



**NATIONAL BANK OF SERBIA**

**INSURANCE SUPERVISION DEPARTMENT  
PENSION FUNDS  
SUPERVISION DIVISION**

# **VOLUNTARY PENSION FUNDS SECTOR IN SERBIA**

**First Quarter Report 2021**

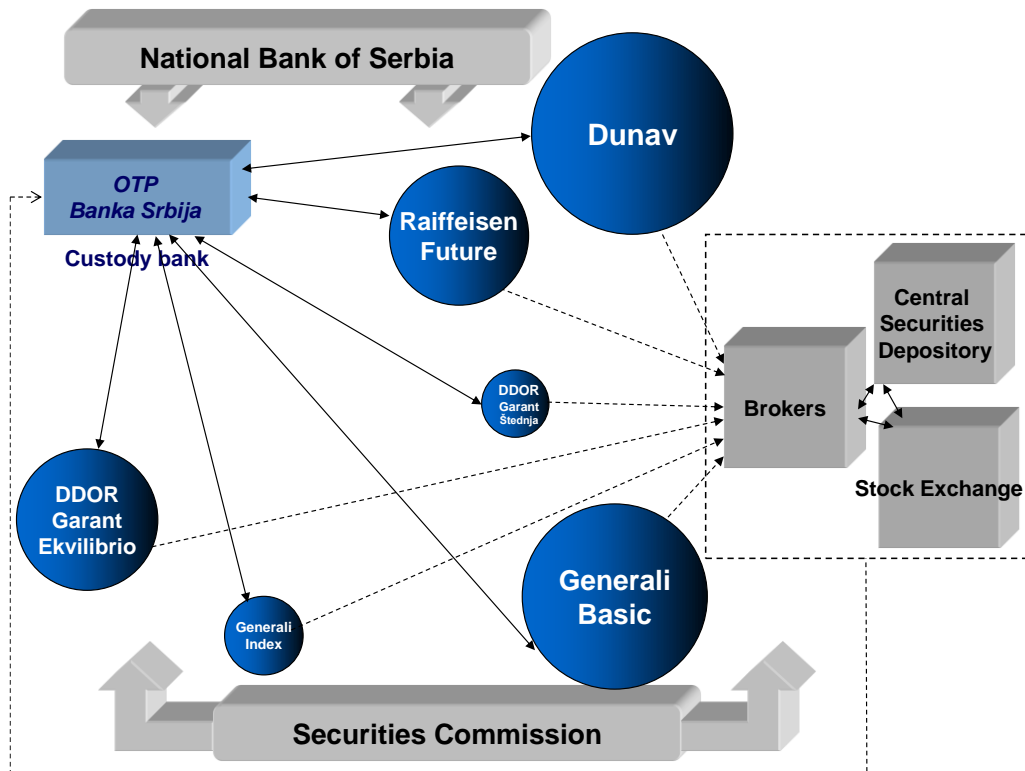
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# 1 Market participants

At end-Q1 2021, 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 2021, VPF management companies employed 123 persons, up by one person from a quarter earlier.

The NBS licences sales agents, who passed professional examinations and fulfilled other requirements, to disseminate information about VPF operation. By end-Q1 2021, total of 953 sales agent licences were granted.

Management companies, banks and insurance undertakings as brokers may engage sales agents. At end-Q1 2021 management companies hired 107 persons, intermediary banks 535 persons and insurance undertaking 89 persons as sales agents.

## 2 VPF net assets

At end-Q1 2021, VPF net assets equalled RSD 47.7 bn, rising by 1.5% from the end of the previous quarter. The changes in the value of net

*At end-Q1 2021, net assets equalled RSD 47.7 bn.*

<sup>1</sup>Raiffeisen banka a.d. Beograd, OTP banka Srbija a.d. Novi Sad, NLB banka a.d. Beograd, Addiko banka a.d. Beograd and Sberbank a.d. Beograd, joint-stock insurance undertaking DDOR Novi Sad, Novi Sad.

assets reflect net contributions,<sup>2</sup> withdrawals and investment returns. In Q1 2021, total contributions amounted to RSD 833.6 mn, withdrawals to RSD 528.8 mn and investment returns to RSD 408.9 mn.

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

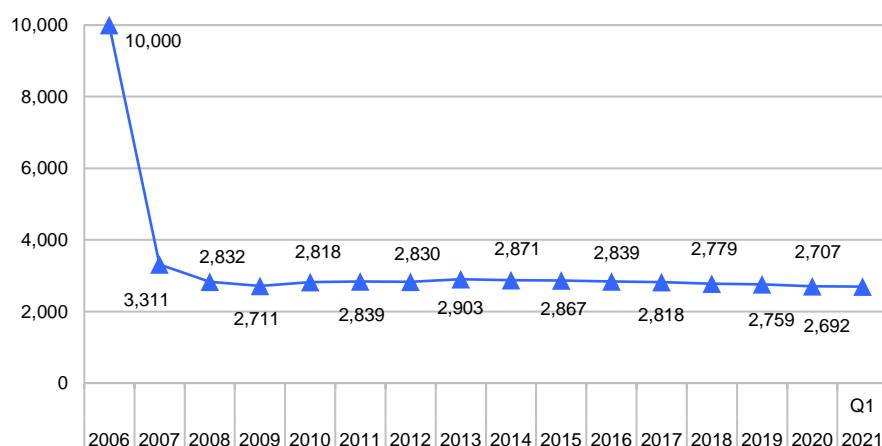
(in RSD bn)

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
9.9	12.5	16.1	19.7	23.6	28.9	32.8	36.2	40.2	45.2	47.0	47.7

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>3</sup> at end-Q1 2021 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 93% of the market share, with the largest fund accounting for around 39%.

#### Number of funds by groups divided by market share

(in units)

Share in net assets (in %)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Large (20 and above)	3	2	2	2	2	2	2	2	2	2	2	2
Medium (5 - 19.99)	1	2	2	2	2	2	2	2	2	2	2	2
Small (0 - 4.99)	4	5	5	2	2	3	3	3	3	3	3	3

Source: National Bank of Serbia.

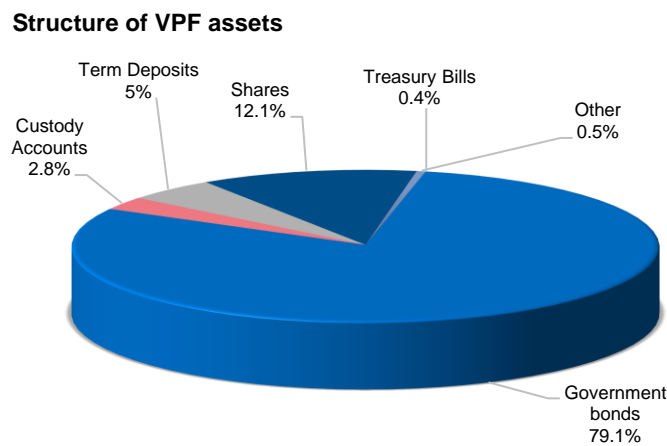
<sup>2</sup> Net contributions are total contributions minus the front-load fee.

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

### 3 Structure of VPF assets

At end-Q1 2021, the structure of investment of VPF assets remained broadly unchanged from the previous period. Government bonds accounted for a major part of VPF assets – 79.1%. Balances in custody accounts and bank time deposits made up 7.8%, shares 12.1%, while T-bills accounted for 0.4% of total VPF assets. Investment in units of open-end investment funds and receivables made up the category “other” which accounted for 0.5%.

*Majority of assets were invested in government debt instruments – 79.5%.*



Source: National Bank of Serbia.

Government debt instruments portfolio (Republic of Serbia’s bonds and T-bills) kept the dominant position in total VPF assets at the end of the period, with the rising share of these instruments in VPF assets (from 73.5% at the end of the previous quarter to 79.5%).

On the other hand, aggregate exposure to shares of domestic legal entities reflects the current trends in the financial market of the Republic of Serbia, rising slightly compared the end of the previous quarter, from 12% to 12.1% of total VPF assets.

At end-Q1 2021, 7.6% of government debt instruments were with the maturity of up to one year, 5.2% between one and two years, 57.2% between two and five years, 12.5% between five and ten years, and 17.6% over ten years.

The average maturity of assets<sup>4</sup> invested in government debt instruments was 5.45 years.

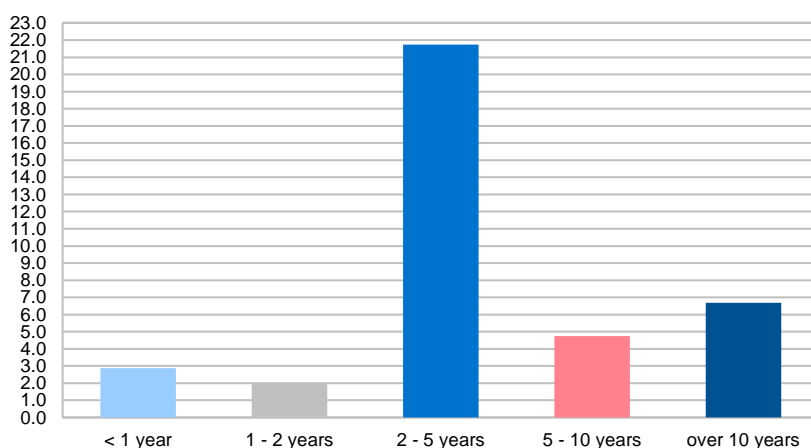
At end-Q1 2021, 84.2% of total assets were in dinars and 15.8% in foreign currency (EUR).

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<sup>4</sup>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 2021, the value of FONDex<sup>5</sup> reached 3,119.42.<sup>6</sup> The rise in FONDex is the weighted average return on all funds, and it came at 4% for the past year. Since the start of VPF operation, FONDex return has equalled 8.2%<sup>7</sup>. 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-end investment funds, level of the key policy rate and banks' interest rates, and changes of the dinar exchange rate against the euro.

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

(in RSD bn)

Maturity	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q1 2021
3m	-	-	-	-	-
6m	-	-	-	-	-
12m	-	-	34.4	-	-
18m	-	-	-	-	-
24m	-	-	38.9	9.0	9.1
36m	-	-	54.0	-	-
60m	13.1	20.1	26.5	13.2	-
84m	24.1	-	-	-	-
120m	-	-	-	-	-
144m	-	37.5	4.8	1.5	-
Total	37.2	57.6	158.5	23.6	9.1

Source: Ministry of Finance.

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

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

<sup>7</sup> Annual rate.

<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 2021, in the primary market of dinar-denominated government debt instruments, two-year government securities were issued at the rate of 1.6% (RSD 9,1 bn).

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

Maturity	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021
3m	-	-	-	-	-
6m	-	-	-	-	-
12m	-	1.8%	-	-	-
18m	-	-	-	-	-
24m	-	2.0%	2.0%	2.0%	1.6%
36m	-	2.2%	-	-	-
60m	2.6%	2.6%	2.7%	2.6%	-
84m	-	-	-	-	-
120m	-	-	-	-	-
144m	3.4%	3.9%	4.0%	3.9%	-

Source: Ministry of Finance.

Q1 2021 saw the issue of euro-denominated government debt instruments, with twelve-year maturity (RSD 24.9 mn) at the rate of 1.7% and twenty-year maturity (RSD 30.4 mn) at the rate of 2.3%.

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

(in EUR mn)

Maturity	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021
12m	-	-	-	-	-	-
24m	-	59.9	40.2	-	-	-
36m	58.9	-	-	-	-	-
60m	-	4.4	-	-	-	-
84m	-	-	-	-	-	-
120m	34.5	-	-	-	-	-
144m	-	100.6	-	-	-	24.9
180m	-	-	-	-	-	-
240m	-	161.2	-	-	-	30.4
Total	93.4	326.0	40.2	-	-	55.2

Source: Ministry of Finance.

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

Maturity	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021
12m	-	-	-	-	-	-
24m	-	0.5%	0.5%	-	-	-
36m	0.6%	-	-	-	-	-
60m	-	1.1%	-	-	-	-
84m	-	-	-	-	-	-
120m	1.9%	-	-	-	-	-
144m	-	1.9%	-	-	-	1.7%
180m	-	-	-	-	-	-
240m	-	3.0%	-	-	-	2.3%

Source: Ministry of Finance.

The prices of shares in the Belgrade Stock Exchange (BSE), measured by the BELEX15 index rose by 0.8% at end-Q1 2021 (the value of the index was 754.40 at end-March). The index rose by 18.5% over the past year.

The key policy rate equalled 1% at end-March 2021. The level of interest rates earned by funds on dinar assets in custody accounts mirrored movements in the key policy rate.

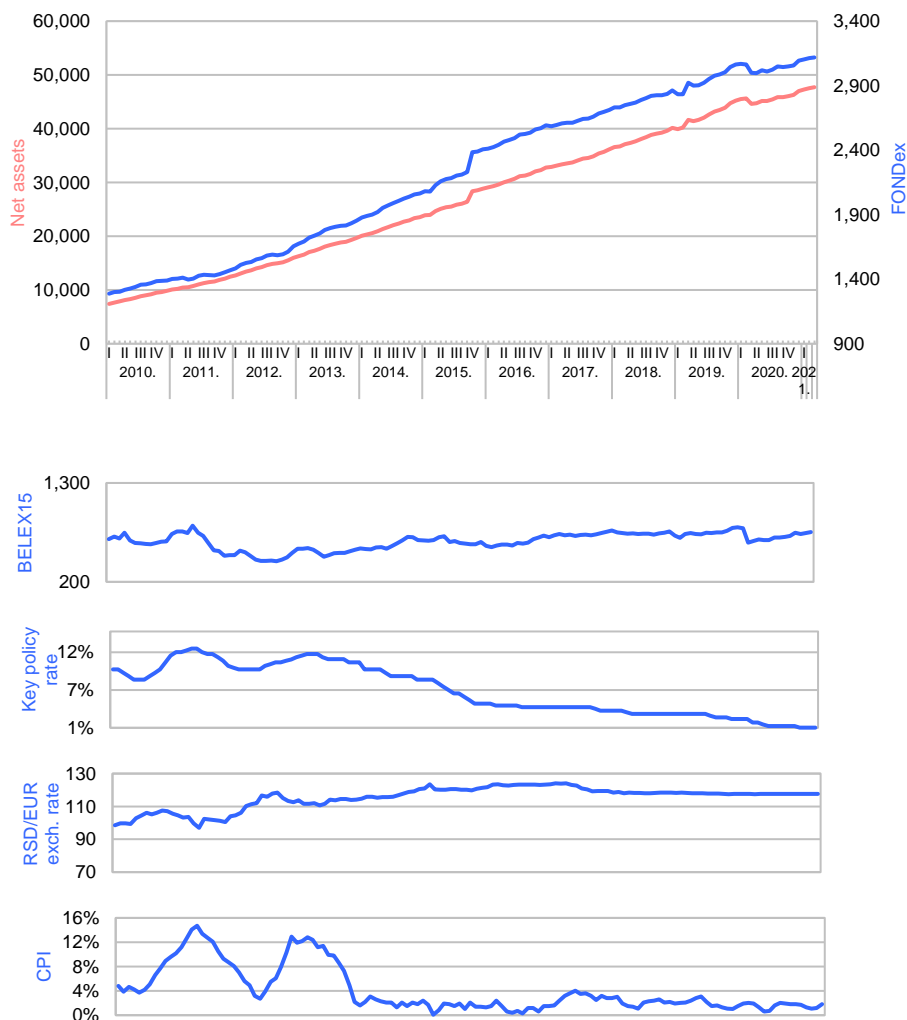
Q1 2021 saw no change in the value of the dinar against the euro, and the dinar measured EUR 117.58 at the end of this quarter. In the same period, the dinar lost around 5% against the US dollar.

Price growth rates came at 0.4%, 0.6% and 0.5% in January, February and March, respectively. Consumer prices gained 1.8% in March 2021 year-on-year.<sup>9</sup>

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



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



Source: National Bank of Serbia, 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 higher fees. 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 making a decision about which fund to chose.

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 2021 amounted to RSD 19 mn and the level of the fee in the same period was 2.3% on average.

The management fee is calculated daily against the value of VPF net 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 Q1 2021, the total value of management fees equalled RSD 145.2 mn, which is around 88% of the total fees charged.

#### Fees charged by management companies

(in RSD mn)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Q1
Contribution fee	56.9	54.9	59.4	57.9	60.1	58.7	55.4	53.0	56.8	61.0	66.3	71.8	76.2	19.0
Management fee	73.5	117.3	170.7	220.0	284.1	357.8	432.8	514.9	614.4	678.7	474.0	526.7	567.9	145.2

Source: National Bank of Serbia.

## 6 Trading in securities

VPF trading volumes equalled RSD 17.8 bn in Q1 2021.

The average share of VPFs in BSE trading was 26.3% in this quarter.

#### VPF securities trading

(in RSD bn)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Q1
Securities trading	13.2	12.9	21.2	14.5	11.5	24.2	16.1	48.7	26.3	17.8
Purchases	7.1	9.0	12.1	7.9	6.4	14.7	9.3	27.1	13.8	10.0
Belgrade Stock Exchange	0.3	0.4	0.5	0.9	1.1	3.7	2.7	3.2	2.7	0.4
Unregulated market	0.1	0.7	0.9	1.8	1.1	5.8	3.2	16.7	7.6	8.0
Auctions of government securities	6.7	7.9	10.7	5.2	4.2	5.1	3.4	7.1	3.6	1.6
Sales	4.2	2.0	5.4	3.6	3.0	7.4	5.5	19.6	11.2	5.9
Belgrade Stock Exchange	0.3	0.6	0.3	0.5	1.9	2.7	3.2	1.4	3.1	1.8
Unregulated market	3.9	1.4	5.0	3.2	1.1	4.7	2.3	18.1	8.1	4.1
Maturity	2.0	2.0	3.7	2.9	2.1	2.2	1.3	2.1	1.4	1.9
Purchase to sale and maturity ratio	1.1	2.3	1.3	1.2	7.5	1.5	1.4	1.3	1.1	1.3
Share in total BSE trading (in%)	2.6%	3.4%	4.1%	6.1%	6.7%	33.0%	9.4	5.1	11.9%	26.3%

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.

Total transaction costs equalled RSD 1.9 mn in Q1 2021. In the same period, Central Securities Depository fees, charged against VPF assets, accounted for a bigger portion of transaction costs than stock exchange fees, while custody bank fees made up a larger share of the costs paid by management companies from their assets compared to brokerage fees.

### Amount of transaction costs

(in RSD mn)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Q1
Total	9.5	7.0	4.7	6.0	6.2	5.6	7.3	10.5	8.3	17.2	10.3	1.9
Brokerage fees	4.5	2.9	2.0	2.5	2.0	1.3	2.3	4.4	3.0	8.0	3.7	0.2
Custody bank fees	2.4	2.2	1.5	1.9	2.0	2.0	2.0	1.9	1.8	3.1	2.3	0.5
Stock exchange fees	1.1	0.8	0.3	0.6	0.6	0.8	1.0	1.8	1.3	1.9	1.3	0.2
Central Securities Depository fees	1.5	1.1	0.9	0.9	1.6	1.6	2.0	1.8	1.6	3.4	2.2	0.8
Other fees	-	-	-	0.1	0.0	-	0.0	0.6	0.6	0.7	0.9	0.2

Source: National Bank of Serbia.

## 8 Number and structure of VPF users

At end-Q1 2021, 205,107 users<sup>10</sup> were in the accumulation phase.<sup>11</sup> Total membership contracts<sup>12</sup> in VPFs stood at 279,536.

VPF users accounted for 9.4%<sup>13</sup> of the total number of employees.

### Number of contracts and users

(in thousand)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
											Q1	Q2
No of contracts	220.4	234.4	240.4	244.5	252.1	258.1	250.5	253.9	261.7	275.8	277.6	277.7
No of users	166.8	174.9	179.8	183.5	188.0	190.5	183.6	185.4	192.3	201.6	202.9	203.0
Percentage of active users (in %)	43.9%	35.1%	30.5%	30.3%	31.3%	25.3%	28.5%	33.6%	33.4%	34.4%	31.3%	32.1%

Source: National Bank of Serbia.

<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>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 contracts in one or several VPFs.

<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.

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

### Structure of users by payment dynamics

(in units and %)

	Period	No of users	Share (in %)
Users making contributions	1 month	69,826	35.3%
	3 months	74,825	37.4%
	6 months	80,566	38.7%
	12 months	84,087	41.4%
	From the start of membership (1)	182,980	89.1%
	No holdings (2)	22,127	10.9%
	Total (1+2)	205,107	

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 260.8 thousand. At end-Q1 2021, the number of users who are members of two or more VPFs was 41,652 or around 20% of the total number of users.

### Average accumulated funds at end-period

(in RSD thousand)

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Q1
70.5	84.5	105.3	127.3	148.3	179.4	200.6	219.3	235.8	239.9	257.4	260.8

Source: National Bank of Serbia.

In terms of gender composition and the respective amounts of funds, Q1 2021 saw no significant changes relative to prior periods. Men remained dominant, accounting for 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	163,455
2	34,615
3	6,784
4	227
5	21
6	3
7	2
Total	205,107

Source: National Bank of Serbia.

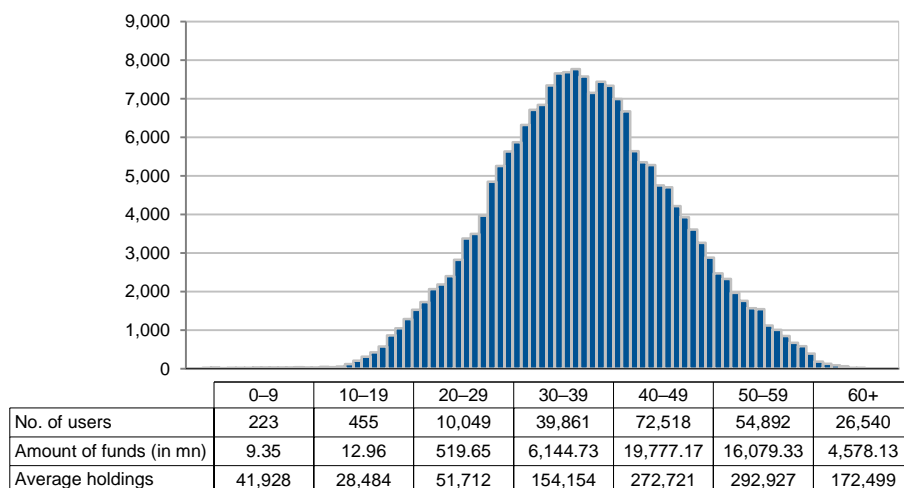
### Number of users by membership contract

(in units)

No of contracts	No of users
1	148,959
2	42,827
3	9,422
4	3,126
5	544
6	179
7	41
8	9
9	
Total	205,107

Source: National Bank of Serbia.

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



Source: National Bank of Serbia.

At end-Q1 2021, 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 29.5%, while the percentage of users above the age of 58 measured 17%.

## 9 Contributions, withdrawals and transfers

In Q1 2021, of total contributions, individual payments accounted for 42.6%, employer contributions for 32.1% and pension schemes for 25.3%. Total contributions to VPFs amounted to RSD 833.6 mn in Q1 2021.

*Net contributions came at RSD 814.6 bn in Q1 2021.*

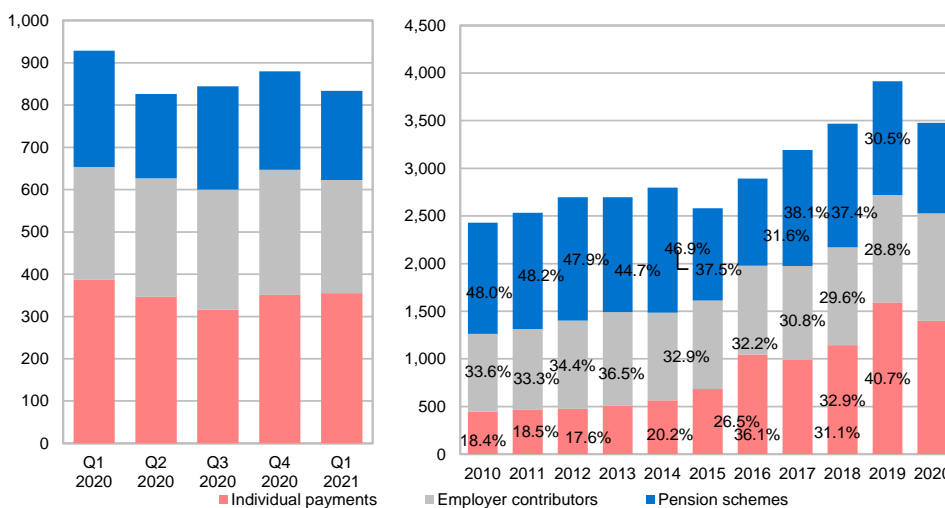
### Total contributions

(in RSD bn)

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Q1
2.43	2.53	2.70	2.70	2.80	2.58	2.89	3.19	3.47	3.92	3.48	0.83

Source: National Bank of Serbia.

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



Source: National Bank of Serbia.

Though the bulk of contributions are made through employers who, in this way, display a high level of responsibility towards their staff, an increase in individual contributions is also noticeable. In this sense, the potential for further growth in the number of VPF members is great, both in terms of individuals, who are recognising the significance of saving for old age more and more, and companies, particularly taking into account the fact that only one in ten employees have VPF accounts. This way, employees and employers can save up since contributions from employer's funds up to RSD 6,062<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 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 payments. Since the withdrawals are made by the members who fulfil the requirements, and are not long-standing fund members, their accumulated sum is relatively small, and this kind of withdrawals is expected, even though it is not in accordance with the nature of VPFs which assumes the use of accumulated funds over a longer period. Lengthening of the accumulation periods and increase in the accumulated sums are accompanied with the rise in the share of scheduled and other types of withdrawals. In Q1 2021, one-off withdrawals made up the bulk of total withdrawals (RSD 441.3 mn), while scheduled withdrawals amounted to RSD 74.6 mn.

**Total withdrawals**

(in RSD mn)

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
458.1	517.6	751.7	945.2	1213.4	1226.2	1195.6	1342.4	1412.0	1679.8	2159.6	528.8

Source: National Bank of Serbia.

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

Total fund withdrawals are rising every year, measuring RSD 528.8 mn in Q1 2021. This phenomenon is 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.

*In Q1 2021, total withdrawals amounted to RSD 528.8 bn.*

Transfers are 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 2021, transfers came at RSD 27.9 mn.*

In Q1 2021, total transfers amounted to RSD 27.9 mn.

#### **Total inter-fund transfers**

(in RSD mn)

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Q1
216.1	165.9	72.3	137.2	126.3	219.7	267.5	263.0	229.7	210.3	252.6	27.9

Source: National Bank of Serbia.