



NATIONAL BANK OF SERBIA

INSURANCE SUPERVISION DEPARTMENT
PENSION FUNDS SUPERVISION DIVISION

VOLUNTARY PENSION FUNDS IN SERBIA

First Quarter Report 2018

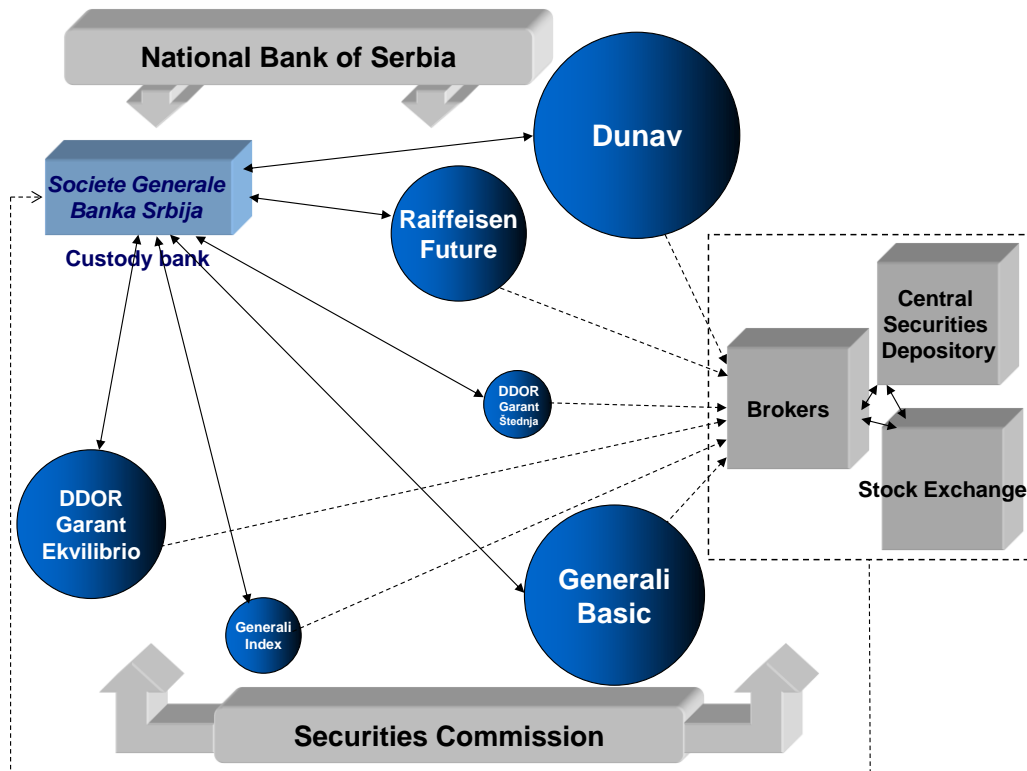
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1 Market participants

At end-Q1 2018, the market of voluntary pension funds (VPFs) included four companies managing seven VPFs, one custody bank and five agent banks.¹

Picture: Market participants



At end-Q1 2018, VPF management companies employed 120 persons, down by five persons from a quarter earlier.

The NBS licences sales agents to disseminate information about VPF operation, which passed professional examinations and fulfilled other requirements. By end-Q1 2018, the total of 749 sales agent licences were granted.

Management companies and intermediary banks hire sales agents. At end-Q1 2018 management companies hired 86 persons and intermediary banks hired 437 persons.

¹ 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-Q1 2018, net assets equalled RSD 37.1 bn. In Q1, net assets expanded by 2.6%. The changes in the value of net assets reflect on net contributions,² withdrawals of funds and investment returns. In Q1 2018, total contributions amounted to RSD 821.1 mn, withdrawals to RSD 330 mn and investment returns to RSD 470.4 mn.

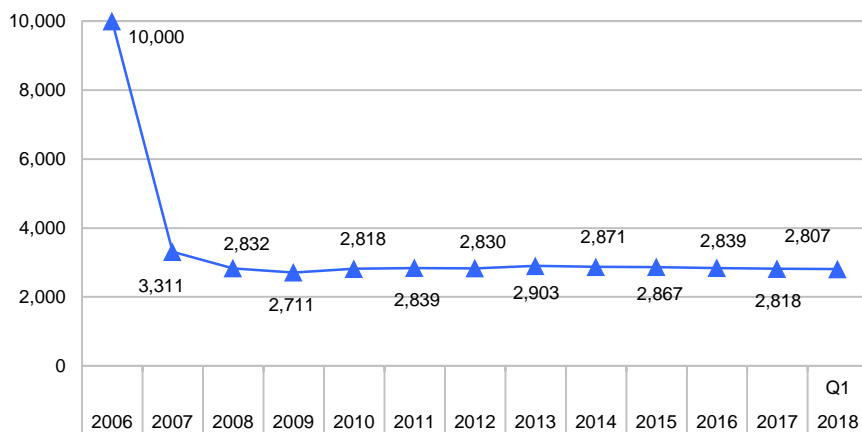
At end-Q1 2018, net assets equalled RSD 37.1 bn.

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
3.1	4.6	7.2	9.9	12.5	16.1	19.7	23.6	28.9	32.8	36.2	37.1

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 sector³ at end-Q1 amounted to 2,807 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 made up 95% of the market, with the largest fund accounting for around 41%.

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

³ 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
Large (20 and above)	3	2	2	3	2	2	2	2	2	2	2	2
Medium (5 - 19.99)	-	2	3	1	2	2	2	2	2	2	2	2
Small (0 - 4.99)	4	6	5	4	5	5	2	2	3	3	3	3

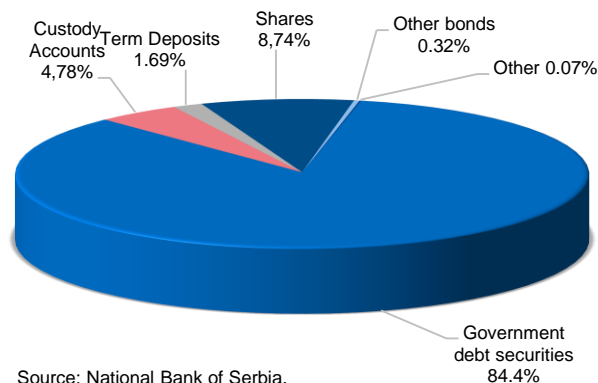
Source: National Bank of Serbia.

3 Structure of VPF assets

At end-Q1 2018, the structure of investment of VPF assets remained broadly unchanged. Government bonds accounted for the major part of VPF assets – 84.4%. Balances in custody accounts and bank time deposits made up 6.5%, shares 8.7% and other securities (the EBRD’s bond) 0.3% of total VPF assets. Investment in units of open-end investment funds and receivables made up the category “other” which accounted for 0.07%.

Most assets were invested in government debt instruments – 84.4%.

Structure of VPF assets



Source: National Bank of Serbia.

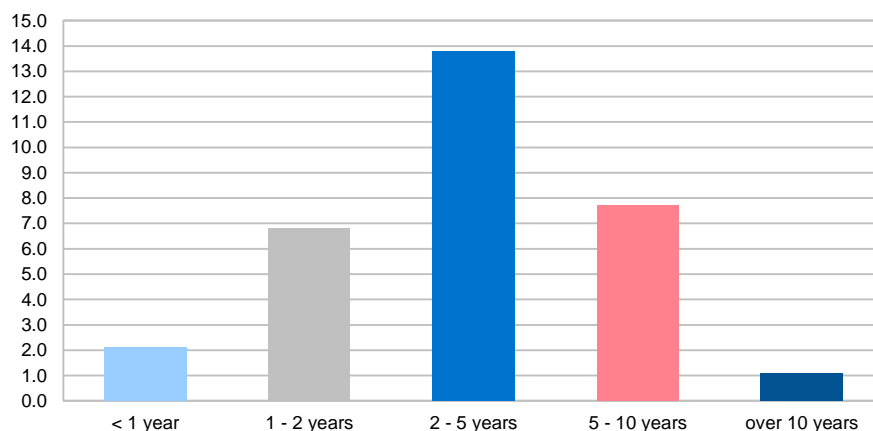
At end-Q1 2018, 6.7% of government debt instruments were with the maturity of up to one year, 21.2% between one and two years, 44.1% between two and five years, 24.6% between five and ten years, and 3.4% over ten years.

The average maturity of assets⁴ invested in government debt instruments was 4 years.

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.

At end-Q1 2018, 85.6% of total assets were in dinars and 14.4% of total assets were in a foreign currency (EUR and USD).

4 Return on investment

At end-Q1 2018, the value of FONDex⁵ reached 2,748.68.⁶ The rise in FONDex is the weighted average return on all funds, and it came at 1.3% in Q1 2018, or 5.4% for the past year. Since the start of VPF operation,⁷ FONDex return has equalled 9.3%.

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, 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 increased from Q4 2017.

The total market value of issues of long-term dinar-denominated government instruments in Q1 2018 was RSD 159.7 bn. Securities with the following maturities were issued: three-year maturity (RSD 25.3 bn) at the rate of 3.8%, five-year maturity (RSD 57.7 bn) at the rate of 4.2% and ten-year maturity (RSD 76.7 bn) at the rate of 5.2%.

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 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018
3m	-	-	-	-	-
6m	0.8	-	-	-	-
12m	1.7	-	-	-	-
18m	-	-	-	-	-
24m	24.5	23.1	-	11.5	-
36m	-	37.4	33.6	15.2	25.3
60m	-	-	-	-	57.7
84m	-	-	-	20.8	-
120m	0.8	-	-	-	76.7
Total	27.1	60.5	33.6	47.5	159.7

Source: Ministry of Finance.

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

Maturity	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018
3m	-	-	-	-	-
6m	2.6%	-	-	-	-
12m	3.5%	-	-	-	-
18m	-	-	-	-	-
24m	4.7%	4.7%	-	4.1%	-
36m	-	5.0%	4.8%	4.3%	3.8%
60m	-	-	-	-	4.2%
84m	-	-	-	5.0%	-
120m	4.0%	-	-	-	5.2%

Source: Ministry of Finance.

Q1 2018 saw the issue of euro-denominated government debt instruments worth a total of EUR 372.3 mn – one-year (EUR 48.8 mn) at the rate of 0.5%, two-year (EUR 38.8 mn) at the rate of 1%, three-year (EUR 100.3 mn) at the rate of 1.2%, five-year (EUR 97.5 mn) at the rate of 1.9%, and ten-year (EUR 86.9 mn) at the rate of 3.5%.

The prices of shares in the Belgrade Stock Exchange (BSE), measured by the BELEX15 index⁹ fell by 2.2% in Q1 2018 (the value of the index was 742.77 at end-March). The index rose by 1.4% over the past year.

The key policy rate equalled 3.25% at end-March 2018. The level of interest rates earned by funds on dinar assets in custody accounts mirrored movements in the key policy rate.

⁹ 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.

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

(in EUR mn)

Maturity	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018
12m	49.6	52.7	59.7	24.9	49.8	48.8
24m	74.0	71.4	49.6	35.2	-	38.8
36m	44.2	92.8	90.0	49.5	74.7	100.3
60m	-	97.6	99.1	73.8	49.7	97.5
84m	-	-	-	-	-	-
120m	-	-	-	17.9	-	86.9
180m	71.3	-	-	50.0	-	-
Total	239.1	314.6	298.4	251.3	174.1	372.3

Source: Ministry of Finance.

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

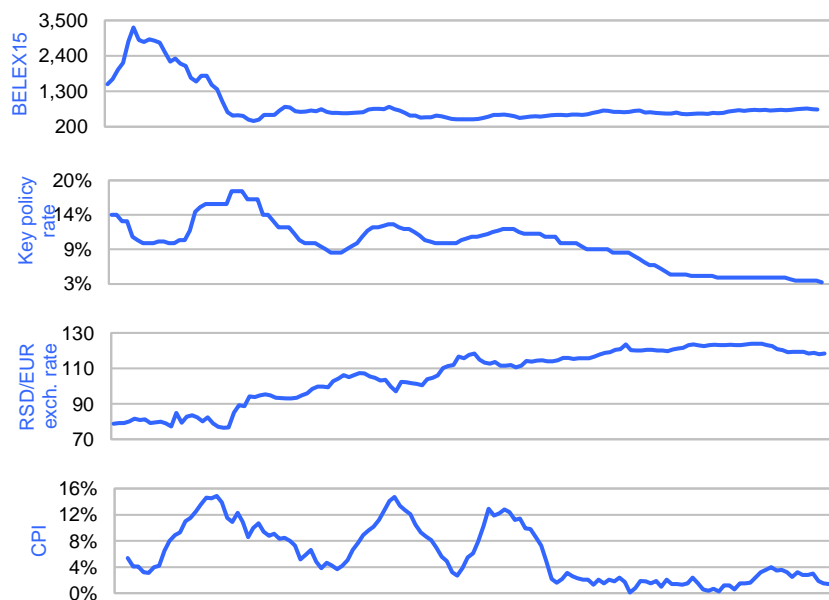
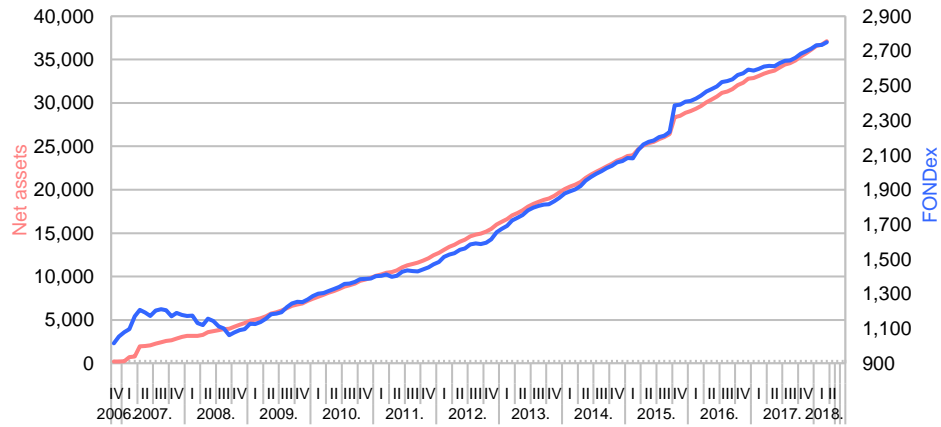
Maturity	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018
12m	0.8%	0.7%	0.6%	0.6%	0.5%	0.5%
24m	1.1%	1.1%	1.0%	1.0%	-	1.0%
36m	1.7%	1.9%	1.9%	1.9%	1.5%	1.2%
60m	-	2.7%	2.7%	2.6%	2.4%	1.9%
84m	-	-	-	-	-	-
120m	-	-	-	4.0%	-	3.5%
180m	4.2%	-	-	4.2%	-	-

Source: Ministry of Finance.

In Q1 2018, the dinar appreciated vis-à-vis the euro, edging up by around 0.1% relative to end of the previous quarter. In the same period, the dinar gained around 3.1% against the US dollar. Price growth rates came at 0.3%, 0.3% and 0.1% in January, February and March, respectively. Consumer prices gained 1.4% in March 2018 year-on-year.¹⁰

¹⁰ 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. 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 2018 amounted to RSD 15.62 mn and the level of the fee in the same period was 1.90% 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-Q1 2018, the the total value of management fees equalled RSD 112.57 mn, which is around 88% of the total fees charged. The total amount of management fees in Q1 was significantly lower compared to the previous quarter, as a result of the entry into effect of a new by-law which reduced the maximum fee amount to 1.25%.

Over the past year, the management fee equalled RSD 628.8 mn, while profit of RSD 1.8 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
Contribution fee	42.9	56.9	54.9	59.4	57.9	60.1	58.7	55.4	53.0	56.8	610	15.6
Management fee	37.7	73.5	117.3	170.7	220	284.1	357.8	432.8	514.9	614.4	678.7	112.6

Source: National Bank of Serbia.

6 Trading in securities

VPF trading volumes equalled RSD 7.1 bn in Q1 2018.

The average share of VPFs in BSE trading was 13.33% at the end of the quarter.

VPF securities trading

(in RSD bn)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 Q1
Securities trading	1.7	13.1	14.9	19.3	13.2	12.9	21.2	14.5	11.5	24.2	7.1
Purchases	1.8	8.1	8.1	10.6	7.1	9.0	12.1	7.9	6.4	14.7	3.9
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
Unregulated market	0.3	0.4	0.3	1.3	0.1	0.7	0.9	1.8	1.1	5.8	0.6
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
Sales	0.4	0.4	0.8	3.8	4.2	2.0	5.4	3.6	3.0	7.4	2.8
Belgrade Stock Exchange	0.1	0.1	0.6	0.4	0.3	0.6	0.3	0.5	1.9	2.7	2
Unregulated market	0.3	0.3	0.2	3.4	3.9	1.4	5.0	3.2	1.1	4.7	0.5
Maturity	0.2	4.6	6.1	4.9	2.0	2.0	3.7	2.9	2.1	2.2	0.4
Purchase to sale and maturity ratio	2.4	16	12	12	1.1	2.3	1.3	1.2	7.5	1.5	1.2
Share in total BSE trading (in%)	12%	1.1%	8.0%	3.8%	2.6%	3.4%	4.1%	6.1%	6.7%	33.0%	13.0%

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.

At end-Q1 2018, Central Securities Depository fees, charged against VPF assets, accounted for a bigger portion of transaction costs than stock exchange fees, whereas brokerage 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
Total	10.0	5.3	7.4	9.5	7.0	4.7	6.0	6.2	5.6	7.3	10.5	2.3
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
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
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
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
Other fees	1.1	0.2	-	-	-	-	0.1	0.0	-	0.0	0.6	0.1

Source: National Bank of Serbia.

8 Number and structure of VPF users

At end-Q1 2018, 186,769 users¹¹ were in the accumulation phase.¹² Total membership contracts¹³ in VPFs stood at 255,085.

VPF users accounted for 9.2%¹⁴ 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
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
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
Percentage of active users (in %)	-	41.62%	36.0%	43.9%	35.1%	30.5%	30.3%	31.3%	25.3%	28.5%	33.6%	32.7%

Source: National Bank of Serbia.

Structure of users by payment dynamics

(in units and %)

	Period	No of users	Share (%)
Users making contributions	1 month	60,983	33%
	3 months	67,015	36%
	6 months	70,270	38%
	12 months	73,325	39%
	From the start of membership (1)	165,968	89%
No holdings (2)		20,801	11%
Total (1+2)		186,769	

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 223,500 and is constantly rising.

At end-Q1 2018, the number of users who are members of two or more VPFs was 39,812 or 21% of the total number of 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 users is the number of people who are members of VPF(s). This number is lower than the number of membership contract, 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

Average accumulated funds at end-period

(in RSD thousand)

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

Source: National Bank of Serbia.

In terms of gender composition and the respective amounts of funds, Q1 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	146,957
2	32,049
3	7,581
4	162
5	16
6	2
7	2
Total	186,769

Source: National Bank of Serbia.

Number of users by membership contract

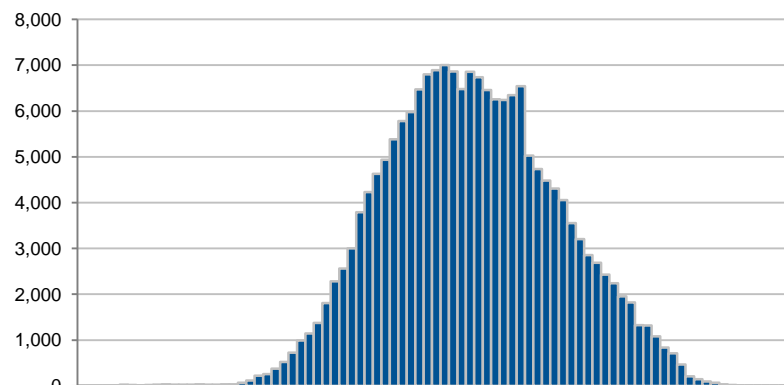
(in units)

No of contracts	No of users
1	134,219
2	40,627
3	9,023
4	2,239
5	454
6	156
7	37
8	7
9	4
10	3
Total	186,769

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	149	326	7,532	42,566	66,821	48,494	20,319
Amount of funds (mln)	4	9	367	6,589	16,021	11,129	2,745
Average holdings	26,191	27,511	48,785	154,795	239,762	229,488	135,096

Source: National Bank of Serbia.

At end-Q1 2018, the average age of VPF users was around 46 years, with users aged 40-60 making up the dominant share of around 62%. Further, the percentage of users above the age of 53 was similar as in prior years, accounting for 27% of the total.

9 Contributions, withdrawals and transfers

In Q1 2018, of total contributions, individual payments accounted for 30.9%, employer contributions for 30.6% and pension schemes for 38.6%. Since the start of operation, total payments into VPFs have been constantly rising.

Net contributions came at RSD 805.5 mn in Q1 2018.

Total contributions

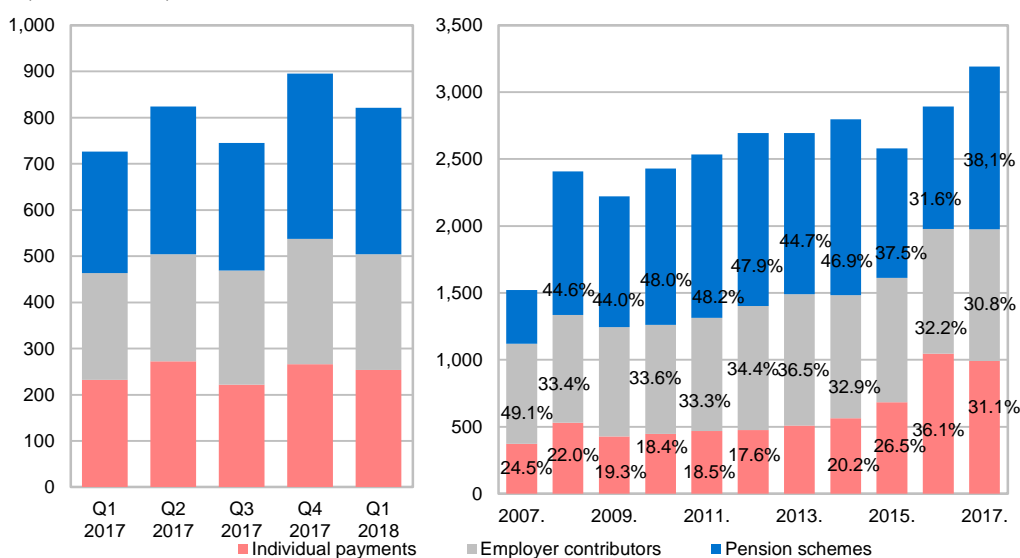
(in RSD bn)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 Q1
150	2.25	2.22	2.43	2.53	2.70	2.70	2.80	2.58	2.89	3.19	0.82

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

5,757¹⁵ 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
141.4	384.6	448.5	458.1	517.6	751.7	945.2	1213.4	1226.2	1195.6	1342.4	330.0

Source: National Bank of Serbia.

Withdrawals rise from year to year as a result of system development. Namely, as contributions and net assets increase and the third pillar matures, the amount of withdrawals will also rise in absolute terms.

In Q1 2018, total withdrawals amounted to RSD 330 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 Q1 2018, transfers came at RSD 49 mn.

Total inter-fund transfers

(in RSD mn)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 Q1
19.5	235.1	415	216.1	165.9	72.3	137.17	126.3	219.7	267.5	263.0	49.1

Source: National Bank of Serbia.

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