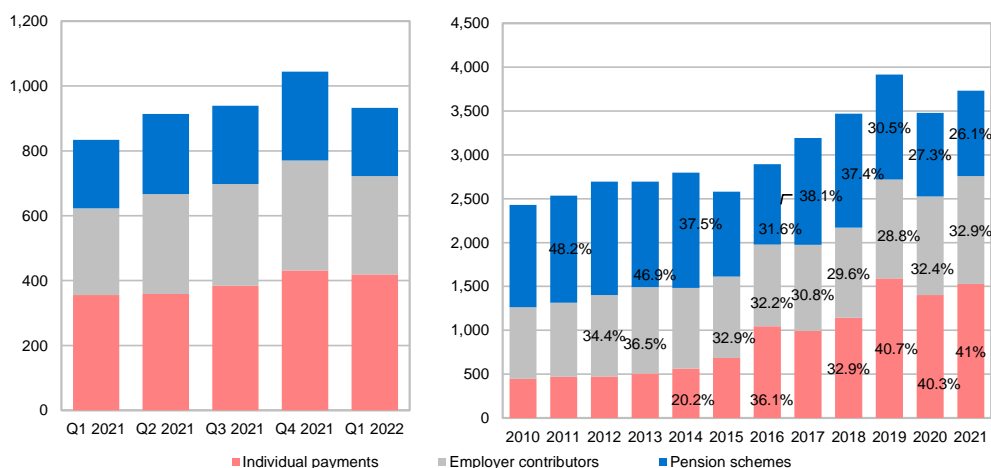
(in RSD bn)

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
2.70	2.70	2.80	2.58	2.89	3.19	3.47	3.92	3.48	3.73	0.93

Source: National Bank of Serbia.

Volume and structure of total contributions

(in RSD mn, %)



Source: National Bank of Serbia.

Though most contributions are made through employers who place the assets in their employees' fund, thus displaying a high level of responsibility, individual contributions have also noted an increase. 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 6,541¹⁴ 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 share of scheduled and other types of withdrawals rises with the lengthening of the accumulation periods and increase in the accumulated sums. In Q1 2022, lump sum withdrawals accounted for the bulk of withdrawals (RSD 1.0 bn), while scheduled withdrawals measured RSD 132.5 mn.

¹⁴ Under Government decree, this amount is adjusted for previous-year inflation once a year.

Total withdrawals

(in RSD mn)

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Q1
751.7	945.2	1213.4	1226.2	1195.6	1342.4	1412.0	1679.8	2159.6	2223.5	1227.3

Source: National Bank of Serbia.

Total withdrawals rise from year to year. In Q1 2022 they amounted to RSD 1,227.3 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. Also, the amount of payouts in Q1 2022 is attributable to the altered economic environment; nevertheless, the stability of the VPF sector has been preserved.

In Q1 2022, total withdrawals amounted to RSD 1.2 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 Q1 2022, transfers came at RSD 387 mn.

In Q1 2022, the amount of assets transferred to another fund equalled RSD 387.4 mn.

Total inter-fund transfers

(in RSD mn)

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Q1
72.3	137.2	126.3	219.7	267.5	263.0	229.7	210.3	252.6	199.0	387.4

Source: National Bank of Serbia.