NATIONAL BANK OF SERBIA

ANALYSIS OF PROFITABILITY OF DINAR AND FX SAVINGS
H1 2020

Belgrade, August 2020

RECENT TRENDS

In conditions of low and stable inflation and relatively stable exchange rate, H1 2020 saw positive household savings trends, despite the coronavirus-induced uncertainty which marked Q2. Dinar savings again recorded more dynamic growth compared to FX savings. Dinar savings are very important for the dinarisation of the Serbian financial system, and hence for encouraging greater use of the dinar and reducing the FX risk in the system, especially in extraordinary circumstances.

Savings growth against the background of preserved price stability and relative exchange rate stability

Inflation at home has been low and stable for seven years in a row, moving on average below 2% (more precisely 1.9%). In June 2020, y-o-y inflation stood close to the target band midpoint (3%± 1.5 pp), measuring 1.6%.

Stable movements of the EUR/RSD exchange rate continued in H1 2020. At end-June, the dinar's value against the euro remained almost unchanged relative to end-2019. In the first six months of this year the NBS net sold EUR 1,030.0 mn in order to maintain relative stability of the exchange rate in conditions of heightened uncertainty caused by the global coronavirus pandemic.

Графикон 1. **Међугодишња инфлација и просечан курс динара**
(л.с. у %, д.с. EUR/RSD)

Despite the NBS's sale of foreign currency in the FX market and net repayment of government external debt under FX loans and securities, H1 2020 saw a rise in gross FX reserves by almost EUR 600.0 mn, mostly on account of the proceeds from the sale of the seven-year bond in the international financial market (EUR 2.0 bn).

Rise in FX reserves and NPL reduction

The NPL share in total loans continued to decline in 2020, amounting to 3.7% in June, its lowest level on record. Since the start of implementation of the NPL Resolution Strategy (2015), this indicator decreased by more than 80%.

At end-March 2020, Fitch kept Serbia's credit rating at BB+, with a stable outlook going forward. In its press release, Fitch attributed the affirmed rating to Serbia's resilience to the newly emerged crisis, thanks to the country's higher FX reserves, low external debt,

Fitch and Standard&Poor's affirmed Serbia's credit rating preserved fiscal discipline and sound public finance. Also, in mid-June 2020, Standard&Poor's kept Serbia's credit rating at BB+, with a stable outlook. In its report, the agency explained its assessment by the country's long-term macroeconomic stability, high level of FX reserves and orderly public finance. Serbia's risk premium measured by EMBI increased by 118 bp in 2020, to 137 bp at end-June. It trended low in January and February (32 bp on average) and headed upward after the outbreak of the pandemic.

In a timely response to the newly emerged crisis caused by the coronavirus pandemic, the Government and the NBS adopted a coordinated set of economic measures. The NBS cut the key policy rate in March, April and June by a total of 100 bp, to 1.25% – the lowest level in the inflation targeting regime. [1] In March, the interest rate corridor was narrowed, from ±1.25 pp to ±1.00 pp relative to the key policy rate. The NBS also organised repo operations of purchase of seven-day and three-month government securities and an additional FX swap auction with the three month maturity, while in April and May it changed the principle of realisation in regular FX swap auctions (the volumes of swap sale and purchase of foreign currency no longer have to be the same), thus enabling banks to tap sufficient amounts of dinar and FX liquidity at favourable interest rates. The NBS also enabled direct support to corporates and households by adopting a moratorium on loan repayment of minimum 90 days. In July, the NBS issued two additional measures to facilitate loan repayment to households. Namely, it enabled the refinancing option or extension of the repayment term for two more years for loans approved prior to the pandemic (consumer loans, including loans for the purchase of motor vehicles, cash and other loans, except housing loans and current account overdrafts). In order to encourage lending and ultimately also the dinarisation process, the NBS adopted a measure to make dinar loans which banks approve under the Guarantee Scheme (pursuant to the Decree Establishing a Guarantee Scheme as a Measure of Support to the Economy to Mitigate the Consequences of the COVID-19 Pandemic

[1] Since May 2013, when the cycle of monetary policy easing began, the key policy rate has been cut by total 10.5 pp.

Caused by SARS-CoV-2) even more favourable. The NBS will pay to banks which approve dinar loans under the Guarantee Scheme at a rate at least 0.5 pp lower than the maximum rate for those loans (1M BELIBOR + 2.5 pp) a remuneration rate on allocated dinar required reserves by 0.50 pp higher than the standard remuneration rate (0.10%). The NBS also enabled an additional loan repayment moratorium of two or three more months. With a view to further supporting FX liquidity of the Serbian banking sector, the ECB and the NBS established a precautionary repo line. Maximum borrowed funds under this line may amount to one billion euros, and the maximum term for an individual borrowing is three months. The repo line will remain in place until end-June 2021, unless the deadline is extended. All these measures helped to ensure the safety of and confidence in the highly liquid banking sector.

The NBS and Serbian government adopted a series of measures to mitigate the consequences of the pandemic

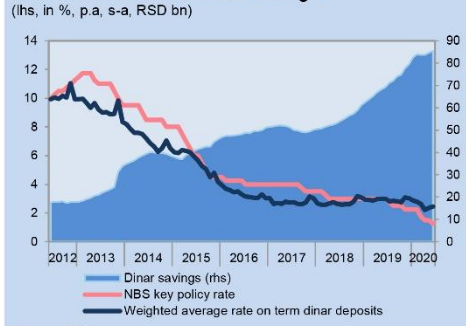

Chart 2 **Interest rates and dinar savings**

Source: NBS.

The Serbian government also adopted a package of measures to support corporates and households. These included tax policy measures, direct support to the private sector, preserving corporate liquidity, moratorium on dividend payment until the year-end and one-off assistance to all adult citizens of Serbia. An important part of the programme for support to corporate liquidity are government-guaranteed liquidity loans intended for micro, small and medium-sized enterprises hit by the crisis more significantly, to be realised via the Development Fund and commercial banks.

Despite the global economic crisis and uncertainty caused by the coronavirus, in conditions of preserved price and macroeconomic stability in the last eight years, dinar savings continued up, testifying to households' confidence in the stability of the domestic currency and security of the domestic financial system.

The rise in dinar and FX savings to new record levels

In the period since June 2012 until June 2020 dinar savings (including both residents and non-residents) increased by almost five times (by RSD 67.9 bn), reaching RSD 85.5 bn in mid-2020. Over a half of the total increase (RSD 34.2 bn) was generated in the last three years, when dinar savings posted a more robust growth. The maturity composition of dinar savings has also improved, as reflected in the rise in long-term deposits (notably deposits termed from one to two years).

Growth of dinar savings more dynamic than the growth of FX savings – improvement of the maturity composition of dinar savings

FX savings (including both residents and non-residents) have also recorded growth in the last eight years, though somewhat more moderate

(39.7%) than dinar savings, from EUR 7.9 bn (RSD 911.2 bn) in June 2012 to EUR 11.0 bn (RSD 1,291.9 bn) in June 2020.

The NBS's more intensive monetary policy easing and the movement of interest rates in the international money market triggered a further decline in interest rates on household saving deposits.

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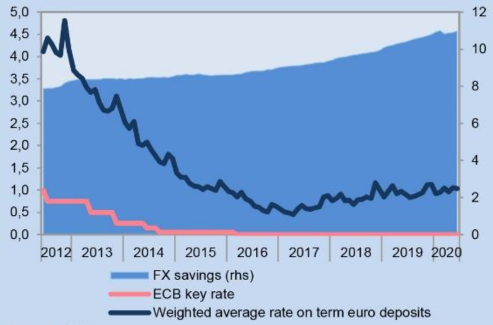
Chart 3 **Interest rates and FX savings**
(lhs, in %, p.a, s-a, EUR bn)



Source: NBS.

The weighted average interest rate on dinar household savings in the period from June 2012 until June 2020 dropped by 7.49 pp to 2.45%. The interest rate on savings in euros also went down, by 3.08 pp to 1.03%.

The share of dinar in total savings increased by 4.32 pp, from 1.89% in mid-2012 to 6.21% in June 2020.

Since the dinarisation of the Serbian financial system remains one of the priorities of monetary policy in the period ahead, the NBS will continue to promote dinar savings, underscoring their greater profitability compared to FX savings.

PAST ANALYSES

In the past ten years the NBS periodically published analyses of the profitability of dinar and FX savings[2]. Besides, the NBS regularly published press releases on the profitability of dinar and FX savings, ahead of every World Savings Day. As of June 2018, the NBS has published analyses of the profitability of dinar and FX savings semi-annually (in January and July).

ANALYSIS OF SAVINGS PROFITABILITY

The latest semi-annual Analysis of profitability of dinar and FX savings was prepared for the period June 2012–June 2020.

As in the previous semi-annual analysis, two analyses of the profitability of savings were carried out – deposit rollover and profitability of savings by subperiods (termed for three months, one year and two years).

Interest return was calculated based on weighted average interest rates on new deposits termed for up-to-one-year and one-to-two years, while the return at maturity of FX savings was reduced by tax on interest income, which since October 2012 equals 15%[3].

[2] For more details see: http://www.nbs.rs/internet/english/90/index.html.

[3] Dinar savings are exempt from taxation of interest income from 2005.

PROFITABILITY OF SAVINGS – ROLLOVER

The analysis of the profitability of savings rollover examined the profitability of dinar and euro savings over the total period of eight years. This 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 2012 with one year maturity, and that savings (increased by interest) were rolled over upon the expiry of the maturity for one additional year at the then applicable interest rates all the way until June 2019

Table 1 **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	Jun 2012	100,000	115.7713	Jun 2020	117.5852	152,274	1,295
Savings in EUR	Jun 2012	877	115.7713	Jun 2020	117.5852	112,810	959
Difference in favour of dinar savings RSD (EUR)						**39,464**	**336**

* Average monthly middle exchange rate of the dinar against the euro
** For euro savings, amount after deduction by interest income tax

Table 1a **Profitability of savings by year - rollover**

	1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years
Savings in RSD	109,930	120,022	128,615	136,152	140,550	144,345	148,083	152,274
Savings in EUR	894	918	934	941	946	950	955	959
Difference in favour of dinar savings RSD (EUR)	**7,991 (70)**	**13,931 (121)**	**16,060 (133)**	**20,040 (162)**	**25,103 (206)**	**32,088 (272)**	**35,509 (301)**	**39,464 (336)**

PROFITABILITY OF SAVINGS – BY SUBPERIODS WITHOUT ROLLOVER

The other analysis considered the profitability of dinar savings relative to euro savings with different maturities – three months, one year and two years.

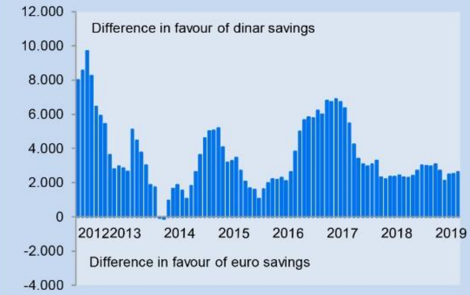
The assumption was that in the period from June 2012 the amount of RSD 100,000 and RSD 100,000 in the euro equivalent (calculated at the average exchange rate in the month of depositing) was termed each month at the then applicable interest rates with all three maturities (three different subperiods). As opposed to the first analysis where savings profitability was analysed over the whole eight-year period, in this analysis each maturity was observed separately, as one subperiod, and the profitability of dinar against FX savings was assessed separately for each subperiod.

As for savings termed for one year, a total of 85 subperiods were observed and the analysis showed that in as many as 83 subperiods[4] it was more profitable to save in the domestic currency than in euros (Chart 4). Thus, a person who would deposit RSD 100,000 with one-year maturity in June 2019 would receive almost RSD 2,600 more in June 2020 compared to a depositor placing RSD 100,000 in the euro equivalent in the same period.

In savings termed for three months a total of 94 subperiods were observed, where in 81 subperiods[5] dinar savings turned out more remunerative than euro savings, while in savings termed for two years, in all 73 subperiods[6] observed it was more profitable to save in the domestic currency.

Thus, regardless of the maturity period (three months, one or two years), the same conclusion holds true – in the previous eight years it was more profitable to save in the domestic currency.

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



Source: NBS.

Table 2 **Profitability of savings - without rollover**

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	June 2019	100	117.9377	2.83	June 2020	117.5852	102,830	875
Savings in EUR	June 2019	848	117.9377	0.60	June 2020	117.5852	100,210	852
Difference in favour of dinar savings - one year							**2,620**	**22**
Difference in favour of dinar savings - three months							**396**	**3**
Difference in favour of dinar savings - two years							**5,847**	**50**

* Average monthly middle exchange rate of the dinar against the euro.
** Weighted average rate on dinar and euro deposits termed up to one year - new business.
*** For euro savings, amount after deduction by interest income tax.

[4] The first subperiod observed in one-year maturity is June 2012–June 2013, the second subperiod observed is July 2012–July 2013 etc. The last observed subperiod is June 2019–June 2020.

[5] In case of savings with three-month maturity, the first observed subperiod is June 2012–September 2012, the second observed subperiod is July 2012–October 2012, etc. The last observed subperiod is March 2020–June 2020.

[6] In case of savings with two-year maturity, the first observed subperiod is June 2012–June 2014, the second observed subperiod is July 2012–July 2014, etc. The last observed subperiod is June 2018–June 2020.

CONCLUSION

The latest analysis of the profitability of savings, like all the previous ones, shows that it was more lucrative to save in dinars in the period June 2012–June 2020.

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More precisely, the analysis shows that

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

In the last eight years it was more profitable to save in dinars, both in the short and long term

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

Higher profitability of dinar savings resulted from

1. low and stable inflation and a relatively stable dinar exchange rate against the euro, i.e. stable macroeconomic environment;
2. relatively higher interest rates on dinar 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;
4. all timely taken measures in the period of the pandemic, which contributed to households' security and to preserving economic activity.

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As so far, in cooperation with the Serbian government, the NBS will continue to contribute to the process of dinarisation with its measures, activities and communication with the public, with a special emphasis on promoting 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.

As so far, the NBS will continue to support dinarisation