



**NATIONAL BANK OF SERBIA**

INSURANCE SUPERVISION DEPARTMENT  
PENSION FUNDS SUPERVISION DIVISION

# **VOLUNTARY PENSION FUNDS IN SERBIA**

**Third Quarter Report 2018**

November 2018

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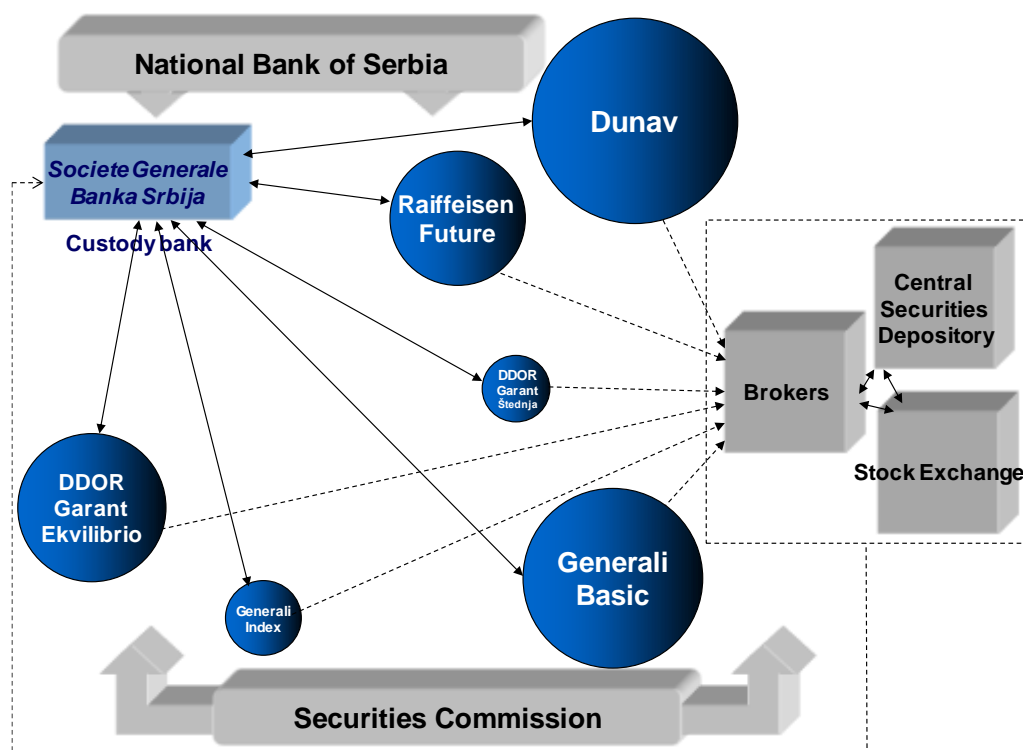
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## 1 Market participants

At end-Q3 2018, the market of voluntary pension funds (VPFs) included four companies managing seven VPFs, one custody bank and five agent banks.<sup>1</sup>

Picture: **Market participants**



Total employment in VPF management companies was 123, up by three persons 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-Q3 2018, a total of 777 sales agent licences were granted.

Management companies and intermediary banks hire sales agents. At end-Q3 2018 management companies hired 106 persons and intermediary banks 446 persons.

<sup>1</sup> Raiffeisen Bank a.d. Beograd, Societe Generale banka Srbija a.d. Beograd, NLB banka a.d. Beograd, Addiko Bank a.d. Beograd and Sberbank a.d. Beograd

## 2 VPF net assets

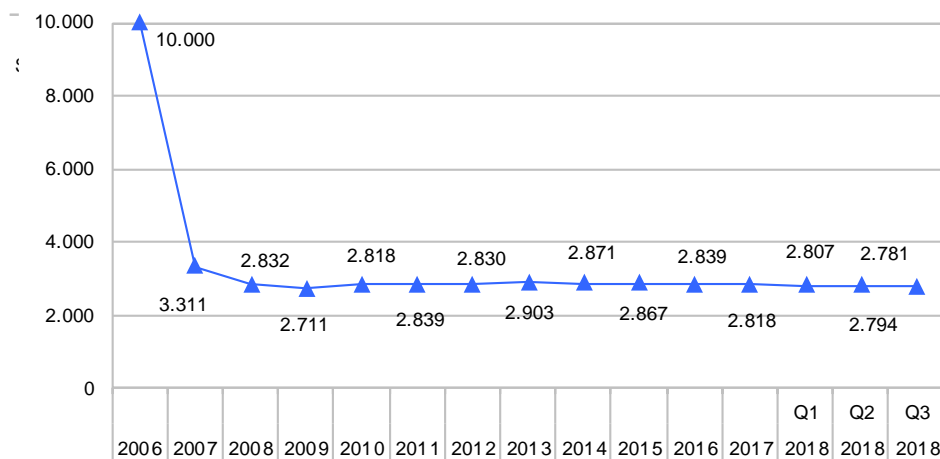
In Q3, VPF net assets expanded by 2.7%, to RSD 39.1 bn. The changes in the value of net assets reflect net contributions,<sup>2</sup> withdrawals and investment returns. Total contributions in Q3 amounted to RSD 863.66 mn, withdrawals to RSD 329.48 mn and investment returns to RSD 509.95 mn.

*Net assets equalled RSD 39.1 bn at end-Q3 2018.*

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

(in RSD bn)

### 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-Q3 amounted to 2,781 points, which indicates 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 95% of the market share, with the largest fund accounting for around 40%.

<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.

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

(in units)

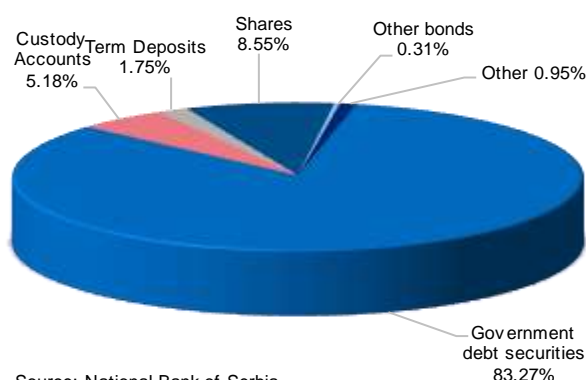
Share in net assets (%)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
												Q1	Q2	Q3
Large (20 and above)	3	2	2	3	2	2	2	2	2	2	2	2	2	2
Medium (5 - 19.99)	-	2	3	1	2	2	2	2	2	2	2	2	2	2
Small (0 - 4.99)	4	6	5	4	5	5	2	2	3	3	3	3	3	3

Source: National Bank of Serbia.

**3 Structure of VPF assets**

At end-Q3 2018, the structure of investment of VPF assets remained broadly unchanged. Government bonds accounted for the major part of VPF assets – 83.27%. Balances in custody accounts and bank time deposits made up 6.93%, shares 8.55% and other securities (the EBRD’s bond) 0.31% of total VPF assets. Investment in units of open-end investment funds and receivables made up the category “other” which accounted for 0.95%.

*Majority of assets were invested in government debt instruments – 83.27%.*

**Structure of VPF assets**

Source: National Bank of Serbia.

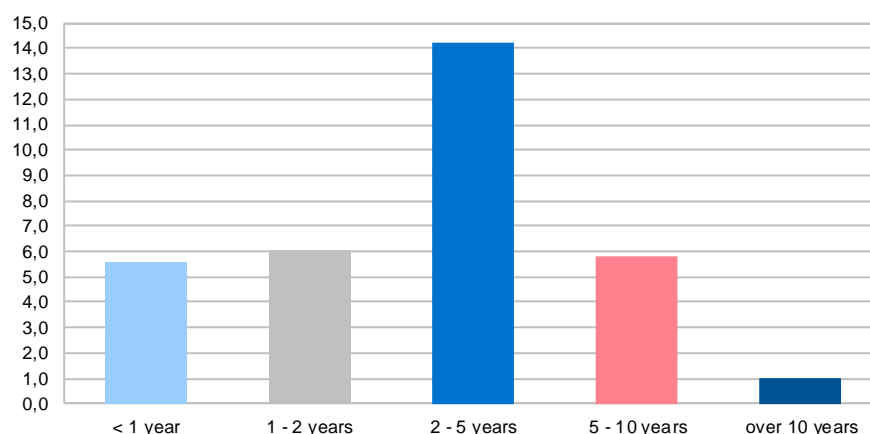
At end-Q3 2018, 17% of government debt instruments were with the maturity of up to one year, 18.5% between one and two years, 43.5% between two and five years, 17.9% between five and ten years, and 3.2% over ten years.

The average maturity of assets<sup>4</sup> invested in government debt instruments was 3.7 years.

At end-Q3 2018, 85.96% of total assets were in dinars and 14.04% in a foreign currency (EUR and USD).

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

**Maturity structure (investment in government debt instruments)**  
(in RSD bn)



Source: National Bank of Serbia.

## 4 Return on investment

At end-Q3 2018, the FONDex<sup>5</sup> reached 2,825.54 points.<sup>6</sup> The rise in FONDex is the weighted average return on all funds, and it came at 1.3% in Q3 2018, or 6.2% for the past year. Since the start of VPF operation,<sup>7</sup> the return of the FONDex has equalled 9.1%.

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, level of the key policy rate and banks' interest rates, and changes of the dinar exchange rate against the euro and the dollar.

The volume of issues in the primary market of government debt instruments (T-bills and treasury bonds) decreased from Q2 2018.

The total market value of issues of long-term dinar-denominated government instruments in Q3 2018 was RSD 29.4 bn. Securities with the following maturities were issued: five-year maturity (RSD 18.5 bn) at the rate of 3.7% and ten-year maturity (RSD 10.9 bn) at the rate of 4.8%.

<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.

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

Maturity	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018
3m	-	-	-	-	-
6m	-	-	-	-	-
12m	-	-	-	-	-
18m	-	-	-	-	-
24m	-	11.5	-	-	-
36m	33.6	15.2	-	-	-
60m	-	-	57.7	27.0	18.5
84m	-	-	-	-	-
120m	-	-	76.7	20.0	10.9
Total	33.6	26.7	134.4	47.0	29.4

Source: Ministry of Finance.

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

Maturity	Q3 2017	Q4 2017	Q1 2017	Q2 2017	Q3 2018
3m	-	-	-	-	-
6m	-	-	-	-	-
12m	-	-	-	-	-
18m	-	-	-	-	-
24m	-	4.1%	-	-	-
36m	4.8%	4.3%	-	-	-
60m	-	-	4.2%	4.0%	3.7%
84m	-	-	-	-	-
120m	-	-	5.2%	4.9%	4.8%

Source: Ministry of Finance.

There were no issues of euro-denominated government debt instruments in Q3 2018.

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

(in EUR mn)

Maturity	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018
12m	59.7	24.9	49.8	48.8	49.8	-
24m	49.6	35.2	-	38.8	13.9	-
36m	90.0	49.5	74.7	100.3	27.0	-
60m	99.1	73.8	49.7	97.5	39.3	-
84m	-	-	-	-	65.1	-
120m	-	17.9	-	86.9	-	-
180m	-	50.0	-	-	-	-
Total	298.4	251.3	174.1	372.3	195.1	-

Source: Ministry of Finance.

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

Maturity	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018
12m	0.6%	0.6%	0.5%	0.5%	0.5%	-
24m	1.0%	1.0%	-	1.0%	0.7%	-
36m	1.9%	1.9%	1.5%	1.2%	1.2%	-
60m	2.7%	2.6%	2.4%	1.9%	1.8%	-
84m	-	-	-	-	2.5%	-
120m	-	4.0%	-	3.5%	-	-
180m	-	4.2%	-	-	-	-

Source: Ministry of Finance.

The prices of Belgrade Stock Exchange (BSE) shares, measured by BELEX15<sup>9</sup> fell by 0.9% in Q3 2018 (reaching 727.08 at end-September). The index rose by 0.9% over the past year.

The key policy rate equalled 3.0% at end-September 2018. The level of interest rates earned by funds on dinar assets in custody accounts mirrored movements in the key policy rate.

In Q3 2018, the dinar depreciated vis-à-vis the euro, edging down by around 0.3% relative to end-Q2. In the same period, the dinar lost around 0.3% against the US dollar.

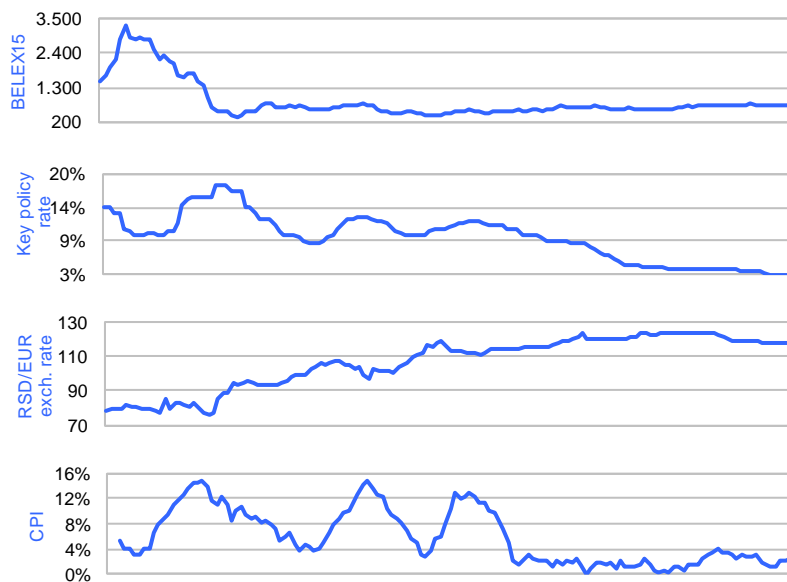
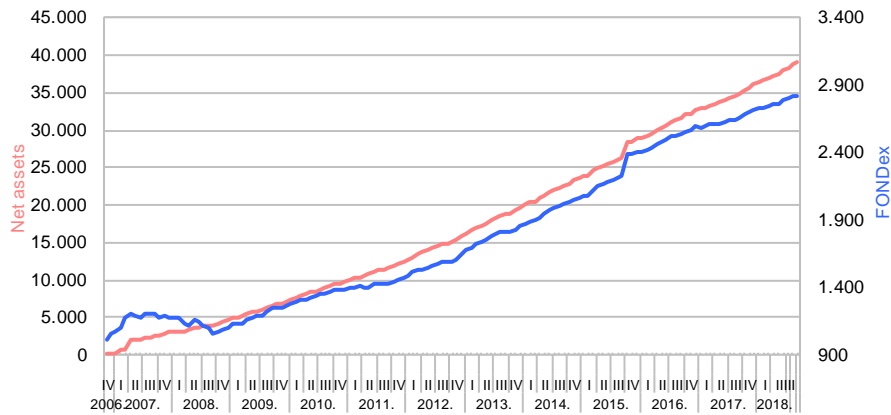
Price growth rates came at -0.3%, 0.3% and -0.3% in July, August and September, respectively. Consumer prices gained 2.1% year-on-year in September 2018.<sup>10</sup>

<sup>9</sup> Of the total investment in shares, the bulk pertained to the shares covered by BELEX15, which means that BELEX15 is a relevant benchmark for the shares in the funds' portfolio.

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



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



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 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 Q3 2018 amounted to RSD 16.2 mn and the level of the fee in the same period was 1.88% 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.

At end-Q3 2018, the total value of management fees equalled RSD 121.22 mn, which is around 88% of the total fees charged. Their amount is constantly growing, as a result of the rise in the net value of VPF assets and, consequently, an ever-larger base against which management fees are charged.

Over the past year, the management fee equalled RSD 527.5 mn, while profit of RSD 2.2 bn was earned in the same period.

#### **Fees charged by management companies**

(in RSD mn)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
												Q1	Q2	Q3
Contribution fee	42.9	56.9	54.9	59.4	57.9	60.1	58.7	55.4	53.0	56.8	61.0	15.6	16.0	16.2
Management fee	33.8	73.5	117.3	170.7	220.0	284.1	357.8	432.8	514.9	614.4	678.7	112.6	116.5	121.2

Source: National Bank of Serbia.

## **6 Trading in securities**

VPF trading volumes equalled RSD 1.5 bn in Q3 2018.

The average share of VPFs in BSE trading was 5.4% at the end of the quarter.

### VPF securities trading

(in RSD bn)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
											Q1	Q2	Q3
Securities trading	1.7	13.1	14.9	19.3	13.2	12.9	21.2	14.5	11.5	24.2	7.1	4.2	1.5
Purchases	1.8	8.1	8.1	10.6	7.1	9.0	12.1	7.9	6.4	14.7	3.9	2.6	1.0
Belgrade Stock Exchange	0.8	0.4	1.3	0.7	0.3	0.4	0.5	0.9	1.1	3.7	0.4	1.2	0.2
Unregulated market	0.3	0.4	0.3	1.3	0.1	0.7	0.9	1.8	1.1	5.8	0.6	1.1	0.5
Auctions of government securities	0.0	7.3	6.5	8.6	6.7	7.9	10.7	5.2	4.2	5.1	2.8	0.2	0.3
Sales	0.4	0.4	0.8	3.8	4.2	2.0	5.4	3.6	3.0	7.4	2.8	1.3	0.4
Belgrade Stock Exchange	0.1	0.1	0.6	0.4	0.3	0.6	0.3	0.5	1.9	2.7	2.3	0.0	0.4
Unregulated market	0.3	0.3	0.2	3.4	3.9	1.4	5.0	3.2	1.1	4.7	0.5	1.3	0.0
Maturity	0.2	4.6	6.1	4.9	2.0	2.0	3.7	2.9	2.1	2.2	0.4	0.4	0.2
Purchase to sale and maturity ratio	2.4	1.6	1.2	1.2	1.1	2.3	1.3	1.2	7.5	1.5	1.2	1.6	1.8
Share in total BSE trading (in%)	1.2%	1.1%	8.0%	3.8%	2.6%	3.4%	4.1%	6.1%	6.7%	33.0%	13%	8.1%	5.4%

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.

At end-Q3 2018, Central Securities Depository fees, charged against VPF assets, accounted for a bigger portion of transaction costs than stock exchange fees, whereas custody bank fees and brokerage fees made an equal portion of costs paid by management companies from their assets.

### Amount of transaction costs

(in RSD mn)

	2007	2008	###	###	2011	2012	2013	2014	2015	2016	2017	2018,0		
												Q1	Q2	Q3
Total	10.0	5.3	7.4	9.5	7.0	4.7	6.0	6.2	5.6	7.3	10.5	2.2	1.2	1.2
Brokerage fees	4.5	2.2	3.8	4.5	2.9	2.0	2.5	2.0	1.3	2.3	4.4	0.7	0.1	0.3
Custody bank fees	1.8	1.5	2.0	2.4	2.2	1.5	1.9	2.0	2.0	2.0	1.9	0.6	0.3	0.3
Stock exchange fees	1.6	0.8	0.4	1.1	0.8	0.3	0.6	0.6	0.8	1.0	1.8	0.4	0.1	0.2
Central Securities Depository fees	1.0	0.6	1.2	1.5	1.1	0.9	0.9	1.6	1.6	2.0	1.8	0.5	0.5	0.3
Other fees	1.1	0.2	-	-	-	-	0.1	0.0	-	0.0	0.6	0.1	0.2	0.1

Source: National Bank of Serbia.

## 8 Number and structure of VPF users

At end-Q3 2018, 188,840 users<sup>11</sup> were in the accumulation phase.<sup>12</sup> Total membership contracts<sup>13</sup> in VPFs stood at 257,484.

VPF users accounted for 9.2%<sup>14</sup> of the total number of employees.

### Number of contracts and users

(in thousands)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
												Q1	Q2	Q3
No of contracts	158.5	201.6	215.7	220.4	234.4	240.4	244.5	252.1	258.1	250.5	253.9	255.1	255.9	257.5
No of users	-	156.0	165.2	166.8	174.9	179.8	183.5	188.0	190.5	183.6	185.4	186.8	187.3	188.8
Percentage of active users (in %)	-	41.6%	36.0%	43.9%	35.1%	30.5%	30.3%	31.3%	25.3%	28.5%	33.6%	32.7%	32.4%	31.0%

Source: National Bank of Serbia.

### Structure of users by payment dynamics

(in units and %)

	Period	No of users	Share (%)
3 months	66.998	35%	
6 months	69.389	37%	
12 months	74.999	40%	
From the start of membership (1)	167.667	89%	
No holdings (2)		21.173	11%
Total (1+2)		188.840	

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 233.2 thousand and is constantly rising.

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

<sup>12</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>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: NBS.

At end-Q3 2018, the number of users who are members of two or more VPFs was 40,231 or 21% of the total number of users.

#### Average accumulated funds at end-period

(in RSD thousand)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018,0		
											Q1	Q2	Q3
-	34.6	52.2	70.5	84.5	105.3	127.3	148.3	179.4	200.6	219.3	223.5	228.7	233.2

Source: National Bank of Serbia.

In terms of gender composition and the respective amounts of funds, Q3 2018 saw no significant changes relative to prior periods. Men remained dominant, accounting for around 58% of all users.

#### Number of users by number of funds in which they are members

(in units)

No of funds	No of users
1	148.609
2	32.609
3	7.425
4	175
5	17
6	3
7	2
Total	188.840

Source: National Bank of Serbia.

#### Number of users by membership contracts

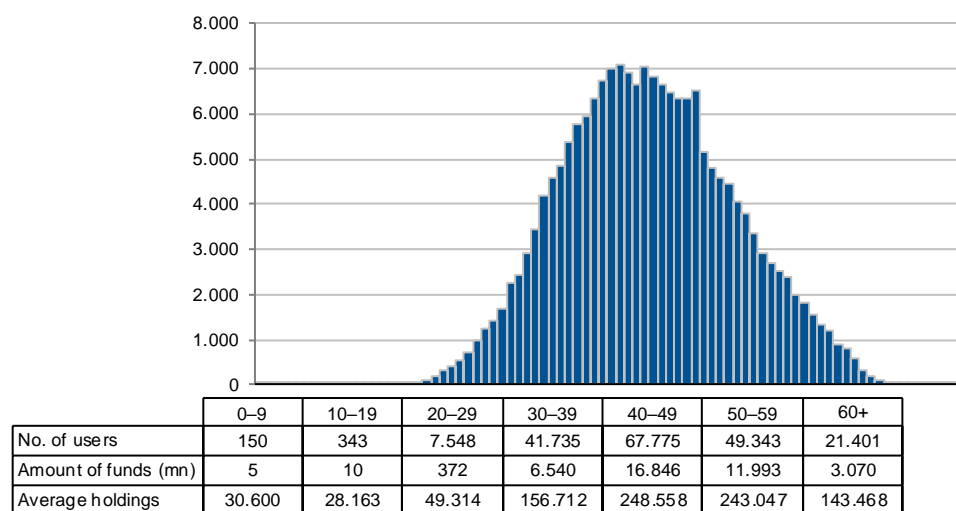
(in units)

No of contracts	No of users
1	135.837
2	41.191
3	8.924
4	2.222
5	464
6	151
7	37
8	9
9	2
10	3
Total	188.840

Source: National Bank of Serbia.

At end-Q3 2018, the average age of VPF users was around 46 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 27% of the total.

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



Source: National Bank of Serbia.

## 9 Contributions, withdrawals and transfers

In Q3 2018, of total contributions, individual payments accounted for 34.3%, employer contributions for 28.7% and pension schemes for 37.0%. Since the start of operation, total payments into VPFs have been constantly rising.

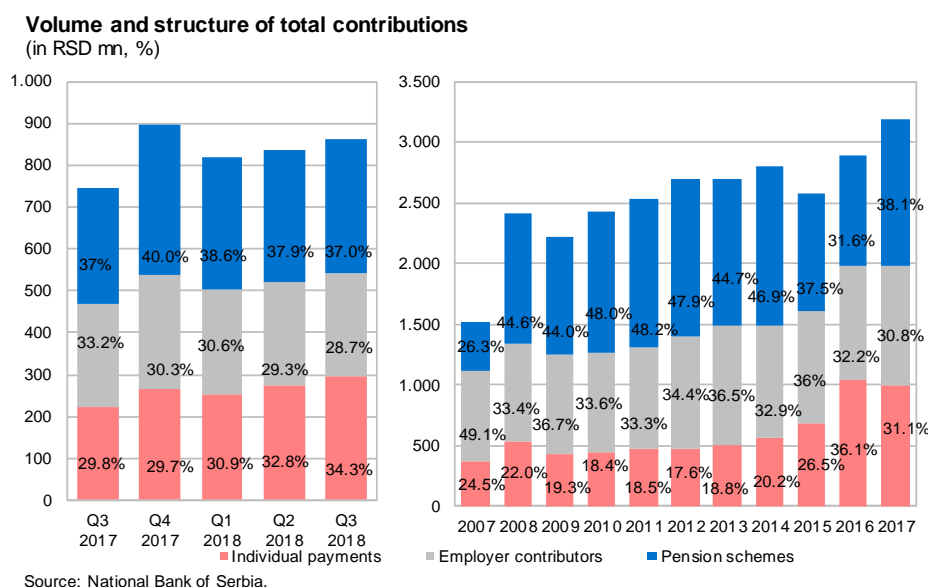
*Total net contributions came at RSD 847.43 mn in Q3 2018.*

### Total contributions

(in RSD bn)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
												Q1	Q2	Q3
	1.50	2.25	2.22	2.43	2.53	2.70	2.70	2.80	2.58	2.89	3.19	0.82	0.84	0.86

Source: National Bank of Serbia.



Though the Law allows for individual contributions, most contributions are made through employers who, in this way, display a high level of responsibility towards their staff. Ample potential for further growth in the membership base are companies with high staffing levels. This way, employees and employers can save up since contributions from employer's funds up to RSD 5,757<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 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)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
											Q1	Q2	Q3
141.4	384.6	448.5	458.1	517.6	751.7	945.2	1213.4	1226.2	1195.6	1342.4	330.0	391.5	329.5

Source: National Bank of Serbia.

<sup>15</sup> Under Government decree, this amount is adjusted for previous-year inflation once a year.

Withdrawals rise from year to year, 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.

*In Q3 2018, total withdrawals amounted to RSD 329.48 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 2018, the transfers came at RSD 21.09 mn.*

**Total inter-fund transfers**

(in RSD mn)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
											Q1	Q2	Q3
19.5	235.1	141.5	216.1	165.9	72.3	137.2	126.3	219.7	267.5	263.0	49.1	100.1	21.1

Source: National Bank of Serbia.