



**NATIONAL BANK OF SERBIA**

**INSURANCE SUPERVISION DEPARTMENT  
PENSION FUNDS SUPERVISION DIVISION**

# **VOLUNTARY PENSION FUNDS IN SERBIA**

**Second Quarter Report 2018**

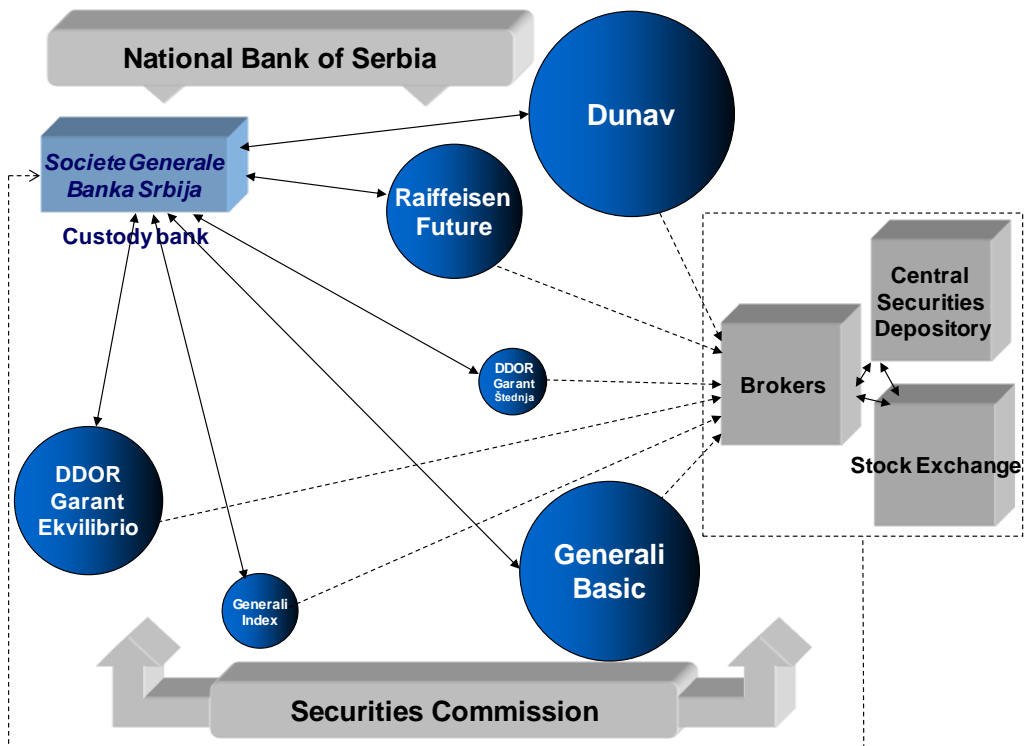
## Contents:

1 Market participants .....	3
2 VPF net assets .....	4
3 Structure of VPF assets .....	5
4 Return on investment .....	6
5 Fees charged by management companies .....	9
6 Trading in securities.....	10
.....	11
7 Transaction costs.....	11
8 Number and structure of VPF users.....	12
9 Contributions, withdrawals and transfers .....	14
10 Financial statements.....	17
10.1 Regulatory framework .....	17
10.2 Financial statements of VPF management companies.....	17
10.3 Financial statements of VPFs.....	19

## 1 Market participants

At end-Q2 2018, the market of voluntary pension funds (VPFs) included four companies managing seven VPFs, one custody bank and five intermediary banks.<sup>1</sup>

Picture: Market participants



At end-Q2 2018, total employment in VPF management companies was 120, unchanged 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-Q2 2018, a total of 751 sales agent licences were granted.

Management companies and intermediary banks hire sales agents. At end-Q2 2018, management companies hired 87 and intermediary banks 441 such persons.

<sup>1</sup> Raiffeisen banka 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

At end-Q2 2018, VPF net assets equalled RSD 38.1 bn. In Q2, net assets expanded by 2.61%. The changes in the value of net assets reflect net contributions,<sup>2</sup> withdrawals and investment returns. In Q2 2018, total contributions amounted to RSD 837.04 mn, withdrawals to RSD 391.48 mn and investment returns to RSD 540.44 mn.

*At end-Q2 2018, net assets equalled RSD 38.1 bn.*

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

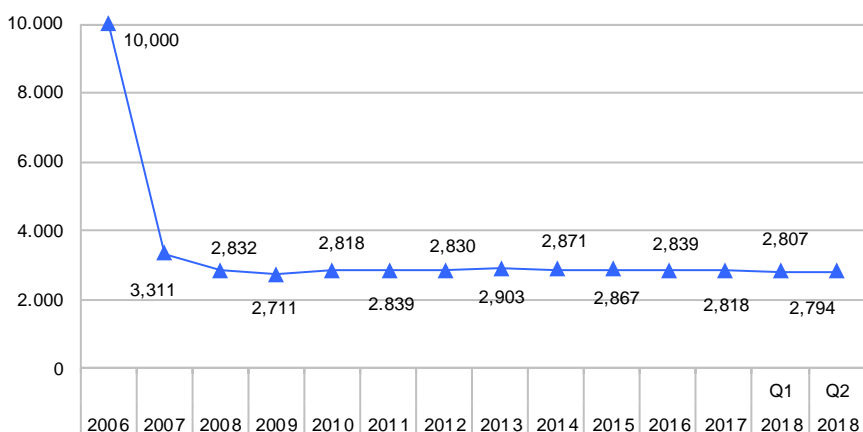
(in RSD bn)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
											Q1	Q2
3.1	4.6	7.2	9.9	12.5	16.1	19.7	23.6	28.9	32.8	36.2	37.1	38.1

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> amounted to 2,794 points at end-Q2, indicating high concentration in the VPF market.

<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.

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, with the largest fund accounting for around 41%.

### 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
Large (20 and above)	3	2	2	3	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
Small (0 - 4.99)	4	6	5	4	5	5	2	2	3	3	3	3	3

Source: National Bank of Serbia.

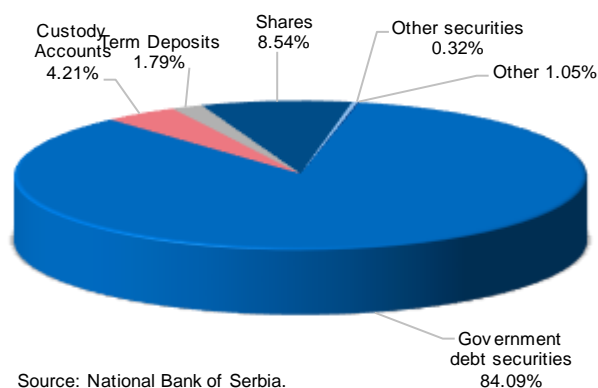
## 3 Structure of VPF assets

At end-Q2 2018, the structure of investment of VPF assets remained broadly unchanged. Government bonds accounted for the major part of VPF assets – 84.09%.

*Majority of assets were invested in government debt instruments – 84.09%.*

Balances in custody accounts and bank time deposits made up 6%, shares 8.54% and other securities (the EBRD’s bond) 0.32% of total VPF assets. Investment in units of open-end investment funds and receivables made up the category “other” which accounted for 1.05%.

Structure of VPF assets

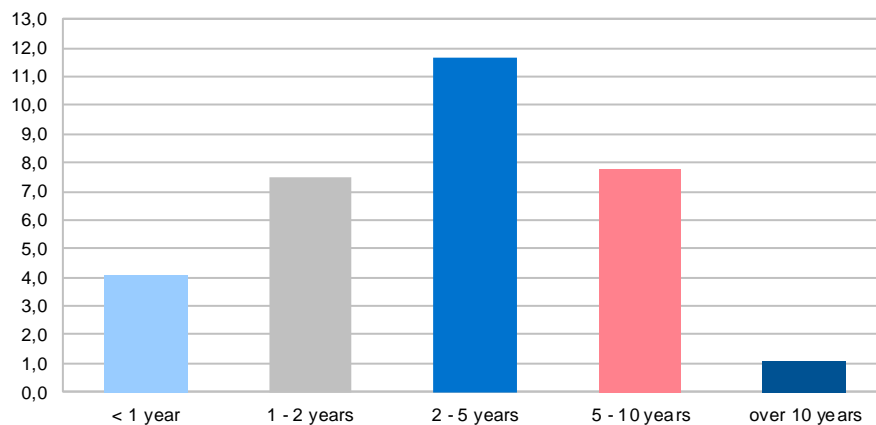


Source: National Bank of Serbia.

At end-Q2 2018, 12.7% of government debt instruments were with the maturity of up to one year, 23.3% between one and two years, 36.5% between two and five years, 24.1% between five and ten years, and 3.4% over ten years.

The average maturity of assets<sup>4</sup> invested in government debt securities was 3.9 years.

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



Source: National Bank of Serbia.

At end-Q2 2018, 85.1% of total assets were in dinars and 14.9% in a foreign currency (EUR and USD).

#### 4 Return on investment

At end-Q2 2018, the FONDex<sup>5</sup> reached 2,788.61 points.<sup>6</sup> The return of the FONDex, as the weighted average return of all funds, came at 1.5% in Q2 2018, or 6.1% for the past year. Since the start of VPF operation,<sup>7</sup> FONDex return has equalled 9.2%.

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 Q1 2018.

The total market value of issues of long-term dinar-denominated government instruments in Q2 2018 was RSD 47.1 bn. Securities with the following maturities

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

<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.

were issued: five-year maturity (RSD 27 bn) at the rate of 4% and ten-year maturity (RSD 20 bn) at the rate of 4.9%.

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

Maturity	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018
3m	-	-	-	-	-
6m	0.8	-	-	-	-
12m	1.7	-	-	-	-
18m	-	-	-	-	-
24m	24.5	23.1	-	11.5	-
36m	-	37.4	33.6	15.2	-
60m	-	-	-	-	27.0
84m	-	-	-	20.8	-
120m	0.8	-	-	-	20.0
Total	27.1	60.5	33.6	47.5	47.1

Source: Ministry of Finance.

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

Maturity	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018
3m	-	-	-	-	-
6m	-	-	-	-	-
12m	-	-	-	-	-
18m	-	-	-	-	-
24m	4.65%	-	4.05%	-	-
36m	5.0%	4.8%	4.29%	3.8%	-
60m	-	-	-	4.15%	3.95%
84m	-	-	5.0%	-	-
120m	-	-	-	5.17%	4.9%

Source: Ministry of Finance.

Q2 2018 saw the issue of euro-denominated government debt instruments worth a total of EUR 195 mn – one-year (EUR 49.8 mn) at the rate of 0.5%, two-year (EUR 13.9 mn) at the rate of 0.7%, three-year (EUR 27 mn) at the rate of 1.2%, five-year (EUR 39.3 mn) at the rate of 1.8%, and seven-year (EUR 65.1 mn) at the rate of 2.5%.

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

(in EUR mn)

Maturity	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018
12m	52.7	59.7	24.9	49.8	48.8	49.8
24m	71.4	49.6	35.2	-	38.8	13.9
36m	92.8	90.0	49.5	74.7	100.3	27.0
60m	97.6	99.1	73.8	49.7	97.5	39.3
84m	-	-	-	-	-	65.1
120m	-	-	17.9	-	86.9	-
180m	-	-	50.0	-	-	-
Total	314.6	298.4	251.3	174.1	372.3	195.0

Source: Ministry of Finance.

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

Maturity	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018
12m	0.74%	0.55%	0.55%	0.48%	0.47%	0.5%
24m	1.05%	1.04%	1.04%	-	0.96%	0.7%
36m	1.89%	1.87%	1.85%	1.49%	1.24%	1.2%
60m	2.69%	2.69%	2.6%	2.38%	1.88%	1.8%
84m	-	-	-	-	-	2.5%
120m	-	-	4.0%	-	3.5%	-
180m	-	-	4.2%	-	-	-

Source: Ministry of Finance.

The prices of shares in the Belgrade Stock Exchange (BSE), measured by the BELEX15 index<sup>9</sup> fell by 1.3% in Q2 2018 (the value of the index was 733.37 at end-June). The index rose by 3.1% over the past year.

The key policy rate equalled 3% at end-June 2018. The level of interest rates earned by funds on dinar assets in custody accounts mirrored movements in the key policy rate.

In Q2 2018, the dinar appreciated vis-à-vis the euro, edging up by around 0.3% relative to end-Q1. In the same period, the dinar lost around 5.5% against the US dollar.

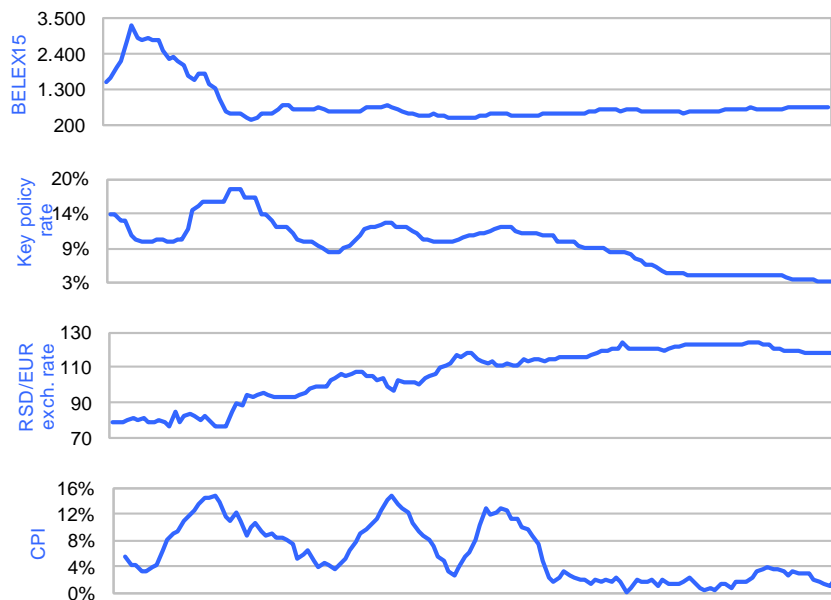
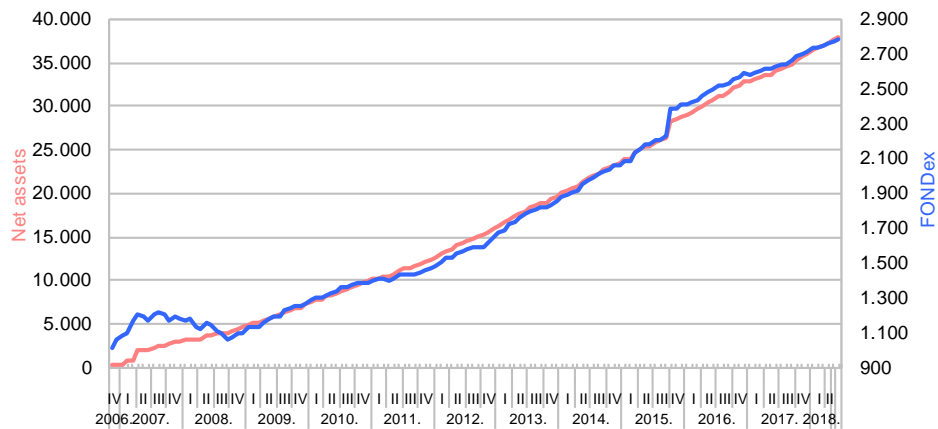
Price growth rates came at 0.4%, 0.6% and 0.4% in April, May and June, respectively. In June 2018 consumer prices gained 2.3% year-on-year.<sup>10</sup>

<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.

A member pays the front-load fee only once, as an entry 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 Q2 2018 amounted to RSD 16 mn and the level of the fee in the same period was 1.91% 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-Q2 2018, the total value of management fees equalled RSD 116.46 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 578.66 mn, while profit of RSD 2.1 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
Contribution fee	42.9	56.85	54.89	59.4	57.9	60.1	58.7	55.4	53.0	56.8	61.0	15.6	16.0
Management fee	37.8	73.5	117.3	170.7	220	284.1	357.8	432.8	514.9	614.4	678.7	112.6	116.5

Source: National Bank of Serbia.

## **6 Trading in securities**

VPF trading volumes equalled RSD 4.21 bn in Q2 2018.

The average share of VPFs in BSE trading was 8.1% 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
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
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
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
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
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
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
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
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
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
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
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%

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-Q2 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 made up the bulk of costs paid by management companies from their assets.

**Amount of transaction costs**

(in RSD mn)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
												Q1	Q2
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
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
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
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
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
Other fees	1.1	0.2	-	-	-	-	0.1	0.0	-	0.0	0.6	0.1	0.2

Source: National Bank of Serbia.

## 8 Number and structure of VPF users

At end-Q2 2018, 187,341 users<sup>11</sup> were in the accumulation phase.<sup>12</sup> Total membership contracts<sup>13</sup> in VPFs stood at 255,880.

VPF users accounted for 9.1%<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
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
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
Percentage of active users (in %)	-	41.6%	36.0%	43.9%	35.1%	30.5%	33.3%	31.3%	25.3%	28.5%	33.6%	32.7%	32.4%

Source: National Bank of Serbia.

### Structure of users by payment dynamics

(in units and %)

	Period	No of users	Share (%)
3 months	66.091	35%	
6 months	70.199	37%	
12 months	74.060	40%	
From the start of membership (1)	166.449	89%	
No holdings (2)		20.892	11%
Total (1+2)		187.341	

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 228,700 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-Q2 2018, the number of users who are members of two or more VPFs was 40,079 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	
											Q1	Q2
-	34.6	52.2	70.5	84.5	105.3	127.3	148.3	179.4	200.6	219.3	223.5	228.7

Source: National Bank of Serbia.

In terms of gender composition and the respective amounts of funds, Q2 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	147.262
2	32.397
3	7.492
4	169
5	16
6	3
7	2
Total	187.341

Source: National Bank of Serbia.

#### Number of users by membership contract

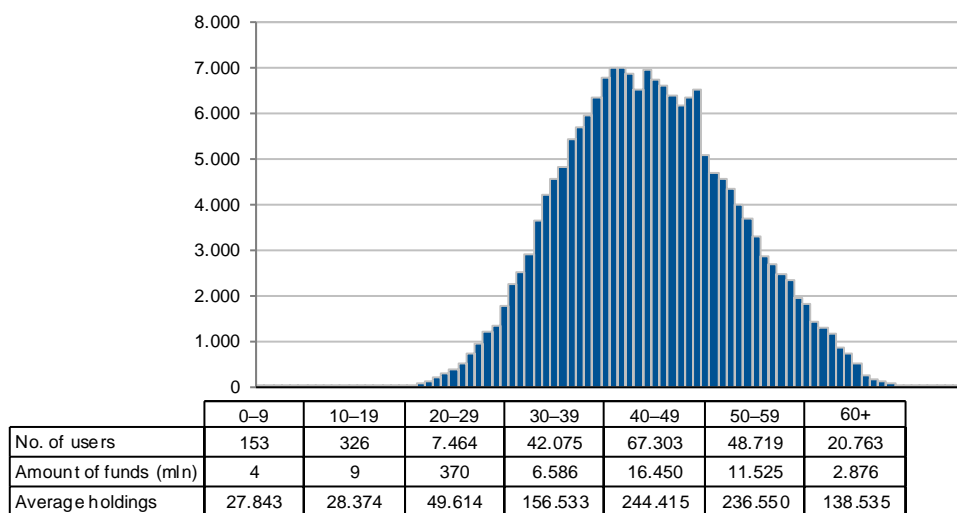
(in units)

No of contracts	No of users
1	134.497
2	40.984
3	8.972
4	2.225
5	456
6	156
7	36
8	8
9	3
10	4
Total	187.341

Source: National Bank of Serbia.

At end-Q2 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 Q2 2018, individual payments accounted for 32.8% of total contributions, employer contributions for 29.3% and pension schemes for 37.9%. Since the start of operation, total payments into VPFs have been on a constant rise.

*Net contributions came at RSD 821.04 mn in Q2 2018.*

### Total contributions

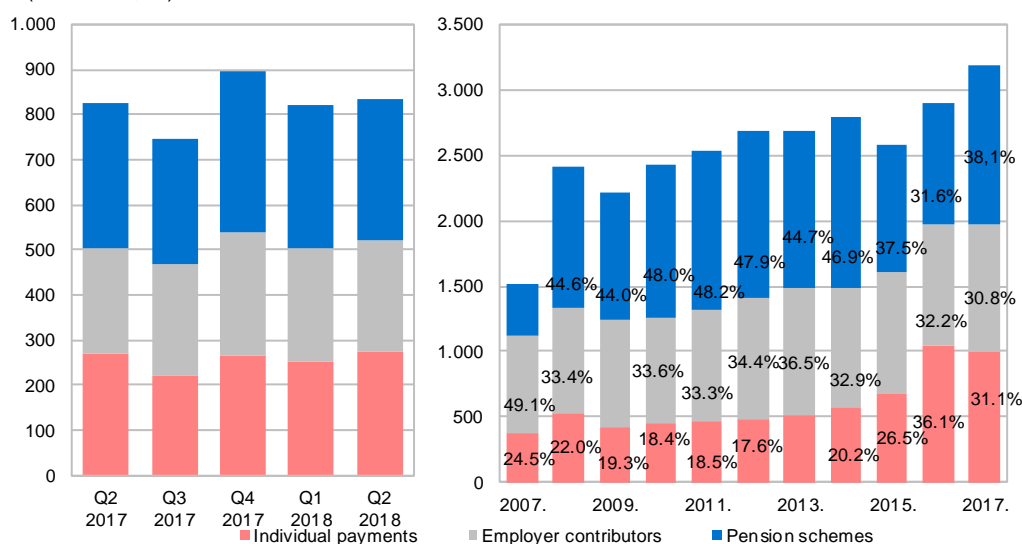
(in RSD bn)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
											Q1	Q2
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

Source: National Bank of Serbia.

**Volume and structure of total contributions**

(in RSD mn, %)



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, as the accumulation period will lengthen and the accumulated sums will go up.

**Total withdrawals**

(in RSD mn)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
											Q1	Q2
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

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 Q2 2018, total withdrawals amounted to RSD 391 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 Q2 2018, transfers came at RSD 100 mn.*

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

(in RSD mn)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
											Q1	Q2
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

Source: National Bank of Serbia.



## 10 Financial statements

### 10.1 Regulatory framework

Management companies keep business books and compile financial statements in accordance with the accounting and auditing laws and NBS regulations.

Separately from their own, management companies also keep business books and compile financial statements for the VPFs they manage.

According to the Law on Voluntary Pension Funds and Pension Schemes, a management company is required to submit to the NBS annual financial statements of the company, within which it separately presents the financial statements of the funds that it manages, with the external auditor's report, until 31 March of the current year for the preceding year.

NBS decisions regulate the content and layout of forms of financial statements of VPF management companies and VPFs, requiring the submission of balance sheet, income statement, cash flow statement, statement of changes in equity, statement of other comprehensive income, and statistical report of a management company, as well as the balance sheet – statement of net assets, income statement, statement on changes in net assets and cash flow statement of a VPF.

### 10.2 Financial statements of VPF management companies

Balance sheet total of management companies as at 31 December 2017 stood at around RSD 1,440 mn, which is an increase of around RSD 83 mn (6.13%) relative to 31 December 2016, when the balance sheet total equalled around RSD 1,357 mn. An increase in the balance sheet total resulted from the profit realised by management companies in 2017. The major part of assets was invested in securities of the Republic of Serbia (37% of total assets, vs. 50% in 2016). On the other hand, the share of equity capital in total liabilities remained unchanged, so at end-2017 total equity made up 95% of liabilities. The liquidity of management companies was very high.

Management companies are required to keep equity above the statutory minimum which equals EUR 1 million in dinar equivalent. At the industry level, the ratio of total equity to statutory minimum was 2.9 (2.6 at end-2016).

	2013	2014	2015	2016	2017
Total equity ratio	1.73	1.96	2.42	2.60	2.88
Equity per user	4,325	5,046	6,168	6,991	7,362
Equity to total net assets ratio	0.04	0.04	0.04	0.04	0.04

A management company's equity per user was around RSD 7,362 (vs. RSD 6,991 in 2016). This indicator rose by around 5.31% in 2017 as total equity at sector level went up. In 2017, each dinar of net assets of VPFs was covered with around 0.04 dinars of a management company's equity, the same as in prior years.

In 2017, management companies continued to operate at a profit. As all companies recorded a positive result in 2017, their total profit was around RSD 346 mn (RSD 326 mn in 2016). It should be noted, however, that a management company's result does not affect the assets of fund members as company assets are separated from fund assets.

In 2017, all companies earned a profit from fund management. Revenue from core activity consisted of contribution fees (RSD 61 mn) and management fees (RSD 672 mn). Revenue from fees rose by around RSD 66 mn from 2016, when it equalled RSD 667 mn. Contribution fees increased by 7.51% from a year earlier, while management fees rose by 10%. The said fee revenue made up around 91% of all revenues generated by management companies (89% in 2016). Total management costs (relating to investment of fund assets, marketing, custody bank and intermediary services and other fund management costs) amounted to around RSD 52 mn in 2017 (RSD 42 mn in 2016), so the profit earned from fund management came at around RSD 681 mn (RSD 626 mn in 2016).

Within total revenues, interest income also held a significant share, measuring around RSD 55 mn or around 7% of total revenues (61 mn in 2016).

Expenditures were dominated by wage costs which came at around RSD 219 mn (RSD 215 mn in 2016) or 54% of total expenditures.

	2013	2014	2015	2016	2017
ROE	20.4%	25.3%	25.4%	26.5%	26.1%
ROA	19.3%	24.1%	24.1%	25.1%	24.7%
Profit per user	895.6	1,188	1,424	1,742	1,873

Profit per contribution	0.05	0.08	0.10	0.11	0.10
Ratio of fee revenue to number of users	2,241.1	2,618	2,987	3,568	3,974
Ratio of fee revenue to total revenue	83.2%	84%	87%	89%	91%

In 2017, management companies recorded a total ROE of 26.1% (26.5% in 2016), and the ROA of 24.7% (25.1% in 2016).

Also, profit recorded per user shows an upward tendency relative to previous years.

### 10.3 Financial statements of VPFs

As at 31 December 2017, total fund assets equalled around RSD 36.3 bn, compared to RSD 32.9 bn at end-2016. Hence, during 2017 total fund assets gained around RSD 3.4 bn or 10.5%. Government securities still dominate total assets, making up around 84% of total fund assets (77% at end-2016).

The obligations of VPFs, which include obligations towards their management companies and obligations arising from membership and operation, amounted to around RSD 166 mn at end-2017 (RSD 69 mn in 2016). At 31 December 2017 net fund assets were around RSD 36 bn, rising by around RSD 3.4 bn or 10.3% compared to 31 December 2016 (at end-2016 net fund assets stood at RSD 32.8 bn).

In 2017 the majority of funds posted a positive financial result, except for Generali Index and Raiffeisen Euro Future, which due to exchange rate losses recorded a negative result. Total profit at the sector level equalled around RSD 1.6 bn in 2017 (around RSD 2.3 bn in 2016).

Total revenues in 2017 came at RSD 5.65 bn (RSD 6.5 bn in 2016), while total expenditures of funds came at around RSD 4.07 bn (RSD 4.2 bn in 2016).

The ratio of profit to average total fund assets in 2017 was 4.6% (7.4% in 2016), which means that the funds recorded an average profit of RSD 0.05 per dinar of assets.

	2013	2014	2015	2016	2017
Rate of return on total assets	11.0%	10.7%	15.2%	7.4%	4.6%