



**NATIONAL BANK OF SERBIA**

**ANALYSIS OF PROFITABILITY OF DINAR  
AND FX SAVINGS**

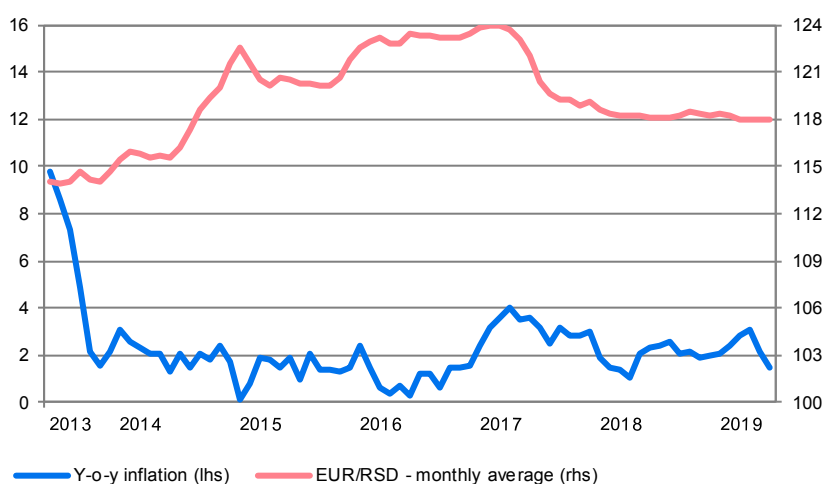
Belgrade, July 2019

## I. INTRODUCTION

By signing a new Memorandum on the Strategy of Dinarisation of the Serbian Financial System in December 2018<sup>1</sup>, the National Bank of Serbia (NBS) and the Serbian Government defined additional measures and activities aimed at further strengthening of trust in the domestic currency and increasing its use in the financial system as one of the measures for improving the dinarisation process. The increase in dinar sources of funding opened room for more intensified investment financing and further strengthening of the financial system. In addition to financial stability, greater use of the dinar in the financial system also enables more efficient monetary and fiscal policy. Citizens who save, preserve the value of their money, plan their costs and provide for their future consumption by giving up on the part of their present profit. Hence the special importance of the creation and maintenance of the environment which is stimulating for the growth of savings in the domestic currency.

In the past six years together with the Government, the NBS made significant success with the achievement and preservation of macroeconomic stability, especially in the conditions of increasing uncertainty in the international environment at the end of last year and beginning of the current year.

Chart 1 Y-o-y inflation and average dinar exchange rate  
(lhs, in %, s-a, EUR/RSD)



Source: NBS

Since June 2013 y-o-y inflation was reduced by more than six and a half times and it has been low and stable for longer than five years. In June 2019 inflation was at the lower bound of the target tolerance band ( $3\% \pm 1.5$  pp) at 1.5%. Inflation expectations of the financial sector and corporates for one and two years ahead remain within the target tolerance band, indicating low inflationary pressures.

Relative stability of the exchange rate was ensured largely on account of timely response of the NBS, primarily to the appreciation pressures present since April 2017. Namely, at end-June 2019 the dinar preserved almost the same value against

<sup>1</sup> The previous Agreement was signed in March 2012.

the euro as at end-August 2012 with much lower volatility of the exchange rate of the dinar against the euro since 2018. Both internal and external imbalance was reduced, whereby the resilience of the economy to shocks from the international environment increased, as confirmed by the rise in FX reserves which in June stood at their highest level ever since 2000. Even though mild seasonal depreciation pressures (energy imports) prevailed in January, the February–June period saw the continuation of the structural appreciation trend initiated in April 2017, primarily driven by foreign direct investment, a rise in investments of international investors in long-term dinar government bonds, increased remittances from abroad and a greater inflow of foreign currency on account of tourism. Since the beginning of the year, ending with June, the dinar appreciated by 0.2% against the euro in nominal terms. In order to ease excessive short-term volatility of the exchange rate of the dinar against the euro, the NBS intervened by net buying EUR 955.0 mn, selling EUR 130.0 mn in January, and then buying EUR 1,085.0 mn in the February–June period. Only in June, amid somewhat higher appreciation pressures in the FX market (primarily owing to a great interest of foreign investors for investing in long-term dinar government securities), the NBS intervened by buying EUR 735.0 mn, which is the highest monthly amount of interventions since there are any. Net purchases of foreign currency in the IFEM significantly contributed to the increase in NBS foreign currency reserves this year (by almost EUR 900.0 mn) and at end-June gross foreign currency reserves reached their maximum level since they are monitored (at EUR 12.1 bn).

The reduction in the share of NPLs in total loans to the lowest level in May (5.4%) additionally strengthened the banking sector financial stability. Furthermore, our country has had the fiscal surplus for the third year in a row, and the share of public debt in GDP was additionally cut to 51.8% in May. Positive results achieved with good coordination of monetary and fiscal policy reflected on the country credit rating and lowered risk premium.

One of the preconditions of macroeconomic stability is the trust in the domestic currency and so the NBS seeks to promote and support savings in the domestic currency as the greater use of the dinar in the financial system also means less vulnerability of all sectors to exchange rate movements. The rising confidence in the domestic currency is testified by the fact that dinar savings\* increased by more than three times relative to June 2013, while increasing by almost 40% since the beginning of 2018. Though rising in the past six years, foreign currency savings\* recorded a somewhat more moderate increase, from EUR 8.4 bn (around RSD 956.2 bn) in June 2013 to EUR 10.4 bn (RSD 1,224.9 bn) in June 2019. Growth in savings as a result of increased trust in the domestic currency and credibility of monetary and fiscal policy is even greater as it occurred amid lowered interest rates on household deposits. NBS monetary policy easing and low interest rates in the international money market brought the interest rates on household deposits down. More specifically, the weighted average interest rate on dinar household savings in

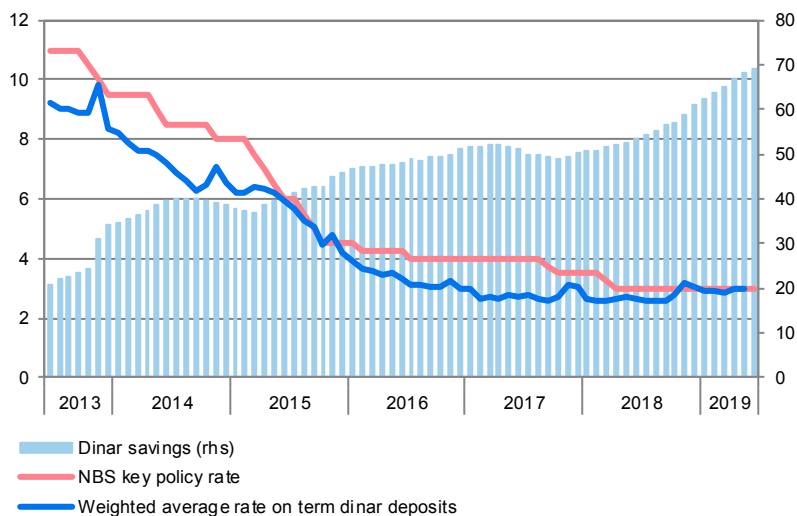
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\* Also including deposits of natural persons – non-residents.

the period from June 2013 until May<sup>2</sup> 2019 was reduced by 6.21 pp, to 2.99%. A similar thing occurred in the case of interest rates on household savings in euros<sup>3</sup>, which dropped by 2.29 pp, to 0.97% in the same period.

**Chart 2 Interest rates and dinar savings**

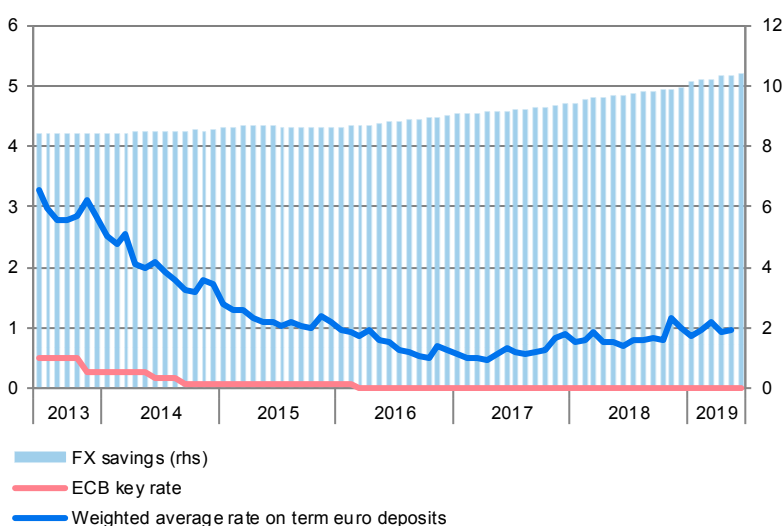
(lhs, in %, p.a, s-a, RSD bn)



Source: NBS

**Chart 3 Interest rates and FX savings**

(lhs, in %, p.a, s-a, EUR bn)



Source: NBS

More robust growth in dinar savings in H1 improved the currency composition of total household savings – the share of dinar in total household savings amounted to 5.3% at end-June, up by 0.4 pp from the end of the last year. However, despite

<sup>2</sup> The latest available data at the time of the report preparation.

<sup>3</sup> Since savings in euros account for the largest portion of FX savings (91%), the weighted average interest rate on term deposits in euros was used.

this increase, the share of dinar savings remains modest and the NBS, together with the Government seeks to promote its further growth. Promotion of savings in the domestic currency and pointing to greater profitability of this type of savings relative to savings in euros is one of the NBS tasks defined by the Strategy of Dinarisation of the Serbian Financial System.

## **II PAST ANALYSES**

The NBS did several analyses of profitability of dinar and FX savings in the past ten years. The first analysis of profitability of dinar and FX savings was prepared in October 2010, and then it was conducted again in 2011 and 2013<sup>4</sup>. After that, the NBS regularly published press releases on profitability of dinar and FX savings, ahead of every World Savings Day. The last analyses of profitability of dinar and FX savings were carried out in August 2018 for the period from August 2012 until July 2018 and in January 2019 for the period December 2012 until December 2018<sup>5</sup>. All analyses carried out so far showed that it was more lucrative to save in dinars than in euros in the last ten years, both in the long and short run.

## **III PRESENT ANALYSIS**

The NBS intends to promote dinar savings in its regular (semi-annual) publication of the Analysis of Profitability of Dinar and Foreign Currency Savings as one of the means of the communication with the public.

The latest semi-annual Analysis of Profitability of Dinar and Foreign Currency Savings was prepared for the period June 2013 until June 2019. This analysis confirms, as did all the previous ones, that it is more profitable to save in the domestic currency both in the short- and long-term.

### **1. Analysis**

Analogous to the analysis from January 2019, two analyses of profitability of savings in dinars and in euros were carried out – deposit rollover and profitability of savings by subperiods (termed for three months, one year and two years).

The analyses used weighted average interest rates on new deposits termed for up to one year, i.e. one to two years. Yield at the end of the maturity period for savings in euros was reduced by interest income tax, which amounted to 10% up to October 2012 and after that to 15%<sup>6</sup>.

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<sup>4</sup> For more details see: <http://www.nbs.rs/internet/english/90/index.html>.

<sup>5</sup> For more details see: <http://www.nbs.rs/internet/english/90/index.html>.

<sup>6</sup> Interest income tax for savings in dinars has not been paid since 2005.

### **1.1. Profitability of savings – rollover**

The first analysis started from the assumption that the amounts of RSD 100,000 and RSD 100,000 in the euro equivalent (calculated at the average exchange rate in the month of depositing) were deposited in June 2013 with one year maturity, and up until 2019 savings (increased by interest) were rolled over upon the expiry of the maturity for one additional year at interest rates current at the time when the deposit was made (the last maturity period was set in June 2018). The profitability of savings was assessed at the end of a six-year period.

### **1.2. Profitability of savings – by subperiods without rollover**

The other analysis considered the profitability of dinar savings with different maturities – three months, one year and two years. The assumption was that in the period from June 2013 the amount of RSD 100,000 and RSD 100,000 in the euro equivalent was termed each month at the then current interest rates with maturities of three months, one year and two years. Each maturity period setting was considered separately and presents one maturity subperiod<sup>7</sup> (total of 70 subperiods in case of savings with three-month maturity, 61 subperiods in case of savings with one-year maturity and 49 subperiods in case of savings with two-year maturity) and the profitability of savings was assessed for each maturity subperiod separately.

## **2. Results of the analysis**

### **2.1. Profitability of savings – rollover**

The analysis of profitability of savings termed for a year with a six-year deposit rollover plus interest shows that a depositor saving in dinars in June 2019 would gain over RSD 24,000 (around EUR 200) more than a depositor saving in euros in the same period and under the same conditions.

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<sup>7</sup> In case of savings with three-month maturity, the first observed subperiod is June 2013 – September 2013, the second observed subperiod is July 2013 – October 2013, etc. The last observed subperiod is March 2019 – June 2019.

In case of savings with one-year maturity, the first observed subperiod is June 2013 – June 2014, the second observed subperiod is July 2013 – July 2014, etc. The last observed subperiod is June 2018 – June 2019.

In case of savings with two-year maturity, the first observed subperiod is June 2013 – June 2015, the second observed subperiod is July 2013 – July 2015, etc. The last observed subperiod is June 2017 – June 2019.

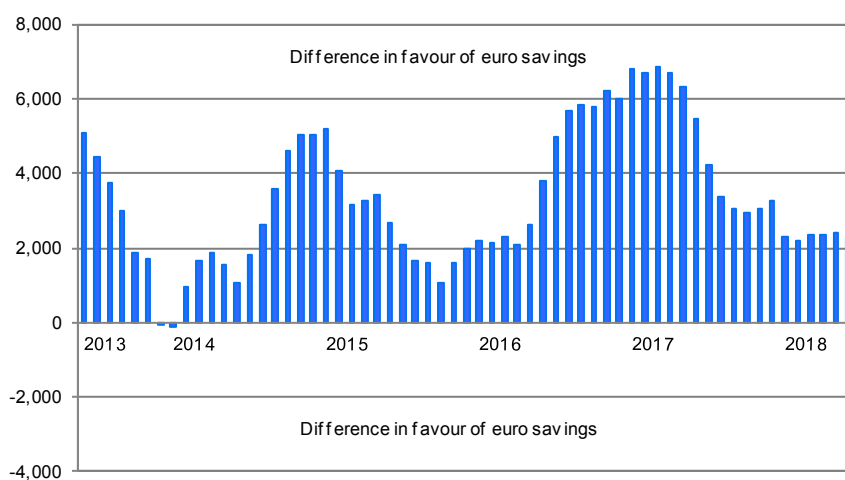
Table 1 Profitability of savings by year - rollover

	1 year	2 years	3 years	4 years	5 years	6 years
Savings in RSD	109,180	116,997	123,853	127,854	131,306	134,707
Savings in EUR	901	916	923	928	932	936
Difference in favour of dinar savings RSD (EUR)	5.108 (44)	6.584 (55)	9.950 (81)	14.603 (120)	21.185 (179)	24.274 (206)

## 2.2. Profitability of savings – by subperiods without rollover

Better profitability of dinar savings compared to the savings in foreign currency is also indicated by the results of the analysis of profitability of savings termed for one year without rollover.

Chart 4 Profitability of one-year savings (in RSD)



Source : NBS

Namely, savings in dinars are more profitable than savings in euros in as many as 59 of 61 observed subperiods (Chart 4). As an example, a depositor placing RSD 100,000 in their savings account with one year maturity in June 2018 (at the rate of 2.59%) would receive over RSD 2,300 more than a depositor placing RSD 100,000 in the euro equivalent in their savings account at the rate of 0.53 in the same period.

The conclusion that it pays off more to save in dinars than in foreign currency stands not only for one-year maturity but also for savings with longer and shorter maturities. For deposits with two-year maturity, dinar savings were more lucrative than savings in euros in all observed subperiods (total of 49 subperiods), while in case of savings with maturity of three months, savings in dinars were more profitable than savings in euros in 60 of the total of 70 observed subperiods.

Table 2 Profitability of savings - rollover

Type of savings	Termed	Initial deposit	Dinar exchange rate*	Maturing	Dinar exchange rate*	Deposit at the end of term period	
						in RSD	in EUR**
Savings in RSD	June 2013	100,000	114.0235	June 2019	117.9377	134,707	1,142
Savings in EUR	June 2013	877	114.0235	June 2019	117.9377	110,432	936
Difference in favour of dinar savings RSD (EUR)						24,274	206

\* Average monthly middle exchange rate of the dinar against the euro

\*\* For euro savings, amount after deduction by interest income tax.

## IV CONCLUSION

The latest analysis of profitability of savings unequivocally shows that it was more lucrative to save in the domestic currency in the period June 2013 – June 2019. The analysis confirmed:

- that **dinar savings with one-year maturity (and rolled over) were more lucrative than savings in euros in the past six years;**
- that **dinar savings with one-year maturity were more lucrative than savings in euros in almost all observed subperiods;**
- that **dinar savings with two-year maturity were more lucrative than savings in euros in all observed subperiods;**
- that **dinar savings with three-month maturity were more lucrative than savings in euros in most observed subperiods;**

Therefore, **dinar savings were more lucrative than savings in euros both in the long and short run.**

Higher profitability of dinar savings is supported by:

1. low and stable inflation and a relatively stable exchange rate of the dinar against the euro;
2. significantly higher interest rates on dinar savings than on euro savings;
3. more favourable tax treatment of dinar savings – dinar savings are not subject to tax, while interest on euro savings is subject to a 15% tax rate.

The NBS will continue to implement its measures, activities and communication with the public, in cooperation with the Government, in order to contribute to the process of the financial sector dinarisation with a special focus on the promotion of dinar savings. In the coming period the NBS will continue to regularly publish the semi-annual Analyses of Profitability of Dinar and FX Savings, the quarterly Report on Dinarisation of the Serbian Financial System, and the relevant press releases ahead of the World Savings Day.