



National
Bank of
Moldova



FINANCIAL STABILITY REPORT FOR 2022

CONTENTS

LIST OF ABBREVIATIONS	3
SUMMARY	4
1. ECONOMIC AND REAL CONTEXT	5
1.1. Economic developments	5
1.2. State debt	8
1.3. The evolution of the external sector	12
1.4. Real estate sector	16
1.5. Private sector indebtedness	19
2. BANKING SECTOR RISKS	29
2.1. Banking sector	29
2.2. Credit risk	34
2.3. Liquidity risk	41
2.4. Market risk	44
2.5. Risk of contagion	49
2.6. Risk related to information and communication technologies	52
3. RISKS OF THE NON-BANKING SECTOR	53
3.1. Non-bank lending sector	53
3.2. Insurance sector	59
3.3. Non-bank payment service providers	61
4. MACROPRUDENTIAL INSTRUMENTS AND MEASURES	63
4.1. The macroprudential instruments of the NBM	63
4.2. The National Financial Stability Committee	65
4.3. RECENT DEVELOPMENTS AND PERSPECTIVES	66
4.4. Regulations to strengthen the financial stability framework	66
5.2. Deposit guarantee and resolution fund in the banking sector	70
5.3. Transition to consolidated supervision of the financial system	71
ANNEXES	73

LIST OF ABBREVIATIONS

BSTDB	Black Sea Trade and Development Bank	NBS	National Bureau of Statistics of the Republic of Moldova
CEDB	Council of Europe Development Bank	NCFM	National Commission for Financial Market
CIS	Commonwealth of Independent States	NPL	Non-performing loans
CNB	Certificates of the National Bank of Moldova	OFCP	Open foreign currency position
c.p.y.	compared with previous year	O-SII	Systemically important institution
DGFBS	Deposit Guarantee Fund in the Banking System	p.p.	Percentage points
EBRD	European Bank for Reconstruction and Development	PSA	Public Services Agency
EIB	European Investment Bank	PSP	Payment service providers
EU	European Union	RHS	Right-hand side
EU-27	European Union excluding United Kingdom	ROA	Return on assets
EUR	European single currency (euro)	ROE	Return on equity
HHI	Herfindahl-Hirschman Index	RPPI	Residential real estate price index
IFC	International Finance Corporation	RR	Required reserves
IFRS	International Financial Reporting Standard	SLA	Savings and Loan Associations
IMF	International Monetary Fund	SBR	State budget revenue
GB	Government bonds	SMEs	Small and medium-sized enterprises
GDP	Gross domestic product	SS	State securities
LCR	Liquidity coverage ratio	TB	Treasury bills
MDL	Moldovan Leu	TOFR	Total own funds ratio
NBFI	Non-bank financial institutions	USA	United States of America
NBM	National Bank of Moldova	USD	US Dollar
		XDR	Special Drawing Rights

NOTE

The financial stability report was prepared by the Financial Stability Directorate, under the coordination of the NBM Deputy Governor, Tatiana Ivanichina.

The report was examined by the Executive Board of the National Bank of Moldova and approved at the meeting of June 8, 20

SUMMARY

The year 2022 was characterized by multiple economic and financial challenges. The global economic recovery was slowed by adverse geopolitical factors, but also by the inflationary crisis, which affected most countries in the world. Financial stability conditions started to deteriorate as early as the fourth quarter of 2021, accelerating significantly in early 2022 with the start of the war in Ukraine. But the financial system has proved resilient and has continued to fulfil its function of financing economic activity.

The reforms undertaken in the banking sector have once again proved their effectiveness and banks have remained well capitalized and profitable, adequately managing the risks that have increased.

The increase in bank profits in 2022 was largely driven by monetary market conditions. As a result of the accelerated tightening of monetary policy, banks adjusted their lending rates more slowly than deposit rates, reducing their net interest margin. Unfavorable macroeconomic conditions, rising inflation and rising market rates led to a deterioration in the quality of bank borrowers.

The annual growth rate of the volume of new loans granted slowed down due to the decline in household lending, which was affected both by the severe tightening of lending standards and by reduced demand from individuals. Therewith, companies showed an increasing demand for financing during 2022, resulting in an increase in the volume of bank lending to economic agents compared to previous years.

The average default entry rate was lower in 2022 compared to 2021 for both the corporate portfolio and the population, with the highest rates in 2022 recorded in the fourth quarter. The most unfavorable quality dynamics were seen in loans to productive industry, agriculture, other loans, and consumer credit.

In response to the systemic risks, which emerged in the context of macroeconomic instabilities and uncertainties, the National Bank introduced instruments to limit consumer indebtedness by establishing a responsible lending framework for banks. In addition, in order to strengthen banks' resilience to potential losses due to individuals' loan repayment difficulties, the NBM increased the systemic risk capital buffer rate by 2 p.p. for banks' exposures to resident individuals.

The non-bank lending sector has strengthened its position within the financial sector, with the expansion of the non-bank loan portfolio traditionally due to an increase in the volume of lending to individuals.

Therewith, the negative effects of the armed conflict in Ukraine had an immediate impact, materializing in an increased number of requests for withdrawal of bank deposits, with the sharpest decline in deposits of individuals in the first month after the outbreak of war in Ukraine. The phenomenon was short-lived, and the liquidity held by banks allowed them to meet the demands received.

The external shocks faced by the Republic of Moldova during this period, in particular the shock caused by the dramatic increase in gas, fuel and electricity prices, as well as the chain of price hikes that led to a galloping increase in inflation, up to 33.9 percent, have affected financial stability in several sectors. Economic activity has declined significantly and indicators for the national public budget and the external sector have deteriorated. In these difficult circumstances, the financial system has been resilient and adapted to the shocks.

Despite the challenges of 2022, the components of the financial system are stable and resilient and ready to continue to ensure the smooth functioning of the national economy.

1. ECONOMIC AND REAL CONTEXT

1.1. Economic developments

During 2022, the global economic recovery has been slowed by adverse geopolitical factors, as well as the inflationary crisis that has affected most countries of the world.

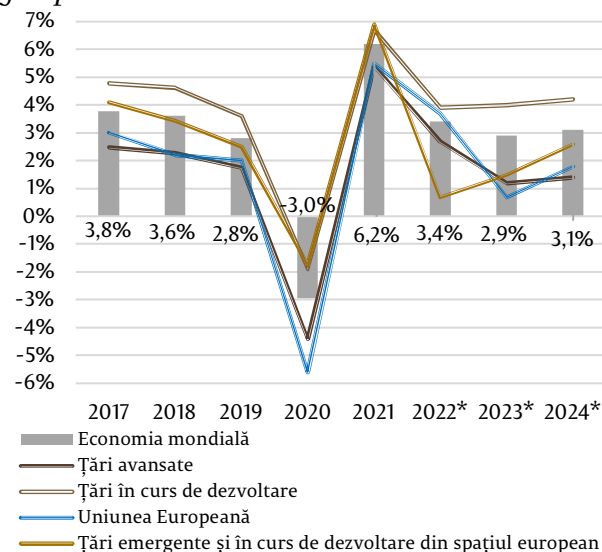
In the context of recovery from the global impact of the crisis related to the COVID-19 pandemic situation in 2020 and economic growth in 2021, the year 2022 was characterized by two major events that negatively influenced the dynamics of the world economy: the war in Ukraine and the sharp rise in energy prices, resulting in rapidly acceleration of inflation. Thus, global GDP has registered a slower expansion, estimated at 3.6 percent in real terms compared to 2021 (Figure 1.1.1).

More moderated economic growth was determined by the effects of high inflation, by the anti-inflationary measures imposed during 2022, and disruptions caused by the conflict in the region.

Economic growth has been stronger in developing countries, which recorded an aggregate real growth of 3.8 percent in annual terms.

On the other hand, emerging countries in Europe recorded an economic contraction of 0.02 percent in annual terms.

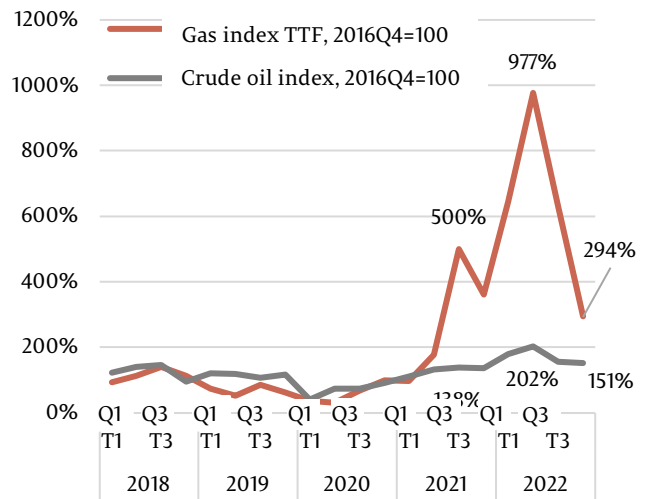
Figure 1.1.1. Evolution of world GDP and country groups



* - IMF Forecast

Source: prepared by the NBM based on IMF data

Figure 1.1.2. Evolution of energy resource prices on the international market, 31.12.2016 = 100%



Source: prepared by NBM based on trading economics and yahoo data

The increase in energy resource prices continued at a rapid pace until the second half of 2022, driven by adverse geopolitical factors, thus contributing to the increase in inflation and the accumulation of economic risks.

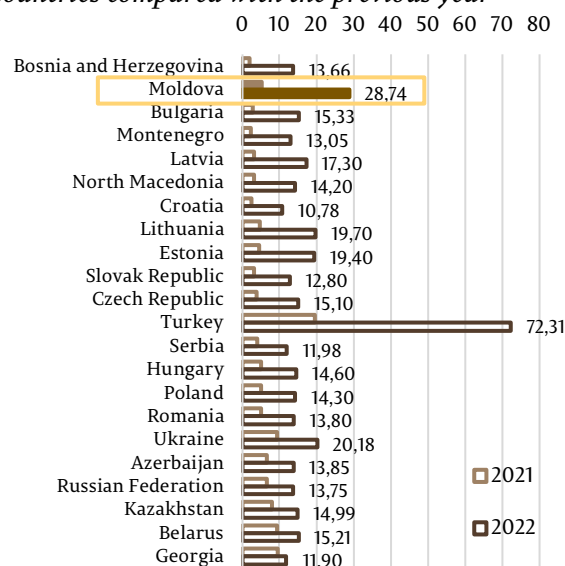
One of the main factors that determined the negative trends recorded during 2022 was the increase in energy prices. According to the European stock exchanges data, the price of Dutch TTF brand gas registered a rapid growth during 2022, returning towards the end of the year to levels comparable to those of the previous year (Figure 1.1.2).

The highest gas price level during 2022 was recorded in August, at EUR 339.2/kwh-h.

At the same time, the oil price on international stock exchanges recorded more modest increases compared to the natural gas price. During 2022, the price of Brent brand oil registered a maximum of USD 123.6/barrel at the beginning of August 2022 (more than double compared to December 2020, when was USD 51.8/barrel).

These conditions have led to international inflationary pressures as a result of an increase in the supply chain costs across several categories of services, resources and products.

Figure 1.1.3. Average annual inflation rate by countries compared with the previous year



Source: prepared by NBM based on World Bank data¹

According to the latest data published by the IMF², the average annual inflation for 2022 is estimated at 8.8 percent, increasing by 5.4 p.p. or 158.7 percent compared to the previous year.

At the same time, it is worth noting that the group of countries in Eastern, Central Europe and the Baltic region recorded a significantly higher inflation increase compared to the EU countries, which was caused by the consequences of the war in Ukraine (Figure 1.1.3).

International forecasts for the upcoming years point towards a moderate pace of global economic growth, and emerging states in the European space will register a modest economic recovery in 2023, against the background of a slowdown in growth in advanced countries.

Taking into account the afore-mentioned developments, for the following years, according to the IMF² forecast, the rate of global economic growth will moderate, oscillating around the level of 2.9 percent in 2023, compared to the forecast level of 3.4 percent in 2022 (Figure 1.1.1).

It should be noted that, due to the risks associated with the increase in energy and food prices as a result of the distortion of trade relations with Russia, Belarus and other CIS

countries caused by the military conflict in Ukraine, a significant negative impact on developed economies is expected in 2023. Thus, the economic growth for this group of countries was estimated to decrease at the level of 1.2 percent in 2023, with non-essential changes in 2024 (Figure 1.1.1).

In the unfavourable international economic context of the reporting year, the Republic of Moldova was hit by a deep inflationary crisis that had a negative impact on economic activity after the recovery in 2021.

In 2022, the economy of the Republic of Moldova recorded a decrease in real GDP by 5.9 percent compared to 2021³. Considering the components, the GDP decrease was mainly generated by household consumption, with a negative contribution of 3.3 percent, and gross capital formation, with a more modest negative contribution of 1.7 percent (Figure 1.1.4.). At the same time, the net export of goods and services had a negative contribution of 1.5 percent to GDP growth, as a consequence of the increase in the physical volume of imports of goods and services correlated with lower growth in the volume of exports.

Table 1.1.1. The main macroeconomic indicators of the Republic of Moldova

Name of the indicator	Value in 2022	Change from 2021
GDP, current prices	MDL 272 555.9 mln.	-5.9%
Annual inflation rate	30.2%	+16.3 p.p.
Exchange rate MDL / USD	19.1579	+8.0%
Exchange rate MDL / USD	20.3792	+1.4%
Reserve assets	USD 4 474.2 mln.	+14.7%
National Public Budget Deficit*	- MDL1 916.8 mln.	-21.7%
State debt	MDL 77 752.7 mln.	+14.6%
Current account balance ⁴	-USD 2 275.2 mln.	+33.9%
Coverage of imports with exports of goods and services	47.0%	+3.2 p.p.
Net international investment position	-USD 6 041.2 mln.	+15.8%
Unemployment rate	4.6%	+2.0 p.p.
Average gross monthly salary	MDL 10 529.1	+15.5%
Total personal remittances	USD 1 420.5 mln.	-12.9%

Source: prepared by the NBM based on NBM, SNB data

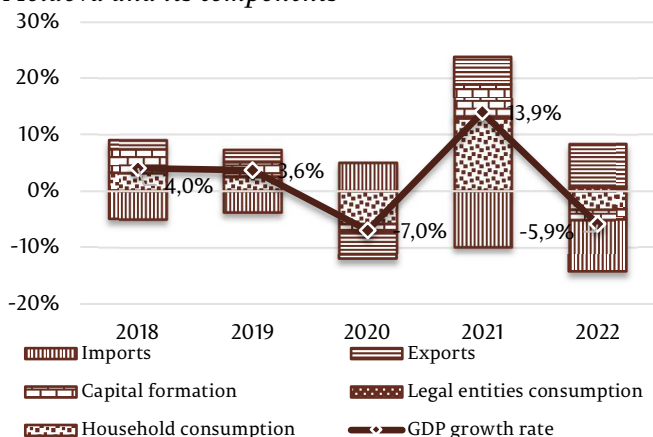
¹ Ha, Jongrim, M. Ayhan Kose, and Franziska Ohnsorge (2021) "One-Stop Source: A Global Database of Inflation." Policy Research Working Paper 9737. World Bank, Washington DC and with subsequent updates.

² World Economic Outlook Update, January 2023.

³ According to preliminary data published by the NBS.

⁴ The indicators of international accounts (BP, PII, DE) are calculated according to the MBP6 methodology.

Figure 1.1.3. The evolution of GDP of the Republic of Moldova and its components



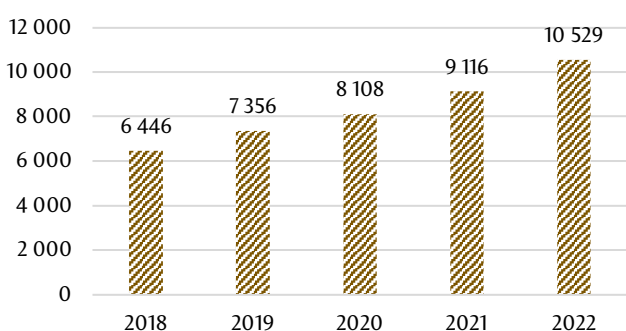
Source: prepared by the NBM based on NBS data

By category of resources, the negative trend of GDP was conditioned by the decrease of activity in most branches of the economy, such as agriculture (-2.7 percent), construction (-0.8 percent), real estate transactions (-0.8 percent) and manufacturing (-0.7 percent). In the period of economic activity decline, however, some branches showed resilience, registering a positive contribution to GDP evolution: financial and insurance activity (+0.4 percent), Information and communications (+0.3 percent), accommodation and catering activities (+0.2 percent), wholesale and retail trade; maintenance and repair of motor vehicles and motorcycles (+0.2 percent).

The average incomes of the population increased in the analyzed period, at a slower pace compared to the inflation rate.

In 2022, the average gross monthly salary of the population registered a favorable dynamic, reaching the level of MDL 10,529 per month per person, increasing by 15.5 percent compared to the previous year.

Figure 1.1.5. Gross average monthly salary, MDL



Source: prepared by NBM on the basis of NBS data

The inflation rate experienced a worrying trend during the first three quarters of 2022, with a trend reversal in the last quarter of the year.

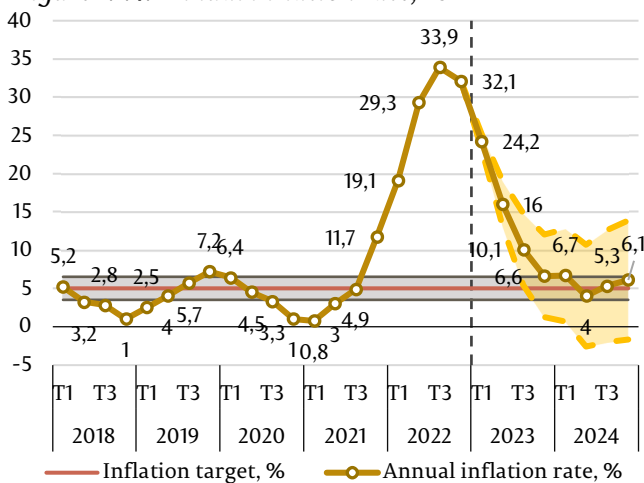
Average consumer prices in 2022 increased by 30.24 percent compared to the end of 2021, the highest increases being recorded for services provided to the population (44.0 percent) and food products (31.8 percent). The annual inflation rate continued its upward trajectory, established in the last quarter of 2021, until October 2022, reaching the maximum value of 34.62 percent. Subsequently, during the last two months of the fourth quarter of 2022, a decrease in the inflation rate was observed, up to the level of 30.2 percent (Figure 1.1.6). The decrease in the annual inflation rate continued in the first quarter of 2023.

For the years 2023-2024, the inflation rate is expected to decrease significantly to the value of about 4 percent in the second quarter of 2024, with a moderate recovery to the value of 6.1 percent towards the end of 2024. However, the inflation forecast is strongly influenced by uncertainties related to geopolitical tensions in the region, food prices on the international market and the energy crisis over the forecast horizon.

The national public budget indicators deteriorated in 2022, with the budget deficit increasing compared to the previous year.

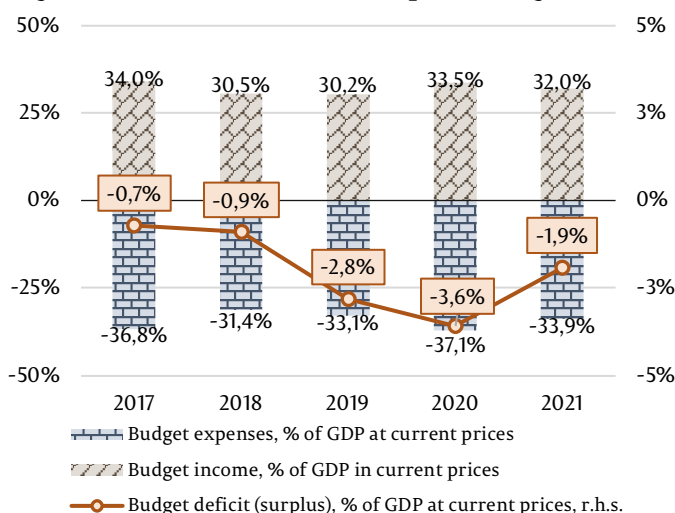
At the end of 2022, the national public budget deficit amounted to MDL 8,868.6 million (up

Figure 1.1.4. Annual inflation rate, %



Source: NBM, according to the last forecast round available on 09.03.2023

Figure 1.1.5. Structure of national public budget



Source: prepared by NBM on the basis of NBS data

91.1 percent compared to the previous year) or 3.3 percent of GDP (Figure 1.1.7). The increase in the national public budget deficit was largely generated by the more pronounced increase in expenditures for social benefits (+33.9 percent or by MDL 9,556.9 million more than the previous year), staff expenses (+14.0 percent or by MDL 2,624.1 million more than the previous year) and expenses for purchasing goods and services (+11.5 percent or by MDL 1,918.8 million more than the previous year).

At the same time, the increase in the deficit was tempered by the increase in the components of the budget revenues, in particular the increase in receipts from taxes and fees (+16.5 percent or by MDL 8,135.4 million more than the previous year), from compulsory insurance contributions and premiums (+14.1 percent or by MDL 3,084.2 million more than the previous year) and from the grants received (+85.5 percent or by MDL 2,092.0 million more than the previous year).

1.2. State debt

As of 30 September 2022⁵, most of the risk and sustainability indicators of the state debt fell within the established limits.

As of 30 September 2022, the values of the risk and sustainability indicators of the state debt were within the established limits, except for

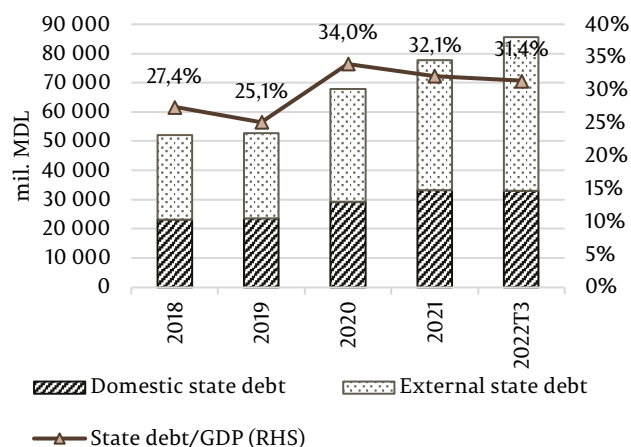
Table 1.2.1. Risk and sustainability parameters related to the state debt

	Values established according to the program "Medium-Term State Debt Management (2022-2024)"	Value registered as of 30.09.2022
Risk parameters		
State debt due within one year (% of total)	20% - 30% (maximum)	25,2%
Domestic state debt (% of total)	35% (minimum) - 50%	38,6%
State debt in a given foreign currency (% of the total)	20% - 45% (maximum)	34,5%
State debt with variable interest rate (% of total)	25% - 45% (maximum)	45,1%
SS issued on the primary market maturing within one year (% of total)	80% - 90% (maximum)	92,1%
Average maturity period for SS issued in the primary market (years)	1,2 (minimum) - 2,0	1,3 years
Sustainability parameters		
State debt service in relation to state budget revenues excluding grants (%)	≤ 8%	4,0%

Source: prepared by NBM based on data from the Ministry of Finance

the indicators: SS issued on the primary market maturing within one year, being by 2.1 p.p. higher compared to the maximum established value and the state debt with variable interest rate being by 0.1 p.p. higher compared to the value established according to the program "Medium-Term State Debt Management (2022-2024)". This is due to higher volume issuance of short-term SS during 2022 in connection with higher investor demand for short-term SS.

Figure 1.2.1. State debt



Source: prepared by NBM on data from the Ministry of Finance

⁵ The most recent data available at the time of the Financial Stability Report

The state debt-to-GDP ratio⁶ recorded a decrease against the background of a higher growth rate of GDP relative to the balance of total debt.

On 30 September 2022, the state debt-to-GDP ratio decreased by 0.7 p.p. compared to the situation at the end of 2021, constituting 31.4 percent. At the same time, the share of government debt service in the state budget revenues remained at 4.0 percent.

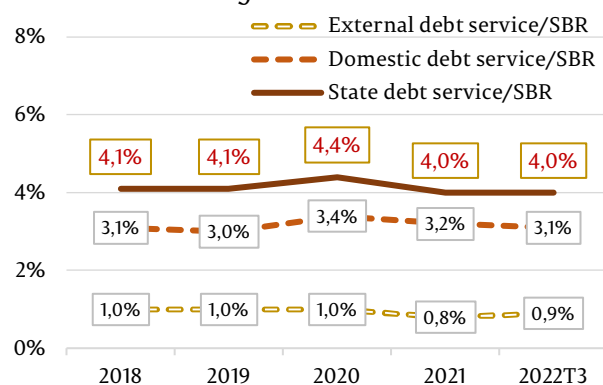
The state debt increased solely on account of the extension of external financing, in the context of the significant increase in internal borrowing costs.

The balance of the state debt as of 30 September 2022 amounted to MDL 85,500.4 million, increasing by MDL 7,747.7 million or by 10.0 percent compared to the end of the previous year exclusively due to the increase in the external government debt (+ MDL 8,066.6 million), but also as a result of the fluctuation of the USD exchange rate against other currencies. At the same time, the decrease in the balance of the domestic government debt was mainly conditioned by the negative net internal financing from the SS account issued on the primary market during the reference period (Figure 1.2.2).

SS issues

The Ministry of Finance maintained the announced volume of SS in auctions during the year at a level almost similar to that of December 2021, in view of the mixed influences coming from the improvement in investor perception after the period election in the second half of

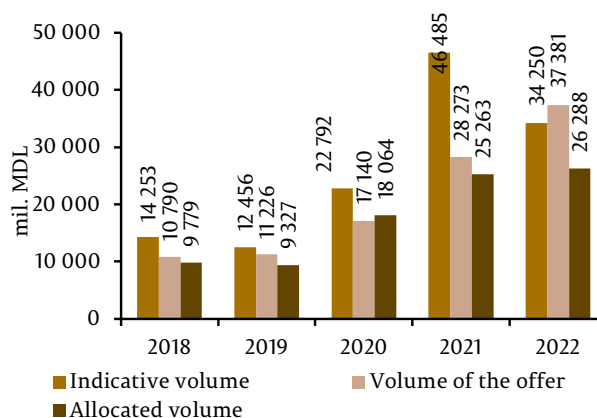
Figure 1.2.2. Government debt service in relation to the total state budget revenue



Source: prepared by NBM on data from the Ministry of Finance

⁶ Provisional GDP data for 2022

Figure 1.2.3. Volume of SS issued through auctions



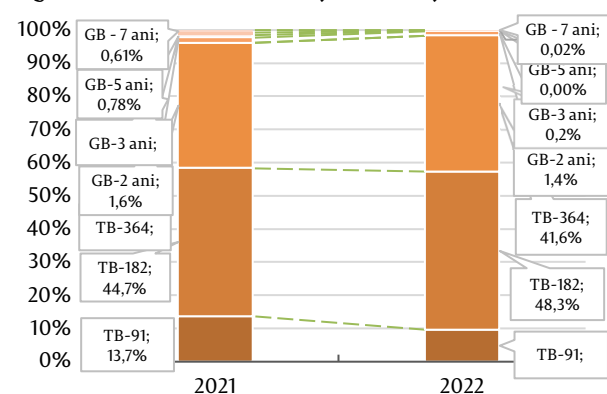
Source: NBM

2021 and the temporary deterioration in risk appetite with the onset of the war in Ukraine counterbalanced, to some extent, by the increased attractiveness of these placements—including as a result of monetary policy decisions.

In 2022 the ratio between the volume requested and that announced in the auctions became over-unit as a result of the significant increase in investor interest in SS, fueled by the fulminant increase in interest rates related to them. But in its attempt to oppose the increase in interest rates, the Ministry of Finance rejected some of the offers submitted in the auctions and placed a volume of SS below that announced. Even under these conditions, the total volume of Securities put into circulation increased, reaching a new all-time high of MDL 26,288.1 million (Figure 1.2.3).

In the specific conditions of 2022, investors, expressing their aversion to risk, opted for SS with circulation term up to one year, their

Figure 1.2.4. SS structure by maturity



Source: prepared by NBM on data from the Ministry of Finance

share reaching 99.6 percent of the total SS marketed.

At the same time, the pronounced weakening of investors' interest in 5 and 7-year GB, expressed by the imperceptible volumes requested by investors for these investments, imposed the cessation of their issuance by the Ministry of Finance in September 2022, causing a decrease in the average maturity of issued securities from 281 days to 253 days (Figure 1.2.4).

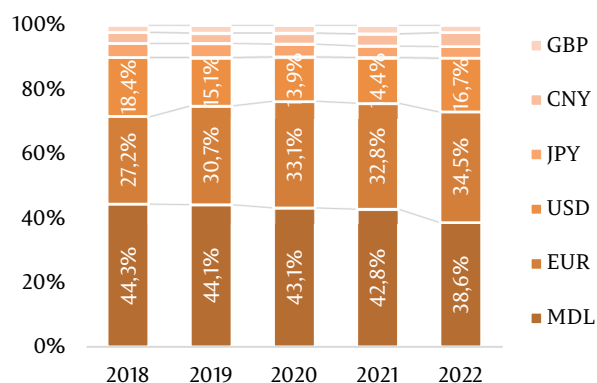
The volume of SS requested by non-bank investors has increased reaching the maximum values in recent years, but banks remain the main investors in VMS.

The pronounced manifestation of the interest of non – bank investors for investments in SS was illustrated by the increase, at the maximum values of the last years, of the volumes purchased by them during 2022-MDL 6 687.0 million (2021: MDL 1,863.7 million.) or a quarter of SS placed (2021: 7.4 percent).

Currency risk is one of the main categories of risks associated with the government debt portfolio, affecting both its cost and volume.

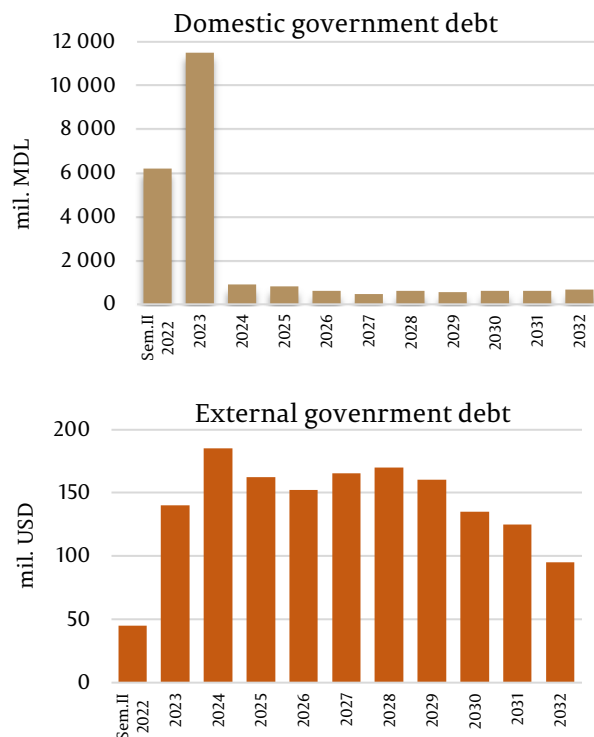
At the end of the reference year, 61.4 per cent of the government debt portfolio belongs to external government debt, fully denominated in foreign currency. The structure of the state debt on currencies, with the decomposition of the XDR currency basket, highlights the vulnerability of the government debt portfolio to EUR and USD, which implies the need for continuous monitoring of currency risk.

Figure 1.2.5. Structural evolution of state debt in foreign currency



Source: prepared by NBM on data from the Ministry of Finance

Figure 1.2.6. State debt repayment forecast



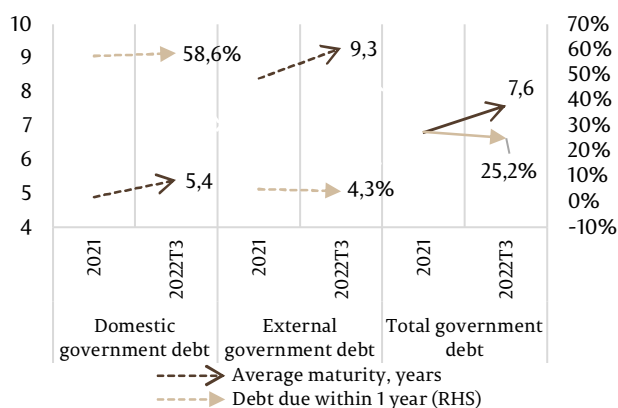
Source: Ministry of Finance

Thus, the share of state debt in EUR and USD together forms 51.2 percent of the government debt portfolio (Figure 1.2.5).

The repayment forecast for domestic government debt denotes the peak of payment in 2023, being mainly made up of instruments with short repayment term.

According to the Ministry of Finance, the segment of short-term domestic government debt, to be refinanced each year through new issues of SS, represents a significant risk for the state budget in the context of possible increases in interest rates on the domestic market.

Figure 1.2.7. Average maturity of state debt and debt maturing in one year



Source: prepared by NBM on data from the Ministry of Finance

Risk of refinancing of external debt remains a low one due to the relative repayment profile homogeneous over time.

The analysis of the repayment profile of the external government debt shows a relatively homogeneous distribution of payments as of 2025 and, respectively, a reduced refinancing risk. At the same time, in 2024 the peak of payments for reimbursement is highlighted. The average maturity period of external debt is significantly more favorable in relation to the domestic one, constituting 9.3 years.

From the perspective of the average maturity period and the debt maturing in one year, the domestic government debt presents an accumulation of interest rate risk on the subsequent financing of the state budget deficit.

At the end of the reporting period, 58.6 percent of the domestic government debt is expected to mature within one year. Compared to 2021, the domestic government debt maturing in one year increased by 1.0 p.p.

Unlike domestic government debt, external government debt, thanks to long-term instruments, is within safe limits, so that only 4.3 percent of it is expected to mature within one year.

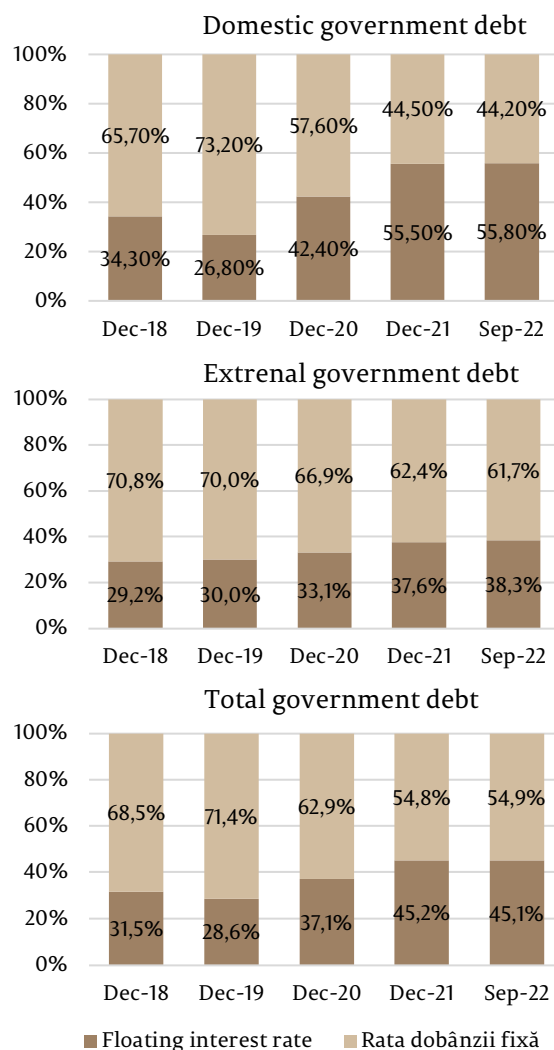
Almost half of the total state debt is exposed to fluctuations in interest rates.

As of 30 September 2022, there is an upward trend in domestic government debt with floating interest rate, constituting 55.8 percent of the total domestic government debt, up by 0.8 p.p. compared to the end of 2021.

This development is explained by the increase in the share of Treasury bills in circulation, which although issued at a fixed interest rate, entail a major exposure to interest rate fluctuations due to the short maturity at which they are issued.

In the case of external government debt, there is also an increase in the share of the floating interest rate debt. Thus, on 30 September 2022, the external government debt with floating

Figure 1.2.8. Government debt structure by types of interest rate



Source: prepared by NBM on data from the Ministry of Finance

interest rate constituted 38.3 percent of the total external government debt, by 0.7 p.p. more compared to the end of 2021.

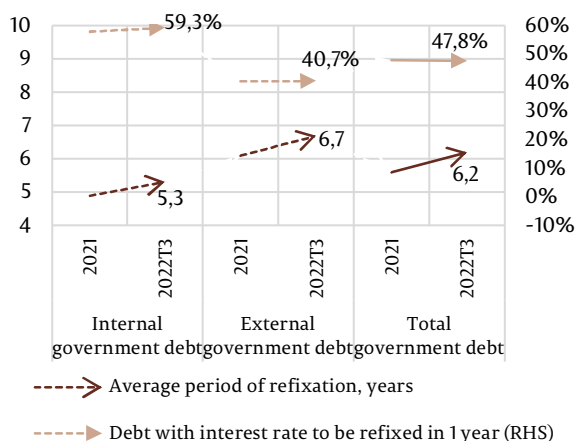
In terms of total government debt, the share of floating interest rate debt was 45.1 percent, reflecting a slight decrease of 0,1 p.p. compared to the end of 2021.

The domestic government debt is most exposed to the risk of rising interest rate, as 3/5 of the domestic government debt is expected to be reset⁷ at new interest rates within 1 year.

During nine months of 2022, the share of domestic government debt with an interest rate to be reset within one year registered an increase of 1.3 p.p. compared to the value

⁷ The indicator on the average refixation period is all the more certain as it holds a higher value, as is the indicator of the refinancing risk – the average maturity period.

Figure 1.2.9. The average period of reset of the state debt and the debt to be reset within 1 year



Source: prepared by the NBM based on the data from the Ministry of Finance

recorded at the end of 2021 and constituted 59.3 percent. Thus, an increase in interest rates on the domestic market will directly affect domestic government debt costs.

The interest rates on domestic government debt are reset, on average, within 5.3 years, by 1 year less compared to the end of the previous year.

At the same time, 40.7 percent of the external government debt is to be reset within 1 year and interest rates on external government debt are reset, on average, within 6.7 years, by 0.6 years less compared to the end of 2021.

Regarding government debt, the refixing period of the entire portfolio is 6.2 years (decreasing by 0.6 years compared to 2021) and 47.8 percent of it is to be refixed at new interest rates within 1 year, thus highlighting the exposure of government debt to interest rate risk.

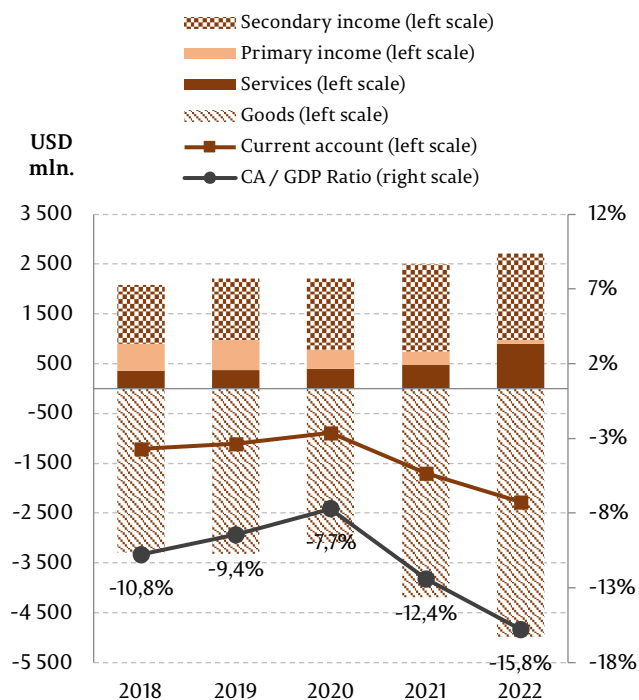
1.3. The evolution of the external sector⁸

According to preliminary data, in 2022, the current account deficit of the balance of payments of the Republic of Moldova increased as a result of an increase in the foreign trade deficit in goods and a decrease in the primary income surplus.

⁸ Full analytical comments on the evolution of international accounts can be found at: <https://bnm.md/ro/content/conturileinternationale-ale-republicii-moldova-anul-2022-datetrimestriale-provizorii>

⁹ The data on foreign trade in goods, developed in accordance with the balance of payments methodology

Figure 1.3.1. Current account-main components



Source: BNM

The current account deficit of the balance of payments of the Republic of Moldova increased compared to that recorded in 2021, both in absolute and relative terms to GDP. The deficit amounted to USD 2,275.2 million, up 33.9 percent compared to the previous year. Relative to GDP, the current account deficit amounted to -15.8 percent, registering an unfavorable dynamic of 3.4 p.p. compared to the previous year (figure 1.3.1.).

This dynamic was determined by the increase in the foreign trade deficit in goods, as well as by the decrease in the primary income surplus, while the balance of services increased substantially, but not enough to cover the negative impact mentioned.

The foreign trade deficit in goods⁹ amounted to USD 4,983.6 million, increasing by 18.9 percent due to a higher increase in imports of goods (+28.6 percent or + USD 1,933.2 million) compared to exports (+44.5 percent or + USD 1,139.8 million).

(BPM6) contain a series of adjustments compared to the data developed by the NBS, for more details on the adjustments we recommend consulting the methodology [<https://bnm.md/ro/content/conturile-internationalemetodologia-de-compilare-si-baza-informatiionala>]

In 2022, the evolution of imports and exports of goods was influenced by the geopolitical situation in the region.

The increase of import in goods registered in the balance of payments, up to USD 8,685.7 million, was driven by mineral products, whose import increased by 2.4 times compared to 2021, both on account of the increase in prices of petroleum products and the increase in physical volumes of some categories of mineral products. It should be noted that an important part of imported mineral products, in particular diesel and car gasoline, was re-exported to Ukraine. The increase in imports from all geographical areas was recorded, thus imports from the EU-27 increased by 44.1 percent, from the CIS - by 7.7 percent and from other countries - by 25.5 percent.

Supplies from the EU-27 accounted for 57.0 percent of total imports, from the CIS - 24.7 percent and from other countries - 18.3 percent.

Increase in exports of goods to USD 3,702.0 million, was determined by the export of mineral products, which recorded the largest increase by USD 586.5 million. (22.9 times), largely, as a result of re-export of petroleum oil and bituminous minerals to Ukraine. Agri-food products were still the main category of exported goods (54.2 percent of the total), their export increased by 35.6 percent compared to 2021, in particular, due to the increase in exports of sunflower oils, corn and sunflower seeds. In the reporting year, 54.1 percent of exports of goods were directed to the EU-27, 28.7 percent were directed to the CIS, and the rest went to other countries.

Significant contributions to the growth of exports were made by those to the CIS, which increased by 2.2 times compared to 2021, and those to the EU-27, which increased by 40.9 percent, while exports to other countries decreased.

The export of services has outpaced the import of services, largely due to the growth of travel services.

The surplus of foreign trade in services (USD 904.1 million.) increased by 91.4 percent compared to 2021. Exports of services increased by 39.1 percent (+ USD 640.0 million.), while imports increased by 17.9 percent (+USD 208.2 million). In exports, travel services made the biggest contribution. Within travel services, personal ones increased by 2.1 times, and business trips - by 13.9 percent. The export in transport services increased by 53.7 percent, and in IT services-by 32.6 percent. The increase in imports of services resulted from the increase in imports of transport services (+33.2 percent, especially freight transport which increased by 17.2 percent) and travel (+17.3 percent compared to 2021).

In 2022, the positive balances of primary and secondary income balances decreased.

The decrease in the primary income surplus, 4.1 times compared to 2021, to USD 65.5 million, was determined by the significant increase in outflows (+29.4 percent, amounting to USD 831.3 million), while inflows of primary income decreased (-1.3 percent, to USD 896.8 million). The remuneration of resident employees received for the work performed for non-resident employers decreased by 6.1 percent to USD 834.0 million, and direct investment income payments increased (+39.3 percent), amounting to USD 661.2 million.

Secondary income decreased by 0.8 percent compared to 2021 to USD 1,738.9 million. Personal transfers received from abroad by Moldovan residents decreased by 2.3 percent and constituted USD 1,203.3 million. The net value of technical assistance, humanitarian aid and grants received within the framework of international cooperation by all institutional sectors increased by 61.0 percent in 2022 and amounted to USD 563.3 million.

Personal remittances¹⁰ received by residents of the Republic of Moldova in 2022 decreased by 3.6 percent compared to 2021 and amounted to USD 1,985.8 million, which represents 13.8 percent relative to GDP (-1.2 p.p. compared to 2021).

¹⁰ Personal remittances are an additional item to the balance of payments and reflect the amount of net remuneration of employees (excluding workers' expenses

incurred in the host country and some taxes paid by residents abroad), personal and capital transfers between households.

The capital account balance was positive for the first time in the last 5 years, and the net need for external financing amounted to 15.6 percent of GDP.

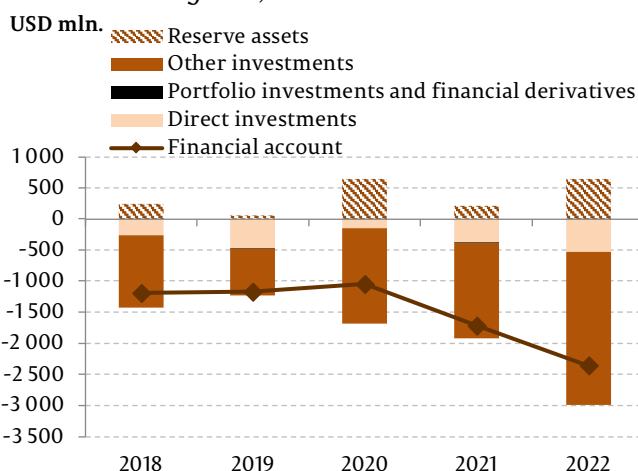
The capital account recorded net inflows of USD 20.2 million, while in 2021 there were net outflows of USD 51.0 million. The capital account balance was determined by the inflows of external technical assistance of the public administration for financing investment projects, which amounted to USD 40.6 million, but the net capital outflows in the private sector amounted to USD 20.3 million.

As a result of the current and capital transactions of the residents of the Republic of Moldova with non-residents, net external financing needs amounted to USD 2,255.0 million (15.6 percent relative to GDP).

The financial account resulted in significant net inflows of USD 2,357.2 million (Figure 1.3.2), as a result of the increase in liabilities, against the background of a decrease in external financial assets.

External liabilities increased due to the preponderance of inflows of financial means as a result of the increase in external commitments in the form of loans – by USD 780.4 million. Thus, the public administration contracted in 2022 new foreign loans amounting to USD 799.3 million and repaid USD 115.8 million. The NBM repaid USD 24.2 million from loans previously contracted from the IMF.

Figure 1.3.2. Evolution of financial account, by functional categories, net flows



Note: (+) net outflows, (-) net inflows of capital
Source: NBM

The licensed banks made net withdrawals of USD 115.4 million, and the other sectors – net withdrawals of USD 5.6 million.

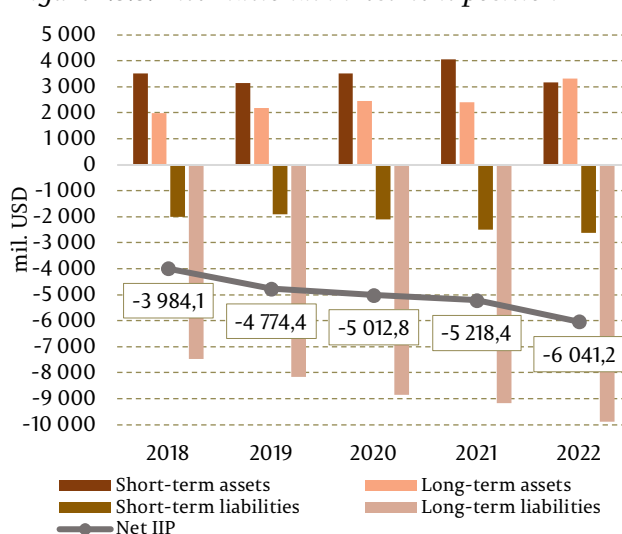
External commitments in the form of direct investments increased by USD 244.8 million during 2022, by USD 592.0 million, a dynamic driven by the reinvestment of profits in the amount of USD 468,4 million, the net increase in equity participations and shares held by non-residents of USD 102.6 million, as well as debt instruments in the amount of USD 21.1 million. The increase in liabilities was facilitated by the commercial loans and advances (+USD 245.8 million), cash and deposits (+USD 68.7 million, portfolio investments (+USD 1.0 million.), while other liabilities decreased by USD 4.0 million.

The net decrease in external assets was driven by a USD 384.6 million decrease in cash and deposit assets and commercial loans and advances – by USD 24.2 million. At the same time, the reserve assets increased by USD 637.3 million, direct investment by USD 55,4 million, loans by USD 40,4 million, portfolio investments by USD 1.9 million.

The net debit balance of Moldova's international investment position was increasing in 2022.

On 31 December 2022, the international investment position of the Republic of Moldova amounted to USD 6,041.2 million, the debit balance deepening compared to the end of 2021 by 15.8 percent (Figure 1.3.3.).

Figure 1.3.3. International investment position



Source: NBM

The position of external financial assets was USD 6,472.7 million, up by 0,4 percent since the beginning of the year, and that of liabilities - USD 12,513,9 million, up by 7.3 percent.

The increase in the external financial assets position during 2022 was driven by a 16.9 percent increase in the direct investment assets position, by 14.7 percent increase in the reserve assets position and by 14.1 percent increase in the portfolio investment assets position. At the same time, other investment asset positions decreased by 27.9 percent, in particular, those in the form of cash and deposits, which decreased by 47.6 percent, but also those in the form of commercial loans and advances (-9.3 percent).

Official reserve assets were above the sufficiency criteria.

Official reserve assets amounted to USD 4,474.2 million as of 31 December 2022, which meets the sufficiency criteria:

- covering at least 3 months of imports of goods and services (covered 5.3 months of actual imports)
- full reserve coverage of short-term external debt (covered 171.1 percent)
- coverage of 20 percent of M2 money supply (covered 94.2 percent);
- coverage of 100-150 percent of the amount: 30 percent of short-term debt +15 percent of other commitments +5 percent of M2 +5 percent of exports of goods and services (covered 216.9 percent).

The evolution of the liabilities position was determined by a 10.5 percent increase in other investment liabilities (up to USD 7,558.2 million) and by 2.6 percent increase in direct investment liabilities, amounting to USD 4,926.4 million. Other investments consisted of 64.0 percent of loans, 27.6 percent - commercial loans and advances, 5.0 percent Special Drawing Rights, 2.7 percent - cash and deposits and 0.7 percent - other liabilities.

The gross external debt of the Republic of Moldova amounted to about 66 percent of the Republic of

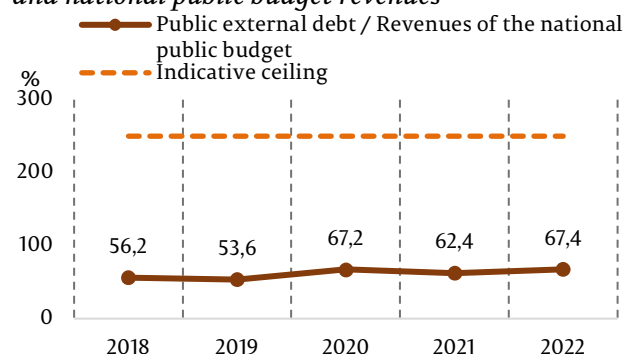
Moldova's GDP, with private debt accounting for the largest share.

The gross external debt of the Republic of Moldova increased during 2022 by 8.0 percent, totaling USD 9,457.8 million as of 31 December 2022, which is 65.6 percent relative to GDP (+1.6 p.p. compared to 31 December 2021).

From the point of view of the maturity structure (original maturity), the increase in the external debt during 2022 was determined by the increase in the long-term debt by 9.3 percent, compared to the situation as of 31 December 2021, up to the level of USD 6,843.0 million. The short-term external debt increased, during 2022, by 4.7 percent and amounted to USD 2,614.8 million as of 31 December 2022.

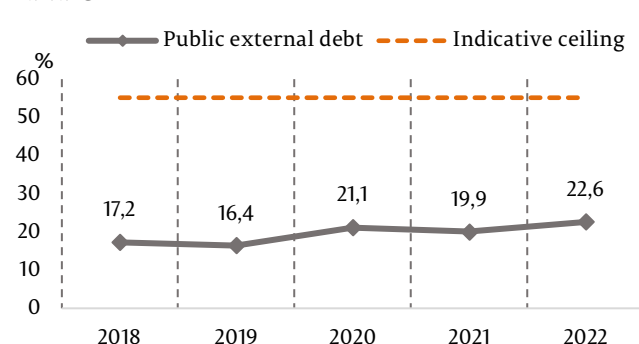
Public external debt accounted for 34.5 percent of the total external debt, amounting to USD 3,263.6 million¹¹ (+19.5 percent since the beginning of the year).

Figure 1.3.4. Ratio between the public external debt and national public budget revenues



Source: NBM, Ministry of Finance

Figure 1.3.5. Ratio between the public external debt and GDP



Source: NBM

¹¹ Including tranches on ECF and EFF loans received in December 2021 from the IMF (reflected in accordance with the IMF Statistical Methodological Guidance of 2014 <https://www.imf.org/external/np/sta/ed/ed.htm> paragraph 2.26); data published by the Ministry of Finance

on the balance of the state debt as of 31.12.2021 do not include these amounts, they are reflected as of 28.01.2022 (the date of entry into force of Law No 7/2022 and Law No 8/2022, approving the Government of the Republic of Moldova to get external state loan from the IMF).

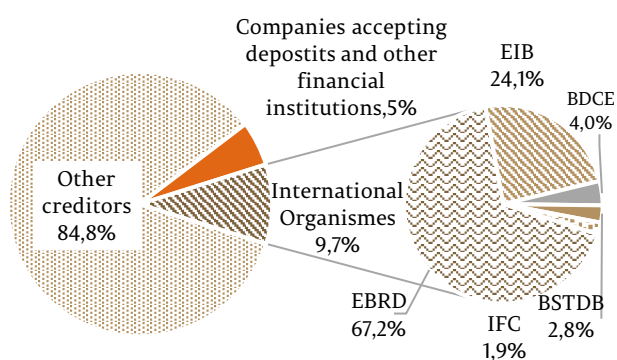
Private external debt reached USD 6,194.2 million (+2.8 percent compared to 31 December 2021). Public external debt remained sustainable, all external indebtedness indicators being within the ceilings set by the World Bank and IMF¹²: external public debt relative to national public budget revenues was 67.4 percent (Figure 1.3.4), and the ratio between external public debt and GDP – 22.6 percent (Figure 1.3.5).

The structure of the main creditors of the private sector is shown in Figure 1.3.1. According to the situation as of 31 December 2022, the EBRD (9.7 percent of the total) stood out, with 67.2 percent, followed by the EIB with 24.1 percent, but the major share, of 84.8 percent, went to other creditors, both banks and non-financial companies.

The analysis of the main external debt indicators shows a constant quality of advantageous external financing, indirectly expressed by the average quarterly implied interest rate on external debt in the form of loans and SDR allocations, which, at the end of 2022, remained at the level of 0.4 percent.

The average default maturity of the long-term external debt in the form of loans showed a positive trend, from 5.8 years as of 31 December 2021 to 8.0 years at the end of 2022, which reflects new long-term financing capitalizations, which is also confirmed by the evolution of the financing renewal rate.

Figure 1.3.6. Private debt creditor structure



Source: NBM

¹² Indicative ceilings based on the CPIA (Country Policy and Institutional Assessment) score prepared by the World Bank. In 2019, the IDA resource allocation index of the Republic of Moldova was 3.7, so the ceilings were set at the level of: 55 percent for the ratio between public external

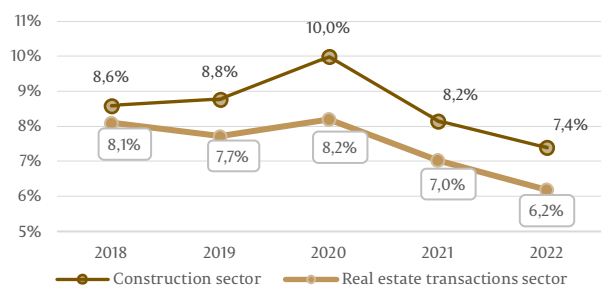
1.4. Real estate sector

After a vertiginous development of the real estate market in 2021 on all its segments, 2022 was marked by the reduction of activity on the real estate market, especially in the residential segment.

The year 2022 was characterized by a 5.9 percent decrease in GDP compared to 2021. The construction sector (-0.8 percent) and the real estate sector (-0.8 percent) contributed to the GDP decrease.

During the year, there was a decrease in the share of economic activity in the GDP related to construction (-0.8 p.p.) and real estate transactions (-0.8 p.p.) compared to the previous year.

Figure 1.4.1. Evolution of the share of „construction” and „real estate transactions” sectors in GDP



Source: prepared by NBM based on NBS data

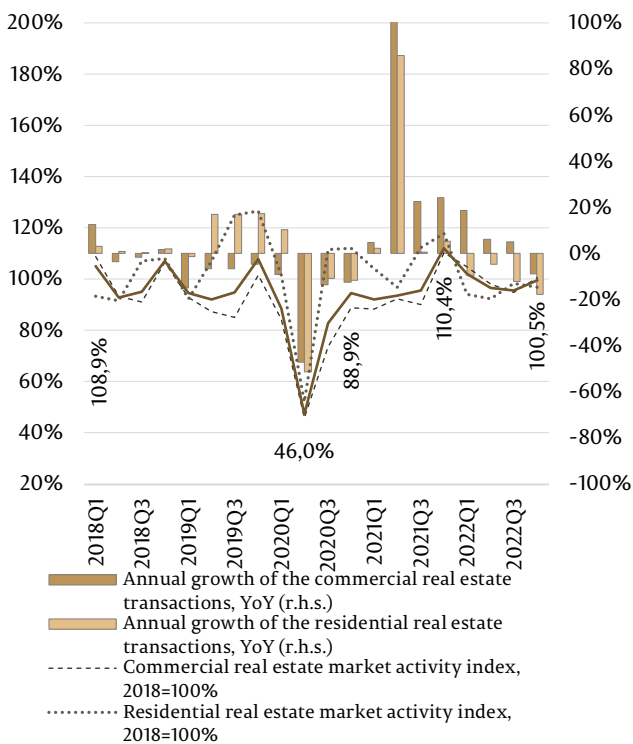
The trading activity during 2022 was characterized by maintaining the slowing trend of activity in the residential real estate market, recorded since the fourth quarter of 2021. During the fourth quarter of 2022 there was a slight revival on the non-residential market, which had a positive influence on the real estate market activity index¹³ (Figure 1.4.2).

According to the data of the Land Registry Department of the Public Service Agency, 336.6 thousand real estate transactions were recorded during 2022, which represents an insignificant increase of 0.1 percent compared to previous year.

debt and GDP, 250 percent for the ratio between public external debt and national public budget revenues.

¹³ The real estate market activity index is a chain index, calculated based on quarterly data related to the number of real estate transactions registered by the Land Registry Department of the Public Services Agency.

Figure 1.4.2. Dynamics of trading activity in the real estate market



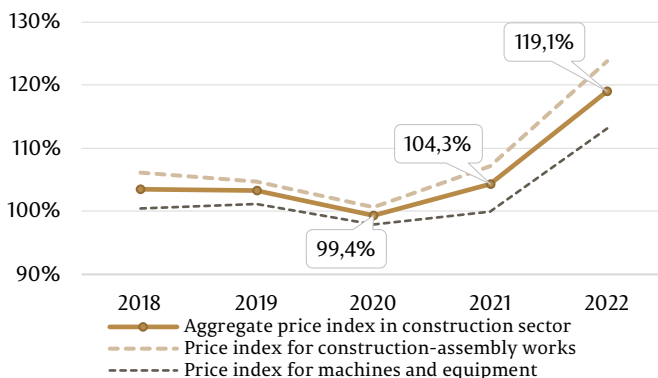
Source: prepared by NBM based on PSA data

On the one hand, maintaining of the level was due to the revival of the commercial real estate market (4.4 percent increase compared to the previous year), and on the other hand, to the reduction of the number of sale and purchase transactions in the residential segment by 29.8 percent, the lowest activity was registered in the fourth quarter.

The construction costs continued to increase in 2022, mainly driven by the cost of construction and assembly works, building materials, machines and equipment.

The construction price index continued the growth trend recorded primarily at the

Figure 1.4.3. Evolution of construction cost index (100%=c.p.y)



Source: prepared by NBM based on NBS data

beginning of the fourth quarter of 2020, the phenomenon being characteristic for both components related to the prices of construction and assembly works, as well as those related to machinery and equipment. Thus, during the analysed year the construction cost index increased by 19.1 percent compared to the previous year (Figure 1.4.3).

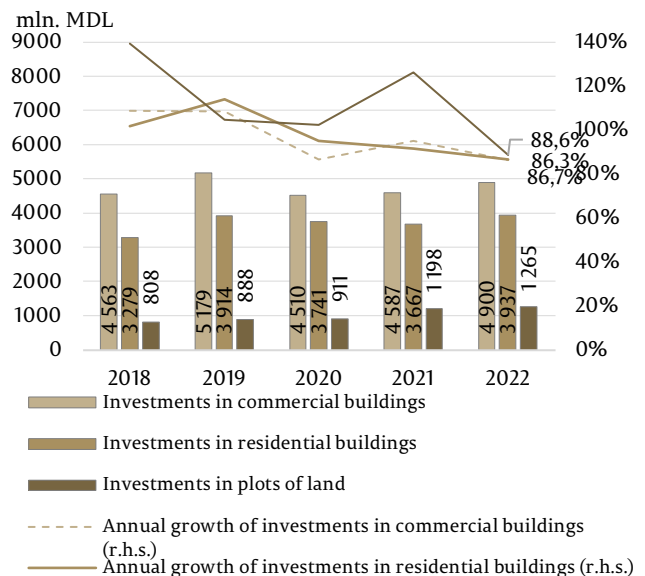
Also, in 2022 there is a decrease in investments (in comparable prices) in fixed assets, which could negatively influence the volume of supply of newly built real estate.

According to NBS data, investments in residential buildings registered the value of MDL 3,936.7 million, decreasing by 13.3 percent compared to 2021.

At the same time, investments in real estate decreased, in annual terms, by 13.7 percent in the case of non-residential buildings and by 11.4 percent in the case of plots of land (Figure 1.4.4).

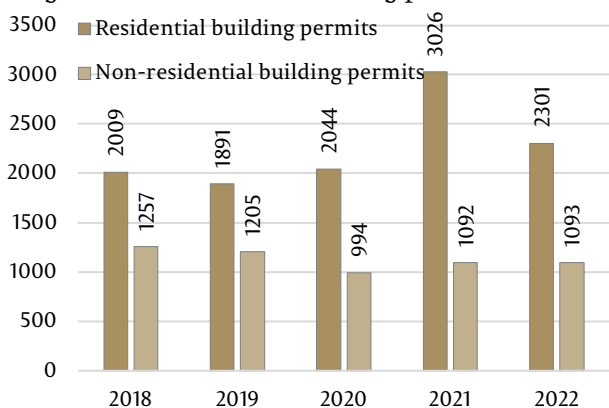
The number of building permits issued during the reporting year is decreasing compared to 2021 due to the residential segment. Thus, in 2022 were issued 2 301 building permits for residential buildings (decreasing by 24.0 percent in annual terms, but within the trend limits of 2018-2020) and 1,093 building permits for non-residential buildings, similar to the previous year (Figure 1.4.5).

Figure 1.4.4. Investments in types of fixed assets



Source: prepared by NBM based on NBS data

Figure 1.4.5. Number of building permits issued



Source: prepared by NBM based on NBS data

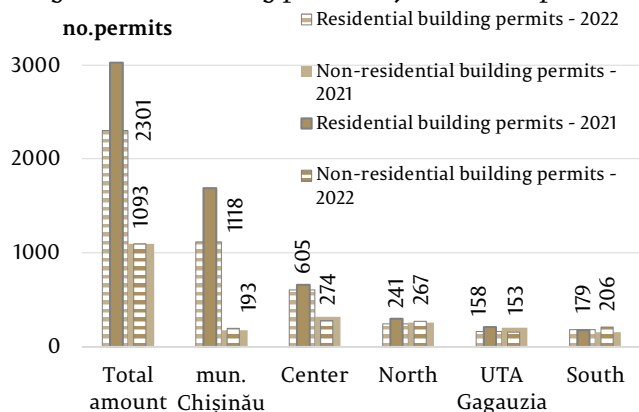
By territorial profile, the distribution of building permits denotes the concentration of future activity in Chisinau municipality and the central region of the Republic of Moldova.

At the end of 2022, about 48.6 percent of the building permits for residential buildings were issued in Chisinau municipality, decreasing by 13.3 percent compared to 2021. Against this background, the share of building permits for residential buildings in other regions decreased by 7.8 and 23.7 percent depending on the region (Figure 1.4.6).

At the same time, at the end of the reporting year, the highest share of building permits for non-residential buildings was recorded in the Centre region, being at the level of 25.1 percent, decreasing by 13.3 percent compared to the previous year (Figure 1.4.6).

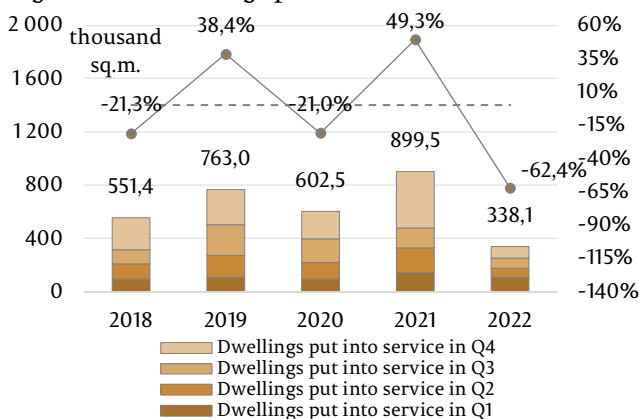
The galloping increase in costs in the construction sector, the significant decrease in the number of permits for residential buildings, as well as the restriction of lending policies have determined the considerable reduction in the volume of newly built residential buildings in 2022.

Figure 1.4.6. Building permits by territorial profile



Source: prepared by NBM based on NBS data

Figure 1.4.7. Dwellings put into service



Source: prepared by NBM based on NBS data

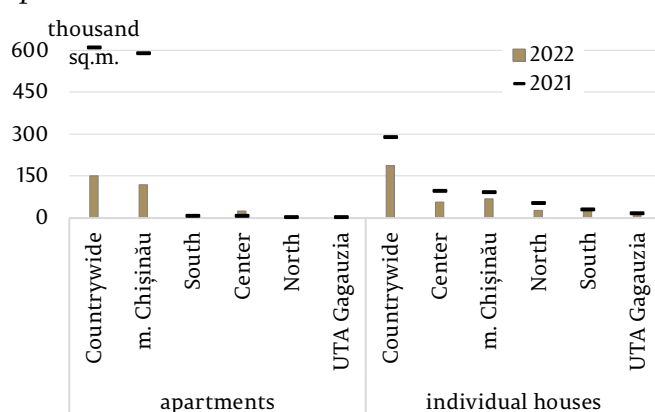
During the reporting year, 3.6 thousand housing units were put into operation, decreasing by 65.7 percent compared to the previous year.

The total area of dwellings put into service was 338.1 thousand m², 62.4 percent less than 2021 (Figure 1.4.7).

It is worth mentioning that both the number of residential buildings and their total residential area built in 2022 recorded the lowest values in the period 2010-2022. At the end of 2022 new dwellings was still concentrated in Chisinau municipality, at the same time, their share decreased to 55.4 percent of the total dwellings put into service in the reporting period (Figure 1.4.8).

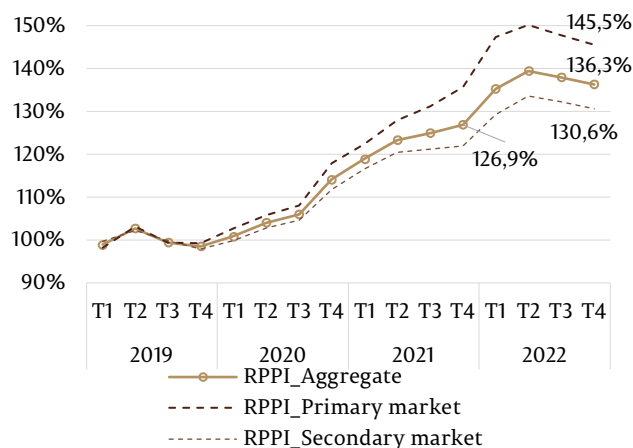
The share of new apartments in the total dwellings put into service in the analysed year reached 44.5 percent, decreasing by 34.4 percent compared to the previous year. The phenomenon was largely determined by the decrease in the share of apartments built in Chisinau municipality (-26.4 percent).

Figure 1.4.8. Dwellings put into service by territorial profile



Source: prepared by NBM based on NBS data

Figure 1.4.9. RPPI index related to the Republic of Moldova



Source: NBM

Against the background of unfavorable developments that significantly influenced the supply of residential real estate, offer prices increased rapidly, towards the end of the year a correction of the offer price driven by low demand was visible.

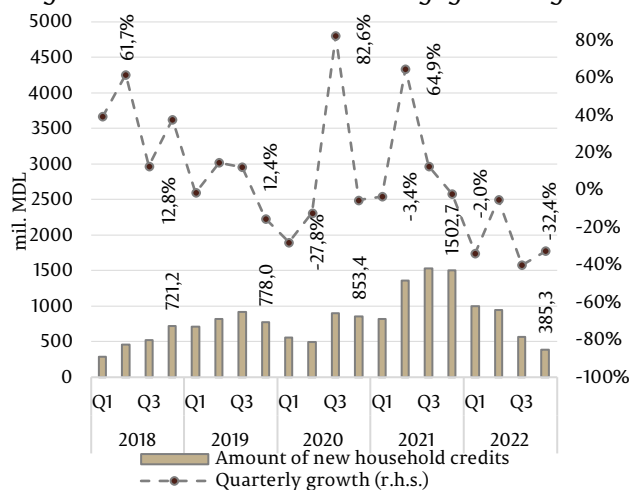
The offer for residential property price index (RPPI) in the first half of 2022 continued the growth trend recorded since 2020, and in the second half of 2022 it was replaced by the downward trend. Thus, during the reporting year, the RPPI index recorded an increase of 7.5 percent, settling at the level of 136.3 percent at the end of the year, the maximum recorded value being 139.4 percent at the end of the second quarter.

The appreciation on the residential real estate market was characterized by developments both on the primary market, for which there was an increase in the upper RPPI of about 7.3 percent, and on the secondary market with an increase of 7.1 percent in the RPPI index.

On the demand side of the residential real estate market, the main stimulating factor continues to be mortgage lending opportunities.

During the reporting year, new mortgages loans were granted with a total balance of MDL 2,899.4 million, decreasing by 44.4 percent in annual terms (Figure 1.4.10). The persistent interest of the population to invest in the real estate sector, largely manifested in 2021, continued in the first half of the reporting year, and with the restriction of access and the significant increase in lending costs in the

Figure 1.4.10. Balance of new mortgage loans granted



Source: NBM

second semester of 2022, the number of applications positively targeted by banks for granting mortgage loans has decreased considerably.

The uneven developments in real estate indicate, on the one hand, the reduction in supply and the maintenance of prices at a higher level, on the other hand, the reduced demand seems to temper the increase in real estate prices.

Therefore, the decrease in the volume of investments, the reduction of building permits in the most active and concentrated region of the Republic of Moldova (Chisinau municipality), the completion and commissioning of the lowest volume of new housing compared to the period 2010-2022, as well as the significant increase in prices for building materials and energy resources in the reporting year could generate discouragement in the medium term of the supply of real estate on the primary market.

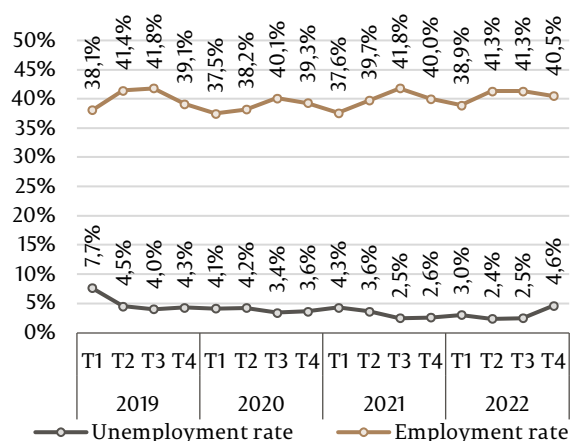
On the other hand, increase in expenses caused by inflation, higher credit costs and more restricted access to finance on the background of geopolitical uncertainty could keep subdued housing demand more pronounced from the second half of 2022.

1.5. Private sector indebtedness

Population Indebtedness

During 2022, the level of indebtedness of the population of the Republic of Moldova was influenced by several risk factors, resulting

Figure 1.5.1. Employment indicators in the Republic of Moldova



Source: NBS

from the increase in energy resources prices, continued inflationary pressures and regional distortions caused by the military conflict in Ukraine.

Labor market indicators show an increase in unemployment rate in the Republic of Moldova by the end of the reporting year, which could be a signal of increasing vulnerabilities among the population.

According to NBS data, as of the end of 2022, the employment rate¹⁴ stood at the level of 40.5 percent, up by 1.25 percent (or +0.5 p.p.) compared to the previous year. At the same time, the unemployment rate¹⁵ recorded a value of 4.6 percent, up by 76.9 percent or 2 p.p. compared to the previous year (Figure 1.5.1).

The increase in both the number of unemployed and the unemployment rate indicates a process of accumulation of vulnerabilities among the population, which could have negative repercussions on banks through the channel of propagation of credit risk related to the loan portfolio.

Under the conditions of inflationary pressure, as well as regional disturbances, the lending activity of households in the Republic of Moldova recorded a softening of the growth rate, with a reduction in the balance of the bank loan portfolio at the end of the reporting period.

At the end of the fourth quarter of 2022, the amount of loans granted to individuals by the

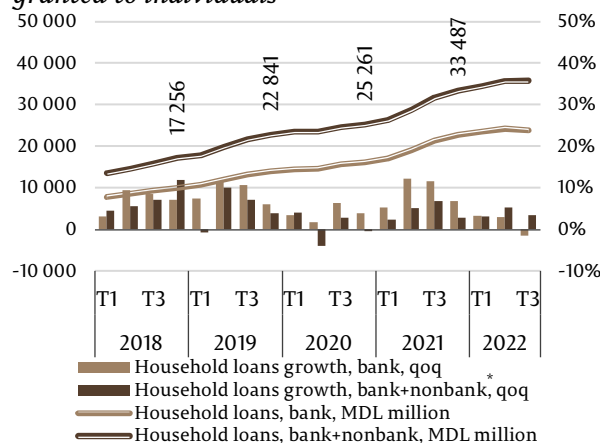
financial sector amounted to MDL 35,174.2 million (+5.0 percent compared to the previous year). Of these, about 66.1 percent were granted by the banking sector (MDL 23,251.3 million), +1.8 percent compared to the previous year).

The tempering of lending to the population in 2022 was largely¹⁶ driven by the decline in aggregate demand from the population against the background of tightening credit conditions. In particular, during the reporting year, the demand for loans from the population decreased considerably, mainly due to the reduced financing needs of the population. In particular, the general level of interest rates and the outlook for the dwelling market, including anticipated price developments, as well as regulatory criteria were the main factors contributing to the reduction in demand.

At the same time, the tightening trend of lending standards applied by banks was determined by the perception of the presence of risks, especially from the perspective of expectations regarding the general economic situation, the risk associated with the creditworthiness of borrowers, in combination with expectations regarding the developments on the real estate market.

The share of the total debt of the population in GDP in the Republic of Moldova continues to be lower than most countries in the region.

Figure 1.5.2. Evolution of the balance of loans granted to individuals



* Data related to loans granted by the non-banking financial sector as of 30 September 2022

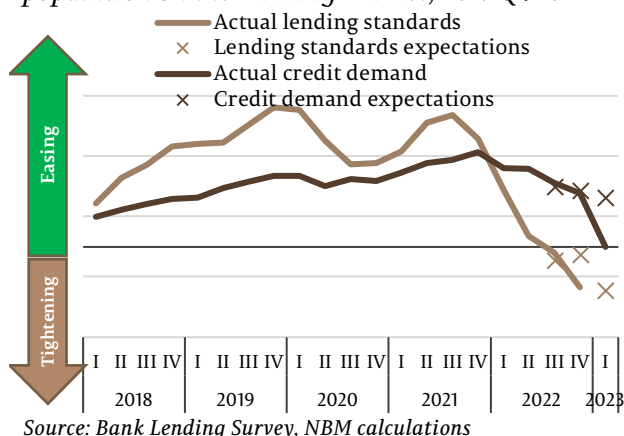
Source: NBM, NCFM

¹⁴ Share of employed persons aged 15 and over in the total population.

¹⁵ Share of employed persons aged 15 and over in the total population.

¹⁶ According to the results of the Bank Lending Survey.

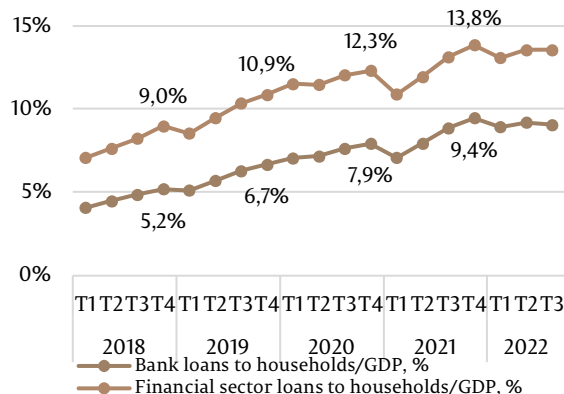
Figure 1.5.3. Quarterly cumulative evolution of standards and demand for loans from the population on the Banking Market, 2017 Q4=0



At the level of the financial system, the share of loans of individuals in GDP recorded a similar increase, representing at the end of the reporting year 13.3 percent. The bank lending of individuals relative to GDP decreased by 0.7 p.p compared to the end of 2021, being at the level of 8.8 percent at the end of 2022. In comparison with other states in the region, as well as with the European average, lending to individuals from the Republic of Moldova has a lower value (Figure 1.5.5), following the downward trend similar to most cases observed.

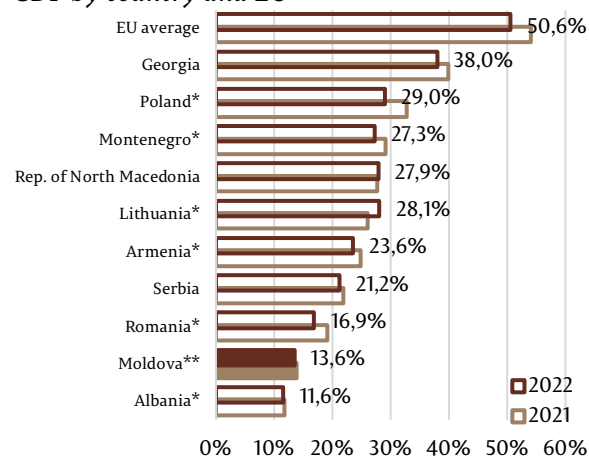
The rising inflation rate during the reporting year represents an important factor of increasing the risk profile of loans granted to individuals, because of the significant share of consumer and real estate loans in the portfolio of loans granted to individuals.

Figure 1.5.4. Share of loans portfolio granted to individuals in GDP



* Data related to loans granted by the non-banking financial sector as of 30 September 2022
Source: NBM, NCFM

Figure 1.5.1. Share of total debt¹⁷ of individuals in GDP by country and EU



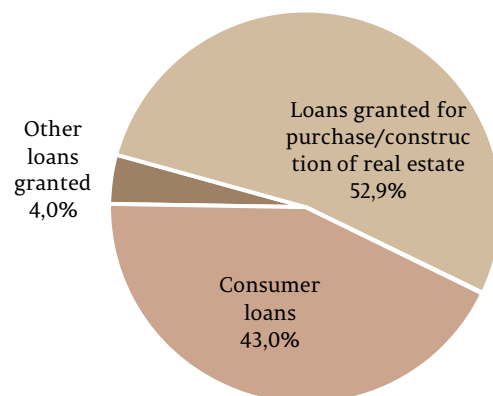
* Data as of 30 September 2022

**Data related to credits granted by the non-banking financial sector as of 30 September 2022

Source: NBM, NBS, www.ceicdata.com

At the end of the reporting year, the share of loans granted to individuals in the total portfolio of bank loans was 37.7 percent, the similar indicator related to the non-banking market being at the level of 81.6 percent. At the same time, 52.9 percent (+2.9 p.p. compared to the previous year) of the total balance of bank loans granted to individuals were intended for the purchase and construction of real estate, 43.0 percent (-2.0 p.p. compared to the previous year) for current consumption and 4.1 percent (+0 p.p. compared to the previous year) for other purposes (Figure 1.5.6). The quality of loans granted to individuals does not show significant deficiencies at the end of the reporting year.

Figure 1.5.6. Structure of the portfolio of bank loan granted to individuals by purpose of credit, at the end of 2022



Source: NBM

¹⁷ Includes the total balance of loans granted to the population by banks and NCOs.

Box 1. Survey on the financial behavior of the population

At the end of 2022, the NBM conducted the third round of the survey on the financial behavior of the population of the Republic of Moldova, the questionnaire included 38 questions designed to cover 4 dimensions - the general aspects about the respondent, - income and its sources, the access and sources of financing, housing.

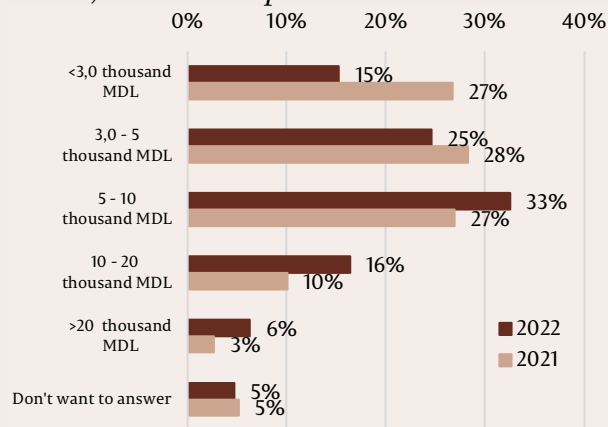
The survey was conducted on a sample of 1059 people, with the representation of various age groups, living environments, genders, and income levels.

Similar to the previous survey, the main sources of people's income remain salary - 61 percent of respondents and pension - 36 percent.

Other sources mentioned by the respondents (less than 11 percent) are income from independent activity, other social payments and transfers from abroad.

According to the survey data, the distribution of average monthly income within the sample of respondents is relatively uniform: 25 percent of respondents indicate an average monthly income between MDL 3 - 5 thousand, and 15 percent receive monthly an income below MDL 3 thousand, and 33 percent of respondents receive between MDL 5 and 10 thousand. More than MDL 10 thousand receives 23 percent of respondents, including 6 percent receives revenues exceeding MDL 20 thousand (Figure 1.5.7).

Figure 1.5.7. Distribution of average monthly income, number of respondents



Source: Survey on the financial behavior of the population

The degree of saving among respondents is very low, with 79 percent of respondents saying they have not managed to save in the last 6 months. Similar to the results of the previous survey, the majority of respondents who still manage to save keep their savings in cash (62 percent) or in a bank account (26 percent).

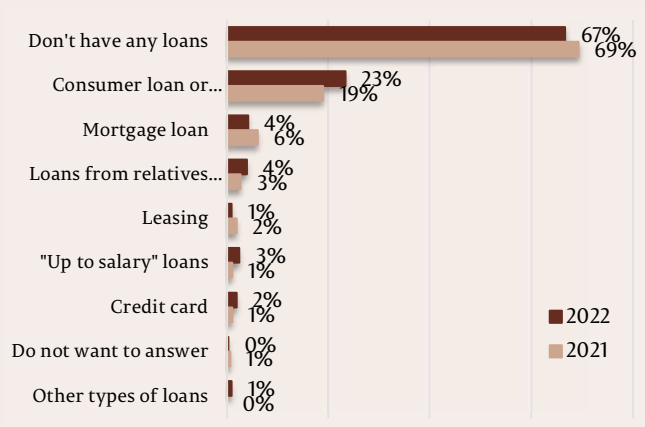
Other ways of keeping savings were listed: term deposits/submissions (7 percent), investments in real estate (4 percent), life Insurance (2 percent), securities and pension/investment funds (1 percent each).

The main purposes of savings remain "for emergency/unexpected situations" (36 percent) and "potential deterioration of the financial situation" (32 percent). Other goals mentioned by respondents are planned future purchases in the short term, long-term goals of saving, investing in profitable assets.

At the time of the survey, only 30 percent of respondents said that they had resorted to sources of finance from lending institutions, the most used instrument being the consumer loan (Figure 1.5.8).

In the next period, only 8 percent of the respondents say they are interested in approaching a lending institution for financing. The most important aspects in the lending process are considered to be the favorable financing conditions, the promptness of the lending decision and the low fees/charges applied.

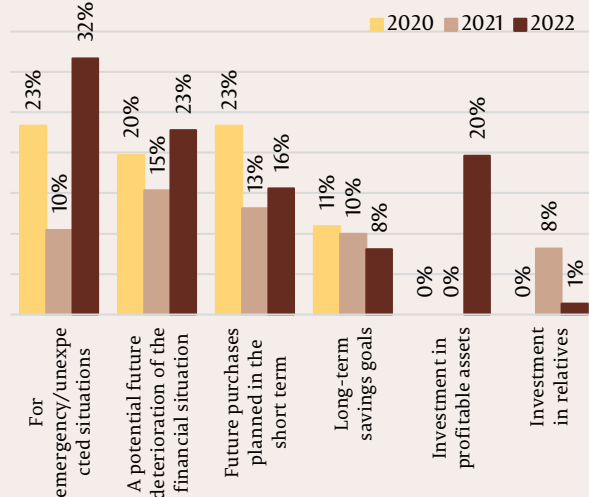
Figure 1.5.8. Distribution of respondents by the type of the loan contracted



Source: Survey on the financial behavior of the population

For more than half of the respondents (59 percent), the credits/loans contracted are a bearable burden. At the same time, 29 percent of respondents say that they have been facing a situation where they have not been able to pay their loan payments on time, due to reasons such as increased expenses, loss of job or insufficient income.

Figure 1.5.9. Purpose of respondents' savings



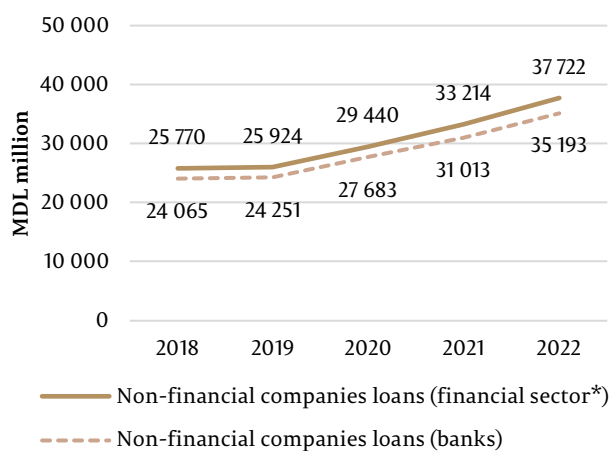
Source: Survey on the financial behavior of the population

Indebtedness of non-financial companies

Lending to the non-financial companies' sector in 2022 was further dominated by the banking sector, at the same time as the growth rate of loans granted by the non-bank lending sector slowed.

At the end of 2022, the balance of loans granted by entities in the financial system to non-financial companies reached MDL 37,721.7 million, increasing by 13.6 percent compared to the end of 2021 (Figure 1.5.10). Banks hold the majority share in comparison with the non-bank lending sector (93.3 percent of the total balance of loans granted by the financial sector belongs to the banking sector).

Figure 1.5.10. Development of lending to nonfinancial companies



* Data related to loans granted by the non-bank sector as of 30.09.2022

Source: NBM, NCFM

Thus, the balance of loans granted by banks to non-financial companies amounted to MDL 35,193.0 million, up by 13.5 percent.

At the same time, the balance of loans granted by NBFIs to non-financial companies in 2022¹⁸ recorded an increase similar to that in the banking sector (+14.9 percent in annual terms), making a proportional contribution to the increase in financing for the non-financial companies' sector.

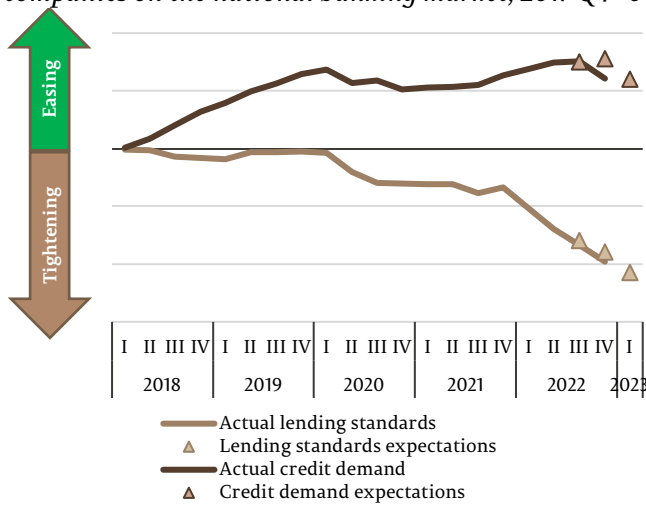
Macroeconomic risks and uncertainties manifested during 2022 caused the most severe tightening of lending standards applied by banks to companies since 2018, exceeding the peak in 2021.

According to the Bank Lending Survey Data, bank lending standards for companies during 2022 had a significant tightening trend, being above the level anticipated by respondents throughout the year. The main factors highlighted by the respondents in connection with the tightening of credit standards were the perception of risks and uncertainties against the background of the tense regional situation and inflationary pressure, as well as the lower tolerance to the assumed risks, which signals a more cautious approach. Higher financing costs also had a negative but comparatively smaller influence.

These conditions determined the respondents, during the first quarter of 2022, to report the

¹⁸ On the situation as of 30.09.2022

Figure 1.5.11. Cumulative quarterly evolution of standards and credit demand from non-financial companies on the national banking market, 2017 Q4=0



Source: Bank Lending Survey, NBM calculations

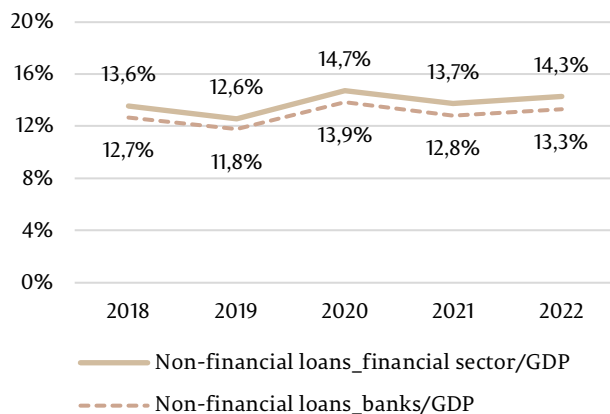
most severe tightening of credit standards since the beginning of the survey (Q1 2018), exceeding the maximum recorded during 2021, the trend of tightening credit standards tempering towards the end of the year.

In the circumstances described the demand for loans from companies registered modest increases during the first three quarters of 2022, with a significant decrease towards the end of the year.

For the first quarter of 2023, respondents indicated a continued demand for lending.

The level of financial intermediation of the Republic of Moldova, in the segment of nonfinancial companies, remained very low, compared to other states in the region.

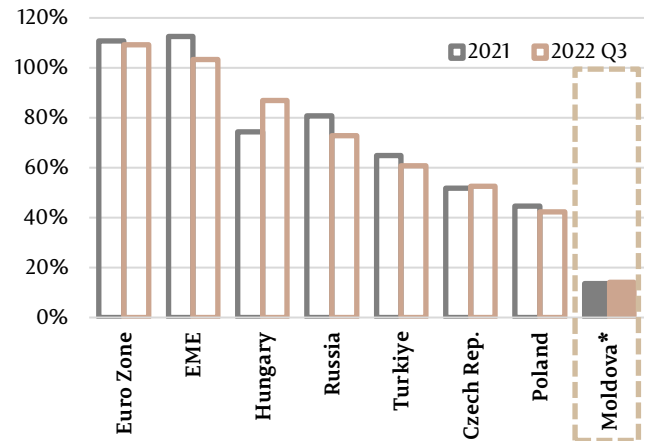
Figure 1.5.12. Share in GDP of loans granted by the banking and non-banking sector



* Data related to loans granted by the non-bank sector as of 30.09.2022

Source: NBM, NCFM, NBS

Figure 1.5.13. Ratio of the balance of total loans to non-financial companies to GDP, by country



* For 2022: data related to loans granted by the non-banking sector as of 30.09.2022. Data related to the banking sector as of 31.12.2022. Source: Bank for International Settlements, NCFM, NBM calculations

At the end of 2022, the share of loans to nonfinancial companies granted by the financial system (banks and non-banks) in GDP was 14.3 percent, up by 0.6 percentage points compared to the end of 2021. (Figure 1.5.12). At the same time, the balance of loans granted by the banking sector registered a level of 13.3 percent (+0.5 p.p. compared to the previous year).

The evolution of the mentioned indicator is largely due to the accelerated growth of lending activity against the background of modest growth of economic activity in nominal terms during 2022.

In the international ranking, in terms of the share of financial intermediation in the segment of nonfinancial companies in GDP, the Republic of Moldova is placed on a lower position compared to other European states and much below the average level of emerging economies (Figure 1.5.13).

Box 2. Survey on the financial behavior of non-financial companies

According to the 2022 financial behavior of non-financial companies survey¹⁹, the main challenges of the last 6 months are: the increase in production costs (75 percent), the unstable political situation (59 percent), the decrease in purchasing power (55 percent), the lack of qualified personnel (52 percent), the reduction in the number of customers (48 percent).

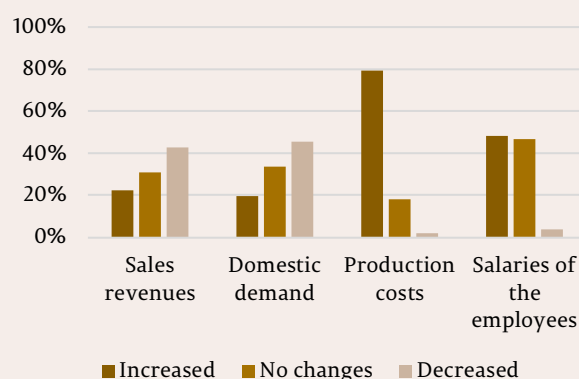
Most of the companies surveyed (67 percent) have reported a profit in the previous financial year. During 2022, sales revenues decreased for 43 percent of the respondent companies; also, the domestic market demand for products/services decreased in the opinion of 45 percent of respondents. At the same time, production costs increased according to 79 percent of companies. As for the salaries of employees of the respondent companies did not change in the case of 47 percent of respondents and in the case of 48 percent-increased.

According to the respondents, the increase in salaries was mainly determined by labor legislation, inflation, evolution of demand for products/services, fiscal policy.

The cases of decreasing salaries were mainly due to: decreasing sales revenues, evolutions in demand for products/services and unfavorable economic situation.

The main source of financing for 88 percent of the respondent companies is internal company sources; 12 percent of the companies used bank lending, and 5 percent – non-bank lending, overdraft and credit lines, financial support from the state or districts.

Figure 1.5.14. Evolution of indicators in the last 6 months (first half of 2022)



Source: Survey on the financial behavior of non-financial companies

At the same time, 9 percent opted for other alternative sources of financing, such as crowdfunding, foreign funds, commercial loans, leasing or factoring.

The main reasons for choosing internal financing to meet company needs, according to the respondents, are sufficiency of resources and/or lack of need for financing (38 percent), refusal of owners to assume additional debts (28 percent); too high costs of external resources (26 percent) and distrust in lending institutions (13 percent).

The primary purpose for seeking financing from a lending institution, stated by 71 percent of respondents, was the financing of an investment project; and 29 percent addressed to lending institutions with the purpose of financing current needs. Moreover, the majority of companies (77 percent) do not intend to change their sources of funding in the next 6 months.

1.6. Sector balance sheets

The national economy remained a net debtor, mainly on the background of the decrease in the net financial value of the non-financial companies sector, while the household sector²⁰

remains the main net creditor of the national economy.

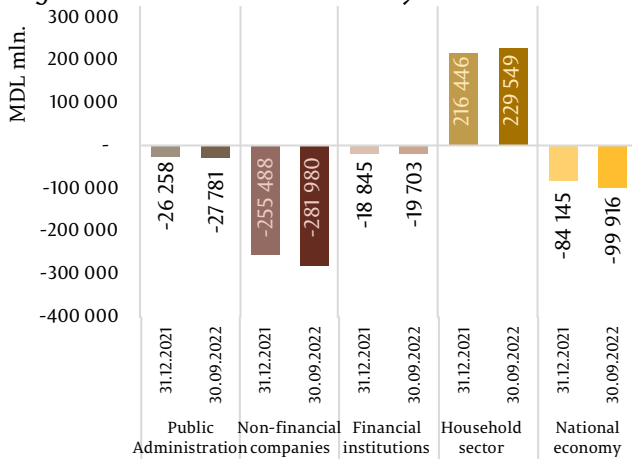
Net financial value²¹ the national economy decreased at the end of the third quarter of 2022 by 18.7 percent compared to the end of

¹⁹ The survey on the financial behavior of non-financial companies was conducted by the NBM on a sample of 375 companies and included 34 questions from three dimensions-general aspects about the company, its financial results, access and funding sources.

²⁰ The household sector also includes non-profit institutions in their service.

²¹ Net financial value is the difference between the total financial assets and the total liabilities recorded by a particular sector of the national economy.

Figure 1.6.1. Net financial value by sector



Source: NBM

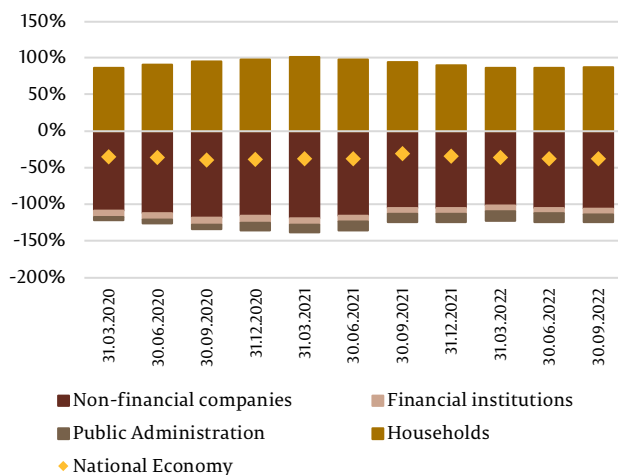
the fourth quarter of 2021, amounting to -MDL 99 915.9 million. This development was determined by the significant decrease (-10.4 percent) of the net financial value of the largest debtor of the national economy - the sector of non-financial companies (Figure 1.6.1).

The sectors of Public Administration and financial institutions also had negative net financial value (debtor), but much lower than that of the non-financial companies sector, of MDL -27,780.8 million (+5.8 percent) and MDL -19,703.3 million (+4.6 percent) respectively.

At the same time, the net financial value of the household sector increased to MDL 229,548.7 million (+6.1 percent).

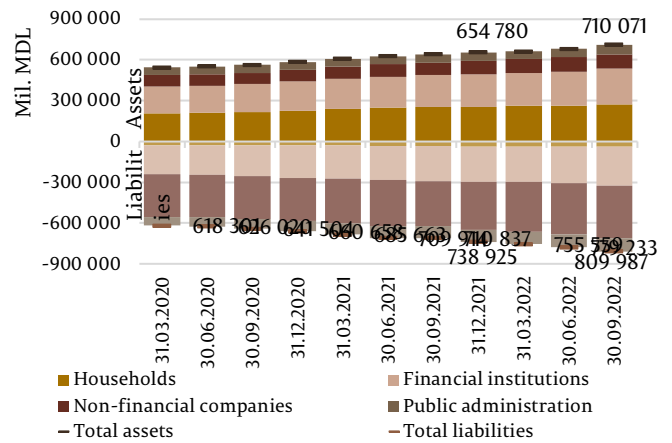
The ratio of net financial value to gross domestic product (GDP) was -37.8 percent (compared to -34.8 percent at the end of the fourth quarter of 2021) (Figure 1.6.2.).

Figure 1.6.2. Evolution of the ratio between net financial value and GDP



Source: NBM

Figure 1.6.3. Financial assets and liabilities of national economy sectors



Source: NBM

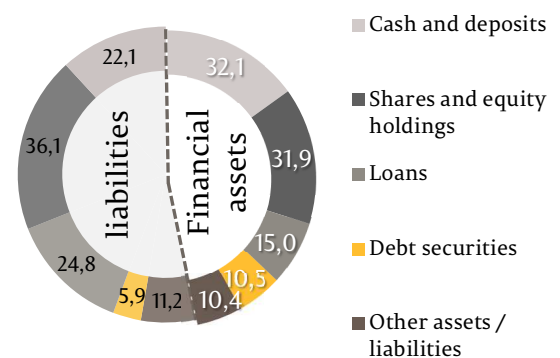
The structure of the financial assets and commitments of the sectors of the national economy differs depending on the type of main activities specific to the sector and its available resources.

Total financial assets and liabilities of the national economy registered an upward trend throughout the reporting period and at the end of the third quarter of 2022, they amounted to MDL 710,070.9 million and MDL 809,986.9 million (Figure 1.6.3.).

At the same time, the growth rate of financial assets compared to the end of the fourth quarter of 2021 (+8.4 percent) was lower than that of liabilities (+9.6 percent).

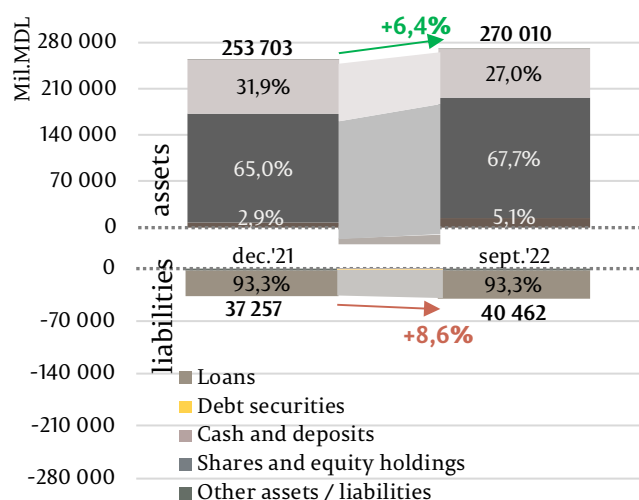
In the structure of financial assets, the major part belongs to cash and deposits (32.1 percent), while in the structure of liabilities, the shares and equity holdings of legal entities registered in the Republic of Moldova predominate (36.1 percent) (Figure 1.6.4.).

Figure 1.6.4. Structure of financial assets and liabilities of sectors of the national economy by instruments, 30.09.2022



Source: NBM

Figure 1.6.5. Structure of financial assets and liabilities of households



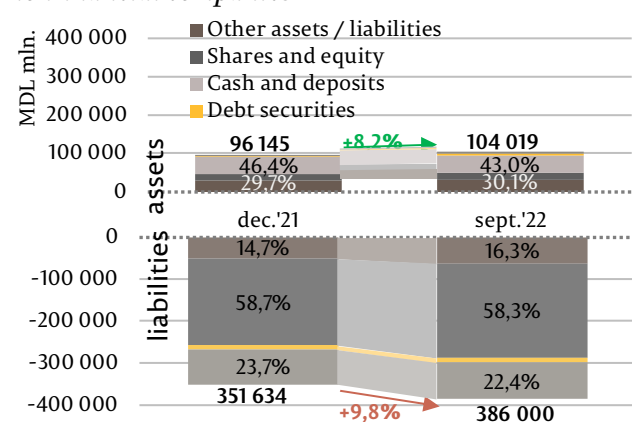
Source: NBM

The household sector represents the largest sector of the national economy in terms of financial assets.

As of 30 September 2022, the household sector held financial assets amounting to MDL 270,010.3 million (+6.4 percent compared to the previous year). The increase in assets was due to the increase in the value of shares and holdings held by the given sector (+10.8 percent), their share constituting 67.7 percent of the financial assets of this sector (Figure 1.6.5.).

At the same time, the balance of cash and deposits decreased by 9.8 percent, which led to the decrease of their share in the financial

Figure 1.6.6. Financial assets and liabilities of nonfinancial companies



Source: NBM

assets of the sector from 31.9 percent at the end of the fourth quarter of 2021 to 27.0 percent at the end of the third quarter of 2022.

The population sector's commitments amounted to MDL 40,461.6 million (+8.6 percent), consisting mainly of contracted loans (93.3 percent of total liabilities).

The sector of non-financial companies represents the largest sector of the national economy in terms of commitments.

The sector of non-financial companies at the end of the third quarter of 2022 had financial assets amounting to MDL 104,019.4 million, by 8.2 percent more compared to the end of the fourth quarter 2021 (Figure 1.6.6.).

In their structure, the major share was held by cash and deposits (43.0 percent of total financial assets), followed by other accounts receivable (30.1 percent of the total).

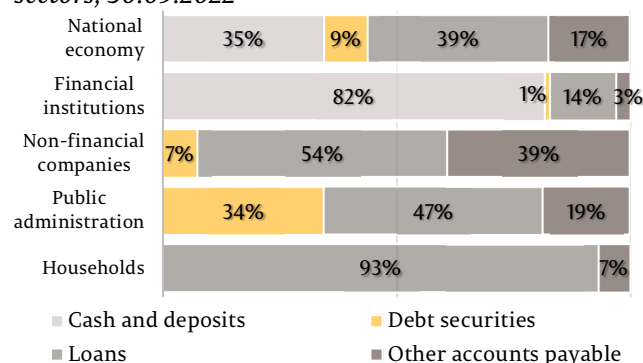
At the same time, the bonds of the respective sector amounted to MDL 385,999.9 million, (+9.8 percent compared to the end of the fourth quarter of 2021).

These were mostly made up of equity (58.3 percent of the total liabilities of the given sector) and contracted loans (22.4 percent). These were mostly made up of equity (58.3 percent of the total liabilities of the given sector) and contracted loans (22.4 percent).

Total debt²²

The largest share of about 38.7 percent in the total debt of the national economy belongs to

Figure 1.6.7. Total debt structure by instruments and sectors, 30.09.2022

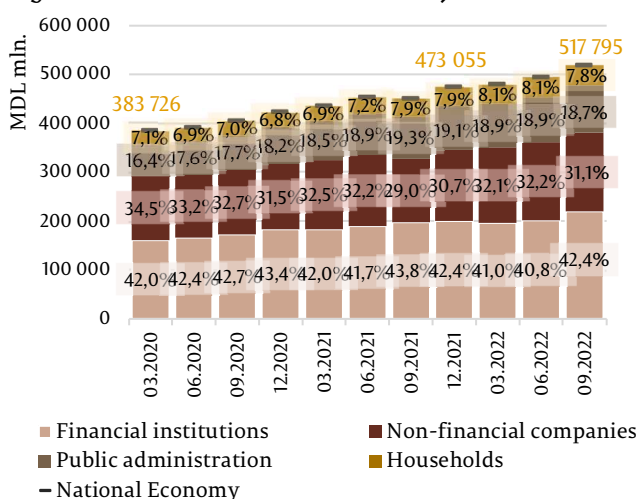


Source: NBM

²² The total debt of a sector is defined as the sum of all liabilities of a sector due to other sectors of the national economy and the "rest of the world" sector, excluding

shares and units in investment funds and financial derivative instruments.

Figure 1.6.8. Evolution of total debt by sectors



Source: NBM

loans, followed by cash and deposits with 34.6 percent (Figure 1.6.7.).

The total debt on the national economy at the end of the third quarter of 2022 amounted to MDL 517,794.6 million.

In absolute values, the total debt of the sectors of the national economy was continuously increasing throughout the period of the first quarter of 2020-third quarter 2022 (Figure 1.6.8.).

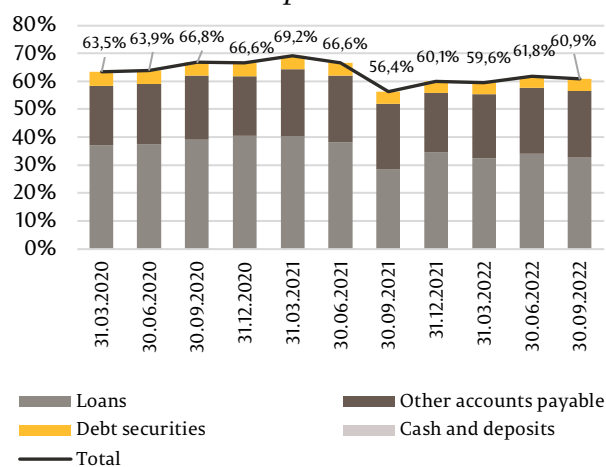
At the end of the third quarter of 2022, this indicator registered an increase of 9.5 percent compared to the end of the fourth quarter of 2021.

The highest level of total debt, being caused by the specifics of its activities as a financial intermediary, according to the situation of 30 September 2022, was registered with the financial institutions sector.

This sector had a debt of MDL 219,321.5 million or 42.4 percent of the total debt of the national economy. From the perspective of instruments, the largest share in the total debt of the sector is represented by cash and deposits (81.6 percent).

The sector of non-financial companies accounted for 31.1 percent of the total debt of the national economy. The total debt of this sector at the end of the third quarter of 2022 registered a value of MDL 160,954.0 million. The value of this indicator relative to GDP increased by 0.8 p.p. compared to the previous year to the level of 60.9 percent (Figure 1.6.9.).

Figure 1.6.9. Evolution of the ratio between total debt of the non-financial companies sector to GDP

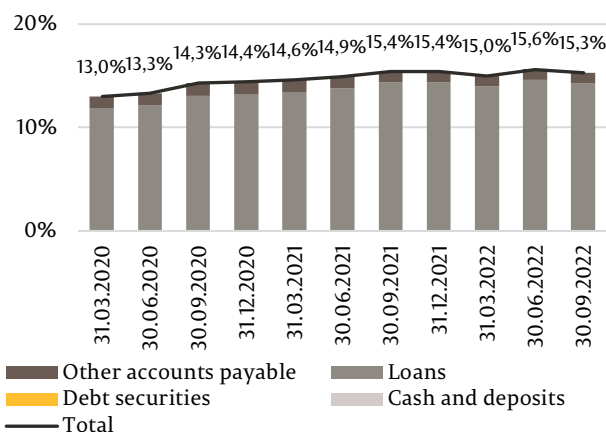


Source: NBM

In the total debt structure of this sector, the major part (53.7 percent) goes to loans taken out, followed by other accounts payable (39.1 percent).

The lowest level of the total debt is attested in the household sector, which accounts for 7.8 percent (MDL 40,461.6 million) of the total debt of the national economy. The total debt of the household sector relative to GDP decreased by 0.1 p.p. compared to the previous year (figure 1.6.10.).

Figure 1.6.10. Evolution of the ratio between total debt of the household sector to GDP

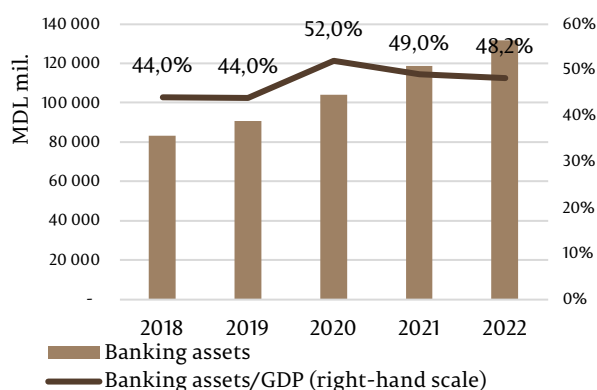


Source: NBM

2. BANKING SECTOR RISKS

2.1. Banking sector²³

Figure 2.1.1. Ratio between bank assets and GDP



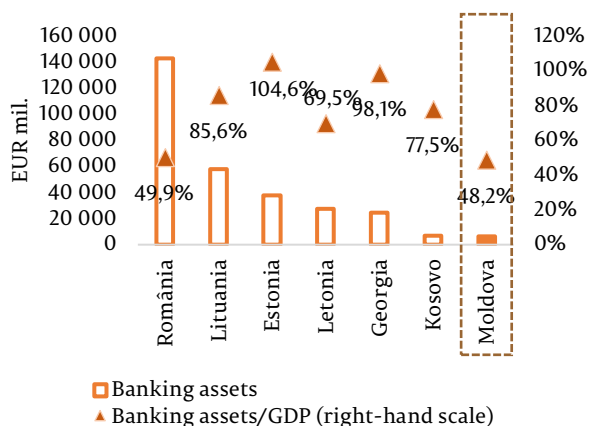
Source: NBM

During 2022, the banking sector was characterized by a good financial performance, maintaining its strong profitability and solvency positions.

At the end of 2022, the total assets of the banking sector amounted to MDL 131,443.7 million, increasing by 10.9 percent compared to 2021. Compared to GDP, however, the volume of banking assets recorded a decrease against the background of faster growth of nominal GDP, thus constituting 48.2 percent (2021: 49.0 percent) (Figure 2.1.1).

In order to limit the systemic impact, the NBM annually determines which banks are

Figure 2.1.2. The ratio between bank assets and GDP in comparison with other states in the region



Source: Eurostat, central bank official pages²⁴

²³ Since the time of drafting the report, some bank data related to 2022 have been or are to be changed as a result of the external audit. Data for previous years represent the final data as a result of the external audit.

²⁴ Data on bank assets were collected from the official pages of central banks in the listed countries. At the same time, the data related to bank assets (Romania, Georgia) and GDP

Table 2.1.1. Ranking of banks that are systemically important companies

Place based on the score	Bank name
1	CB „MAIB” S.A. JSC
2	CB „Moldindconbank” JSC
3	CB „VICTORIABANK” JSC
4	„OTP Bank” JSC

Source: NBM

systemically important and applies additional capital requirements to them (details in subchapter 4.1).

The 4 largest banks remain systemically important institutions (Table 2.1.1). In terms of the volume of assets, the group of systemically important banks owns 80.5 percent of the total bank assets.

In 2022, the banking market concentration index (HHI) (volume of assets) registered the value of 1 918, increasing by 47 reference points compared to 2021; thus, the banking market being moderately concentrated²⁵.

The increase in bank profits in 2022 was largely determined by the monetary conditions on the market.

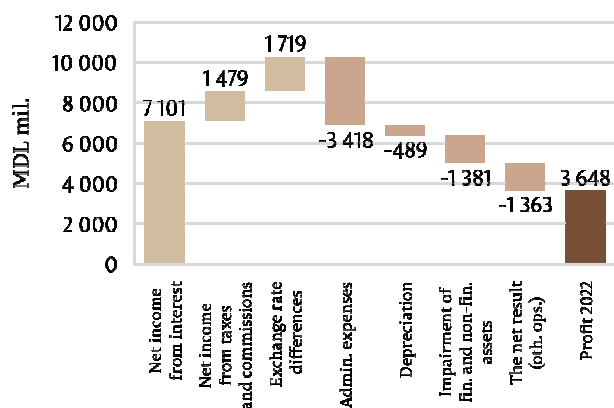
The banking sector ended the year 2022 with an aggregate profit of MDL 3,648.5 million, up by 59.5 percent compared to 2021 (2020: MDL 2,286.8 million).

The increase in profit was determined by the increase in revenues obtained from the funds placed with NBM (RO) by MDL 2,029.7 million (15.6 times) to MDL 2,159.6 million (22.4 percent of total interest income) and increase of income from investments made in loans by MDL 1,522.3 million (37.6 percent) to MDL 5,570.7 million (57.8 percent of total interest income).

(Georgia) were converted into EUR according to the official rate established by the central banks as of 31.12.2022.

²⁵ The level of concentration is determined according to the scale: HHI<100-perfect competition, 100<HHI<1 500 – a non – concentrated market, 1 500<HHI<2 500-a moderate concentration, HHI > 2 500 – a high concentration.

Figure 2.1.3. Profitability of the banking sector

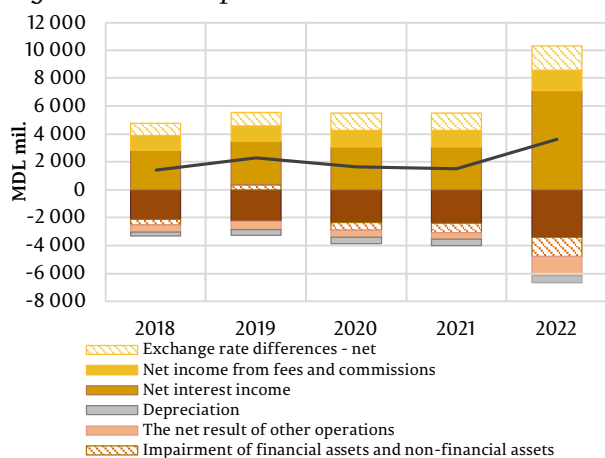


Source: NBM

The main components of interest income were interest income related to loans granted to individuals (30.1 percent), followed by interest income related to non-financial institutions (24.6 percent) and other interest income received from the NBM (22.4 percent).

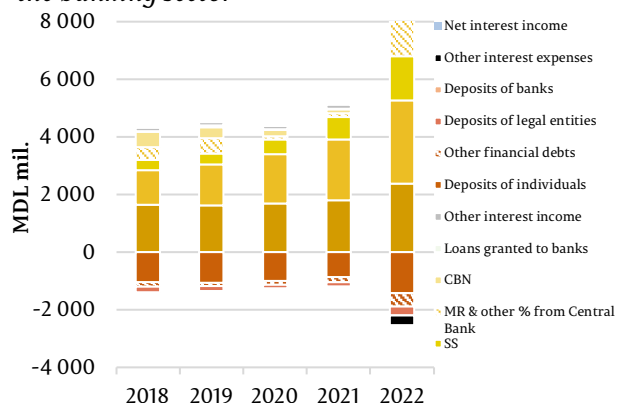
In 2022, interest income amounted to MDL 9,603.5 million, registering an increase of 88.6 percent (+MDL 4,523.5 million) compared to 2021; and the positive result recorded in net interest income was up by 83.8 percent compared to 2021 (MDL +3,238.1 million). This dynamic was driven by the increase in interest income on loan portfolio, namely: loans granted to individuals (MDL +786.2 million), legal entities²⁶ (MDL +1,160.3 million) also had a significant contribution to the growth of interest income related to other interest-generating assets: interest income received from the NBM (MDL +2,029,7 million),

Figure 2.1.4. Bank profit structure



Source: NBM

Figure 2.1.5. Structure of income and expenditure in the banking sector



Source: NBM

banks and other financial institutions (MDL +129.1 million) and public administrations (MDL +26.8 million).

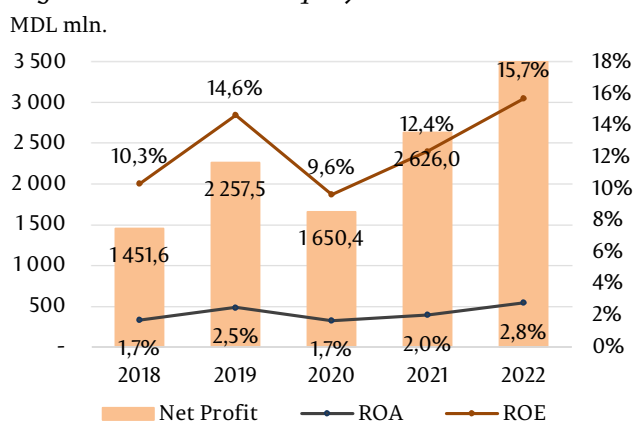
Interest income on debt securities increased by MDL 971.9 million (or by 104.6 percent) compared to 2021 as a result of the tightening of monetary policy (SS MDL +736.6 million and CNB MDL +235.3 million).

The interest income structure reflects that banks' business strategies continue to focus on both lending and investing activities that simultaneously provide liquidity, but also a sufficient degree of diversification, capable of mitigating negative shocks.

Regarding the expenditures related to the operational activity, in 2022, the main source of the decrease in profit for the year was the substantial increase in losses caused by the depreciation of financial and non-financial assets. Thus, the losses caused by the depreciation of financial and non-financial assets amounted to MDL 1,381.2 million (MDL 1,293.0 million compared to the previous year), the evolution leading to a decrease in the financial result recorded at the level of the banking sector. Moreover, expenses on fees and commissions, during 2022, registered an increase of 40.7 percent (or MDL +439.5 million) compared to the previous year; and administrative expenses, an increase of 20.8 percent (or MDL +587.4 million). At the same time, the volume of provisions constituted at the end of the financial year increased by 77 percent (or MDL +166.6 million) compared to 2021.

²⁶ Institutions, non-financial institutions, SMEs, non-SMEs.

Figure 2.1.6. Return on equity and assets



Source: NBM

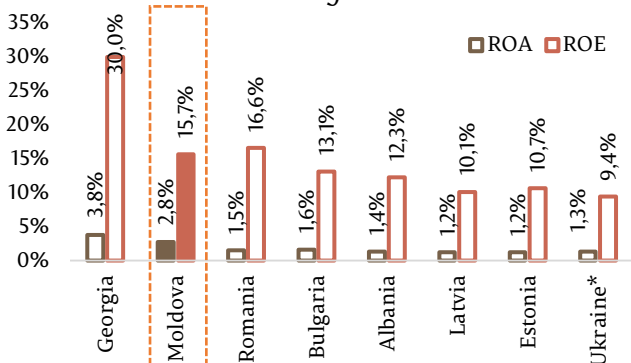
The profitability indicators of the banking sector were above the values of the indicators recorded in the emerging EU states.

During 2022, the values of the main profitability indicators of the banking sector ROA and ROE increased, amounting to 2.8 percent and 15.7 percent, respectively (Figure 2.1.6).

The banking sector is characterized by a consistent level of the capitalization indicator, which significantly exceeds minimum regulatory level, and the macroprudential leverage ratio remained well above the minimum level applicable in the EU states.

At the end of 2022, the total own funds in the banking sector amounted to MDL18,357.4 million (Figure 2.1.8), up by 20.9 percent from the previous year on account of the inclusion of interim profits earned by banks.

Figure 2.1.7. Return on equity and assets compared to other countries in the region

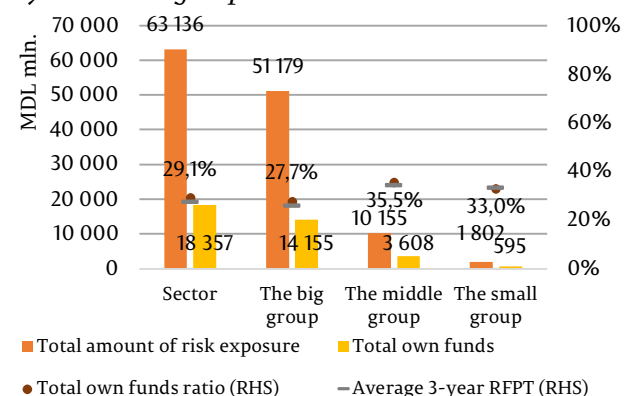


* data for November 2022

Source: NBM, European Banking Authority, official pages of central banks

²⁷ The value of the overall vulnerability index equal to 0, so negative values denote a reduced level of financial

Figure 2.1.8. Banking sector capitalization indicator by sector and groups of banks



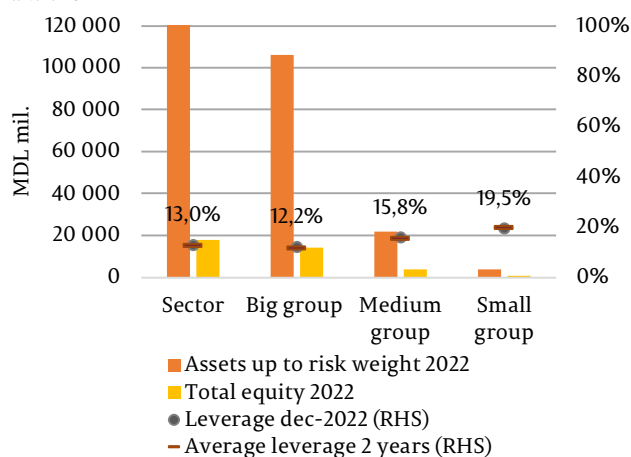
Source: NBM

The total own funds ratio on the banking sector at the end of the reporting year amounted to 29.1 percent, registering an increase compared to 2021 (+3.2 p.p.), amid the increase in the volume of total own funds attributed by banks (Figure 2.1.8). The capital surplus reflects the resilience of the banking sector in the event of potential losses and ensures continuity of lending activity.

For 2022 the macroprudential leverage ratio of the banking sector registered a value of 13.0 percent, increasing by 0.9 p.p. compared to the previous year (Figure 2.1.9).

The overall level of vulnerability of the banking sector, determined on the basis of developments in banks' main economic and financial indicators, remained below the vulnerability threshold²⁷.

Figure 2.1.9. Leverage, by sector and groups of banks



Source: NBM

vulnerability, while a positive value of the index denotes a higher financial vulnerability.

Figure 2.1.10. Dynamics of the overall vulnerability index



Source: NBM

During 2022, the banking sector recorded slight downward trends in the overall vulnerability index²⁸ (Figure 2.1.10). At the end of the year, the banking sector accumulated an overall vulnerability index of (-0.73), a lower level than in 2021. The overall vulnerability index was driven by a high level of capitalization and liquidity of the banking sector, as well as a high level of profitability and improvement in the quality of banking assets. At the same time the sensitivity of the banking sector to market risk increased slightly in 2022.

Vulnerabilities of the banking sector to non-residents

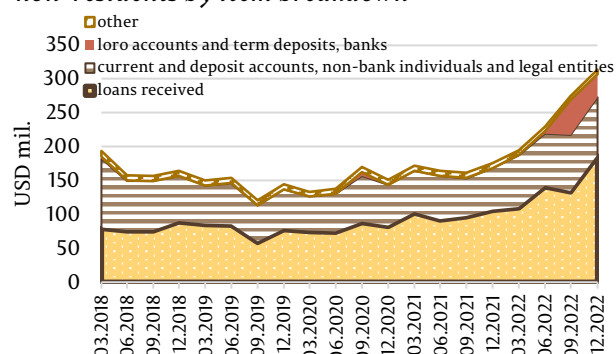
In 2022, the balance of banks' foreign currency liabilities to non-residents increased²⁹ mostly as a result of the attraction of funds from foreign financial institutions, but also of the migration of funds of non-resident individuals to the local banking sector amid increasing security risks in the region.

Thus, the withdrawals of external credit banks increased by 64.8 percent compared to 2021, and the payments of external debt servicing banks decreased by 21.3 percent. Accordingly, the balance of loans received by banks increased by 86.9 percent³⁰ up to USD 186.2 million (Figure 2.1.11), but it continues to remain inferior to the pre-crisis banking years.

²⁸ Aggregate Indicator, calculated as the weighted amount based on the financial soundness indicators scores.

²⁹ By 88.2 percent by excluding exchange rate influence. At effective exchange rate, the balance of banks' foreign currency liabilities to non-residents, being mainly denominated in EUR, increased less, by 78.7 percent,

Figure 2.1.11. Foreign exchange assets attracted from non-residents by item breakdown



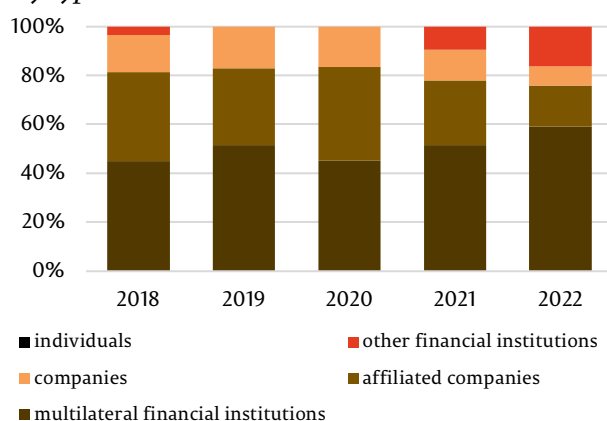
Source: NBM

Regarding the developments by type of creditor, there was observed a revival of lending from multilateral financial institutions and some investment funds, the balance of loans received by banks from them consolidating as a share in the structure of external loans (Figure 2.1.12).

At the same time, local banks also benefited from interbank financing, mainly intra-group in the form of deposits. Thus, at the end of 2022 their balances amounted to USD 34.0 million compared to USD 0.2 million at the end of 2021, reaching a maximum balance of USD 53.6 million during the year.

The balance of current and foreign currency deposit accounts of non-resident non-bank customers increased by USD 26.9 million or

Figure 2.1.12. Structure of loans received by banks, by type of creditors



Source: DMFAS

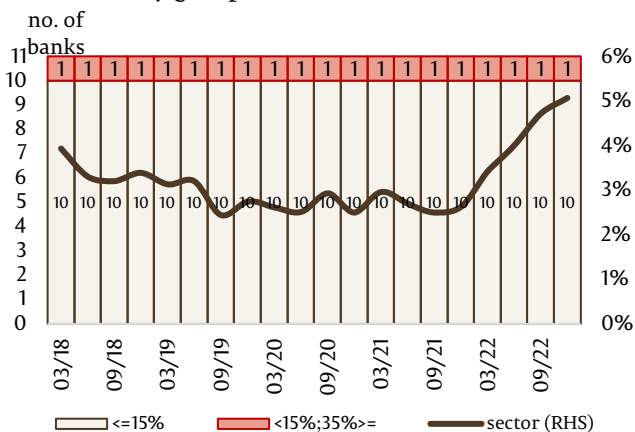
following the depreciation of the EUR against the US dollar on foreign markets.

³⁰ By excluding the influence of the exchange rate. At the effective exchange rate, the balance of external loans received increased by 76.5 percent.

44.8 per cent³¹, up to USD 86.9 million, as a result of the increase in the balance of accounts of individuals.

Other types of non-resident liabilities continued to be negligible both in terms of level and evolution.

Figure 2.1.13. Exposure to non-residents through foreign exchange in relation to total capital and liabilities, by groups of banks



Source: NBM

Although the exposure of local banks through foreign exchange attracted from non-residents more than doubled compared to the end of 2021, it continued to be at low levels (Figure 2.1.13).

At the end of the reference year, the exposure was 5.7 percent in relation to total capital and liabilities (compared to 2021: 2.6 percent, 2020: 2.5 percent; 2019: 2.7 percent, 2018: 3.4 percent).

According to the situation at the end of the reporting year, 10 of the banks remain exposed by foreign exchange means attracted from non-residents in total capital and liabilities in reasonable proportions up to 15 percent (minimum – 0.3 percent, maximum – 11.4 percent). Between 15 percent and 35 percent ranks only a bank founded by foreign investors.

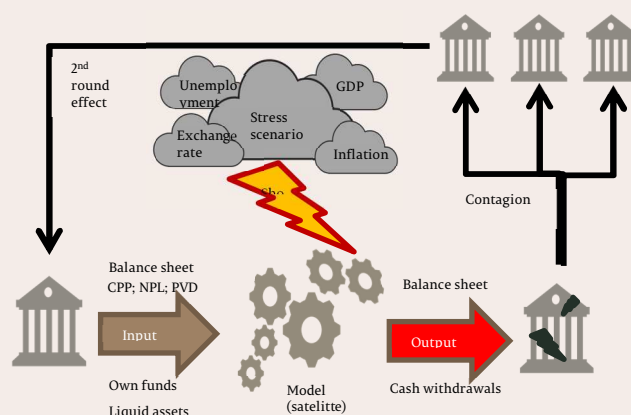
Box 3. Banking sector stress tests

Stress testing principles³² were proposed by the Basel Committee on Banking Supervision in 2009 and updated in 2018, taking into account the experience gained in this area.

Stress testing is an exercise, where the actual data of financial institutions are affected by a hypothetical stress scenario (an assumption "what if?"). These exercises are not a prediction and should not be treated as an imminent future for those financial institutions.

However, the results obtained from the simulation of stress scenarios allow the identification of vulnerabilities related to characteristic of each institution individually and their early addressing in the proves of bank supervision process. The results of the stress testing can also be used by regulatory authorities to make decisions on the minimum capitalization and liquidity levels that would ensure institutions are sufficiently resilient in financial crisis situations.

Figure 2.1.14. Scheme of conducting a stress testing



Source: NBM

The typology of stress testing is very varied. Depending on the complexity of the shock, we can differentiate sensitivity analyses (measure the impact of independent shock variables on dependent variables) and stress testing (which transpose the impact of macroeconomic factors on institutions' balance sheets).

³¹ By excluding the influence of the exchange rate. At the effective exchange rate, the current and deposit account balance of non-resident non-bank customers increased by 38.8 percent.

³² Stress testing principles, 2018, <https://www.bis.org/bcbs/publ/d450.pdf>

Depending on the risk there are solvency stress testing (assess credit risk, market risk, operational risk) and liquidity stress testing (assess liquidity risk). Depending on how they are performed, they can be performed "bottom-up" and "top-down"; also, a special type is back-testing.

In order to identify and prevent potential vulnerabilities in the domestic banking sector, the NBM performs, ex officio, regular stress testing exercises.

2.2. Credit risk

Credit risk increased in 2022, especially from the perspective of the worsening financial situation of both institutions and the population, as a result of decreasing disposable incomes and persistent macroeconomic instabilities in the region.

During 2022 the total loan portfolio of banks increased by MDL 5,268.0 million (+9.3 percent), with the total balance at the end of the period amounting to MDL 61,627.2 million (2021: MDL 56,359.2 million).

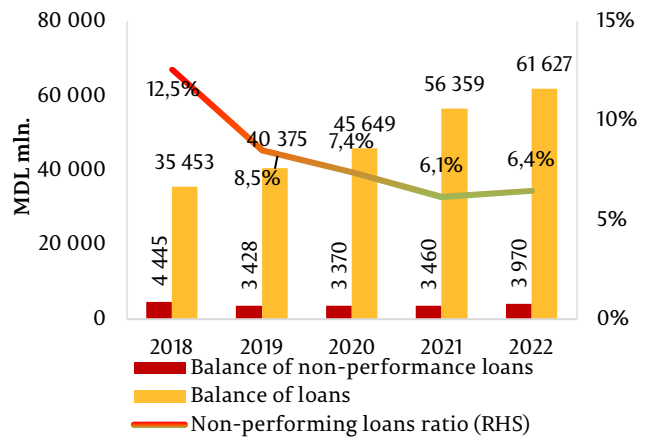
At the same time, the accelerated growth of non-performing loans in relation to the total loan portfolio caused the rate of non-performing loans to slightly increase to 6.4 percent (2021: 6.1 percent), the total stock of non-performing loans recorded an increase of 14.7 percent, thus marking the fastest annual deterioration in the quality of the loan portfolio after 2016.

The annual growth rate of the volume of new loans granted was reduced due to the decrease in the lending of the population, amid the background of both reduced demand for loans from individuals and tightening lending standards on the part of banks.

The value of new credit agreements concluded by banks (Figure 2.2.2) during the year recorded a slight increase of 5.9 percent compared to 2021 (2021/2020: +35.8 percent). The increase in new loans granted to the companies of 26.9 percent since 2021, a record increase over the last 8 years actively contributed to this positive trend.

At the same time, the volume of new loans granted to individuals by banks recorded the largest decrease since the crisis of 2008. Thus, new consumer loans granted in 2022 decreased by 30.8 percent, and new

Figure 2.2.1. Evolution of loan balance and nonperforming loans ratio in total loans



Source: NBM

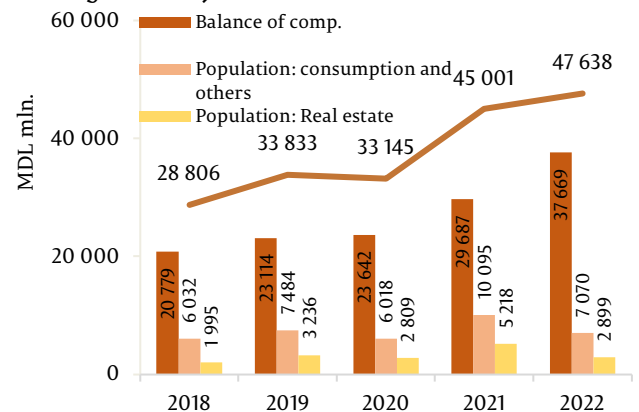
mortgages – by 44.4 percent compared to the volume of loans disbursed during 2021.

In the separate analysis of the loan portfolio, 2022 was noted by the considerable slowdown in lending to individuals, simultaneously with the continuation of the upward trend of loans granted to companies observed since 2019.

The annual growth rate of the balance of loans granted to companies was maintained in 2022, the total value being 14.5 percent above the level at the end of 2021.

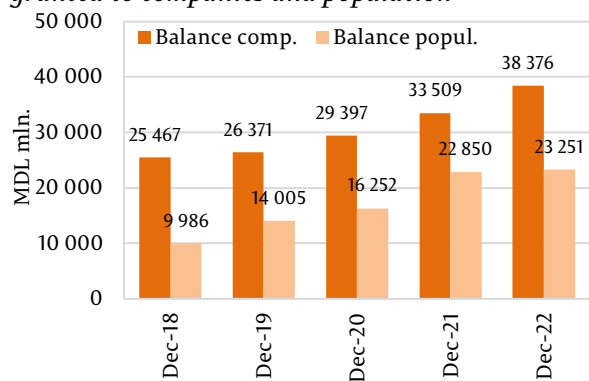
At the same time, the balance of loans granted to individuals recorded the lowest

Figure 2.2.2. Evolution of the total volume of new loans granted by banks



Source: NBM

Figure 2.2.3. Evolution of the balance of loans granted to companies and population



Source: NBM

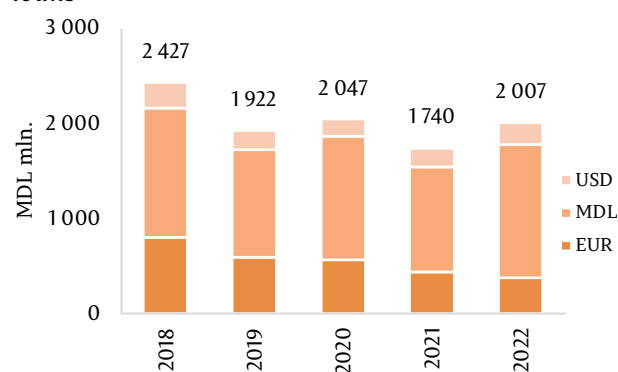
increase in recent years - 1.8 percent or MDL +401.1 million compared to 2021. Therefore, the share of loans granted to individuals in the total loan portfolio of banks decreased to 37.7 percent (dec-2021: 40.5 percent).

In 2022, lending to individuals by banks was affected by both severe tightening of lending standards and reduced demand from the population.

According to the opinion of the respondents to bank lending survey³³, the negative trend of lending standards for the population was caused by the perception of the presence of risks, especially from the perspective of expectations regarding the general economic situation, the risk associated with the creditworthiness of customers, together with expectations regarding the real estate market. At the same time, in 2022 the demand for loans by population registered the biggest decrease in the 6 years of the survey.

Lending standards for lending to companies also had a tightening trend in 2022, driven mainly by banks' risk perception, but also by pessimistic expectations regarding the overall economic situation. In particular, the most exposed economic sectors to credit risk, according to the respondents, are construction, energy, agriculture, industry and trade sectors. At the same time, the demand for loans by companies remained on an increasing trend, except for the fourth quarter of 2022 marked by a significant reduction in demand.

Figure 2.2.4. Evolution of the balance of overdue loans



Source: NBM

The indicators characterizing the quality of loans have shown an unfavorable dynamic in some segments of the banking portfolio.

During the reporting period, the overdue loans recorded an increase, the amount of loans with payment delays of more than 30 days being 15.3 percent higher than the end of 2021 and holding a share of 3.3 percent of banking portfolio. This unfavorable dynamic was caused by the significant increase in the overdue loans of individuals by 50.4 percent. Disaggregated by currencies, loans in EUR record the lowest rate of overdue loans - 2.6 percent, followed by loans in MDL-3.5 percent.

The quality of loans decreased slightly, both those granted to companies and those granted to the population, the most unfavorable dynamics being recorded loans granted to the productive industry, agriculture, other loans, but also consumer loans.

The most negative trend was the portfolio of loans granted to companies in the productive industry, which in 2022 recorded an increase in the NPL rate by 7.7 p.p., thus 16.9 percent of loans granted to this sector, being classified by banks in non-performing categories. At the same time, negative dynamics recorded NPL rates of loans granted to agriculture (+4.9 p.p.), other loans (+5.0), and consumer loans (+1.5 p.p.).

These four categories account for MDL 19,605.8 million or 31.8 percent of the bank loan portfolio (Table 2.2.1).

³³ The NBM conducts the Bank Lending Survey quarterly, in order to determine the financing conditions and the risk

profile of the financial-banking system in the Republic of Moldova, with the participation of 11 respondent banks.

Table 2.2.1. Non-performing loan ratio by types of loans and branches of activity

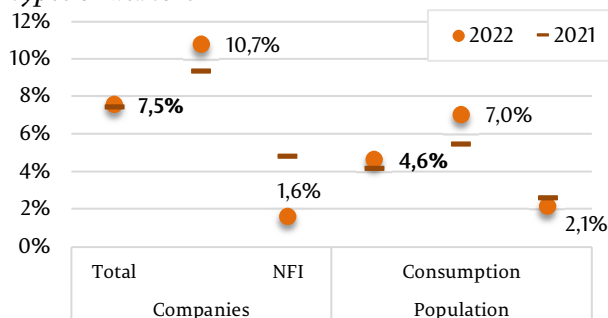
Name of debtors' branch	Balance 2022, MDL mln.	NPL Ratio	
		2022	2021
Agriculture	4 465,6	14,7%	9,8%
Food industry	4 399,8	5,9%	6,4%
Constructions	1 417,3	10,1%	9,8%
Consumer loans	10 009,5	7,0%	5,5%
Energy industry	927,3	1,8%	14,7%
TAU/ institutions subordinated to the TAU	713,6	0,0%	0,0%
Productive industry	2 659,5	16,9%	9,2%
Trade	13 880,3	4,5%	5,7%
Non-banking financial environment	2 469,3	1,6%	4,8%
Acquisition of real estate	12 293,2	2,1%	2,6%
Individuals performing an activity	1 632,3	7,2%	7,1%
Transport, telecommunication and network development	2 001,3	5,7%	7,6%
Field of service provision	2 287,2	13,1%	14,6%
Other loans granted	2 471,2	11,5%	6,5%
Total	61 627,2	6,4%	6,1%

Source: NBM

Loans granted to SMEs, which represent almost 1/3 of the total bank loan portfolio, also registered a deterioration in quality, having a performance below the average in the corporate sector (Figure 2.2.5).

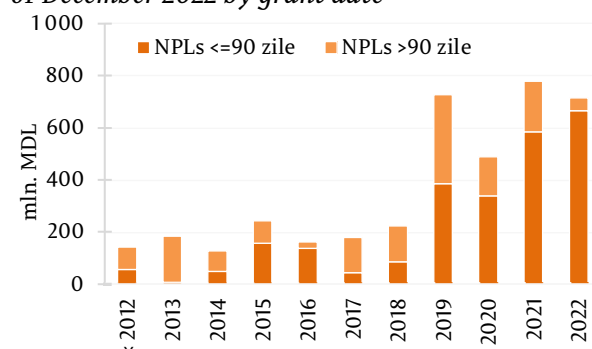
At the same time, the most favorable dynamics was manifested by the portfolio granted to the energy industry, which in 2022 recorded a decrease in the NPL ratio by 12.9 p.p. to the level of 1.8 percent. A similar trend registered loans to NFI, whose non-performance rate improved during 2022 to

Figure 2.2.5. Rate of non-performing bank loans by types of debtors



Source: NBM

Figure 2.2.6. Breakdown of non-performing loans as of December 2022 by grant date



Source: NBM

1.6 percent, being the best performing sub-portfolio of non-governmental loans.

The persistence of non-performing exposures from the period of economic imbalances and the banking crisis in 2014-2015 decreased significantly in relation to the portfolio at the end of 2022.

Of the total stock of non-performing loans 18.0 percent constitute loans with the date of granting in 2022. The breakdown of non-performing loans as of December 2022, depending on the date of granting, shows that over 2/3 of the total balance of non-performing loans, existing in banks' balance sheets as of December 2022, represent loans granted in 2019-2022. It is noteworthy that they were classified as non-performing by banks, largely on the basis of criteria other than the number of days outstanding, which indicates a more cautious and forward-looking approach in the credit quality assessment process (Figure 2.2.6).

The average default rate (loans with arrears on payments over 90 days) was lower in 2022 compared to 2021, both for the portfolio of companies and for loans to the population, with the highest rates recorded in the fourth quarter of 2022. (Table 2.2.2).

The share of companies (A-D) newly entering the 90+ days outstanding (E) category in a 12-month period was 1.6 percent in 2022 (2021: 2.4 percent), and for the population this indicator was 3.2 percent (2021: 4.0 percent).

A significantly higher non-repayment rate recorded for loans with payment delays between 30 and 90 days (C and D) of

Table 2.2.1. Debtor migration matrix³⁴ by the number of days of payment arrears³⁵ (dec. 2021-dec. 2022)

Companies	A	B	C	D	E
A	97,3%	1,1%	0,8%	0,3%	0,5%
B	51,1%	18,5%	10,3%	6,3%	13,8%
C	34,6%	4,6%	14,7%	21,0%	25,1%
D	15,5%	1,5%	10,5%	12,6%	59,9%
E	7,7%	0,3%	0,9%	1,4%	89,6%

Population	A	B	C	D	E
A	96,1%	1,1%	1,4%	0,5%	0,9%
B	36,3%	31,9%	6,8%	12,4%	12,5%
C	28,1%	3,2%	15,7%	17,6%	35,5%
D	11,8%	1,4%	13,4%	11,2%	62,1%
E	7,0%	0,4%	1,5%	2,5%	88,7%

Source: NBM

companies, which in 2022 migrated at a rate of 16.5 percent (2021: 28.1 percent) in Category E, while for the population this rate decreased to the value of 23.4 percent (2021: 26.8 percent).

A favorable trend also recorded the rate of "recovery" of debtors in category E, which was 10.7 percent for companies and 10.8 percent for the population.

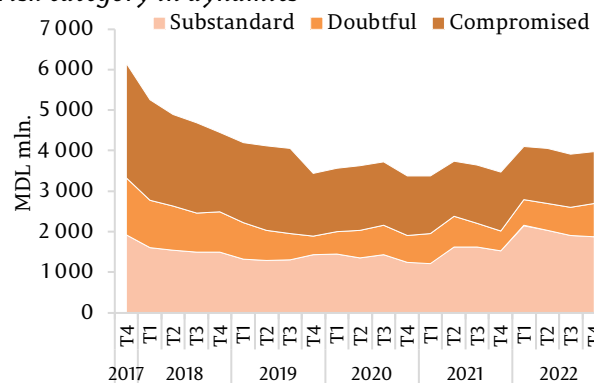
The prudential approach applied by the national regulatory framework is more conservative than the "non-performing credit" notion associated with IFRS, taking into account also the qualitative factors associated with the debtor.

³⁴ Interpretation: the spaces to the right of the diagonal axis represent the migrations of debtors into more unfavourable categories (more days outstanding), the percentage of the diagonal axis reflects the share of loans remaining in the same category, and the spaces to the left - migrations into more favourable categories.

³⁵ Average quarterly migration rate of unique debtors between categories: A - delay up to and including 15 days, B - delay between 16 and 30 days, C - delay between 31 and 60 days, D - delay between 61 and 90 days, E - delay over 90 days.

³⁶ Banks in the Republic of Moldova classify loans in accordance with the Regulation No 231/2011 on the classification of conditional assets and liabilities, (the provisions of which are considered to have a more conservative approach compared to the practices of other countries), which stipulates that when assessing

Figure 2.2.7. Structure of non-performing loans by risk category in dynamics



Source: NBM

The structure of non-performing loans by risk category shows an increasing accumulation of the balance of loans classified in the "substandard" and "doubtful" risk categories during 2022, the sharpest increase being recorded in the first quarter. At the same time, banks reduced the balance of non-performing loans in the "compromised" risk category, which mitigated the total increase in the stock of non-performing loans to 14.7 percent compared to the previous year.

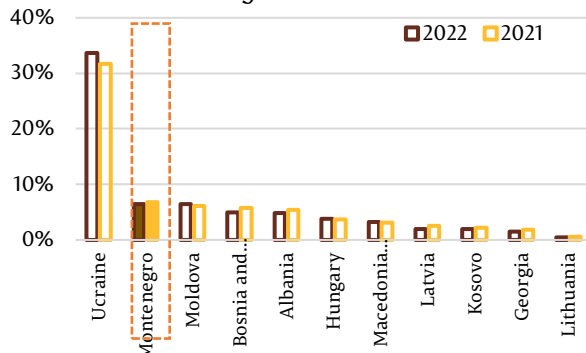
Thus, as of 31 December 2022, non-performing loans continued to be concentrated, mainly, in the "substandard" risk category" with a share of 47.1 percent of total non-performing loans by sector. The method of determining and defining "performing loans" differs between countries, as do the regulations on writing off non-performing loans from banks' balance sheets.

In the Republic of Moldova, a more conservative approach is applied, where a number of qualitative factors³⁶ in addition to

conditional assets and, the bank shall take into account at least the following:

- a) the counterparty's current financial situation assessed in terms of its ability to honour its commitments;
- b) compliance with the terms of the contract;
- c) the counterparty's ability to pay based on historical financial performance and estimated future cash flows;
- d) the current market value of the pledged item and its degree of liquidity on the Moldovan market;
- e) the counterparty's business environment, the state of the economic sector in which it operates and its position within this sector;
- f) the credit history of the counterparty's compliance with its obligations under the credit agreements;
- g) compliance with the business plan or technical and economic rationale (including subsequent amendments and additions);

Figure 2.2.8. The non-performing loans ration in the Republic of Moldova compared to the rates of the countries of the region



Source: NBM, IMF

the number of days outstanding are considered in the classification.

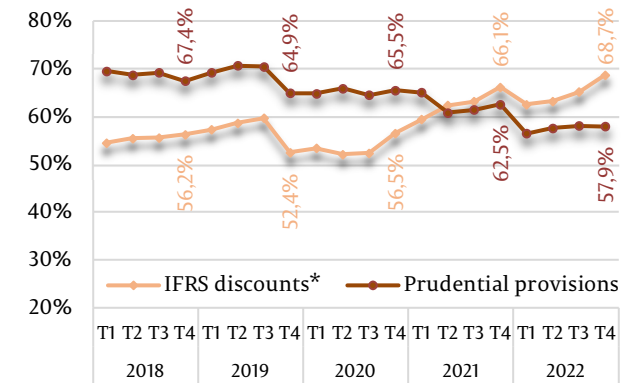
Thus, the non-performing loan ratio in the domestic banking sector was at a higher level compared to the rates of the countries in the region (Figure 2.2.8), except for Montenegro and Ukraine, the latter recording a level of 36.6 percent.

The coverage of non-performing loans by prudential provisions remained at a comfortable level.

At the end of the year under review, 57.9 percent of non-performing loans were covered by prudential provisions, recording a decrease of 4.6 p.p. in 2022. This dynamic is explained by the increase in the concentration of non-performing loans in the risk category with 30 percent provisioning substandard.

At the same time, the coverage rate of loans and advances classified as impaired assets (in 3rd Stage according to IFRS 9) with accounting provisions remained over the last 7 quarters above the prudential level of coverage and registered 68.7 percent at the end of the year (Figure 2.2.9). More than 2/3 of the amount of loans and advances were covered with accumulated depreciation, which allows to protect the solvency of banks from possible losses in case of non-repayment of these loans.

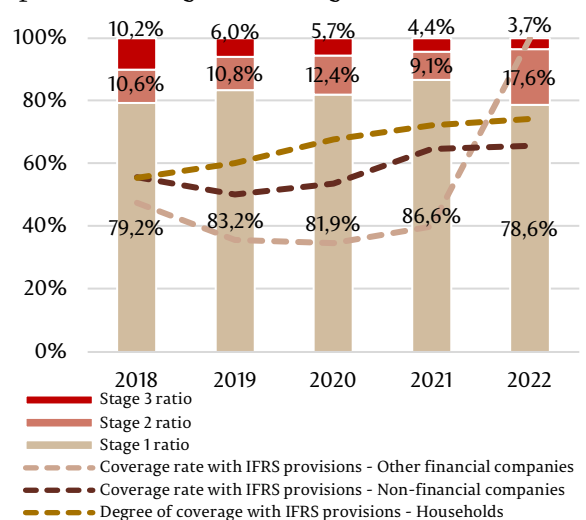
Figure 2.2.9. Development of non-performing loan coverage ratio



Source: NBM

The classification by depreciation stages according to IFRS 9 at the end of 2022 registered a considerable change compared to the end of 2021 (Figure 2.2.10). The share of loans and advances granted classified under 2nd Stage of depreciation (category signal to future perspectives on non-performing loans and advances) were 17.6 percent, almost double the previous year (2021: 9.1 percent), exceeding the previous peak in 2020 (2020: 12.4 percent). At the same time, the share of loans and advances classified in Stage 3 (impaired assets) recorded a favorable downward trajectory from 2018 and reached 3.7 percent at the end of the year under review.

Figure 2.2.10. Dynamics of classification by depreciation stages according to IFRS 9



Source: NBM

h) the financial situation and payment capacity of the person providing a personal guarantee (surety) or the insurer;

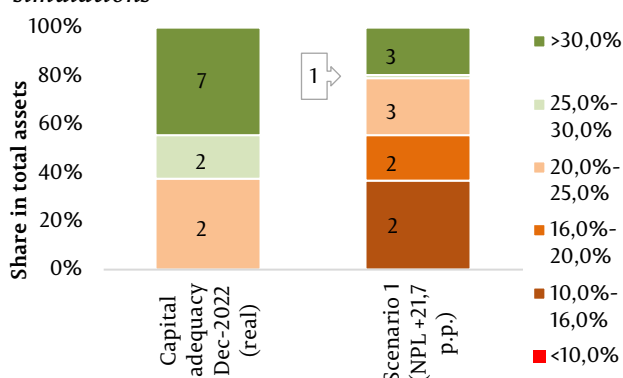
i) other factors which may affect the counterparty's compliance with the terms of the contract.

The provision coverage reflects the expected level of recoveries from bank exposures. Thus, the loan portfolio granted to financial institutions other than banks recorded the highest value (100.0 percent), followed by the loan portfolio granted to the population (74.3 percent) and exposures to non-financial companies (65.6 percent).

The results of the stress simulations show that the banking sector as a whole in the medium severity scenarios shows a robust resilience.

The NBM conducts regular stress tests on credit risk in order to quantify resilience of the banking sector. The solvency of banks is tested by univariate estimation of the impact of the credit portfolio quality deterioration on the own funds' ratio. The results of the stress tests are not a forecast, but a simulation of scenarios to answer the "what if" question.

Figure 2.2.11. Results of credit risk stress test simulations



Source: NBM

In the stress scenario³⁷ simulating a 27 p.p. increase in the NPL ratio, all banks have an own funds ratio indicator above the minimum regulatory level of 10.0 percent, except one bank.

Credit risk increased during 2022 in the context of macroeconomic instability and uncertain prospects.

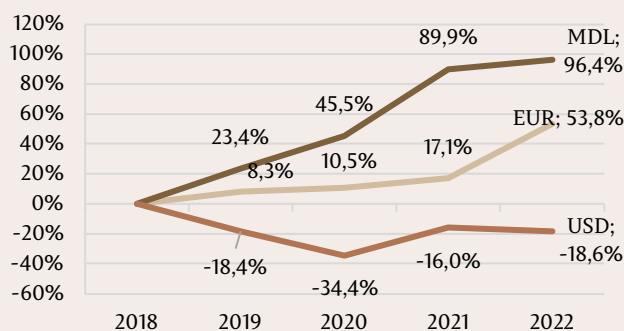
The quality of the banking portfolio in some segments has significantly deteriorated as a result of the worsening of the financial situation of companies and the decrease of the disposable income of the population.

In order to prevent and mitigate the identified systemic risks, the NBM introduced instruments to limit consumer indebtedness in order to prevent over-indebtedness of vulnerable segments of the population (details in Chapter 5.1). In addition, in order to strengthen banks' resilience to potential losses that could arise as a result of difficulties in repaying existing loans by individuals, the NBM increased the systemic risk capital buffer by 2 p.p. for banks' exposures to resident individuals (details in Chapter 4.1).

At the same time, the credit risk analysis highlights the effectiveness of prudent risk management policies by banks that managed to maintain sufficient capital under adverse conditions.

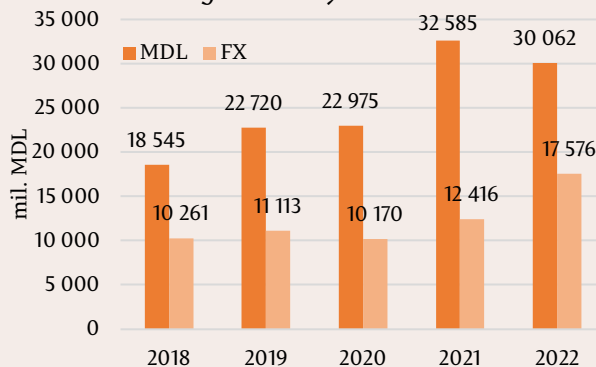
Box 4. Lending in foreign currency

Figure 2.2.12. Cumulative growth rate of credit balance on currency (Dec.2018 = 0 percent)



Source: NBM

Figure 2.2.13. Dynamics of the volume of new loans in MDL and foreign currency



Source: NBM

³⁷ The simulated scenario assumes the estimation of the potential impact of the absolute increase of "non-performing loans" indicator up to 28.17 percent (the average

level between the crisis of 1998-1999 and the crisis of 2009-2010).

Foreign currency lending increased in 2022. Loans in EUR recorded a record increase in annual terms.

Loans in EUR recorded an increase of 31.3 percent compared to the same period of 2021, amounting to EUR 722.0 million per banking sector or 23.9 percent of the total loan portfolio (Figure 2.2.12). Loans in USD, after the growth recorded in 2021, returned to the downward trend established in the last 7 years.

In 2022, the volume of new loans granted in foreign currency and linked to the exchange rate increased, recording an increase of 41.6 percent (compared to the previous year, MDL equivalent), exceeding the growth rate recorded in 2021 (+22.1 percent). This development, according to the results of the Bank Lending Survey, is also explained by the increased demand for foreign currency loans from companies, even in the context of tighter standards for foreign currency loans compared to MDL loans.

As of end-2022, foreign currency loans accounted for 30.5 percent of the total portfolio (2021: 26.5 percent). MDL loans linked to the foreign exchange rate accounted for 4.1 percent of the total gross loan portfolio (MDL 2,518.2 million).

Thus, loans in USD were less and less demanded by bank customers, their stock decreasing by 3.1 percent in 2022, and the share in the total bank loan portfolio reaching 6.6 percent (2021: +6.9 percent).

Table 2.2.3. Non-performance ratio by type of debtors and currencies

Debtor/ Currency	Companies		Population		TOTAL
	NPL Ratio	Balance, MDL mln.	NPL Ratio	Balance, MDL mln.	
MDL	7,8%	17 838,6	4,6%	22 483,6	6,1%
EUR	6,0%	14 538,2	4,0%	176,5	6,0%
USD	12,6%	4 041,9	6,4%	30,2	9,3%
Attached	12,6%	1 957,2	3,6%	561,0	10,6%
TOTAL	7,5%	38.375,9	4,6%	23.251,3	6,4%

Source: NBM

Demand from companies for foreign currency loans increased significantly in 2022.

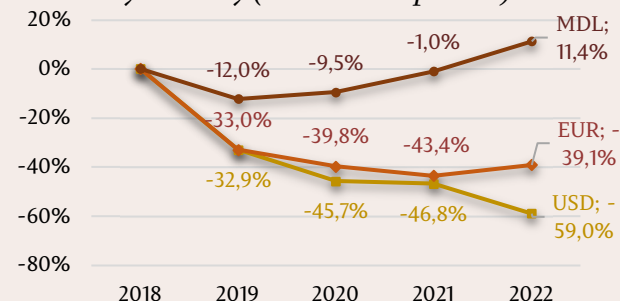
In 2022, the volume of new loans granted in foreign currency and linked to the exchange rate increased, recording an increase of 41.6 percent (compared to the previous year, MDL equivalent), exceeding the growth rate recorded in 2021 (+22.1 percent). This development, according to the results of the Bank Lending Survey, is also explained by the increased demand for foreign currency loans from companies, even in the context of tighter standards for foreign currency loans compared to MDL loans.

The value of new loans granted in MDL to companies was 14.4 percent higher than the volume of loans granted in foreign currency.

The risk profile of foreign currency lending, although improved compared to previous periods, is at a more unfavorable level compared to that of domestic currency lending.

The rate of non-performing loans denominated in foreign currency continued the favorable trend and decreased in 2022 to 7.2 percent, of which the rate of loans in EUR accounted for 6.0 percent and that of loans in USD – 9.3 percent. This favorable trend was due to a reduction in the balance of non-performing loans in USD by 11.5 percent (Figure 2.2.14).

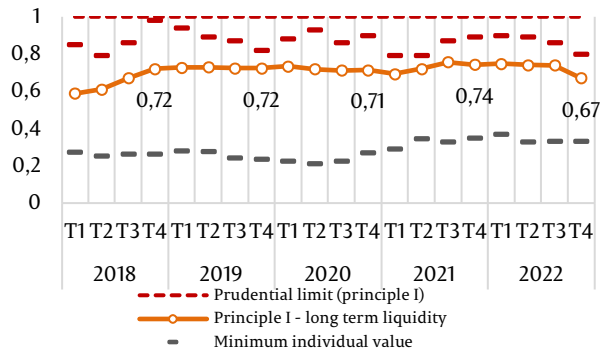
Figure 2.2.14. Cumulative growth rate of loan balance by currency (Dec.2018 = 0 percent)



Source: NBM

2.3. Liquidity risk

Figure 2.3.1. Evolution of the long-term liquidity indicator

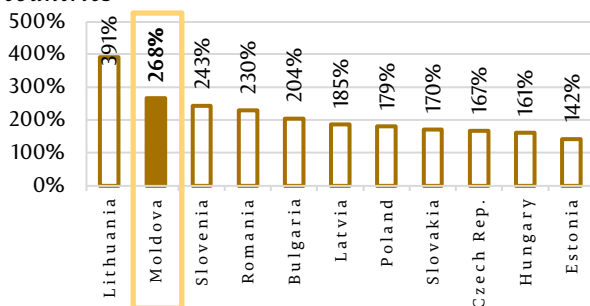


Source: NBM

During 2022, banks registered a favourable liquidity position, with liquidity indicators registering higher levels in relation to regulated requirements.

The long-term liquidity indicator (principle I) calculated for the banking sector decreased during the year from 0.74 to 0.67 (regulatory limit ≤ 1.0) (Figure 2.3.1), And at the individual level, no bank recorded the value of this indicator above the prudential limit. The values of the liquidity indicator by maturity bands (principle III) were placed above the limit set for each maturity interval, increasing compared to the previous year on intervals shorter than 3 months, and decreasing on intervals longer than 3 months (Figure 2.3.2). The lowest indicator values were recorded for the extreme bands, the short-term liquidity indicator (less than one month) registering the lowest value compared to other liquidity indicators.

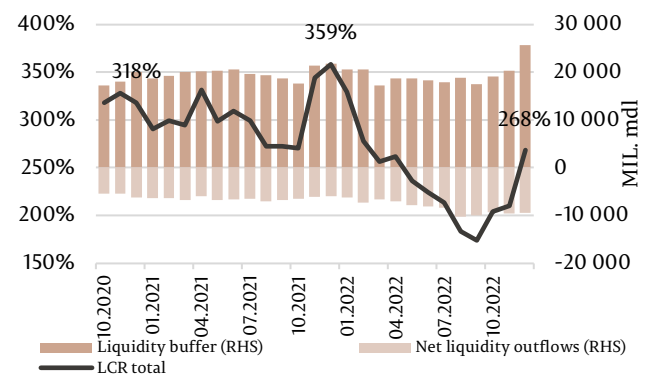
Figure 2.3.3. LCR indicator in relation to EU countries



Source: NBM

³⁸ In accordance with the Regulation on liquidity coverage requirements for banks, the liquidity coverage ratio is applied as follows: in accordance with the Regulation on liquidity coverage requirements for banks, the liquidity coverage ratio is applied as follows:

Figure 2.3.4. Evolution of the LCR indicator



Source: NBM

The banks have reserves and solid liquidity inflows relative to cash outflows. The aggregate value of LCR across the domestic banking sector registered 267.9 percent at the end of 2022, all banks maintaining an indicator level above the minimum regulatory limit³⁸.

Relative to countries in the region, the aggregate LCR level in the domestic banking sector is at the upper side of the distribution (Figure 2.3.3).

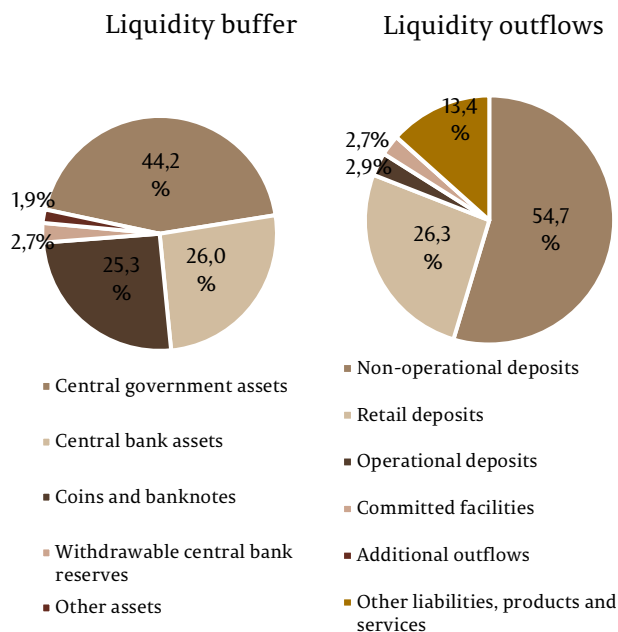
However, the sharp decrease in the LCR indicator in the first nine months of 2022 is mainly based on the considerable decrease in the liquidity buffer and the considerable increase in liquidity outflows (Figure 2.3.4).

Central government assets (44.2 percent) account for a significant share of the total LCR liquidity buffer, followed by central bank assets (26.0 percent) and coins and banknotes (25.3 percent), while liquidity outflows are generated by non-operational deposits (54.7 percent) and retail deposits (26.3 percent) (Figure 2.3.5).

The negative effects of the armed conflict in the neighboring state were felt, materializing in an increased number of requests for withdrawal of bank deposits. The phenomenon was short-lived, and the significant liquidity held by the banks allowed them to meet the demands received.

2) 70 percent, as of January 1, 2021;
3) 80 percent, as of January 1, 2022;
4) 100 percent, as of January 1, 2023.

Figure 2.3.5. Structure of the Reserve and liquidity outflow from the LCR indicator as of 31.12.2022



Source: NBM

Thus, in the first four months of 2022, the balance of deposits decreased, mainly generated by external events.

They decreased by 8.5 percent compared to the end of 2021, amounting to MDL 82,458.2 million. The balance of deposits of individuals decreased by 9.3 percent (MDL -5,219.3), and the balance of deposits legal entities - by 7,1 percent (MDL -2,425,9 million).

The largest withdrawals of deposits from banks occurred with the onset of the war in Ukraine and until 24 March 2022.

The sharpest decrease was recorded in the deposits of individuals, which in 4 weeks decreased by 9.1 percent or MDL 5,128.5 million. It is worth noting that in the period from 24 February 2022 to 24 March 2022 term deposits of individuals were withdrawn from banks in a larger volume than demand deposits.

By the end of October, the balance of deposits was above the level recorded at the beginning of the year, amounting to MDL 89,537.3 million up by 1.3 percent compared to January 2022.

Deposits continue to be the main source of funding for the banking sector in the Republic of Moldova.

At the end of 2022, the balance of deposits amounted to MDL 94,968.6 million registering an increase of 5.4 percent compared to the previous year. At the same time, the share of

deposits in total assets amounted to 72.2 percent, decreasing by 3.8 p.p. compared to the previous year. From the point of view of the currency in which they are constituted, deposits in MDL hold a share of 60.0 percent of the total deposits, increasing by 2.7 p.p. compared to the previous year, and deposits in foreign currency a share of 40.0 percent, decreasing by 2.7 p.p. compared to the previous year. At the same time, at the end of 2022, demand deposits had a share of 57.2 percent of total deposits, and term deposits – a share of 42.8 percent. It should be mentioned that the growth rate of demand deposits (2.8 percent compared to the previous year) and term deposits (9.1 percent compared to the previous year) is lower compared to the end of 2021, when it was 13.1 percent compared to the previous year.

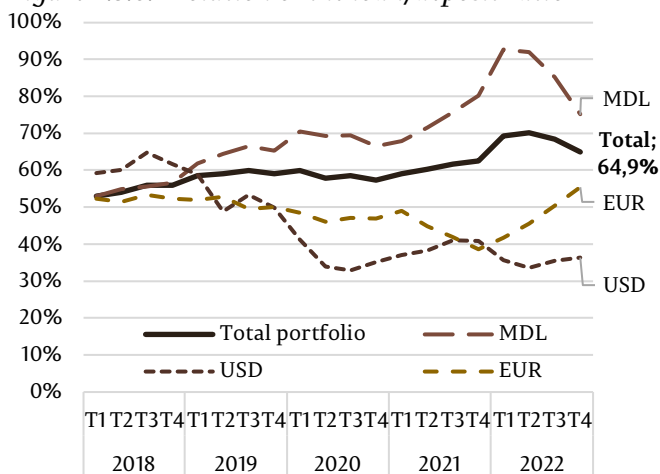
Although the "loans / deposits" indicator increased slightly (+2.3 p.p.) compared to the previous year, it remains at a low level, which indicates a greater capacity of banks to cope with financial stress situations.

The "loans/deposits" indicator increased sharply in the first quarter of 2022 against the background of significant withdrawals of deposits after the start of the war in Ukraine. In the following quarters, it was placed on a decreasing trend against the background of the diminishing lending activity by banks and the replenishment of the balance of attracted deposits.

In the division on the main currencies present in the banks' balance sheets, the largest increase in the "loans/deposits" indicator was recorded for EUR (+16.8 p.p. compared to the previous year), given the increase in the balance of loans and the decrease in the balance of deposits in EUR. At the same time, the ratio of loans and deposits in national currency and USD, respectively, decreased by 5.0 p.p. and 4.6 p.p. respectively, compared to the end of 2021, largely due to the pronounced increase in the balance of deposits compared to the more temperate evolution of the balance of loans in national currency and USD during 2022 (Figure 2.3.6).

The population still maintained its net position as a creditor of the banking sector.

Figure 2.3.6. Evolution of the loan/deposit ratio



Source: NBM

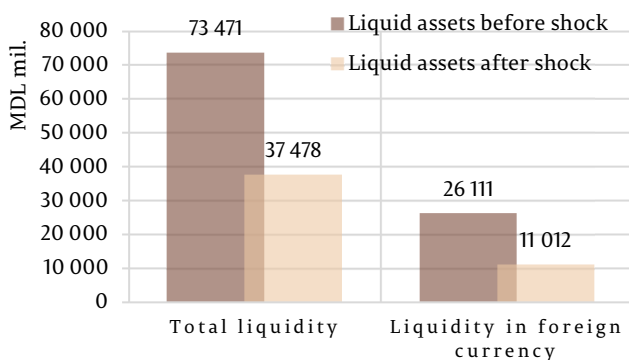
According to the separate analysis by categories of customers, the "loans/deposits" ratio on the segment of individuals recorded a decrease from 40.9 percent to 39.4 percent during 2022, as a result of the tempering of lending and the significant increase in the balance of deposits of individuals.

At the same time, the position of the non-financial companies sector as a net debtor of banks increased from 96.7 percent to 107.7 percent, given the increase in the balance of loans to non-financial companies.

Liquidity stress testing exercises did not identify liquidity problems in banks.

During 2022, regular stress scenario simulations were conducted to assess the bank's ability to meet their obligations. In this context, liquid asset inflows were calculated over a one-month horizon, together with non-uniform deposit withdrawals according to the type of depositors (individuals, legal entities, banks).

Figure 2.3.7. Impact of liquidity shock on banks' liquid assets as of 31.12.2022



Source: NBM

The results did not identify any liquidity shortfalls registered at individual or aggregate banking sector level (Figure 2.3.7). Under these conditions, the liquidity risk of the domestic banking sector is currently low, and the liquidity position shows a sufficient buffer to cope with significant deposit withdrawals in both domestic and foreign currency.

Overnight loans/deposits

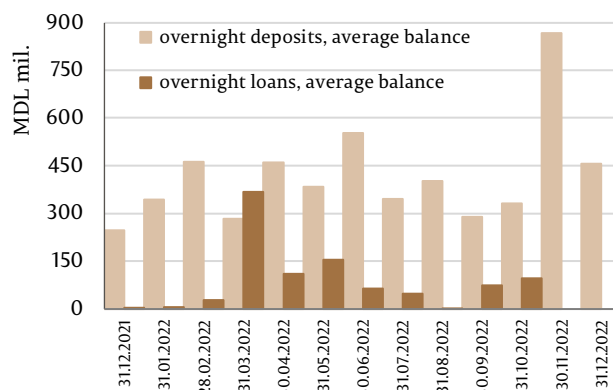
Banks' demand for the deposit facility offered by the NBM in 2022 increased compared to previous years, with banks traditionally using the overnight deposit facility towards the end of the required reserves establishment periods, as banks fulfilled their required reserves maintenance obligation.

The total volume of overnight deposits placed by banks with the NBM in 2022 amounted to MDL 110.9 billion (2021: MDL 59.3 billion), the average daily balance being MDL 429.9 million, almost double the level of the previous year (2021: MDL 219.1 million).

The average monthly balance of overnight investments of banks recorded uneven values during 2022, the maximum (MDL 866.7 million) being recorded in November, and the minimum (MDL 282.1 million) in March (Figure 2.3.8).

As for the overnight credit facility, in 2022, for the first time, after a seven-year break (since 2014), banks borrowed a lot from the NBM through overnight loans, against the background of the military conflict in Ukraine.

Figure 2.3.8. The evolution of the average monthly balance of overnight deposits/loans



Source: NBM

The total amount of overnight loans granted by the NBM in 2022 amounted to MDL 14,074,0 million, registering an increase of more than 6.4 times compared to the previous year (2021: MDL 2,191.5 million). Unlike the previous years, when the credit facility was usually requested at the end of the required reserve periods, in the first half of 2022 (in the first months of the War in Ukraine) the banks used overnight loans from the NBM during the entire months. Only in March, in the context of the liquidity deficit, the NBM delivered almost half of the annual volume of overnight loans – MDL 6,523,0 million, which is also the monthly maximum recorded this year. In March 2022, it was registered the maximum balance of overnight loans (MDL 366.5 million).

Money market operations of the NBM

The net liquidity position of banks became strongly negative in March 2022, in the context of increasing liquidity preference, including the interventions of the NBM as a seller on the foreign exchange market in the first quarter, with the onset of the War in Ukraine.

Thus, in March, the NBM became a net lender to the banking sector for the first time since 2015. Therefore, the balance of repo operations recorded a historical maximum of MDL 3,894.0 million at the end of this month. Under the impact of the increase of the required reserves related to the MDL liabilities of banks in the period May-September, partially mitigated by the net purchases of foreign currency in this period, the daily balance of CNBs recorded a minimum value at the end of the third quarter of 2022 (MDL 1p,057.9 million), and the balance of repo operations remained high.

The restoration of the positive sign of the banks' net liquidity position in October and the subsequent consolidation of its relatively high values had the effect of a sensitive reduction in the banks' liquidity demand in the last two months of the year, implicitly there was a drastic decrease in the number of participants and the volume of offers submitted in repo auctions, the average daily stock of which decreased considerably compared to previous periods and became null at the end of 2022.

Amid the monetary policy decision of the NBM at the beginning of December and the signals sent by the central bank in this context, as well as the resumption of the cycle of diminishing the required reserves norm, CNBs fully recovered the decreases recorded during the year, following a moderately upward trajectory, registering the annual maximum of MDL 6,598.6 million at the end of 2022.

However, the volume of issued certificates has compressed considerably (by about 2 times), a situation also reflected in the annual average of the stock of CNBs placements, which halved compared to 2021.

2.4. Market risk

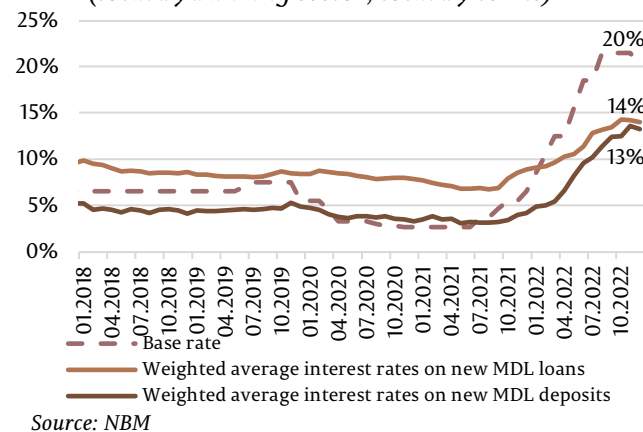
Evolution of the base rate and interest rates applied by banks

During the period under review, the base rate applied to the main monetary policy operations of the NBM increased significantly, in response to the strong inflationary trend observed during the year.

The corridor system of interest rates related to permanent facilities used by the NBM during 2022 further signaled the general orientation of monetary policy, contributing to the tempering of money market interest rates, given that the close relationship between monetary policy rate and market interest rates is an important factor for monetary transmission.

Six base rate changes were made during 2022.

Figure 2.4.1. Evolution of base rate and weighted average interest rates of new loans and deposits in MDL (total by banking sector, total by terms)



At the end of 2022, the base rate was 20 percent, by 12 p.p. higher compared to the end of the previous year.

Interest rates applied to new loans and deposits reacted accordingly, but their growth dynamics were weaker compared to the monetary policy instrument. Monthly weighted average interest rates on new deposits attracted and new loans granted continued their upward trend.

In general, a strategy of small banks to offer higher rates on deposits is observed, while charging higher interest on loans granted, compared to the average in the banking market.

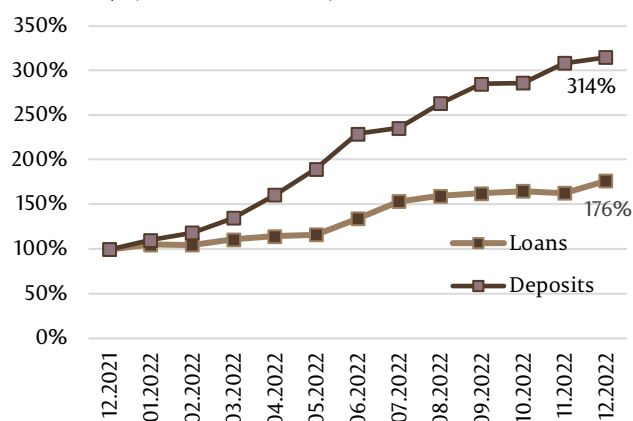
The weighted average interest rate applied in 2022 to new loans granted in national currency at the banking sector level amounted to 12.40 percent for loans granted to individuals and 11.28 percent for those granted to legal entities. At individual level, at the end of the year the average effective rates applied to new loans in national currency ranged between 9.87 and 22.74 percent for loans granted to legal entities, and between 13.17 and 20.56 percent for loans granted to individuals.

At the same time, the weighted average interest rate applied during 2022 on new deposits attracted in MDL at the banking sector level amounted to 12.28 percent for deposits attracted from natural persons and 5.86 percent for deposits attracted from legal entities. The average effective rates, applied by banks at the end of the year, ranged between 14.66 and 18.01 percent for individuals and 2.50 and 14.32 percent for legal entities.

The dynamic analysis of the rates on new loans and deposits granted by banks to individuals in 2022 showed a strong upward trend for lending and depositing rates in MDL, a significant increase in rates for foreign currency deposits and a relative stability of rates on foreign currency loans.

The interest rate on new loans granted in MDL to individuals at the end of 2022 was 76 percent higher compared to the end of the previous year. The most pronounced increase occurred in June and July, when the weighted

Figure 2.4.2. Increase of average rates on loans and new deposits granted to individuals, in national currency (dec.2021 = 100%)

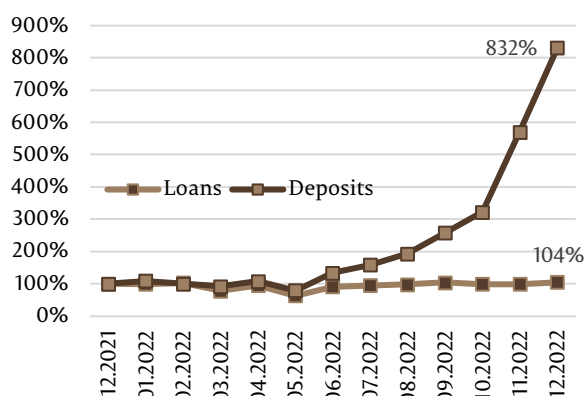


Source: NBM

average rate of new loans granted increased by 16 and 14 percent, respectively, compared to the previous month. In the case of new foreign currency loans granted to individuals, in December 2022 they recorded an increase in the weighted average rate by 4.2 percent compared to the end of the previous year. The evolution of this rate showed less volatility, given the slower pace of reaction of other world-class central banks to inflationary shocks.

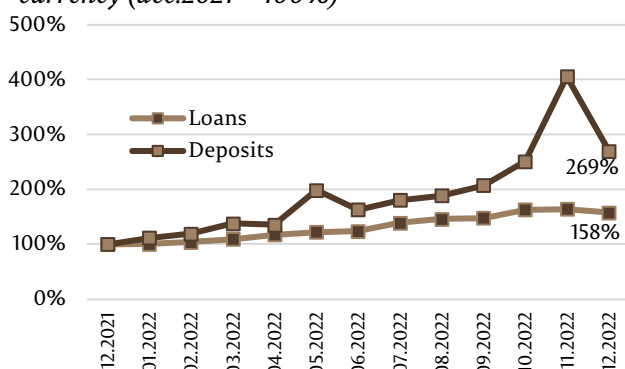
In the case of new deposits attracted from individuals during 2022, the weighted average interest rate followed a common trend with that of loans for deposits in national currency, while for those in foreign currency, the trends were decoupled, being recorded a strong increase in rates against the background of the relative stability of rates on foreign currency loans.

Figure 2.4.3. Increase in average rates on new loans and new deposits granted to individuals, in foreign currency (dec.2021 = 100%)



Source: NBM

Figure 2.4.4. Increase of average rates on loans and new deposits granted to legal entities, in national currency (dec.2021 = 100%)



Source: NBM

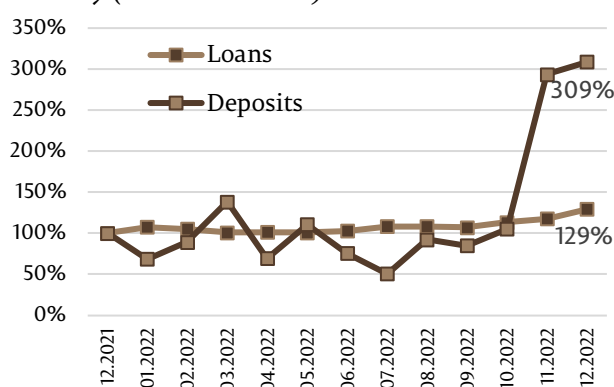
The rates on new loans granted in MDL and foreign currency had an upward trend in the case of loans granted to legal entities. The rates on deposits attracted in MDL and foreign currency showed a similar trend, demonstrating at the same time a much stronger volatility.

The weighted average rate on new loans granted to legal entities in national currency increased compared to the end of 2021, its growth rate reaching the level of 158 percent.

A similar development was observed in the case of new loans granted to legal entities in foreign currency, but with a weaker growth. At the end of 2022, it reached the level of 129 percent compared to 2021.

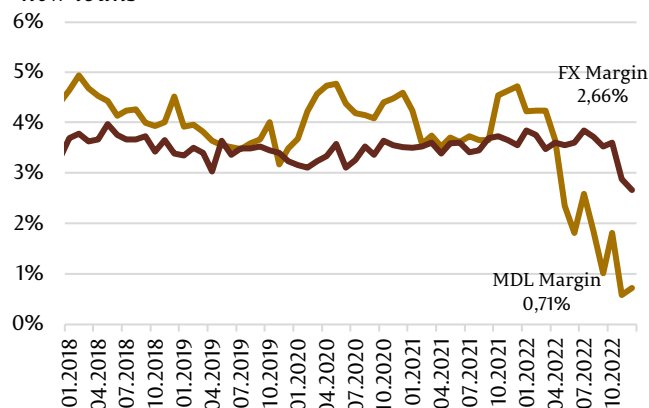
At the same time, the average interest rates applied to new deposits attracted from legal entities increased significantly during the reporting year, with the largest increases being recorded for rates on foreign currency deposits – 309 percent.

Figure 2.4.5. Increase in average rates on new loans and deposits granted to legal entities, in foreign currency (dec.2021 = 100%)



Source: NBM

Figure 2.4.6. Evolution of net interest margin on new loans



Source: NBM

It is worth noting that the average interest rates applied to new deposits attracted from legal entities increased considerably compared to the rates of new loans granted both in foreign currency and in national currency, demonstrating, at the same time, a more pronounced volatility.

During the reference period, deposit rates increased more sharply than those on loans, which led to a narrowing of the banks' profitability margin.

Thus, the interest margin on operations in national currency decreased by 4.0 p.p. compared to December 2021, amounting to 0.71 percent, and the interest margin on operations in foreign currency decreased by 0.9 p.p. compared to December 2021, amounting to 2.66 percent.

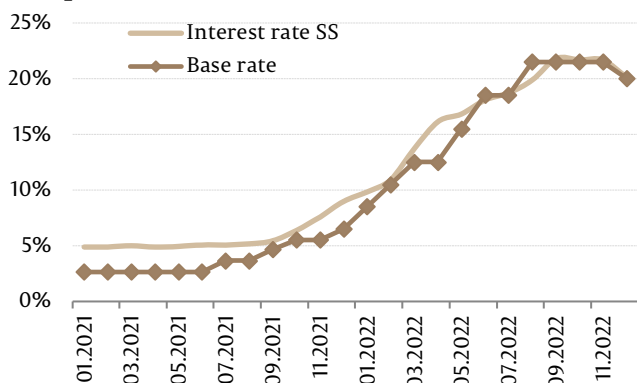
SS issues: interest rates

Developments in SS interest rates reflected expectations for the path of the monetary policy interest rate in the immediate period ahead.

Interest rates on the SS market continued their strong upward trend, further boosted by increases on the NBM base rate, until the end of September. Thus, in September 2022, the interest rates on the SS market reached this year's maximum of 21.83 percent, slightly superior to the value of the base rate of 21.50 percent.

A period of quasi stability follows, after which, following the Decision of the NBM to resume the monetary policy easing measures from the beginning of December, these interest rates

Figure 2.4.7. Dynamics of the SS interest rate compared to the evolution of the base rate



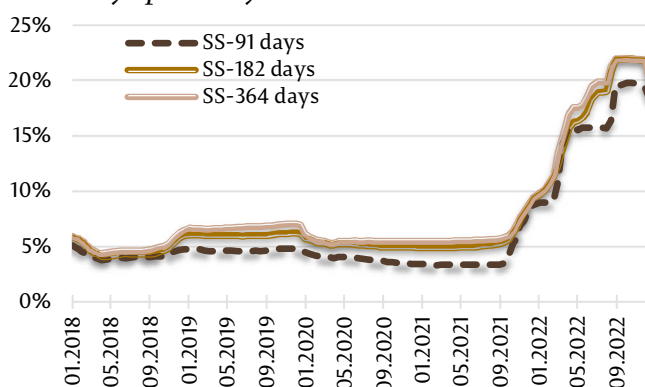
Source: NBM

initiate a rapid downward trend (December 2022: -1.57 p.p. compared to November 2022).

The pronounced increases in the first three quarters of 2022 strongly affected the annual average of auctioned SS, reaching 17.76 percent during 2022, compared to 5.63 in 2021.

Thus, the magnitude of the increases was similar in terms of the maturity of the Securities, registering comparable size adjustments for all maturities: 11.18, 11.96 and 12.43 p.p. for bills with circulation period of 91, 182 and 364 days, respectively. Annual weighted average nominal interest rates on the SS traded over the past two years at primary market auctions, split by maturity, are shown in Table 2.4.1.

Figure 2.4.8. Dynamics of the SS interest rate with maturity up to one year



Source: NBM

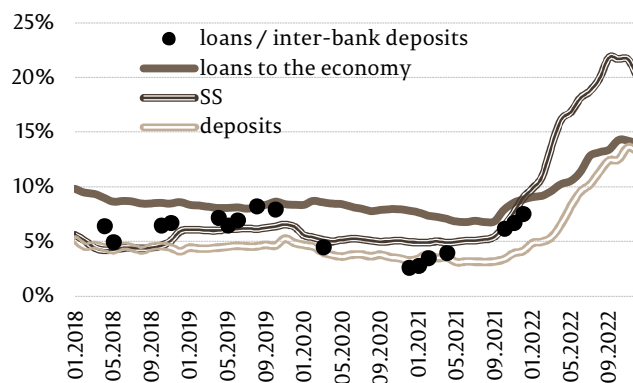
Table 2.4.1. Nominal annual weighted average interest rates on SS, by maturities (%)

	TB 91 days	TB 182 days	TB 364 days	SS >1 year	GB 2 years	GB 3 years	GB 5 years	GB 7 years
2022	15,69	17,69	18,37	17,76	19,57	14,57	9,98	10,25
2021	4,51	5,73	5,94	5,63	5,58	5,95	6,20	6,69

Note: actual interest rates are shown for GB

Source: NBM

Figure 2.4.9. Evolution of financial market interest rates



Source: NBM

The evolution of interest rates on SS in 2022 changed the hierarchy of money market yields that had been designed in previous years: investments in SS have moved to the top, offering a higher yield than that offered by new loans granted.

Thus, at the beginning of the year the interest rates on SS exceeded the interest rates on new loans and remained in this position until the end of the year, significantly distancing from them. At the same time, there was a significant decrease in the margin between the interest rates on loans granted and those related to the attracted deposits, due to the sharper increase in the rates related to deposits.

Currency risk: dynamics of the MDL exchange rate

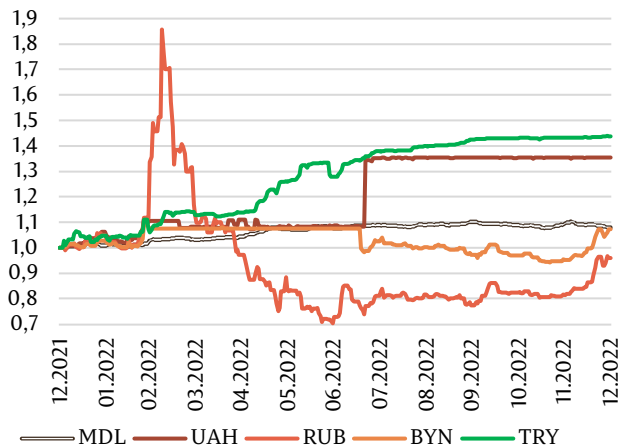
In 2022, MDL depreciated in average values against USD by 6.9 percent, and against EUR it recorded a positive dynamic, appreciating by 4.9 percent.

According to the year-end exchange rate, MDL depreciated by 8.0 percent against USD and by 1.4 percent against EUR.

According to the year-end exchange rate, MDL depreciated by 8.0 percent against USD and by 1.4 percent against EUR.

During the reporting period, the currencies of the countries in the region had a high volatility, against the background of the geopolitical situation and the energy crisis, most of the currencies losing ground against the USD. The national currencies of Turkey, and Ukraine depreciated more against the

Figure 2.4.10. Evolution of the currencies of the main partners of the CIS, Ukraine and Turkey against USD, 31.12.2021=1, (+) depreciation; (-) appreciation



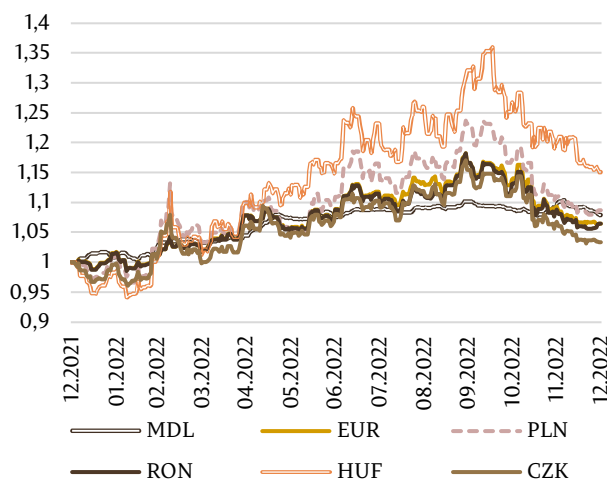
Source: NBM

USD (Figure 2.4.10), while the currencies of the Moldova's main trading partners in the EU had a more moderate downward trajectory. At the same time, the currencies of Moldova's main trading partners in the EU had a reverse dynamic, on average, strengthening against the USD (Figure 2.4.11).

Under these conditions, the MDL strengthened on average by 7.7 percent, compared to the basket of currencies of the main trading partners, weighted to their shares in Moldova's foreign trade.

In 2022, the depreciation of the MDL against the USD was conditioned by the shortage of foreign currency on the domestic market, felt especially

Figure 2.4.11. Evolution of some major EU trading partners' currencies against the USD, 31.12.2021=1, (+) depreciation; (-) appreciation



Source: NBM

in the first quarter, when the effects of the war in the neighboring country together with the high prices in the energy sector led to the deepening of the negative gap between supply and demand.

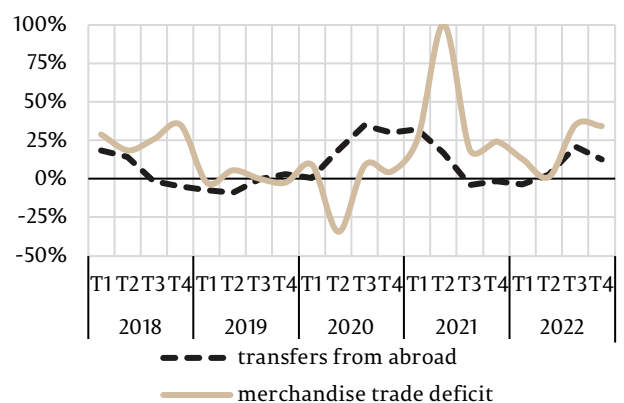
The outbreak of the War by Russia against Ukraine led to a freeze in the domestic foreign exchange market, which was manifested by increased transfers from the accounts of individuals and their preference to accumulate cash in foreign currency, as well as by increasing the degree of dollarization of deposits of legal entities, thus creating prerequisites for the NBM interventions to sell foreign currency.

The domestic foreign exchange market soon returned to optimal operating conditions, and in the third quarter there was a pronounced surplus of foreign currency, largely absorbed by the NBM's procurement interventions. The emergence of foreign currency surplus was conditioned by the reversal of the negative trends observed during the hectic period and the sharp increase of net transfers from abroad in favor of individuals.

Net transfers from abroad in favor of individuals increased in 2022 by 8.3 percent compared to the previous year (Figure 2.4.12).

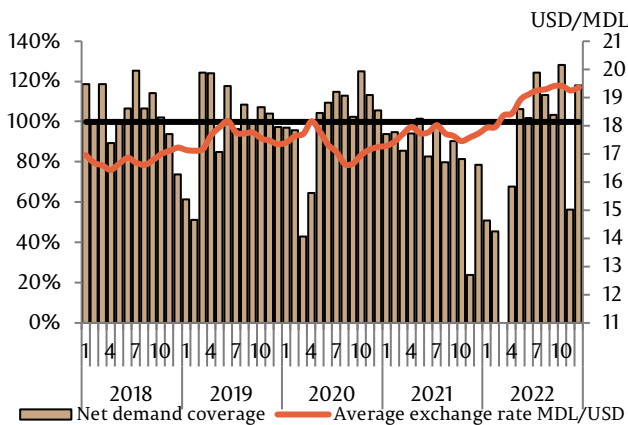
In 2022, the degree of coverage of net demand for foreign currency by net supply remained below one, and the foreign exchange needs of the market were supplemented by the NBM through net sales interventions of USD 250.0 million.

Figure 2.4.12. Dynamics of net personal remittances and trade balance of the Republic of Moldova, c.p.y.



Source: NBM

Figure 2.4.13. Degree of coverage of net demand for foreign exchange from economic agents by net supply of foreign exchange from individuals and dynamics of the MDL exchange rate



Source: NBM

In 2022, the net supply of foreign currency increased by 3.7 percent to USD 2,470.3 million, while net demand for foreign currency from economic agents increased in smaller proportions - by 2.1 percent to USD 3,010.2 million, against the backdrop of the deterioration of the commodity trade balance deficit by 21.1 percent. Therefore, the degree of coverage of net demand through the net supply of foreign currency amounted to 82.1 percent compared to 80.8 percent in the previous year (Figure 2.4.13).

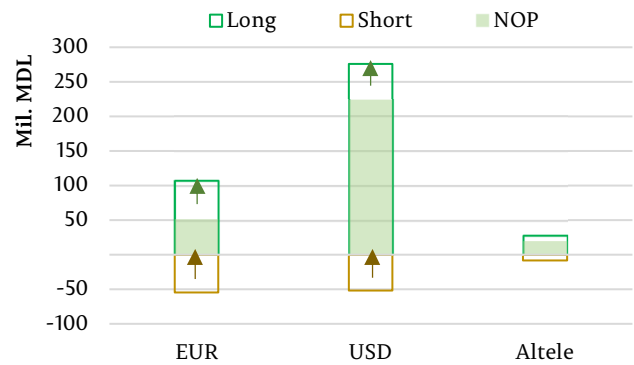
Currency risk: OFEP of the banking sector

The ratio between the OFEP and the own funds of the Moldovan banking sector was within the prudential limits, and the impact of the direct exposure of the sector to exchange rate volatility was reduced.

At the end of 2022, the size of OFEP per sector for all currencies was MDL +294.7 million, compared to MDL -46.1 million in 2021. For the most part, the significant increase in the long position was due to the increase in USD and EUR long positions, observed in particular for large banks. There was also a decrease in the short positions related to EUR and USD for a large bank, compared to the end of 2021.

In disaggregation by currencies, the OFEP report shows that at the end of 2022 within

Figure 2.4.14. Opened foreign exchange position as of 31.12.2022, by currencies



Note: This graph shows the OFEP for 2022, as well as the amount of the banks' long and short positions at the end of the current year (t) as well as the previous one (t-1). The arrows indicate the direction of evolution of the banks' positions compared to the previous year.

Source: NBM

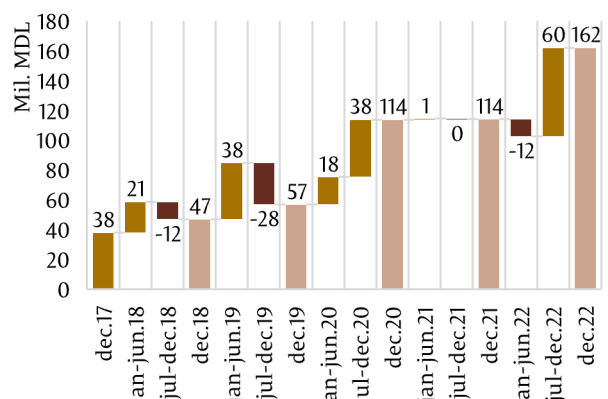
the banking sector the long position continued to be dominant for EUR, USD and the rest of the currencies.

2.5. Risk of contagion

At the end of 2022, the domestic banking sector registered a low level of contagion risk in terms of interbank placements and exposures to the non-banking financial sector.

Net interbank placements³⁹ of the licensed banks in the Republic of Moldova in the domestic banking sector at the end of 2022 amounted to MDL162.2 million (Figure 2.5.1). The stress testing results did not identify cases of direct contagion within the limits of this sector, due to the low level of net interbank placements of banks in the

Figure 2.5.1. Evolution of local banks' net placements in the domestic banking sector

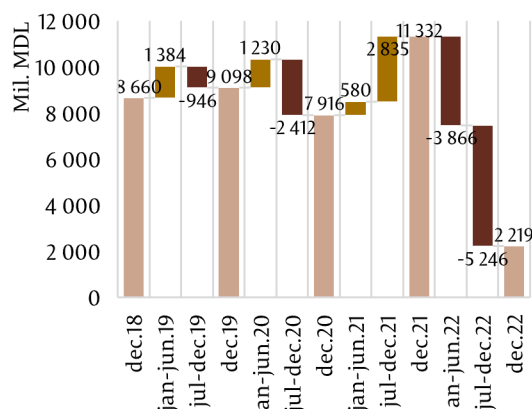


Source: NBM

³⁹ Net interbank placements are the sum of funds placed by banks on an individual basis, with funds placed by a bank

being offset by funds attracted by the bank from the same counterparty.

Figure 2.5.2. Evolution of the balance of net placements of local banks in foreign banks



Source: NBM

domestic banking sector.

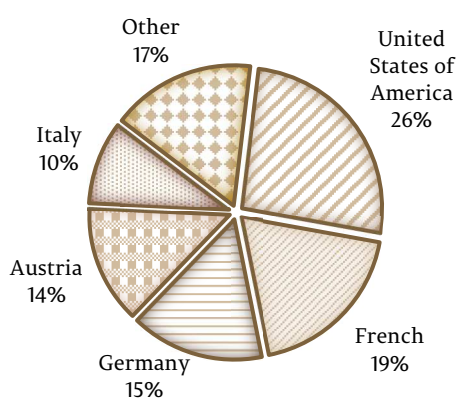
Potential external contagion effects come from five countries where banks' placements are concentrated.

The volume of net placements of domestic banks in foreign banks decreased by 80.4 percent compared to the end of the previous year, to the level of MDL 2,219.1 million (Figure 2.5.2).

The decrease in placements was recorded at all banks except one medium-sized bank.

This development was mainly determined by the increase of the required reserves in freely convertible currency, which led to the decrease of the "Nostro" accounts of banks from the Republic of Moldova, especially in banks from Germany and Austria. About 87 percent of the gross placements of domestic banks were made in banks from the USA, France, Germany, Austria and Italy (Figure 2.5.3).

Figure 2.5.3. Distribution of gross placements of domestic banks by country



Source: NBM

However, the domestic banking sector continues to be in the net creditor position in relation to foreign counterparties. In this respect, banks are more susceptible to external contagion effects than to exerting contagion on foreign counterparties.

Banks' interbank networks are mainly diversified.

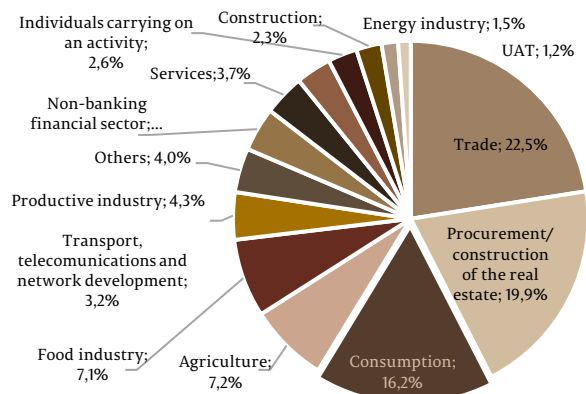
Net placements within the domestic banking sector are concentrated in two systemically important banks and one smaller bank.

In terms of banks' placements abroad, the number of foreign counterparties at the end of 2022 decreased by 43 correspondent banks from 17 countries around the world. It is worth mentioning that foreign banks, in which the majority of the placements of domestic banks are concentrated, hold high investment ratings given by the rating companies, which diminishes the potential risk of contagion through these placements.

Business, real estate, and consumer loans accounted for more than half of bank exposures, and the share of loans to individuals declined in banks' portfolios for the first time in 7 years.

The largest volume of loans in banks' portfolios was granted to commerce (22.5 percent), followed by loans granted for the purchase and/or construction of real estate (19.9 percent) and consumer loans (16.2 percent). Exposures to the other branches are significantly lower and do not exceed a share of 8 percent of the banks' loan portfolio (Figure 2.5.4).

Figure 2.5.4. Distribution of bank loan portfolio by branches of debtors' activity, 31.12.2022



Source: NBM

In dynamics, over the last 5 years, there has been a decrease in the share of loans granted to most economic sectors, the most pronounced being the decrease in the share of loans granted to trade (-6.6 p.p.). At the same time, loans granted to individuals for the purchase / construction of real estate (+12.1 p.p.) and consumer loans (+3.9 p. p.) increase significantly.

However, for 2022, both the share of consumer loans and that of loans for the purchase/construction of real estate recorded decreases in relation to the total loan portfolio.

Bank portfolios are characterized by relatively high sector diversification.

From the perspective of common exposures to economic sectors, the level of sectoral concentration of banks' portfolios was assessed, also considering the risks associated with each sector by applying a risk amplifier⁴⁰ characteristic to each sector. The risk-adjusted concentration indicator (Figure 2.5.5) accumulates low values. Individual levels of concentration were identified⁴¹ but even the

Table 2.5.1. Dynamics of the share of loans granted by banks by branches, compared to the previous year

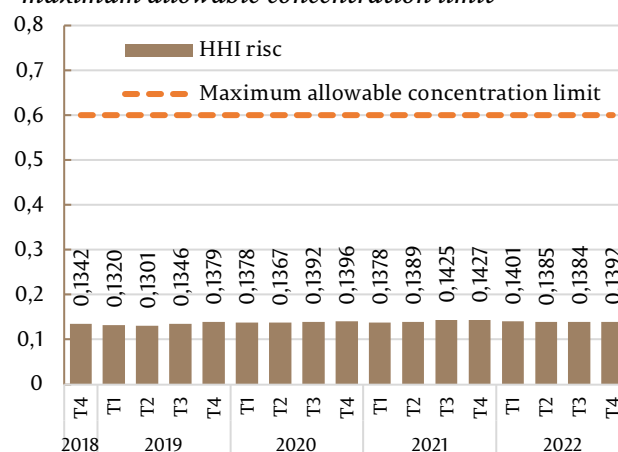
Branch	31.12.2022	2018-2022
Agriculture	▼	
Food Industry	▲	
Construction	▲	
Consumer loans	▼	
Energy industry	▼	
UAT	▼	
Productive industry	▼	
Trade	▲	
Non-banking financial sector	▲	
Real-estate	▼	
Individuals performing an activity	▲	
Transport, telecommunication and network development	▼	
Field of service provision	▲	
Other loans granted	▼	

Source: NBM

⁴⁰The risk amplifier considers the existence of a risk taking into account the sectoral structure of the banks' portfolios.

⁴¹The level of concentration was determined by amplifying the variable, which represents the level of concentration

Figure 2.5.5. Evolution of the risk-adjusted concentration indicator in relation to the maximum allowable concentration limit



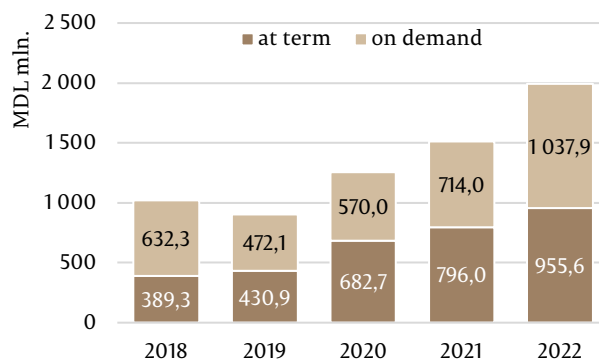
Source: NBM

most concentrated portfolio is well below the maximum allowable concentration limit⁴².

The banking sector's interactions with the nonbanking financial sector, although increasing, remain limited.

The direct exposure of the banking sector to the non-banking sector shows low values. The balance of NBFIs deposits in banks at the end of 2022 constituted MDL 1,993.5 million or 2.1 percent of the balance of deposits attracted by banks. Their distribution by maturity is almost equal, 52.1 percent of deposits being placed at sight (higher degree of volatility), and 47.9 percent – at term. In terms of currency structure, 41.5 percent of NBFIs deposits are denominated in MDL and 58.5 percent – in foreign currency.

Figure 2.5.6. Evolution of the balance of deposits attracted from NBFIs in the structure by maturity

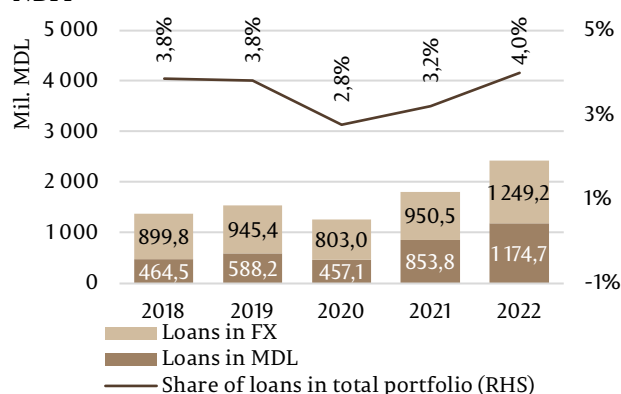


Source: NBM

(Herfindahl-Hirschman index) in a sector, with the level of nonperforming loans corresponding to this sector.

⁴² The maximum allowable concentration limit represents the maximum value of the bank's concentration level that did not result in recovery or resolution procedures.

Figure 2.5.7. Share of loans granted by banks to NBFIs



Source: NBM

In terms of assets, banks' direct exposures to NBFIs are low and do not pose significant risks to financial stability through the direct contagions channel.

The maximum share of banks' individual holdings in NBFIs capital does not exceed 3 percent of the bank's own funds, not being a source of contagion for the banking sector.

Loans granted by banks to the non-bank financial environment at the end of 2022 constituted only 4.0 percent of the loan portfolio, and their quality (NPL rate of 1.4 percent) is significantly more favorable compared to the value of the aggregate NPL rate on the total banking portfolio (6.4 percent).

2.6. Risk related to information and communication technologies

Information technologies and Communications (ICT) are ubiquitous in the modern world, having a major impact on the way we communicate, interact and manage information. However, the use of these technologies carries certain risks. In a world where our personal data, financial information and activities are digitally recorded and stored, there is a continuing need to protect us from cyber threats.

In addition, technologies also involve inherent risks that can lead to compromising information security that could also impact on the national economy. These risks must

be understood and addressed by developing a regulatory framework and appropriate technologies to protect information and promote the responsible use of technology in our modern society.

During 2022, according to the Allianz Risk Barometer study⁴³, the cyber incidents (44%) and disruption (42%) were at the top of risks worldwide.

The impact of the risks related to cyber incidents can be very large for organizations, as they can lead to business interruption and loss of important data and information. Cyber incidents can also have both a financial and reputational impact on the organization.

As a result of the controls carried out, among the most important risks identified in the field of ICT in licensed banks can be listed the following:

- use of operating systems that no longer have support from suppliers (at the level of servers, databases, ATMs, workstations of users);
- lack of qualified security personnel to ensure an adequate level of protection against cyber threats;
- banks' failure to carry out complex continuity tests to ensure that in the event of continuity incidents or exceptional situations, including as a result of cyberattacks, they will be able to ensure the continuity of critical services;
- failure to perform complex penetration tests on a wide perimeter, including both external information resources and those accessible only from within the bank's network.

It is important that banks continue to monitor these risks and implement appropriate control measures to address them. In addition, it is important to promote the responsible use of technology in the context of the emergence of potential risks.

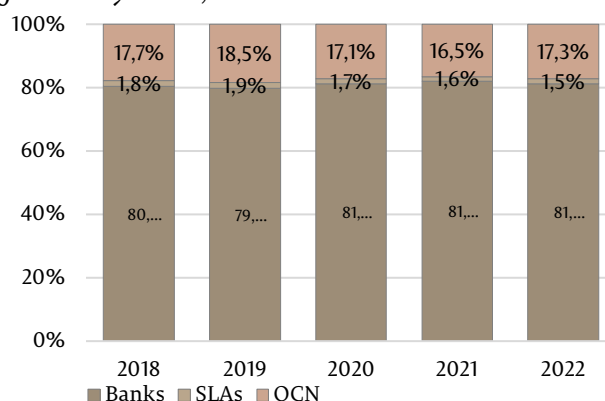
⁴³

<https://www.agcs.allianz.com/content/dam/onemarketing/agcs/agcs/reports/Allianz-Risk-Barometer-2022.pdf>

3. RISKS OF THE NON-BANKING SECTOR

3.1. Non-bank lending sector

Figure 3.1.1. Share of loan portfolios and loans granted by banks, NBCOs and SLA⁴⁴



Source: drafted by the NBM based on NBM and NCFM data

In 2022, the non-bank lending sector strengthened its position in the financial sector, being recorded an increase in the portfolio of assets, due to the reduction of the number of non-bank financial entities with the right to operate.

Non-bank lending activities are carried out by NBCOs and SLA. Analyzing the structure of the portfolio of loans and loans granted by banks, NBCOs and SLA (Figure 3.1.1), towards the end of 2022, it was observed the reversal of the downward trend of the share of NBFIs in the financial system, established in the period 2019-2021. Thus, as of 31 December 2022, an increase of 0.6 p.p. was recorded compared to the previous year, and the total loan portfolio of non-bank financial institutions constituted 18.7 percent of the total loan portfolio on the financial sector (2021: 18.1 percent, 2018: 19.6 percent).

Savings and loan associations (SLAs)

The SLA sector remains the most unconcentrated of the components of the financial system, although it has continued to strengthen, with fewer associations holding a larger volume of assets.

According to the situation at the end of 2022, 221 associations hold licenses to carry out SLA activity, and for 2 SLAs, special administration has been established.

In the last 5 years, the number of associations decreased by 49 units, decreasing by 5 units during the reporting year.

The SLA segment has relatively low concentration values compared to other segments of the financial-non-banking market. The HH Concentration Index recorded low values (31.12.2022 = 805 b.p.), which characterizes the market as a non-concentrated one. During 2022, the number of loan recipients increased by 0.8 percent, while the number of depositors decreased by 1.9 percent. At the same time, the total number of members of associations increased slightly (+1.0 percent) compared to 2021.

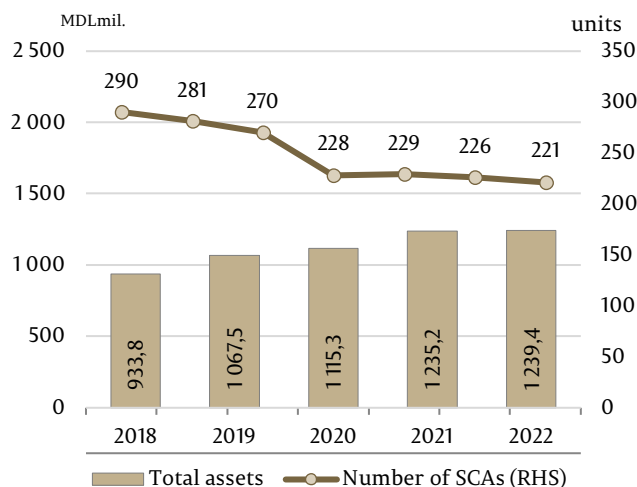
The activity of the SLAs during 2022 had positive developments and moderate risks.

As of 31 December 2022, the total assets of SLA amounted to MDL 1,239.4 million, increasing by 0.34 percent compared to the end of 2021 (Figure 3.1.2). The maximum share in the structure of the assets of the SLA falls on the loans granted, which constitute 90.3 percent of the total value of the assets.

The quality of loans granted by SLA has slightly worsened compared to pre-pandemic levels.

Non-performing loan ratio⁴⁵ at the end of the reporting period constituted 8.6 percent, increasing by 1.4 p.p. compared to 2021, being

Figure 3.1.2. Developments in the number of SLAs and their assets

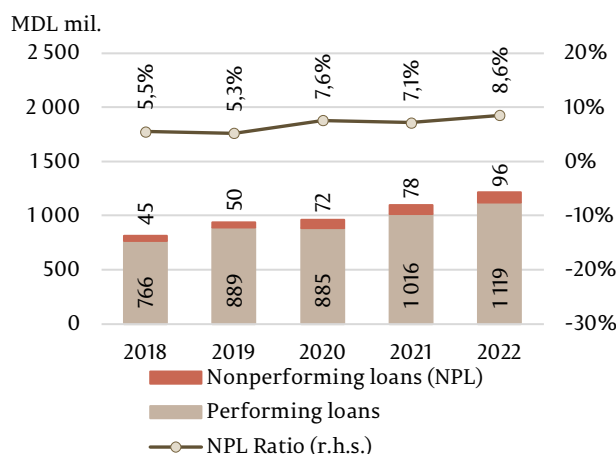


Source: prepared by the NBM based on NCFM data

⁴⁴ Share in total loans and loans granted by banks, SLAs and NCOs.

⁴⁵ Balance of substandard, doubtful and impaired loans as a percentage of total loans.

Figure 3.1.3. Loans granted to SLAs



Note: "performing loans" includes loans classified in the categories "Standard" and "supervised"; "non-performing loans" includes loans classified in the categories "Substandard", "dubious" and "compromised"

Source: prepared by NBM based on NCFM data

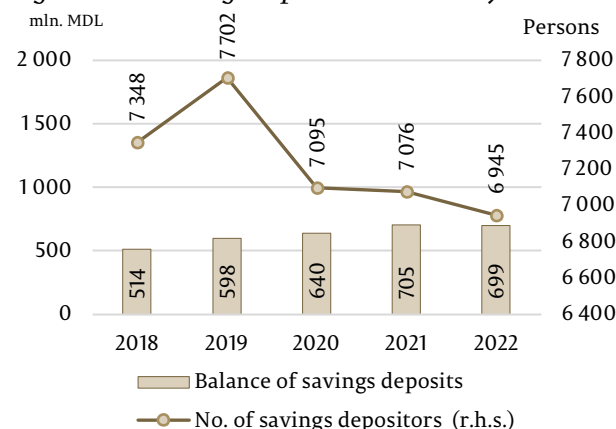
at the most unfavorable level in the period 2015-2022 (Figure 3.1.3).

It should be noted that to cover potential loan losses, the SLAs have formed and maintain provisions (totalling MDL 94.8 million), covering 85.6 percent of the balance of non-performing loans. The average value of a loan granted by SLA continued to increase, amounting by the end of 2022 to MDL 32,961 (2021: MDL 32,474; 2018: MDL 19,111).

The sources of financing of the SLA remain own funds in the case of SLAs Category A and savings deposits in the case of SLAs Category B.

The SLAs Category A are financed in the proportion of 26.2 percent from the account of the loans received, and the equity share

Figure 3.1.4. Savings deposits attracted by SLAs



Source: prepared by NBM based on NCFM data

represents 82.6 percent of all loans granted. At the same time, the SLAs Category B finance its lending activity in a proportion of 68.7 percent from the account of savings deposits, 5.2 percent - from the account of loans received, and the equity share represents 33.6 percent of the total loans granted. The consolidated value of savings deposits attracted from SLA members amounted to MDL 698.8 million, (Figure 3.1.4), decreasing by 0.85 percent from the deposit amount recorded in 2021.

The decrease in the number of savings depositors during 2022 led to a slight increase in the average value of the savings attracted up to MDL 100,618 (2021: MDL 99,599, 2018: MDL 70,013).

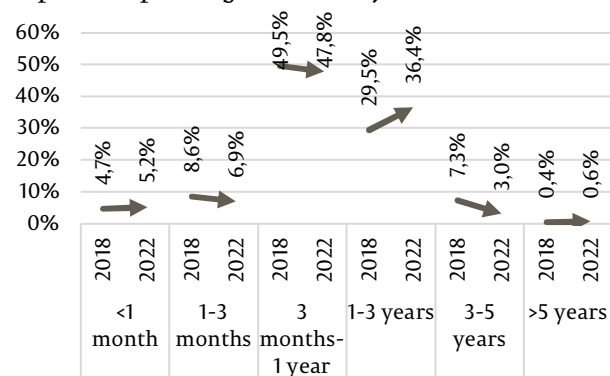
Short-term savings deposits account for over half of the deposits attracted, and their more volatile nature creates liquidity managing risks.

By the end of 2022 deposits for up to 1 year constituted 59.9 percent of the total savings deposits attracted (2021: 57.6 percent, 2018: 62.8 percent). The high level of the given indicator and the tendency to decrease the maturity of deposits (Figure 3.1.5) could provide less stable funding sources with difficulties in managing liquidity efficiently.

The indebtedness of the SLA is low, about 1/3 of the assets being financed from equity.

The aggregate value of the SLA leverage⁴⁶ recorded high values (34.3 percent as of 30 December 2022).

Figure 3.1.5. Evolution of the share of savings deposits depending on maturity



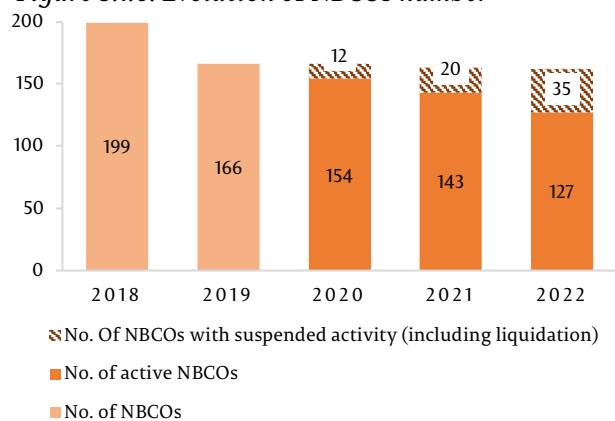
Source: prepared by NBM based on NCFM data

⁴⁶ Leverage was calculated as the ratio of equity to total exposures (assets).

At the individual level, however, nine associations registered negative equity values and two more associations - the leverage value below 3 percent; the rest maintaining a leverage level above 3 percent of leverage.

Non-bank credit organizations (NBCOs)

Figure 3.1.6. Evolution of NBCOs number

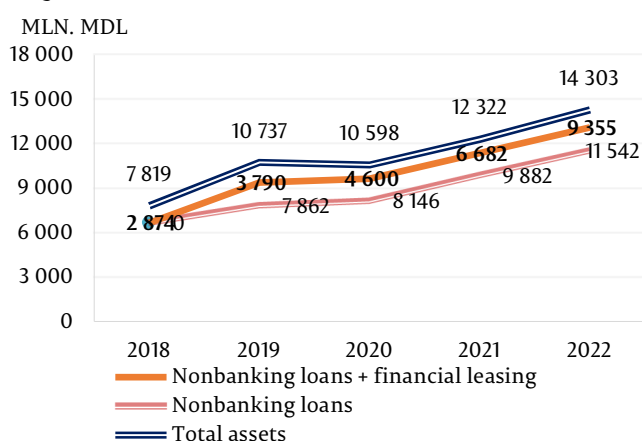


Note: starting with 2020 the evolution is divided into: (i) NBCOs with the right to activity and (ii) NBCOs with suspended activity
Source: prepared by NBM on the basis of NCFM data

The high degree of concentration in the NBCOs market persists, with the market shares of the 10 largest NBCOs remaining practically unchanged from the previous year, and the largest company surpassing the 4 smallest banks by loan portfolio.

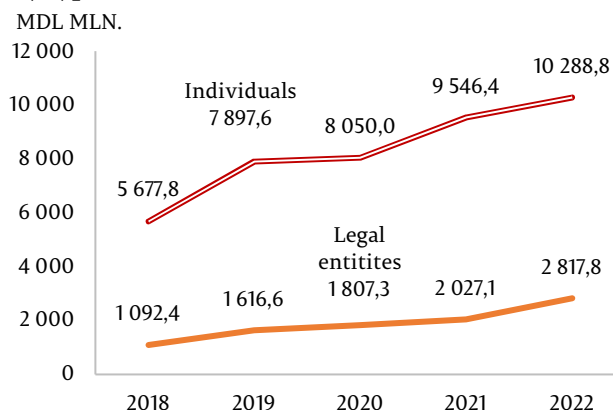
At the end of the reporting year, the total assets of NBCOs amounted to MDL 14,303.2 million of these 91.6 percent representing the loan portfolio. Thus, the value of the loan portfolio amounted to MDL 13,106.6 million, increasing by MDL 1,761.6 million (+15.5 percent) compared to the end of the previous year.

Figure 3.1.7. Evolution of NBCO assets and loans



Source: prepared by NBM based on NCFM data

Figure 3.1.8. Dynamics of loans granted by NBCO by type of debtors



Source: prepared by NBM based on NCFM data

The share of financial leasing in the NBCO portfolio decreased to 11.9 percent, registering a balance with almost 7 percent higher compared to 2021.

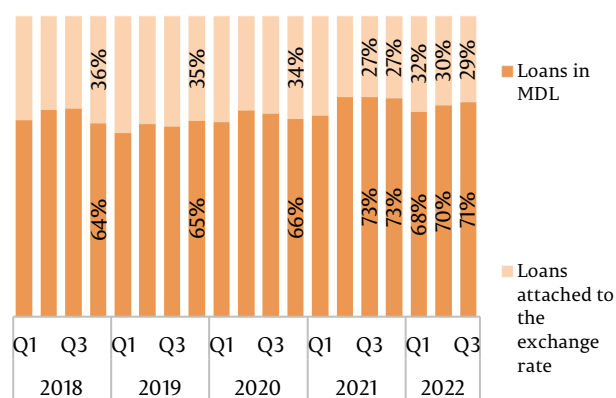
The expansion of the loan portfolio of NBCOs, traditionally, is due to the increase in loans to individuals.

In distribution by type of debtors, starting with 2016, there is a considerable increase in loans granted to individuals, accelerating with vertiginous annual growth rates (2017: +29.9 percent, 2018: +41.8 percent, 2019: +39.1 percent; 2021: +18.6 percent), except for 2020 when this trend slowed down (+2.3 percent), affected by Pandemic developments. At the end of 2022, the portfolio of loans granted to individuals amounted to MDL 10,288.8 million or 78.5 percent of the total portfolio, recording an increase of 7.8 percent compared to the end of 2021.

The balance of loans granted to non-financial companies constituted, on the same date, MDL 2,817.8 million, registering an increase of 39.0 percent compared to the end of 2021.

Under the conditions of implementation of the new requirements (01.09.2022 – 31.12.2022) non-bank lenders readjusted their business models, focusing their lending activity on legal persons clients, which recorded an increase of 21.1 percent, and the volume increased by 13.8 percent, compared to the same period of the previous year.

Figure 3.1.9. Dynamics of the share of credits in MDL and attached to the exchange rate granted by NBCOs



Source: NCFM, 4SR Monetary Statistics Report

According to published information⁴⁷ by NCFM, with the entry into force on 1 September 2022 of the Regulation on responsible lending requirements applied to NBCOs, non-bank loans/financial leasing granted in the third and fourth quarters of 2022 recorded a decrease by 5.9 percent and 24.4 percent, respectively, compared to the same periods of 2021.

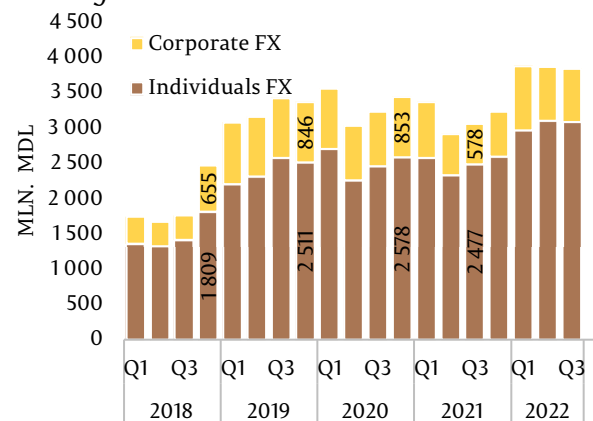
The share of foreign currency-linked loans granted to individuals remains a significant risk for borrowers who are not naturally insured against currency risk.

According to the information reported by NBCO, at the end of the third quarter of the reporting year, 28.7 percent of loans were attached to the currency exchange rate, and 71.3 percent – in MDL.

Loans granted by NBCO attached to the exchange rate amounted to MDL 3,863.7 million, at the end of the third quarter of 2022, registering an increase of 20.0 percent compared to the end of the previous year.

Loans attached to exchange rate to individuals, which are considered to be more sensitive to foreign exchange risk, accounted for 22.9 percent of NBCOs total portfolio, or MDL 3,079.0 million (65.1 percent of aggregate equity).

Figure 3.1.10. Dynamics of the MDL equivalent of the loan portfolio of the NBCOs attached to the exchange rate

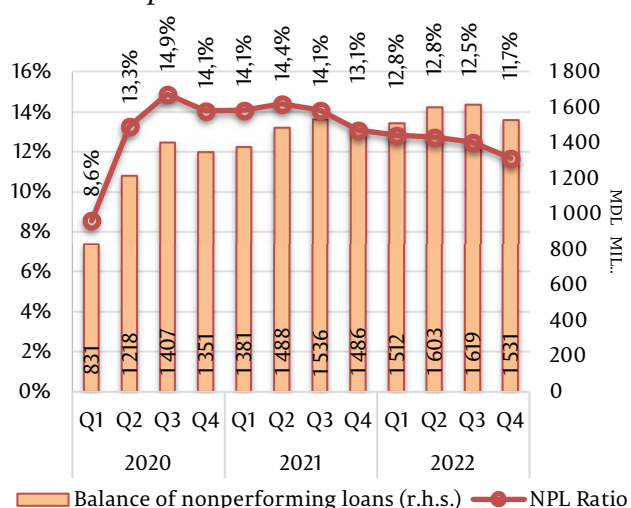


Source: prepared by NBM based on NCFM data

The credit risk related to the loans attached to the foreign exchange rate remains a major risk that can generate an increase in the exposure of borrowers and, respectively, an increase in the risk of default of the loans in case of unfavorable fluctuations of the foreign exchange rate. Considering that currency risk affects all financial sector debtors at the same time, the materialization of this risk may be of a major systemic nature.

The quality of the loan portfolio and the degree of coverage of non-performing loans showed a favorable dynamic in 2022.

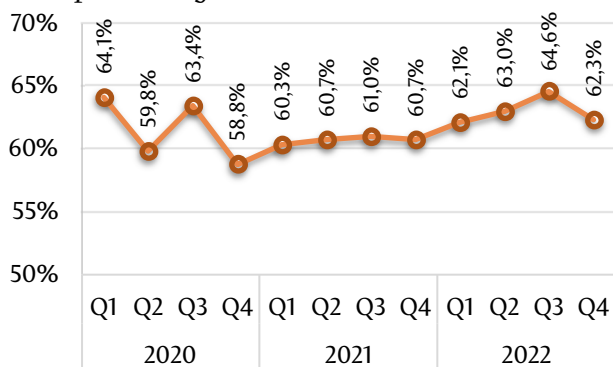
Figure 3.1.11. Dynamics of non-performing loans in the NBCOs portfolio



Source: prepared by NBM based on NCFM data

⁴⁷ https://www.cnpf.md/ro/sectorul-de-creditare-nebancara-sia-incetinit-ritmul-de-6307_93581.html

Figure 3.1.12. Dynamics of the provisioning ratio of non-performing loans



Source: prepared by NBM based on NCFM data

During the reporting period, the share of nonperforming loans⁴⁸ (substandard, dubious and compromised) in total loans decreased by 1.42 p.p., constituting 11.7 percent at the end of the reporting year.

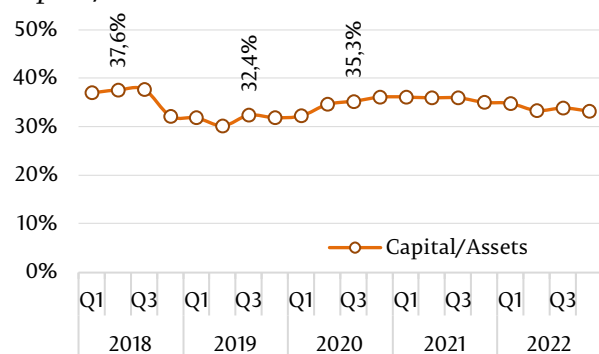
At the same time, non-performing loans in absolute value increased by 1.7 percent (MDL 25.0 million), constituting MDL 1,531.2 million.

The coverage ratio of non-performing loans with prudential provisions improved during the year, reaching 62.3 percent at the end of 2022.

The structure of the NBCO's financing sources did not change significantly during the reporting year, being mainly composed of loans from non-residents.

The NBCO is financed in a proportion of 34.0 percent from its own capital and 60.5 percent

Figure 3.1.13. Evolution of the aggregate capital/assets ratio of NBCOs



Source: prepared by NBM based on NCFM data

⁴⁸The respective indicator, presented in the financial reports by the NBCOs, does not fully reflect the real value of the expiration status of the loans, in which the NBCOs massively uses the mechanism of transmission to third parties of the right to collect the receivables related to the credit agreement, thus reducing the rate of non-

Table 3.1.1. Sources of funding for NBCOs

Financing sources (30.09.2022)	TOTAL, MDL mln.	Including in foreign currency
Loan and borrowings:	8 417,3	5 025,6
Banks	2 425,3	1 253,7
Financial companies	483,8	36,9
Non-financial companies	440,0	11,9
Population	351,2	26,5
Non-resident	4 703,3	3 696,6

Source: prepared by NBM based on NCFM data

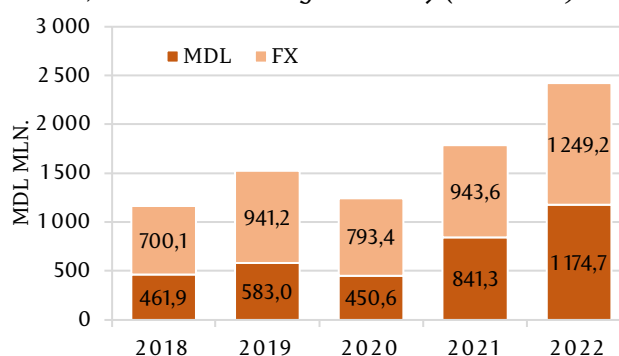
from credits and loans and 5.5 percent from other sources. The share of equity in the financing of assets decreased compared to the end of 2021 by 1.2 percent, as a result of the faster growth of aggregate assets (+15.6 percent) compared to equity (+9.5 percent).

As of 31 December 2022, at the individual level, 14 organizations reported values below the minimum level of 5 percent provided by law 1/2018 (none of the top 20 by asset value), of which 13 NBCOs registered negative equity.

In financing sources foreign currency loans (59.7 percent) constitute the dominant part, and the short currency position at aggregate level exposes the NBCO sector to the risk of national currency depreciation.

At the end of the third quarter of 2022, the share of financing attracted from non-residents accounted for 55.9 percent of total

Figure 3.1.14. Evolution of loans attracted from banks, in MDL and foreign currency (31.12.2022)



Source: prepared by NBM based on NCFM data

performing loans reflected in the reports. In this regard, by the law amending certain normative acts (no. 93/2022) the possibility of transmitting to a third person the right to collect a claim was limited. Transmission of this right is possible only if the term of any outstanding payments exceeds 90 days from their due date.

loans and credits attracted or MDL 4,703.3 million, of which in foreign currency - MDL 3,696,6 million. NBCO also actively borrows from banks, with the balance of contracted loans increasing during the I-III quarters of 2022. Thus, almost 1/3 of the financing sources are loans from banks.

As of 31 December 2022, about 51.5 percent of all loans attracted by NBCOs from banks are in foreign currency. The amount of loans attracted in foreign currency from banks is equivalent to MDL 1,249.2 million, up by MDL 3,305.6 million during the reporting year.

The share of equity in the financing of assets decreased compared to the end of 2021 by 1.2 percent, as a result of the faster growth of aggregate assets (+15.6 percent) compared to equity (+9.5 percent).

As of 31 December 2022, at the individual level, 14 organizations reported values below the minimum level of 5 percent provided by law 1/2018 (none of the top 20 by asset value), of which 13 NBCOs registered negative equity.

The value of liabilities towards individuals and non-financial legal entities, attracted by NBCO, which can be characterized as loans or other repayable means is estimated by excluding from repayable sources (i) bank loans, (ii) loans (from non-residents, from other financial organizations), (iii) dividend liabilities, (iv) trade credits and advances, (v) provisions for loan losses and (vi) equity.

It is noteworthy that Article 9 paragraph (1) letter a) of the Law on non-bank credit organizations prohibits the attraction of deposits or other repayable funds from the

public, except for subordinated debts or loans from the founders.

The total estimated amount of repayable financing attracted from natural persons and non-financial legal entities, at the end of the third quarter of 2022, amounted to MDL 804.9 million (of which about MDL 351.2 million were funds attracted from individuals, and MDL 453.7 million - from non-financial legal entities).

The aggregate open foreign exchange position is negative (short), i.e. at the aggregate level the balance sheet of NBCOs is vulnerable to the depreciation of the national currency.

Foreign currency liabilities outpaced the growth in foreign currency assets, resulting in the expansion of the short foreign currency position to 13.1 percent of NBCO equity.

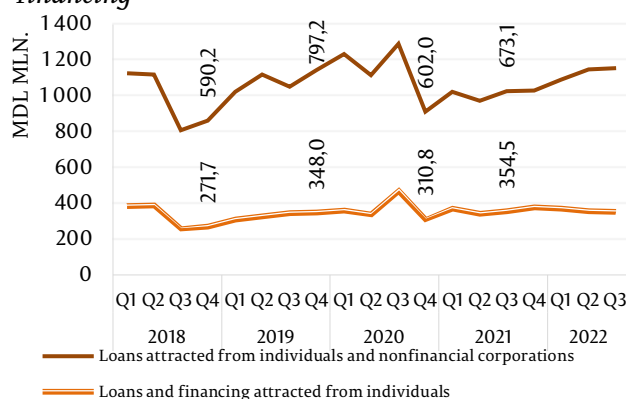
The risk of direct financial contagion between the banking sector and non-bank lending organizations remains low.

The exposure of domestic banks to NBCOs is represented by the bank loans granted to NBCOs.

The share of loans granted to NBCOs in the banking portfolio during the year under review recorded a positive dynamic, at the end of the period it recorded 3.9 percent of the total loan portfolio.

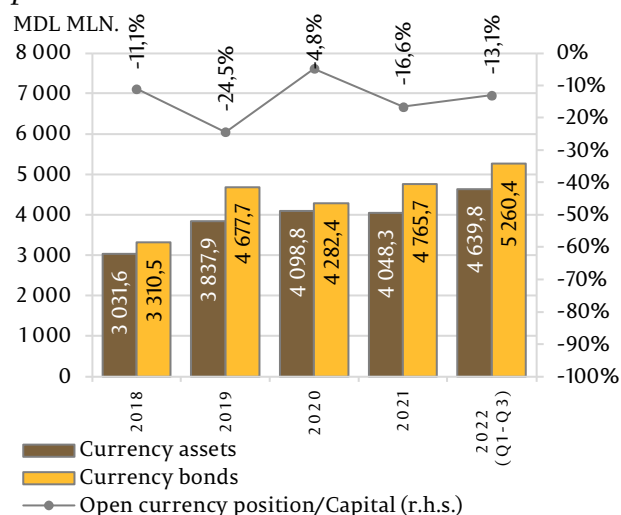
At the same time, indirect contagion remains an identified risk, which can be realized through the rapid indebtedness of the

Figure 3.1.15. Estimated amount of NBCO repayable financing



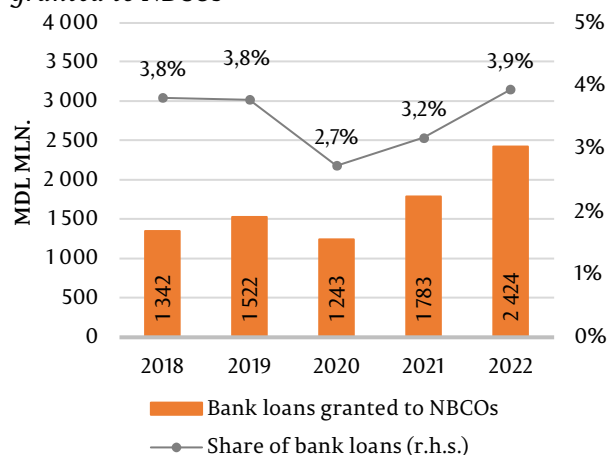
Source: prepared by NBM based on NCFM data

Figure 3.1.16. Evolution of aggregate currency position



Source: prepared by NBM based on NCFM data

Figure 3.1.17. Evolution of the share of bank loans granted to NBCOs



Source: prepared by NBM based on NCFM data

population and the weakening of its financial situation, with the possibility of impoverishment in the event of a financial crisis and the chain transmission of financial blockages.

3.2. Insurance sector

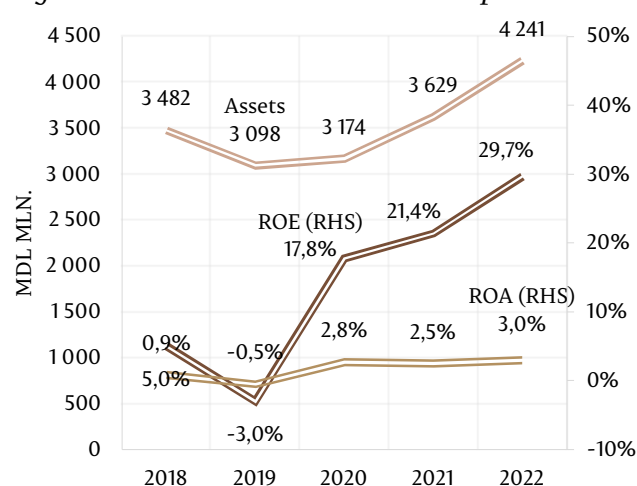
During 2022, insurance companies increased their assets, recording both profits and losses from activity.

At the end of 2022, 10 licensed insurance companies were active on the insurance market. During the reporting period, there were no requests or withdrawals of the activity license from insurance companies.

The insurance market is a moderately concentrated market⁴⁹, the HHI Market Concentration Index in terms of assets as of 31 December 2022 being equal to 1721. The top five insurers by size of assets held 77.9 percent of total assets, the top five insurers by size of compensation paid - 70.9 percent of the volume of compensation paid, and the five largest insurers by volume of premiums subscribed - 72.3 percent of total gross premiums written. The assets of insurance companies increased during the analyzed period and amounted to MDL 4,240.7 million (+16.9 percent compared to 2021) (Figure 3.2.1).

⁴⁹ The Herfindahl-Hirschmann Index (HHI) is calculated as the sum of the squares of the market shares of all market participants, and the level of concentration is determined according to the scale: HHI<100 - perfect competition, 100<HHI<1500 - an unconcentrated market, 1500<HHI<2500 - moderate concentration, HHI>2500 - high concentration.

Figure 3.2.1. Evolution of insurance companies' assets



Source: prepared by NBM based on NCFM data

The return on equity indicators shows increasing developments during the reporting year.

In 2022, insurers have reported, total per market, total profit up to tax (unaudited) in the amount of MDL 128.0 million, and three insurance companies recorded negative financial results⁵⁰.

The profitability indicators⁵¹ of insurers recorded high values. Thus, the return on capital (ROE) by sector was settled at the level of 29.7 percent, rising by 6.3 p.p. compared to the previous year. At the same time, the return on assets indicator (ROA) by sector registered, at the end of 2022, a value of 3.0 percent, increasing by 0.3 p.p. compared to the previous year.

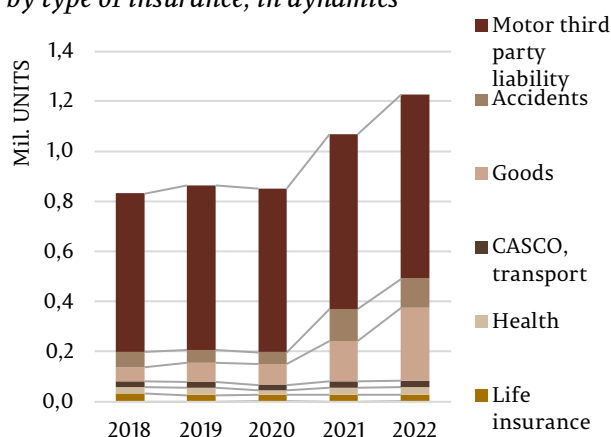
The activity of insurance companies continued the upward trend observed during 2021, registering increases on the main components, despite the energy crisis and regional conflict.

During 2022, insurance companies concluded 1,935,156 insurance contracts, decreasing by 3.8 percent compared to the previous year. Of these, 1,227,593 policies remained in force at the end of the reporting period, the insured amount reaching MDL 386,600.6 million. The structural composition of the types of policies issued did not register significant changes

⁵⁰ The indicators of return on equity and assets for 2022 were calculated based on untaxed and unaudited profits.

⁵¹ The indicators of return on equity and assets for 2022 were calculated based on untaxed and unaudited profits.

Figure 3.2.2. Distribution of the number of insurance policies in force at the end of the period by type of insurance, in dynamics



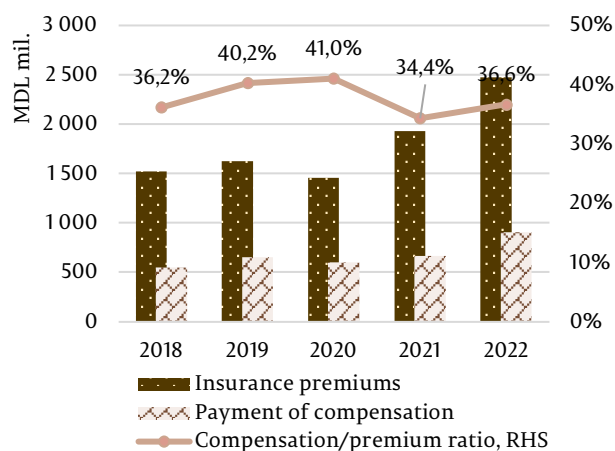
Source: prepared by NBM based on NCFM data

during 2022, with the majority of policies in force at the end of the reporting year (59.9 percent) representing insurance contracts on civil liability (Figure 3.2.2).

The ratio of annual claims volume to annual written premium volume has increased compared to the previous year against the background of a faster increase in the volume of indemnity payments.

The annual volume of gross written insurance premiums (including those received under reinsurance) in 2022 increased by 28.3 percent compared to the same period of the previous year, reaching the level of MDL 2,471.2 million (Figure 3.2.3).

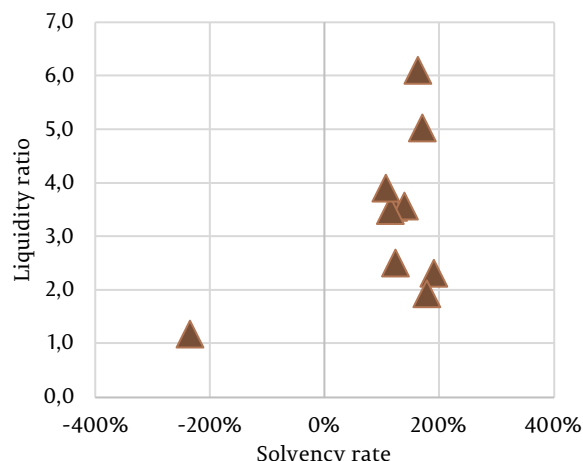
Figure 3.2.3. Evolution of volumes of written premiums and claims paid by insurance companies



Source: prepared by NBM based on NCFM data

⁵² Ratio between the amount of the available solvency margin and the amount of the minimum solvency margin.

Figure 3.2.4. Distribution of insurance companies by solvency ratio and liquidity ratio



Source: prepared by NBM based on NCFM data

The most significant increase was recorded by life insurance (increased by approx. 90 times), accident insurance (+108.1 percent), but also fire and other natural disasters insurance (+52.3 percent); motor third party liability insurance (+32.8 percent).

Compared to the volume of gross premiums written, the volume of claims and insurance amounts paid by insurance companies during the analyzed period increased relatively slightly more in annual terms, increasing by 36.8 percent compared to the volume recorded in 2021, constituting 36.6 percent of gross written insurance premiums (2021: 34.4 percent).

The solvency ratio⁵² of insurance companies denotes a sufficient level of solidity in most companies, while the liquidity coefficient is lower.

Thus, individual solvency ratio values are above the level of 100.0 percent⁵³, except for one insurance company which recorded the value of -235,3 percent as of 31 December 2022. At the same time, the liquidity ratio⁵⁴ of most insurance companies is below 4.0, indicating some potential funding vulnerabilities.

The insurance/reinsurance brokers market remains active during January-September 2022.

As of 31 December 2022, 47 insurance/reinsurance intermediaries

⁵³ According to point 10 of the Regulation on the solvency margins and liquidity ratio of the insurer (reinsurer), NCFM Decision No. 2/1/2011.

⁵⁴ The ratio of liquid assets to debt falling due.

(brokers) were active on the insurance market. During 2022, brokers concluded 751,934 insurance contracts (which represents 38.9 percent of the number of policies issued by insurance companies); the share of contracts concluded by brokers decreased by 23.8 p.p. compared to 2021. At the same time, the volume of underwritten premiums brokered increased by MDL 1, 163.5 million, which represents 47.1 percent of the total volume of written premiums.

3.3. Non-bank payment service providers

The National Bank supervises the activity of non-bank PSPs by carrying out ex officio and on-the-spot checks.

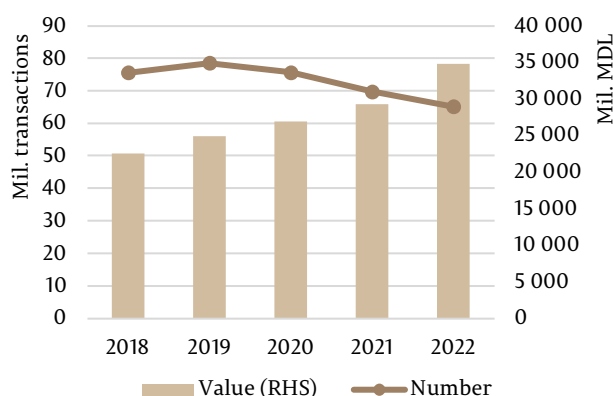
As of 31 December 2022, nine non-bank PSPs were active in the Republic of Moldova, including two payment companies, one postal service provider and six electronic money companies. During the year, the NBM issued two licenses for the provision of payment services and the issuance of electronic money: to a payment company and an electronic money Company.

In 2022, four thematic ex officio checks were carried out, within which the activity of licensed non-bank PSPs was subject to verification.

During the year, the activity of non-bank PSPs recorded an increase in the value of payment transactions, and their number decreased compared to 2021.

Through non-bank PSPs, in 2022, 65.1 million of payment transactions were made,

Figure 3.3.1. Evolution of the number and value of payments made via non-bank PSPs



Source: NBM

decreased by 6.6 percent compared to 2021, in the total value of MDL 34.8 billion, by 18.8 percent more than in 2021. In the last 5 years (2018 – 2022), there it is observed a continuous increase in the average value of the payment transactions made, from MDL 298 in 2018 to MDL 534 in 2022.

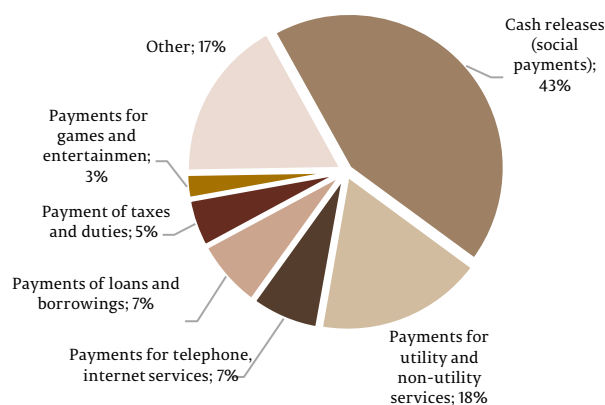
Cash releases in the form of social payments constitute the largest share in the total value of operations carried out in 2022 by non-banking PSPs (43 percent), followed by payments for utility and non-utility bills (18 percent). Other types of payment transactions hold small weights, below 7 percent and are shown in Figure 3.3.2.

In order to minimize financial risks, non-bank payment service providers are obliged to safeguard, on special bank accounts, payment service users' funds received in exchange for the electronic money issued and for the execution of payment transactions.

The financial indicators of the PSP activity in 2022 registered deviations in the form of increases/ decreases, following the inclusion of information related to the financial indicators regarding the activity of the two licensed nonbank PSPs in 2022.

Thus, there is an increase in assets and equity owned by non-bank payment service providers by 290 and 232 percent, respectively, compared to 2021, due to the obtaining of the NBM license by two non-bank PSPs. As of 31 December 2022, the equity value held by non-bank payment service providers was in accordance with the

Figure 3.3.2. Share of the value of payment transactions made by non-bank PSPs in 2022



Source: NBM

provisions of Law No 114/2012 on payment services and electronic money.

Non-bank PSPs, at the individual level, recorded uneven financial results during 2022.

In the same period, at an aggregate level, nonbank PSPs recorded losses of about -MDL16.9 million, after a profit of MDL 30.9 million in 2021.

Out of nine non-bank PSPs, in 2022, seven providers performed the activity of providing payment services and issuing electronic money, recording a profit of MDL 17.4 million.

Table 3.3.1. Evolution of the main indicators of non-banking PSP activity

Nr. d/o	Financial indicators	2022	2021	Annual dynamics
1	Number of licensed non-bank PSPs	9	7	28,6%
2	Number of transactions, million operations	65,1	69,8	-6,6%
3	Total transaction value, MDL million	34,8	29,3	18,8%
4	Total assets, MDL million	2 401,4	615,7	290%
5	Equity, MDL million	549,2	165,1	232,6%
6	Net Profit (Loss), MDL million	-16,9	30,9	-154,7%

Source: NBM

4. MACROPRUDENTIAL INSTRUMENTS AND MEASURES

4.1. The macroprudential instruments of the NBM

Currently, the macroprudential instrument implemented by the NBM consists of capital buffers and individual indicators at the consumer level.

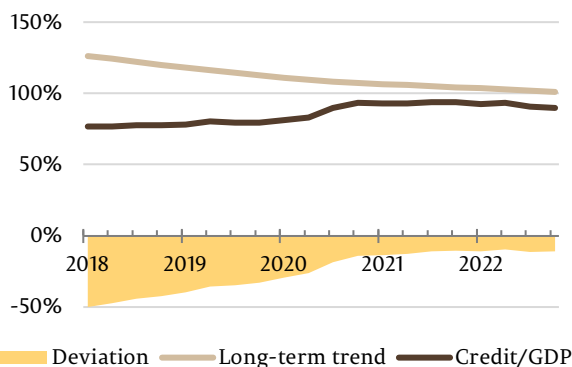
The requirements for the level of capital conservation, countercyclical capital buffers remained at the level similar to that at the end of 2021.

The capital conservation buffer ratio applied to all banks was at 2.5 percent of the total risk exposure value, after the repeal, at the end of 2021, of the temporary relaxation measures introduced in April 2020.

During 2022, nominal GDP growth was achieved at a faster pace than bank lending, leading to a slight increase in the deviation of the Credit / GDP ratio from its long-term trend⁵⁵ (Figure 4.1.1). Under these conditions, based on the negative values of the deviation, the countercyclical capital buffer rate for Moldova was maintained at 0 percent.

However, different requirements to countercyclical buffer rates continue to be established at EU level, given the increasing of lending activity and persistent tensions related to macroeconomic balances.

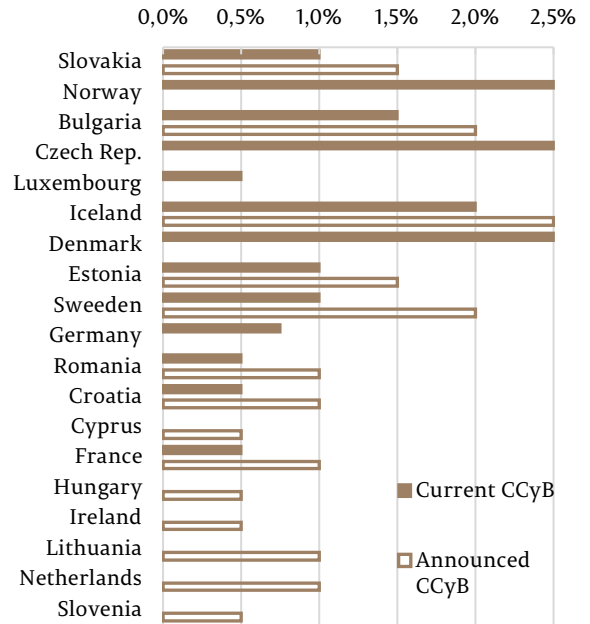
Figure 4.1.1. Evolution of the credit / GDP ratio in relation to its long-term trend



Source: prepared by NBM based on NBM and NBS data

⁵⁵The trend represents the evolution of the series from which fluctuations generated by transitory shocks are removed and is calculated by applying a bidirectional HP filter with the value of the flattening parameter $\lambda =$

Figure 4.1.2. Countercyclical capital buffer rates set by EU countries



Note: For EU countries not included in the chart, the current rate is 0 percent.

Source: European Systemic Risk Board (07.04.2023)

The current regulatory framework caps the countercyclical capital buffer rate at 2.5 percent of relevant risk exposures⁵⁶. Also, one of the requirements for the activation of the countercyclical buffer is the announcement of the rate that will be applied in 12 months from the date of establishment.

In most EU states, increased countercyclical buffer rates are due to come into force during 2023 (Figure 4.1.2).

The requirements to the systemic risk buffer level have tightened against the background of worsening macroeconomic conditions and erosion of population incomes.

The rate of 1 percent of the total amount of banks' risk exposure, set at the end of 2020, was applied to exposures located in the Republic of Moldova of domestic banks. In addition, based on the limited access to finance of some categories of investors, a systemic risk buffer rate increased by 2 p.p.

400 000, according to Basel methodology and international practice.

⁵⁶ In justified cases, a countercyclical buffer rate of more than 2.5 percent of the total risk exposure amount shall be allowed to be set.

has been applied until 31 December 2022 to banks whose capital is held, directly and/or indirectly, by more than 50 percent cumulatively by persons meeting any of the following criteria:

- a) they are not financial sector entities;
- b) they are residents of states/are established in states where prudential supervision and regulatory requirements at least equivalent to those applied in the Republic of Moldova, as determined by NBM regulations, do not apply;
- c) are not subject to supervision by the banking sector or capital market supervisory authorities of those countries.

As a prompt response to the negative macroeconomic trends and outlook, taking into account the vulnerabilities of individual debtors and the high income sensitivity of this category of borrowers to high energy costs, the expected level of inflation and rising credit servicing costs, it was decided in May 2022 to set a 2 p.p. increase in the systemic risk buffer for banks' credit exposures to resident individuals, excluding individuals engaged in entrepreneurial activity⁵⁷. This rate was calculated and maintained by all banks, in addition to the 1.0 percent rate applied to all banks and the rate increased by 2 p. p. applied to some banks.

Systemically important banks play a key role in the national banking sector, holding 80.5 percent of banking assets.

The national banking sector is dominated by four banks, which have exceeded the threshold of systemic importance. At the end of 2022, these banks held 80.5 percent of the

Table 4.1.1. O-SII buffer rates

Name of the bank	Buffer rate
BC „MAIB” S.A.	1.50%
BC „Moldindconbank” S.A.	1.00%
B.C. „VICTORIABANK” S.A.	1.00%
„OTP Bank” S.A.	0.50%

Source: NBM

assets of the banking sector, 81.1 percent of loans granted by banks and 83.0 percent of deposits attracted by the banking sector from non-financial residents. In order to reduce the likelihood of financial distress on the part of systemic banks and to reduce their moral hazard, the NBM has set OSII's buffer rates on an individual basis based on the score⁵⁸ accumulated by each bank (Table 4.1.1).

In 2022, banks did not need additional capital to comply with macroprudential measures on additional capital requirements. The banks' capitalization levels were above the minimum level of capital requirements.

In addition to capital buffers, additional macroprudential measures were applied during 2022 by introducing individual consumer-level indicators such as "loan to value ratio" and "debt service to income ratio". These measures sought to ensure a responsible lending process, in which banks carry out an assessment of the consumer's creditworthiness and do not allow him to assume financial obligations that exceed his ability to pay, thus preventing the consumer from accumulating an excessive degree of indebtedness. Details of the approved regulatory framework are presented in subchapter 5.1.

Box 5. Borrowers-based indicators

Starting with 1 July 2022, the provisions of regulation No101/2022 on responsible lending to consumers by banks, which limits the DSTI indicator to the level of 40 percent and the LTV indicator to the level of 80 percent.

DSTI indicator

During the second half of 2022, the distribution of the DSTI indicator (Figure 4.1.3) recorded an increasing trend on the tranche 0-10 percent and 20-40 percent range, from the semi-annual volume of new loans granted to individuals.

⁵⁷ Decision of the Executive Board of the NBM No 98/2022

⁵⁸ It is calculated according to the Methodology for the identification of O-SIIs in the Republic of Moldova,

approved by the Decision of the Executive Board of the NBM No192/2018.

The significant increase on the 0-10 percent tranche was conditioned on significant supplementation with new data, previously unreported by a bank. In the second half of the reporting year, 88.8 percent of new loans of individuals were granted with DSTI below 40 percent.

At the same time, the weightings of all other tranches decreased.

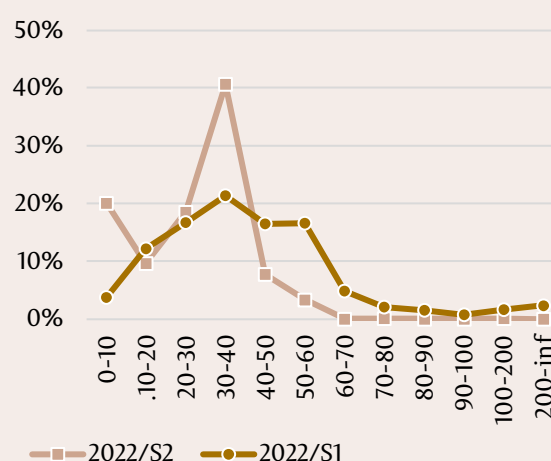
A significant decrease was recorded on tranches above 40 percent, the share of new loans granted with DSTI level above 60 percent being almost zero, in accordance with the provisions of regulation 101/2022, in force since 1 July 2022.

LTV indicator

During the second half of 2022, the distribution of the LTV indicator (Figure 4.1.4) recorded a decreasing trend on tranches above the value of 70 percent, the share of new loans granted with LTV level above 90 percent being close zero.

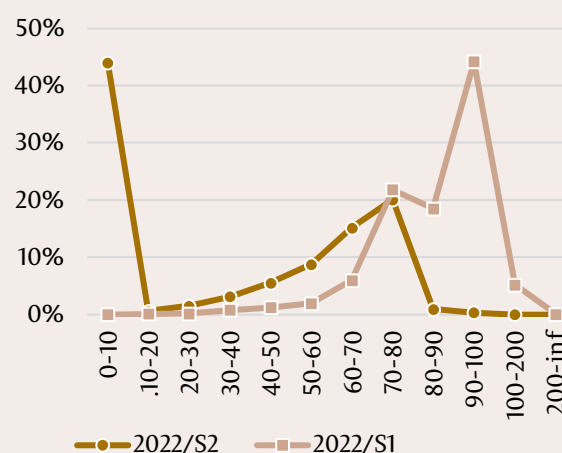
At the same time, there is an increase on all other tranches, from the semi-annual volume of new loans granted to individuals for the purchase/construction of real estate, guaranteed with real estate for residential, commercial and land use. Thus, in the second half of the reporting year, 98.7 percent of new loans of individuals were granted with the LTV below 80 percent.

Figure 4.1.3. Evolution of the share of the volume of credits by tranches of the DSTI indicator



Source: NBM

Figure 4.1.4. Evolution of the share of the volume of credits by tranches of the LTV indicator



Source: NBM

4.2. The National Financial Stability Committee

The National Financial Stability Committee continued to meet in ordinary meetings to review the current state of the components of the financial system.

During 2022, the Committee met in three regular meetings to examine developments and risks in the banking, non-bank lending and insurance sectors, as well as risk mitigation actions undertaken or initiated by competent authorities in the supervised sectors. Other topics examined during the meetings concerned the analysis of the impact of inflation on financial stability, as well as the approval of the calendar of ordinary meetings for 2023.

5. RECENT DEVELOPMENTS AND PERSPECTIVES

5.1. Regulations to strengthen the financial stability framework

The National Bank continued to draft and revise, as appropriate, the normative acts related to Prudential and foreign exchange regulation in order to implement the Law No 202/2017 on the activity of banks.

Thus, during 2022, to apply the Law No 202/2017, the NBM made amendments to the following secondary normative acts:

- *Regulation No 109/2018 on banks' own funds and capital requirements* was supplemented with requirements on the conditions and modality for inclusion in the calculation of own funds, at consolidated level, of equity Tier 1 capital instruments related to a subsidiary owned by persons other than undertakings included in the consolidation perimeter (minority interests), additional Tier 1 and Tier 2 own funds instruments, issued by the bank's subsidiaries (parent company of a group under supervision on a consolidated basis), as well as own funds requirements for credit adjustment risk and counterparty risk. At the same time, in the context of prior approval for the distribution of profits to shareholders, inclusion of the option to issue an approval for an amount less than the amount requested by the bank if the amount requested may lead to non-compliance with own funds requirements or other prudential indicators, or to endangering the bank's stability.

- *Regulation No 109/2019 on large exposures* was supplemented with provisions to specify some particularities of the exposure value calculation, related to the treatment of counterparty credit risk for banks, in the context of the bank's large exposures. At the same time, requirements were established for consolidated reporting of the information on the top ten exposures to banks and the top ten exposures to financial sector entities other than banks.

- *Regulation 322/2018 on Banking Activity Management Framework* was supplemented by certain technical requirements specifying the

content of the recovery plans, as well as the minimum criteria that the competent authority must examine in the evaluation of the recovery plans. These provisions partially transposed the provisions of EU Delegated Regulation No 2016/1075. It was also stipulated the obligation to notify the NBM about the violation of the threshold of indicators provided in the recovery plan and the decision of the management body related to the recovery actions applied.

- *Regulation No 158/2020 on the Requirements for the Publication of Information by Banks* was supplemented with provisions on the need to publish including indicators related to the bank's liquidity, as well as information on the leverage ratio indicator.

- *Regulation No 113/2022 on Qualifying Holdings of Banks* has been approved in a new version, which contains provisions on qualifying holdings of banks in the capital of enterprises, including accepted limits for these holdings, and specifies a list of enterprises in the capital of which the bank may have qualifying holdings, including exercising control over the enterprise, and the procedure for obtaining prior approval issued by the NBM for qualifying holdings.

- *Regulation No 240/2013 on Banks' Transactions with Their Related Parties* was supplemented with provisions on the cumulation of the transaction value of the person affiliated to the bank (forming exposure) with the value of the transactions of the clients connected with them, aiming to determine the threshold in the process of approval of the transaction, proceeding from the fact that such links lead to the assumption of a common risk.

- *Regulation No 114/2022 on Banks' Investments in Real Estate of Banks* has been approved in a new version, which aims to implement the provisions of Law No 202/2017.

The alignment of the banking legislation of the Republic of Moldova to the international standards by improving the quantitative and qualitative mechanisms of Bank administration contributes to the promotion of a secure and stable banking sector, to the

increase of the transparency, trust and attractiveness of the domestic banking sector for potential investors and creditors of banks, as well as for depositors and customers, to the development of new financial products and services.

In 2022, the exercise of transposing the new European directive on payment services into national legislation continued, which represents a continuation of the alignment of the regulatory framework related to payment services with the new EU regulations in the field.

During the period under review, the NBM together with the Ministry of Finance went through a number of stages of the legislative process on the draft law related to the transposition into national legislation of the provisions of Directive (EU) 2015/2366 on payment services in the internal market (according to international custom - PSD2), namely: finalization following the opinion and participation in discussions organized by parliamentary committees.

The Law No 209 on Amendments to Some Normative Acts as of 15 July 2022 transposing Directive (EU) 2015/2366 was adopted and published in Official Monitor of the Republic of Moldova. The new framework provides new payment methods and solutions, more legal clarity, sets new rules for both existing and future payment service providers and, last but not least, more protection for payment service users.

Amendments were also made to the secondary regulatory framework on the regulation of payment systems and the provision of payment services and issuance of electronic money.

In this regard, during 2022, the following amendments were made to the secondary regulatory framework relevant to payment systems and their participants:

- *Regulation No 217/2019 on the activity of nonbank payment service providers*" has been adjusted in order to adapt and improve the rules on the licensing/registration process, through the NBM Information System on

licensing, authorization and notification, registration of agents in the Register of payment companies/postal service providers / Register of electronic money issuing companies and efficient capital management.

- *Decision No 65 of the Executive Board of the NBM "Amending certain normative acts of the National Bank of Moldova"* derived from the context of the implementation of the Project for the modernization of the automated system of interbank payments (component part of the Concept regarding the development of the field of payments in the Republic of Moldova⁵⁹) including: the logical separation of the RTGSS (Real-Time Gross Settlement System) and NSCS (net settlement clearing system) modules of the automated interbank payment system (AIPS), the transition to a more advanced format of payment messages (ISO 20022), the creation of a more advanced model of liquidity limit management by AIPS participants.

The primary legislation related to the insurance or reinsurance business was partially adjusted to the European framework by the authorities involved and the new law entered into force as of 1 January 2023.

Law No 92/2022 on insurance or reinsurance activity regulates the rules of registration, authorization, licensing, as well as the activity of insurance or reinsurance and that of intermediary. It also sets out prudential requirements for insurance market participants and rules for the supervision of insurance or reinsurance companies.

The new document stipulates a gradual increase in the minimum capital requirement (equity) for insurance companies, which can be achieved in stages over five years.

At the same time, the normative act provides for a phased compliance (in four years) to the normative restrictions on the assets allowed to cover technical provisions and to the minimum capital requirement.

The new framework transposes Pillar II and Pillar III of Directive (EU) 2009/138 on the

⁵⁹ <https://www.bnm.md/ro/content/extras-din-conceptul-privind-dezvoltarea-domeniului-de-plati-din-republica-moldova>

taking-up and pursuit of the business of Insurance and Reinsurance (according to Solvency II), Pillar I to be implemented as the market matures and consolidates.

The framework for consumer protection of financial services was strengthened both on the side of legislative amendments and by the approval of BNM and NCFM of Regulations on Responsible Lending applicable to banks and NBCOs.

In April 2022, several amendments to the Law No 139/2007 on savings and loan associations, Law No 202/2013 on consumers credit agreements, Law no. 202/2017 on the activity of banks and Law No. 1/2018 on non-bank lending organizations were made by Law No 93/2022 on the amendment of certain normative acts. The approved amendments concerned the mandatory introduction of the procedure for assessing the creditworthiness of the consumer prior to the conclusion of a credit/financial lease/loan agreement and compliance with the requirements of Responsible Lending.

The amendments also aimed to limit the annual credit interest rate specified in the credit agreement to 50 percent, and the other related payments (commissions, fees, penalties, late interest and any other type of payment), except interest, on a credit day - to 0.04 percent of the total loan amount. The total cost of the loan (which includes interest, fees, charges, penalties, late payment interest and any other type of payment) was also capped at an amount not higher than the amount disbursed under the respective contract (or the amount of entry of the asset into the financial lease), a loan that is not intended for the purchase, construction or renovation (modernization) of a dwelling secured by an immovable property in order to ensure the obligation to pay that loan.

As a result of the change in the primary framework, the supervisory authorities approved Regulations on responsible consumer lending (Regulation No 101/2022 on responsible consumer lending by banks and Regulation No 20/2022 on responsible lending requirements for non-bank credit organizations). These regulations are part of

the package of macroprudential measures recommended for application by National macroprudential authorities to achieve the intermediate objective of preventing and/or limiting excessive credit and indebtedness growth.

Responsible lending is defined as the lending activity, in which the creditor carries out an assessment of the creditworthiness of the consumer and does not allow the consumer to assume financial obligations that exceed his / her ability to pay, thereby accumulating an excessive degree of indebtedness.

Also, through the mentioned acts, the requirements for the calculation of individual indicators based on debtors were introduced:

- limiting *credit and collateral ratio* ("loan-to-value" or LTV); and
- limiting *ratio between the debt service and income* (DSTI (debt-service-to-income)).

Limiting their levels ensures sustainable lending, which in turn supports the financial system's contribution to economic growth. LTV and DSTI are widely applicable macroprudential instruments in EU countries and other advanced economies.

In general, the LTV applies to new loans granted for real estate investments and cannot exceed 80 percent, and some exceptions and recalculation formulas are provided for cases when the credit is partially/fully compensated and/or guaranteed by the state or with bank deposits.

At the same time, the DSTI also applies to new consumer loans and should not exceed 40 percent of the consumer's confirmed income. Thus, the amount of the average monthly payments calculated for all consumer credits/loans at the time of credit issuance together with the average monthly payment of the requested credit must not exceed 40 percent of the average monthly net income of the consumer achieved in at least the last 6 months before the submission of the loan application. The regulations also provide for some exceptions that seek to ensure access to finance and to level the DSTI limit for higher or irregular income consumers.

At the same time, to achieve the goal pursued by the introduction of DSTI, the maximum maturity of the loan granted to the consumer was also limited – 5 years for consumer loans and 30 years for loans for real estate investments.

The NBM Regulation on responsible consumer lending by banks entered into force on July 1, 2022, and the NFMC Regulation on responsible lending requirements for non-bank credit organizations - on 1 September 2022.

Box 6. National Bank framework for providing emergency liquidity assistance

The NBM strengthened the framework for Emergency Liquidity Assistance (ELA), with the support of the technical assistance provided by the IMF in this respect in 2017, 2020 and 2023.

Therefore, the legislative and regulatory framework governing ELA has been significantly modified, aligning this type of assistance to best governance practices.

Currently, ELA is regulated in the light of Article 18¹ of Law No 548/1995 applicable to licensed banks; Regulation No343/2019 on Emergency Liquidity Assistance and Rules on the valuation of assets accepted by the NBM as collateral when granting loans to banks (approved by the Decision No 211/2019 of the Executive Board).

ELA represents a "provision of liquidity by the National Bank, from its money, or any other form of assistance in emergency situations that can lead to an increase in the volume of money of the National Bank, to a solvent and viable bank facing temporary liquidity problems, without such an operation being part of the monetary policy"⁶⁰.

Main criteria for granting ELA

1. It shall be determined whether the bank applying for ELA has exhausted alternative sources of liquidity before resorting to this type of financing;

2. The bank's solvency and viability shall be assessed:

- the bank is solvent, if it complies with the minimum own funds requirements (including the requirements established following the supervision and evaluation process);

- the bank is viable if it has demonstrated in a credible way that it will achieve financial performance over the next 36 months;

The impact of not granting ELA on the stability of the financial system shall be assessed;

4. The impact of ELA on monetary policy implementation shall be assessed;

5. The sufficiency of the assets eligible for the ELA guarantee shall be assessed. Their adjusted value must cover the ELA and the related interest in the proportion determined by the NBM on the basis of the associated risk assessment, but not less than 100 percent;

6. The existence of a feasible ELA repayment strategy (in the light of the financing plan submitted by the ELA requesting bank), etc., shall be assessed.

Conditions for granting

The ELA is granted in national currency, at the discretion and under the conditions established by the NBM, at a penalty interest rate that is equal to the rate applied to the NBM overnight credit facility plus 2 p.p. (30.04.2023: 18 percent).

The term for which ELA is granted is up to 2 weeks, with the possibility of extending it, at the request of the bank, for other periods of 2 weeks, but not more than 3 months or, exceptionally, not more than one year from the date of granting, under the conditions established by the Executive Board of the NBM.

The ELA amount is calibrated according to the forecast of net cash outflows presented by the bank over the required horizon (up to 2 weeks) and according to the sufficiency of the

⁶⁰ Article 18¹ of Law No 548/1995

adjusted value of eligible assets accepted by the NBM to guarantee the ELA.

Unlike standard monetary policy operations, ELA can be secured with several types of financial assets⁶¹, among which are the loan portfolios granted by the bank, classified in the category "standard". In order to be eligible, the financial assets proposed as a guarantee for ELA by the bank requesting it, shall comply with a number of conditions⁶².

Eligible assets shall not be pledged at their nominal value but shall be adjusted by haircuts in different proportions according to the risks associated with these assets.

For example, in the case of monetary claims,

the minimum haircuts vary in the range of 30percent - 80 percent depending on the type of debtor, the residual maturity of the loan and how it is guaranteed.

In order to reduce the risk of default of the ELA and ensure its use after destination, the NBM may restrict or limit the activity and/or operations of the debtor Bank, including the granting of loans and making interbank placements, order the bank to limit qualified holdings in the capital of other entities, limit or prohibit the payment of dividends or interest in any form to own funds holders and early redemptions, order the bank to limit the remuneration of employees, impose additional or more frequent reporting requirements, etc.

5.2. Deposit guarantee and resolution fund in the banking sector

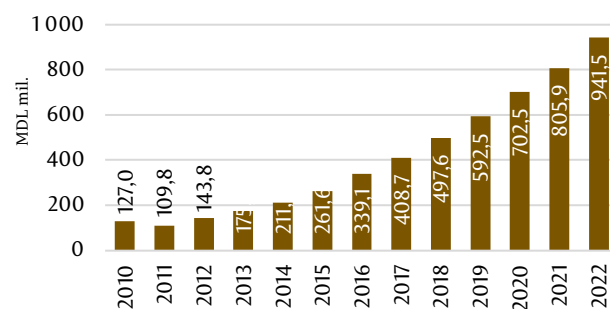
The fund guarantees deposits of private individuals and legal entities, residents, and non-residents, up to the level of MDL 50 000. In 2022, the capitalization level⁶³ of the resources of DGFBS reached the value of 5.14 percent.

Since the establishment of the fund (01.01.2004) financial means were accumulated in the total amount of MDL 991.8 million, of which MDL 595.1 million - initial and quarterly contributions of commercial banks, MDL 395.4 million - income obtained from the investment activity of DGFBS and MDL 1.4 million from unused funds intended for current expenses.

During the reporting year, the financial means for guaranteeing deposits increased by MDL 135.6 million or by 16.83 percent, as of 31 December 2022 the available means of the DGFBS amounting MDL 941.5 million (Figure 5.2.1) or 5.04 percent of all guaranteed deposits registered in the banking sector.

Given the guarantee ceiling of MDL 50,000, these are sufficient to cover the deposits guaranteed simultaneously at 4 banks (2 small and 2 medium) or of any bank, except for systemically important banks for

Figure 5.2.1. Available means of DGFBS



Source: prepared by NBM based on DGFBS data

which, according to the provisions of Law No 232/2016 on the recovery and resolution of banks, the resolution procedure is applicable.

The level of full coverage of deposits of eligible individuals and legal entities reached 94.9 percent of the number of depositors and 42.4 percent of the number of guaranteed deposits.

During the reporting period, the balance of guaranteed deposits increased by 5.6 percent to MDL 18,679.9 million. In disaggregation by type of depositors, guaranteed deposits of private legal entities represent just over 9 percent of the total guaranteed deposits, while guaranteed deposits of natural persons represent 90.7 percent of the number of guaranteed deposits.

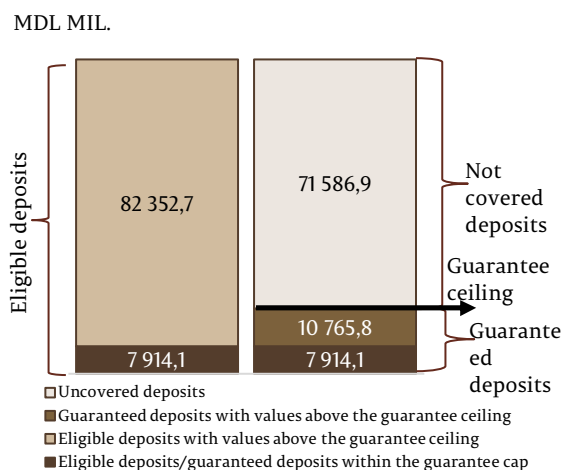
The investment process carried out during 2022 was characterized by the high level of

⁶¹ The detailed list of assets eligible for the ELA guarantee is presented in paragraph 14 of Regulation No 343/2019.

⁶² Chapter III, paragraph 16 and Section 2 of Regulation No 343/2019.

⁶³ The ratio between the calculated financial means of the fund and the total amount of guaranteed deposits.

Figure 5.2.2. Positioning of eligible deposits against the guarantee ceiling, 31.12.2022



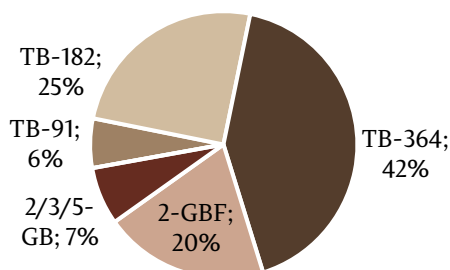
Source: DGFBS, Activity Report for 2022

revenues received, which at the end of the year amounted to MDL 69.3 million, up by 88.3 percent compared to previous year. The increase in revenues received was determined by the increase in interest rates on the SS market throughout 2022 and, at the same time, the concentration in the investment portfolio of DGFBS of financial instruments with shorter circulation terms.

The value of the investment portfolio as of 31 December 2022 registered MDL 943.4 million, up by 16.9 percent (MDL +136.4 million) compared to the previous year. DGFBS'S investment activity in 2022 focused on maturities up to one year, with a significant share of the total investment portfolio having TB of 182 days and TB of 364 days (figure 5.2.3).

The average annual interest rate of the investments made in 2022 was 17.41 percent, registering a considerable increase compared to the previous year (2021: 5.74 percent) as a

Figure 5.2.3. Structure of the DGFBS investment portfolio as of 31.12.2022



Source: DGFBS, Activity Report for 2022

result of the increase in the annual interest rates on the primary market for SS. The investment process carried out during the year generated revenues of MDL 174.5 million.

As administrator of the bank resolution fund, DGFBS continued to accumulate the financial resources of the bank resolution fund which stood at the level of 1.9 percent in relation to the volume of guaranteed deposits.

The fund's resources, consisting mainly of the annual contributions of banks, are used, according to the Decision of the NBM as resolution authority, to cover the needs related to the effective application of resolution tools.

During the reporting year in the bank resolution fund received annual contributions from banks in total amount of MDL146.3 million. As the annual contributions were collected from banks, DGFBS ensured the investment process from the account of the available resources, recording at the end of the year investment income of MDL 17.6 million.

As of 31 December 2022, the financial resources of the bank resolution fund amounted to MDL 350.7 million, which is 62.6 percent compared to the target level for the available resources of the bank resolution.

The investment process from the account of the bank resolution fund resources amounted to MDL 324.5 million at the end of 2022 and accentuated on TB of 182 days and TB of 91 Days, which recorded, in the total volume of placements, the weights of 37.4 percent and 27.0 percent, respectively. The annual investment income collected in the bank resolution fund amounted to MDL 17.6 million⁶⁴.

5.3 Transition to consolidated supervision of the financial system

The transfer from the NCFM to the NBM of the powers on supervision and regulation of the non-banking financial sector is a complex process that requires thorough preparation.

⁶⁴ The target level for the available financial resources of the bank resolution fund is 3 percent of the amount of

guaranteed deposits of all banks licensed on the territory of Moldova.

According to Law No 178/2020, starting with 1 July 2023, the NBM is to take over from the NCFM the regulation and supervision of entities from the non-banking financial sector: insurance/reinsurance companies, insurance/reinsurance intermediaries, National Bureau of Motor Insurers of Moldova, NBCO, SLA, Credit History Bureaus. In order to implement the mentioned law, several documents were drawn up and approved by the NBM, as follows:

On 20 May 2022, the NCFM and the NBM signed the Memorandum of Understanding on the transfer of responsibilities, which includes clauses on the principles applicable to the transfer, business continuity, cooperation of the signatory authorities, transfer of personnel, exchange of information, etc.

Also, on 20 May 2022, the involved authorities approved the Joint Action Plan of the NBM and the NCFM on taking over/ transmitting responsibilities, which stipulates the objectives and necessary actions to be taken by the respective authorities.

Subsequently, on 6 October 2022, the Executive Committee of the NBM approved the concept on the implementation of the project of taking over by the NBM the regulatory and supervisory responsibilities of the non-banking financial sector. It aims to ensure an understanding of the process of

transferring responsibilities and to create a sound decision-making basis for all aspects of the process of taking over duties.

On 30 November 2022 the organizational structure of the project, responsible for the organization and management of the new functions, was established.

At the same time, within the project of taking over the duties, the representatives of the NBM and NCFM held multiple working meetings in order to identify and document the processes in the field of transfer of competences, as well as exchanged relevant information in this regard.

In order to successfully assume its responsibilities regarding the regulation and supervision of the non-banking financial sector, the NBM will continue to take the necessary actions according to the Joint Action Plan of the NBM and the NCFM on the taking over/transmission of responsibilities.

At the same time, the NBM undertakes measures to continuously increase the institutional capacity related to the sector to be taken over through the participation of the staff in various trainings, seminars, technical assistance missions, studying the European regulatory framework in the field (directives, regulations, guides), etc.

ANNEXES

Systemic Risk Survey⁶⁵

Traditional key risks (macroeconomic, credit) as well as specific risks (geopolitical) persist in the financial system.

The risk rating, determined by the NBM, positioned geopolitical risk as the most important risk, being characterized by a high probability of materialization, high potential impact and a very difficult management capacity. The second risk by importance is macroeconomic risk, with a high probability of materialization, a high potential impact and a relatively difficult management capacity. Sovereign risk, ranked 3rd, is characterized as a risk with medium probability of occurrence, medium to high potential impact and a very difficult management capacity.

In dynamics, there is an increase in importance for most of the analysed risks, except Covid, governance risks (a significant decrease compared to the previous year), cyber and reputation (a slight decrease compared to the previous year).

100 percent of respondents consider the real economy and an external event as major potential sources of systemic risk, followed by the political domain (73 percent), the social

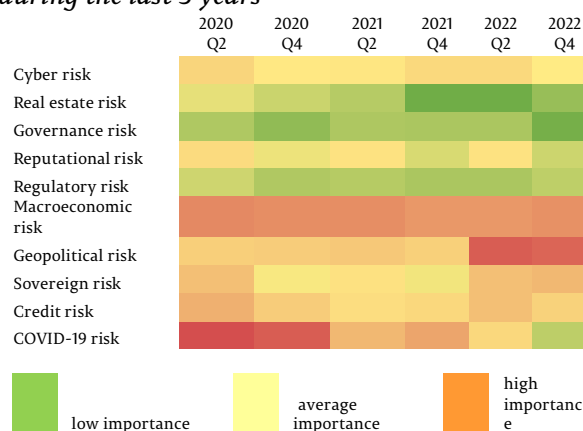
Table 0.1. Rating of risks analyzed in the survey by category

2022	Importance	Likelihood	Potential impact	Management capacity
Geopolitical risk	3,92	4,09	4,00	3,91
Macroeconomic risk	3,62	3,91	3,91	3,36
Sovereign risk	3,35	3,09	3,64	3,82
Credit risk	3,18	3,36	3,64	2,73
Cyber risk	3,00	3,27	3,18	2,82
Reputational risk	2,68	2,18	3,36	3,00
Regulatory risk	2,60	2,73	2,82	2,55
Covid risk	2,59	2,73	2,82	2,64
Real estate risk	2,35	2,64	2,36	2,36
Governance risk	2,15	1,82	2,91	2,18

Note: **Importance** was calculated as the geometric mean of the probability of occurrence, potential impact, and management capacity. **Likelihood**: 1 – not significant, 2 – low, 3 – medium, 4 – high, 5 – certain. **Potential impact**: 1 – not significant, 2 – low, 3 – medium, 4 – high, 5 – extremely high. **Management capacity**: 1 – very easy, 2 – relatively easy, 3 – relatively difficult, 4 – very difficult, 5 – not manageable.

Source: NBM, Systemic Risk Survey

Figure 0.1. Dynamics of the importance of risks during the last 5 years



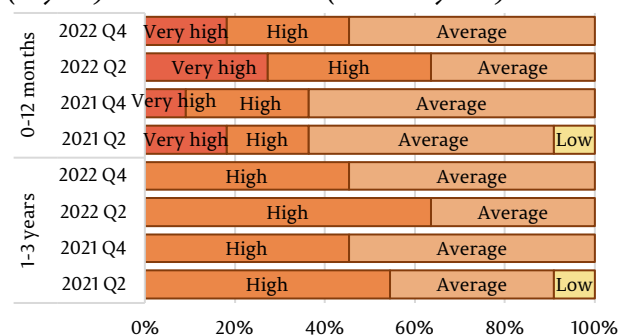
Source: NBM, Systemic Risk Survey

framework (55 percent) and the banking financial field (36 percent).

The likelihood of a high-impact systemic event occurring in the next 12 months is estimated to be at a medium to high level, increasing the number of those who estimate this likelihood as average, compared to the previous iteration of the survey. In the medium term (1-3 years), the likelihood of an adverse event occurring is estimated at an average level, slightly increasing compared to the previous iteration of the survey.

The current resilience of the financial system is moderately high (73 percent), while the current level of solidity is expected to be maintained (73 percent).

Figure 0.2. Evolution of perceptions on the likelihood of a high impact event in the short term (<1 year) and medium term (next 1-3 years)



Source: NBM, Systemic Risk Survey

⁶⁵ The NBM conducts the Systemic Risk Survey half-yearly, to capture the opinion of risk managers in banks on the major risks of the financial system.