

REPORT ON DINARISATION OF THE SERBIAN FINANCIAL SYSTEM

Second Quarter 2024

Introductory note

A more extensive use of the dinar in the Serbian financial system and better currency matching of income and expenses of the non-bank sector would improve the country's financial stability, lessen the risk of exchange rate volatility in the most vulnerable sectors of the economy, and further enhance the effectiveness of monetary policy. To support the process of dinarisation, in April 2012 the National Bank of Serbia (NBS) and the Government of the Republic of Serbia signed the Memorandum on the Strategy of Dinarisation of the Serbian Financial System. Bearing in mind that in the period after the conclusion of the Memorandum in 2012 macroeconomic stability had been ensured and financial stability strengthened further, in December 2018 the NBS and the Serbian Government signed the new Memorandum on the Strategy of Dinarisation, confirming their commitment to additionally support dinarisation and contribute to financial stability. In the new Memorandum on the Dinarisation Strategy these institutions reflected on the results of the measures and activities undertaken thus far and, based on them, defined additional measures and activities that will ensure further dinarisation and reduce FX risk in the system.

Pursuant to the Memorandum, the NBS and the Government have committed to monitoring and analysing the degree of dinarisation and to regularly informing the public about the measures and activities undertaken, as well as about the progress achieved in the process of dinarisation. For that purpose, the NBS prepares and publishes the quarterly Report on Dinarisation of the Serbian Financial System as one of its supporting communication tools. The Report provides information about developments in the dinar market and highlights measures and activities taken or planned by market players and regulatory authorities with a view to supporting the process of dinarisation. Making this information accessible to the public will help raise awareness of the need to hedge against the exchange rate risk, as well as understanding of the measures and activities to be taken by the NBS and the Government in order to further encourage the process of dinarisation of the Serbian financial system.

Reports on Dinarisation of the Serbian Financial System are available on the NBS website (www.nbs.rs).

Dinarisation strategy

The dinarisation strategy rests on three inter-connected pillars.

The first pillar is the most general, but also the most important one. It envisages monetary and fiscal policy measures to maintain macroeconomic stability and ensure conditions for sustainable economic growth.

The second pillar consists of measures to promote further development of the dinar securities market and introduce new dinar products in the domestic financial market.

The third pillar aims to promote hedging against the risks associated with exchange rate exposure in the non-bank sector and to discourage further build-up of those risks. The NBS will lead the efforts in this field, working together with the banking sector on introducing and developing FX risk hedging instruments.

ABBREVIATIONS

bn – billion **lhs** – left-hand scale

mn – million
NPL – non-performing loan
pp – percentage point

q – quarter
rhs – right-hand scale
SDR – special drawing rights

y – year

Other generally accepted abbreviations are not cited.

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I. Dinarisation of the Serbian financial system

In Q2 2024, the dinarisation of total corporate and household receivables increased in terms of outstanding business and declined in terms of new business.

The share of dinar in total corporate and household deposits increased both in terms of outstanding and new business. The share of dinar in total savings also went up.

The dinarisation of Serbia's public debt declined compared to end-Q1 due to the vibrant growth in FX public debt, with its dinar component rising more modestly.

1. Dinarisation of receivables

In Q2 2024, the degree of dinarisation of corporate and household receivables increased in terms of outstanding business and declined in terms of new business.

Corporate and household receivables

At end-Q2 2024, the share of dinar in <u>total</u> <u>corporate and household</u> receivables stood at 36.1%, up by 0.9 pp q-o-q (2.1 pp y-o-y).

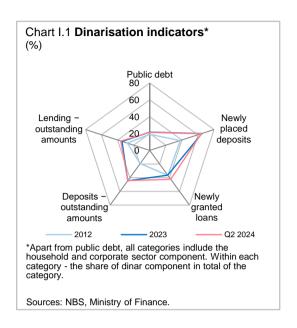
Excluding the exchange rate effect, the dinarisation of receivables also rose by 0.9 pp (both in Q2 and y-o-y), to 36.1% at end-Q2.1

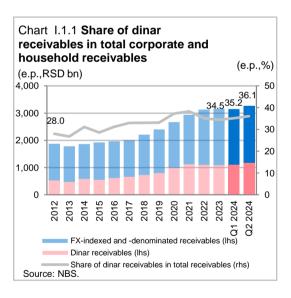
The dinarisation of corporate and household receivables increased in Q2, reflecting higher **dinar receivables** (by RSD 73.5 bn) in both sectors, while **FX-indexed and FX** corporate and household **receivables** increased more moderately (by a total of RSD 48.9 bn).

The dinarisation of corporate receivables rose to 19.3% at end-June 2024, up by 1.5 pp (2.3 pp y-o-y). This indicator increased for the third quarter in a row after being on a steady downward path for close to two years due to the maturing of guarantee scheme loans (from the period of the Covid-19 pandemic), which were mostly in dinars.

The dinarisation of corporate receivables went up in Q2 on account of a more dynamic rise in dinar compared to FX-indexed and FX receivables:

Dinar corporate receivables were up by RSD 40.4 bn, with almost two thirds of the increase relating to liquidity and working capital loans, followed by investment loans. Borrowing under transaction accounts and the purchase of corporate receivables (factoring) also increased. The rise in





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¹ Calculated at the exchange rate of the dinar against the euro, USD, Swiss franc, pound sterling and Japanese yen as at 31 October 2022, taking into account the currency composition of loan receivables.

dinar loans in Q2 concerned primarily micro, small- and medium-sized enterprises, and, to a lesser extent, large enterprises operating in the fields of electricity supply, trade and transport.

 FX-indexed and FX corporate receivables rose by RSD 33.8 bn – those were mainly short-term liquidity and working capital loans and, to a smaller degree, investment and import loans, approved to medium-sized and large enterprises in trade and construction.

The degree of dinarisation of household receivables also increased, to 54.9% at end-June 2024, up by 0.4 pp q-o-q, or 1.9 pp y-o-y.

This increase reflects:

- A more substantial rise in dinar receivables (by RSD 33.1 bn) almost four fifths of the increase concerns household cash loans approved on terms longer than five years. The stock of liquidity and working capital loans approved to natural persons entrepreneurs also increased to an extent. Some of these loans were also approved on terms shorter than five years;
- A smaller increase in FX household receivables (by RSD 15.1 bn) – the increase concerns mostly housing loans which, under the impact of higher prices in the real estate market and higher borrowing costs, recorded a y-o-y slowdown since early 2022. The slowdown was halted in Q1 2024, with Q2 witnessing y-o-y growth. The disbursement of these loans increased in 2024, also owing to the NBS measure to temporarily cap interest rates on housing loans.

New corporate and household loans

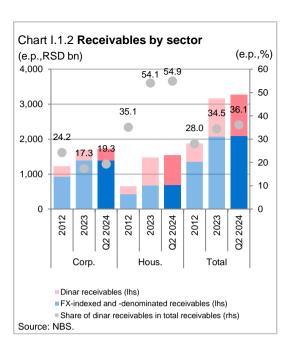
Indicators of dinarisation of new loans

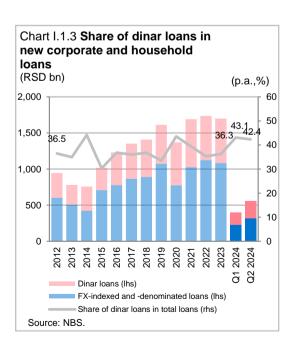
The degree of dinarisation of <u>total</u> new <u>corporate</u> <u>and household</u> loans in Q2 2024 stood at 42.4%, down by 0.7 pp q-o-q. The indicator remains relatively high – with the exception of Q1, it has been at its highest level in the past three years. It is higher both compared to Q2 2023 (by 6.5 pp) and last year's average (by 6.1 pp).

In Q2, the degree of dinarisation of new loans decreased in the household and increased in the corporate sector.

In the <u>household sector</u>, this indicator fell by 1.5 pp (3.2 pp y-o-y) to 78.4%. In the composition of loans, in Q2:

FX-indexed household loans were up by almost a third (by 30.3%, i.e. RSD 9.6 bn). Loans of all purposes were on an increase, with housing loans – which constitute over two thirds of new FX-indexed household loans – recording the strongest growth;





New dinar household loans were on a record high level (RSD 149.3 bn), rising more moderately compared to Q1 (by 18.4%, i.e. RSD 23.2 bn). The increase concerns primarily cash loans, which are, as a rule, approved in dinars, mainly on terms longer than five years (77%).

The dinarisation of new <u>corporate</u> loans increased relative to Q1 2024 (by 4.6 pp to 23.9%), reflecting:

- A more notable increase in new dinar corporate loans compared to Q1 (by 87.6% or RSD 41.3 bn). The increase was recorded for loans of all purposes and was the most pronounced for liquidity and working capital loans (by RSD 28.8 bn), which made up almost two thirds of new dinar corporate loans in Q2 (RSD 56.8 bn or 64%). The amount of new investment loans (RSD 12.2 bn) was also significant they were up by RSD 9.6 bn q-o-q;
- A smaller increase in new FX-indexed and FX corporate loans (by 43.0%, i.e. RSD 84.8 bn). The increase (RSD 48.7 bn) was the highest for liquidity and working capital loans, which are dominant in this category (62.6%). Investment loans making up around one fourth of total new loans and are, as a rule, approved in foreign currency (87%) also recorded a significant increase (by RSD 33.9 bn).

Interest rates on new loans

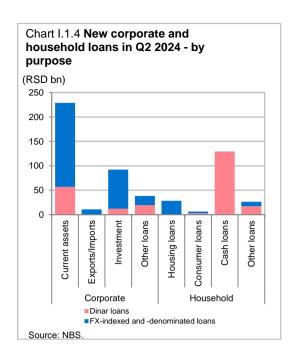
Consistent with monetary policy easing conducted by the NBS and the ECB in 2024, Q2 saw a decline in interest rates on most dinar and FX corporate and household loans. The decline was sharper for dinar loans, positively contributing to the dinarisation process.

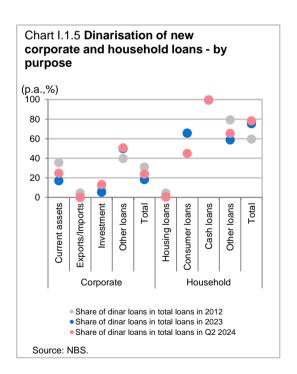
At 10.6%, interest rates on dinar corporate and household loans were lower on average compared to the quarter before (by 0.7~pp). The rates on FX-indexed and FX loans declined to a lesser extent (by 0.3~pp), measuring 6.7%.

As the decline in interest rates was more pronounced for dinar compared to FX-indexed and FX loans (0.7 pp vs. 0.3 pp), the spread between interest rates on dinar and FX loans declined in Q2 (by 0.4 pp to 3.9 pp), testifying to greater dinarisation of loans.

The decrease in the spread between interest rates on dinar and FX <u>household</u> loans in Q2 (by 0.3 pp to 5.8 pp) is a reflection of the rate on dinar loans being cut more than the rate on FX loans:

The weighted average interest rate on dinar loans to households dipped by 0.5 pp to 12.0%. The fall was recorded with other non-categorised loans (by 0.6 pp to 10.0%) and cash loans (by 0.5 pp to 12.4%), while an increase was registered



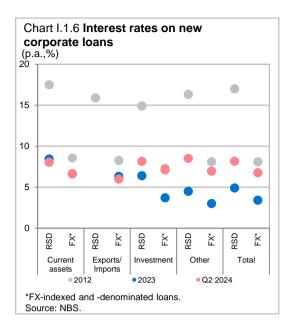


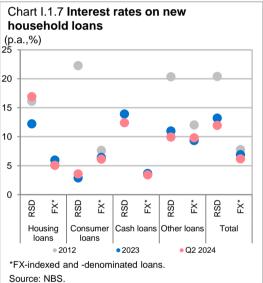
- with interest rates on housing (by 1.6 pp to 16.9%) and consumer loans (by 0.4 pp to 3.6%).
- Interest rates on FX household loans decreased marginally (by 0.1 pp on average to 6.2%), thanks to a more pronounced decline in interest rates on cash (by 0.3 pp to 3.4%) and consumer loans (by 0.2 pp to 6.1%), while rates on housing loans were unchanged (5.1%) for the third quarter in a row, helped by the NBS's measures capping interest rates on these loans. Only other noncategorised loans recorded a slight increase in interest rates (by 0.1 pp to 9.8%).

As for corporate loans:

- Interest rates on dinar loans equalled 8.1%, slightly lower (by 0.1 pp) than in Q1. A more significant decrease was recorded with investment (by 1.1 pp to 8.2%) and liquidity and working capital loans (by 0.1 pp to 8.0%), while other noncategorised loans recorded a slight increase (by 0.2 pp to 8.5%);
- Average rates on FX loans receded more (by 0.3 pp), measuring 6.8%. The fall was recorded with all loan categories: import-export loans (by 1.9 pp to 6.0%), other non-categorised loans (by 0.4 pp to 7.0%), investment loans (by 0.3 pp to 7.1%) and liquidity and working capital loans (by 0.2 pp to 6.6%).

These movements resulted in an increase in the spread between interest rates on dinar and FX loans to corporates (from 1.1 pp in Q1 to 1.3 pp in Q2). Still, the spread narrowed considerably in y-o-y terms (by 0.6 pp).





2. Deposit dinarisation

The degree of dinarisation of corporate and household deposits in Q2 2024 increased relative to a quarter earlier in terms of both outstanding and dew deposits.

Interest rates on dinar and FX savings were trimmed in Q2. On average, banks continue to offer higher rates on dinar than on FX savings, making dinar savings more attractive and more profitable.

Household and corporate deposits

The share of dinar in total corporate and household deposits in Q2 2024 rose by 0.8 pp to 44.2%. Having contracted at the start of the year, this indicator has now fully recovered and come almost to the record high level from end-2023 (44.4%). In y-o-y terms, the indicator rose 3.1 pp.

Excluding the exchange rate effect, at end-Q2 2024 this indicator stood at 44.1%, up by 0.8 pp q-o-q and by 3.1 pp from end-Q2 2023.²

The rise in the dinarisation of total corporate and household deposits in Q2 2024 was guided by a major increase in dinar deposits of both sectors, with growth in FX deposits being much more moderate. Amid such backdrop, the dinarisation of deposits in Q2 2024 increased with both households (by 0.9 pp to 32.1%) and corporates (by 0.4 pp to 61.7%). Y-o-y, this indicator rose at an even more dynamic pace with both sectors (by 3.6 pp and 2.2 pp, respectively).

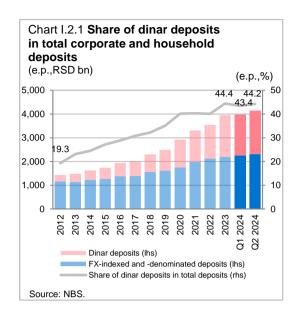
Dinar household deposits recorded dynamic growth (by RSD 44.8 bn) **and FX deposits rose at a moderate pace** (by RSD 29.1 bn, i.e. EUR 248.5 mn), supporting increase in dinarisation.

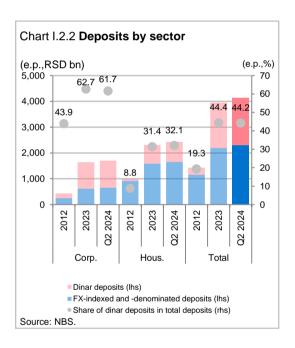
The major factor behind growth in dinar household deposits was increase in transaction deposits (up by RSD 34.5 bn), while savings and term deposits for up to one year also rose (by RSD 10.3 bn).

FX household deposits continued up at an unchanged pace. In Q2 deposits maturing in under one year rose by EUR 440.0 mm, while the stock of deposits maturing in over a year declined further since February (in Q2 it contracted by EUR 191.6 mm) due to the effects of 2024 being a leap year.

The dinarisation of <u>corporate</u> deposits went up in Q2 as the result of:

 increase in dinar deposits (by RSD 55.7 bn), with growth being particularly pronounced in June. The increase was mostly facilitated by the rise in the deposits of large companies in the trade, construction and industry sectors, growth in





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² Calculated at the dinar exchange rate against the euro, US dollar, Swiss franc, pound sterling and the Japanese yen as at 31 October 2022, taking into account the currency structure of deposits.

- transaction accounts, as well as savings accounts maturing in under one year;
- a more moderate increase in FX and FX-indexed corporate deposits (by RSD 24.7 bn), with growth recorded by companies of all sizes, mostly in respect of short-term deposits of companies operating in the transport, construction and real estate management sectors.

Dinar and FX savings

Household savings went further up in Q2 2024. Being more profitable, dinar savings continued to rise more quickly than FX savings. In the composition of dinar and FX savings, short-term savings continued to increase at the expense of long-term savings. Such movements are attributable to the effect of 2024 being a leap year, which will wane off in February 2025.

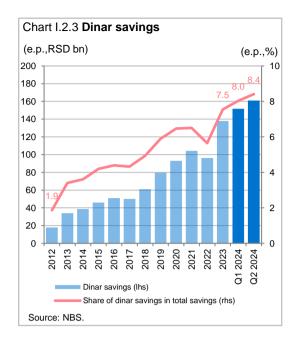
Dynamic growth in <u>dinar savings</u>³ extended into in Q2 2024 – by RSD 9.3 bn (6.2%) to RSD 161.0 bn at end-June, the highest level on record.

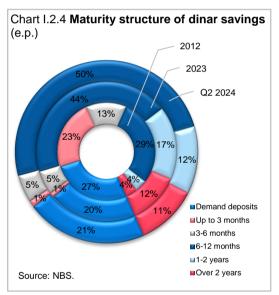
Increased dinar savings is attributable to higher savings maturing in under a year (by RSD 11.9 bn), where savings maturing between six and 12 months recorded more pronounced growth (by 9.6 bn), as did demand savings (by RSD 3.3 bn). Savings of longer maturities contracted (by RSD 2.6 bn), as the savings maturing between one and two years declined (by RSD 3.3 bn).

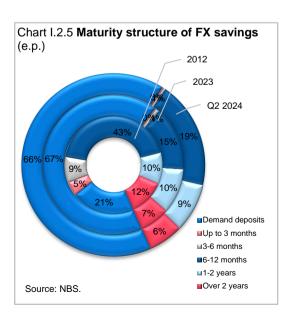
<u>FX savings</u> continued steadily up, though at a more moderate pace than dinar savings. At end-Q2 FX savings amounted to EUR 14,973.9 mn, up by EUR 160.4 mn (1.1%) q-o-q.

FX savings increase in Q2 was led by higher FX deposits termed under one year (up by EUR 377.4 mn), with sharper growth of 6-12-month deposits (up by EUR 327.2 mn), and somewhat weaker of demand deposits (by EUR 123.7 mn). Savings termed for over one year went down in Q2 (by a total of EUR 217.1 mn), with decreases recorded in all maturity categories starting from February (one to two years, two to five years and over five years). Just like in dinar savings, these trends partially reflect the effect of leap year 2024.

Comparing the growth rates of dinar and FX savings, dinar savings continued to record a much more dynamic growth in Q2 (6.1% vs. 1.1%, respectively), so their share in total savings continued up. At end-Q2, this share reached record-







³ Dinar and FX savings include both residents' and non-residents' savings. Currency-indexed deposits are included in dinar savings.

high 8.4%, up by 0.4 pp from the quarter before (or by 2.2 pp in y-o-y terms).

New corporate and household deposits

Indicators of dinarisation of new deposits

Compared to the previous quarter, the degree of dinarisation of <u>total</u> new <u>corporate and household</u> <u>deposits</u> increased by 4.1 pp, coming at 64.2% in Q2. Y-o-y, this indicator edged down slightly (by 0.8 pp).

Higher dinarisation of new deposits in Q2 was more pronounced in the <u>household sector</u> (by 2.0 pp to 27.3%), which is associated with:

- a significant decrease in new FX deposits (by RSD 34.5 bn) relative to Q1;
- a moderate decline in new dinar deposits (by RSD 8.6 bn) relative to the quarter before.

Y-o-y, this indicator edged up (by 3.3 pp).

The degree of dinarisation of new corporate deposits increased to a smaller degree in Q2 2024, by 0.4 pp to 74.0%, as a result of:

- a sharper rise in new dinar corporate deposits q-o-q (by RSD 18.9 bn);
- an almost four-time weaker growth of new FX corporate deposits relative to the quarter before (in the amount of RSD 4.8 bn).

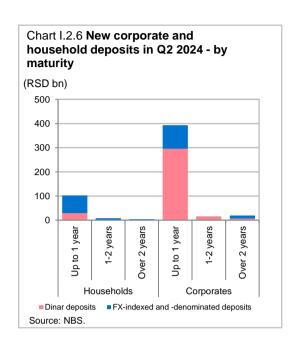
Y-o-y, this indicator decreased (by 9.1 pp).

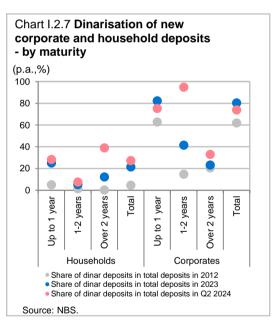
Interest rates on new deposits

Interest rates on dinar deposits of corporates and households are on average higher than on FX deposits (5.0% vs. 2.8%). The interest rates continued down in Q2 (in both sectors), though more moderately for dinar (by 0.3 pp) than for FX deposits (by 0.4 pp). Interest rate decline was prompted, *inter alia*, by NBS's and ECB's monetary policy easing, initiated in June.

As for <u>household</u> deposits, interest rates on dinar and FX savings went down by 0.4 pp each:

- Interest rates on <u>dinar</u> household deposits averaged 4.5%. Decrease was recorded for deposits of all maturities: one-to-two-year (by 0.6 pp to 4.7%), over-two-year (by 0.4 pp to 4.1%) and up-to-one-year deposits (by 0.3 pp to 4.5%);
- <u>FX and FX-indexed</u> household deposits were termed at an average rate of 2.9%. Interest



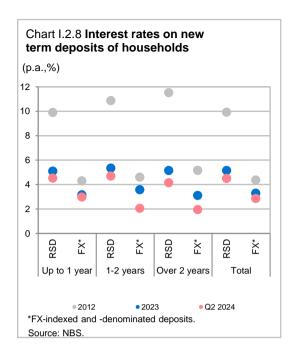


rates edged down for deposits of all maturities

- a more significant drop was seen in one-to-twoyear savings (by 1.2 pp to 2.1%), while maturities of up to one year and over two years posted a more modest rate decline (by 0.3 pp each, to 3.0% and 1.9%, respectively).

Interest rates on time <u>corporate</u> deposits, both FX and dinar ones, also went down:

- Interest rates on FX corporate deposits dropped by 0.4 pp to 2.7%, largely reflecting rate decrease on one-to-two-year deposits (by 3.6 pp to 0.4%). Rates on over-two-year deposits declined to a lesser degree (by 0.6 pp to 0.1%), while interest rates on short-term time deposits stayed unchanged (at 3.1%);
- Interest rates on dinar corporate deposits fell by 0.3 pp on average q-o-q, coming at 5.0%. A decrease was recorded in up-to-one-year deposits (by 0.2 pp to 5.1%), which dominate in the composition of new dinar corporate deposits. On the other hand, interest rates on less prevalent deposit categories went up over-two-year deposits (by 0.3 pp to 0.6%), and one-to-two-year deposits (by 0.1 pp to 5.1%).



Dinar savings are more profitable

Sound macroeconomic indicators – preserved financial stability, coupled with the relative stability of the EUR/RSD exchange rate, helped dinar and euro savings continue up in Q2 2024 as well.

In Q2 2024, dinar savings rose by RSD 9.3 bn (6.2%), reaching their new record at end-June (RSD 161.0 bn).

Over the past 12 years, dinar savings increased more than ninefold and euro savings almost doubled – from EUR 7.9 bn to EUR 15.0 bn, also touching a new peak.

The analysis of savings profitability for the past 12 years, i.e. from June 2012 until June 2024, shows that dinar term savings are more profitable both in the short and long term. Dinar savings termed for a year (without the roll-over) turned out more profitable than euro savings in as many as 99% of the observed annual subperiods (Chart I.2.9). Dinar savings termed for three months were more lucrative than in euros in the majority of the observed quarterly subperiods (91%). Local currency savings termed for two years were more profitable than euro savings in all of the observed biannual subperiods. A person who deposited RSD 100,000 for one year, at the interest rate of 4.92% would receive in June 2024 over RSD 2,800 more than a depositor saving in euros the equivalent of RSD 100,000 in the same period, at the interest rate of 2.62% (Table I.2.1).

Table I.2.1. Profitability of savings placed on deposit for a year

Type of savings	Date of deposit	Initial deposit	EURRSD exchange rate*	Interest rate (%, p.a.)**	Maturity date	EURRSD exchange rate	Amount of deposit at the end of term	
- The state of the	placement						in RSD	in EUR***
Savings in RSD	June 2023	100,000	117.2731	4.92	June 2024	117.0715	104,920	896
Savings in EUR	June 2023	853	117.2731	2.62	June 2024	117.0715	102.051	872
Difference in favour of savings in RSD - deposit placed for a year							2,869	24
Difference in favour of savings in RSD - deposit placed for a 3M period							568	5
Difference in favour of savings in RSD - deposit placed for a 2Y period							2,563	22
Difference in favour of savings in RSD - deposit placed for a 12Y period, annual rollover							53.454	457

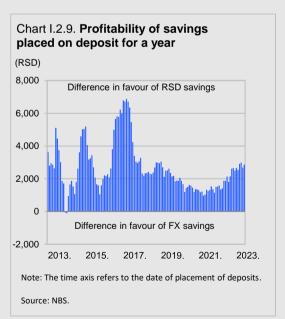
^{*}monthly average exchange rate of the dinar against the euro

***for savings in euros, after tax on interest income.

A person who deposited RSD 100,000 for one year and rolled it over in the period of 11 years would earn at the end of maturity (June 2024) close to RSD 53,500 (over EUR 450) more than a depositor who saved in euros the equivalent of RSD 100,000 over the same period.

Apart from higher interest rates on dinar compared to euro savings and non-taxation of interest on dinar savings, greater profitability of dinar savings was underpinned by macroeconomic and financial stability in prior years, particularly in periods of various global crises.

Dedicated to further financial system dinarisation, the NBS will continue to monitor and promote dinar savings.



^{**}weighted average interest rate on RSD and EUR savings placed on deposit for a year - new business.

3. Dinarisation of public debt

The degree of public debt dinarisation shrank to 21.4% in Q2. The FX component of public debt increased notably, reflecting the sale of dollar-denominated 10Y sustainability eurobonds in the international market. The rise in the dinar component was much more modest, supported by the disbursement of new tranches of bank dinar loans for the construction of infrastructure projects in the country.

Public debt and its composition

Public debt⁴ increased by RSD 212.5 bn in Q2 to RSD 4,469.7 bn (46.5% of estimated GDP).

The FX component of public debt went up in Q2 (by RSD 208.8 bn), reflecting government borrowing in the international capital market. In June 2024, the Republic of Serbia issued its first 10Y sustainability eurobond worth USD 1.5 bn, at a coupon rate of 6.00% and a yield rate of 6.29%. Investor demand was multiple times higher and measured USD 6.5 bn. At the same time, a hedging transaction was concluded (cross currency swap) in order to reduce the FX risk, converting the liabilities under dollar-denominated eurobonds into euros, and bringing the cost of borrowing down to 4.754%. After the issue of the first green eurobond in 2021, this is the second issue of ESG⁵ bonds by Serbia, and the proceeds are intended for financing sustainable development, green and socially responsible projects.

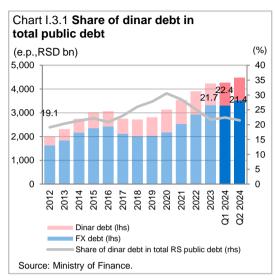
The dinar component of public debt rose more modestly in Q2 (by RSD 3.7 bn), supported mostly by the disbursement of tranches of domestic banks' dinar loans for the construction of the Požarevac-Golubac expressway and the line infrastructure surrounding the national stadium.

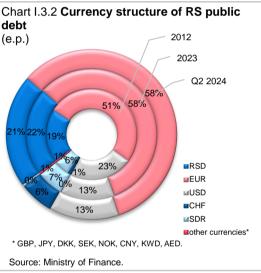
Under the impact of these movements, public debt dinarisation decreased to 21.4% in Q2, down by 0.1 pp from Q1 and by 1.6 pp y-o-y.

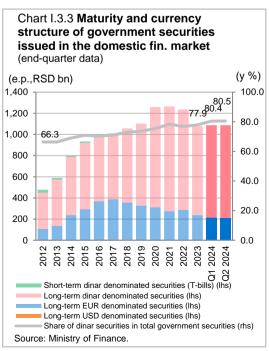
More than a half of public debt (58.4%) is still euro debt, and this share increased in Q2 by 1.6 pp. The share of public debt in US dollars dipped by 0.2 pp to 13.4%, in SDR – by 0.3 pp to 6.4% and in other currencies – by 0.1 pp to 0.4%.

Primary market of government securities

In the currency composition of the portfolio of government securities issued in the domestic







⁴ Central government public debt.

⁵ Environmental, Social, and Governance.

financial market,⁶ the share of dinar securities rose by 0.1 pp⁷ in Q2, to 80.5%.

The stock of public debt in respect of FX government securities issued in the domestic financial market stayed broadly the same in Q2 as in a quarter earlier (EUR 1.8 bn), as the decrease in respect of maturing of 10Y bonds (EUR 125.0 bn) was almost offset by the increase in public debt on account of sale of three-year bonds (in the amount of EUR 121.0 mn).

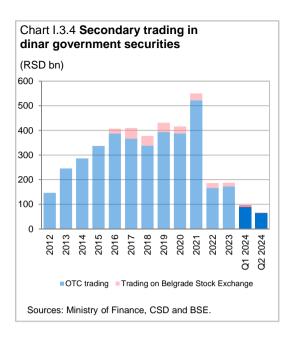
The stock of public debt in respect of dinar government securities was unchanged in Q2 relative to Q1, measuring RSD 875.0 bn, as no new dinar securities were sold or existing ones matured.

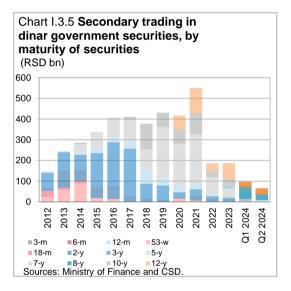
Secondary market of dinar government securities

Trading in the secondary market of dinar government securities amounted to RSD 66.0 bn in Q2, down by RSD 31.4 bn q-o-q.

Trading in bonds with the original maturity of eight years in the secondary market decreased the most (by RSD 26.7 bn q-o-q). A more moderate decline was recorded for bonds with the original maturity of seven, ten, two and five years (by a total of RSD 8.9 bn). Trading in bonds with the original maturity of 12 years was the only to increase (by RSD 4.1 bn).

Secondary trading in dinar government securities in the BSE declined in Q2 2024 by RSD 3.9 bn from Q1 2024, measuring RSD 2.6 bn or 3.9% of total trading in these securities in the secondary market.





⁶ Including savings bonds and restitution bonds.

⁷ Y-o-y, this indicator rose by 1.1 pp.

II. FX hedging instruments

In Q2 2024, the NBS proceeded with concluding bilateral foreign exchange swap purchase/sale transactions with banks that proved to be an efficient tool for helping banks manage dinar and FX liquidity.

In Q2 2024, residents concluded forward FX purchases with banks worth EUR 95.3 mn, up by EUR 7.9 mn q-o-q, and forward FX sales worth EUR 13.4 mn, down by EUR 2.1 mn q-o-q.

1. NBS FX swap auctions

In Q2 2024, the NBS continued to conclude bilateral FX swap purchase/sale transactions with banks which proved as an efficient tool for helping banks manage their dinar and FX liquidity, considering the flexibility regarding the moment of conclusion of transactions and their maturity.

During Q2, the NBS swap bought and sold EUR 242 mn each, which is EUR 277 mn less q-o-q.

Period	Swap FX sale	Swap FX purchase
2012	171.0	188.0
2013	124.0	124.0
2014	180.0	180.0
2015	550.5	550.5
2016	440.0	440.0
2017	546.5	546.5
2018	324.0	324.0
2019	513.5	513.5
2020	800.5	956.0
2021	353.0	518.0
2022	680.6	993.6
2023	563.0	563.0
2024	761.0	761.0
Q1	519.0	519.0
Q2	242.0	242.0

Note: Until the end of 2021, the data refer to swap auctions, and from the beginning of 2022 the data refer to swap auctions and bilateral swap transactions. From 2023, the data refer only to bilateral swap transactions.

Source: NBS.

Table II.1.2. NBS bilateral swap transactions in 2024,
monthly data
(EUR mln)

Month	Swap FX sale	Swap FX purchase
January	324.0	324.0
February	135.0	135.0
March	60.0	60.0
Q1	519.0	519.0
April	70.0	70.0
May	85.0	85.0
June	87.0	87.0
Q2	242.0	242.0
Total in 2024	761.0	761.0
Source: NDS		

Source: NBS.

2. FX hedging instruments

In Q2, the share of forward FX purchases in total FX purchases by residents from banks equalled 1.4% (1.3% in the quarter before) and was the highest in June - 1.9%. Six domestic companies used the possibility of FX hedging by concluding this type of transactions with banks, totalling EUR 95.3 mn (EUR 87.4 mn in the quarter before). The weighted average maturity of forward FX purchases was 69 days, with the longest maturity of an individual forward FX transaction recorded in June - 175 days. The average value of forward FX purchase contracts of residents equalled EUR 1.2 mn.

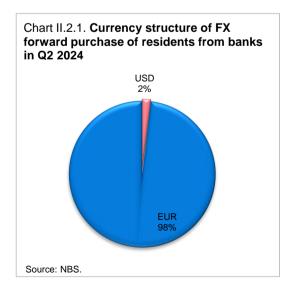
Q2 saw forward FX sales by three residents in the total amount of EUR 13.4 mn (EUR 15.5 mn in the quarter before), and the weighted average maturity of transactions of 97 days. The longest maturity of an individual forward transaction was recorded in May – 183 days. The average value of forward FX sale contracts of residents equalled EUR 0.7 mn.

In terms of the currency structure of forward FX purchases between residents and banks, the euro accounted for 98% and the US dollar for 2%.

As for the currency structure of forward FX sales by residents to banks, the euro accounted for 83% and the US dollar for 17%.

	Forward	purchase by	residents	Forward sale by residents			
Period	Amount in EUR mln	Weighted average maturity in days	% share in total purchase	Amount in EUR mln	Weighted average maturity in days	% share ir total sale	
2012	754.7	38	6.7	1.3	18	0.0	
2013	533.8	24	5.0	1.4	39	0.0	
2014	430.0	24	5.0	0.8	49	0.0	
2015	531.0	16	4.8	1.5	77	0.0	
2016	450.5	22	3.9	12.9	263	0.1	
2017	388.8	37	3.0	17.1	349	0.2	
2018	212.7	55	1.5	49.9	450	0.4	
2019	108.9	72	0.7	63.4	349	0.4	
2020	178.7	118	1.2	69.4	217	0.5	
2021	146.8	116	0.8	40.6	246	0.2	
2022	185.3	67	0.7	33.9	146	0.1	
2023	285.7	51	1.2	42.2	98	0.2	
2024	182.7	65	1.4	28.9	93	0.2	
Q1	87.4	60	1.3	15.5	90	0.2	
Q2	95.3	69	1.4	13.4	97	0.2	

	Forward	purchase by	residents	Forw	ard sale by r	esidents	
Month	Amount in EUR mln	Weighted average maturity in days	% share in total purchase	Amount in EUR mln	Weighted average maturity in days	% share in total sale	
January	11.7	46	0.5	7.1	78	0.3	
February	49.6	62	2.4	3.0	108	0.1	
March	26.1	63	1.1	5.4	96	0.2	
Total in Q1	87.4	60	1.3	15.5	90	0.2	
April	22.1	74	0.9	3.5	105	0.1	
May	30.6	81	1.5	3.1	109	0.1	
June	42.7	58	1.9	6.8	87	0.3	
Total in Q2	95.3	69	1.4	13.4	97	0.2	
Total in 2024	182.7	65	1.4	28.9	93	0.2	



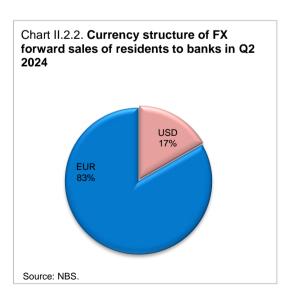


Table A Indicators of dinarisation of receivables, loans and deposits (in %)

Period	Share of dinar in total receiv ables, outstanding amounts, e.p.			Share of dinar in total loans, new business, p.a.*			Share of dinar in total deposits, outstanding amounts, e.p.			Share of dinar in total deposits, new business, p.a.*		
· oou	Corporates Households Total		Corporates Households Total		Corporates Households Total		Corporates Households		Total			
2008	33.8	22.2	29.2				50.3	12.5	27.6			
2009	26.2	22.1	24.7				52.5	10.9	25.6			
2010	32.2	27.6	30.5	41.8	51.1	43.5	45.0	8.5	19.8	51.4	2.7	25.0
2011	27.3	32.6	29.2	33.3	44.0	35.9	44.9	10.1	21.5	51.3	3.8	32.8
2012	24.2	35.1	28.0	31.0	59.6	36.5	43.9	8.8	19.3	62.0	4.6	38.1
2013	20.0	37.9	26.8	24.6	63.6	35.0	52.4	11.5	23.1	65.2	8.2	44.1
2014	25.0	41.0	31.2	33.2	71.7	44.2	53.6	12.3	24.5	67.6	12.3	46.5
2015	19.4	42.8	28.6	16.8	67.8	30.3	55.6	13.9	27.2	69.1	16.0	52.8
2016	19.4	47.0	31.2	21.5	74.1	36.8	54.0	15.8	28.8	69.3	20.1	56.6
2017	17.5	51.8	33.0	19.3	71.0	36.0	56.5	16.9	30.8	75.6	22.7	64.3
2018	15.4	53.6	33.0	18.3	73.1	36.8	53.1	19.2	32.2	81.1	20.3	66.7
2019	14.0	55.4	33.1	16.9	66.9	33.5	58.3	22.1	35.1	74.9	25.0	63.9
2020	21.0	55.9	37.3	31.5	69.8	43.6	61.3	26.8	40.1	81.3	26.6	70.1
2021	24.0	54.6	38.3	25.5	67.9	39.4	59.4	28.3	40.3	81.1	30.4	71.0
2022	19.4	53.1	35.1	20.3	68.2	35.3	58.3	27.6	40.1	80.3	21.4	68.6
2023	17.3	54.1	34.5	18.3	75.4	36.3	62.7	31.4	44.4	76.6	21.8	64.7
Q1 2024	17.8	54.5	35.2	19.3	79.9	43.1	61.3	31.2	43.4	73.6	25.3	60.1
Q2 2024	19.3	54.9	36.1	23.9	78.4	42.4	61.7	32.1	44.2	74.0	27.3	64.2

^{*} Indicators are calculated based on data on the amount of new loans and deposits during the period.

For the year 2010, indicators relate to the period September-December.

Source: NBS.

Table B Currency structure of household savings and public debt

		House	hold savings			Public debt (central government)				
Period*	Dinar savings (RSD mn)	FX sav ings (EUR mn)	Total savings (RSD mn)	Share of dinar savings in total savings (%)	Public debt in RSD (RSD bn)	Public debt in foreign currency (RSD bn)	Total public debt (RSD bn)	Share of RSD public debt in total public debt (%)		
2008	10,575.0	4,679.1	425,145.0	2.5	19.9	758.1	778.0	2.6		
2009	12,400.0	5,904.5	578,577.0	2.1	120.6	823.8	944.4	12.8		
2010	13,848.7	7,105.8	763,495.8	1.8	187.1	1,095.4	1,282.5	14.6		
2011	19,664.1	7,611.2	816,110.9	2.4	248.9	1,298.6	1,547.5	16.1		
2012	17,882.9	8,272.3	958,597.0	1.9	385.4	1,629.3	2,014.8	19.1		
2013	34,015.4	8,418.5	999,125.2	3.4	469.1	1,840.0	2,309.0	20.3		
2014	38,615.1	8,524.6	1,069,732.9	3.6	588.6	2,164.6	2,753.2	21.4		
2015	45,968.2	8,628.6	1,095,435.6	4.2	668.9	2,349.7	3,018.6	22.2		
2016	51,063.9	8,987.3	1,160,744.3	4.4	639.8	2,424.8	3,064.6	20.9		
2017	50,152.0	9,373.2	1,160,614.5	4.3	632.5	2,117.2	2,749.7	23.0		
2018	61,079.9	9,955.1	1,237,720.8	4.9	708.4	2,011.8	2,720.2	26.0		
2019	79,573.6	10,804.3	1,350,075.9	5.9	781.3	2,034.4	2,815.6	27.7		
2020	93,057.4	11,435.8	1,437,685.6	6.5	958.0	2,177.8	3,135.8	30.5		
2021	104,184.7	12,736.2	1,601,732.8	6.5	1,010.2	2,533.1	3,543.2	28.5		
2022	96,287.5	13,715.0	1,705,363.3	5.6	983.5	2,926.4	3,909.9	25.2		
2023	137899.3	14416.1	1,827,087.5	7.5	917.8	3,318.3	4,236.1	21.7		
Q1 2024	151675.7	14813.6	1886961.0	8.0	954.3	3302.9	4257.2	22.4		
Q2 2024	161023.6	14973.9	1913708.3	8.4	958.0	3511.7	4469.7	21.4		

^{*} Indicators show data at end-period.

Sources: NBS, Ministry of Finance.

Table C Overview of measures and activities contributing to the dinarisation of the Serbian financial system (1/2)

Period of adoption of		
measure/implementation	Description of measure/activity	Expected effects
of activity		·
June 2005	RR differentiation rate on dinar and FX sources of bank financing.	Stimulating banks to use dinar sources of financing more
	LTV limit for FX-indexed mortgage loans of 80%, with no such limit prescribed for dinar loans. In December 2017 this limit was loosened	Ensuring preferential treatment of dinar lending to households
May 2011	to 90% in cases when the loan is approved as a measure of government support to certain categories of natural persons, and in June	Ensuring preferential treatment of dinar lending to nouseholds
	Prescribed minimum mandatory dow npayment/deposit for FX and FX-indexed loans to natural persons (except mortgage loans) of 30%.	Ensuring preferential treatment of dinar lending to households
Since May 2011		Limiting the amount of FX and FX-indexed loans relative to FX sources of funding
June 2011	,	Capital market development, incentivising banks to rely more on dinar sources of
04.10 20 1 1	apply to FX securities.	financing
	Prescribed requirement for banks to inform clients in writing, prior to signing an agreement, of the risks they assume if they opt for an FX-	
D 0044	denominated or FX-indexed service. Also, the offered agreement must contain the information on the currency in which the service is	
December 2011		Promoting hedging against FX risk for financial service consumers
	numerical data, the currency in which the service is denominated must be stated in a representative example.	
	Prescribed requirement for banks and lessors to offer financial services in dinars, unless the consumer requires otherwise.	Defining a biretions are seen and a distinct that the NDO and the Describle of Oarbin
A ==:1 2042		Defining objectives, measures and activities that the NBS and the Republic of Serbia
April 2012	The NBS and the Republic of Serbia Government signed the Memorandum on the Strategy of Dinarisation of the Serbian Financial System.	will implement in order to strengthen confidence in the national currency and its use in
	Conists Connects Daylo Cubii and Donwood inqued the first slines hand in the description and the support without a support with three	the financial system
May 2012	Societe Generale Banka Srbija a.d. Beograd issued the first dinar bond in the domestic market, without a currency clause, with three	Capital market development
•	vear maturity.	Given that interest income on dinar savings is exempted from the personal income tax,
September 2012	IBV the adoption of the Law Amending the Law on Personal Income Lay the tay on Interest on Exisavings was increased from 10% to	this measure is an incentive to households to give preference to saving in domestic
September 2012	15%	9 1
	The NBS included dinar securities without an FX-clause issued by IFOs with the top credit rating in the portfolio of securities used by the	currency over FX saving
April 2013	NRS in open market operations and on the list of eligible colleteral in approval of NRS's daily liquidity facilities and short-term loans against	Capital market development, through incentive to banks to hold in their portfolios dinar
7 (prii 2010	the pledge of securities.	securities issued by the IFOs for the purpose of loan financing
	The NBS adopted the Decision on Terms and Conditions of Performing Foreign Credit Transactions in Dinars, which provides for more	
	favourable conditions under which international financial institutions and development banks or financial institutions founded by a foreign	
November 2013	state (IFO) may approve dinar loans to domestic banks, legal persons and entrepreneurs, as well as conditions and manner in which	Increasing credit activity of domestic banks in dinars
	domestic banks may approve dinar loans to non-residents.	
May 2014		Increasing loan dinarisation - of a temporary nature
•		Financial market development and building a yield curve for longer maturities - enabling
October 2014	A first-time issue of a 10-year dinar bond by the government.	banks to price long-term dinar loans
November 2015	Long-term government securities admitted to the prime listing of the Belgrade Stock Exchange.	Boosting liquidity and developing secondary market of government securities
January 2016	RR rate on the portion of FX base comprised of dinar liabilities indexed to an FX-clause was increased to 100% from 50% which had	Disincentive for use of FX-indexed dinar deposits
January 2016	been applied since June 2012.	Distributive for use of EV-Illuexed diliar deposits
February 2016	A first-time larger-size issue of benchmark dinar bond by the government, with a view to reopening the issue and selling the bond	Boosting liquidity and developing secondary market of dinar government securities
1 Guidaly 2010	several times a year.	boosting inquality and developing secondary market of dinar government securities
October 2016	Domestic banks started to offer non-FX indexed housing loans in dinars, at relatively favourable terms (rates below 5%) and with a long	Rise in long-term household lending in dinars
OCIODEI 2010	repayment term (up to 30 years).	1100 II long terminouseriola letialing in allians
December 2016	The domestic financial market saw the first issuance of a dinar bond by an international financial institution – EBRD. The nominal size of	Financial market development
200011801 2010	the issue w as RSD 2.5 bn.	. manda name advolophom

Table C Overview of measures and activities contributing to the dinarisation of the Serbian financial system (2/2)

Period of adoption of measure/implementation of activity	Description of measure/activity	Expected effects
	The first trading in EBRD-issued dinar bonds in the Belgrade Stock Exchange (in the amount of RSD 60 mn).	Secondary financial market development
June 2017	A part of EBRD proceeds from the issue of dinar bonds in the domestic market was onlent to corporates through domestic banks. The loans were mainly used for financing of agriculture and refinancing.	Increasing the dinarisation of corporate loans
June 2017	The NBS set the systemic risk buffer rate at 3% of total FX and FX-indexed receivables of a bank approved to corporates and households in the Republic of Serbia, for banks whose share of FX and FX-indexed in total corporate and household receivables exceeds 10%.	Limiting the risk of euroisation, one of the key structural non-cyclical systemic risks to the stability of the financial system of the Republic of Serbia.
December 2017	The Government issued a new type of bond in the domestic financial market – saving bond .	Development of the financial market by promoting alternative form of savings and facilitating access to the government securities market for the general public
Since April 2018 (the last change), as well as before	Differentiated RR remuneration rate: 1.25% on dinar RR, no remuneration on FX RR.	Stimulating banks to rely more on dinar sources of funding
June 2018	The Law on Financial Collateral was adopted.	Achievement and improvement of the legal certainty and efficiency relating to the performance of obligations in the financial market (regulating financial collateral arrangements as well as procedures for enforcement of the collateral), as preconditions for further development of the financial market.
December 2018	The NBS and the Republic of Serbia Government signed the new Memorandum on the Strategy of Dinarisation of the Serbian Financial System.	Reviewed the results of measures and activities taken so far and, starting from them, agreed on additional measures and activities aimed at further increase in dinarisation and curbing of the FX risk in the system
	Amendments to the Law on Public Debt introduced the institute of primary dealer and envisaged the possibility of using financial derivatives for the purposes of public debt management.	Increasing liquidity and developing the domestic financial market.
December 2019	Amendments to the Decision on Capital Adequacy of Banks envisage lower capital requirements for banks to cover risks arising from dinar receivables to micro enterprises, small and medium-sized enterprises, entrepreneurs and farmers. Also, capital reduction is envisaged for banks whose share of new FX and FX-indexed loans approved to corporates, enterpreneurs and farmers for specific purposes has exceeded the defined level.	Incentivising banks to increase dinar lending.
	Amendments to the Law on Public Debt enable foreign legal persons (e.g. Euroclear) to clear and settle transactions related to the purchase and sale of government securities in the domestic capital market.	Facilitating foreign investor access to the domestic market of government securities, increasing efficiency and broadening the financial investor base on that market.
February 2020	Amendments to the Law on the Capital Market harmonise the provisions of that Law with the Law on Public Debt, in terms of the possibility for foreign legal persons (e.g. Euroclear) to clear and settle transactions related to the purchase and sale of financial instruments in the domestic capital market.	Facilitating foreign investor access to the domestic capital market, increasing efficiency of the domestic financial market and broadening the financial investor base.
	On 18 February 2020, Serbia issued its first 12Y government bond, at a coupon rate of 4.50%. Thus, the yield curve of longer maturities was extended, enabling banks to form the price of long-term dinar loans.	Development of the financial market.
May 2020	The NBS introduced bonds issued by the domestic companies with a certain credit rating (determined by the Business Registers Agency) in the portfolio of securities traded in the NBS open market, and in the list of acceptable collateral when approving NBS loans for daily liquidity and short'term loans based on the securities pledge.	Capital market development, through incentive to banks to hold in their portfolios dinar corporate bonds.
July 2020	Amendments to the decision on interest rates, which the NBS applies in its monetary policy conduct, envisage that banks which approve dinar loans to clients under the guarantee scheme at rates at least 50 bp lower than the maximum (one-month BELIBOR + 2.5 pp) are entitled to the remuneration rate for dinar reserve requirements from the NBS (which currently stands at 10 bp) increased by 50 bp, on the amount equal to the amount of those loans approved under more favourable terms, and which do not exceed the amount of calculated dinar reserve requirements.	Encouraging dinar lending.
June 2021	Dinar bonds of the Republic of Serbia are included in renowned indices of J.P. Morgan investment bank.	Boosting liquidity and development of the domestic capital market.
October 2021	Clearstream included Serbian capital market in its global network.	Direct settlement of securities issued in RSD is enabled for foreign investors, which should have a positive effect on the domestic capital market liquidity and development of this market in the coming period.

Methodological notes

- Dinarisation indicators, for each category, represent the share of the dinar component in the total amount of that category.
- Receivables include dinar and FX loans (including FX-indexed ones), advances, securities, corporate shares
 and receivables from interest and fees. Dinar receivables are receivables extended in dinars without an FXclause. An FX-clause is a currency clause as defined by the Law on Foreign Exchange Operations and any
 other clause stipulating hedge against the risk of dinar exchange rate volatility.
- The corporate sector (enterprises) comprises public enterprises and companies. Public enterprises are enterprises founded by the state, performing activities in the general (public) interest. Companies also include bank clients in the area of health and education not financed from the budget (private clinics, hospitals, schools and other institutions charging fees for their services based on production costs).
- The household sector comprises domestic natural persons, foreign natural persons residents, private households with employed persons, registered farmers and entrepreneurs, and non-profit institutions serving households (NPISH).
- Receivables are expressed by the gross principle, i.e. not reduced by allowances for impairment. When
 excluding the exchange rate effects, the exchange rate of the dinar against the euro, the US dollar, Swiss
 franc, UK pound sterling and Japanese yen is taken into account.
- The new loans category does not include refinancing loans at interest rates significantly below the market rates, or revolving loans, current account overdrafts and credit card loans.
- The new deposits category includes term deposits and notice deposits while it does not include overnight deposits.
- Deposits include dinar and FX (including FX-indexed) deposits.
- Household savings include savings of residents and savings of non-residents.
- Public debt of the Republic of Serbia refers to the debt of the central level of government.
- Trading in the secondary market of dinar government securities is observed as at the date of settlement of the securities.

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