



NATIONAL BANK OF SERBIA

**ANALYSIS OF PROFITABILITY OF DINAR
AND FX SAVINGS – H2 2023**

Belgrade, February 2024

CURRENT TRENDS

For several years now the world has been exposed to a string of global crises and the significance of previously accumulated savings, which help weather the crises more easily, has become particularly apparent. Though global uncertainties persist, dinar household savings continued up in H2 2023 as well, thanks primarily to the preserved financial stability and the relative stability of the dinar exchange rate against the euro. In H2 2023, dinar savings expanded by RSD 29.2 bn (26.9%) to RSD 137.9 bn at end-December. Dinar savings extended their dynamic growth in early 2024, topping RSD 144 bn according to the latest operational data. Relative to January 2023, end-January 2024 dinar savings rose by RSD 44 bn (45%).

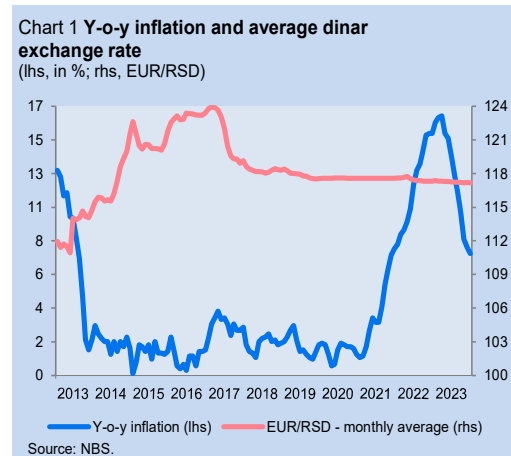
FX savings also increased by EUR 496.0 mn (3.6%) over the past 11 years to EUR 14.4 bn in December 2023. Both local currency and FX savings are at record-high levels.

The monetary and fiscal policy measures taken by the NBS and the Serbian Government in the past three years were effective and adequate, helping moderate inflation and aiding its return to a downward path towards the target band. Inflation in Serbia slowed for nine consecutive months to 7.6% y-o-y in December. At 6.5%, core inflation (excluding prices of food, energy, alcohol and cigarettes) was lower than headline inflation. The NBS gradually but steadily tightened monetary conditions by raising the repo rate since October 2021 and lifting the key policy rate since April 2022 until August 2023 from 1% to 6.5%. Interest rates on lending and deposit facilities were also raised (to 7.75% and 5.25%, respectively). As support to monetary tightening, reserve requirement rates were lifted from September 2023.

The relative stability of the dinar exchange rate against the euro was preserved in H2 2023 amid continuing appreciation pressures. Last year, the NBS bought EUR 3.9 bn net in the FX market, which is a record-high amount of annual net purchases. FX reserves therefore reached a historical high of EUR 24.9 bn at end-December, their highest end-of-month and end-of-year level on record (since 2000). This level of FX reserves covers more than six and a half months' worth of goods and services import, which is twice the minimum defined by international standards.

That macroeconomic stability has been preserved in the face of several years of crises is also confirmed by the receding share of public debt in projected 2023 GDP to 52.3% in December (55.1% at end-2022).

Record-high household savings



Inflation on a downward path – halved in 2023

The highest level of FX reserves since 2000

The share of NPLs in total loans declined considerably since the start of implementation of the NPL Resolution Strategy (2015) – by 18.1 pp to around 3%.

Fitch Ratings (first half of August) and Standard&Poor's (first half of October 2023) have kept Serbia's credit rating at BB+, with a stable outlook. In particular, the agencies highlighted the credibility of the monetary and overall economic policy, sound public finances, moderate public debt level and falling inflation.

In the first half of September, Moody's affirmed Serbia's credit rating at Ba2, with a stable outlook. The rating agency underscored Serbia's sound medium-term growth prospects and economic resilience despite a challenging external environment, sound public finances and the implementation of structural reforms.

In the second half of December, the IMF decided to successfully conclude the second review of the results of Serbia's economic programme supported by the stand-by arrangement. Thanks to the sound performance, the arrangement will, from now on, be treated as precautionary (i.e. without the intention to make drawdowns).

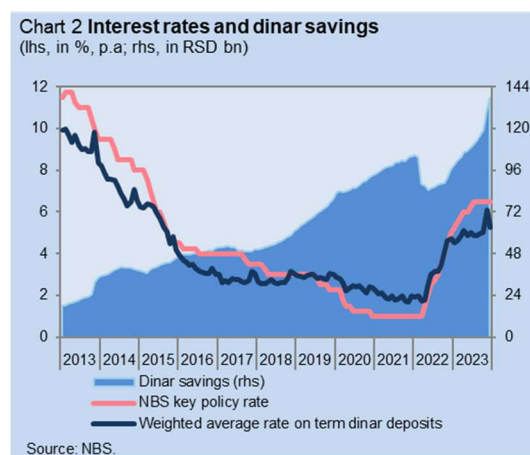
Worldwide easing of inflationary pressures pushed down the global risk premium and bond yields in leading world markets. At end-December, Serbia's risk premium on euro debt measured by EURO EMBIG equalled 247 bp (down by 142 bp from end-2022), while the risk premium on dollar debt measured by EMBI equalled 188 bp (down by 82 bp from end-2022).

SAVINGS TRENDS¹

Both dinar and FX household savings went up, despite several years of global crises, reflecting households' confidence in the domestic financial system. Confidence in the domestic currency is also confirmed by the rise in long-term dinar savings deposits (from RSD 1.4 bn in December 2012 to RSD 39.8 bn in December 2023).

Local currency savings rose eightfold in the past 11 years to a new record high of RSD 137.9 bn at end-2023. FX savings almost doubled in the same period, from EUR 8.3 bn at end-2012 to EUR 14.4 bn at end-2023.

Low share of NPLs



¹ Including residents and non-residents.

Gradual monetary policy tightening by the NBS and rising interest rates in the international money market pushed up interest rates on time household deposits in 2023 (the weighted average interest rate rose by 3.5 pp on dinar savings and by 2.9 pp on euro savings since April 2022).

The share of dinar savings in total savings increased by 5.68 pp from 1.87% in December 2012 to 7.55% in December 2023.

PAST ANALYSES

The NBS has been publishing regular semi-annual analyses of profitability of dinar and FX savings since June 2018. The analyses of profitability of savings are also published in quarterly reports on dinarisation of the Serbian financial system and on the eve of the World Savings Day.

ANALYSIS OF SAVINGS PROFITABILITY

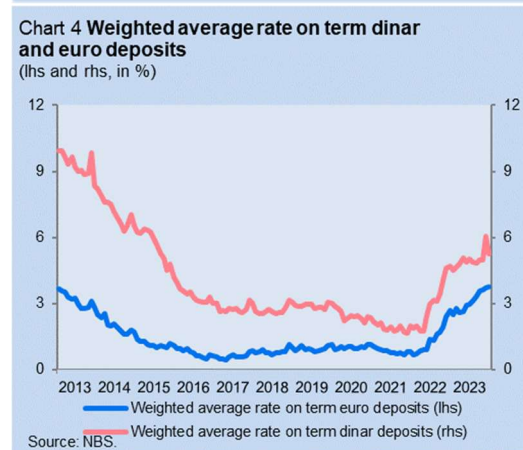
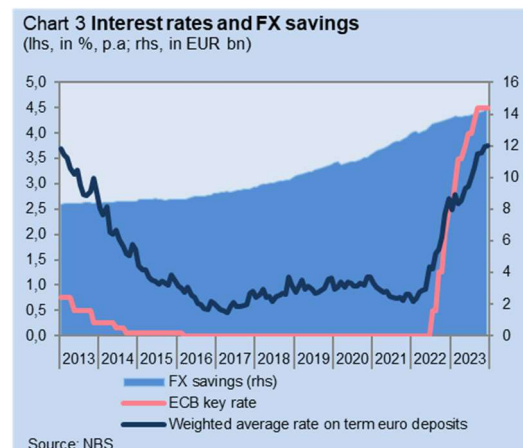
This semi-annual *Analysis of Profitability of Dinar and FX Savings* was prepared for the period from December 2012 until December 2023.

The profitability of savings was analysed considering two segments: rollover of savings and profitability by sub-periods, for three-month, one-year and two-year maturity.

Interest was calculated based on weighted average interest rates on new deposits termed for up to one year and one-to-two years, while the income at maturity of FX savings was reduced by the tax on interest income, which since October 2012 equals 15%.²

Profitability of savings - rollover

The analysis of profitability of savings termed for one year, with rollover during 11 years (since December 2012), confirmed that a depositor who saved in dinars, placing a RSD 100,000 deposit, would receive, at the end of the savings term in December 2023, almost RSD 43,000 (EUR 370) more than a depositor who deposited the equivalent amount in euros during



² Interest income tax for savings in dinars is not payable since 2005.

the same period (calculated using the average RSD/EUR exchange rate in the month of depositing).

At end-December 2023, a depositor who saved in dinars would have RSD 161,102 or EUR 1,375 and a depositor saving in euros would have RSD 118,133 or EUR 1,008.

Table 1 Profitability of savings - rollover in the past eleven years

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	Dec 2012	100,000	113.5413	Dec 2023	117.1740	161,102	1,375
Savings in EUR	Dec 2012	881	113.5413	Dec 2023	117.1740	118,133	1,008
Difference in favour of dinar savings RSD (EUR)						42,970	367

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

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

Table 1a Profitability of savings by year - rollover in the past eleven years

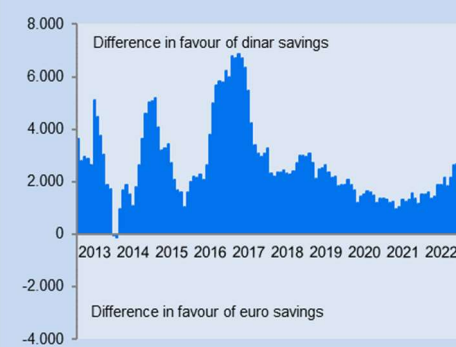
	1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years	9 years	10 years	11 years
Savings in RSD	109,890	118,967	126,616	131,744	135,605	139,673	143,863	147,891	151,189	154,062	161,102
Savings in EUR	911	931	942	949	953	957	963	972	981	987	1,008
Difference in favour of dinar savings RSD (EUR)	5,426 (47)	5,819 (48)	11,902 (98)	14,659 (119)	22,108 (186)	26,490 (224)	30,622 (261)	33,611 (286)	35,897 (305)	38,320 (327)	42,970 (367)

Profitability of savings – by subperiods without rollover

The analysis of profitability of savings of different maturities (three months, one year and two years) by subperiods without rollover, showed that in the past 11 years dinar savings termed for a year were more lucrative than euro savings in as many as 119 out of 121 annual subperiods³ (Chart 5). A person who deposited RSD 100,000 in December 2022 would receive over RSD 2,500 more in December 2023 compared to a depositor placing RSD 100,000 in the euro equivalent in the same period.

Dinar savings termed for three months were more lucrative than euro savings in 90% of cases or 117 quarterly subperiods (a total of 130 subperiods were observed⁴), while savings termed for two years were more profitable in all of the 109 observed subperiods.⁵

Chart 5 Profitability of one-year savings (in RSD, by maturity date)



Source: NBS.

³ In case of savings with one-year maturity, the first observed subperiod is December 2012 – December 2013, the second observed subperiod is January 2013 – January 2014, etc. The last observed subperiod is December 2022 – December 2023.

⁴ In case of savings with three-month maturity, the first observed subperiod is December 2012 – March 2013, the second observed subperiod is January 2013 – April 2013, etc. The last observed subperiod is September 2023 – December 2023.

⁵ In case of savings with two-year maturity, the first observed subperiod is December 2012 – December 2014, the second observed subperiod is January 2013 – January 2015, etc. The last observed subperiod is December 2021 – December 2023.

Evidently, in the analysed period of 11 years it was more profitable to save in dinars regardless of the length of the term.

Table 2 Profitability of savings termed for a year

Type of savings	Termed	Initial deposit	Dinar exchange rate*	Interest rate (in %, p.a.)**	Maturing	Dinar exchange rate*	Deposit at the end of term period	
							in RSD	in EUR***
Savings in RSD	Dec 2022	100,000	117.3097	4.57	Dec 2023	117.1740	104,570	892
Savings in EUR	Dec 2022	852	117.3097	2.57	Dec 2023	117.1740	102,066	871
Difference in favour of dinar savings - one year							2,504	21
Difference in favour of dinar savings - three months							487	4
Difference in favour of dinar savings - two years							2,836	24

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

** Weighted average rate on dinar and euro deposits termed for up to one year - new business.

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

CONCLUSION

The analysis of profitability of dinar and FX savings for the period of 11 years, from December 2012 until December 2023, established that it was more lucrative to save in dinars both in the short and long run. The results of the analysis confirmed that:

- **dinar savings termed for a year and rolled over after the maturity period in the period of 11 years** were more lucrative than such savings in euros;
- **dinar savings termed for a year without rollover** were more lucrative than euro savings of the same maturity in **almost all observed annual subperiods (over 98%)**;
- **dinar savings with three-month maturity** were more lucrative than savings in euros in **most observed quarterly subperiods (90%)**;
- **dinar savings with two-year maturity (long-term)** were more lucrative than savings in euros in **all observed 2Y subperiods (100%)**.

Dinar savings were more lucrative than FX savings regardless of the length of the term

The crucial factors underpinning such result are the macroeconomic and financial stability over the past years (relatively stable EUR/RSD exchange rate, record-high FX reserves), relatively higher interest rates on dinar than on euro savings, and the tax-free status of interest on dinar savings (whereas the interest on euro savings is subject to 15% tax), and monetary and fiscal policy measures that have helped preserve macroeconomic stability even in conditions of a global crisis.