National
Bank of Moldova

FINANCIAL STABILITY REPORT FOR 2021

CONTENTS

LIST OF ABBREVIATIONS

SCA	Savings and Credit Associations
NBM	National Bank of Moldova
NBS	National Bureau of Statistics of the Republic of Moldova
TB	Treasury bills
IC	Insurance company
CNB	Certificates of the National Bank of Moldova
CCyB	Countercyclical capital buffer
NCFM	National Commission on Financial Market
CIS	Commonwealth of Independent States
XDR	Special drawing rights (XDR)
DSTI	The ratio between debt service and total income (debt service to income)
DTI	Debt-to-income ratio
EBA	European Banking Authority
ESG	Environmental, social and governance
EUR	The single European currency (euro)
DGFBS	Deposit Guarantee Fund in the Banking System
IMF	International Monetary Fund
NFI	Non-banking financial institutions
IFRS	International Financial Reporting Standard
HHI	The Herfindahl-Hirschman index
SMEs	Small and medium-sized enterprises
LCR	Liquidity coverage ratio
LGD	Loss given default
LTI	The ratio between loans and income (loan-to-income)
LTV	The ratio between loans and the value of collateral (loan-to-value)
M2	Money supply
MDL	Moldovan Leu
NGFS	Network for Greening the Financial System
NPL	Non-performing loans
O-SII	Society of systemic importance
GB	Government bonds
PD	Probability of default
GDP	Gross domestic product
PSP	Payment service providers
OFEP	Open foreign exchange position
TOFR	Total own funds ratio
ROA	Return on assets
ROE	Return on equity
RPPI	Residential real estate price index
RR	Required reserves
JSC	Joint Stock Company
SREP	Supervisory Review and Evaluation Process
USA	United States of America
EU	European Union
SS	State securities
USD	US dollar

NOTES

The financial stability report was prepared by the Financial Stability Directorate, under the coordination of the NBM Deputy Governor, Tatiana Ivanicichina.
The report was examined by the Executive Board of the National Bank of Moldova and approved at the meeting of August 25, 2022.

SUMMARY

The year of 2021 can be considered one of recovery of the national economy after the pandemic crisis and of resumption of activities after the decline in 2020. The role of the financial system in this process of economic recovery has been of paramount importance, as it fulfils its function as a mechanism for financing economic activities.

The banking sector has remained resilient, and the effects of the pandemic crisis have been minor, confirming once again the effectiveness and timeliness of the reforms undertaken in the area of banking regulation and supervision. High capitalization and sufficient liquidity level allowed banks to become an important factor in the economic recovery process in 2021.

The rapid economic recovery has been characterized by an increase in consumption, in disposable income of the population, and in lending across various credit categories. Bank lending has been booming, with new loans granted at the highest nominal values in the last 10 years. A considerable contribution to lending growth was made by population lending, which almost doubled during 2021, but companies' lending also increased significantly.

Against the backdrop of faster loan portfolio growth, the non-performing loan ratio by sector reached a historic low of 6.1 percent at the end of 2021. The impact of the pandemic crisis on the quality of bank portfolios, and thus on borrowers' ability to pay, was minimal or could be overcome thanks to the measures taken by the authorities to support the economy and the population already in the first half of 2020.

Non-bank lending also resumed its growth rate across all sub-components after stagnating in 2020, while recording more moderate increases compared to bank lending.

Rapid economic growth, in addition to the advantage of growth itself and economic recovery after 2020, also brings a number of risks related primarily to the "heating up" of the economy, declining efficiency of investment and new lending, and a possible deterioration in credit quality.

At the same time, towards the end of the year, Moldova's economy faced a series of external shocks, which significantly affected the economic situation. In these circumstances, the financial system adapted to the shocks and maintained its capacity to continue to provide financing to the national economy.

The external shocks faced by Moldova during this period, in particular the shock caused by the dramatic increase in gas, fuel and electricity prices, have the potential to affect financial stability along several dimensions. Also, worth mentioning is the increase in production costs for the economic agents, and the decrease in the population's ability to repay their loans, as well as multiple second round effects.

Although, for the time being, compensation and relief measures by the authorities have avoided major consequences, maintaining these conditions in the long term will have the effect of partially eroding the financial stability.

However, we can state that at the end of 2021 the situation of the financial sector was stable and resilient, with no imminent systemic risks. The banking sector remains ready to ensure the smooth functioning of the national economy and a sustained level of economic growth.

1. ECONOMIC AND REAL CONTEXT

1.1. Economic developments

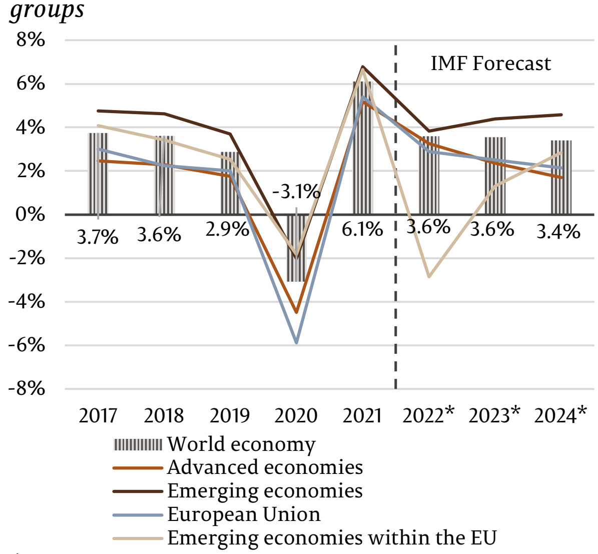
During 2021, the global economy has experienced a revival after the COVID-19 pandemic in 2020.

In the context of recovery from the global impact of the crisis related to the COVID-19 pandemic situation in 2020, the global output trend returned to the positive range in 2021. As a result, global GDP expanded significantly to 6.1 percent in real terms compared to 2020 (Figure 1.1.1).

In particular, the economic growth was made possible due to the reduction of restrictive measures imposed during 2020, as well as monetary stimulus measures and subsidies to support the affected economies.

Broken down by country group, the economic growth was stronger in emerging (developing) countries, which recorded an aggregate real growth of 6.8 percent in annual terms. At the same time, the group of developed countries recorded a more moderate growth of 5.2% in annual terms.

Figure 1.1.1. Evolution of world GDP and country groups



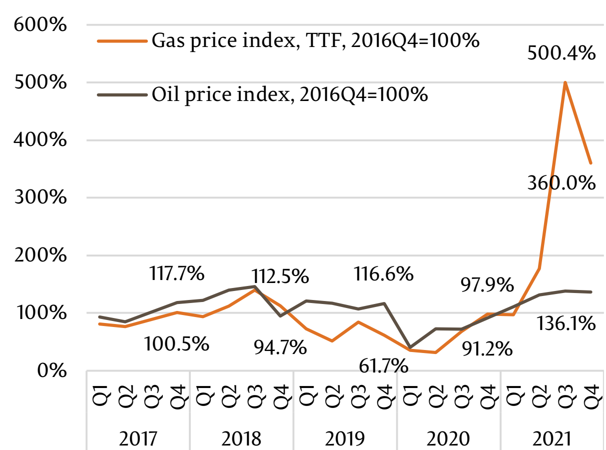
** - IMF Forecast*
Source: prepared by the NBM on the basis of IMF data

The increase in energy resource prices in the second half of 2021 boosted pro-inflationary factors in loose monetary conditions and led to the accumulation of economic risks.

One of the main risks that drove the developments in the second half of 2021 was the increase in energy prices. According to the European stock exchange data, the price of the Dutch TTF brand gas registered a record increase of 267.9 percent during 2021 (Figure 1.1.2.), constituting EUR 70.3/kwh-h at the end of the reporting year (EUR 19.1/kwh-h at the end of 2020). The highest gas price level during 2021 was recorded in September at EUR 97.8/kwh-h. At the same time, the oil price on the international stock exchanges recorded more modest increases compared to the natural gas price. During 2021, the price of the Brent brand oil increased by 49.3 percent (Figure 1.1.2.) standing at USD 77.4/barrel at the end of December 2021 (December 2020: 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 1.1.2. Evolution of energy resource prices on the international market, 31.12.2016 = 100 percent



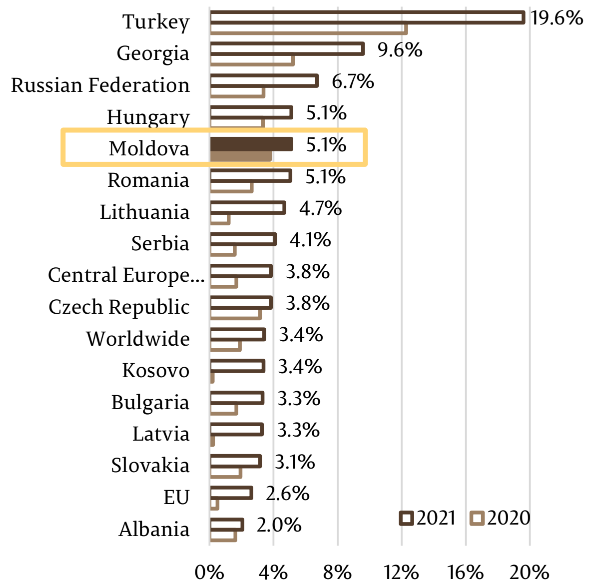
Source: prepared by the NBM based on data from tradingeconomics.com

According to the World Bank data[1], average annual inflation for 2021 reached 3.4 percent, up by 1.5 percentage points or 79.7 percent compared to the previous year (Figure 1.1.3.).

At the same time, it is worth noting that the group of countries in Central Europe and the Baltic region recorded a relatively higher

[1]https://databank.worldbank.org/reports.aspx?source=2&series=FP.CPI.TOTL.ZG&country=

Figure 1.1.3. Average annual inflation rate by country and group of countries



Source: prepared by the NBM based on World Bank data

inflation level compared to the EU, which was caused by the geopolitical tensions in the region at the end of 2021.

International forecasts for the upcoming years point towards a moderate pace of global economic growth, while emerging European countries will experience an economic contraction in 2022 as a result of the military conflict in Ukraine.

Considering the above-mentioned developments, according to the World Economic Outlook IMF forecast of April 2022, the economic growth rate for the upcoming years will moderate to around 3.5 percent per year (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 the CIS countries caused by the military conflict in Ukraine, a significant negative impact on emerging countries in Europe is expected in 2022. Thus, the economic contraction for this group of countries was estimated at 2.9 percent in 2022, with a return to the positive range in 2023 (Figure 1.1.1.).

In the international economic context of the reporting year, the Republic of Moldova managed to recover the economic activity and main macroeconomic indicators after the recession in 2020.

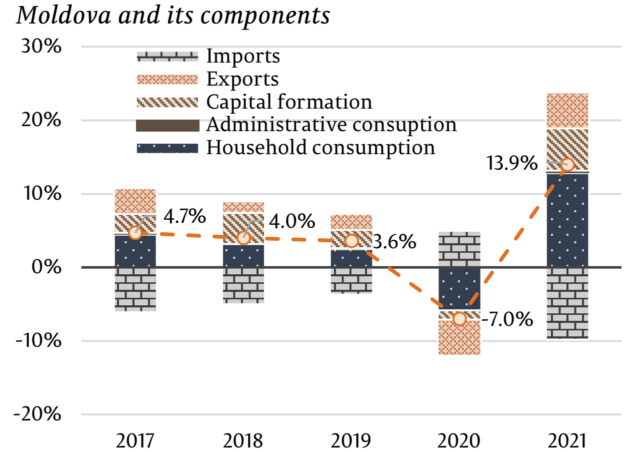
Table 1.1.1. The main macroeconomic indicators of the Republic of Moldova

Name of the indicator	Value in 2021	Change compared to 2020
GDP, current prices	MDL 241,870 million	+13,9%
Annual inflation rate	13,9%	+13,6 pp.
MDL/USD exchange rate	17,7452	+3,1%
MDL/EUR exchange rate	20,0938	-4,9%
Reserve assets	USD 3 901.9 million	+3,1%
The deficit of the National Public Budget	MDL -4 640.5 million	-56,3%
Government debt	MDL 77 752.7 million	+14,6%
Current account balance[2]	USD -1 590,13 million	+78,2%
Coverage of imports with exports of goods and services	43,8%	-2,1 pp.
Net international investment position	USD -5 661.0 million	+4,9%
Unemployment rate	3,2%	-0,6 pp.
Disposable income/per capita	MDL 3 513,5	+13,41%
Total personal remittances/GDP	12,7%	-0,8 pp.

Source: prepared by the NBM on the basis of NBM, NBS data

In 2021, the Republic of Moldova economy registered a record growth in real terms of about 13.9 percent compared to 2020. Considering the components, the GDP growth was mainly due to household consumption, contributing by 12.8 percent to GDP growth, and gross capital formation, with a more modest contribution of 5.7 percent to GDP growth (Figure 1.1.4.).

Figure 1.1.4. The evolution of the GDP of the Republic of Moldova and its components



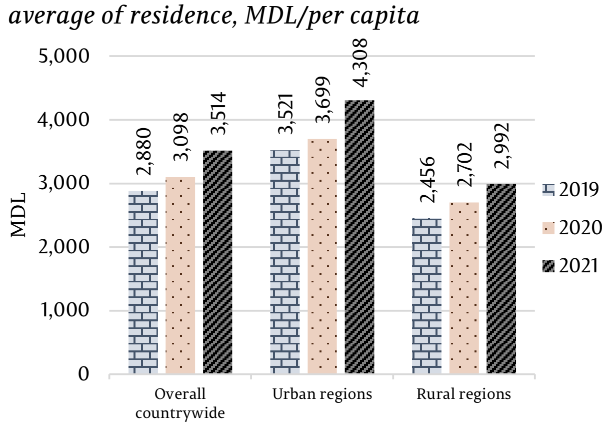
Source: prepared by the NBM on the basis of NBS data

[2] The international account indicators (BOP, IIP, ED) are calculated according to the BPM6 methodology.

By resource category, the positive evolution of GDP was conditioned by the growth of activity in most branches of the economy (+13.3 percent to GDP growth), such as agriculture, forestry, and fishery; wholesale and retail trade; transport and storage; information and communication; production and supply of electricity and thermal energy, gas, hot water, and air conditioning; arts, recreation and leisure. Net taxes on products also had a positive contribution to GDP growth (+2.3%). At the same time, the construction branch had a negative contribution of -1.6% to GDP growth.

In 2021, the average disposable income of the population experienced a favorable dynamic, reaching the level of MDL 3 513.5 per month per person, up by 13.4 percent compared to the previous year. The structure of the main components of disposable income remained overall constant, with wage income from activity continuing to represent the predominant component, about 50.7 percent of the total disposable income, increasing by 14.6 in annual terms.

Figure 1.1.5. Average monthly disposable income by average of residence, MDL/per capita

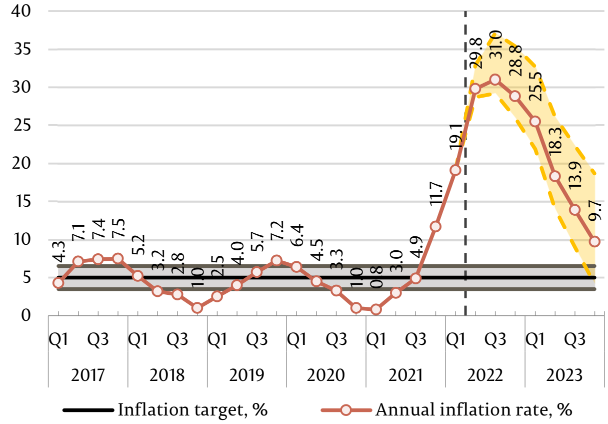


Source: prepared by the NBM on the basis of NBS data

The inflation rate was on an upward trend in 2021, which has increased considerably in the last quarter against the background of unfavourable developments in energy prices.

The average inflation rate in 2021 was 5.1 percent, 1.3 percentage points higher than in 2020. During the year, the annual inflation rate developed unevenly, decreasing slightly in the first quarter of 2021, with a subsequent increase to 11.7 percent by the end of 2021 (Figure 1.1.6.).

Figure 1.1.6. Annual inflation rate



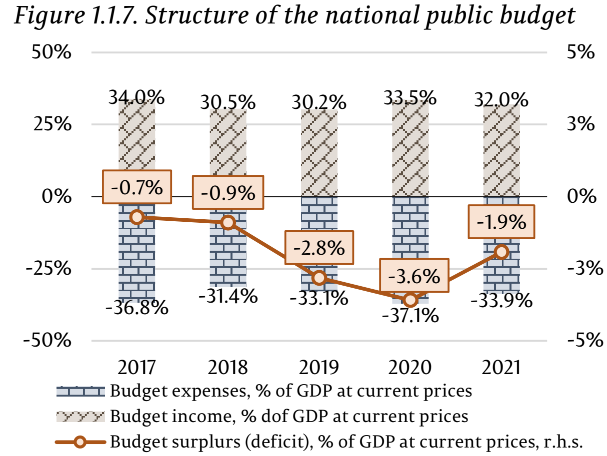
Source: NBM, according to the May 2022 inflation forecast round

For 2022-2023, the inflation rate is expected to increase significantly, reaching a peak of about 31.0 percent in the third quarter of 2022, gradually decreasing to 9.7 percent towards the end of 2023. However, the inflation forecast is strongly influenced by uncertainties related to the geopolitical tensions in the region, international food prices and the evolution of the energy resource crisis over the forecast horizon.

National public budget indicators improved during 2021, with the budget deficit being lower than in 2019-2020.

At the end of 2021, the national public budget deficit amounted to MDL 4,640.5 million (a decrease of 56.3 percent) or 1.9 percent of GDP (Figure 1.1.7.). The decrease in the national public budget deficit is largely due to the higher increase in revenues collected (+23.5 percent compared to the previous year) in comparison to the expenditures incurred (+11.9 percent compared to the previous year).

Figure 1.1.7. Structure of the national public budget



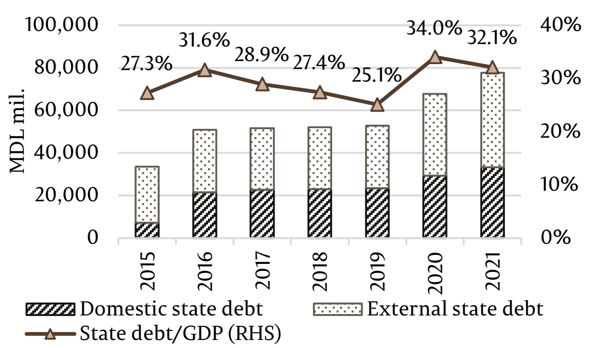
Source: prepared by the NBM on the basis of NBS data

1.2. State debt

The state debt-to-GDP ratio has been declining against the background of a higher growth rate of GDP relative to the total debt stock.

The share of government debt in GDP decreased by 1.9 percentage points compared to the situation at the end of 2020 amounting to 32.1 percent. The share of state debt service in state budget revenue also decreased slightly to 4.0 percent (Figure 1.2.1).

Figure 1.2.1. State debt



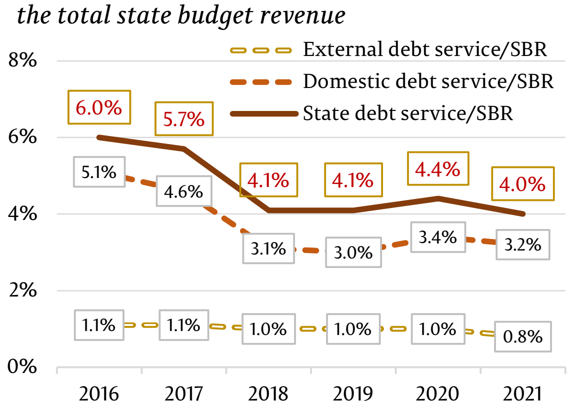
Source: prepared by the NBM on the basis of data from the Ministry of Finance

The state debt balance as of 31 December 2021 amounted to MDL 77 752.7 million, increasing by MDL 9 932.0 million or 14.6 percent compared to the previous year due to the increase in both domestic (MDL +5 886.2 million) and external (MDL +4 045.8 million) state debt (Figure 1.2.2).

<u>SS issues</u>

The Ministry of Finance has substantially increased the volumes of SS offered at auctions, given the significant increase in financing needs,

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



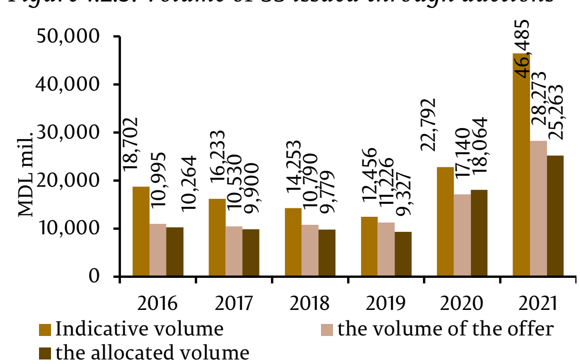
Source: prepared by the NBM on the basis of data from the Ministry of Finance

as well as the constraints arising from the uncertainty of the release of external financing tranches, (intervening in the maturity structure of SS). In addition to those traditionally offered for sale, for the first time, SS with a maturity of 7 years were launched on the market starting with the second quarter of 2021, accounting for only 0.61 percent of SS issued in 2021.

However, under the specific conditions of 2021, the investors' demand for SS was moderate.

The volume requested in relation to the indicative volume was over-unit only in the first two months of the year, after which it becomes deeply below-unit and remains on this trend until the end of the year. Even under these conditions, the Ministry of Finance managed to place a record volume, from a historical perspective, of MDL 25,262.8 million over the entire period, an increase of about 1.4 times compared to the volume of SS traded in 2020 (Figure 1.2.3). At the same time, SS maturing in the reference period were redeemed in the amount of MDL 21,045.7 million.

Figure 1.2.3. Volume of SS issued through auctions

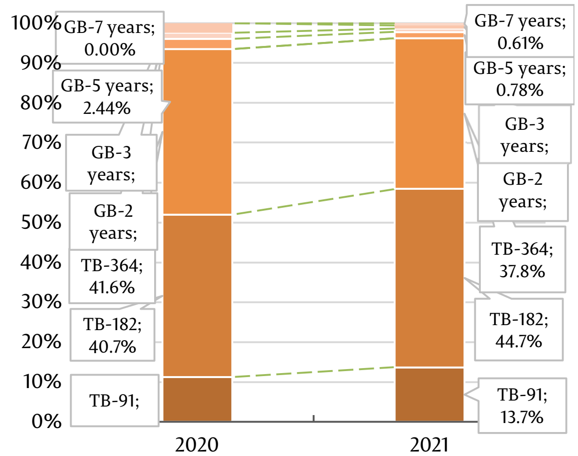


Source: NBM

In 2021, the most traded SS were those with a maturity of half a year, while SS of up to 1 year accounted for 96 percent of all SS traded.

In the primary market, 7 types of SS were issued during this period: TB with 91, 182 and 364 days maturity, as well as GB with 2, 3, 5 and 7 years maturity. The major share in the traded SS in the primary market is the 182-day maturity Treasury bills (44.7 percent), followed by 365-day maturity Treasury bills (37.8 percent) and 91-day maturity Treasury bills (13.7 percent) (Figure 1.2.4).

Figure 1.2.4. SS structure by maturity



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

In 2021, the traded volume of 2-year GB (fixed and floating rate) and 3, 5 and 7-year fixed rate GB amounted to respectively MDL 398.0 million (1.6% of the total traded volume), MDL 210.6 million (0.8%), MDL 197.6 million (0.8%) and MDL 155.1 million (0.6 percent).

Compared to 2020, the traded volume of GB for 2, 3 and 5 years has decreased in total by MDL 348.1 million.

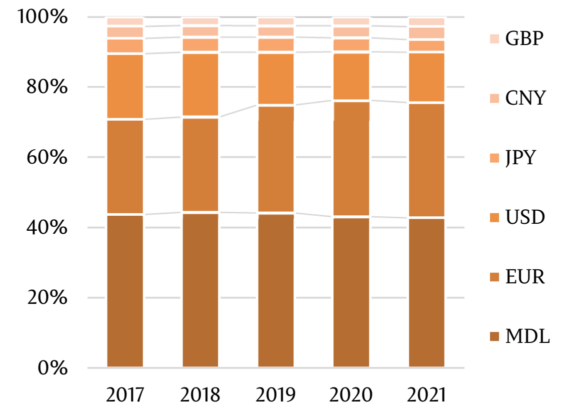
Banks remain the main investors in SS, although the volume of SS purchased by non-bank investors increased.

This value remained practically at the same level, recording MDL 1 863.7 million at nominal value, thus non-bank investors accounted for 7.4 percent of the total volume traded. Correspondingly, banks held a dominant share of 92.6 percent in the total purchased SS.

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

At the end of the reporting year, 57.2 percent of the government debt portfolio was external government debt, all denominated in foreign currency. The structure of government debt by currency, with the breakdown of the XDR currency basket, highlights the vulnerability of the government debt portfolio to EUR and USD, implying the need for continuous monitoring of currency risk. Thus, the share of government debt in EUR and USD accounts for 47.2 percent of the government debt portfolio (Figure 1.2.5).

Figure 1.2.5. Structural evolution of government debt in foreign currency

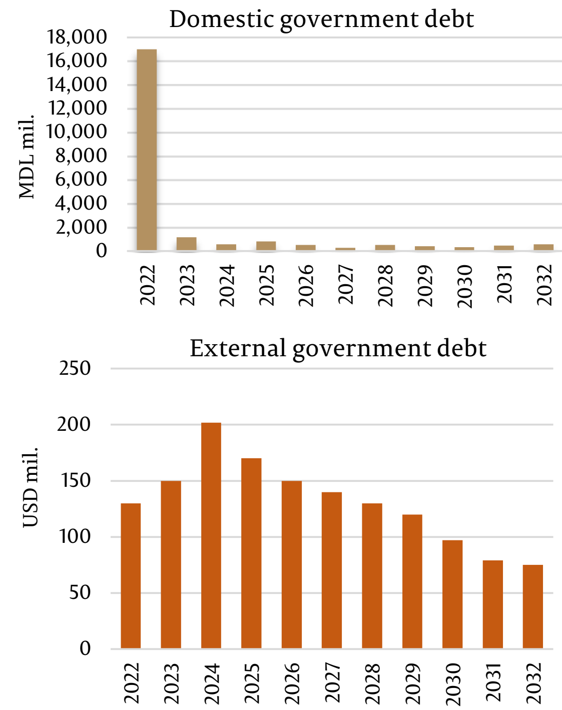


Source: prepared by the NBM on the basis of data from the Ministry of Finance

The repayment forecast for domestic government debt peaks in 2022 and is mainly made up of instruments with short repayment terms.

According to data from 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 rising interest rates on the domestic market.

Figure 1.2.6. State debt repayment forecast



Source: Ministry of Finance

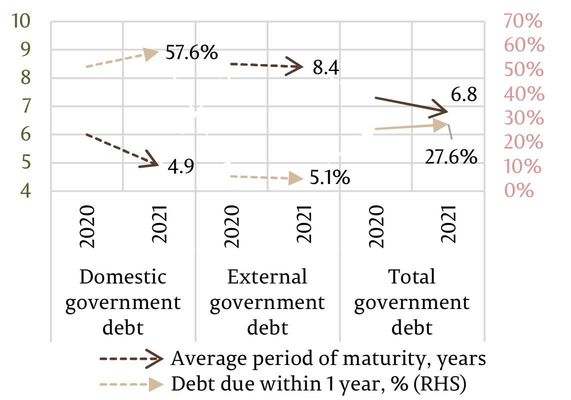
In addition, in October 2022, the 6-year maturity SS with a total amount of MDL 290.0 million is to be repaid, according to the Law No 235/2016 on the issuance of GB regarding the execution by the Ministry of Finance of payment obligations derived from state guarantees No 807/2014 and No 101/2015.

The refinancing risk of external debt is low.

The analysis of the external government debt repayment profile shows a gradual increase in the amount of payments towards repayment in 2023 and 2024, after which the external government debt repayment will follow a downward-slopping path.

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

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



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

As of the end of the reporting year, 57.6 percent of domestic government debt is expected to mature within one year.

Compared to 2020, the domestic government debt maturing within one year increased by 6.2 pp. The external government debt, due to long-term instruments, is within safe limits, so that 5.1 percent of it is expected to mature within one year.

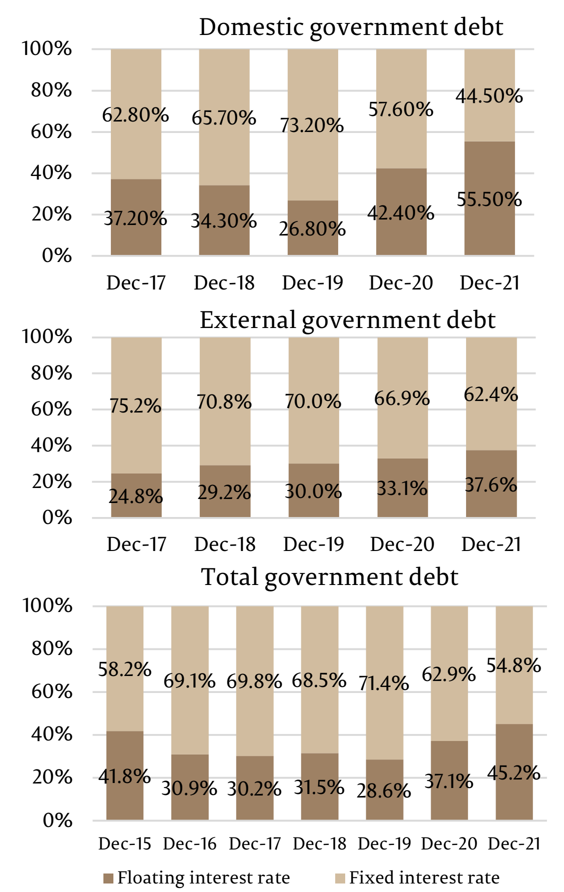
Almost half of total government debt is exposed to interest rate fluctuations.

As of 31 December 2021, there is an upward trend in domestic government debt with floating interest rate, constituting 55.5 percent of the total domestic government debt, up by 13.1 pp compared to the end of 2020. 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.

Also, in the case of external government debt, there is evidence of an increase in the share of floating interest rate debt issued. Thus, as of 31 December 2021, the external government debt with floating interest rate accounted for 37.6 percent of the total external government debt, 4.5 percentage points more than at the end of 2020.

In terms of total government debt, the share of floating interest rate debt was 45.2 percent, reflecting an increase of 8.1 pp compared to the end of 2020.

Figure 1.2.8. Government debt structure by types of interest rate



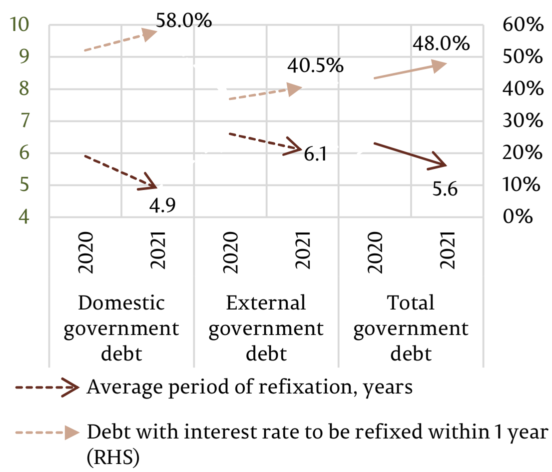
Source: prepared by the NBM based on data from the Ministry of Finance

Domestic government debt is most exposed to the risk of rising interest rates, as 58.0 percent of domestic government debt is expected to be reset[3] at new interest rates within 1 year.

During 2021, the share of domestic government debt with an interest rate to be reset within one year increased by 5.9 pp compared to the end of 2020. Thus, an increase in interest rates on the domestic market will directly affect domestic government debt costs.

Interest rates on domestic government debt are reset, on average, within 4.9 years, 1 year less than at the end of the previous year.

Figure 1.2.9. Average refixing period of government debt and debt to be refixed within 1 year



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

At the same time, 40.5 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 6.1 years, 0.5 years less than at the end of 2020.

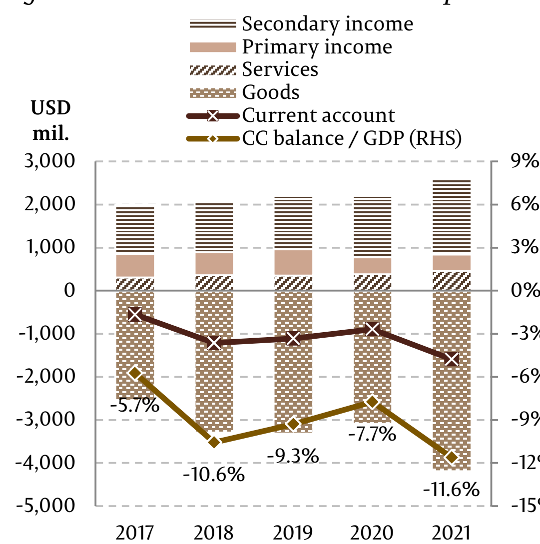
Regarding government debt, the refixing period of the entire portfolio is 5.6 years (decreasing by 0.7 years compared to 2020) and 48.0 percent of it is to be refixed at new interest rates within 1 year, thus highlighting the exposure of government debt to interest rate risk.

1.3. The evolution of the external sector [4]

The current account deficit of the balance of payments of the Republic of Moldova increased considerably as a result of the widening of the foreign trade deficit in goods and the decrease in the primary income surplus.

According to preliminary data, in 2021, the current account deficit of the balance of payments of the Republic of Moldova increased substantially compared to that recorded in 2020, both in absolute and relative terms to GDP. The deficit amounted to USD 1,590.1 million, up by 78.2 percent compared to the value recorded in 2020. Relative to GDP, the current account deficit amounted to -11.6 percent, which deteriorated by 3.9 percentage points compared to 2020 (Figure 1.3.1).

Figure 1.3.1. Current account - main components



Source: NBM

This dynamic was driven by a considerable increase in the foreign trade deficit in goods (by USD 1 096.1 million compared to 2020) and a decrease in the primary income surplus, while the secondary income and services balances improved.

The foreign trade deficit in goods amounted to USD 4 190.4 million, increasing by 35.4

[3] The higher the value of the average refixing period indicator, the more reliable it is, like the refinancing risk indicator - average maturity period.
[4] Full analytical comments on the evolution of international accounts can be found at: https://www.bnm.md/ro/content/conturile-internationale-ale-republicii-moldova-anul-2021-date-trimestriale-provizorii

percent compared to 2020, due to a higher increase in imports of goods (+34.0 percent) than exports (+31.8 percent).

In 2021, the evolution of imports and exports of goods was influenced by both the increase in physical volume[5], and the increase in prices.

Both the dynamics of the physical volume of imported goods (+15.4 percent) and the evolution of their prices (+14.8 percent) contributed to the increase in imports of goods to the level of USD 6 752.6 million. The increase in the import of goods was driven by the category "mineral products" (+78.7 percent compared to the previous year), on account of the increase in prices of petroleum products (details in Chapter 1.1). Geographically, all regions contributed to the increase in imports, in particular imports from EU-27 countries[6] (USD +813.1 million compared to the previous year), followed by CIS countries (USD +593.3 million) and other countries (USD +305.0 million).

The increase in exports of goods to USD 2,562.3 million was driven by increases in both the physical volume of goods (+14.1 percent) and the prices of exported goods (+11.7 percent compared to the previous year). The increase was driven by the "agri-food products" category, whose exports increased by 32.0 percent compared to 2020, mainly due to the increase in exports of vegetable products (wheat and meslin, corn, rapeseed, etc.). Geographically, all regions contributed to the increase in exports, thus, exports to other countries (USD +269.8 million compared to the previous year), EU-27 countries (USD +248.3 million) and CIS countries (USD +88.2 million) increased.

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

The surplus in foreign trade in services (USD 457.5 million) increased by 19.7 percent compared to the previous year. Exports of services increased by 27.9 percent (or by USD 356.9 million), while imports increased by 31.5 percent (or by USD 281.7 million). The largest positive contribution to the increase in exports came from exports of travel services, mainly due to the increase in personal travel services (+32.5 percent or by USD 70.3 million). Also, a significant increase was recorded in the export of IT services (+35.5 percent or USD +91.6 million), as well as transport services which increased by 32.2 percent compared to 2020. The increase in imports of services resulted from the increase in imports of transport services (+38.5 percent, especially freight transport which increased by 35.3 percent) and travel services (+34.4 percent compared to 2020).

The positive balance of primary income decreased, while secondary income increased on the background of higher personal transfers from abroad.

The decrease in the primary income surplus by 3.5 percent compared to 2020, to USD 376.9 million, was driven by a more significant increase in outflows (+9.1 percent, totaling USD 508.2 million) than in inflows of primary income (+3.4 percent to USD 885.1 million). The remuneration of resident employees received for the work performed for non-resident employers increased by 5.4 percent, while payments related to direct investment income increased (+12.8 percent).

Secondary income increased by 23.6 percent to USD 1,765.8 million compared to 2020. Personal transfers received from abroad by residents increased by 15.5 percent and amounted to USD 1,220.8 million. The net value of technical assistance, humanitarian aid and grants received under international cooperation by all institutional sectors almost doubled in 2021 and amounted to USD 349.0 million.

Total personal remittances (the sum of net remuneration of employees, personal and capital transfers between households) received by residents in 2021 increased by 12.0 percent compared to the previous year and amounted to USD 2,028.1 million, which represents 14.8 percent related to GDP (-0.9 pp compared to 2020).

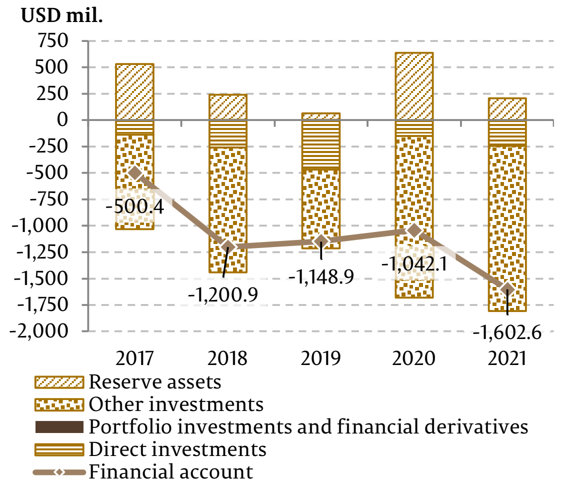
[5] According to unit value indices and physical volume indices of imported/exported goods, including goods for/after processing for which there is no change of ownership.

[6] EU-27 - European Union excluding the United Kingdom

The capital account balance continues to be negative, with net external financing needs amounting to 12 percent of GDP.

The capital account recorded a deficit of USD 51.0 million, which decreased by 22.4 percent compared to 2020. The capital account balance was driven by net capital outflows recorded by the private sector (USD 75.7 million), while inflows of foreign assistance received by the public administration to finance investment projects amounted to USD 24.7 million.

Figure 1.3.2. Changes in the financial account, by functional categories, net flows



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

Source: NBM

As a result of residents' current and capital transactions with non-residents, net external financing needs amounted to USD -1 641.1 million (12.0 percent relative to GDP).

The financial account in 2021 resulted in net capital inflows of USD 1,602.6 million due to a net increase in residents' liabilities to non-residents from actual transactions of USD 1,147.1 million and a net decrease in residents' external financial assets of USD 455.4 million.

Liabilities increased mainly due to commitments in the form of trade credits and advances amounting to USD 360.5 million received from non-resident trading partners, net withdrawals of USD 301.2 million recorded on foreign loans (drawings - USD 827.0 million, repayments - USD 525.8 million). The public administration contracted in 2021 new foreign loans in the amount of USD 378.8 million and repaid USD 141.2 million. At the same time, the NBM repaid USD 45.6 million of the previously contracted loans from the IMF. Licensed banks made net withdrawals in the amount of USD 45.1 million, and other sectors - net withdrawals of USD 64.1 million.

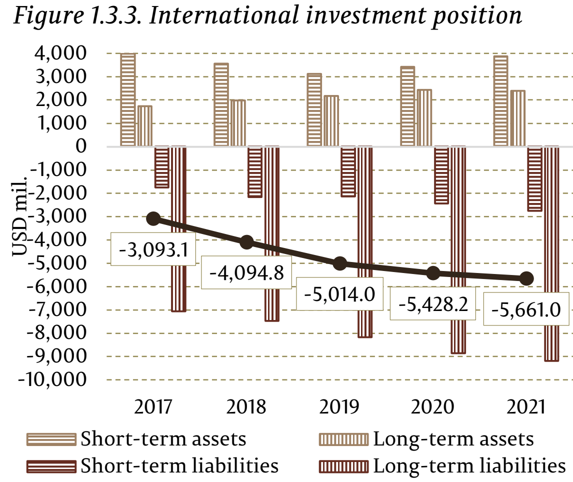
External commitments in the form of direct investments increased by USD 244.8 million during 2021, a dynamic driven by the reinvestment of profits in the amount of USD 123.1 million, the net increase in equity participations and shares held by non-residents of USD 100.5 million, as well as net withdrawals of loans from foreign direct investors in the amount of USD 21.3 million. The increase in liabilities during 2021 was also facilitated by the XDR allocation in the amount of USD 234.5 million, by the IMF to combat the global economic crisis.

The net decrease in external assets was driven by a USD 625.7 million decrease in cash and deposit assets (of which assets of other sectors decreased by USD 834.2 million, while assets of licensed banks increased by USD 208.5 million). At the same time, official reserve assets of the NBM increased by USD 205.8 million.

Non-resident trading partners made net repayments of USD 49.8 million on trade loans and advances previously granted to them by Moldovan residents. At the same time, residents' external assets in the form of loans increased - by USD 15.8 million, and residents' external assets in the form of direct investments abroad - by USD 5.9 million.

The debit balance of Moldova's international investment position was increasing in 2021.

Figure 1.3.3. International investment position



Source: NBM

Thus, as of 31.12.2021, it amounted to USD -5 661.0 million, with the debit balance deepening by 4.3 percent compared to the end of 2020.

The balance of external financial assets amounted to USD 6,266.4 million, up by 7.1 percent since the beginning of the year, and that of liabilities - USD 11,927.4 million, up by 5.7 percent. The increase in the external financial assets position during 2021 was driven by a 17.4 percent increase in the other investment assets position, a 3.1 percent increase in the reserve assets position, and a 1.5 percent increase in the direct investment assets position. At the same time, the positions of assets in the form of portfolio investments and financial derivatives decreased by 44.9 percent compared to the previous year.

Official reserve assets were above the sufficiency criteria.

Official reserve assets amounted to USD 3,901.9 million at 31.12. 2021, which meets the sufficiency criteria: covering at least 3 months of imports of goods and services (covered 5.9 months of actual imports); full reserve coverage of short-term external debt (covered 142.2 percent); coverage of 20 percent of M2 money supply (covered 83.3 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 199.2 percent).

The evolution of the liabilities position was driven by a 9.2 percent increase in commitments in the form of other investments (to USD 7 097.7 million) and a 1.1 percent increase in direct investments, totaling USD 4 800.7 million. The position of commitments in the form of other investment increased mainly due to a 13.9 percent increase in trade credits and advances to other sectors, and a 2.3-fold increase in the XDR position due to the balance of payments flow (USD +234.5 million), which represents XDR allocations by the IMF to support the fight against the global economic crisis.

The gross external debt of the Republic of Moldova amounted to about 66 percent of the Republic of Moldova's GDP, with long-term debt accounting for the largest share.

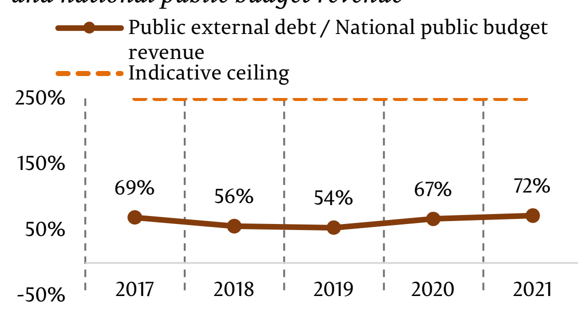
The gross external debt of the Republic of Moldova increased during 2021 by 6.8 percent and amounted to USD 9 013.7 million as of 31.12.2021, which is 65.9 percent of GDP (-7.3 pp compared to 31.12.2020, due to the GDP growth).

The largest share of the gross external debt balance is accounted for by long-term debt (69.6 percent), which amounted to USD 6,269.5 million as of 31.12.2021, increasing by 4.3 percent compared to the beginning of the year. Short-term external debt increased by 13.1 percent and amounted to USD 2 744.2 million at the end of 2021.

Public external debt accounted for 30.3 percent of total external debt and increased by 12.4 percent since the beginning of the year, while private external debt increased by 4.6 percent compared to 31.12.2020, accounting for 69.7 percent of the total.

Public external debt remained sustainable, with all external indebtedness indicators within the ceilings set by the World Bank and IMF[7]: the ratio of public external debt to national public budget revenue was 72.2 percent (Figure 1.3.4), and the ratio of public external debt to GDP - 20.0 percent (Figure 1.3.5).

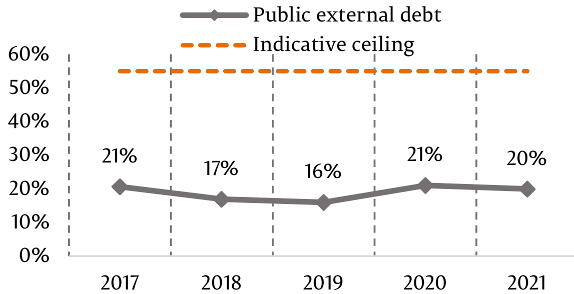
Figure 1.3.4. Ratio between the public external debt and national public budget revenue



Source: NBM

[7] Note: Indicative ceilings based on the CPIA (Country Policy and Institutional Assessment) score developed 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: 55 percent for the ratio of public external debt to GDP, 250 percent for the ratio of public external debt to national public budget revenue.

Figure 1.3.5. Ratio between the public external debt and GDP



Source: NBM

1.4. Real estate sector

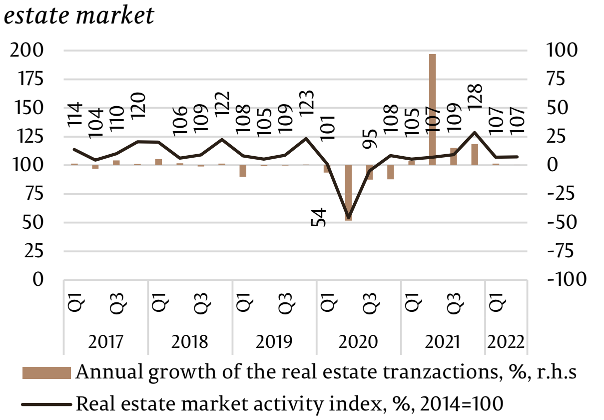
During 2021, the activity in the real estate sector has registered a revival in the second half of the year after the impact of the COVID-19 crisis in 2020.

2021 was characterised by an activation of the real estate market compared to 2020. In annual terms, the most significant increase in the number of transactions was recorded in the second quarter of 2021 compared to the second quarter of 2020, following the significant impact of the emergency state in 2020. Towards the end of the reporting year, the activity in the real estate market continued its upward trend.

The real estate market activity index[8] shows a return to pre-pandemic levels by the end of 2021.

According to data of the Land Registry Department of the Public Service Agency, 336.2 thousand real estate transactions were recorded during 2021, which represents an increase of 25.5 percent compared to 2020. Most of the increase is due to activation in the real estate market in the first half of the year.

Figure 1.4.1. Dynamics of trading activity in the real estate market



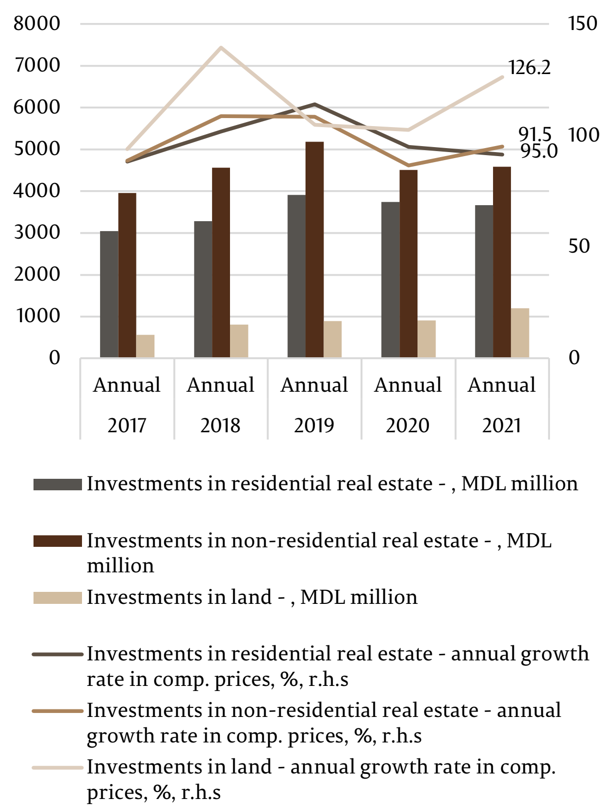
Source: NBM calculations based on NBS data

The investment activity and the administrative encouragement of construction activity allowed the housing fund to grow during 2021, thus determining the developments in the real estate market.

The strengthening of supply in the residential real estate market was made possible by persistent investment in fixed assets.

According to NBS data, investments in residential buildings amounted to MDL 4 587.3 million, an increase of 26.2 percent compared to 2020. At the same time, investments in real estate decreased in annual terms by 5.0 percent for non-residential buildings and 8.5 percent for land (Figure 1.4.2.).

Figure 1.4.2. Investment in types of fixed assets

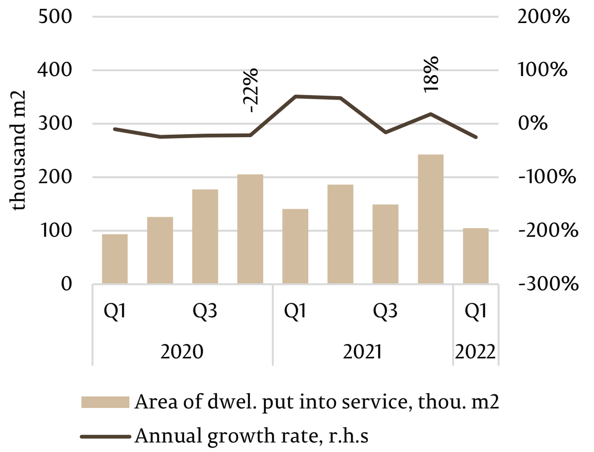


Source: prepared by the NBM on the basis of NBS data

Under these conditions, during 2021, 8.8 thousand dwellings were put into service, an increase of 17.2 percent compared to the previous year.

[8] The real estate market activity index is a chain index calculated on the basis of quarterly data related to the number of real estate transactions recorded by the Cadastre Department of the Public Service Agency.

Figure 1.4.3. Dwellings put into service



Source: prepared by the NBM on the basis of NBS data

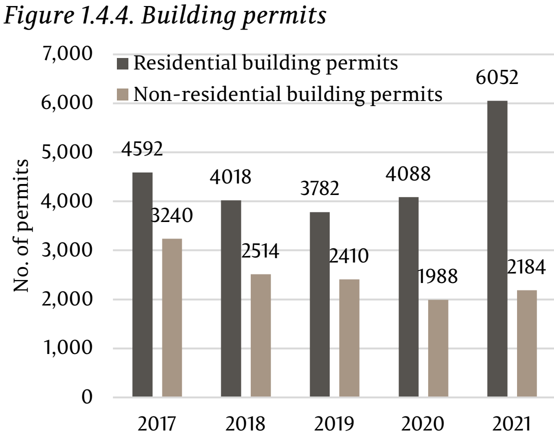
The total surface area of dwellings put into service during the reporting year was 718.8 thousand m^2, 19.3 percent more than in the previous year (Figure 1.4.3.).

At the same time, expectations regarding the supply of real estate remain on the rise, due to the number of building permits issued during the reporting year.

During 2021, 3 026 building permits were issued for residential buildings (up by 48.0 percent in annual terms) and 1 092 building permits were issued for non-residential buildings.

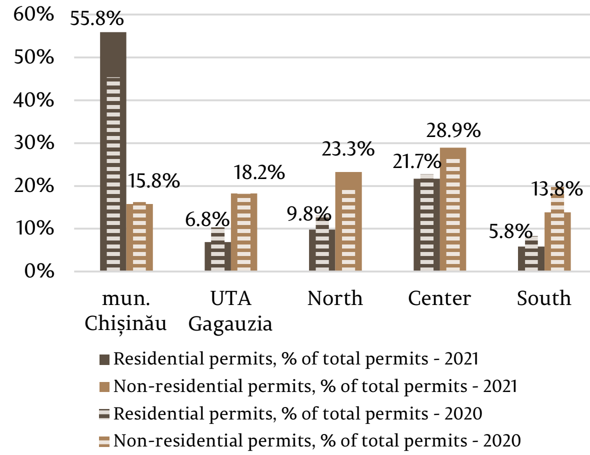
By territorial profile, the distribution of building permits shows the concentration of activity in the municipality of Chisinau and the central region. At the end of 2021, about 55.8 percent of building permits for residential premises were issued in the municipality of Chisinau, an increase of 22.9 percent compared to the previous year.

Figure 1.4.4. Building permits



Source: prepared by the NBM on the basis of NBS data

Figure 1.4.5. Building permits by territorial profile



Source: prepared by the NBM on the basis of NBS data

Inspite of this development, the share of building permits for residential buildings in other regions decreased by 4.0 - 35.0 percent depending on the region (Figure 1.4.5.).

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, at 28.9 percent, an increase of 9.8 percent compared to the previous year (Figure 1.4.5.).

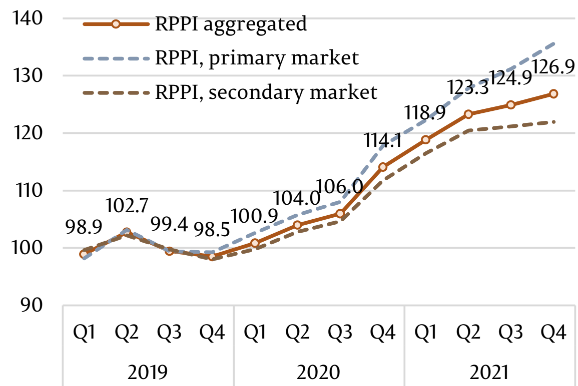
These developments indicate the propensity of real estate developers to expand the real estate market in subsequent periods.

Real estate prices remain influenced by uncertainties related to economic developments as well as the persistence of factors stimulating the demand for real estate.

The residential property offer price (RPPI) in 2021 continued the upward trend that began in 2020. During the reporting year, the RPPI index increased by 11.2 percent and stood at 126.9 at the end of the year. Appreciation in the residential property market was largely driven by developments in the primary market, for which there was a higher RPPI increase of around 15.0 percent, compared with the more modest 9.1 percent increase in the secondary market RPPI index (Figure 1.4.6.).

In the context of the stimulating supply of real estate, the increase in the offer price could be partly explained by uncertainties related to the cost of construction materials

Figure 1.4.6. RPPI index related to the Republic of Moldova (%)

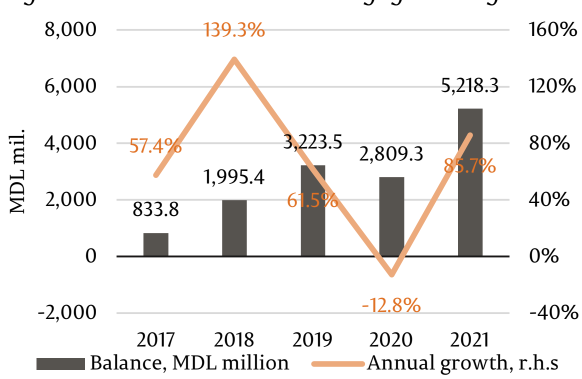


Source: NBM

inspite of the worsening energy crisis at the end of 2021, as well as the factors related to the stimulation of demand for real estate.

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 mortgage loans were granted in MDL (including, attached to the exchange rate) with a total balance[9] of MDL 5 218.3 million, increasing by 85.7 percent in annual terms (Figure 1.4.7.). Under these conditions, the persistence of the population's interest in investing in the real estate sector is evidenced, despite the existing uncertainties.

Figure 1.4.7. Balance of new mortgage loans granted



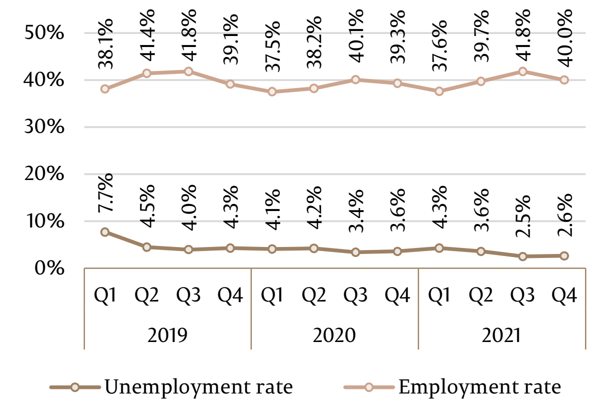
Source: NBM

1.5. Private sector indebtedness

<u>Population indebtedness</u>

During 2021, the level of indebtedness of the population in the Republic of Moldova was

Figure 1.5.1. Employment indicators in the Republic of Moldova



Source: the NBS

influenced by several risk factors, resulting from the increase in energy resource prices, with the subsequent formation of inflationary pressure on consumer spending (details in Chapter 1.1).

Labour market indicators show a slight activation during the reporting year.

According to NBS data, as of the end of 2021, the employment rate[10] stood at 40.0 percent, up by 1.8 percent (or +0.7 pp) compared to the previous year. At the same time, the unemployment rate[11] recorded a value of 2.6 percent, decreasing by 27.8 percent or - 1 pp compared to the previous year (Figure 1.5.1.). The increase in the number of employed labour force contributes positively to the expansion of the coverage area of the population's demand for financing on account of the increase in the number of persons eligible for borrowing from lending institutions.

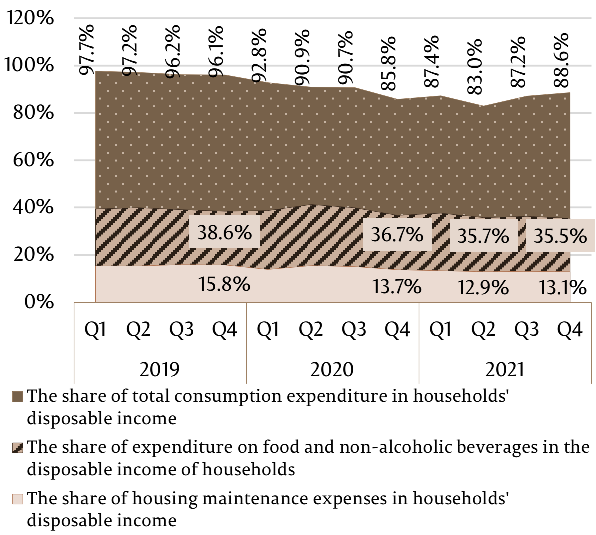
The main challenge to the sustainability of consumption towards the end of 2021 was the high share of expenditure on product/service categories influenced by fluctuations in the prices of imported energy resources.

In this respect, the most exposed types of expenditure are consumer expenditure, in particular expenditure on food and non-alcoholic beverages as well as expenditure on household maintenance (utilities).

[9] The gross balance of new mortgages granted reached a historical peak over the monitored time horizon.

[10] Share of employed persons aged 15 and over in the total population
[11] Share of unemployed according to NBS criteria

Figure 1.5.2. Share of expenditure in household disposable income



Source: prepared by the NBM on the basis of NBS data

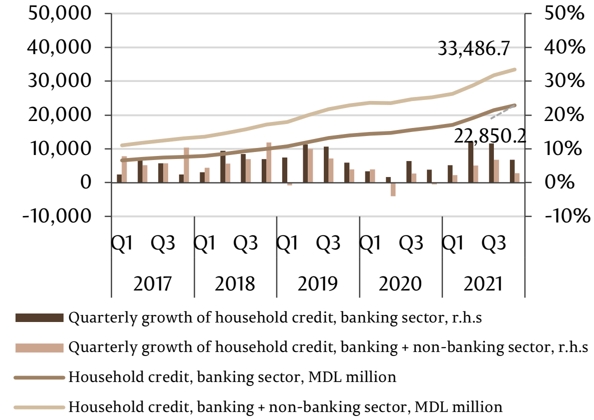
At the end of 2021, the share of total consumption expenditure in household disposable income was 88.6 percent (+3.3 percent compared to the previous year), while the share of expenditure on food and non-alcoholic beverages and expenditure on housing maintenance reached 35.5 percent (-3.3 percent compared to the previous year) and 13.1 percent (-4.37 percent compared to the previous year), respectively (Figure 1.5.2.).

Thus, the total share of expenditures exposed to the risk associated with fluctuations in energy prices in households' disposable income stood at 48.6 percent; implying a high level of vulnerability in terms of consumption sustainability and over-indebtedness of the population.

As the economy recovers from the impact of the crisis related to the COVID-19 pandemic situation in 2020, population lending activity during 2021 grew at a higher pace compared to the previous year.

At the end of the reporting year, the amount of loans granted to individuals by the banking sector reached the amount of MDL 22,850.2 million (+40.6 percent compared to the previous year), and by the financial sector (banking + non-banking) - MDL 33,486.7 million (+32.6 percent compared to the previous year) (Figure 1.5.3.).

Figure 1.5.3. Changes in the balance of loans granted to individuals



Source: NBM, NCFM

According to the Bank Lending Survey results, lending growth in 2021 was largely driven by demand-side factors as lending standards relaxed.

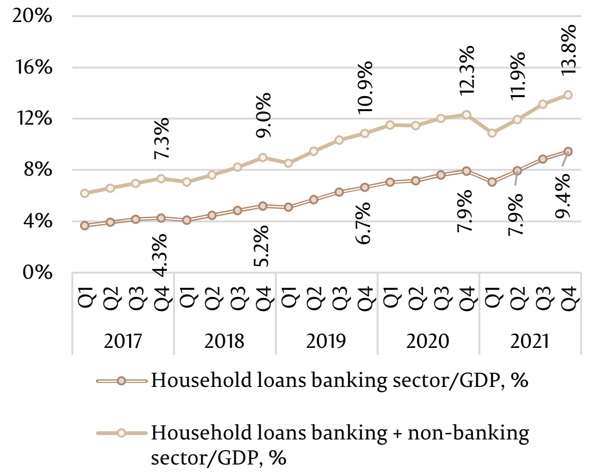
In particular, the financing needs of the population in the context of the recovery of the economy from the impact of the COVID-19 crisis in 2020 have driven the upward trend in credit demand. At the same time, during the first 3 quarters of 2021, banks reported the loosening of lending standards, largely due to the competition pressure on the credit market. Subsequently, as a result of risks associated with fluctuations in energy resource prices, thus of the inflation rate, as well as rising financing costs in the context of the monetary policy decisions of the NBM, the banks reported a tightening of credit conditions for individuals at the end of the third and fourth quarter.

The share of the total debt of the population in GDP in the Republic of Moldova is still lower than in most countries in the region.

Lending by the banking sector to individuals related to GDP increased by 1.5 percentage points reaching 9.4 percent at the end of 2021 (Figure 1.5.4.). At the level of the financial system, the share of lending to individuals in GDP[12] increased similarly and stood at 13.8 percent at the end of the reporting year.

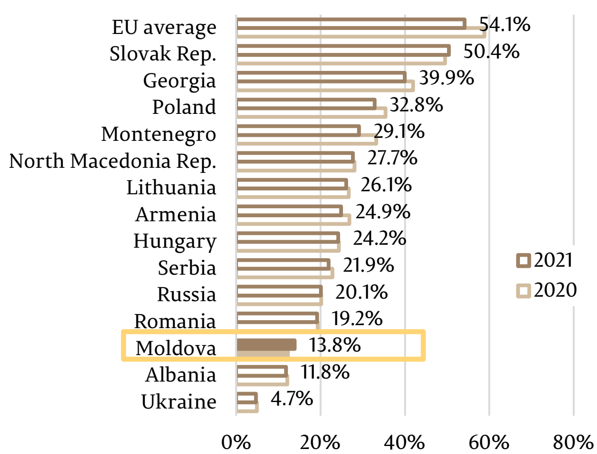
[12] Nominal value of GDP in 2021, current prices

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



Source: prepared by the NBM on the basis of NBM, NCFM and NBS data

Figure 1.5.5. Share of total debt[13] of individuals in GDP by country and EU

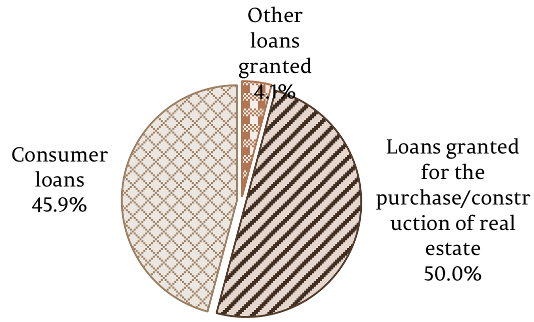


Source: NBM, NBS, www.ceicdata.com

The significant share of consumer credit in the portfolio of loans granted to individuals may increase the risk profile due to the sensitivity of debtors-individuals to fluctuations in energy prices.

At the end of the reporting year, 50.0 percent (+1.5 pp compared to the previous year) of the total loan balance was for the purchase and construction of real estate, 45.9 percent (-0.1 pp compared to the previous year) for current consumption and 4.1 percent (-1.4 pp compared to the previous year) for other purposes (Figure 1.5.6.). The quality of loans granted to individuals shows no significant shortfalls at the reporting date.

Figure 1.5.6. Structure of the portfolio of bank loans granted to individuals by purpose of credit



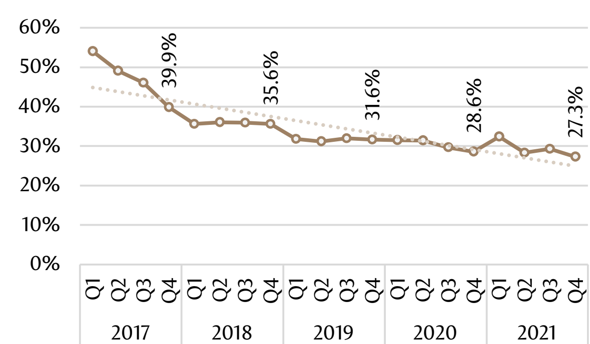
Source: NBM

The estimated indebtedness of individual borrowers in the banking sector[14] continued the downward trend established during the previous periods.

The estimated indebtedness ratio of debtors-individuals in the banking sector stood at 27.3 percent at the end of the reporting period (Figure 1.5.7.), down by 1.3 percentage points or 7.5 percent compared to the previous year. During the period under review, this indicator exhibited a relatively higher volatility, with the annual peak recorded in the first quarter of 2021 (32.4 percent), largely due to lending activity growing at a higher rate than disposable income during that quarter.

The average payment capacity of debtors has been strengthened in relation to their financial obligations, which facilitates the accessibility of financial products among the population.

Figure 1.5.7. Estimated indebtedness of individual borrowers in the banking sector



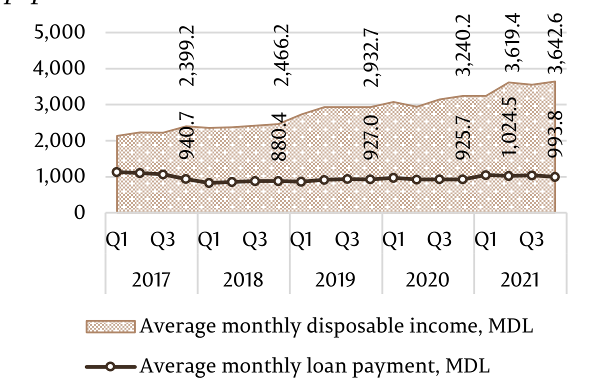
Source: prepared by the NBM on the basis of NBM and NBS data

[13] Includes the total balance of loans granted to the population by banks and NCOs

[14] The aggregate indebtedness indicator is the ratio of the amount of average monthly instalments to be repaid on the outstanding loan balance to the amount of disposable income per capita.

The estimated subsequent decline in the indebtedness ratio was mainly driven by a 12.4 percent increase in the disposable income of the population during the reporting year, due to a 14.5 percent increase in the wage income of the population in annual terms. At the same time, average monthly instalments to be payed on outstanding loan balances increased by 7.4 percent during 2021 (Figure 1.5.8).

Figure 1.5.8. Changes in the components of the population indebtedness indicator



Source: prepared by the NBM on the basis of NBM and NBS data

Box 1. Survey on the financial behaviour of the population

At the end of 2021, the NBM conducted the second round of the survey on the financial behavior of the population of the Republic of Moldova, the questionnaire included 40 questions designed to cover 4 dimensions - the general aspects about the respondent, the income and its sources, the access and sources of financing, housing.

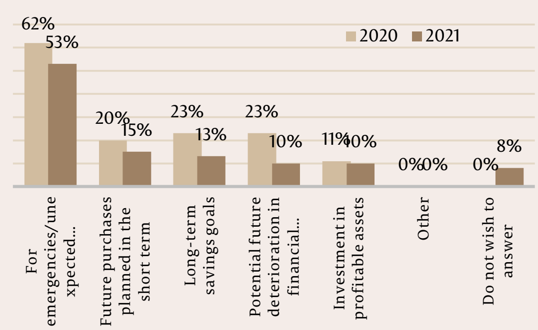
The survey was conducted on a sample of 1001 people, with the representation of various age groups, living environments, genders, and income levels.

Similar to the previous survey, the main sources of people's income remain salary - 57 percent of respondents and pension - 42 percent.

Other sources mentioned by the respondents (less than 7 percent) are income from investment activity, other social payments and transfers from abroad.

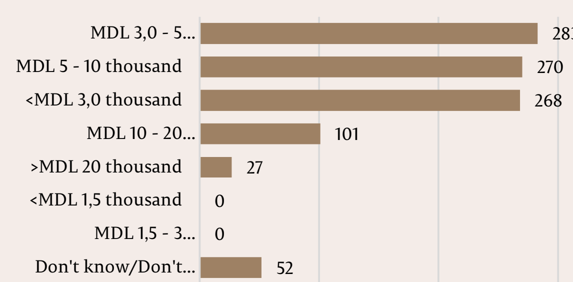
According to the survey data, the distribution of average monthly income within the sample of respondents is relatively uniform: 28 percent of respondents indicate an average monthly income between MDL 3 and 5 thousand, and 27 percent receive monthly an income below MDL 3 thousand and between MDL 5 and 10 thousand. 13 percent of respondents receive more than MDL 10 thousand, of which only 3 percent have an average monthly income exceeding MDL 20 thousand.

Figure 1.5.9. Purpose of respondents' savings



Source: Survey on the financial behaviour of the population

Figure 1.5.10. Distribution of average monthly income, number of respondents



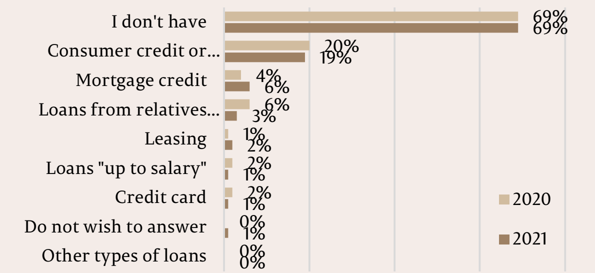
Source: Survey on the financial behaviour of the population

The degree of saving among respondents is very low, with 77 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 (66 percent) or in a bank account (28 percent). Other ways of keeping savings (less than 5 percent) include term deposits/submissions, securities, real estate investments and pension/investment funds.

The main purpose of savings remains "for emergencies/unexpected situations" (53 percent). Other purposes mentioned by respondents are future purchases planned in the short term, long-term savings goals, a potential future deterioration of the financial situation and investment in profitable assets (Figure 1.5.9).

At the time of the survey, only 28 percent of respondents said that they had resorted to sources of finance from lending institutions, the most commonly used instrument being the consumer loan (Figure 1.5.11).

Figure 1.5.11. Distribution of respondents by the type of the loan contracted



Source: Survey on the financial behaviour of the population

In the next period, only 6 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 favourable financing conditions and the low fees/charges applied.

For more than half of the respondents, the credits/loans contracted are a bearable burden. At the same time, 25 percent of the 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 decrease in salary.

Similar to the previous survey, the most attractive investment instrument, according to respondents, is real estate (42 percent). This is followed at a long distance by precious metals or art objects, securities, deposits, investment/pension funds, cryptocurrency, business/farmland (respondents' answers).

Indebtedness of non-financial companies

Non-financial companies are predominantly lent by the banking sector and their total indebtedness to banks continued to increase, although at a slower pace than in 2020.

The share of loans granted by banks to non-financial companies at the end of 2021 was 93.4 percent of loans granted by banks and NCOs. During the period under review, the gross balance of loans granted by banks to non-financial companies increased by 12.0 percent (MDL +3,330.6 million compared to the end of the previous year). At the same time, the volume of loans granted by NCOs to non-financial companies in 2021 marked a significantly faster growth compared to the banking sector (+25.2 percent), contributing to the increase in financing for the non-financial companies' sector.

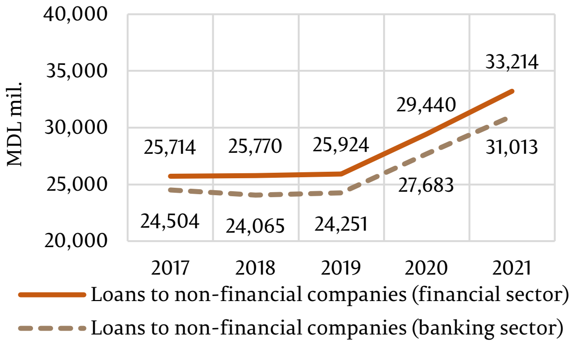
The continuing trend towards tighter lending standards for non-financial companies has moderated the pace of growth in bank lending compared to the previous year.

According to the Bank Lending Survey data, bank lending standards for companies during 2021 had a tightening trend, apart from the fourth quarter in which banks for the first time in the last 7 quarters indicated a loosening of standards. The high level of risks and uncertainties was the main factor affecting the evolution of lending standards throughout the year, influencing the perception and tolerance of risks by banks.

This unfavourable trend worsened in the first quarter of 2022 as the situation in the region escalated, with banks indicating the most severe tightening of lending standards for companies in a single quarter since the beginning of the survey (first quarter of 2018). The demand for loans from companies was on the rise against the background of increased financing needs compared to 2020.

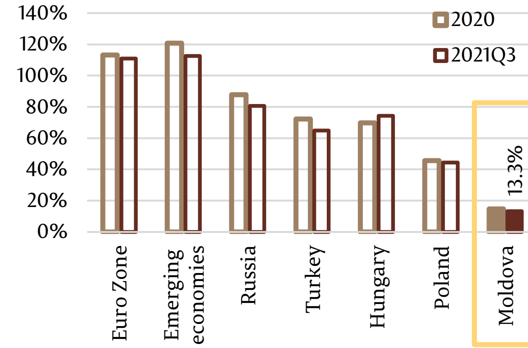
At the beginning of 2022, the respondents indicated further increase in demand for loans from companies.

Figure 1.5.12. Development of lending to non-financial companies



Source: NBM, NCFM

Figure 1.5.13. Balance of total loans granted to non-financial companies in relation to GDP by country



Source: Bank for International Settlements, NBM calculations

Banking intermediation in the non-financial companies' segment in 2021 remains at a low level of 12.8 percent of GDP, down by 1.0 pp compared to the end of the previous year.

Total lending to non-financial companies amounted to 13.7 percent of GDP, with the negative dynamics of the indicator driven by a faster growth of GDP compared to the dynamics of the portfolio of loans granted to companies.

According to the share of total loans granted to non-financial companies in GDP, the level recorded in the Republic of Moldova is lower than in other European countries and well below the average level of emerging economies.

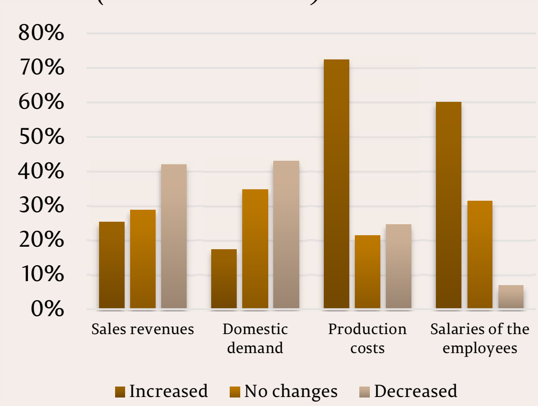
Box 2. Survey on the financial behaviour of non-financial companies

According to the 2021 financial behaviour of non-financial companies Survey[15] the main challenges over the past 6 months are: rising production costs (49 percent), lack of skilled labour (48 percent), reduced number of customers (42 percent), decrease in purchasing power (42 percent) and unstable political situation (32 percent).

The majority of companies surveyed (59 percent) have reported a profit in 2021. At the same time, for 42 percent of the responding companies, sales revenue decreased during 2021; the domestic market demand for products/services also decreased in the opinion of 43 percent of the respondents. At the same time, for 72 percent of respondent companies, the production costs increased in the last six months of 2021. In the last 6 months, the salaries of employees of the respondent companies did not change in the case of 60 percent of respondents, and in the case of 31 percent - increased.

According to respondents, the increase in salaries was mainly driven by staff dynamics, the evolution of the demand for products/services, the increase in turnover. The cases of decreasing wages were mainly due to decreasing turnover, evolutions in demand for products/services and fiscal policy.

Figure 1.5.14.Evolution of indicators in the last 6 months (second half of 2021)



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

[15] The survey on the financial behaviour of non-financial companies was conducted by the National Bank on a sample of 351 companies and comprised 33 questions on three dimensions - general aspects about the respondent, financial performance of the company, access to and sources of finance.

The main source of financing for 81 percent of the responding companies is internal company sources; 20 percent of companies have turned to bank lending, 7 percent - to non-bank lending, and 15 percent have opted for alternative sources of financing, such as overdrafts and lines of credit, trade credits, financial support (grants, subsidies, etc.) from the state, foreign funds and leasing or factoring. The main reasons for choosing internal financing to meet company needs, according to 28 percent of respondents, were (1) insufficient resources and/or lack of need for financing and (2) unwillingness of owners to take on additional debt; followed by distrust in lending institutions (25 percent) and too high costs of external resources (15 percent).

The primary purpose for seeking financing from a lending institution, stated by 48 percent of the responding companies, was to meet current needs; and 47 percent turned to lending institutions to finance an investment project. Moreover, the majority of companies (66 percent) do not intend to change their sources of financing in the next 6 months.

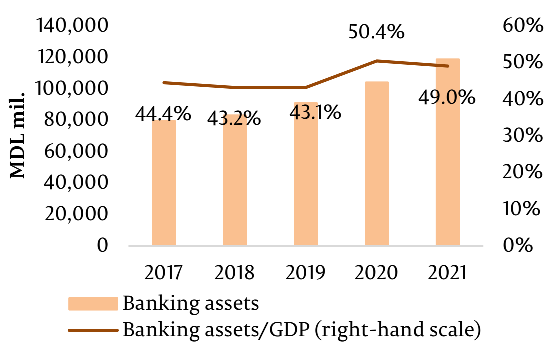
2. RISKS OF THE BANKING SECTOR

2.1. Banking sector [16]

During 2021, the banking sector continued to be characterized by a good financial performance, maintaining its strong profitability and solvency positions.

At the end of 2021, the volume of total assets of the banking sector amounted to MDL 118 534.2 million, increasing by 14.1 percent compared to 2020. GDP growth was more significant compared to the increase in the volume of banking assets, which resulted in a decrease in the share of banking assets in GDP to 49 percent (compared to 50.4 percent in 2020).

Figure 2.1.1. Ratio between bank assets and GDP



Source: NBM

The banking sector is heterogeneous, with criteria such as size, substitutability and interconnectedness varying from bank to bank.

In order to limit the systemic impact, the NBM, on an annual basis, determines which banks are systemically important institutions and applies additional capital requirements to them (details in sub-chapter 3.1). The 4 largest banks still remain systemically important institutions (Table 2.1.1).

Table 2.1.1. Ranking of banks that are systemically important institutions

Place based on the score	Bank name
1	CB „MAIB" JSC
2	CB „Moldindconbank" JSC
3	CB „VICTORIABANK" JSC
4	„OTP Bank" JSC

Source: NBM

In terms of the volume of assets, the group of systemically important banks accounts for 80.1 percent of the total banking assets.

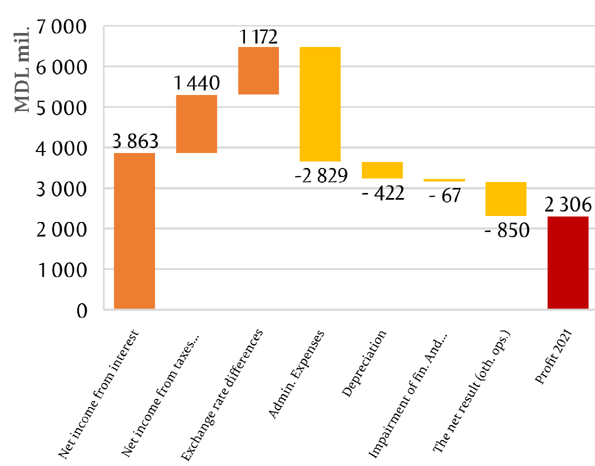
The doubling of bank profits in 2021, for the most part, was driven by the decline in asset depreciation, as accounting provisions for losses were created in the first year of the pandemic, which were not realized.

The banking sector ended the year 2021 with an aggregate profit of MDL 2 306.0 million, up by 53.6 percent compared to the previous year (2020: MDL 1 501.2 million). The positive profit dynamic was generated by the positive result recorded in net interest income (up by 25.6 percent compared to 2020), as well as in income from fees and commissions (+21.1 percent), while the depreciation of financial and non-financial assets decreased (-90.4 percent) compared to 2020.

The main component of interest income was interest income on loans granted to individuals (41.4 percent), followed by interest income not related to the loan portfolio (20.7 percent).

In 2021, the interest income recorded an increase of 26.5 percent (MDL +810.2 million). This dynamic was driven by the increase in interest income on loans granted to individuals and legal entities (MDL +497.8 million), SS (MDL +270 million) and MR and

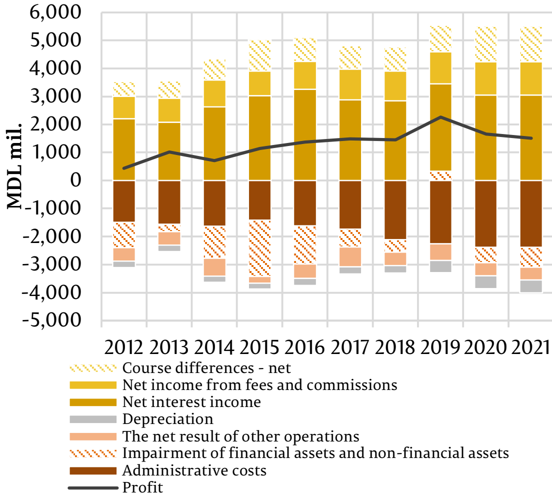
Figure 2.1.2. Profitability of the banking sector (MDL million)



Source: NBM

[16] Since the time of drafting the report some bank data for 2021 have been or are to be changed as a result of the external audit. Data for previous years represent the final data following the external audit.

Figure 2.1.3. Bank profit structure



Source: NBM

other interest received from the NBM (MDL +26.3 million).

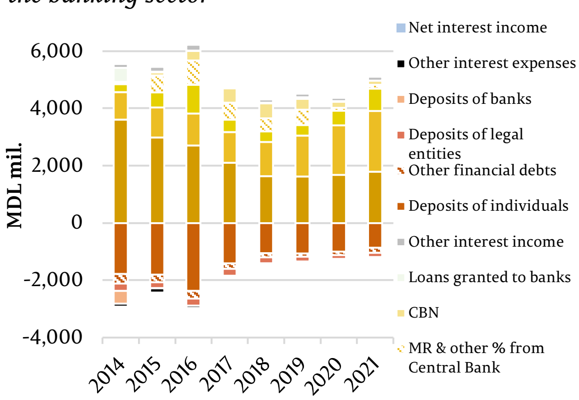
On the other hand, interest income on loans granted to banks decreased (MDL -14.1 million), while income from CNB decreased (MDL -68.3 million).

Interest income not related to the loan portfolio (SS, MR, CNB and other interest received from the NBM) increased by MDL 228.2 million compared to 2020.

The structure of interest income reflects that banks' business strategies continue to focus on both lending and investment activities that simultaneously provide liquidity but also a sufficient degree of diversification in order to be able to mitigate the negative shocks.

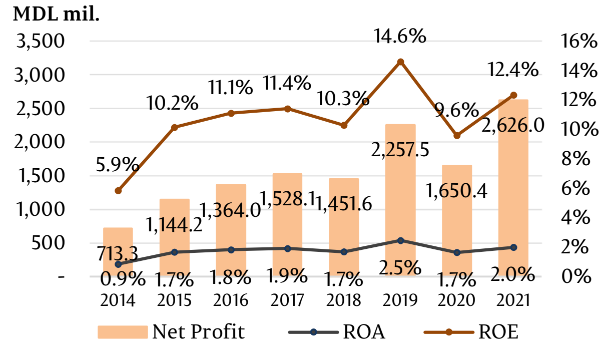
In terms of expenses related to operating activities, in 2021, the main source of the decrease in profit for the year was the

Figure 2.1.4. Structure of income and expenditure in the banking sector



Source: NBM

Figure 2.1.5. Return on equity and assets

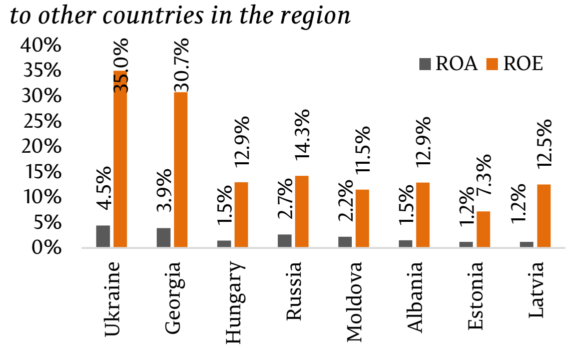


Source: NBM

administrative expenses, mostly represented by staff costs, which amounted to MDL 2.8 billion, an increase of 18.7% compared to 2020. This development led to a decrease in the financial result recorded at the banking sector level. At the same time, interest expenses decreased by 5.4 percent (MDL -71 million), which served as a mitigating factor.

In the context of economic recovery, the values of the main profitability indicators of the banking sector ROA and ROE increased and amounted to 2 percent and 12.4 percent, respectively (Figure 2.1.5). Thus, the recorded results remain comparable to those of other countries within the region (Figure 2.1.6).

Figure 2.1.6. Return on equity and assets compared to other countries in the region

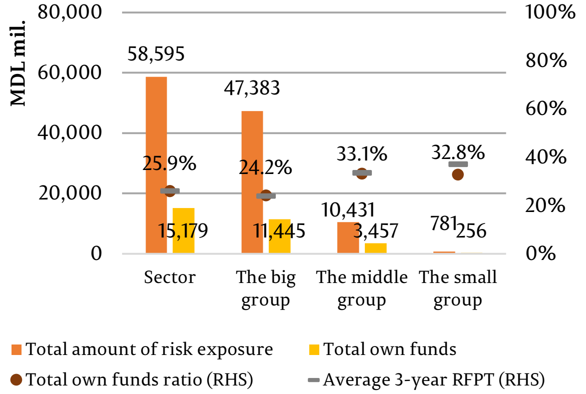


Source: NBM, IMF

The banking sector is characterized by a consistent level of the capitalization indicator, which significantly exceeds the minimum regulatory level. Thus, the capital surplus reflects the banking sector's resilience to potential losses and ensures increased lending activity.

At the end of 2021, total own funds in the banking sector amounted to MDL 15,178.9 million (Figure 2.1.7), an increase of MDL 1,560.86 million (+11.5 percent) compared to the previous year.

Figure 2.1.7. 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 25.9 percent, slightly decreasing compared to 2020 (-1.4 pp), inspite of a faster increase in the amount of risk exposures (Figure 2.1.7).

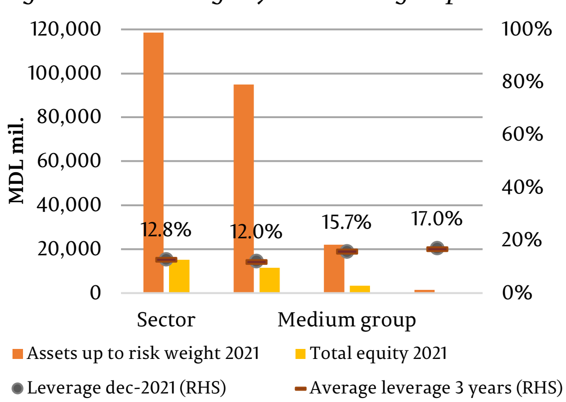
The macroprudential leverage ratio continues to be well above the minimum level applicable in EU countries.

For 2021, the macroprudential leverage for the banking sector is 12.8 percent.

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 threshold[17]*.*

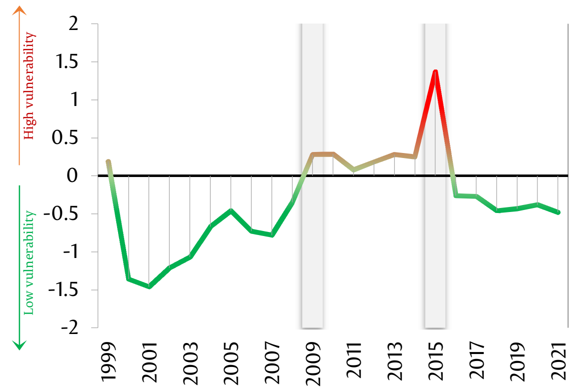
During 2021, the banking sector recorded relatively stable developments in the overall

Figure 2.1.8. Leverage by sector and groups of banks



Source: NBM

Figure 2.1.9. Dynamics of the general vulnerability index



Source: NBM calculations

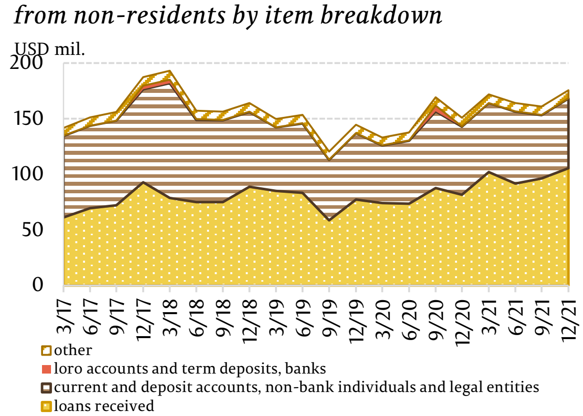
vulnerability index[18] (Figure 2.1.9). At the end of the year, the banking sector accumulated an overall vulnerability index of (-0.52), a lower level than in 2020. The overall vulnerability index was driven by a high level of capitalization and liquidity of the banking sector, as well as an improvement in the quality of banking assets.

<u>Vulnerabilities of the banking sector to non-residents</u>

Banks' foreign currency liabilities to non-residents have increased in balance, largely due to net withdrawals of foreign loans by some local banks.

Thus, in 2021, the withdrawals of external credit banks increased by 2.3 times compared to 2020, and the payments of external debt servicing banks - by 7.3 percent.

Figure 2.1.10. Foreign exchange assets attracted from non-residents by item breakdown

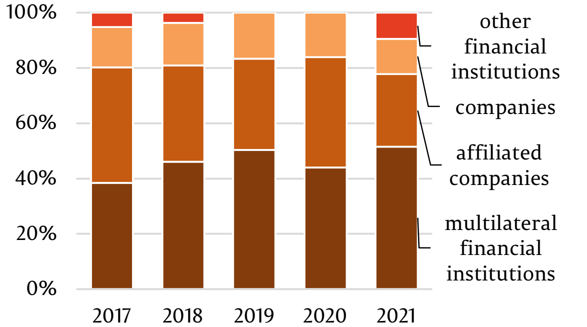


Source: NBM

[17] The value of the overall vulnerability index equals 0, so negative values denote a low level of financial vulnerability, while a positive value of the index indicates higher financial vulnerability.

[18] Aggregate indicator, calculated as a weighted sum based on the financial soundness indicator scores.

Figure 2.1.11 Structure of loans received by banks, by type of creditors



Source: Debt Management and Financial Analysis System (DMFAS)

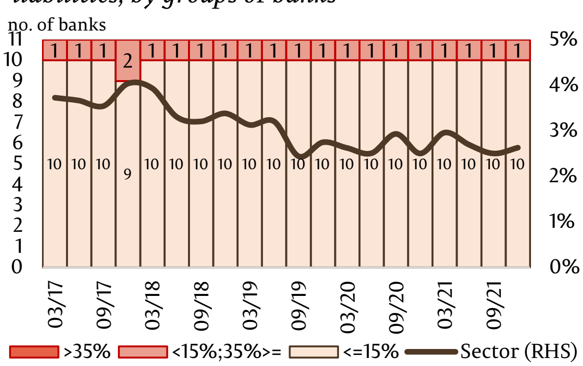
As a result, the balance of loans received increased by 37.7 percent[19], to USD 105.5 million, but still remained lower than in the pre-crisis banking years (Figure 2.1.10).

At the same time, a recovery in lending from multilateral financial institutions and some investment funds was observed, with the balance of loans received by banks from these institutions increasing as a share of the external credit structure (Figure 2.1.11).

The exposure of local banks through foreign exchange attracted from non-residents remained relatively stable.

The balance of current and deposit accounts in foreign currency of non-resident non-bank customers increased insignificantly by USD 4.6 million or 7.9 percent[20], up to USD 62.6 million, exclusively due to those of legal entities.

Figure 2.1.12. Exposure to non-residents through foreign exchange in relation to total capital and liabilities, by groups of banks



Source: NBM

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

At the end of the reporting year, exposures of local banks through foreign exchange attracted from non-residents amounted to 2.6 percent in relation to total capital and liabilities (compared to 2020: 2.5 percent; 2019: 2.7 percent, 2018: 3.4 percent; 2017: 4.0 percent).

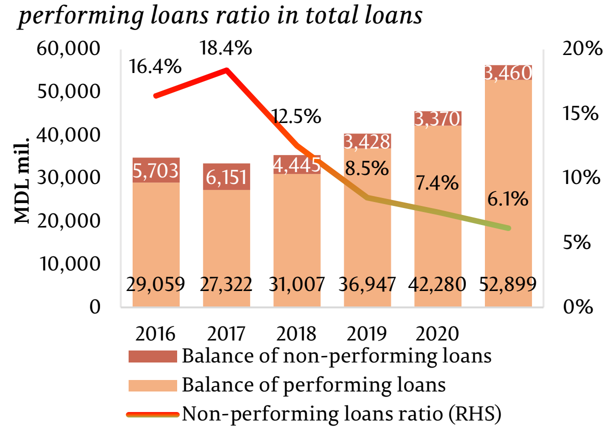
According to the situation at the end of the reporting year, 10 of the banks remain exposed through foreign exchange attracted from non-residents in total capital and liabilities in reasonable proportions of up to 15 percent (minimum - 0.1 percent, maximum - 5.0 percent). Between 15 percent and 35 percent ranks only one bank founded by foreign investors (Figure 2.1.12).

2.2. Credit risk

Credit risk continued to present the most significant risk to bank activity, particularly from the perspective of population over-lending and over-indebtedness, with bank lending activity in 2021 marked by a rapid recovery from the pandemic crisis.

During 2021, the total loan portfolio of banks increased by MDL 10 708.0 million (+23.5 percent), with the total balance at the end of the period amounting to MDL 56 359.2 million (2020: MDL 45 649.2 million).

Figure 2.2.1. Evolution of loan balance and non-performing loans ratio in total loans



Source: NBM

[19] Excluding exchange rate influence. At the effective exchange rate, the balance of external loans received increased by 29.2 percent.

[20] 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 2.3 percent.

At the same time, the accelerated growth of the loan balance led to the reduction of the non-performing loan ratio to 6.1 percent (2020: 7.4 percent), although the stock of non-performing loans increased by 2.7 percent or by MDL 90.8 million.

The total volume of new loans granted in 2021 recorded the highest nominal growth in the last 10 years.

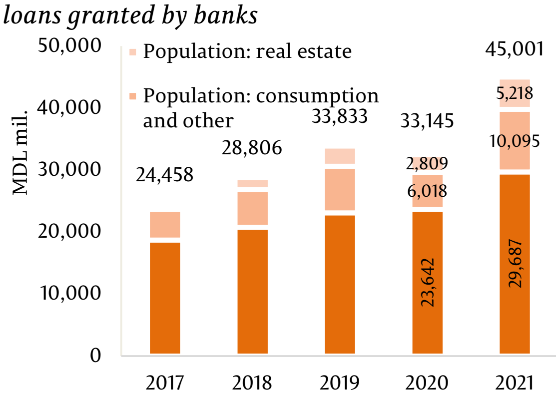
The value of new credit contracts concluded by banks (Figure 2.2.2) during the year marked a jump of 35.8 percent compared to 2020 (2020: -2.0 percent).

The increase in new loans granted to the population, which recorded a significant rise of 73.5 percent compared to 2020, and the record increase in the volume of loans granted to companies over the last 7 years (+22.1 percent compared to 2020) actively contributed to this positive trend.

The currency structure of new loans continued to be characterized by an increase in domestic currency loans (+41.8 percent), but also by a recovery in demand for foreign currency loans (and/or foreign exchange-linked), the volume of which reached an annual growth rate of 22.1 percent.

A separate analysis of the loan portfolio by type of debtors shows that the annual growth rate of population lending has recovered to the pre-pandemic level, while the balance of loans granted to companies continued to rise.

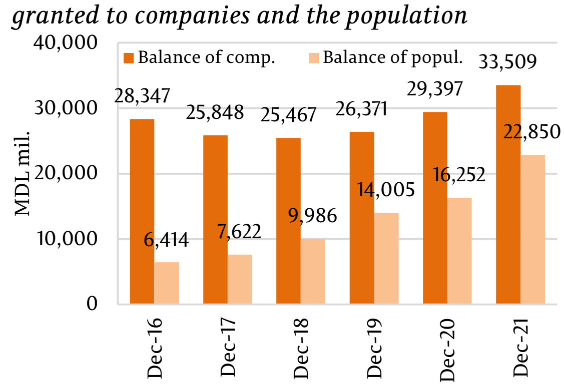
Figure 2.2.2. Evolution of the total volume of new loans granted by banks



Source: NBM

The growth in the balance of loans granted to the population recorded an accelerated pace in annual terms, being 40.6 percent above the 2020 level. The share of loans granted to individuals in the total loan portfolio of banks reached an all-time high value of 40.5 percent. The balance of loans granted to legal entities recorded the highest increase in recent years of 14.0 percent or MDL +4 111.8 million compared to the balance recorded at the end of 2020.

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

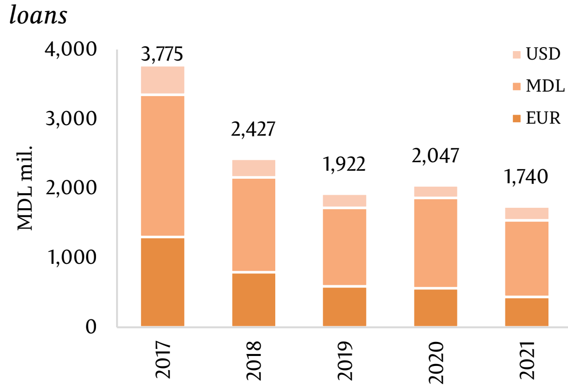


Source: NBM

Indicators characterizing the quality of loans have shown a favourable dynamic, with overdue loans[21] recording the lowest values in the last 10 years.

At the end of 2021, overdue loans recorded the lowest level in the last 10 years. The gross balance of overdue loans has traced a downward trajectory over the last 6 quarters, after rising in early 2020.

Figure 2.2.4. Evolution of the balance of overdue loans



Source: NBM

[21] Overdue credit - credit for which the payment for repayment/cancellation has not been paid more than 30 days after the due date of payments under the contract.

During the period under review, overdue loans declined significantly, the amount of loans more than 30 days in arrears was 15.0 percent lower than at the end of 2020, and they hold a 3.1 percent share of the bank portfolio. Disaggregated by currency, loans in MDL have the lowest rate of overdue loans - 2.7 percent.

During the period under review, both demand and supply fuelled the growth in lending to individuals. According to respondents to the bank lending survey, competitive pressures and higher risk tolerance have led to an increase in the supply of credit for this segment, while demand from debtors has increased, mainly due to the financing needs of applicants.

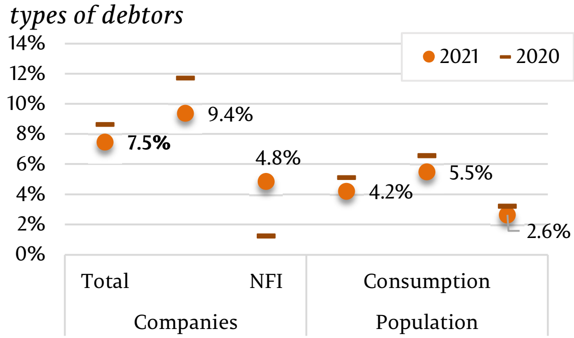
At the same time, lending standards for lending to companies have evolved unevenly, with a tightening on average. This trend was driven by the higher perception of risk but also by the cost of funding. At the same time, the demand for loans, both from companies and from the population, remained on an upward trend.

The quality of credit improved for both the companies and the population segment, as well as for most of the debtors' activity branches.

The most favourable dynamics were observed in the portfolio granted to SMEs, which in 2021 recorded a decrease in the NPL rate by 2.3 pp, thus 9.4 percent of the loans granted to this sector by companies were classified by banks as non-performing categories (Figure 2.2.5).

The exception is loans granted to NFIs, whose NPL rate deteriorated during the year up to 4.8 percent, but remained below the average rate for the loan portfolio.

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



Source: NBM

Compared to 2020, only two out of 20 debtors' branches of activity showed unfavourable credit quality dynamics (Table 2.2.1).

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

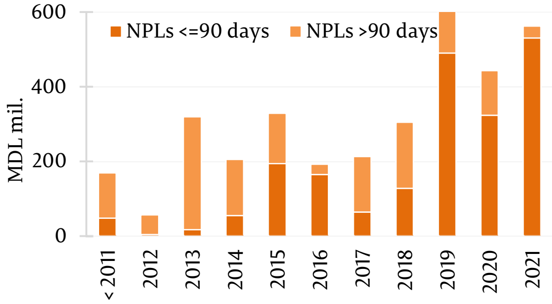
Name of debtors' branch	**Balance 2021, MDL mil.**	**NPL ratio**	
		2020	**2021**
Agriculture	4 152,2	10,0%	9,8%
Food industry	3 420,9	8,0%	6,4%
Construction	1 086,6	18,3%	9,8%
Consumer credit	10 483,8	6,6%	5,5%
Energy industry	999,2	18,9%	14,7%
TAU/institutions subordinated to the TAU	691,2	0,7%	0,0%
Productive industry	2 821,1	12,0%	9,2%
Trade	12 136,6	6,9%	5,7%
Non-banking financial environment	1 804,3	1,2%	4,8%
Real estate procurement	11 427,5	3,2%	2,6%
Non-commercial organizations	1,5	0,0%	0,0%
Individuals performing an activity	1 147,3	8,5%	7,1%
Transport, telecommunications and network development	1 875,4	4,4%	7,6%
Field of service provision	1 978,1	14,8%	14,6%
Other loans granted	2 333,3	9,6%	6,5%
Total	**56 359,2**	**7,4%**	**6,1%**

Source: NBM

At the same time, the NPL ratios of loans granted to the construction sector (-8.5 pp), energy industry (-4.2 pp), other loans (-3.0 pp), productive industry (-2.8 pp) recorded the most favourable developments, both due to the increase in the total balance and to the decrease in the absolute value of non-performing loans in these sectors, with the exception of the energy sector.

Although the lending performance in these areas has improved, the NPL ratio of these branches remains above the average level of the banking portfolio. At the same time, the NPL ratios of loans granted to the non-banking financial sector (+3.6 pp) and loans to the transport, telecommunications and network development sector (+3.2 pp) recorded negative dynamics.

Figure 2.2.6. Breakdown of non-performing loans as of December 2021 by the date of granting



Source: NBM

These two categories account for MDL 3 679.8 million or 6.5 percent of the bank loan portfolio.

The persistence of non-performing exposures from the period of economic imbalances and the banking crisis in 2014-2015, although declining, still had a significant impact on the quality of the loan portfolio granted to companies.

Of the total balance of non-performing loans existing on banks' balance sheets as of December 2021, loans granted in 2013-2015 accounted for 24.6 percent. As for non-performing loans in 2019-2021, they were classified as non-performing by banks largely based on criteria other than the number of days in arrears, which points to a more cautious and proactive approach in the credit quality assessment process (Figure 2.2.6).

The average default rate increased for both the portfolio of companies and the population, with the highest rates recorded in the first quarter of 2021.

The share of companies (A-D) newly entering the 90+ days outstanding (E) category in a 12-month period was 2.4 percent in 2021 (2020: 0.9 percent), and for the population this indicator was 4.0 percent (2020: 2.3 percent) (Table 2.2.2).

A significantly higher non-repayment rate was recorded for loans with payment delays between 30 and 90 days (C and D) for companies, which in 2021 migrated in proportion of 28.1 percent to category E, while for the population this rate reached 26.8 percent. At the same time, the rebound rate of debtors in category E was 5.2 percent for companies and 2.6 percent for the population.

The prudential approach, as applied by the national regulatory framework, is more conservative than

Table 2.2.2. Debtor migration matrix[22] by number of days of payment arrears[23] (Dec 2020-Dec 2021)

Companies	A	B	C	D	E
A	97,2%	0,7%	0,7%	0,3%	1,2%
B	51,6%	21,0%	7,8%	4,0%	15,5%
C	33,5%	3,3%	14,8%	5,0%	43,3%
D	19,3%	2,7%	10,0%	12,9%	55,2%
E	3,4%	0,1%	0,9%	0,6%	94,9%

Population	A	B	C	D	E
A	95,5%	0,8%	0,9%	0,4%	2,3%
B	16,6%	68,4%	5,2%	1,9%	7,9%
C	23,0%	2,8%	29,7%	4,4%	40,2%
D	11,6%	1,8%	4,1%	22,6%	59,9%
E	2,0%	0,1%	0,3%	0,2%	97,4%

Source: NBM

the "non-performing loan" notion associated with IFRS, also taking into account qualitative factors associated with the debtor.

The structure of non-performing loans by risk category shows an increasing accumulation of the balance of loans classified in the "substandard" risk category during the second quarter. At the same time, banks reduced the stock of non-performing loans in the 'doubtful' risk category, resulting in a decrease in the stock of non-performing loans in the second half of the year.

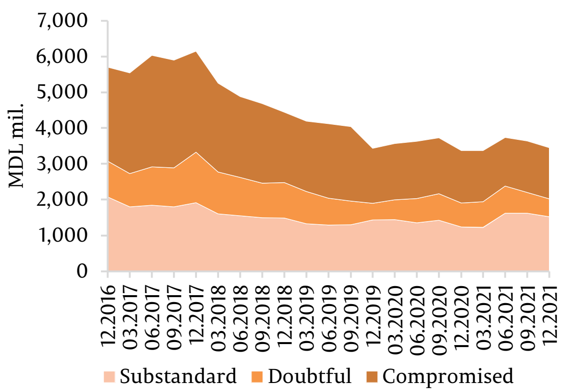
As of 31 December 2021, non-performing loans were predominantly concentrated in the "substandard" risk category (Figure 2.2.7), accounting for 44.2 percent of the total non-performing loans by sector.

The way "performing loans" are determined and defined differs between countries, as do the regulations on writing off non-performing loans from banks' balance sheets.

[22] 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.

[23] 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.

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

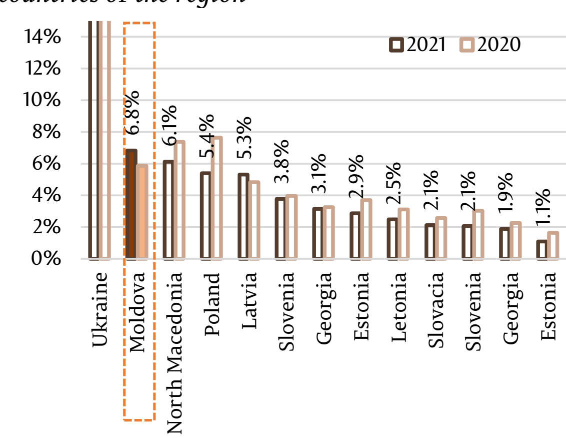


Source: NBM

In the Republic of Moldova, a more conservative approach is applied, where a number of qualitative factors[24] in addition to the number of days overdue are considered in the classification.

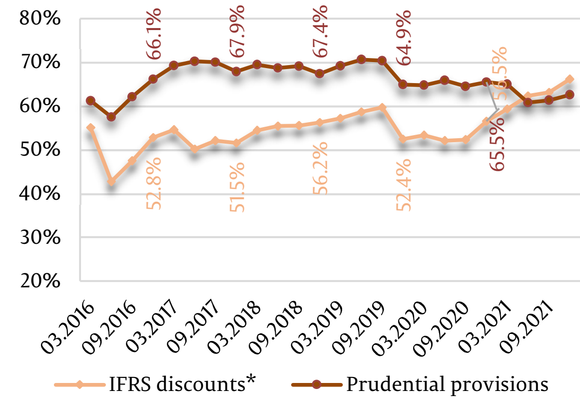
Thus, the non-performing loan ratio in the domestic banking sector was at a higher level compared to the rates of the countries in the region (Figure 2.2.8), with the exception of Montenegro and Ukraine, the latter recording a level of 43.5 percent.

Figure 2.2.8. Non-performing loans rate in the Republic of Moldova in relation to the rates in the countries of the region



Source: NBM, IMF

Figure 2.2.9. Development of non-performing loan coverage ratio



Source: NBM

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

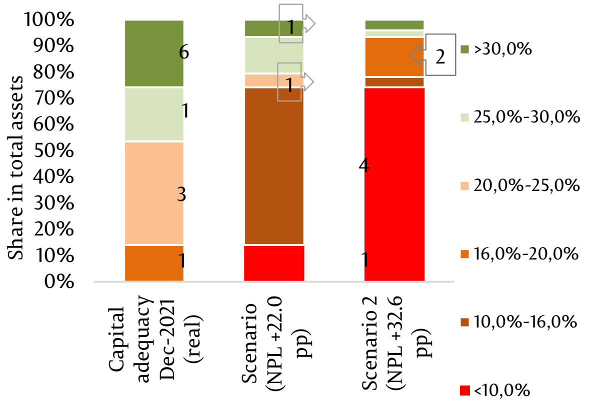
At the end of the year under review, 62.5% of loans were covered by prudential provisions. At the same time, the coverage rate of loans and advances classified as depreciated assets (in Stage 3 under IFRS 9) with accounting provisions increased significantly during 2021 (Figure 2.2.9), with two-thirds of the amount of loans being covered with accumulated depreciation, thus protecting banks' solvency from potential losses in the event of non-repayment of these loans.

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.

[24] In the banks of the Republic of Moldova, credit classification is carried out in accordance with the Regulation on the classification of assets and conditional liabilities, approved by the Decision of the Board of Directors of the NBM no. 231/2011 (the provisions of which are considered to have a more conservative approach compared to the practices of other countries), which stipulates that when assessing assets and conditional liabilities, 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 contractual conditions;
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);
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.

Figure 2.2.10. Results of credit risk stress tests



Source: NBM

In the stress scenario[25] simulating a 22 percentage point 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 continued to present the most significant risk to banks' activity and the NBM has taken measures to prevent and mitigate the adverse effects.

During the period under review, the risk of over-indebtedness of the population increased, which could generate systemic risks of both a structural nature (vulnerability of individual borrowers to shocks) and of a cyclical nature (excessive credit growth). In this context, the National Bank decided to introduce instruments to limit consumer indebtedness (see Box 4. Indicators for debtors) in order to ensure responsible eligibility of debtors and to grant access to financing to persons who are able to meet their obligations, thus limiting the indebtedness of individuals in the most vulnerable categories. In addition, in order to mitigate potential adverse effects arising from the cyclical dimension of credit risk, the NBM continuously assesses the evolution of the credit cycle in relation to the economic cycle and, in case of credit "overheating" signals, will apply capital instruments (the Anti-Cyclical Capital Buffer) to prevent cyclical risks related to excessive lending in time.

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 generated by the COVID-19 pandemic.

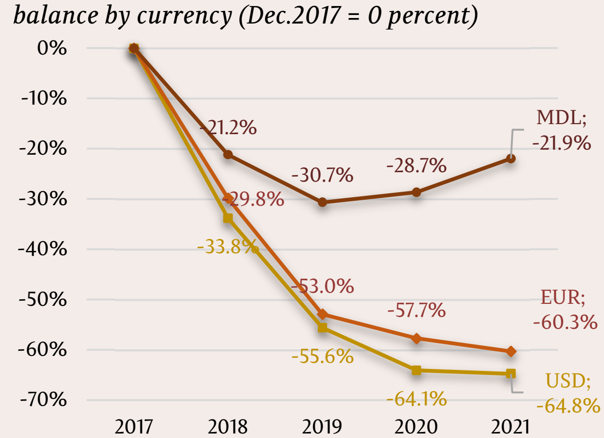
Box 3. Lending in foreign currency

Lending in foreign currency increased in 2021, especially loans in USD which increased in annual terms for the first time in the last 5 years.

Loans in USD increased by 27.9 percent compared to the same period in 2020, returning to the level recorded at the end of 2019 (Figure 2.2.12.). Loans in EUR continued to hold the major share of total foreign currency loans, with the balance increasing by 6.0 percent in 2021, rising for the fifth consecutive year.

This development is also explained by the continued relaxation of lending standards by banks for this segment, while standards for foreign currency loans have slightly tightened. As of the end of 2021, foreign currency loans held a 26.5 percent share of the total portfolio.

Figure 2.2.11. Cumulative growth rate of the NPL balance by currency (Dec.2017 = 0 percent)

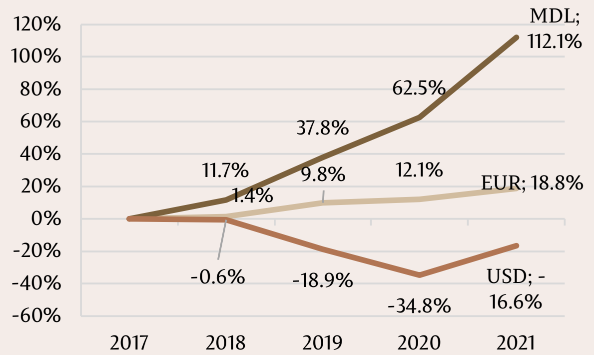


Source: NBM

Loans in MDL attached to the foreign exchange rate accounted for 3.5 percent of the total gross loan portfolio (MDL 1,985.5 million).

[25] Absolute increase in the "non-performing loans" indicator to 28.17 percent (average level between the 1998-1999 crisis and the 2009-2010 crisis).

Figure 2.2.12. Cumulative growth rate of loan balance by currency (Dec.2017 = 0 percent)

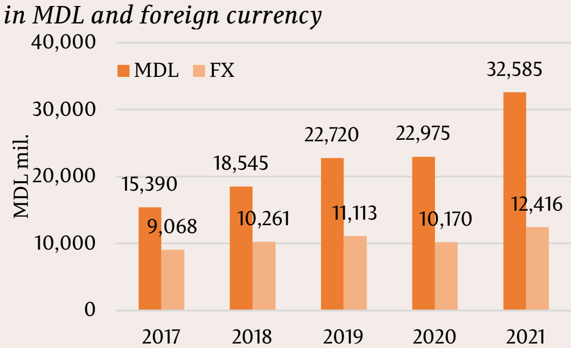


Source: NBM

Companies continued to contract loans, mostly in MDL.

In 2021, the volume of new loans granted in foreign currency and pegged to the foreign exchange rate increased by 22.1 percent (compared to the previous year, equivalent in MDL), exceeding pre-pandemic values.

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



Source: NBM

The value of new loans granted in MDL to companies was 35 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 unfavourable level compared to that of domestic currency lending.

The rate of non-performing loans denominated in foreign currency decreased to 7.6 percent as of December 2021, of which the rate of loans in EUR was 7.2 percent and that of loans in USD - 10.6 percent. This favourable trend was due to the continuous reduction in the balance of non-performing foreign currency loans over the last 4 years (Figure 2.2.11). At the same time, the lowest non-performing loan ratio continued to be recorded in MDL loans granted to population.

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

Debtor/ Currency	Companies		Population		TOTAL
	NPL ratio	Balance, MDL million	NPL ratio	Balance, MDL million	
MDL	7,3%	16 971,8	4,2%	22 461,7	5,5%
EUR	7,2%	11 032,5	38,1%	15,9	7,2%
USD	10,6%	3 889,0	68,4%	2,0	10,6%
Attached	3,4%	1 614,8	5,2%	370,7	3,7%
TOTAL	7,5%	33 508,0	4,2%	22 850,2	6,1%

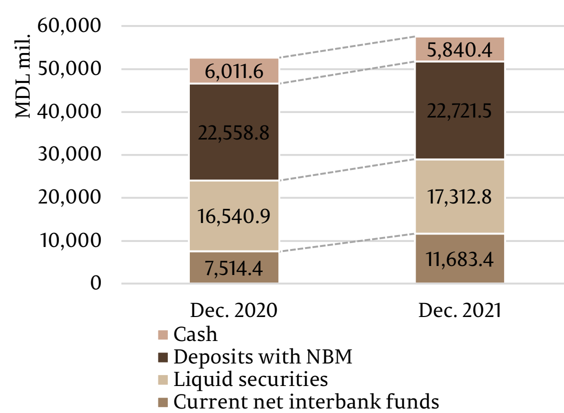
Source: NBM

2.3. Liquidity risk

During 2021, the banking sector continued its work to strengthen the balance of liquid assets, with liquid assets accounting for about half of the total asset balance.

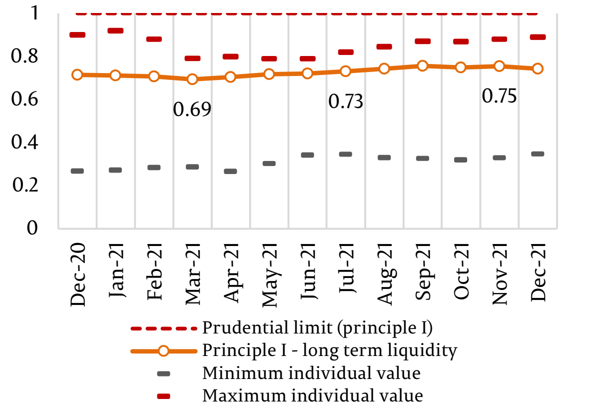
At the end of the reporting year, the banks' liquid assets balance registered the value of MDL 57,558.1 million, an increase of 9.4 percent compared to the end of 2020. Most of the increase in the liquid assets balance in 2021 was due to the increase in the current net interbank placements balance by MDL 4,169.0 million or 55.5 percent compared to the previous year. At the same time, the banking sector at the aggregate level expanded its liquid securities portfolio by MDL 771.9 million (+4.7 percent) compared to 2020 (Figure 2.3.1).

Figure 2.3.1. Liquid asset structure of the banking sector



Source: NBM

Figure 2.3.2. Evolution of the long-term liquidity indicator



Source: NBM

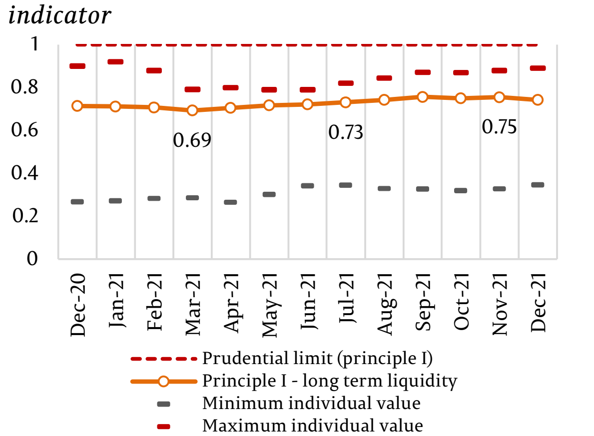
Developments in liquidity indicators point to an increase in lending activity and the channelling of excess liquid assets to finance the population and economic agents.

The long-term liquidity indicator (principle I) calculated for the banking sector increased during the year from 0.71 to 0.74 (regulatory limit ≤1.0) (Figure 2.3.2), and at the individual level, no bank recorded the value of this indicator above the prudential limit.

The current liquidity indicator (principle II) at the end of the reporting year stood at 48.6 percent, down by 2.0 percentage points in annual terms (Figure 2.3.3).

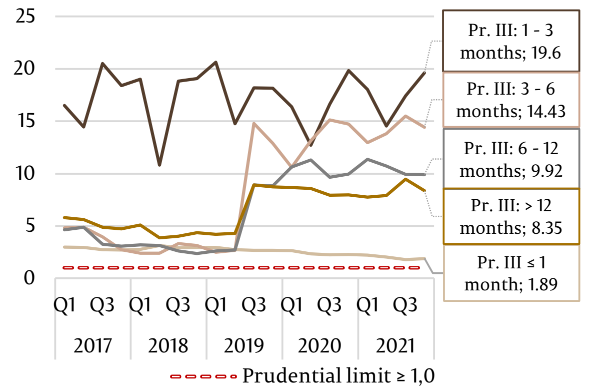
However, on an individual basis, no bank breached the prudential limit set for the Principle II indicator. It should be noted that as of January 1, 2022, the Principle II current liquidity ratio is repealed and replaced by the Liquidity coverage ratio (LCR).

Figure 2.3.3. Evolution of the current liquidity indicator



Source: NBM

Figure 2.3.4. Dynamics of the liquidity indicator by maturity bands



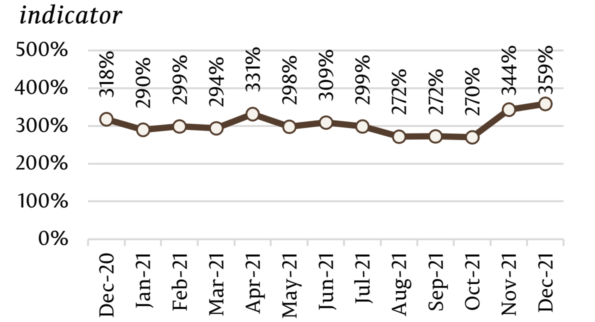
Source: NBM

The values of the liquidity indicator by maturity bands (principle III) were above the limit set for each maturity interval, decreasing compared to the previous year for all bands except for the interval longer than 12 months. The lowest indicator values were recorded for the extreme bands. In particular, the indicator for short-term liquidity (less than one month) is much lower than that for long-term liquidity (more than 12 months) (Figure 2.3.4).

The banks have reserves and solid liquidity inflows relative to cash outflows.

Aggregate value of LCR across the banking sector registered 358.5 percent at the end of 2021 (Figure 2.3.5), with all banks maintaining an indicator level above the minimum regulatory limit[26].

Figure 2.3.5. Evolution of the liquidity coverage indicator

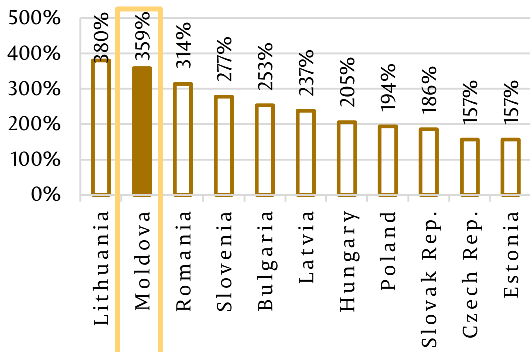


Source: NBM

[26] In accordance with the Regulation on liquidity coverage requirements for banks, the liquidity coverage ratio is applied as follows:
1) 60 percent of the liquidity coverage requirement, as of October 1, 2020;
2) 70 percent, as of January 1, 2021;
3) 80 percent, as of January 1, 2022;
4) 100 percent, as of January 1, 2023.

Relative to countries in the region, the aggregate LCR level in the domestic banking sector is at the upper side of the distribution (Figure 2.3.5), although most countries record aggregate levels well above the minimum regulatory limit (Figure 2.3.6).

Figure 2.3.6. LCR indicator in relation to EU countries



Source: NBM

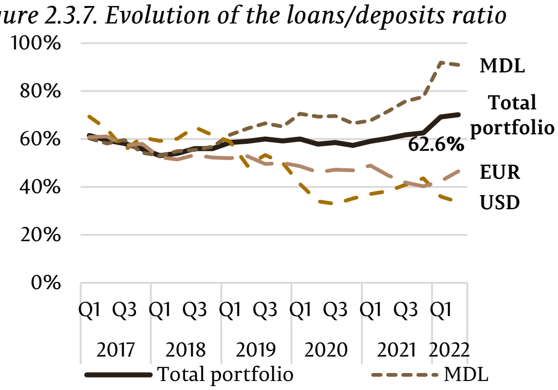
Deposits continue to be the main source of funding for the banking sector in the Republic of Moldova, accounting for about 76.0 percent in relation to the total assets.

The deposit balance recorded a lower increase than that of the previous years (+13.1 percent compared to the previous year), while the loan balance - a higher increase (+23.5 percent compared to the previous year).

Thus, banking intermediation increased by 5.3 pp compared to the previous year, in terms of the "loans/deposits" indicator, which has been on an upward trend since the last report, despite an increase in lending activity by banks (Figure 2.3.7).

In the breakdown by main currencies on banks' balance sheets, the largest increase in the "loans/deposits" indicator was recorded for the domestic currency (+11.0 pp compared to the previous year), followed by the USD (+8.5 pp compared to the previous year). At the same time, the loans/deposits ratio in EUR decreased by 6.7 pp compared to the end of 2020, largely as a result of the relatively more pronounced increase in the deposit balance compared to the evolution of the loan balance during 2021 (Figure 2.3.7).

Figure 2.3.7. Evolution of the loans/deposits ratio



Source: NBM

The population continued to maintain its net position as a creditor of the banking sector.

According to the separate analysis by customer category, the "loans/deposits" ratio in the individuals segment increased from 32.0 percent to 40.9 percent during 2021, due to the activation of population lending.

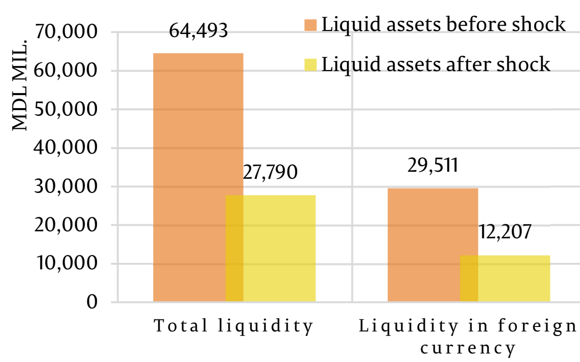
At the same time, the position of companies as a net borrower of banks decreased moderately from 109.1 percent to 104.5 percent.

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

During 2021, regular stress scenario simulations were conducted to assess the ability of banks 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).

The results did not identify any liquidity shortfalls at the individual or aggregate banking sector level (Figure 2.3.8). 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.

Figure 2.3.8. Impact of the liquidity shock on banks' liquid assets as of 31.12.2021



Source: NBM

Overnight loans/deposits

The use of the deposit facility throughout the year to absorb the net surplus in the banking sector implied a better ability of banks to manage short-term funds.

Banks' demand for the deposit facility offered by the NBM, although decreasing compared to the previous year, remained substantial, particularly 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 at the National Bank in 2021 amounted to MDL 59.3 billion, (2020: MDL 73.4 billion), indicating an average daily balance of MDL 219.1 million, (2020: MDL 262.6 million). The average monthly balance of banks' overnight placements recorded uneven values during 2021, with the maximum (MDL 347.8 million), recorded in January and the minimum (MDL 93.9 million) in July (Figure 2.3.9).

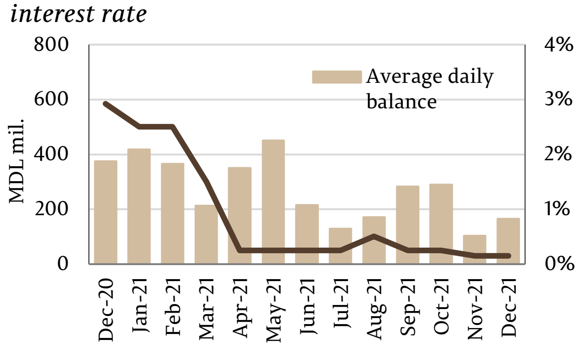
The credit facility was mainly requested at the end of the required reserves maintenance periods by a small number of banks to comply with the requirements set by the required reserves regime.

The total amount of overnight loans granted by the NBM in 2021 amounted to MDL 2 191.5 million, a significant increase compared to the previous year (MDL 326.0 million).

Money market operations of the NBM

The NBM's interventions as a seller on the foreign exchange market, in a net volume of USD 305.4 million (about MDL 5,410.7 million), amplified by the expansionary impact of the

Figure 2.3.9. Evolution of the average monthly balance of overnight deposits and the average interest rate



Source: NBM

Ministry of Finance's operations on the money market, but partially mitigated by the reduction of the required reserves norm in MDL, affected the volume of operations aimed at absorbing liquidity.

The volume of NBM operations on the money market during 2021 decreased by about 1/3 compared to that recorded in 2020. The situation was also reflected in the annual average stock of CNB placements, which decreased by MDL 1 395.6 million and recorded MDL 4 525.5 million. The daily balance of the CNB peaked in January, at the maximum of MDL 7 063.6 million, and gradually compressed until the end of the year, also recording the minimum value in early December, MDL 1 821.2 million, as a result of the substantial sales of foreign currency made by the NBM in August - December 2021. The balance of CNB placements at the end of 2021 amounted to MDL 3 701.3 million.

The NBM conducted the CNB placement auctions on a weekly basis, with a 14-day maturity and with the announcement of the maximum interest rate equivalent to the NBM base rate. For the whole of 2021, the weighted average rate of placed CNBs stood at 3.41 percent, compared to 3.56 percent recorded in the previous year.

The NBM continued to conduct repo operations throughout 2021, providing additional liquidity management support to banks.

Thus, the NBM conducted 14-day fixed-rate repo auctions (base rate plus a margin of 0.25 pp). The reduction in the level of liquidity in the money market was associated with an increase in banks' use of repo operations, concentrated in the second half of the year. Thus, the volume of liquidity delivered (MDL 1 387.0 million) was significantly higher than in the previous year (MDL 181.0 million).

2.4. Market risk

The evolution of base rate and interest rates applied in the banking market

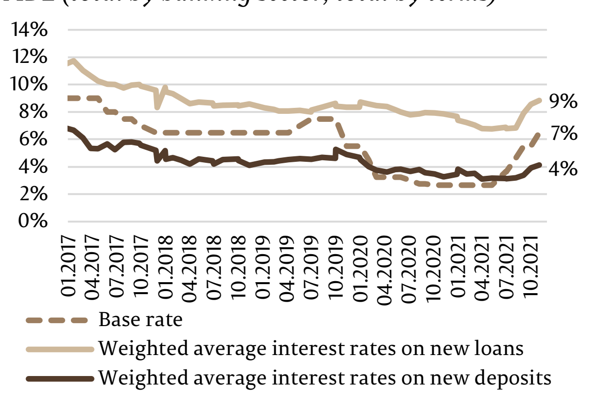
During the period under review, the base rate applied to the main monetary policy operations of the NBM increased and interest rates applied to new loans and deposits reacted to the upward-slopping path of the base rate but increased less than the monetary policy instrument.

The standing facility interest rate corridor system used by the NBM during 2021 continued to signal the general stance of monetary policy, helping to keep money market interest rates predominantly within the rate corridor, as the close relationship between the monetary policy rate and market interest rates is an important factor for monetary transmission.

Four base rate changes were made during 2021. At the end of 2021, the base rate was 6.5 percent, 3.85 percentage points higher than at the end of the previous year. Monthly weighted average interest rates on new deposits attracted and new loans granted started to follow an upward trend from the last quarter of the year. Thus, the average rate on new loans granted in national currency at the end of the reporting period was 8.8 percent, up by 1 percentage point compared to the previous year. At the same time, the weighted average interest rate on new deposits attracted in domestic currency increased by 0.87 pp to 4.1 percent for the situation as of December 2021 (Figure 2.4.1).

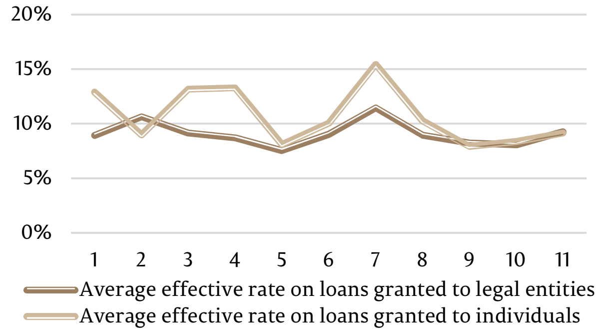
The weighted average interest rate applied during 2021 to new loans granted in national currency at banking sector level was 6.4 percent for loans granted to individuals and 8.2 percent for loans granted to legal entities. At the individual level, at the end of the year, the average effective rates applied to new

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



Source: NBM

Figure 2.4.2. Average effective rate applied by banks to new loans granted in national currency at the end of 2021



Source: NBM

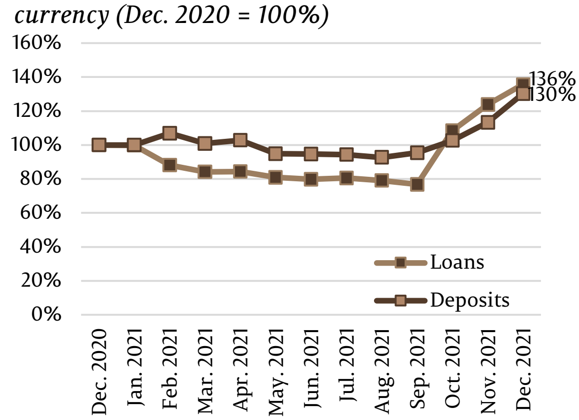
loans in national currency ranged from 7.5 to 11.5 percent for loans granted to legal entities and from 7.9 to 15.4 percent for loans granted to individuals (Figure 2.4.2).

At the same time, the weighted average interest rate applied during 2021 to new deposits attracted in MDL at the banking sector level was 5.0 percent for deposits attracted from individuals and 2.6 percent for deposits attracted from legal entities. Average effective rates applied by individual banks ranged from 1.3 to 5.5 percent for legal entities and 3.2 to 6.0 percent for individuals.

The dynamic analysis of rates on new loans and deposits granted by banks to individuals during 2021 showed uneven developments, increasing for MDL and decreasing for foreign currency.

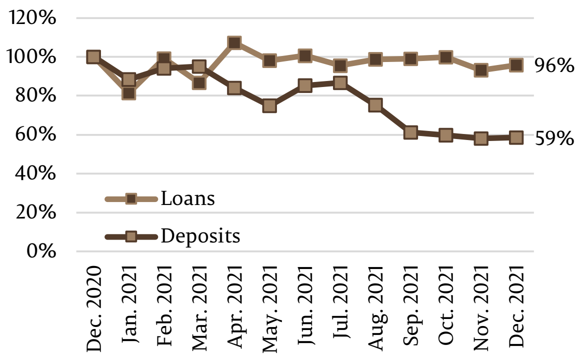
The interest rate on new loans granted in MDL to individuals at the end of 2021 was 36 percent higher than at the end of the previous year.

Figure 2.4.3. Growth of average rates on new loans and deposits granted to individuals, in national currency (Dec. 2020 = 100%)



Source: NBM

Figure 2.4.4. Growth of average rates on new loans and deposits granted to individuals, in foreign currency (Dec. 2020 = 100%)



Source: NBM

The most pronounced increase was recorded in October 2021, when there was a sharp change in the trend, with the weighted average rate of new loans granted at that time being 8.4 percent higher compared to the end of 2020.

In the case of new foreign currency loans granted to individuals, the weighted average rate decreased by 4.1 percent compared to the end of 2020 (Figure 2.4.3). The respective rate developments showed less volatility, given the slower response time of other central banks to the inflationary shock.

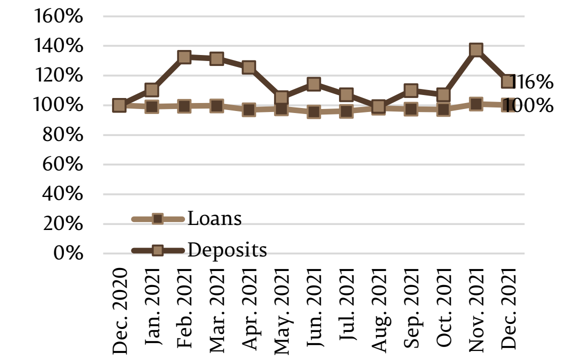
In the case of new deposits attracted from individuals, during 2021 the weighted average interest rate followed a common trend with that of loans for deposits in national currency, while for those in foreign currency the trends were decoupled, as banks offered interest rates which were 41.4 percent lower than at the end of 2020.

Rates on new loans granted were more stable for legal entities, while rates on deposits attracted varied differently for deposits in MDL and deposits in foreign currency.

The weighted average rate on new loans granted in national currency to legal entities was similar to that at the end of 2020, reaching 100.3 percent at the end of the reporting period y.o.y. (Figure 2.4.5).

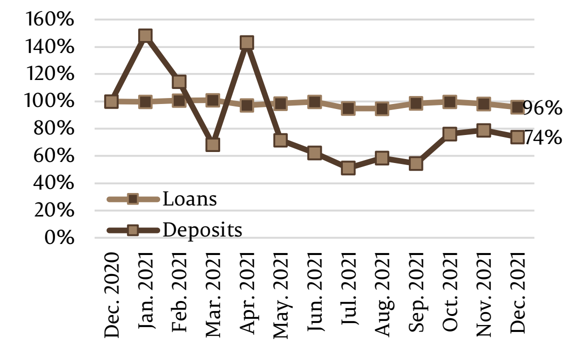
In the case of the weighted average rate on new loans granted in foreign currency to legal entities, it recorded a modest decrease of 4.3 percent compared to the previous year.

Figure 2.4.5. Growth of average rates on new loans and deposits granted to legal entities, in national currency (Dec.2020 = 100%)



Source: NBM

Figure 2.4.6. Growth of average rates on new loans and deposits granted to legal entities, in foreign currency (Dec 2020 = 100%)



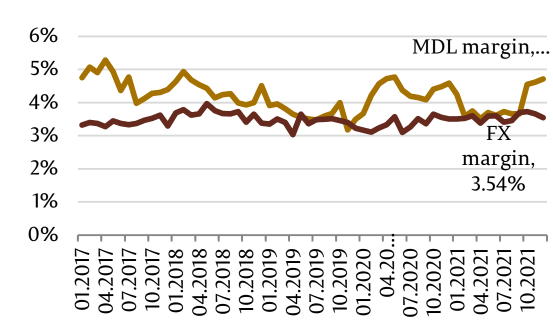
Source: NBM

At the same time, average interest rates on new deposits attracted from legal entities showed downward developments during the reporting year, with rates on foreign currency deposits again recording significant declines.

With the changing trends in interest rates in the loan and deposit market, banks' profitability increased during the reporting period.

Thus, the interest margin on operations in national currency increased by 0.12 percentage points compared to December

Figure 2.4.7. Evolution of the net interest margin



Source: NBM

2020, recording a value of 4.71 percent, while the interest margin on operations in foreign currency increased by 0.03 percentage points compared to December 2020, amounting to 3.54 percent.

SS issues: interest rates

Interest rates on the market for SS were volatile in the first eight months, fluctuating around 5.00 percent, and then moved on a rapid upward trend, driven by changes in the NBM base rate, which were joined by more modest influences from other segments: investors' interest in this type of placements and the substantial increase in the financing needs of the Ministry of Finance.

Thus, in December 2021, interest rates in the SS market peaked this year at 8.99 percent, significantly higher than the base rate of 6.50 percent (Figure 2.4.8.).

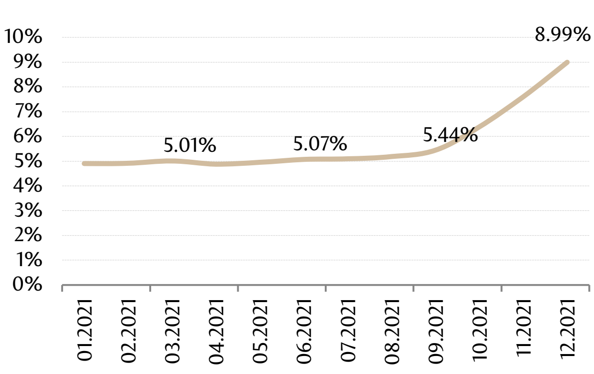
Non-bank investors continued to be present in the SS market due to the attractiveness of SS-related interest rates.

The volumes procured by them during 2021 were similar to those of 2020 (MDL 1 863.7 million) in absolute value but decreased as a share of the total auctioned volume (from 10.2 percent to 7.4 percent) compared to 2020.

Developments in the interest rates on SS reflected the expectations regarding the continuation of the cycle of monetary policy interest rate increase in the immediate future.

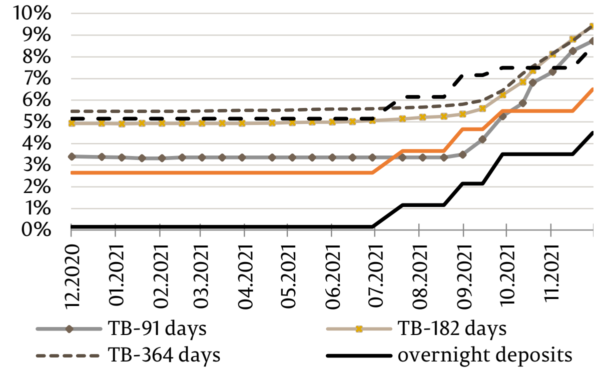
In the first eight months of 2021, SS interest rates maintained the same pattern as in the second half of the previous year, after which they sharply increased and came very close in value. The interest rates recorded at the end of the year amounted to 8.73, 9.41 and 9.45

Figure 2.4.8. Dynamics of the SS interest rate



Source: NBM

Figure 2.4.9. Dynamics of interest rates on SS with maturities of up to one year



Source: NBM

percent per annum for maturities of 91, 182 and 364 days, respectively, and were well above the values recorded at the end of 2020.

The pronounced increases in the last quarter were less pronounced in the annual average of auctioned SS, which increased by only half a percentage point during 2021.

Thus, the magnitude of the increases was also similar in terms of the maturity of the securities, recording adjustments of comparable size for all maturities: 0.66; 0.61 and 0.43 pp for bills with a circulation period of 91, 182 and 364 days, respectively. The 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 the table Table 2.4.1.

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

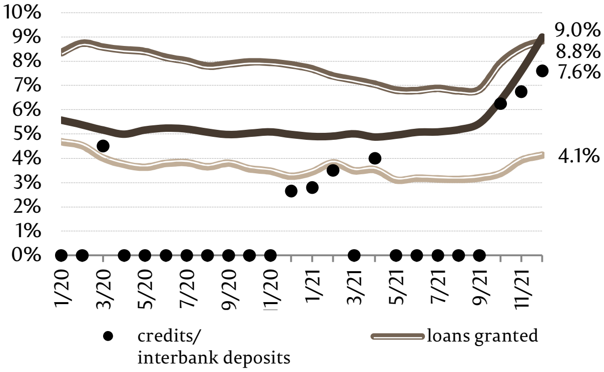
	TB 91 days	TB 18 days	TB 364 days	SS >1 year	GB 2 years	GB 3 years	GB 5 years	GB 7 years
2021	4,51	5,73	5,94	5,63	5,58	5,95	6,20	6,69
2020	3,85	5,12	5,51	5,13	5,84	6,08	6,37	-

Note: actual interest rates are shown for GB
Source: NBM

In the hierarchy of financial market yields, interest rates on loans to the economy continued to hold the upper rank.

The returns offered by investments in SS were higher than those offered by bank deposits. However, interest rates on SS resumed and then accelerated their rise in the last quarter of the year, significantly distancing themselves from those on deposits and outpacing interest rates on loans in December (Figure 2.4.10).

Figure 2.4.10. Evolution of financial market interest rates

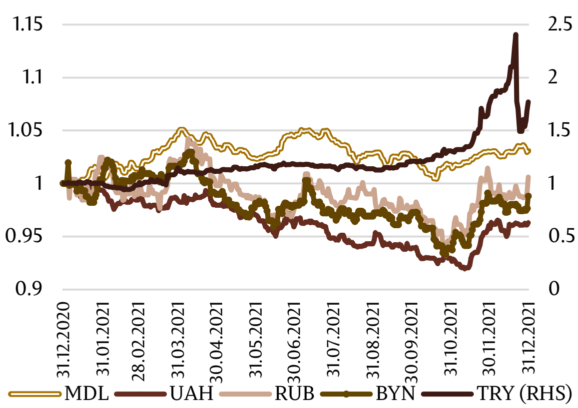


Source: NBM

Currency risk: dynamics of the MDL exchange rate

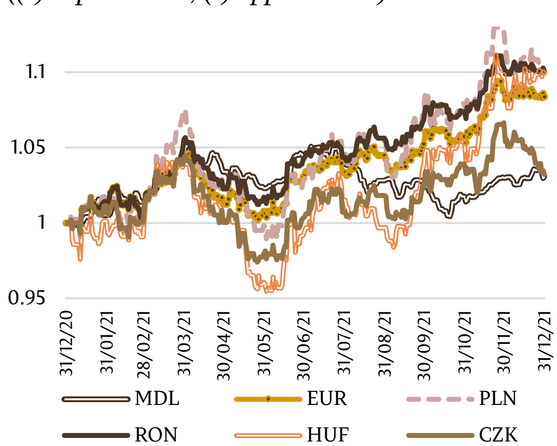
In 2021, the MDL depreciated on average against the USD by 2.1 percent and against the EUR by 6.0 percent.

Figure 2.4.11. Evolution of the currencies of the main partners in the CIS, Ukraine and Turkey against the USD, 31.12.20=100 ((+) depreciation; (-) appreciation)



Source: NBM

Figure 2.4.12. Evolution of some major EU trading partners' currencies against the USD, 31.12.20=100 ((+) depreciation; (-) appreciation)



Source: NBM

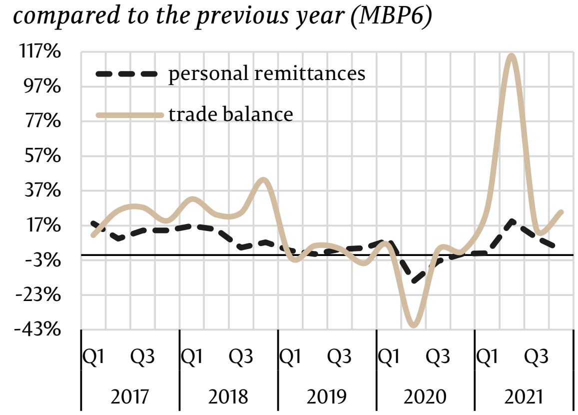
According to the year-end exchange rate, the MDL depreciated by 3.1 percent against the USD, while it appreciated by 4.9 percent against the EUR.

During the reference period, the national currencies of Turkey, Belarus and the Russian Federation depreciated more against the USD on average (Figure 2.4.11). At the same time, the currencies of Moldova's main trading partners in the EU had a reversed dynamic, on average, strengthening against the USD (Figure 2.4.12). Under these conditions, the MDL depreciated on average by 2.3 percent against the basket of currencies of the main trading partners, weighted by their shares in Moldova's foreign trade.

In 2021, the depreciation of MDL was driven by a net demand for foreign currency on the market, as imports of goods and services grew more strongly than exports, with the trade deficit widening by 37.6 percent. At the same time, one of the main sources of its coverage, net personal remittances, increased slightly, by 8.0 percent (Figure 2.4.13), setting the stage for NBM intervention with foreign exchange reserve sales.

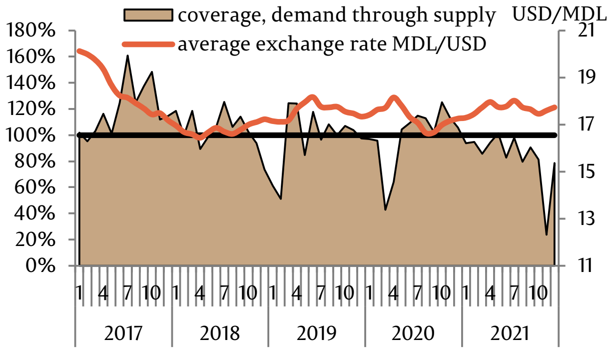
The increase in imports was due to both volume and price increases, especially for energy resources, as well as for other categories of import products - food, raw materials. Higher depreciation pressures on the MDL were felt in the autumn as a result of the significant increase in the import price of natural gas, which caused inflationary expectations and a temporary preference of individuals and economic agents to accumulate foreign exchange.

Figure 2.4.13. Dynamics of net personal remittances and trade balance of the Republic of Moldova compared to the previous year (MBP6)



Source: NBM

Figure 2.4.14. Degree of coverage of net demand for foreign exchange from economic agents by net supply of foreign exchange from individuals and dynamics of the Leu exchange rate



Source: NBM

The degree of coverage of net demand for foreign exchange by net supply was subunitary, and the market's need for foreign exchange was met by the NBM through interventions to sell USD 305.4 million.

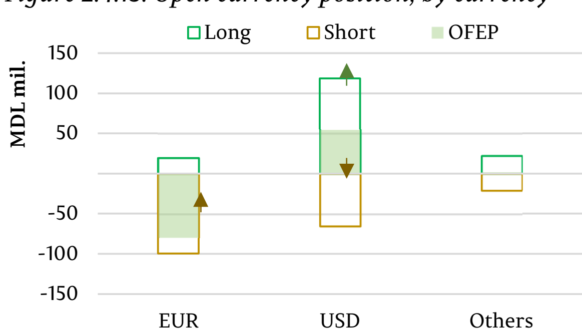
In 2021, the net demand for foreign exchange from economic agents increased by 28.3 percent to USD 2,949.5 million, compared to the insignificant increase in the net supply of foreign exchange from individuals by 4.1 percent to USD 2,382.9 million.

As a result, the coverage of net demand by net supply of foreign exchange stood at 80.8 percent compared to 99.6 percent in the previous year (Figure 2.4.14).

Indirect currency risk

The ratio of OFEP to own funds of the banking sector in the Republic of Moldova was within the prudential limits and the impact of the sector's direct exposure to exchange rate volatility was reduced.

Figure 2.4.15. Open currency position, by currency



Note: This chart shows the OFEP for the year 2021, as well as the sum of banks' long and short positions at the end of the current year (t) as well as the previous year (t-1). The arrows show the direction of the banks' positions compared to the previous year.
Source: NBM

At the end of 2021, the OFEP ratio by sector for all currencies was MDL -23.9 million, compared to MDL +13.9 million in 2020. The short position is largely driven by an increase in the USD short position of those banks that had USD short positions and a decrease in the USD long position at those banks that had USD long positions at the end of 2021. In disaggregation by currency, the OFEP report shows that at the end of 2021 within the banking sector the short position continued to be dominant for EUR and the long position for USD and other held currencies.

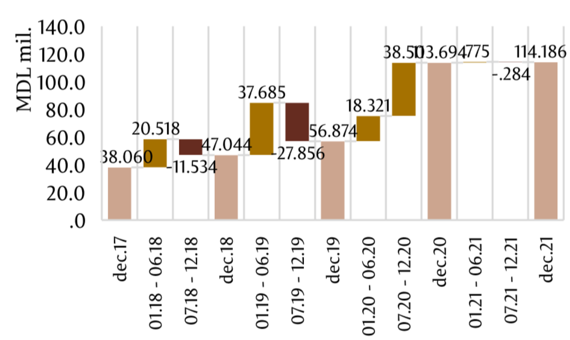
2.5. Risk of contagion

At the end of 2021, the domestic banking sector recorded a low level of contagion risk in terms of interbank placements, which remain small and unchanged.

The net interbank placements [27] of licensed banks in the Republic of Moldova in the domestic banking sector at the end of 2021 were similar to those of the previous year, standing at the level of MDL 114 million (Figure 2.5.1). The stress test results did not identify any cases of direct contagion within the limits of this sector, due to the low level of net interbank placements of banks in the domestic banking sector.

The net interbank placements[28] of licensed banks in the Republic of Moldova in the

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



Source: NBM

[27] 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.

[28] 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.

domestic banking sector at the end of 2021 were similar to those of the previous year, standing at the level of MDL 114 million (Figure 2.5.1).

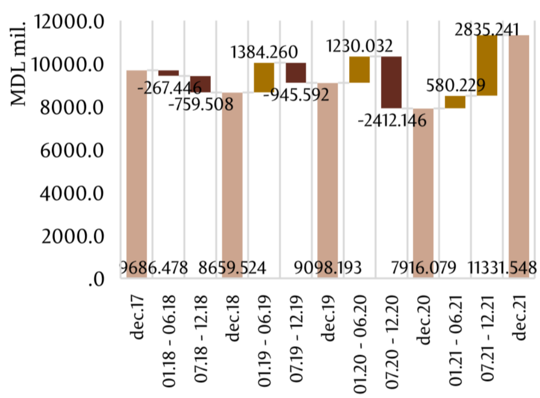
The stress test results did not identify any cases of direct contagion within the limits of this sector, due to the low level of net interbank placements of banks in the domestic banking sector.

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

The domestic banking sector continues to be in a net creditor position in relation to overseas counterparties. In this sense, banks are more susceptible to external contagion effects than being able to exert contagion on foreign counterparties.

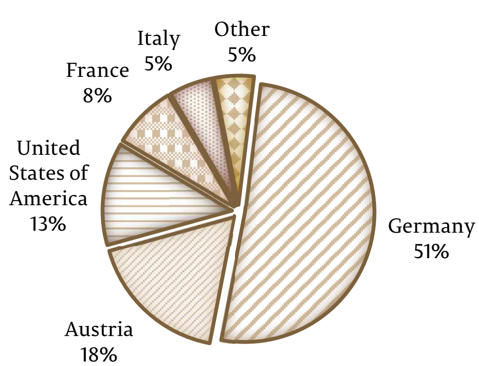
The volume of net placements of licensed banks in foreign banks amounted to MDL 11 332 million, increasing by 43.1 percent compared to the end of the previous year (Figure 2.5.2).

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



Source: NBM

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



Source: NBM

About 95 percent of the gross placements of domestic banks were made in the banks from Germany, USA, Austria, France and Italy (Figure 2.5.3).

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 2021 reached 53 correspondent banks in 18 countries around the world. This, together with relatively low exposures to correspondent banks located in multiple developed countries, indicates the presence of a low level of risk in terms of interbank contagion.

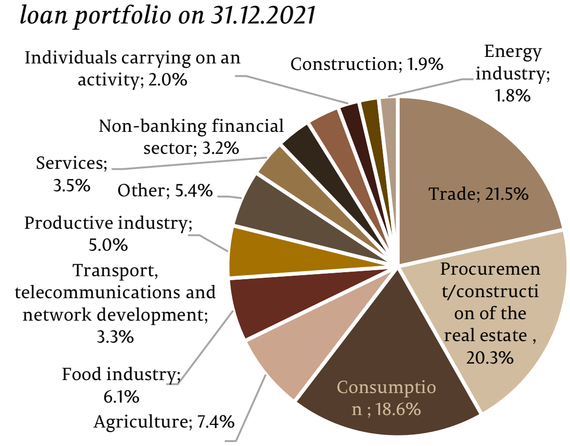
Three economic sectors account for more than half of bank exposures.

The largest volume of loans in banks' portfolios went to trade (21.5 percent), followed by loans for the procurement and/or construction of the real estate (20.3 percent), consumer loan (18.6 percent), and loans to agriculture and the food industry (13.4 percent). Exposures to the other branches are significantly lower and do not exceed a share of 5 percent of the banks' loan portfolio (Figure 2.5.4).

Loans granted to the population are gaining ground in banks' portfolios.

In terms of 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

Figure 2.5.4. Distribution by branches of the banks' loan portfolio on 31.12.2021



Source: NBM

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

Branch name	31.12.2017	31.12.2018	31.12.2019	31.12.2020	31.12.2021
Agricultural loans	▲	▲	▼	▲	▼
Food-industry loans	▲	▼	▼	▼	▼
Construction loans	▼	▲	▲	▼	▲
Consumption loans	▲	▲	▲	▼	▲
Energy-industry loans	▼	▼	▼	▲	▲
Bank loans	▼	▼	▬	▬	▬
Loans granted to institutions financed by the Government	▬	▲	▼	▲	▼
Loans granted to TAU / TAU-subordinated insititutions	▼	▲	▲	▲	▲
Productive-industry loans	▼	▼	▼	▼	▼
Trade loans	▼	▼	▼	▼	▼
Loans granted to non-banking finance sector	▼	▼	▼	▼	▲
Loans granted for purchase/construction of real	▲	▲	▲	▲	▲
Loans granted to non-commercial organisations	▼	▼	▲	▼	▲
Loans granted to individuals practicing activity	▼	▼	▼	▲	▼
Loans granted in the field of transportation, telecommunications and	▼	▲	▼	▼	▼
Loans granted in the field of services	▼	▼	▼	▲	▼
Other granted loans	▲	▼	▼	▼	▲

Source: NBM

loans granted for trade purposes (-8.0 pp). At the same time, there have been significant increases in loans granted to individuals for the procurement/construction of the real estate (+13.6 pp) and consumer loans (+9.0 pp).

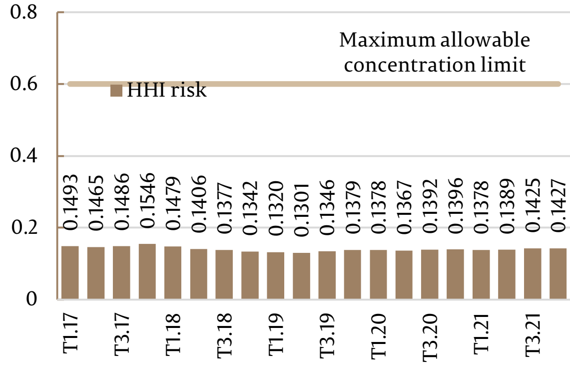
Banks' portfolios are characterized by a relatively high sector diversification and a good discipline on the part of borrowers.

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 amplifier[29] characteristic to each sector. The risk-adjusted concentration indicator (Figure 2.5.5) accumulates low values, although a slight increase in the indicator is observed during 2021. At the individual level, higher concentration levels[30] have been identified, but even the most concentrated portfolio is well below the maximum allowable concentration limit[31].

The banking sector's interactions with the non-banking financial sector remain limited.

The direct exposure of the banking sector to the non-banking sector shows low values. According to the information reported by

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



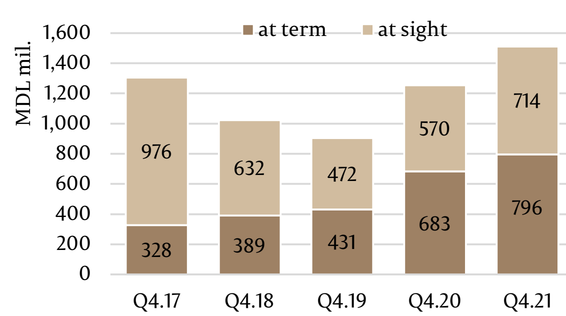
Source: NBM

banks, the balance of NFI deposits in banks at the end of 2021 amounted to MDL 1,510 million or 1.7 percent of the balance of deposits attracted by banks. Their distribution by maturity is almost equal, with 47 percent of deposits being placed at sight (higher degree of volatility), and 53 percent - at term. In terms of currency structure, 49.3 percent of NFI deposits are denominated in MDL and 50.7 percent - in foreign currency.

On the asset side, banks' direct exposures to NFIs are low and do not pose significant risks to financial stability.

Thus, the maximum share of banks' individual holdings in NFIs' capital does not exceed 3 percent of the bank's regulatory capital and is not a source of contagion for the banking sector.

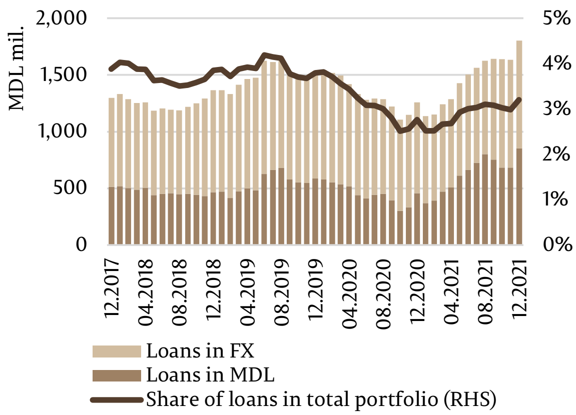
Figure 2.5.6. Evolution of the balance of deposits attracted from NFIs in the structure by maturity



Source: NBM

[29] The risk amplifier does not assess the volatility of each sector in relation to the country's economy, but considers the existence of a risk taking into account the sectoral structure of banks' portfolios.
[30] The level of concentration was determined by amplifying the variable, which represents the level of concentration (Herfindahl-Hirschman index) in a sector, with the level of non-performing loans corresponding to this sector.
[31] 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 NFIs



Source: NBM

Loans granted by banks to the non-banking financial sector at the end of 2021 accounted for only 3.2 percent of the loan portfolio, and their quality (non-performing loan ratio of 4.8 percent) is below the average non-performing loan ratio (6.1 percent).

2.6. Risk related to information and communication technologies

Over time, the banking sector in the Republic of Moldova has witnessed many significant transformations due to progress in the adoption of digital technologies, business model transformations, systematization/updating of regulatory standards according to European norms and many other internal and external factors.

Banks have become much more advanced, and the security aspect has been greatly improved, but banking operations have also become much more complex.

As the Moldovan economy and financial system is undergoing a continuous process of digitalization, the use of information technologies has become an important part of everyday life and even more so during the COVID-19 pandemic. Thus, potential cyber-attacks that may impact the activity of banks have become even more obvious and likely, and the protection of sensitive ICT resources from attacks and disruptions has become a crucial task.

The disruption of activity and cyber incidents were among the top risks worldwide during 2021, according to the ALLIANZ Risk Barometer study. The disruption of activity, the pandemic and cyber incidents are closely linked, demonstrating the growing vulnerabilities of our highly globalized and connected world. The pandemic is a reminder that risk management and activity continuity management must continue to evolve to help banks prepare for and survive extreme events. While the pandemic continues to have a firm grip on countries around the world, they must also be prepared for more frequent extreme scenarios[32].

International cybersecurity experts believe that in 2022 ransomware threats will dominate[33]. In 2021, globally there was a significant increase in ransomware cyber incidents, and they had a considerable impact on critical institutions, with 37 percent of companies hit by ransomware in 2021. This type of threats works by locking victims' data and demanding rewards for unlocking, and ransom payments are on the rise.

The majority of incidents reported were caused by the unavailability of ICT systems and/or services.

Following the assessment of ICT risks in licensed banks in the Republic of Moldova in 2021, the most exposed areas are the continuity of activity, ICT risk management, the use of systems/services that no longer have technical support from suppliers, which could cause and facilitate possible incidents and/or cyber attacks.

Also, the biggest problem remains that most banks do not have a properly equipped and capable back-up headquarters to relocate the staff in order to ensure business continuity of critical processes in case of unavailability of the base headquarters.

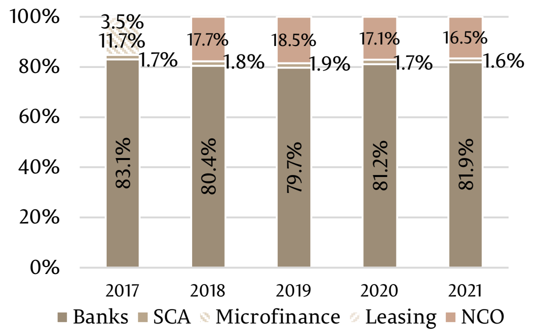
[32] 10th Allianz Risk Barometer 2021, https://www.agcs.allianz.com/news-and-insights/news/allianz-risk-barometer-2021.html

[33] Information Technology and Cyber Security Service, https://stisc.gov.md/ro/securitatea-cibernetica-previziuni-pentru-anul-2022

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, NCOs and SCAs [34]



Source: prepared by the NBM on the basis of information from the NBM, NCFM and NBS

The non-bank lending sector has resumed its growth momentum across all sub-components after stagnating in 2020.

Non-bank lending activities are carried out by NCOs and SCAs. Analyzing the structure of the loan and credit portfolio of banks, NCOs and SCAs (Figure 3.1.1), the upward trend in the share of non-bank financial institutions in the financial system slowed down for the second consecutive year, with the increase in the banks' portfolio outpacing the increase in the non-bank loan portfolio. In total, the loan portfolio of non-bank financial companies constitutes 18.1 percent of the total loan portfolio in the financial sector (2020: 18.8 percent).

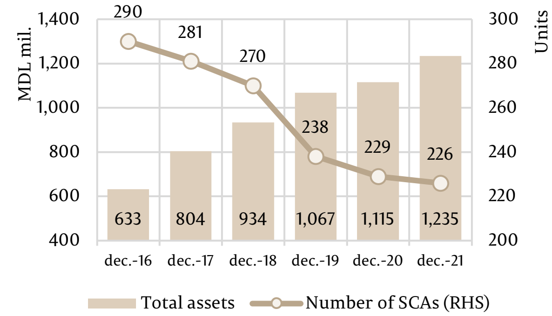
<u>Savings and Credit Associations (SCAs)</u>

The SCA sector continues to consolidate, with fewer associations holding a larger volume of assets, but remains the most unconcentrated of the financial sectors.

According to the situation at the end of the reporting year, 226 associations are licensed to carry out the SCA activity. Over the last 5 years, the number of associations has decreased by 55 units, decreasing by 2 units during 2021 (Figure 3.1.2).

The SCA shows relatively low values compared to other representatives of the financial non-banking market.

Figure 3.1.2. Evolution of the number of SCA and their assets



Source: prepared by the NBM on the basis of NCFM data

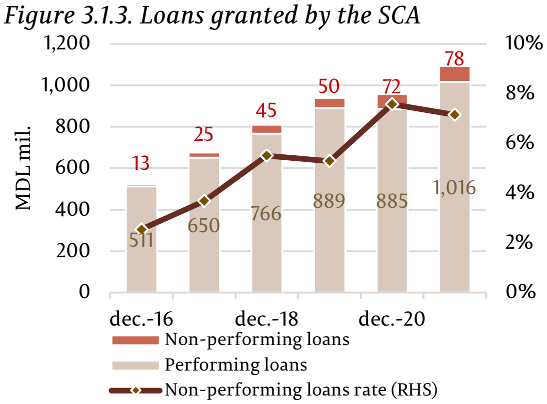
The HHI concentration index recorded low values (31.12.2021 = 529), which characterizes the market as non-concentrated. During 2021, the total number of association members increased slightly (1.4 percent) compared to 2020; while, the number of depositors, as well as of borrowers decreased -0.27 percent and -4.65 percent, respectively.

The SCA activity during 2021 showed positive developments and moderate risks.

As of 31.12.2021, the volume of total assets of the SCA amounted to MDL 1 235.2 million, an increase of 10.75 percent compared to the end of 2020 (Figure 3.1.2). The maximum share in the structure of SCA's assets is accounted for by loans granted, which constitute 88.6 percent of the total assets.

The total value of loans granted to SCA members amounted to MDL 1 094.4 million as

Figure 3.1.3. Loans granted by the SCA



Note: "Performing" category includes loans classified as "Standard" and "Supervised"; "Non-Performing" category includes loans classified as "Substandard", "Doubtful" and "Compromised"
Source: prepared by the NBM based on NCFM data

[34] Share in total loans and borrowings granted by banks, SCAs and NCOs.

of 31.12.2021, up by 14.25 percent compared to the previous year (Figure 3.1.3).

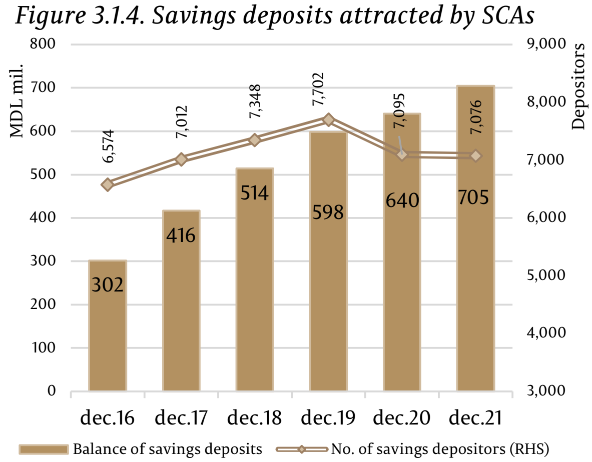
The quality of the loans granted by the SCA remains above the pre-pandemic level.

The non-performing loan ratio[35] at the end of the reporting year was 7.1 percent, slightly lower compared to 2020 but higher than the values recorded in the previous years (Figure 3.1.3). It should be noted, that in order to cover potential loan losses, the SCAs have formed and maintain provisions (totaling MDL 87.4 million). The average value of a loan granted by the SCA continues to increase, reaching MDL 32 474 by the end of 2021 (2020: MDL 27 103, 2017: MDL 16 597).

The SCA (category B) finance its lending activity 71.8 percent from savings deposits, 5.4 percent from loans received and the equity share represents 22.8 percent of the total loans granted. At the same time, the SCAs (category A) are financed in the proportion of 34.8 percent of the loans received and the equity share represents 65.2 percent of total loans granted. The consolidated value of savings deposits attracted from the SCA members amounted to MDL 704.8 million (Figure 3.1.4.), an increase of 10 percent compared to the value of deposits recorded in 2020.

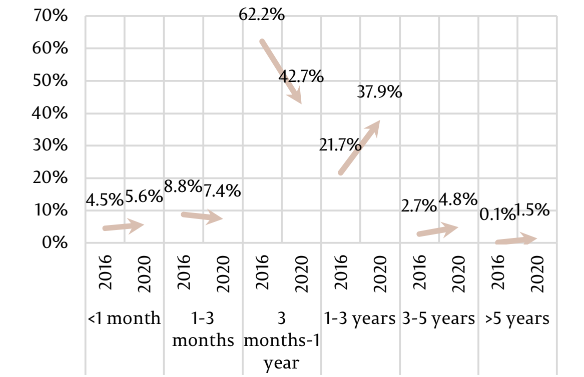
The decrease in the number of savings depositors during 2021, together with the increase in the balance of savings deposits led to an increase in the average value of savings attracted up to MDL 99 599 (2020: MDL 90 258, 2017: MDL 59 368).

Figure 3.1.4. Savings deposits attracted by SCAs



Source: prepared by the NBM on the basis of NCFM data

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



Source: prepared by the NBM on the basis of NCFM data

Short-term savings deposits account for a little more than half of the deposits attracted, and their more volatile nature creates liquidity management risks.

Deposits up to 1 year accounted for 57.6 percent of total savings deposits attracted (2020: 55.8 percent, 2017: 68.9 percent). Although this indicator is still high, there is a positive trend towards an increase in the maturity of deposits (Figure 3.1.5.), which will provide SCA with more stable sources of funding and enable more efficient liquidity management.

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

The aggregate value of the SCA leverage[36] recorded high values (32.8 percent as of 31.12.2021), and at the individual level there are seven associations which record negative equity values and two more associations with leverage values below 3 percent; the rest maintaining a leverage level above 3 percent.

<u>Non-banking credit organizations (NCOs)</u>

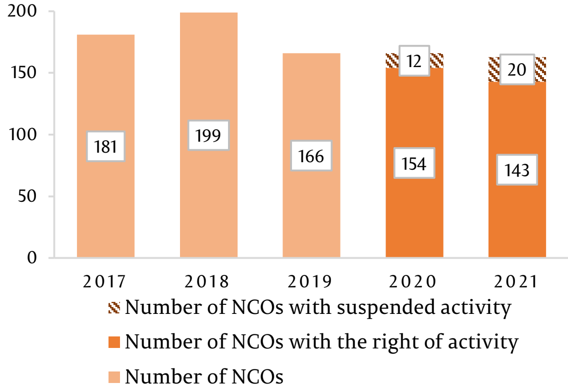
The high degree of concentration in the NCO market persists, with the market shares of the 10 largest NCOs remaining almost at the same level compared to the previous year and the largest company outperforming the 6 smallest banks by loan portfolio.

At the end of 2021, 143 NCOs were active in the non-bank lending market, of which 20 were suspended. The size of NCOs varies considerably, with the top 10 organizations holding 68.8 percent of

[35] Balance of loans in the substandard, doubtful and compromised categories in relation to total loans.

[36] Leverage was calculated as the ratio of equity to total exposures (assets).

Figure 3.1.6. Evolution of the number of NCOs



Note: the evolution shown in comparison with the number of OMF (data up to Q3 2018), from 2020 onwards the evolution is divided by:
(i) NCOs with right to activity and (ii) NCOs with suspended activity.
Source: prepared by the NBM on the basis of NCFM data

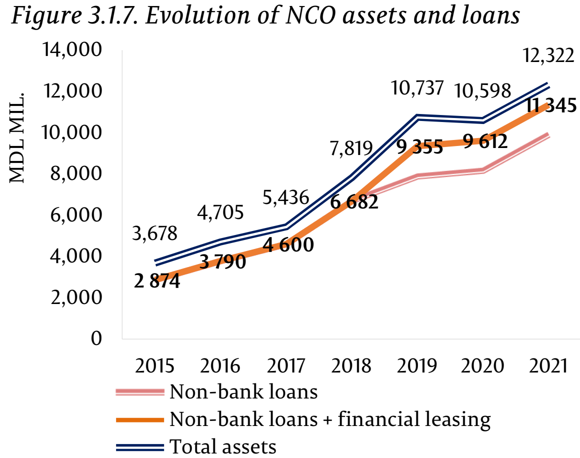
total assets, 69.7 percent of total loans granted, including finance leases, and 67.2 percent of the total number of borrowers.

NCO's total assets and loan portfolio have resumed their growth momentum after stagnating in 2020.

The total assets of the NCO amounted to MDL 12,321.8 million at the end of the reporting year, of which 92.1% represented the loan portfolio. Thus, the value of the loan portfolio amounted to MDL 11,345.0 million, an increase of MDL 1,733.3 million (18.0 percent) compared to the same period of the previous year. The share of financial leasing in the NCO portfolio decreased to 12.9 percent, recording almost the same balance compared to 2020.

The expansion of the loan portfolio granted by the NCO is traditionally due to the increase in loans granted to individuals.

Figure 3.1.7. Evolution of NCO assets and loans



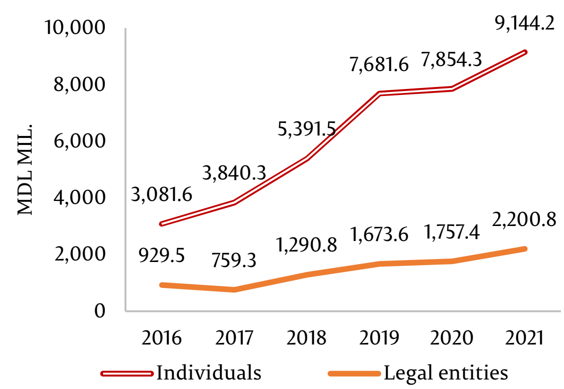
Source: prepared by the NBM on the basis of NCFM data

Considering the distribution by type of borrower, since 2016, there has been a considerable rise in loans granted to individuals, accelerating at vertiginous annual growth rates (2017: +26 percent, 2018: +40 percent, 2019: +42 percent compared to the previous year), except in 2020 when this trend slowed considerably (an increase of only 2.3 percent), affected by pandemic developments. At the end of 2021, the portfolio of loans granted to individuals amounted to MDL 9,144.2 million or 80.6 percent of the total portfolio, recording an annual growth of 16.4 percent. The balance of loans granted to companies amounted to MDL 2,200.8 million, recording an increase of 25.2 percent or MDL 443.4 million compared to 2020.

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 information reported by the NCO, 27.4 percent of the loans are attached to the currency exchange rate and 72.6 percent - in MDL.

Figure 3.1.8. Dynamics of loans granted by NCOs by type of borrower

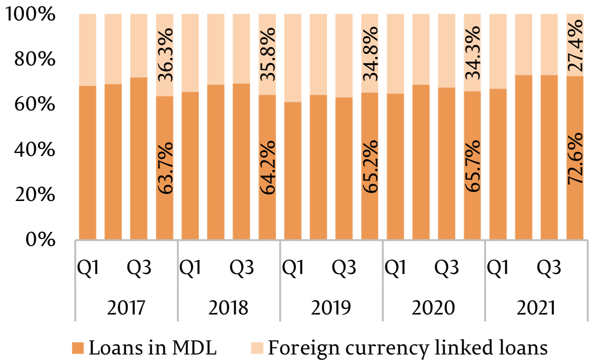


Source: prepared by the NBM on the basis of NCFM data

Loans attached to the exchange rate, granted by NCOs amounted to MDL 3 219.1 million at the end of the year under review, recording a decrease of 6.2% compared to the previous year.

Loans linked to the foreign currency granted to individuals, which are considered to be more sensitive to currency risk, represent 22.0 percent of the total NCO portfolio or MDL 2 584.2 million (59.8 percent of the aggregate equity).

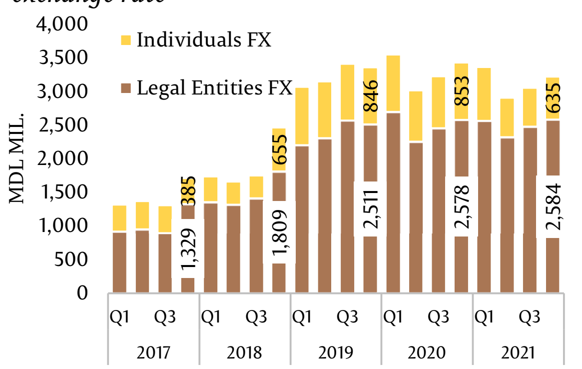
Dynamics of the share of credits in MDL and linked to the exchange rate granted by NCOs



Source: NCFM - 4SR Monetary Statistics Report

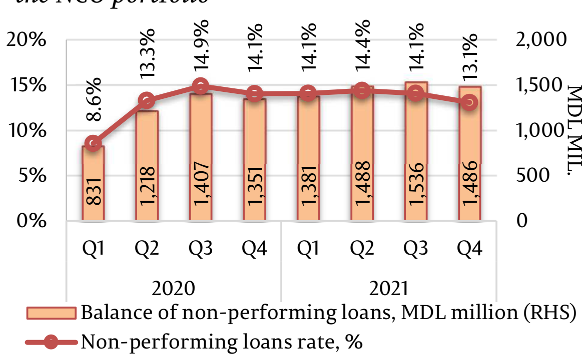
Credit risk related to loans linked to foreign exchange rate remains a major risk that can lead to increased exposure of borrowers and increased risk of loan non-repayment in case of unfavourable exchange rate fluctuations.

Figure 3.1.10. Dynamics of the MDL equivalent of the loan portfolio granted by NCOs linked to the exchange rate



Source: prepared by the NBM on the basis of NCFM data

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



Source: prepared by the NBM on the basis of NCFM data

Considering that currency risk affects all financial sector borrowers at the same time, the materialization of this risk can have a major systemic impact.

The quality of the loan portfolio and the coverage ratio of non-performing loans showed a favourable dynamic in 2021.

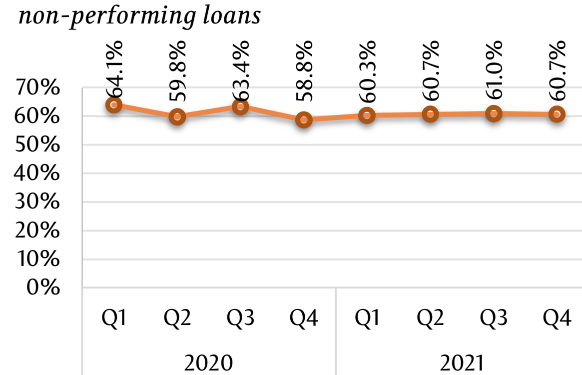
During the reporting period, the share of non-performing loans[37] (substandard, doubtful, and compromised) in total loans decreased by 1.0 pp to 13.1 percent as of 31.12.2021. At the same time, non-performing loans in absolute value increased by 10.0 percent (MDL 134.8 million), constituting MDL 1,485.8 million.

The coverage ratio of non-performing loans with prudential provisions remained at around 60 percent during 2021 and stood at 60.7 percent as of December 2021.

The structure of the NCO's funding sources did not change significantly during the year under review, being mainly composed of loans contracted from non-residents.

The NCO is financed in a proportion of 35.1 percent from equity and 58.2 percent - from loans and borrowings and 6.8 percent from funds attracted from other sources. The share of equity in the financing structure of assets decreased by 1.1 percent compared to the end of 2020, due to the faster growth of aggregate assets (+16.3 percent) compared to equity (+12.7 percent). As of 31.12.2021, at the individual level, 13 organizations reported values below

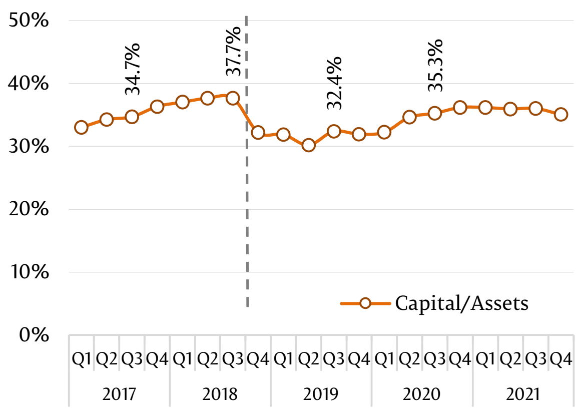
Figure 3.1.12. Dynamics of the provisioning rate of non-performing loans



Source: prepared by the NBM on the basis of NCFM data

[37] The NCFM notes that this indicator presented in the financial reports by the NCO does not fully reflect the real value of the loans' past due status, in which context the NCO makes extensive use of the mechanism of transferring to third parties the right to collect the receivables related to the credit contract, thus reducing the rate of non-performing loans reflected in the reports. In this respect, the law amending certain regulatory acts (No. 93/2022) restricted the possibility of transferring the right to collect a claim to a third party. The transfer of this right is only possible if the term of any outstanding payments exceeds 90 days from their due date.

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



Source: prepared by the NBM on the basis of NCFM data

the minimum level of 5 percent required by Law 1/2018 (none of the top 20 by asset value), of which 9 NCOs recorded negative equity.

Sources of financing are dominated by foreign currency borrowing (62.1 percent) and the short currency position at the aggregate level exposes the NCO sector to the risk of currency depreciation.

The share of financing attracted from non-residents constitutes 61.7 percent of total loans and borrowings attracted or MDL 4 487.7 million, of which in foreign currency - MDL 3 441.7 million. NCO is also actively borrowing from banks, with the balance of loans contracted increasing during 2021. Thus, almost ¼ of the sources of financing constitute loans accessed from banks.

As of 31.12.2021, about 52.9 percent of all loans attracted by NCOs from banks are in foreign currency. The amount of loans attracted in foreign currency from banks is equivalent to MDL 943.6 million, increasing by MDL 150.2 million during the analyzed year.

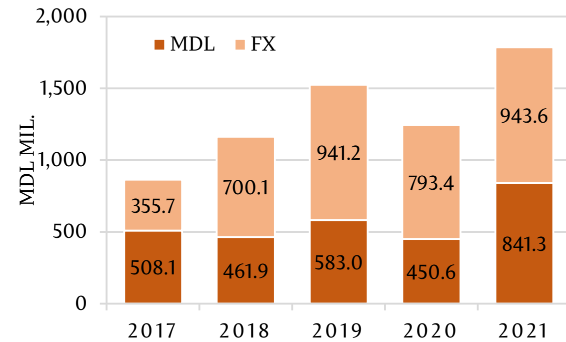
Table 3.1.1. Sources of funding for NCOs

Sources of funding	TOTAL, MDL million	including in foreign currency
Loans and borrowings:	**7 278.8**	**4 519.7**
Banks	1 784,9	943,6
Financial companies	353,3	26,1
Non-financial companies	274,8	71,5
Population	378,1	36,7
Non-residents	4 487,7	3 441,7

Source: prepared by the NBM on the basis of NCFM data

Mainly, the loans in foreign currency are provided to NCOs by banks to leasing companies that have been registered as NCOs since Q4 2018.

Figure 3.1.14. Dinamics of loans attracted from banks, in MDL and foreign currency



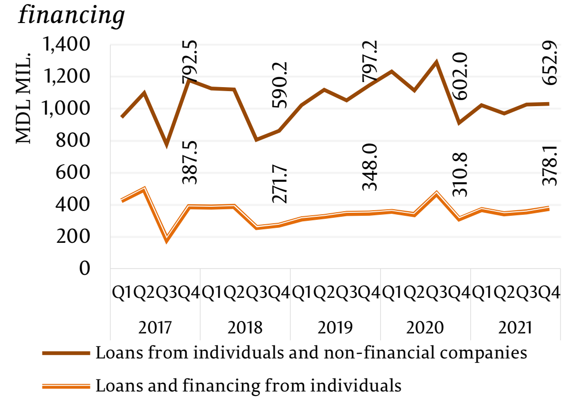
Source: prepared by the NBM on the basis of NCFM data

The estimated amount of repayable financing attracted from individuals and non-financial legal entities decreased compared to the previous year, fluctuating during the year around the amount of MDL 650 million.

The value of liabilities towards individuals and non-financial legal entities, attracted by NCO, 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.

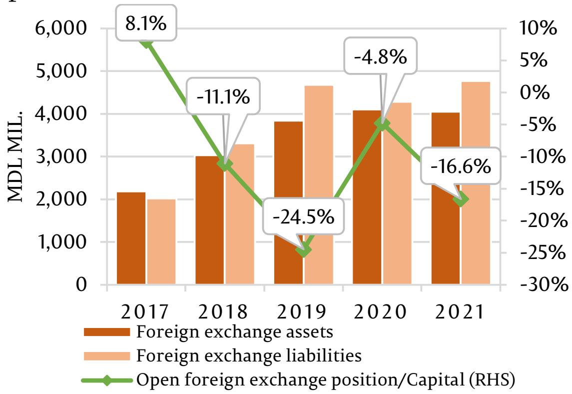
To be noted that Article 9, point 1, letter a) of the Law on Non-Banking Credit Organizations prohibits attracting deposits or other repayable funds from the public, except for subordinated debts or loans from the founders.

Figure 3.1.15. Estimated amount of NCO repayable financing



Source: prepared by the NBM on the basis of NCFM data

Figure 3.1.16. Evolution of the open foreign exchange position



Source: prepared by the NBM on the basis of NCFM data

The total estimated amount of repayable financing attracted from individuals and non-financial legal entities at the end of 2021 was MDL 652.9 million (of which about MDL 378.1 million were funds attracted from individuals, and MDL 274.3 million - from non-financial legal entities).

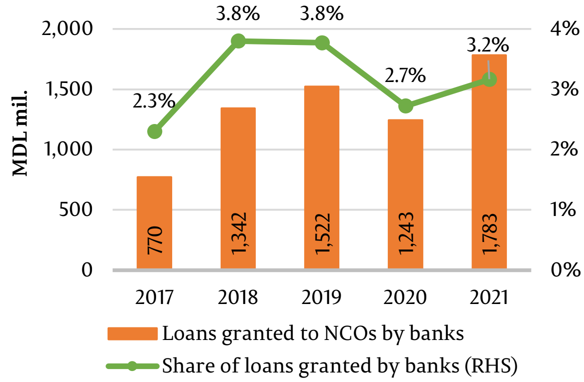
The aggregate open foreign exchange position is negative (short), i.e. at the aggregate level the balance sheet of NCOs is vulnerable to the depreciation of the national currency.

Foreign currency liabilities outpaced the growth in foreign currency assets, resulting in the expansion of the short foreign currency position to 16.6 percent of NCO equity.

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

The exposure of domestic banks to NCOs is represented by the bank loans granted to NCOs. The share of loans granted to NCOs in the banking portfolio during the year under review recorded a positive dynamic, at the end of the period it recorded 3.2 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 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.

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



Source: prepared by the NBM on the basis of NCFM data

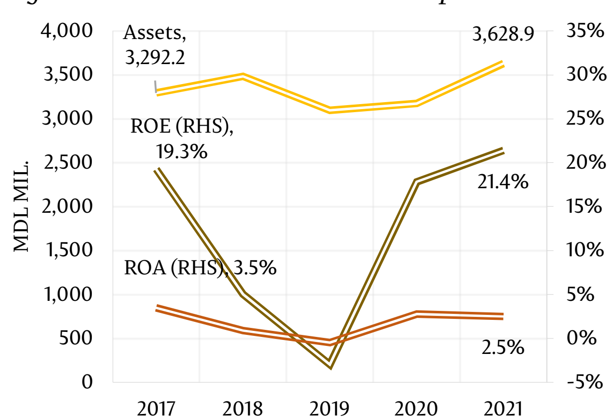
3.2. Insurance sector

In 2021, the insurance companies increased their assets and 8 out of 10 companies recorded profits.

At the end of 2021, 10 licensed insurance companies were active in the insurance market. During the year, one insurance company's business license was withdrawn[38].

The insurance market is a moderately concentrated market[39], the HHI market concentration index as of 31.12.2021 being equal to 1 805. The top 5 companies by size of assets held 79.2 percent of total assets, the top 5 companies by size of claims paid - 76.6 percent of the volume of claims paid, and the top 5 companies by volume of premiums written - 73.1 percent of total gross premiums written.

Figure 3.2.1. Evolution of insurance companies' assets



Source: prepared by the NBM on the basis of NCFM information

[38] Withdrawn license CA "MOLDOVA-ASTROVAZ" SA.

[39] 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.

Assets of insurance companies increased during the analyzed period (Figure 3.2.1.) and amounted to MDL 3 628.9 million (+14.3 percent compared to the end of 2020).

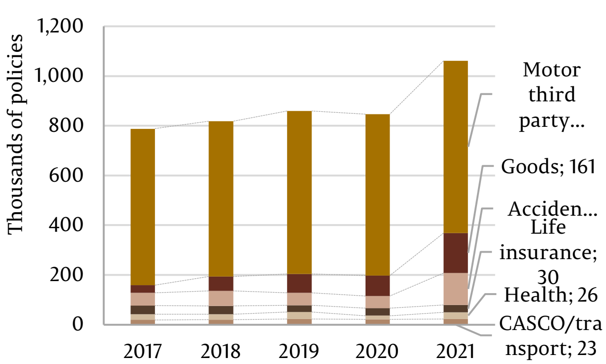
In 2021, all insurers reported total net profit of MDL 98.9 million, including eight companies - net profit of MDL 109.1 million and two - net losses of MDL 10.1 million. The profitability indicators show uneven developments during the reporting year. The return on equity indicator increased by 3.6 pp (or +20.1 percent) compared to the previous year and stood at 21.4 percent. At the same time, the return on assets ratio decreased by 0.3 pp to 2.5 percent at the end of 2021.

After the adverse impact of the COVID-19 pandemic situation during 2020, in 2021, the insurance companies' activity increased on the main products.

At the end of 2021, the insurance companies had 1,067,182 insurance contracts, increasing by 25.2 percent compared to the previous year. The structural composition of the types of policies issued did not change significantly, at the end of the reporting year motor third party liability insurance contracts represented 65.2 percent of total insurance contracts.

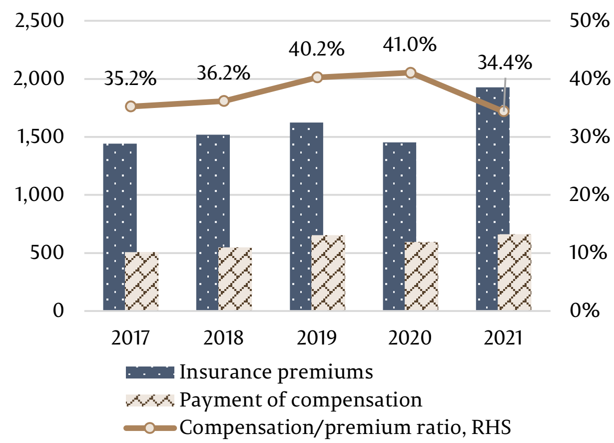
The ratio of annual claims volume to annual written premium volume has decreased compared to the previous years against the background of faster growth in written insurance premium volume.

Figure 3.2.2. Distribution of policies by type of insurance in dynamics



Source: prepared by the NBM on the basis of NCFM information

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



Source: prepared by the NBM on the basis of NCFM information

The annual volume of gross written insurance premiums (including those received under reinsurance) increased during this period by 32.6% to MDL 1 926.4 million (Figure 3.2.3). The most significant increase was recorded among accident insurance (+164.8 percent), but also health insurance valid outside the Republic of Moldova (+83.4 percent).

At the same time, health insurance valid in the Republic of Moldova decreased by 29.7 compared to the previous year. Compared to the volume of gross written premiums, the annual volume of claims and insurance amounts paid by insurance companies recorded a moderate increase in annual terms, increasing by 11.0 percent compared to the volume recorded in 2020, constituting 34.4 percent of gross written insurance premiums (2020: 41.0 percent).

The solvency ratio[40] of insurance companies indicates a sufficient level of soundness in most companies, while the liquidity ratio is low.

Thus, individual solvency ratio values are above the level of 100.0 percent[41], except for one insurance company which recorded the value of 62.3 percent as of 31.12.2021.

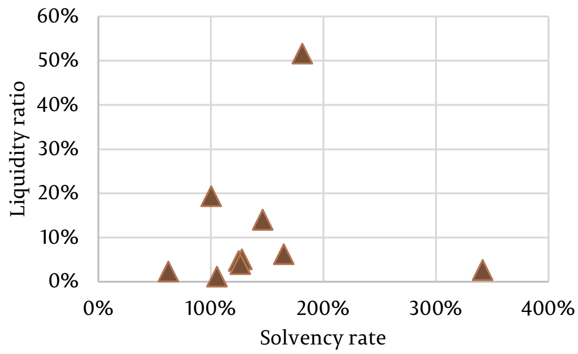
However, the liquidity ratio[42] of most companies is below 10.0 percent, indicating some potential funding vulnerabilities.

[40] The ratio of the available solvency margin amount to the minimum solvency margin amount.

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

[42] The ratio of liquid assets to debt falling due.

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



Source: prepared by the NBM on the basis of NCFM information

The insurance/reinsurance broker market has experienced a significant activation during 2021.

In 2021, 44 insurance/reinsurance intermediaries (brokers) were active in the insurance market. Brokers concluded 668 861 insurance contracts during the reporting year (62.7 percent of the number of policies issued by the insurance companies), by 85.0 percent more than in 2020. Also, the volume of underwritten premiums brokered increased by 70.6 percent and amounted to MDL 866.2 million.

3.3. Non-bank payment service providers

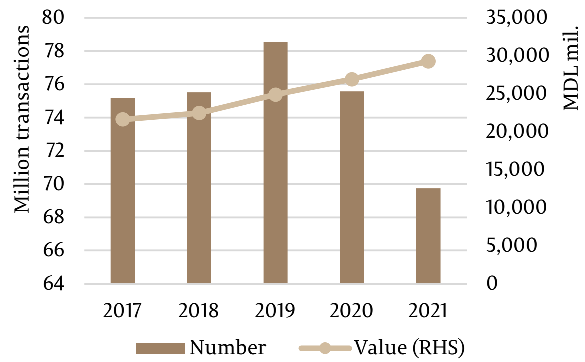
The National Bank supervises the activity of non-bank PSPs by carrying out ex officio and on-site controls.

As of 31.12.2021, seven non-bank PSPs were operating in the Republic of Moldova, including one payment company, one postal service provider and five e-money issuers. In 2021, four thematic controls and one ex officio complex control were carried out, during which the activity of licensed non-bank PSPs was subject to verification.

In 2021, there was an increase in the value of payment transactions in the activity of non-bank PSPs, while the number of payment transactions decreased compared to 2020.

During 2021, 69.8 million payment transactions were made through non-bank payment service providers, down by 7.7 percent compared to 2020, at a total value of MDL 29.3 billion, by 8.9 percent more than in 2020.

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



Source: NBM

Since 2016, there has been an increase in the average value of payment transactions carried out, from MDL 275 in 2016 to MDL 420 in 2021.

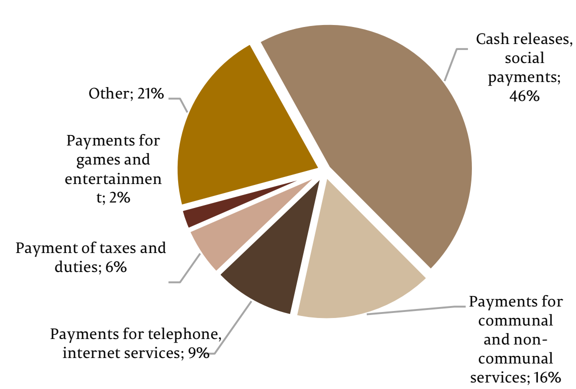
Cash releases and social payments account for the largest share in the total value of operations carried out in 2021 by non-bank PSPs (46 percent), followed by payments for utility and non-utility bills (16 percent).

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 economic and financial indicators of the PSP activity showed positive developments in 2021.

Thus, there was an increase in assets and equity held by non-bank payment service providers by 18.5 and 8.8 percent respectively, compared to 2020.

Figure 3.3.2. Share of value of payment transactions made by non-bank PSPs in 2021



Source: NBM

Table 3.3.1. Evolution of main indicators of non-bank PSP activity

No.	Financial indicators	2021	2020	Annual dynamics
1	Number of transactions, million operations	69,8	75,6	-7,7%
2	Total value of transactions, MDL billion	29,3	26,9	8,9%
3	Total assets, MDL mil.	615,7	519,7	18,5%
4	Equity capital, MDL mil.	165,1	151,8	8,8%
5	Net profit (loss), MDL mil.	30,9	-16,2	290%

Source: NBM

As of 31.12.2021, the amount of equity held by non-bank payment service providers was in accordance with the provisions of Law No 114/2012 on payment services and electronic money.

In the same period, non-bank PSPs recorded a profit of about MDL 30.9 million; in the previous year, on the sector, losses of MDL 16.2 million were recorded.

4. MACROPRUDENTIAL INSTRUMENTS AND MEASURES

4.1. The macroprudential instruments of the NBM

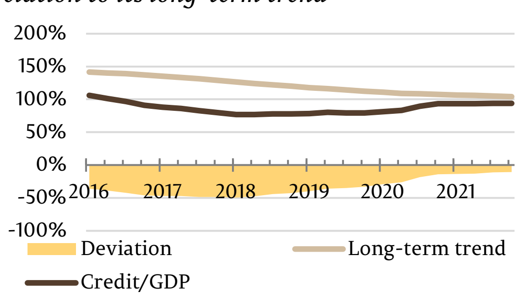
The conditions that led to the temporary relaxation of the capital conservation buffer requirements have been exceeded.

The temporary relaxation of the buffer has been applied from April 2020 considering the difficult epidemiological situation generated by COVID-19 and in order to ensure the stability of the banking sector. This measure was in line with international supportive practices adopted at EU level. At the end of 2021, it was noted that the economic activity had returned to positive values, the quality of banks' assets had not significantly deteriorated, bank lending activity had accelerated considerably, and the epidemiological situation in the country generated by Covid-19 did not present risks capable of affecting the banks' critical functions. In view of the above, the conditions for cancelling the temporary permission granted to banks were met and banks were to comply with the requirements for the level of capital conservation buffer (2.5 percent of the amount of risk exposure) no later than 31.12.2021.

The historically significant negative deviation of the credit/GDP ratio from the long-term trend[43] has not yet been overcome.

The dynamics of the credit/GDP ratio continues to move closer to its long-term trend, an evolution supported by the acceleration of private sector lending by banks inspite of a more moderate GDP dynamic. Under these conditions, the countercyclical capital buffer rate for the Republic of Moldova was maintained at 0 percent.

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

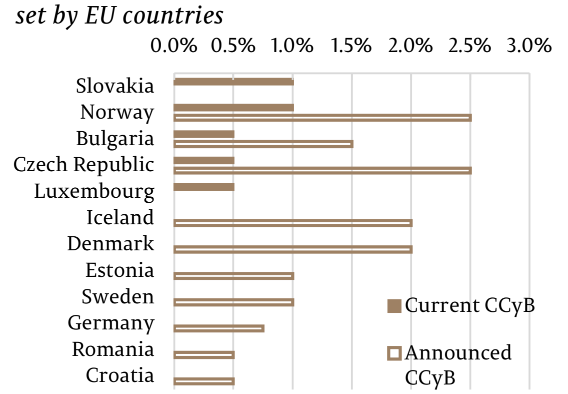


Source: NBM calculations based on NBM and NBS data

Several EU countries are facing excessive lending to the private sector and are applying or will apply, by early 2023, various rates of the countercyclical buffer.

In addition to the 5 countries where positive countercyclical capital buffer rates have already come into force in 2020 (Slovakia, Norway, Bulgaria, Czech Republic, Luxembourg), 10 more countries have announced the intention to activate the countercyclical buffer; rates that will come into force during 2022 or 2023 (Figure 4.1.2).

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 (30.05.2022)

The requirements for the level of the systemic risk buffer have been maintained at a similar level to those in force since 2018.

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 pp is applied until 31.12.2022 to banks whose capital is held, directly and/or indirectly, by more

[43] The trend represents the evolution of the series from which fluctuations generated by transitory shocks are removed and is calculated by applying a two-way HP filter with the value of the flattening parameter λ=400 000, according to Basel methodology and international practice.

than 50 percent cumulatively by persons meeting any of the 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.

Systemically important banks play a key role in the national banking sector, holding 80% of banking assets.

The national banking sector is dominated by four banks, which have exceeded the threshold of systemic importance. At the end of 2021, these banks held 80.1 percent of banking sector assets, 80.7 percent of bank loans and 82.0 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 O-SIIs buffer rates on an individual basis based on the score[44] accumulated by each bank (Table 4.1.1).

Table 4.1.1. O-SII buffer rates

Name of the bank	Buffer rate
CB „MAIB" JSC	1,50%
CB „Moldindconbank" JSC	1,00%
CB „VICTORIABANK" JSC	1,00%
„OTP Bank" JSC	0,50%

Source: NBM

In 2021, banks did not need additional capital to comply with macroprudential measures on additional capital requirements. Moreover, banks' capitalization levels were above the minimum level of capital requirements.

Box 4. Indicators for borrowers

Strengthening the resilience of the financial system and mitigating the build-up of systemic risks, as key objectives of macroprudential policy, has led the European Systemic Risk Board to identify a number of intermediate objectives, one of which is to reduce and prevent the excessive credit growth and leverage effect.

Macroprudential instruments for borrowers - individuals, are those recommended by national macroprudential authorities to smooth the credit cycle and increase resilience to shocks.

The effective application of these instruments makes it possible to prevent over-indebtedness of (potentially) vulnerable borrowers, without at the same time preventing financially sound borrowers from getting a loan. Thus, these indicators aim at limiting the amount of credit to the value of the collateral or to the borrowers' income and are defined as follows:

Loan-to-value (LTV) ratio - the ratio of the value of the loan granted to the value of the pledged real estate related to that loan.

Debt-service-to-income ratio (DSTI) - the ratio of the value of the borrower's total monthly debt servicing costs to its income.

Loan-to-income ratio (LTI) - the ratio of the amount of credit granted to the borrower's income.

Debt-to-income ratio (DTI) - the ratio of the amount of the borrower's total debt to the borrower's income.

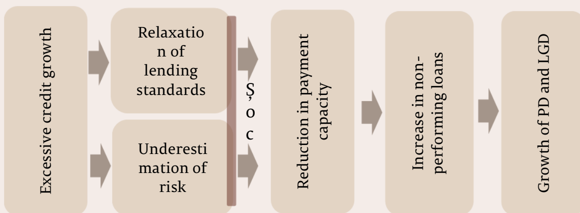
Maturity of the credit agreement - the date by which the borrower must repay the amount of the credit with all related payments.

Limits on ratios to the borrower's income reduce the likelihood of the borrower defaulting, as the size of the debt is correlated to its income. The use of these indicators improves the resilience of both borrowers and lenders to shocks.

[44] 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 no.192/2018.

The purpose of implementing a loan-to-collateral ratio limit is to mitigate potential losses if the borrower defaults.

Figure 4.1.3. Indicators for borrowers



Source: NBM

Requirements for these indicators are widely applied in the EU countries.

In international practice, the LTV limit is mainly taken into account when granting loans for real estate investments and varies between 70-100 percent, while the DSTI limit is applied to all loans granted, varying between 35-60 percent.

In the case of the DTI limit (LTI), it shows how many times the total amount of liabilities should not exceed the borrower's income and is applied in a limited number of countries.

The maturity of a credit agreement can differ depending on the type of credit, up to 10 years for consumer loans and up to 30 years for mortgage loans.

Imposing rules that cap borrowers' indebtedness ensures that appropriate credit conditions are maintained throughout the financial cycle, preventing over-indebtedness during periods of economic growth and respectively reducing access to credit during recessions.

Figure 4.1.4. Use of indicators for borrowers

	LTV	DSTI	DTI	LTI	Maturity
Austria	Yes	Yes	No	No	Yes
Belgium	Yes	Yes	Yes	No	No
Czech Republic	Yes	No	No	No	Yes
Cyprus	Yes	Yes	No	No	No
Denmark	Yes	No	No	Yes	No
Estonia	Yes	Yes	No	No	Yes
Finland	Yes	No	No	No	No
France	No	Yes	No	No	Yes
Ireland	Yes	No	No	Yes	No
Iceland	Yes	Yes	No	No	No
Latvia	Yes	Yes	Yes	No	Yes
Lithuania	Yes	Yes	No	No	Yes
Norway	Yes	No	Yes	No	No
Netherlands	Yes	No	No	No	Yes
Poland	Yes	Yes	No	No	Yes
Portugal	Yes	Yes	No	No	Yes
Romania	Yes	Yes	No	No	Yes
Slovenia	Yes	Yes	No	No	Yes
Slovakia	Yes	Yes	Yes	No	Yes
Spain	Yes	No	No	No	No
Hungary	Yes	Yes	No	No	No

Source: European Systemic Risk Board

4.2. National Financial Stability Committee

The National Financial Stability Committee continued to meet in regular meetings to review the current situation of the financial system and its components.

During 2021, the Committee focused on a thorough review of the current state of the bank and non-bank lending sectors and the impact that the COVID-19 pandemic has had on the activity of the components of the financial system and on the annual results recorded. It also examined the effectiveness of the measures implemented in 2020 in support of borrowers, which maintained the resilience of institutions and supported the financial intermediation.

Towards the end of the year, the Committee met to review the developments in the banking, non-bank lending and insurance sectors, as well as risk mitigation actions taken or initiated by the competent authorities within the supervised sectors. This also included the progress in the implementation of macroprudential instruments to match the lending activity with the financial capacities of borrowers.

5. RECENT DEVELOPMENTS AND PERSPECTIVES

5.1. Regulations to strengthen the financial stability framework

The NBM continues to draft and revise, where necessary, the regulatory acts for the implementation of the Law on the activity of banks, as well as to make changes in the primary and secondary framework on the regulation of payment systems and the activity of providing payment services and issuing electronic money.

During 2021, in order to implement the Law on the activity of banks, the NBM made changes:

- to the Regulation No 109/2018 on banks' own funds and capital requirements, in order to specify some issues related to the inclusion of interim or year-end profits in the core tier 1 capital. For unaudited interim and year-end profits, the results of the verification should be documented in an audit report on the financial statements showing that the given profits have been appropriately reflected by the bank in accordance with the principles set out in the accounting framework. At the same time, the provisions related to NBM approval in the context of distributions have been adjusted, i.e. it has been provided that approval is required for distributions of profits to shareholders and/or payment of interest to holders of additional tier 1 capital instruments, if the NBM considers that this will not lead to non-compliance with own funds requirements or other prudential indicators or jeopardize the stability of the bank.
- to the Regulation No 322/2018 on the framework for the management of banks' activity, conditioned by the need to establish a comprehensive regulatory framework for the effective implementation of the Internal Liquidity Adequacy Assessment Process (ILAAP) in banks, the establishment of provisions related to the methodology for calculating potential changes in the economic value of the bank due to changes in interest rate levels (IRRBB), as well as the establishment of the method of informing the NBM on the convening of the general meeting of shareholders.
- to the Regulation No 127/2013 on holdings in bank's share capital and Regulation No 292 /2018 on the requirements for the members of the management body of the bank, financial holding company or mixed holding company, heads of the branch of a bank in another state, persons holding key positions and for the liquidator of the bank in the process of liquidation, the approvals for the acquisition of shares of a bank or for the appointment by the bank of the members of the management body of the bank, heads of the branch of the bank in another state and persons holding key positions can be obtained not only in paper form, but also in electronic form through the WEB portal of the NBM Information System. These changes will reduce costs, efforts, time and make the process more efficient for both the applicant and the NBM, as well as make the process more environmentally friendly, while ensuring enhanced health protection measures for the NBM applicants and employees in pandemic conditions.
- to the Regulation No 46/2020 on the activities and operations outsourced by the bank and Regulation No 118/2018 on the external audit of banks, in order to streamline the audit of outsourced material activities related to the processing of payments with payment cards and to adjust the NBM regulations to the legislative norms in force. The amendments concerned the criteria for the approval of the audit company in the framework of conducting the annual audit of the activities of processing payments with payment cards and the adjustment of the NBM regulations regarding the exclusion of the qualification certificates of the auditor of financial institutions, as well as the limitation of the audit companies conducting the audit of the bank's annual financial statements to

enter into other contracts with the bank regarding the audit for other purposes;

In 2021, the NBM, together with the Ministry of Finance, went through a number of stages of the legislative process on the draft Law No 199/MF/NBM/2020, which aims to transpose into national legislation the provisions of the EU Directive 2015/2366 on payment services in the internal market (according to international custom - PSD2), such as consultation with the competent authorities of the project in order to issue the appropriate expertise, examination of the received expertise, organization of meetings with the participation of all authorities participating in the expertise, in order to address various aspects of the project. At the end of 2021, the draft law was finalized to be promoted by the Government for its approval and subsequently to be submitted to the Parliament of the Republic of Moldova.

The transposition of the European Directive into national legislation offers new payment methods and solutions, more legal clarity, establishes new rules both for payment service providers and more protection for payment service users.

Aligning the legislation of the Republic of Moldova with international standards by improving the quantitative and qualitative mechanisms of bank management and continuing to align the regulatory framework for payment services with the new EU regulations will contribute to promoting a safe and stable financial system, increasing the transparency, confidence, and attractiveness of financial companies, as well as improving and developing new financial products and services for Moldovan citizens.

Box 5. Limiting consumer indebtedness

During 2021, several activities were undertaken in the context of limiting consumer over-indebtedness.

In this context, in December 2021 the Parliament of the Republic of Moldova registered the draft No 403/2021 in order to increase the level of protection for consumers who contract loans.

According to the accompanying information note, the draft aims to regulate the principles of assessing the creditworthiness of the borrower and proposes to cap the interest rate and other expenses included in the total cost of the credit.

The draft in question was approved in the second reading on 7 April 2022, giving the competent authorities - the NBM and the NCFM - a period of 6 months to bring their regulatory acts in line with the legal provisions.

The NBM and the NCFM continued their joint actions in order to implement macroprudential instruments to match lending with the borrower's financial capacities in the main segments of the financial system - the banking sector and the non-bank lending sector through NCOs.

To this end, both authorities have developed draft regulations, aimed at regulating responsible consumer lending. The drafts contain provisions for assessing the creditworthiness of consumer borrowers and set limits on the main macroprudential instruments for borrowers - loan-to-value ratio, debt service-to-income ratio and loan maturity. Both drafts were exposed for public consultation in February 2022 and approved in May 2022, with entry into force on 1 July 2022 for banks and 1 September 2022 for NCOs.

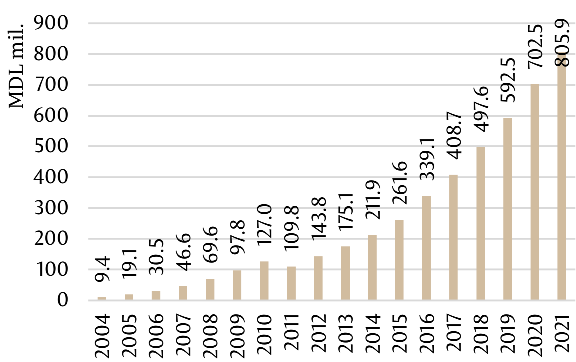
5.2. Deposit guarantee in the banking sector

The available financial resources of the DGFBS in 2021 continue to accumulate on the account of quarterly contributions and income from investment activity, with the capitalization level[45] of the fund's resources reaching 4.64 percent.

Since the establishment of the fund (01.01. 2004), a total amount of MDL 856.1 million was accumulated, of which: MDL 528.7 million - initial and quarterly contributions from commercial banks, MDL 326.0 million - income from the investment activity of the DGFBS and MDL 1.4 million from unused funds allocated to current expenses.

During the reporting year, the financial means for guaranteeing deposits increased by MDL 103.4 million or by 14.71 percent, with the available funds of the DGFBS as of 31.12.2021 amounting to MDL 805.9 million (Figure 5.2.1) or 4.55 percent of the total guaranteed deposits registered in the banking sector.

Figure 5.2.1. Available means of DGFBS



Source: prepared by the NBM on the basis of DGFBS data

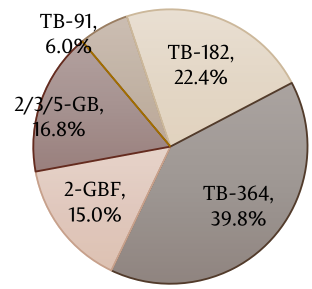
The accumulated funds are sufficient to cover guaranteed deposits at any bank, except for systemically important banks, but for which, according to the provisions of Law No 232/2016 on the recovery and resolution of banks, the resolution procedure is applicable.

Given the guarantee ceiling of MDL 50 000, the coverage level of deposits of eligible individuals and legal entities[46] was 20.6 percent as of 31.12.2021, down by 1.3 percentage points compared to the previous year, with the increase in the balance of eligible deposits being faster than the increase in the balance of guaranteed deposits.

Income from the Fund's investment activity declined mainly against the background of the maturity of lower yielding investments compared to 2020.

The investment process carried out during the year generated revenues of MDL 36.8 million, a decrease of 14.0 percent compared to the previous year. The value of the investment portfolio as of 31.12.2021 amounted to MDL 807.0 million, an increase of 14.5% (MDL +101.9 million) compared to the same period of the previous year. A significant share in the total investment portfolio has 182-day TB and 364-day TB (Figure 5.2.2).

Figure 5.2.2. Structure of the DGFBS investment portfolio as of 31.12.2021



Source: DGFBS activity report for 2021

The average annual interest rate on placements made during the year was 5.74 percent, an insignificant increase compared to the previous year (0.49 pp), due to the increase in annual interest rates on the primary market for SS.

As administrator of the bank resolution fund, the DGFBS continued to accumulate the financial resources of the bank resolution fund, which stood at 1.1 percent in relation to the volume of guaranteed deposits.

During the reporting year, the bank resolution fund received annual contributions from banks in the total amount of MDL 131.3 million. As the annual contributions were collected from banks, the DGFBS ensured the investment process from available resources, recording at the end of the year investment income of MDL 2.6 million.

[45] The ratio between the calculated financial means of the fund and the total amount of guaranteed deposits.

[46] The ratio between the total amount of guaranteed deposits and the total amount of eligible deposits.

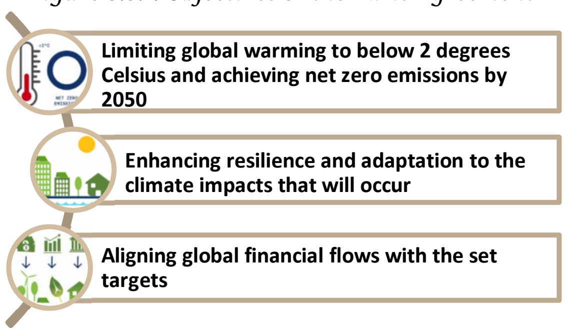
As of 31.12.2021, the financial resources of the bank resolution fund amounted to MDL 186.8 million, which is 35.1% compared to the target level for the available resources of the bank resolution fund as of that date[47].

5.3. Risks arising from climate change: international trends and regulations

Globally, climate change has been identified for several years as a source of systemic risk with potentially serious consequences for both financial institutions and financial markets.

The Paris Agreement, concluded between the 196 parties[48] on 12 December 2015 with entry into force on 4 November 2016, aimed to limit the global warming below 2 (preferably 1.5 degrees Celsius) compared to pre-industrial levels.

Figure 5.3.1. Objectives of the Paris Agreement

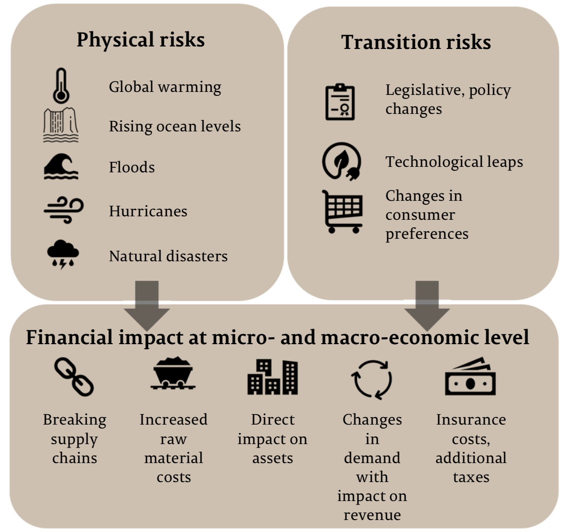


Source: https://energytracker.asia/cop26-is-this-make-or-break-for-the-paris-agreement/

Climate change creates financial risks and economic consequences, and in this context, the world's economies have begun to take various measures to reduce greenhouse gas emissions.

In relation to climate change, two types of risks are highlighted. Physical risk is the risk associated with the physical effects of climate change, for example flood damage from extreme weather events. Transition risk is the risk associated with changes in policy and regulation in response to climate change, for example new carbon taxes being implemented to reduce emissions under the Paris Agreement.

Figure 5.3.2. Financial impact of climate change risks



Source: prepared by the NBM on the basis of publicly available information

These risks have the potential to affect people and companies individually, while also having a significant aggregate macroeconomic effect.

Translated into financial risks, 5 basic risks can be mentioned:

- credit risk (bankruptcy of debtors, deterioration in the quality of collateral);
- market risk (revaluation of securities);
- underwriting risk (increased payments for insured losses, widening of the insurance gap);
- operational risk (disruption of supply chains, forced cessation of business);
- liquidity risk (higher demand for liquidity, refinancing risk).

At the same time, the risk of contagion within the financial system persists, with climate change events similarly affecting an entire region.

Financial and non-financial companies need to take climate risk into account in their existing risk management framework.

They should identify transmission channels and assess the impact of physical and

[47] The target level for the available financial resources of the bank resolution fund is 3 percent of the amount of guaranteed deposits of all licensed banks on the territory of Moldova.

[48] https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

transition risks arising from climate change on their business.

As of financial institutions, there is an increased focus on developing ESG risk management, which will increasingly affect "brown" companies as they transition to the "green" economy.

At this stage, regulators are those who, through tailored prudential regulation, can support an organized transition and ensure the proper management of financial risks related to climate change. However, it is important to take into account issues such as data availability, risk measurement, disclosure and the overall assessment of the risk management framework by banks.

Many countries have modified their national standards and prudential regulatory framework to cover climate change-related financial risks and establish an effective regulatory and supervisory approach.

To this end, the Basel Committee on banking supervision set up a working group on climate-related financial risks and published for public consultation in November 2021 the document "Principles for effective management and supervision of climate-related financial risks"[49].

The EBA has included ESG risks in its priority agenda for 2022. At the same time, in January 2022, an implementing technical standard was published on the prudential disclosure of ESG risks under Article 449a of EU Regulation 575/201[50] 3. At the same time, the EBA has developed and published the "ESG Risk Management and Supervision Report"[51], which identifies the areas where ESG risks need to be considered: business strategy and process (EBA Guidelines on loan origination and monitoring); governance (EBA Guidelines on business governance framework); risk management process, including stress testing. It is also planned to supplement the SREP Guidelines with provisions related to ESG risks.

The European Central Bank published in 2020 the Guide on climate-related and environmental risks[52], which includes the supervisor's expectations related to the management of these risks and information disclosure.

The financial system plays a key role in the massive reallocation of financial resources for economic transformation.

Supporting "green" financing requires, on the one hand, increased transparency and non-financial reporting and, on the other hand, the creation of specific products and adaptation of the regulatory framework.

This process is underpinned by the EU taxonomy, the regulation being approved in 2020. It represents a common classifier of economic activities in terms of substantial contribution to environmental objectives, based on scientific criteria.

Later in 2021, an information disclosure framework was created, which aims to provide investors with the information they need to make sustainable investment decisions. Over time, some tools for the capital market, financial intermediaries and companies have also been developed, such as European green bonds (EuGB), for which standards are currently being developed.

In addition to creating a framework for managing climate change risks, a particular focus is being placed on capacity building in the area of climate change related stress testing.

The objective of climate change stress testing is to assess how climate-related risks influence a financial institution's activity, considering all sectors and geographical locations in the stress scenarios.

Financial institutions should focus on quantifying the impact of both physical and

[49] https://www.bis.org/bcbs/publ/d530.htm
[50] https://www.eba.europa.eu/implementing-technical-standards-its-prudential-disclosures-esg-risks-accordance-article-449a-crr
[51] https://www.eba.europa.eu/sites/default/documents/files/document_library/Publications/Reports/2021/1015656/EBA%20Report%20on%20ESG%20risks%20management%20and%20supervision.pdf
[52] https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.202011finalguideonclimate-relatedandenvironmentalrisks~58213f6564.en.pdf

transition risks in their stress scenarios. This is a totally different exercise from stress testing by financial institutions, but also by supervisors, both in terms of the different nature of the risks, the extremely long-time horizon (typically 30 years) and the challenges in scenarios development.

The different nature of climate change risks is determined by the fact that they are non-linear, irreversible, not very predictable, and uncertain.

The NGFS, founded in 2017 by 8 central banks and supervisors, which already has 114 members and 18 observers, is providing support at scenario design phase. This organization has developed a set of scenarios that can be used in climate change stress tests.

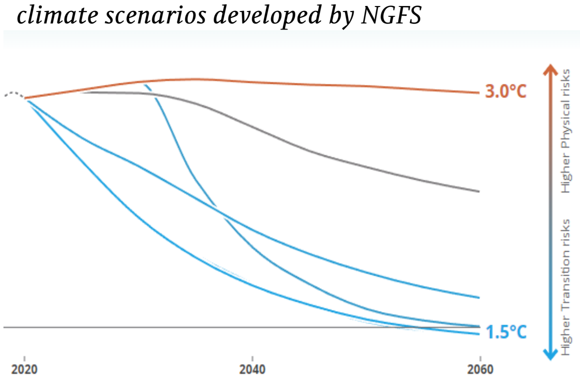
The NGFS has a dedicated web page[53], where scenarios are presented and described. There are 6 scenarios:

1. Net Zero 2020 – a bold scenario that limits global warming to 1.5°C through stringent policies and innovations, reaching net zero CO_2 emissions in 2020. Some jurisdictions such as the US, EU and Japan were reaching net zero for greenhouse gases at that time.

2. Below 2°C – a gradual increase in the stringency of climate policies, limiting global warming below 2°C with a 67 percent probability.

3. Net Zero Divergent – reaching net zero in 2050, but at higher costs due to divergent policies across sectors and a faster exit from fossil fuel-based energy production.

Figure 5.3.3. Evolution of net CO2 emissions in the climate scenarios developed by NGFS



Source: NGFS

4. Delayed transition – annual global emissions do not decline until 2030. Austerity policies are needed to limit global warming below 2°C. Negative emissions are limited.

5. Nationally determined contributions – the scenario includes all promised policies, even if not yet implemented.

6. Current policies – the scenario includes only implemented policies, which leads to high physical risks.

Based on the results of the stress tests, financial institutions will be able to establish recovery measures that will help them better respond to the threat posed by climate-related risks.

They will be able to estimate the financial resources, including the capital and liquidity, needed to absorb losses in stress scenarios.

Furthermore, the financial institutions can use the results of the stress tests to improve their business strategies in managing assets and liabilities to reduce climate-related risks in their portfolio and to update their risk appetite statements.

5.4. Developments in 2022

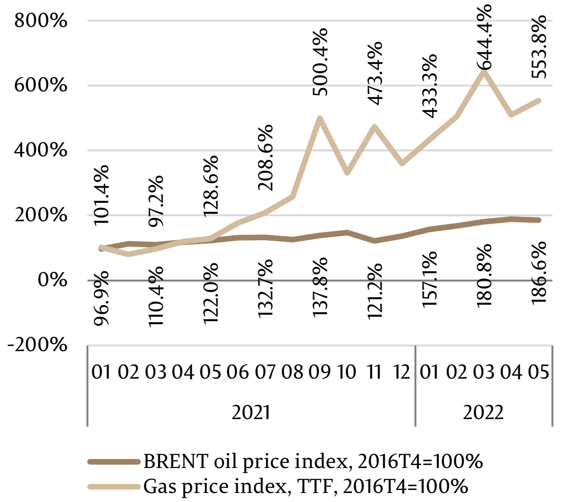
Financial stability conditions have deteriorated significantly leaded by the developments in early 2022, exposing pandemic-hit economies around the world to big inflationary shocks and a host of uncertainties.

Macroeconomic conditions began to deteriorate rapidly in late 2021, driven by rising energy resource prices which in turn led to higher prices for most categories of goods and services.

In addition to these unfavourable developments, the armed conflict in the region and the sanctions imposed to the Russian Federation have further increased the prices for energy resources and deteriorated supply channels, putting pressure on the national budgets of the countries hosting refugees from Ukraine. On the background of numerous uncertainties related to the further evolution of the conflict and its duration, the impact is still difficult to quantify.

[53] https://www.ngfs.net/ngfs-scenarios-portal/

Figure 5.4.1. Monthly evolution of energy resources prices during 2022



Source: prepared by the NBM based on data from tradingeconomics.com

However, it is already clear that central banks' responses to inflationary shocks are leading to tighter lending conditions and stimulating saving, which will slow down economic growth.

The negative effects of the armed conflict in the neighbouring state have been felt, materializing in an increased number of demands for bank deposit withdrawals.

The phenomenon was short-termed and the significant liquidity held by banks allowed them to meet the demands received.

Thus, in the first quarter of 2022, there was a decrease in the balance of deposits, mainly generated by the external events. According to prudential reports, they decreased by 6.8 percent, amounting to MDL 83.9 billion.

The balance of deposits of individuals decreased the most (MDL -4.6 billion, 8.3 percent), followed by the decrease in the balance of deposits of legal entities (MDL -1.5 million, 4.4 percent), while bank deposits decreased by MDL 0.04 million (26.8 percent).

ANNEXES

Systemic Risk Survey[54]

Traditional key risks (macroeconomic, credit) as well as specific risks (COVID-19, geopolitical) persist in the financial system, while the dynamics show a decrease in the importance of most of the risks analyzed.

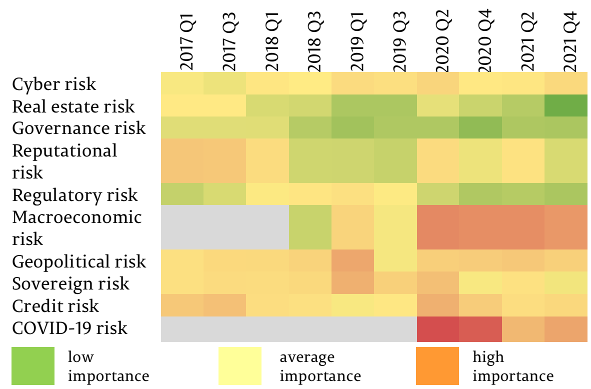
The risk rating, determined by the NBM, positioned the macroeconomic risk as the most important risk, being characterized by high potential impact, relatively high probability of materialization and relatively difficult management capacity. It is followed by the COVID-19 risk, with a high potential impact, a relatively high probability of materialization and a relatively difficult management capacity. Geopolitical risk, ranked 3rd, is characterized as a risk with a medium probability of occurrence, medium potential impact, and very difficult management capacity. In dynamics, there is a decrease in the accumulated scores of most risks, with the exception of cyber and governance risk, which have recorded a slight increase compared to the end of 2020.

Table 0.1. Rating of risks analyzed in the survey by category

2021	Importance	Likelihood	Potential impact	Management capacity
Macroeconomic risk	3,57	3,73	4,09	3,27
Covid risk	3,49	3,73	3,73	3,27
Geopolitical risk	3,19	2,91	3,18	3,73
Credit risk	3,14	3,00	3,82	2,91
Cyber risk	3,13	3,09	3,55	3,00
Sovereign risk	2,92	2,09	3,45	3,82
Reputational risk	2,76	2,00	3,55	3,27
Regulatory risk	2,48	2,55	2,82	2,36
Governance risk	2,48	2,27	3,45	2,36
Real estate risk	2,10	2,00	2,45	2,27
Political risk[55]	-	3,00	4,00	3,00

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 over the last 5 years

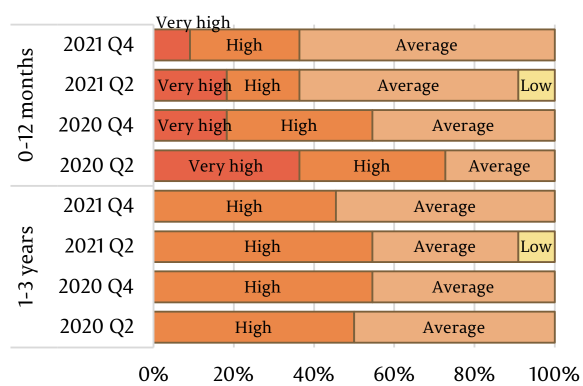


Source: NBM, Systemic Risk Survey

The current resilience of the financial system is assessed as moderately high (82 percent).

All respondents see the real economy as a major potential source of systemic risk, followed by the political domain (64 percent). The likelihood of a high-impact systemic event occurring in the next 12 months decreases slightly compared to the previous iteration of the survey, being medium to high. In the medium term (1-3 years), the likelihood of such an event occurring is slightly increasing during 2021.

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

[54]The NBM conducts the Systemic risk survey half-yearly, in order to capture the opinion of risk managers in banks on the major risks of the financial system.
The report presents the aggregated results of the survey, based on the situation as of December 31, 2021. The survey was conducted in January 2022, with the participation of 11 banks.

[55]Additional risk, proposed by a respondent, resulting from the unstable political situation in the country. Importance was not calculated as it was not assessed by all respondents in the current iteration of the survey.