NATIONAL BANK OF ROMANIA

FINANCIAL STABILITY REPORT

2012

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Note

The Financial Stability Report was prepared by the Financial Stability Department and coordinated by Mr. Cristian Popa, Deputy Governor of the National Bank of Romania.

The Report was examined by the Supervisory Committee in its meeting on 5 September 2012. These bodies approved the main assessments of the Report and its final version was approved by the National Bank of Romania Board in its meeting on 10 September 2012.

The analyses draw on the information available by 10 September 2012.

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Abbreviations

BDGF	Bank Deposit Guarantee Fund
BIS	Bank for International Settlements
BSE	Bucharest Stock Exchange
CCR	Central Credit Register
CDS	credit default swaps
CEBS	Committee of European Banking Supervisors
CEE	Central and Eastern Europe
CERS	Committee of European Securities Regulators
EBA	European Banking Authority
EBIT	earnings before interest and taxes
EC	European Commission
ECB	European Central Bank
ESA	European System of Accounts
ESRB	European Systemic Risk Board
EU	European Union
Eurostat	Statistical Office of the European Union
FDI	foreign direct investment
GDP	gross domestic product
GVA	gross value added
IBRD	International Bank for Reconstruction and Development
IFI	international financial institution
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
ISC	Insurance Supervisory Commission
LGD	loss given default
LTV	loan to value
MPF	Ministry of Public Finance
NBFIs	non-bank financial institutions
NBR	National Bank of Romania
NIS	National Institute of Statistics
NPLs	non-performing loans
NSC	National Securities Commission
NTRO	National Trade Register Office
PPSSC	Private Pension Scheme Supervisory Commission
ROA	return on assets
ROBOR	Romanian Bid Offered Interest Rate
ROE	return on equity
SMEs	small- and medium-sized enterprises
STED	short-term external debt
VAT	value added tax
WB	World Bank

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1 OVERVIEW

Financial stability in Romania has remained robust since the release of the previous Financial Stability Report *(September 2011). The domestic banking sector operated within adequate parameters against the background of still modest economic growth, which had also an impact on the further increase in non-performing loans, and in spite of adverse external conditions, marked by the sovereign debt crisis and concerns over the balance sheet quality and the financing of some credit institutions and banking systems, particularly in the euro area. Financial stability is the result of the adequate behaviour in the given circumstances of shareholders, managers, and the micro and macro-prudential regulatory and supervisory authorities, together with the developments in broad monetary conditions. Solvency, provisioning and liquidity levels remained adequate and real sector financing was not significantly affected by the financial deleveraging, continuing to post somewhat moderate readings and further unfolding in an orderly fashion. The NBR stepped up its risk monitoring efforts of the credit institutions, including contagion risks from external developments. The main challenges to financial stability during the period under review and in the period ahead have remained credit risk and the risk associated with the rollover of the external financing of foreign-owned domestic credit institutions.*

The ongoing precautionary financing arrangement with the European Union, the International Monetary Fund and the World Bank has provided a solid anchor of credibility and support for the firm continuation of macroeconomic stabilisation programmes. At the same time, the European institutions are in the process of strengthening the harmonisation and the cooperation framework of the financial policies. In this vein, the European Bank Coordination "Vienna Initiative 2.0" aims, inter alia*, to ensure enhanced cooperation between supervisory authorities in home and host countries respectively, with a view to preventing any disorderly or overly fast financial deleveraging across emerging economies.*

Adequate capitalisation for the prevention of prevailing risks was further a key feature of the Romanian banking sector. This was equally the outcome of the NBR actions and of the parent banks' fulfilled commitments to maintain adequate capital levels of their subsidiaries on the local market. Similarly to previous years, capital contributions were performed only by shareholders, as no public funds were used for this purpose. Thus, new capital increases amounted to EUR 379.4 million in 2011. In 2012 H1, net share capital increases came in at approximately EUR 550 million, of which EUR 53 million were accounted for by new cash contributions. The prudential regulatory measures taken amid the implementation of the International Financial Reporting Standards (IFRS) were also warranted by the need to avoid market fluctuations in own funds and prudential indicators stemming from the application of different models for determining value adjustments. The solvency ratio across the banking sector has hovered around a comfortable 15 percent ever since 2009 (14.7 percent in June 2012). This compares favourably both to the EU-regulated threshold of 8 percent and to the 10 percent minimum prudential level set by the NBR since the outbreak of the global financial crisis. The solvency ratio reported by the group of Greek banks has constantly exceeded the banking sector average. Tier 1 capital ratio at aggregate level ran at 13.7 percent as of June 2012, close to the solvency ratio, which is indicative of high capital quality. Tier 1 capital lies at the core of banks' own funds in terms of permanence, reliable assessment and loss-absorbency criteria. Loan loss provisions have constantly posted comfortable readings, as required, covering expected credit risks.

Banks' liquidity position remained adequate, while funding provided by parent banks (making up the largest share of external financing) witnessed an orderly adjustment, amid an ongoing gradual reduction in Romanian credit institutions' reliance on external funds from 22.5 percent in total liabilities as of December 2010 to 22.3 percent in December 2011 and 20.6 percent in June 2012. At the same time, the term structure improved, with medium- and long-term loans accounting for over 68 percent of banks' total external financing at end-June 2012.

Non-performing loans, which stand out as the dominant risk to financial stability, continued to rise in terms of both volume and ratio (from 14.3 percent at end-2011 to 16.8 percent in June 2012), albeit at a considerably slower pace compared to the previous years (the NPL ratio widened 2.5 percentage points in 2011, 4 percentage points in 2010 and 5 percentage points in 2009). The faster pace of increase seen in January 2012 partly reflects IFRS-related adjustments (balance sheet recognition of non-performing claims previously recorded in off-balance sheet accounts), as well as the revaluation of the quality of previously-restructured loans. Afterwards however, from February to June 2012, the NPL ratio widened at a more sluggish pace, i.e. 1.4 percentage points.

The vulnerabilities stemming from the large stock of foreign currency loans remained a source of concern, while the risk associated with this type of financing continued to outpace that related to lei-denominated lending. The National Bank of Romania will further closely monitor forex lending, as any significant unfavourable developments in the exchange rate could have a material impact on borrowers' debt-servicing capacity. Moreover, these constraints may generate distortions in debtors' saving, investment and consumption decisions. In addition, the NBR contemplates further measures for adequate risk management, in line with ESRB recommendations on foreign currency lending, which will also lead to a more balanced currency breakdown of new loans.

The international economic and financial environment has witnessed deeper tensions since the release of the previous report (September 2011), amid the ongoing sovereign debt crisis and concerns over the balance sheet quality and over the financing of some credit institutions and banking systems, particularly in the euro area, posing increasing challenges to financial stability in Romania as well.

The vulnerabilities plaguing the international environment have led to heightened financial market volatility, while rating agencies have downgraded numerous EU sovereigns. Romania was among the few recording a credit rating upgrade in 2011, with Fitch taking the BB+ rating up one notch to BBB-. Euro area tensions sent ripple effects to CEE countries and materialised for Romania via: (i) heightened volatility of government bond spreads (as the spread between EUR-denominated bonds and the German Bunds ranged between 285 basis points and 591 basis points January 2011 through July 2012) and of the CDS spread (which ranged between 215 basis points and 492 basis points over the same period); (ii) exchange rate developments; (iii) Moody's changing the rating outlook to negative from stable, while reaffirming the investment grade status. This challenging international context notwithstanding, Romania continued to successfully tap external funding sources, with the MPF issuing bonds on the US market in January and February 2012 and on the European market in September 2012.

Faced with unprecedented challenges to the financial, budgetary and real sectors alike, EU policymakers decided to broaden the economic policy coordination framework by: (i) introducing stricter and proactive monitoring of fiscal and macroeconomic imbalances; (ii) strengthening the corrective measures for fiscal slippages; (iii) making additional funds available to Member States; (iv) rendering the European rescue funds more flexible. Greece was also on the agenda with debt restructuring and the second economic adjustment programme. The ECB decided to conduct three-year refinancing

operations (December 2011 and February 2012) and to cut the policy rate to 0.75 percent in July 2012 in order to prevent any disorderly developments in lending conditions across the EU. The measures paid off only for a relatively brief period, translating into lower risk premiums and abated volatility on international markets. Subsequently, tensions have resurfaced, fuelled by other euro area countries facing funding difficulties as well.

The risk of a direct transmission of a fallout from public sector issues in several European states on the local banking sector appears to be remote, given that domestic banks' holdings of euro area government securities account for a meagre 0.01 percent in total balance sheet assets of the Romanian banking system. Besides, these government securities are not eligible as collateral in the NBR's open market operations. The contagion risk from the European banking sector (either via the direct channel or indirectly, via the common lender channel) is further manageable. Austrian banks are estimated to generate the most visible effect, while banks with Greek, Italian and French capital would exert a considerably lower impact. The capitalisation and risk monitoring actions taken by the Austrian authorities reduce the likelihood of a shock materialising from the Austrian banking sector.

Amid the financial deleveraging measures taken by the major European credit institutions, still underway, parent banks' exposures to their subsidiaries in Romania posted orderly developments (declining only marginally, by 7 percent, December 2010 through June 2012, to reach EUR 19 billion) and did not significantly affect lending conditions. Stress tests revealed an adequate resilience of the domestic banking sector in the event of a massive withdrawal of external financing, with challenges relating to fund conversion from lei into euro, certain asset sales and safeguarding lending to the real sector. As the previous report also pointed out, credit institutions with Greek capital could weather relatively well a liquidity shock, due to prudential indicators suited to the existing risks. However, the specific challenges faced by the parent banks in their home country demand more efforts in assessing risks. The NBR will further closely monitor domestic and international developments, while also adequately managing and maintaining system-wide liquidity and pursuing comfortable levels of the provisioning and solvency ratios.

Risks to financial system stability stemming from domestic macroeconomic developments further witnessed an overall alleviation, particularly in terms of economic growth, fiscal consolidation and the current account deficit. After two years of decline, economic activity returned into positive territory in 2011 (up 2.5 percent), while forecasts point to GDP growth continuing to outpace the EU-wide average during 2012-2013. The most important challenges to domestic economic and financial developments relate to: preserving an adequate pace of real convergence, while also continuing to address external and fiscal imbalances and implementing structural reforms, along with improved absorption of European funds (accounting for merely 9.2 percent of total at end-June 2012); strengthening the efforts to resume sustainable economic growth, also via measures aimed at fulfilling Romania's commitments under the Europe 2020 strategy. As regards fiscal matters, safeguarding macroeconomic and financial stability essentially calls for carrying on fiscal consolidation (the fiscal deficit narrowed to 5.2 percent of GDP in 2011, in ESA95 terms, and to 1.12 percent of GDP in 2012 H1, according to national methodology, thus reaching the targets agreed with the IMF and the EC), enhancing the financing capacity of the authorities, also by ensuring additional reserves at all times, as well as tightening payment discipline in the public sector. As for the external balance, the current account deficit remained almost unchanged from 2010, at 4.4 percent of GDP, whilst structural changes related to the export dynamics had mixed effects on external competitiveness. In particular, export growth continued to outpace that of imports in 2011, with an annual dynamics of 20.6 percent versus 17 percent; the import content of exports remained high, albeit declining, with the share of imports in net exporting companies' exports diminishing to 42 percent in March 2012 from

44.8 percent in December 2010; the share of exported high-tech products edged lower to 10.9 percent in March 2012 against 12.3 percent at end-2010; the vulnerabilities generated by the somewhat concentrated geographical spread of exports (Romania's exports to euro area countries accounted for approximately 53 percent in 2011) are mitigated by the fact that Romanian companies exporting to the euro area are relatively better prepared to accommodate a potential shock coming from the eurozone; the volume of exports to Germany (Romania's main trading partner) advanced 24.6 percent in 2011, taking the market share of exports to this country to 18.6 percent of total.

The positive developments at macroeconomic level notwithstanding, the financial results reported by the banking sector in Romania witnessed a worsening in 2011 and remained in negative territory, similarly to the previous year. The downtrend persisted into the first part of 2012 as well, with aggregate losses worth lei 777.3 million in 2011 and lei 192 million in 2012 H1. However, large banks generally reported positive financial results, thanks to somewhat lower credit risk costs and higher operating profit. Operating income posted negative dynamics throughout 2011 and in 2012 H1 amid unfavourable developments in net interest income. Provisioning costs remained the leading category of costs incurred by credit institutions during 2011 and in the first part of 2012.

The introduction of IFRS starting with financial year 2012 as an accounting basis and for financial statements compilation was implemented by maintaining capitalisation and provisioning of credit institutions at adequate levels via prudential filters. Under the financing arrangements concluded with international institutions, Romania committed to preserving an adequate level of bank prudential indicators.

The results of the latest stress test on banking system solvency, spanning a two-year horizon, show that credit institutions are generally well prepared to withstand macroeconomic shocks. There are, however, a few credit institutions with increased vulnerabilities, due to the impact of higher funding costs on net interest income and to the increase of the loan loss provisions driven by the lower market value of collateral and a worsened loan portfolio quality. In the event of an adverse scenario materialising, implying a marked depreciation of the domestic currency and a double-dip recession, the solvency ratio of the Romanian banking system would decrease by approximately 2.4 percentage points to around 12.3 percent. In addition, the decline in credit institutions' operating profit against the background of subdued demand for new loans will call for measures aimed at rescaling credit institutions business operations so as to diminish the share of fixed costs in total operating expenses.

The domestic macroeconomic context undergoing consolidation and the adverse external environment had a bearing on the non-bank components of the financial system as well. In the insurance sector, gross premiums written continued to post a weak performance in 2011, but their rate of decline was lower. The life insurance market reverted to positive real growth rates (for the first time after the global financial crisis broke out), but the non-life insurance market saw a significant decrease, resulting in a lower financial intermediation across the insurance sector. Financial results of insurance undertakings are sensitive to financial environment volatility, with the top-ten companies' profitability worsening slightly in 2011 as well. Insurance companies further invested mainly in fixed-income instruments, the returns on which tend to be higher than those on bank deposits.

The private pension system launched in 2007 is still in its early days, with contributions being accumulated, thus it is not exposed to significant risks. The volume of contributions and the number of participants increased in 2011 and 2012 H1, spurred by a higher contribution rate and the positive developments economy-wide.

Non-bank financial institutions (NBFIs) have been facing a flattening in outstanding loans and a worsening loan portfolio quality, which entailed higher provisioning costs and weaker financial results. Loan portfolio dynamics were influenced by demand-side factors, these institutions' increased risk aversion and the large number of loans reaching maturity. The leading NBFIs are subject to prudential supervision by the NBR (and thus registered with the Special Register), which mitigates the risk of unfavourable events occurring in this sector. The major vulnerability that the NBFIs are facing remains the erosion of the loan portfolio quality, as the non-performing loan ratio of NBFIs is markedly higher than that of banks. Strong reliance on external financing is another vulnerability of this sector. On the other hand, the provisioning level is high and the shareholders' efforts ensured that NBFIs capitalisation is maintained at a safety level.

The global and domestic financial and economic environments also affected the local financial market behaviour. The interbank money market in Romania remained small in size, with the financing of credit institutions via unsecured loans playing a marginal role. The daily average of lei-denominated deposits in 2012 H1 neared lei 4.52 billion, a figure relatively similar to that recorded in 2011 H2, i.e. lei 4.07 billion. Interbank market rates declined in 2012 Q1 given the central bank's weekly liquidity injections and the successive monetary policy rate cuts. Starting with the second half of May 2012, interbank market rates entered an upward trend, amid the change in liquidity conditions and the credit institutions' revised expectations on monetary policy rate and liquidity developments.

The government securities market saw a significant upturn in 2012: the volume of newly-floated stocks went up, their term structure improved, and the secondary market turnover grew markedly. Yields moved in line with external market volatility and, to a greater extent, with the domestic macroeconomic conditions – yields on government securities followed a downward path in the first five months of 2012, but this trend subsequently stopped. Similarly, secondary market yield volatility subsided in the early months of 2012, but remained high compared to other markets in the region, also as a result of the market's underdeveloped state.

The Romanian capital market dynamics were similar to its regional peers in 2011 and 2012 H1, reflecting closely a more pronounced investor risk aversion since 2011 H2. Moreover, the NBR's easing monetary conditions and a relatively more favourable external environment January through April 2012 helped push up the key stock market index (BET). Market capitalisation, the same as market liquidity, posted mixed developments. Furthermore, the global turmoil brought about high increases in market risk.

Payment and securities settlement systems functioned under safe and efficient conditions in the period under review. During 2012, the NBR made an assessment of these systems in line with its monitoring tasks, checking their compliance with the relevant international standards, while standing ready to implement any necessary remedial measures. The conclusions of the assessments performed for RoClear and DSClear systems point generally towards the robustness of these systems, while also revealing some drawbacks that should be rooted out.

The ReGIS, i.e. the real-time gross settlement payment system, is the systemically important system that accounts for more than 95 percent of total payments settled. Over the period under review, it ran smoothly and reported a rise in the value of transactions. Also on the rise were the degree of concentration and the rate of using the participants' available resources. ReGIS concentration is relatively high and might induce systemic risk, but the low liquidity utilisation rate mitigates the impact of a potential resource shortfall.

The conditions of lending to the private sector (companies and households) saw orderly developments in 2011 and 2012 H1. However, the manner in which European banking groups choose to implement the financial deleveraging measures taken at international level amid the global financial crisis could have a detrimental impact on the financing and the activity of their subsidiaries in Romania. Credit flows tend to be increasingly channelled towards more efficient sectors that are supportive of Romania's sustainable economic growth. The large share of foreign currency-denominated loans in the stock of loans granted to the non-financial private sector has remained a vulnerability (at end-June 2012, the share of corporate and household loans in foreign currency stood at 64 percent of the loan stock).

So far, the restructuring plans of the large banking groups operating in Romania have not exerted a negative impact on the overall standing of their local subsidiaries and branches. The dynamics of corporate and household financing reverted to positive territory and net asset sales, currently on a downtrend, are meant to enhance the loan portfolio quality. The NBR Regulation on lending to households, effective October 2011, strengthens the sound practices of lending to unhedged borrowers so that the risks related to the currency, collateral, type and maturity of the loans should be adequately covered. A balanced lending activity is also challenged by the need to alleviate banks' currency mismatch between assets and liabilities. The upward trend of this currency mismatch (loan-to-deposit ratio) failed to flatten, whereas the lei-denominated component of this ratio remained below par, thus favouring a rise in local currency loans. Another challenge to the lending activity resides in consolidating the favourable structural changes of the real economy financing. In this vein, two positive trends are manifest: the clearer trend towards the financing of non-financial corporations and the significant qualitative improvement in the breakdown of credit flows, namely increasing financing of companies in the tradables sectors. The SMEs access to financing is still a cause for concern. Both external and domestic financing of the SMEs advanced at a relatively slow pace in December 2010-June 2012 (4.9 percent against 8.2 percent for non-financial corporations, with growth rates being adjusted for exchange rate movements) and the number of SMEs that took a loan decreased so that the weight of SMEs which reported financing from either local or external banks and NBFIs remained low, at approximately 21 percent of the operating SMEs.

Lending conditions are expected to further post an orderly behaviour, considering the following factors: (i) furthering of balanced macroeconomic policies under the EU-IMF-WB arrangements; (ii) lending strategies of the leading banking groups operating in Romania contemplate to preserve their local investments; and (iii) the EU-wide implementation of new arrangements supportive of preventing any disorderly or overly fast financial deleveraging, the centrepiece of the European Bank Coordination Vienna Initiative 2.0 being to strengthen cooperation between supervisory authorities in home and host countries.

The financial soundness of the companies' sector improved since the release of the previous report, with mixed developments in terms of structure. The sustainable change in the economic growth pattern continued, in line with the expectations presented in the previous report. The financing arrangements Romania signed with the EU, the IMF and the WB laid the groundwork for enhancing payment discipline economy-wide and made it likely for the vulnerabilities that companies pose to financial stability to decrease once arrears to the government budget have been reduced. Moreover, the major risks that the non-financial corporations sector poses to financial stability are still those seen over the past few years, namely the (declining) debt repayment capacity towards banks and NBFIs and loose payment discipline towards business partners.

In 2011, non-financial corporations' return on equity added 2 percentage points year on year to 8.2 percent and total cash flows were in positive territory and on the rise. Developments were however

uneven for the different company types. Significant structural vulnerabilities were found for: (i) SMEs, which reported a growing credit risk (the non-performing loan ratio reached 23.2 percent in July 2012 from 15.1 percent at end-2010), much higher than that of corporations (4.3 percent in July 2012); (ii) trade, construction and real-estate companies (accounting for approximately 50 percent of total bank loans to companies) that have a riskier financial profile and high indebtedness; (iii) domestic private and state-owned companies that recorded, on aggregate, weak performance of their financial standing; and (iv) companies undergoing insolvency or bankruptcy proceedings that threaten financial stability due to the large loan stock, great number of major payment incidents and the high level of past-due debts to their business partners.

The sustainable change in the economic growth pattern continued, in line with the expectations presented in the previous Report. In the period December 2010-July 2012, local banks' exposure to the tradables sector increased by a real 17 percent. The companies in this sector fared better than those in the non-tradables sector thanks to their stronger position in the economy, their improved capacity to cover interest costs from profit and a much lower non-performing loan ratio than that reported by the non-tradables sector (14.8 percent and 19.1 percent respectively in July 2012). A positive performance also registered net exporting companies, in line with the expectations mentioned in the previous Report. Non-financial corporations' payment discipline has remained a source of vulnerability to financial stability.

The quality of bank loans granted to companies worsened, as the non-performing loan ratio advanced from 12.3 percent in December 2010 to 17.6 percent in July 2012, with further increases expected in the short term. The report identifies several elements indicative of reaching a peak in the non-performing loan ratio in the period ahead: the dynamics of this ratio tend to slow down; the number of companies generating their first non-performing loans follows a downward path; and the net flow of the number of companies that received financing entered positive territory. The increasing default probability suggests, however, a further uptrend in the non-performing loan ratio. Corporate loans in foreign currency are more vulnerable than those in lei, considering the faster growth rate of the non-performing loan ratio reported by the former.

Nevertheless, the Romanian banking sector remains in a good position as regards hedging against risks stemming from corporate loans: the capital adequacy ratio (14.7 percent in June 2012) stays well above the regulated threshold; provisioning for expected risks associated with the companies' sector stands at an adequate level (about 92 percent in June 2012); the value of required collateral generally covers risks (loan-to-value – LTV – ratio, i.e. the percentage value for the loan amount divided by the value of the collateral used for the loan, equals approximately 85 percent). The persistence of a challenging global environment calls for maintaining the above-mentioned prudential indicators at proper levels. In this vein, the large share of loans in foreign currency granted to SMEs (largely unhedged borrowers) is likely to entail measures for extending the regulations on foreign exchange lending so as to cover all unhedged borrowers, SMEs included, in accordance with the ESRB recommendations. The companies' payment discipline in relation to non-bank entities improved in terms of business partners, but remained loose vis-à-vis public entities.

The household sector is affected primarily by high indebtedness, especially in terms of loans in foreign currency, while the debt servicing capacity has continued to contract, albeit at a slower pace. The second vulnerability of the household sector is its persisting short foreign exchange position in relation to the financial sector, in spite of the downward trend seen in 2012. Households' indebtedness tended to stabilise in the period under review in this Report, under the impact of marginally positive developments in lending, which translated into softer demand for new loans and slightly lower

rates. The vulnerability of households' indebtedness is augmented by the large share of foreign currency-denominated debt in the loan stock (68 percent in June 2012), mainly housing loans and mortgage-backed consumer loans, and by the fact that new business is still largely extended in foreign exchange (56 percent of the loan stock in 2011 and in the period January-July 2012). New foreign currency-denominated loans are mostly for housing (60 percent of the new business in the reported period). Banks' non-performing loan ratio in relation to households rose to 9.5 percent in June 2012. The outlook for the developments in households' non-performing loans is mixed: the number of debtors who first recorded payments overdue for more than 90 days in 2011 and 2012 H1 declined by a hefty 11 percent; the probability to include loans into lower overdue buckets or to keep them in the same category increased; and households' expectations on their financial standing have improved. On the other hand, the debt rescheduling measures aimed at enhancing households' repayment capacity proved to have a relatively low efficiency, as the economic growth outlook is not very bright, and the risk stemming from foreign currency lending has remained high.

The real-estate and mortgage loan sector continues to pose a notable vulnerability to financial stability due to the declining quality of mortgage loans to households and companies, given the large share of such exposures in banks' and NBFIs' balance sheets (more than 59 percent in June 2012) and the ongoing downward adjustment in property prices. The above-mentioned developments, together with the challenges that businesses are facing amid the current international conditions call for maintaining a cautious policy on mortgage loans to households in view of: (i) the need to preserve prudent LTV ratios; (ii) the ongoing banks' balance sheet adjustment, and (iii) the improvement in households' financial culture so as to fully comprehend the risks arising from forex lending.

By supplementing the regulatory framework for credit institutions with provisions allowing the central bank to take stabilisation measures for distressed banks, the instruments needed to preserve financial system stability via containing contagion risk are made available. The stabilisation measures are meant to ensure depositor protection and the continuation of bank services, implying full or partial transfer of assets and liabilities to one or several eligible institutions or to a bridge bank established for this purpose, as well as a more prominent role for the Bank Deposit Guarantee Fund. This endeavour is part of the EU-wide concerns to set up a framework for bank recovery and resolution as an alternative to the legislation on bankruptcy. The stabilisation measures are aimed at avoiding disruptions in the smooth functioning of the financial system and of the economy, they draw prevalently on private sector resources and may only be applied to distressed credit institutions that could threaten financial stability. The NBR assesses the systemic nature of credit institutions in Romania on a regular basis from the perspective of preserving a robust financial system.

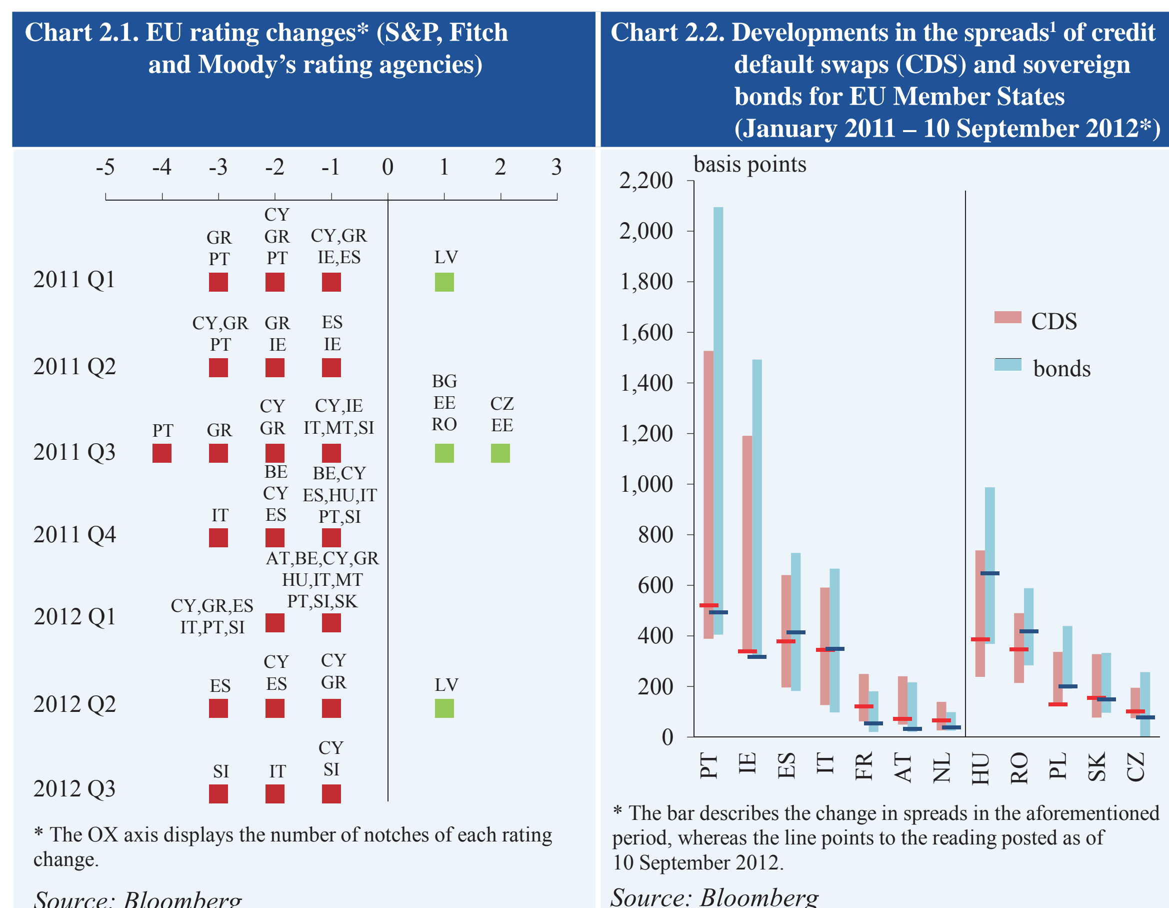
2 INTERNATIONAL ECONOMIC AND FINANCIAL ENVIRONMENT

The major external challenges to financial stability in Romania that were identified in the previous report have become sharper. Thus, (A) the sovereign debt crisis in the euro area intensified and the spillover risk via contagion increased; (B) at the European level, the risk of a lower supply of loans to the real sector heightened amid the ongoing financial deleveraging on the back of the issues related to balance sheet consolidation and securing financing that many credit institutions operating in the EU are concerned with and (C) the economic growth in Romania's trading partners slowed down.

(A) The tensions surrounding the international environment have heightened since the release of the previous report. Financial markets witnessed increasing volatility and investor sentiment worsened given the deepening sovereign debt crisis, the problems facing the European banking sector and the persistent uncertainties regarding the outlook for global economic growth. Rating agencies downgraded numerous EU Member States (Chart 2.1.), Romania ranking among the few countries whose credit ratings were upgraded.

Chart 2.1. EU rating changes* (S&P, Fitch and Moody's rating agencies)

Chart 2.2. Developments in the spreads[1] of credit default swaps (CDS) and sovereign bonds for EU Member States (January 2011 – 10 September 2012*)



* The OX axis displays the number of notches of each rating change.

Source: Bloomberg

* The bar describes the change in spreads in the aforementioned period, whereas the line points to the reading posted as of 10 September 2012.

Source: Bloomberg

The tension-ridden developments in the euro area exerted a spillover effect on the CEE countries (Chart 2.2.) via volatile capital flows and the risk premium reflected by financing costs. In Romania,

[1] Spreads on sovereign bonds are determined relative to German government bond yields. The chart presents spreads and CDS readings for 5-year government bonds.

the heightening tensions on external markets translated into: (i) a wider CDS spread, (ii) movements in the exchange rate, and (iii) the Moody's rating agency changing the rating outlook to negative from stable in June 2012, with the country's Baa3 rating, i.e. investment grade, remaining unchanged. Despite these tensions, Romanian authorities had further access to external financing, as the Ministry of Public Finance issued 10-year bonds on the US market worth USD 1.5 billion in January 2012 and USD 0.75 billion in February 2012, at a yield below the initial one, as well as 5-year bonds on the European market worth EUR 0.75 billion in September 2012.

Box 1. The new EU economic governance framework

At end-2011, new rules on EU economic governance entered into force, further strengthening the framework for monitoring and preventing macroeconomic and fiscal imbalances, as well as competitiveness gaps between EU Member States launched in 2010. The new framework focuses on two components, i.e. fiscal and macroeconomic surveillance, and aims at reinforcing the Stability and Growth Pact (SGP).

	Legislation:	Components:
1	Regulation (EU) No. 1173/2011 on the effective enforcement of budgetary surveillance in the euro area	**A. Reinforcement of the existing framework for monitoring and correcting fiscal slippages:** – the preventive arm of the SGP: Member States are to achieve medium-term budgetary objectives in order to ensure public finances sustainability, including a maximum ceiling for annual increase in public spending; – the corrective arm of the SGP: the excessive deficit procedure may be opened if the Member State exceeds the government deficit threshold or the government debt threshold; – minimum requirements for budgetary frameworks: Member States are to meet minimum standards on the fiscal framework.
2	Regulation (EU) No. 1174/2011 on enforcement measures to correct excessive macro-economic imbalances in the euro area	
3	Regulation (EU) No. 1175/2011 amending Council Regulation (EC) No. 1466/97 on the strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies	**B. Introduction of the macroeconomic imbalance procedure** with a view to monitoring and correcting macroeconomic imbalances: – un sistem de monitorizare şi avertizare timpurie (un set de an early monitoring and warning system (a scoreboard of indicators thus set to detect possible macroeconomic slippages). The European Commission (EC) analyses the scoreboard of indicators and draws up the Alert Mechanism Report on their basis. The EC may decide that in-depth analysis is warranted for certain risk zones and propose measures to be taken by the Member States concerned; – the preventive arm refers to the EC's ability to decide to issue recommendations in the early stages of emerging imbalances; – the corrective arm concerns the excessive imbalance procedure, which may be opened for Member States that report severe macro-economic imbalances. The Member States concerned are to submit to the EC a set of measures designed to correct the detected imbalances.
4	Regulation (EU) No. 1176/2011 on the prevention and correction of macroeconomic imbalances	
5	Regulation (EU) No. 1177/2011 amending Regulation (EC) No. 1467/97 on speeding up and clarifying the implementation of the excessive deficit procedure	**C. Introduction of a system aimed at reinforcing the new framework of measures** by applying fines in case of non-compliance with the decisions taken by the European Council or the EC relative to both fiscal monitoring and the opening of the excessive deficit procedure or the excessive imbalance procedure.
6	Directive 2011/85/EU on requirements for budgetary frameworks of the Member States	

The first Alert Mechanism Report was released in February 2012 and it detected a worsening of the macroeconomic situation in 12 EU Member States. Out of Romania's major trading partners, France and Italy reported deterioration of their trade balance, as well as of government debt in the latter's case. The EC did not include Romania among the countries for which further in-depth analysis was warranted, as it was already examined under the ongoing financing arrangement signed with the EU, the IMF and the World Bank. The countries with macroeconomic imbalances are to encompass measures correcting the identified imbalances in their own national reform programmes.

EU policy makers provided a comprehensive response (Box 1) so as to maintain financial stability and resume sustainable economic growth. The economic policy coordination framework was reviewed mainly in terms of: (i) strengthening public finances sustainability; (ii) consolidating financial assistance at the European level by making additional funds available to Member States, and (iii) rendering the European bailout funds[2] more flexible. These measures, along with those on restructuring Greek debt, the agreement on the second financial assistance programme for Greece and the ECB's significant liquidity injections in the system, contributed to alleviating financial market tensions after March 2012, allowing the return to a lower volatility regime. Global risk aversion and investor sentiment have subsequently worsened on the back of financing difficulties emerging also in other euro area countries and the prospects remain uncertain.

The contagion risk *via the direct channel* from the public sector of some European countries to the Romanian banking sector is marginal. Romanian banks hold a low volume of euro area government securities, as the portfolio of a sole bank includes such assets, accounting for 0.4 percent in the credit institution's total balance sheet and 0.01 percent in total banking sector assets in June 2012. Furthermore, euro area government securities are not eligible collateral in the open market operations conducted by the National Bank of Romania.

The contagion risk *via the common lender channel*[3] from the European banking sector to the whole region further posts similar levels to those in the previous Report. Via the above-mentioned channel, the Romanian banking sector may be hit hardest by unfavourable developments in Austrian banks. In line with the IMF assessments on the Austrian banking sector of July 2012, the large Austrian banks reported improved capitalisation both in terms of quality and quantity, and the *Oesterreichische Nationalbank* constantly monitors maintaining the capital adequacy ratio and other prudential indicators at appropriate levels.

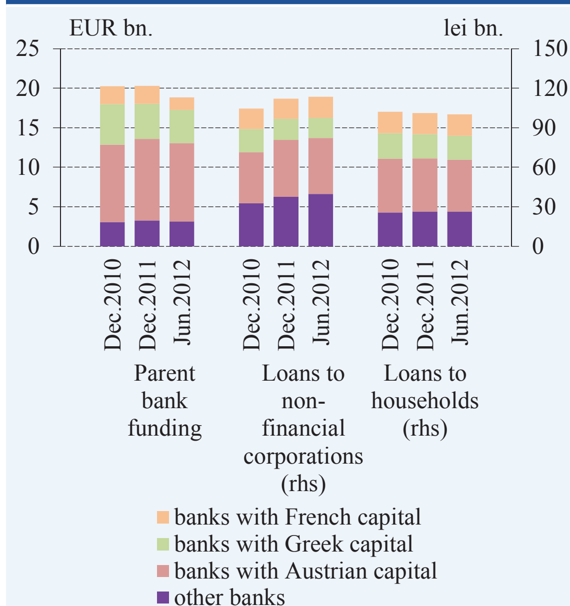
(B) The second challenge to financial stability in Romania is posed by the risk of disorderly or overly fast financial deleveraging of large EU banking groups, which may impact real sector funding. Although financial deleveraging in Romania has so far been moderate, the tensions triggered by the sovereign debt crisis also affected the Romanian banking sector, reducing credit institutions' mutual exposures, with an adverse impact on liquidity distribution within the system. The National Bank of Romania played a more prominent role in regulating liquidity, as was in fact the case at the European level as well. Furthermore, the steps taken by certain banks to reduce the vulnerabilities brought about by their higher loan-to-deposit ratios on the back of cutting debts in line with European developments had a somewhat stifling effect on the dynamics of loans to the private sector in Romania, inducing however favourable structural changes in such dynamics (see Chapter 4.2. – Developments in loans to companies and households for further details).

[2] At end-2011, EU policy makers decided to render the European bailout fund, i.e. the European Financial Stability Facility, more flexible by introducing new precautionary lending facilities (including for financial institutions' recapitalisation) and the possibility to make interventions on the secondary market for government securities should the developments on the aforementioned market be deemed to affect financial stability.

[3] The method used in calculating regional exposures is based on Fratzscher, M., in *On Currency Crises and Contagion,* ECB Working Paper No. 139, April 2002.

The ECB measures concerning the three-year refinancing operations[4] and the cut in the policy rate to 0.75 percent in July 2012 mitigated the risk of a disorderly development in lending conditions across the EU. Moreover, in early September, the ECB launched a new purchase programme of sovereign bonds on the secondary market, i.e. Outright Monetary Transactions (OMT), and decided to extend the eligible collateral to include marketable debt instruments issued in currencies other than the euro and to suspend the application of the minimum credit rating threshold in the collateral eligibility requirements of countries that are eligible for OMT or are under an EU-IMF programme. These measures are aimed at restoring financial market confidence, reducing price distortions on bond markets and lowering banks' funding costs. Nevertheless, credit market conditions in euro area economies are foreseen to remain restrictive owing to: (i) the need of both debtors and creditors to restore their balance sheets; (ii) the more difficult access to financial resources, (iii) the expectations on economy's performance; (iv) the lower investment demand, etc.

Chart 2.3. Developments in parent bank funding and their effect on loans to companies and households



Source: NBR, NBR calculations

Parent banks' exposures to their subsidiaries in Romania witnessed orderly developments, without exerting a significant impact on lending conditions. In December 2010 – June 2012, these exposures declined moderately, by 7 percent, to reach EUR 19 billion (Chart 2.3.). The breakdown analysis reveals that the developments were broadly in line with expectations: (i) the worsening risk perception at the EU level entailed a 2 percent increase in short-term foreign exposures in the same period and a 10 percent decline in medium- and long-term ones, and (ii) banking groups' exposures by nationality saw changes depending on the conditions in their home countries (for instance, Austrian banks' exposure to their Romanian subsidiaries rose by 1 percent, whereas that of Greek banks decreased by 18 percent between December 2010 and June 2012). These mixed developments offset each other and triggered orderly changes in lending conditions in Romania, as in December 2010 – June 2012 the loans granted by domestic banks to companies and households added 5.9 percent (value adjusted for the exchange rate effect). The decision of certain banks to pursue deleveraging was counterbalanced by others' decision to increase their exposures (e.g. in the case of companies, during December 2010 – June 2012, the loans granted by Romanian banks with Greek capital fell by 11.8 percent, while those granted by Austrian, French or Italian banks picked up 12.6 percent, 5.8 percent and 19.4 percent, respectively – data adjusted for the exchange rate effect).

[4] The ECB launched two three-year refinancing operations conducted as tender procedures, allotting EUR 489 billion and EUR 30 billion, respectively, which resulted in a net liquidity injection worth EUR 520 billion.

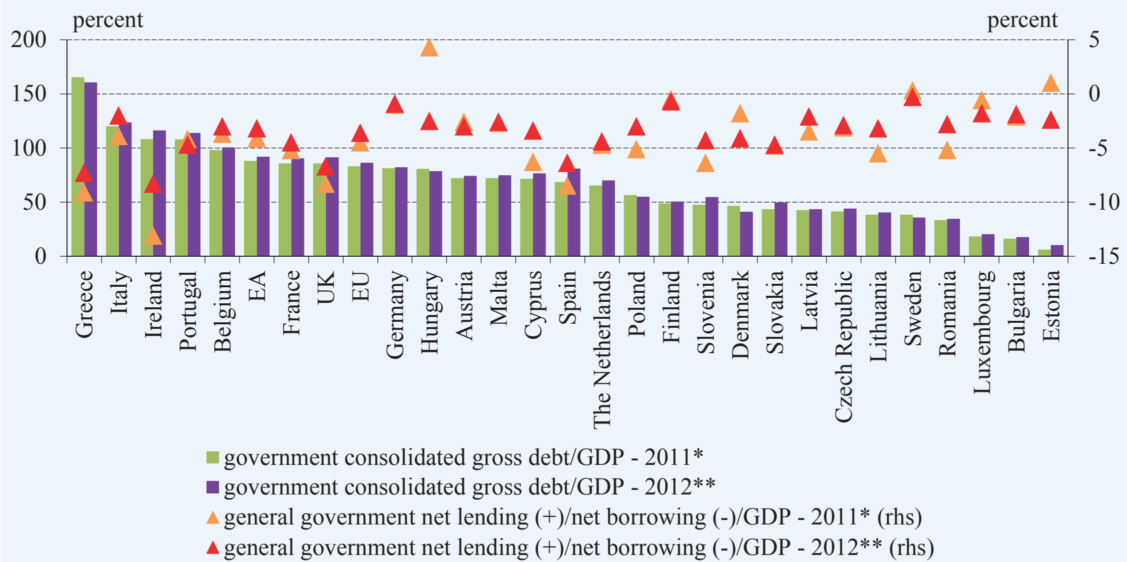
In the event of a significant external funding withdrawal shock, the results of the macroprudential stress-testing exercise point to the domestic banking sector's strong resilience, but challenges persist, being mainly posed by fund conversion from lei into euro, certain asset sales and the impact on real sector funding. As the previous report also pointed out, domestic banks with Greek capital are relatively well prepared to withstand a potentially severe funding liquidity shock, as they display prudential indicators suited to the existing risks. Most Greek banks report solvency ratios above the system-wide average (in June 2012, at aggregate group level, the solvency ratio stood at 16.6 percent versus 14.7 percent, the banking system average). Liquidity indicators are higher than required, in line with the system's average, i.e. 1.4 in June 2012. The share of loans with a maturity of up to one year in overall credit lines extended by parent banks is below the system-wide average, standing at 28 percent against 33 percent in June 2012. The quality of the loan portfolio of credit institutions with Greek capital is close to the average (in June 2012, the non-performing loan ratio was 17.7 percent versus 16.8 percent) and the provision coverage ratio of non-performing loans is above par and higher than the system's average, i.e. 106.9 percent as compared with 97.9 percent in June 2012. The specific challenges faced by parent banks in their home countries call for attention in assessing risks. The National Bank of Romania further closely monitors domestic and international developments and acts towards the adequate management of liquidity in the domestic banking sector. Maintaining comfortable liquidity, provisioning and solvency levels is an important prerequisite for achieving the central bank's objectives in its capacity as macroprudential authority.

(C) The third risk to financial stability in Romania is the slowdown in economic activity in its key foreign trade partners, with possible consequences on the convergence of actual economic growth rates to potential ones and on the sustainable adjustment of the current account deficit. The above-mentioned risk is mitigated by: (i) domestic exporting companies' high dependency on goods imported in the output flow; (ii) the low contribution to the economy of companies exporting exclusively to the euro area, which accounted for around 0.4 percent of the value added by companies in December 2011, (iii) the good capacity of companies having business relations with euro area partners to cope with potentially unfavourable developments on global markets and to pass them through to the banking sector to a little extent (see Section 4.3.1. – Current account deficit for details), and (iv) a certain flexibility shown by the Romanian companies in 2011 to reorient their export flows towards countries less hit by the sovereign debt crisis, including towards non-EU countries (the share of exports to Italy narrowed by 1 percentage point, to 12.8 percent, that of exports to France lost 0.8 percentage points, to 7.5 percent, that of exports to Spain declined by 0.6 percentage points, to 2.4 percent, whereas exports to Germany increased by 0.6 percentage points, to 18.6 percent).

The explanation for the lower economic growth rate in the EU lies, to a certain extent[5], in the impact of the fiscal consolidation measures carried on by Member States in 2011 and which they will also maintain in 2012 in most cases (Chart 2.4.). At individual level, significant differences persist in terms of both the adjustment pace and the manner in which such adjustments were transposed in economic activity. In 2011, the adjustments were mainly reflected by the decrease in budgetary transfers, while in 2012 the rise in revenues (particularly indirect ones) as well is expected to support the fiscal consolidation process. In turn, authorities' sustainable deleveraging shall lay the groundwork for sustainable economic growth, with potentially positive consequences also on the dynamics of trade flows between countries.

[5] According to the European Commission's estimates, the impact exerted by the fiscal adjustments on economic activity in 2012 will be reflected by the decrease in the economic growth rate in a range between 0.3 percentage points and 0.8 percentage points.

Chart 2.4. The fiscal position of EU Member States



Note: * estimates, ** projections

Source: Eurostat, European Commission "European Economic Forecast – spring 2012"

3 FINANCIAL SYSTEM AND ITS RELATED RISKS

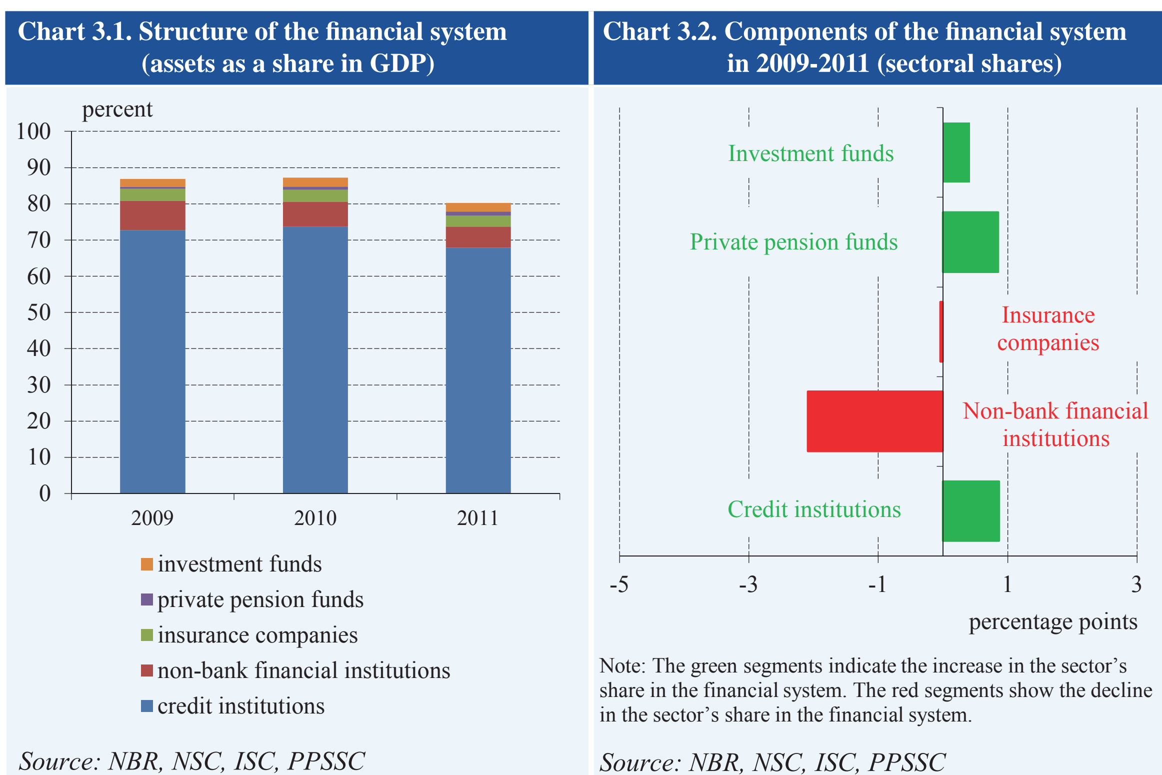
3.1. Structure of the financial system

Financial intermediation, assessed in terms of the financial system's assets as a share in GDP, declined moderately in 2011, on the back of the tensions on global financial markets, despite economic growth reverting to positive territory. The banking sector holds the largest share in the financial system, while credit institutions' exposures to financial institutions in Romania and the funds raised from them further contracted, pointing to limited vulnerabilities to direct contagion within the financial system.

In 2011, the level of financial intermediation in the economy decreased, amid the persistent tensions on global financial markets (Chart 3.1.). Although the dynamics of the domestic economy returned to positive territory, the assets held and managed by financial institutions saw lower growth rates than GDP throughout the year.

Chart 3.1. Structure of the financial system (assets as a share in GDP)

Chart 3.2. Components of the financial system in 2009-2011 (sectoral shares)



Source: NBR, NSC, ISC, PPSSC

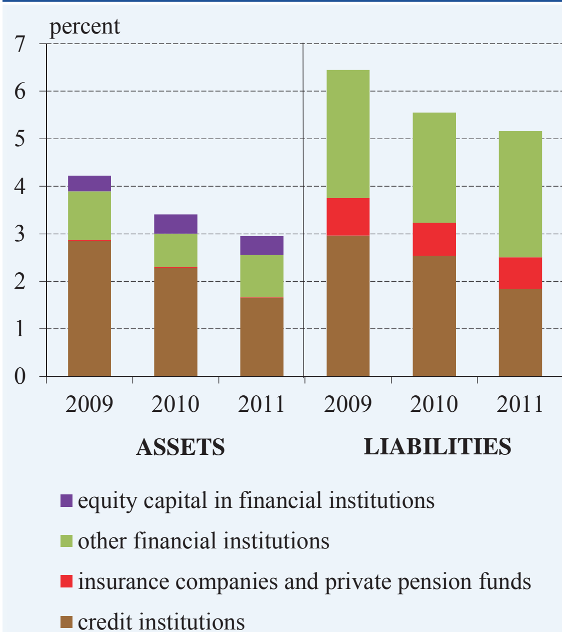
Note: The green segments indicate the increase in the sector's share in the financial system. The red segments show the decline in the sector's share in the financial system.

Source: NBR, NSC, ISC, PPSSC

The prevailing share held by credit institutions in the financial system widened slightly, whereas the share taken by non-bank financial institutions remained on the downtrend of previous years in 2011 as well. The latter's balance sheet assets dropped, given that the new business value ran lower than the maturing loan portfolio. Furthermore, investment funds and private pension funds, respectively, reported wider shares (Chart 3.2.).

The lower share of exposures to and funds raised from the financial institutions in Romania in the aggregate balance sheet of the banking system points to a relative mitigation of contagion risk via

Chart 3.3. Share of exposures and funds raised from domestic financial institutions in the balance sheet of credit institutions



Source: NBR

the transmission channel of credit institutions, as the contraction witnessed in 2010 thus continued in 2011 as well (Chart 3.3.). Monitoring the exposures and the funds raised by credit institutions from domestic financial institutions is aimed at evincing risk concentration that may have systemic effects considering the banking sector's importance to the Romanian financial system. The declining shares held by the two components in the balance sheet of credit institutions show the low dependency of the banking sector on the other financial sectors and, consequently, the limited vulnerabilities to domestic contagion of financial stability.

Throughout 2011, the number of financial institutions operating in the domestic financial sectors remained broadly unchanged, thus indicating the lack of structural changes therein. Although economic growth reverted to positive territory, the changes in 2011 were similar to those seen in the previous year, so that the number of insurance brokers and that of investment funds further increased, whilst that of insurance companies and that of financial investment services companies declined (Table 3.1.).

Table 3.1. Number of financial institutions operating in Romania

end of period

	2009	2010	2011
Credit institutions	42	42	41
Insurance companies	45	43	41
Insurance brokers	510	567	584
Private pension funds	25	22	20
Investment funds	64	77	86
Financial investment companies (FICs)	5	5	5
Financial investment services companies	68	55	52
Non-bank financial institutions (General Register)[1]	228	210	203
Non-bank financial institutions (Entry Register)[1]	4,514	5,043	5,286

Source: NBR, NSC, ISC, PPSSC

[1] In compliance with Law No. 93/2009 on non-bank financial institutions.

3.2. Banking sector

3.2.1. Structural developments

The changes seen by credit institutions' ownership in 2011 and the first half of 2012 did not entail any major alterations to the structure of the Romanian banking system. As regards the market share, the group of banks with domestic capital surpassed that of banks with Greek capital, ranking second after the group of banks with Austrian capital. In 2011, financial intermediation[2] in nominal terms embarked on a slight downtrend[3], mainly as a result of the lower share of foreign assets and of some domestic asset classes, other than loans and securities. Nonetheless, financial intermediation in real terms, calculated as a ratio of loans to the private sector to GDP, rose slightly from December 2010. The concentration degree of assets and loans, reflected by the share of the top five banks in the system, remains moderate, following a modest upward path.

The changes in ownership in 2011 and 2012 H1 did not trigger any major alterations to the structure of the domestic banking sector. As compared with 2010, the number of credit institutions fell as a result of BCR taking over the Romanian branch of the Anglo-Romanian Bank in 2011 Q3, which impacted on the statistical indicators for foreign bank branches. There are 40 banks operating in Romania, out of which 26 have foreign majority private capital, 4 have domestic majority private capital, 2 have fully or majority state-owned capital and 8 are foreign bank branches, to which adds a cooperative credit institution as well (Table 3.2.). In 2011, 18 EU credit institutions notified the NBR about their intention to directly provide financial services on Romania's territory based on the European passport.

Table 3.2. Structural indicators of the Romanian banking system

end of period

	2005	2006	2007	2008	2009	2010	2011	2012 H1
Number of credit institutions	40	39	42	43	42	42	41	41
Number of credit institutions with majority private capital	38	37	40	41	40	40	39	39
Number of banks with majority foreign capital, *of which:*	30	33	36	37	35	35	34	34
– foreign bank branches	6	7	10	10	10	9	8	8
Assets of banks with majority private capital/Total assets (%)	94	94.5	94.7	94.6	92.5	92.4	91.6	90.7
Assets of banks with foreign capital/Total assets (%)	62.2	88.6	88	88.2	85.3	85.0	83	81.2
Assets of top five banks/ Total assets (%)	58.8	60.3	56.3	54.3	52.4	52.7	54.6	55.2
Herfindahl-Hirschmann index (points)	1,124	1,171	1,046	926	857	871	879	866

Source: NBR

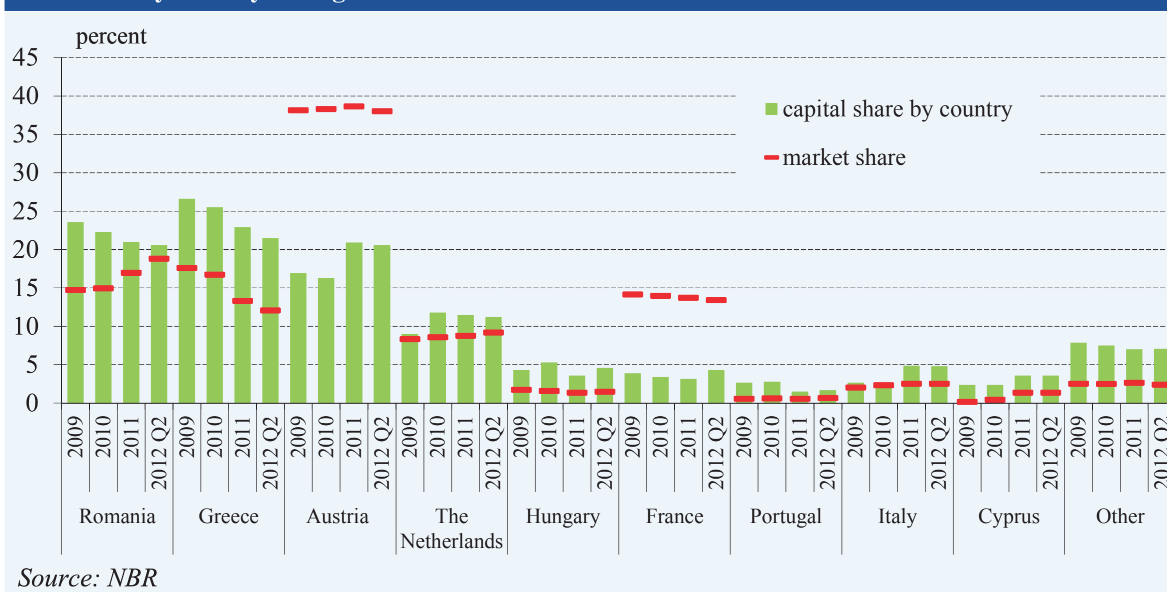
The market share of banks with majority foreign capital in total assets remained on the 2011 downtrend, standing at 81.2 percent at end-2012 H1. The lower market share was mainly the result of sales of fixed and non-performing assets amid balance sheet restructuring. Similarly to previous years,

[2] Financial intermediation was calculated as a ratio of gross assets, gross loans to the private sector or deposits taken from companies and households to GDP.

[3] Financial intermediation was determined based on the statistical monetary balance sheet data.

Austrian-owned banks held the largest market share, i.e. 38 percent in June 2012. The market share[4] of the group of Greek banks dropped from 16.3 percent to 12.9 percent, being outranked by that of Romanian banks, which rose to 18.3 percent in aggregate assets. The 42 percent rise in the share capital of the banking sector in June 2011 – June 2012 was secured solely by the private sector via both capital increases and capital adjustment to inflation, following the application of the new international financial reporting standards (IAS 29 provisions)[5]. Greek capital further prevailed (21.5 percent) in the domestic banking system, but remained on the downtrend it had embarked upon in 2010 (Chart 3.4.). The share of banks with Austrian capital in aggregate capital widened significantly from 2010, i.e. by 4.3 percentage points, to 20.6 percent at end-June 2012, chiefly on account of the capital increases performed by the Austrian banks.

Chart 3.4. Weight of credit institutions' share capital in total capital and their market share by country of origin



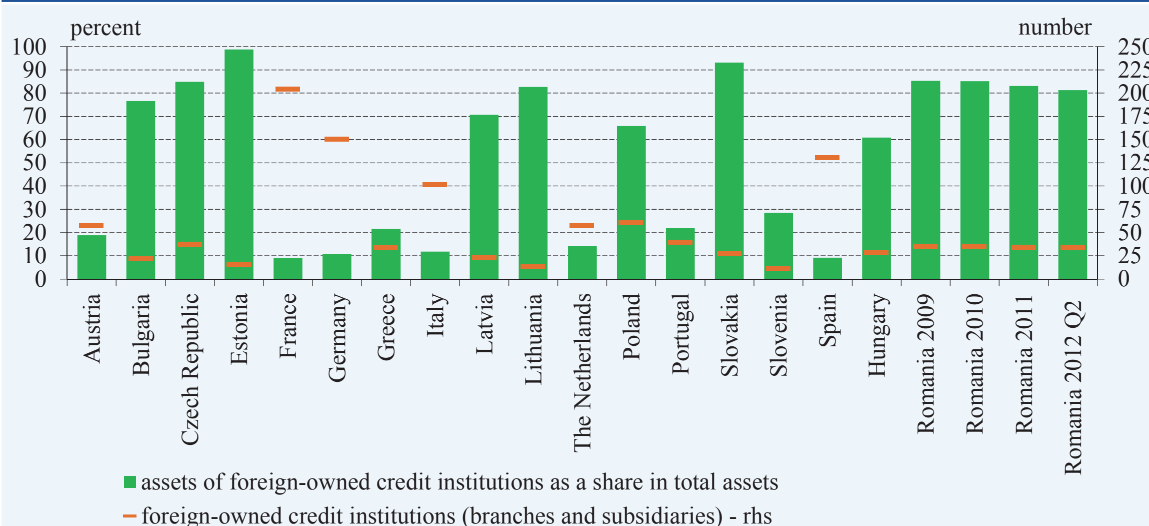
Source: NBR

The Romanian banking system has a high connectivity degree to the European banking system (Chart 3.5.), as foreign-owned banks hold the largest share (in June 2012, 34 credit institutions with majority foreign capital accounted for more than 81.2 percent of the banking system's assets).

[4] The decline in the market share of Greek banks starting with June 2011 was sharper following the change in the shareholding of Marfin Bank, which currently has majority Cypriot capital. Moreover, starting with June 2012, Emporiki Bank was taken over by the French bank Crédit Agricole.

[5] Source: the IFRS-compliant FINREP reporting framework at individual level, in line with NBR Order No. 3/2011.

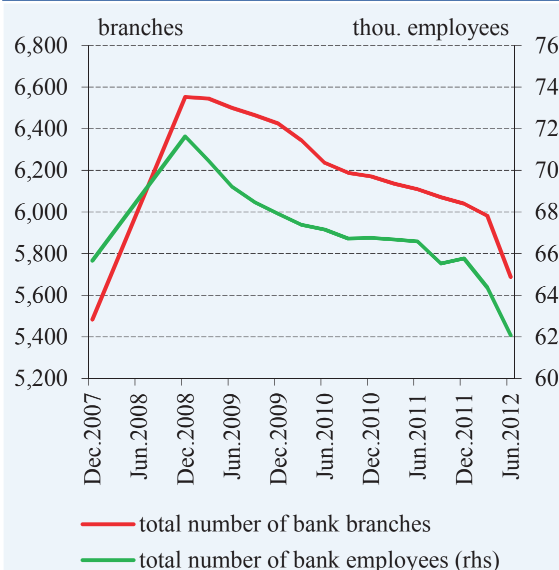
Chart 3.5. Market share and number of foreign-owned credit institutions (international comparison)



Source: NBR, ECB (Statistical Data Warehouse)

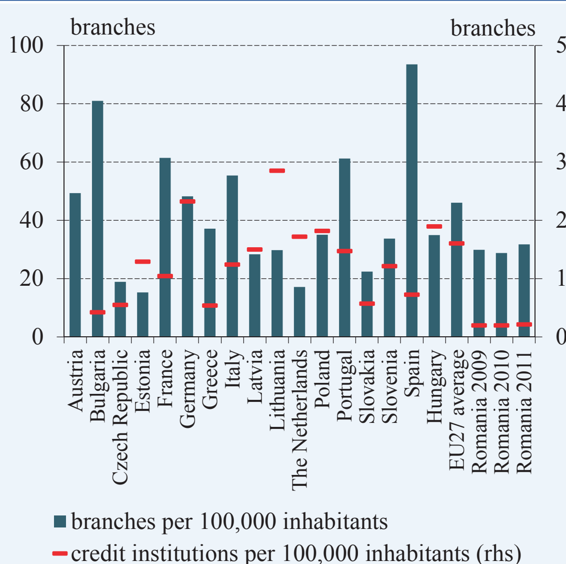
The tendency to curb costs with branches and staff numbers, seen during 2009-2011, was also followed in the first half of 2012, yet at a much faster pace, in line with the developments in deleveraging and the focus of domestic credit institutions at aggregate level on corporate lending. Banks cut their branches by 130 in 2011 and by 352 in the first six months of 2012, whereas the number of payrolls in the banking system dropped by 980 in 2011 and by 3,700 in 2012 H1, respectively (Chart 3.6.). Consequently, the Romanian banking system further stood below the EU average with regard to the number of branches and credit institutions per 100,000 inhabitants (Chart 3.7.).

Chart 3.6. Number of bank branches and bank employees



Source: NBR

Chart 3.7. Number of credit institutions and branches per 100,000 inhabitants (international comparison)

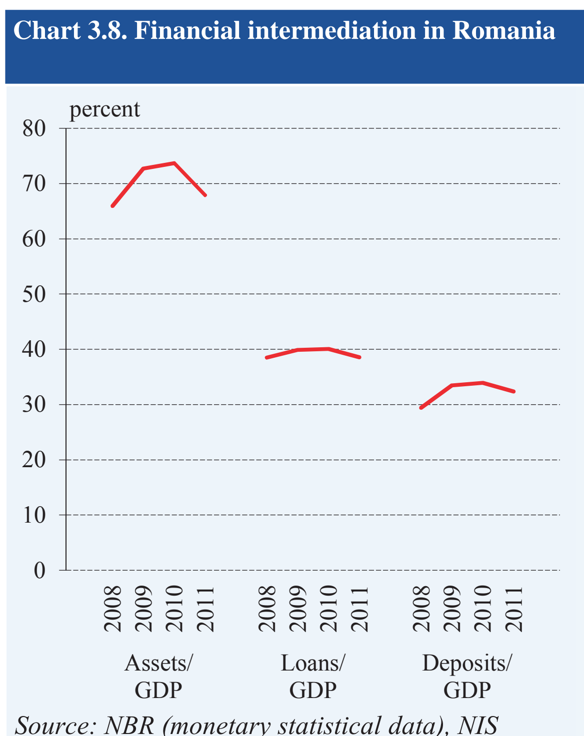


Source: NBR, ECB (Statistical Data Warehouse)

Financial intermediation in nominal terms, calculated as a share in GDP of gross bank assets, followed a slight downtrend, to reach 67.9 percent in December 2011, as nominal GDP rose at a faster nominal pace than gross assets (Chart 3.8.). Financial intermediation in nominal terms, determined as a share in GDP of loans to the private sector/deposits taken from companies and households, also embarked on the same trend, to stand at 38.6 percent and 32.4 percent, respectively.

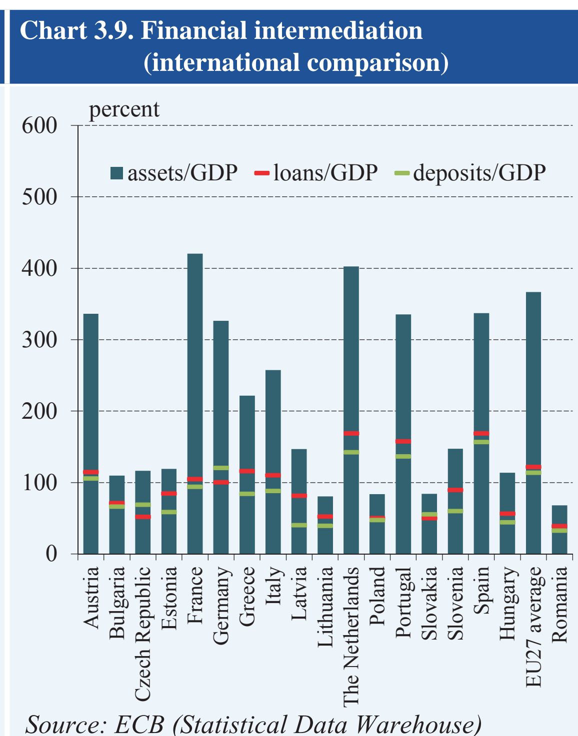
Financial intermediation in real terms, calculated as a ratio of loans to the private sector to GDP, witnessed a slight upward path from December 2010, increasing by 0.8 percentage points, whilst the other two aforementioned indicators showed a downtrend, declining by 3.6 percentage points in the case of assets and by 0.16 percentage points in that of deposits. In 2011, financial intermediation in Romania was still far below the EU27 average (Chart 3.9.).

Chart 3.8. Financial intermediation in Romania



Source: NBR (monetary statistical data), NIS

Chart 3.9. Financial intermediation (international comparison)



Source: ECB (Statistical Data Warehouse)

The concentration degree of the domestic banking system, reflected by the share of assets held by the top five banks in aggregate assets, rose slightly to 55.2 percent (Chart 3.10.), remaining on the trend it had embarked upon in 2010. Loans followed the same path, with the five largest banks in terms of their asset size accounting for 53.1 percent of the loans granted by the Romanian banking system. The modest growth rate of the banking system's concentration degree points to the tendency of economic agents and households to shift to credit institutions with a positive track record. The Herfindahl-Hirschmann index highlights a higher concentration degree in the case of deposits (983 points) than in that of assets.

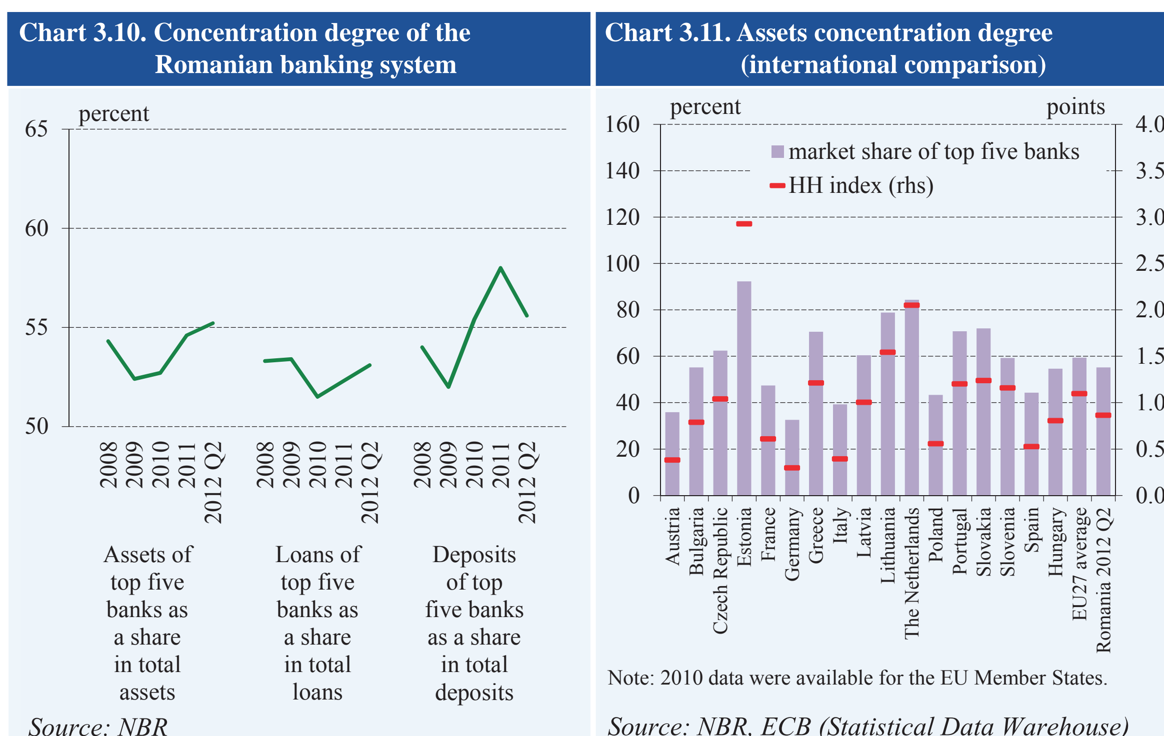


Chart 3.10. Concentration degree of the Romanian banking system

Source: NBR

Chart 3.11. Assets concentration degree (international comparison)

Note: 2010 data were available for the EU Member States.

Source: NBR, ECB (Statistical Data Warehouse)

The readings posted by the Herfindahl-Hirschmann index in the case of assets at end-2012 H1 confirmed a moderate concentration degree. The 866 point level places the Romanian banking system below the EU27 average (Chart 3.11.).

3.2.2. Aggregate balance sheet of credit institutions

The period elapsed since the release of the previous report was mainly characterised by: (i) the moderately-paced resumption of lending, with non-financial corporations witnessing faster dynamics; (ii) the pick-up in household savings with banks, mostly on the back of the swifter growth of the leu-denominated component, and (iii) the substantial increase in own funds of credit institutions.

Non-bank resident customers (companies and households) have remained, at aggregate level, on a net debtor position vis-à-vis the Romanian banking system for the fifth year in a row, as the share of loans taken in aggregate assets was significantly wider than the share of deposits placed by the non-bank sector in total liabilities. The structure of the aggregate balance sheet further poses problems in terms of the maturity match between assets and liabilities.

The uncertainties surrounding the global financial market could trigger more important alterations to the structure of the domestic banking sector's balance sheet, amid potentially stronger future deleveraging on the back of parent banks restructuring their activity. A strengthened capital base in the context of the gradual implementation of the new Basel III requirements is an offsetting factor.

3.2.2.1. Dynamics of bank assets

Since the release of the latest *Financial Stability Report*, the analysis of aggregate balance sheet assets[6] reflected primarily the following:

(i) the negative dynamics of claims on the central bank[7] (-4.6 percent in December 2011 and -12.1 percent in March 2012, respectively) decelerated in 2012 Q2, entering positive territory at end-June (+7.8 percent), chiefly on the back of the higher reserve base; this balance sheet item further held a considerable share (12.3 percent) in total assets (Table 3.3.), reflecting prudential requirements;

(ii) the exposure to the government sector continued to strengthen its position in asset structure, albeit remaining moderate (+11.2 percent in December 2011 and +20.0 percent in June 2012, respectively) as compared with the first year following the effects of the global financial crisis becoming manifest in Romania (+159.0 percent in December 2009);

(iii) the claims on companies posted a real substantial pick-up (+7.4 percent in December 2011 and +6.7 percent in June 2012, respectively), after contracting for two successive years, as they accounted for 30 percent of total assets at end-2012 Q2. The negative growth rate of claims on households slowed down markedly at end-2011[8] (-1.0 percent), entering positive territory starting with 2012 (+1.3 percent in June 2012).

Table 3.3. Asset structure of credit institutions operating in Romania

percent of total assets

	2008 Dec.	2009 Dec.	2010 Dec.	2011 Mar.	2011 Jun.	2011 Sep.	2011 Dec.	2012 Mar.	2012 Jun.
Domestic assets, *of which:*	98.5	96.9	97.3	97.3	97.5	97.8	98.1	98.2	98.2
Claims on the NBR and credit institutions, *of which:*	23.8	18.6	16.5	15.2	13.9	14.2	15.3	12.8	13.9
– claims on the NBR	21.8	15.7	14.2	13.1	11.8	12.7	13.7	11.1	12.3
Claims on the domestic non-bank sector, *of which:*	63.4	67.5	70.4	71.2	72.5	72.6	74.5	77.1	75.6
– claims on the government sector	5.0	12.7	15.8	16.3	17.1	16.2	17.7	20.3	19.8
– claims on companies	29.2	27.3	28.0	28.5	29.0	29.8	30.3	30.3	29.9
– claims on households	29.2	27.5	26.6	26.4	26.4	26.6	26.5	26.4	25.9
Other assets	11.3	10.8	10.4	10.9	11.1	11.0	8.3	8.4	8.6
Foreign assets	1.5	3.1	2.7	2.7	2.5	2.2	1.9	1.8	1.8

Source: NBR – Aggregate monetary balance sheet of credit institutions

[6] The source of data is the aggregate monetary balance sheet. The rise in balance sheet assets seen in the first part of the current year owed both to the larger domestic deposit base and the impact of implementing the new accounting standards starting with January 2012.

[7] Changes are calculated on an annual basis and are expressed in real terms for the whole section.

[8] Versus -5.6 percent in December 2010 and -3.5 percent in December 2009, respectively.

Although inhibiting factors such as the negative output gap and certain restrictive supply-side conditions[9] persisted, the change in loans to the private sector returned to positive territory starting with the last two quarters of 2011[10]. Behind this development stood the improved economic dynamics, a certain restoration of economic sentiment among economic agents, related to the downward adjustment of lending rates, as well as the statistical effect associated with leu depreciation. Both household and corporate sectors made a favourable, yet of a different size, contribution to the dynamics of loans to the private sector. The annual growth rates of loans to companies in real terms became positive starting with 2011 Q3 (+7.4 percent in December 2011 and +6.7 percent at mid-2012, respectively), whereas loans to households posted considerably slower negative dynamics (-1.0 percent at end-2011) than in December 2010 (-5.6 percent), entering positive territory starting with 2012 (+1.3 percent in June 2012), mostly on the back of the faster pace of increase of housing loans, which was, in turn, influenced to a large extent by the movements in the domestic currency's exchange rate. Nonetheless, the gap between the share of loans taken by companies in total loan stock (53.6 percent at mid-2012) and that of loans taken by households (46.4 percent) has further become wider, for the second year in a row, in favour of the corporate sector (up to 7.2 percentage points), pointing to the emergence of a sustainable pattern of credit institutions' activity.

In terms of the currency in which loans to the private sector were denominated, the real annual growth rates of leu-denominated loans entered positive territory starting with 2011 Q3 (+2.3 percent in December 2011 and +2.1 percent in June 2012, respectively), whereas foreign currency-denominated loans reported faster dynamics (+3.9 percent in December 2011 and +5.4 percent at mid-2012, respectively, against 1.7 percent in December 2010 and -5.9 percent in June 2011, respectively). As a result, foreign currency-denominated loans accounted for 63.7 percent of loans to the private sector in June 2012, mainly due to the statistical effect induced by exchange rate movements. In the period under review, in the case of companies, the developments in leu-denominated loans (in real terms) were similar in size to those in foreign currency-denominated loans (adjusted with the impact of exchange rate movements).

In terms of maturity, short-term loans witnessed a faster pace of increase (+11.5 percent at end-2011 and +14.4 percent in June 2012, respectively), following the deceleration seen in the previous period (-7.3 percent in December 2010 and -7.1 percent at mid-2011, respectively). The explanation for banks' preference for promoting such loans could lie in: (i) the persistent risk aversion amid uncertainties surrounding the sustainable economic recovery both domestically and globally, and (ii) banks' prudent management of maturity breakdown by reducing the mismatch between the maturities of financing sources (mostly shorter-term deposits) and those of loans (mostly long-term). Consequently, short-term loans accounted for 25 percent of total loans to the private sector at end-2012 Q2. Nonetheless, the other types of loans further held significant shares, namely 55 percent in the case of long-term loans and 20 percent in that of medium-term loans.

[9] The NBR's February 2012 survey on lending to non-financial corporations and households.

[10] The stock of loans to the private sector rose by 3.3 percent in December 2011 and by 4.2 percent in June 2012 (real annual changes).

3.2.2.2. Developments in own, raised and borrowed sources

As regards its funding sources, the banking business witnessed mainly the following trends:

- the real growth rate of household savings with banks returned to positive territory in the latter half of 2011, following the decline seen in the past four quarters, on the back of: (i) the further attractive interest rates applied by banks on leu-denominated deposits, and (ii) the relatively improved dynamics of wage-related incomes[11], along with households' preference for precautionary saving; corporate deposits also reported significant dynamics, as the increase in leu-denominated deposits offset the drop in foreign currency-denominated deposits, in line with the debt service and the uneven conditions for accessing funding that the larger-sized companies and the SMEs, respectively, have to deal with;
- own financing sources remained robust, as "capital and reserves" posted marked real annual dynamics, i.e. +15.6 percent, at end-2012 Q2. The shareholders of credit institutions made new capital increases, mostly at the central bank's request, chiefly with a view to proactively counterbalancing the effects associated with the deterioration of the loan portfolio quality; starting with 2012, the share capital accounts saw favourable developments owing to inflation adjustments as well, following the IFRS implementation;
- albeit decreasing, foreign liabilities further took a substantial share in balance sheet liabilities, i.e. almost a quarter at end-June 2012, remaining the second financing source of bank assets; however, they stood clearly below the end-2008 level.

The domestic deposit base (companies and households) continued to cover almost half of bank asset financing (Table 3.4.).

Table 3.4. Liability structure of credit institutions operating in Romania

percent of total liabilities

	2008 Dec.	2009 Dec.	2010 Dec.	2011 Mar.	2011 Jun.	2011 Sep.	2011 Dec.	2012 Mar.	2012 Jun.
Domestic liabilities, *of which:*	69.3	73.7	73.1	73.2	72.8	73.3	73.5	74.3	75.2
– interbank deposits	2.1	5.4	3.4	2.5	2.6	2.1	3.4	3.1	5.0
– government sector deposits	3.1	2.1	1.7	1.7	1.6	1.5	1.4	1.4	1.5
– corporate deposits	20.2	19.3	19.1	18.0	17.6	18.1	19.0	18.5	17.7
– household deposits	24.4	26.7	27.1	28.1	27.6	27.9	28.7	29.5	29.2
– capital and reserves	10.7	12.1	14.3	15.1	15.1	15.3	16.2	17.0	16.9
– other assets	8.8	8.1	7.5	7.8	8.3	8.3	4.8	4.8	4.9
Foreign liabilities	30.7	26.3	26.9	26.8	27.2	26.7	26.5	25.7	24.8

Source: NBR – Aggregate monetary balance sheet of credit institutions

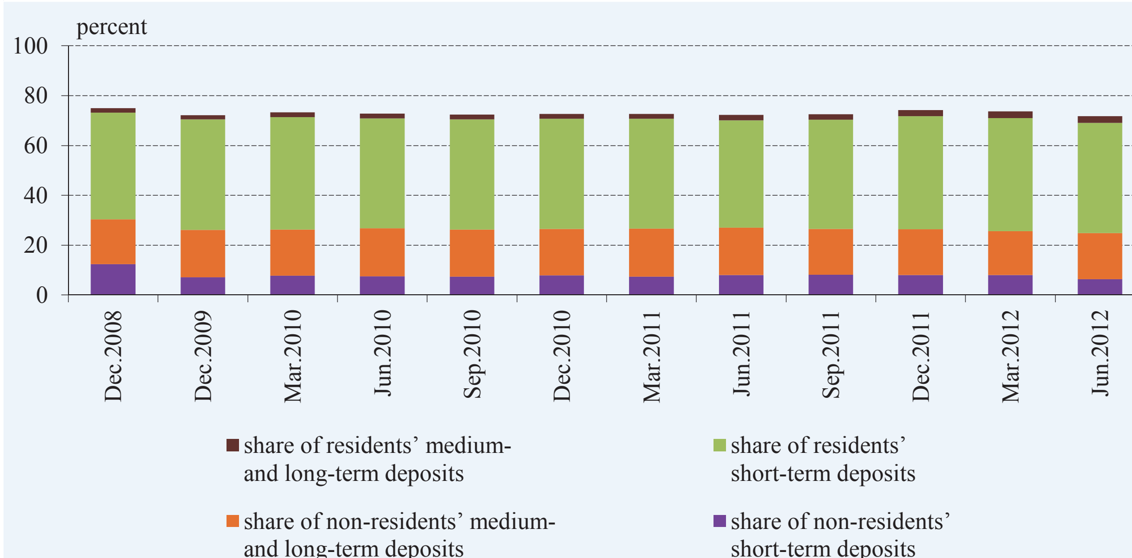
At end-2012 Q2, the 7.4 percent annual increase in real terms in resident deposits (companies and households) was spurred both by the leu-denominated component (up 8.3 percent) and the foreign currency-denominated one[12] (up 5.7 percent). The prevalence of deposits with maturities of up to one year (65.2 percent) and of overnight deposits (29.0 percent) remains a potential vulnerability of the banking system.

[11] In line with the NIS press releases on the average net monthly wage.

[12] Foreign currency-denominated deposits posted real annual growth for the third month in a row.

Over the period under review, the share taken by non-resident deposits[13] (parent bank deposits included) in total balance sheet liabilities declined slightly from 27.0 percent in June 2011 to 24.8 percent in June 2012 (Chart 3.12.). The breakdown analysis shows that the share held by short-term deposits halved from 12.4 percent at end-2008 (the year in which the effects of the crisis first became manifest in Romania) to 6.3 percent, whilst medium- and long-term deposits hovered marginally around 18 percent. Such a development reduces the vulnerabilities associated with short-term funding.

Chart 3.12. Share of deposits taken from residents (companies and households) and non-residents in total liabilities, by maturity



Source: NBR – Monetary balance sheet of credit institutions

Own sources made an ever important contribution to bank asset financing, as they managed to cover 17 percent of the funding needs (Table 3.4.). The permanent adjustment of banks' risk profile to their share capital, including in the supervisory process, and shareholders' adequate involvement contributed to the persistent enhanced resilience of the Romanian banking sector to the pressures induced by the international financial crisis. Although the larger contribution of domestic financing sources is a positive trend, being part of banks' future sustainable business model, the negative consequences associated with triggering excessive competition for taking short-term deposits need to be highlighted, given that domestic saving can increase only gradually, over a longer-term horizon (domestic economy's reliance on external saving being reflected by the current account deficit having posted levels higher than 4 percent over the past three years). Furthermore, paying high deposit rates generates pressures on keeping lending rates on new business high or lowering them at a relatively slower pace, as interest rate margins are influenced by the constrained profitability of the banking sector and the need to set up adequate provisions for non-performing loans, which still follow an upward trend. Such a process could impact loan dynamics and domestic demand, which may in turn have repercussions on the quality of credit institutions' balance sheets.

[13] In June 2012, the deposits taken from parent banks and international financial institutions accounted for 93 percent of total non-resident deposits. Parent bank deposits held the largest share, i.e. 83 percent, in the aforementioned funding source.

3.2.3. Capital adequacy

Comfortable capitalisation is a fundamental positive feature of the Romanian banking system, owing to the central bank's supervisory measures and to the fulfilment by parent banks of their commitment to maintain adequate capital levels for their subsidiaries in Romania. Stress testing of the banking sector's solvency points to credit institutions' high capacity to cover unexpected losses in the event of an unfavourable macroeconomic scenario materialising. The measures addressing prudential regulation that were taken by the central bank amid the implementation of the new international financial reporting standards preserved the level of the solvency ratio. Over the short term, transposing the CRD IV regulatory framework into national law with a view to implementing Basel III provisions shall be an important challenge.

3.2.3.1. Developments in own funds of banks, Romanian legal entities

The central bank monitors the developments in credit institutions' own funds closely and steadily, in view of the fact that their volume and quality determine the capacity to absorb losses resulting from occurrence of risks specific to the banking business[14]. The analyses conducted by the NBR take into account the reports submitted by banks, Romanian legal entities, as it is a well-known fact that the branches of foreign banks originating in the EU Member States have to meet capital requirements at the consolidated level of parent banks and the domestic banking system does not include branches of non-EU banks at present.

The aggregate volume of own funds of banks, Romanian legal entities, did not witness any deteriorations, despite the pressures generated by the still high costs associated with credit risk, which translated into non-performing loans following an upward path, as well as with the keener competition in the banking sector (the annual growth rate in nominal terms stood at +2.3 percent in December 2011 and at +1.7 percent in June 2012), remaining at a level close to that posted at end-2010. Likewise, banks further reported high quality own funds, given that Tier 1 capital, which lies at the core of banks' own funds in terms of permanence, reliable assessment and unconditional loss-absorbency criteria, further holds the largest share. In 2011, the capacity to absorb potential losses deriving from the banking business was mainly supported via shareholders' new cash contributions, which amounted to EUR 379.4 million. In 2012 H1, net share capital increases came in at around EUR 550 million, of which EUR 53 million were accounted for by new cash contributions, with the difference being made up mostly of inflation adjustments recorded in line with IAS 29, as a direct effect of implementing the international financial reporting standards starting with 1 January 2012.

[14] Art. 3 of NBR Regulation No. 18 (r1) of 14 December 2006 (*Monitorul Oficial al României*, Part I, No. 311 of 5 May 2011, recast) on own funds of credit institutions and investment firms, which entered into force as of 5 May 2011, states that the components of Tier 1 capital shall be used at any time and primarily for the purpose of absorbing losses, without incurring fixed costs for the credit institution, and shall be actually put at its disposal, i.e. by being paid in full.

Box 2. Methodology of calculating own funds amid the implementation of the new international financial reporting standards, as established via NBR Regulation No. 13/2011

NBR Regulation No. 13 of 6 September 2011 (published in Monitorul Oficial al României, Part I, No. 685 of 27 September 2011) amending and supplementing NBR-NSC Regulation No. 18/23/2006 on own funds of credit institutions and investment firms, which entered into force as of 27 September 2011, sets the prudential filters used to adjust own funds amid the implementation of the new international financial reporting standards, effective starting with 1 January 2012.

Thus, with a view to calculating Tier 1 capital, the value of items representing legal reserves, statutory reserves and other reserves, the positive retained earnings of previous financial years and the interim profit are adjusted in compliance with the following prudential filters:

a) the fair value differences related to unrealised gains and unrealised losses resulting from hedging of Treasury flows of the financial instruments valued at amortised cost shall be excluded from own funds;

b) the gains and the losses related to the fair value debt valuation resulting from the prior change in the credit institution's rating shall be excluded from own funds by adjusting, when appropriate, the net result of the last financial year and the retained earnings of the periods when the rating change occurred;

c) the unrealised gains related to the valuation of real-estate investments and tangible assets resulting from applying the fair value revaluation model, other than those posted as at 31 December 2011, shall be excluded from Tier 1 capital item by item and be included in core Tier 2 capital, accounting for 45 percent of their value net of related fiscal liabilities, which are foreseeable upon reporting. The unrealised losses resulting from applying the fair value revaluation model shall not be excluded from Tier 1 capital;

d) the differences resulting from the fair value valuation of financial assets available for sale, other than those related to impairment, shall be adjusted as follows:

  d.1) for each equity instrument, unrealised gains shall be excluded from Tier 1 capital and be included in core Tier 2 capital, accounting for 45 percent of their value net of related fiscal liabilities, which are foreseeable upon reporting. The unrealised losses shall not be excluded from Tier 1 capital;

  d.2) unrealised gains related to loans and claims, as well as to other financial instruments, including debt instruments, shall be excluded from own funds. The unrealised losses related to these items shall not be adjusted and shall affect Tier 1 capital;

e) if the items hedged during the hedging of Treasury flows are financial assets available for sale, the unrealised gains and the unrealised losses related to the hedging derivative shall be subject to adjustment similar to the differences related to the fair value valuation of hedged items.

With a view to calculating own funds, the total amount specified under Art. 19 letter e) point 4 of NBR Regulation No. 11/2011 on the classification of loans and placements, as well as the setting-up and use of prudential value adjustments (namely the total amount resulting from determining and aggregating the positive difference between the amount related to the prudential value adjustment and the amount related to the adjustment for impairment assigned to the financial asset representing a loan/a placement) shall also be added to the items that shall be deducted half from Tier 1 capital and half from Tier 2 capital.

The consolidated values of the items considered when calculating own funds at individual level shall be taken into account when determining own funds at consolidated level. The provisions on applying prudential filters shall be applied appropriately, except for the positive difference between the amount related to the prudential value adjustment and the amount related to the adjustment for impairment assigned to the financial asset.

In 2011, the regulations on the methodology of calculating own funds reported by credit institutions were altered[15] with a view to harmonising them with the new international financial reporting standards. The central bank uses prudential filters[16] so that the application of the new accounting standards does not impair the quality of own funds, on the basis of which prudential indicators are calculated and reported, by recognising under them certain amounts that do not correspond, from a prudential perspective, to the definition and specific criteria of own funds. As a matter of fact, among the commitments assumed under the precautionary financing arrangement signed with the IMF and the EC, Romania undertook to keep prudential indicators at adequate levels, similar to current ones.

NBR Order No. 26 of 9 December 2011 on certain provisions for enforcing prudential requirements in the context of legislative changes related to the implementation of the International Financial Reporting Standards at individual level, effective as of 1 January 2012, triggered several transitory changes in the methodology of calculating own funds and prudential indicators, respectively. Thus, during 1 January – 31 December 2012, when calculating certain prudential indicators (namely credit institutions' solvency ratios; large exposures; exposures to persons having special relations with the credit institution; potential changes in the economic value of credit institutions further to a change in interest rates) on the basis of own funds, the value adjustment of assets under NBR Regulation No. 11/2011 on the classification of loans and placements, as well as the setting-up and use of prudential value adjustments represents:

a) the prudential value adjustment if total prudential value adjustments are higher than or equal to total assigned adjustments for impairment, or

b) the assigned adjustment for impairment if total prudential value adjustments are lower than total assigned adjustments for impairment.

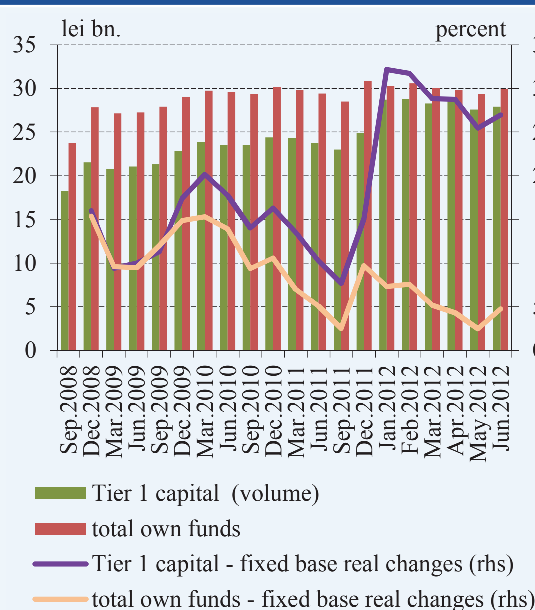
From the standpoint of the pre-crisis period (using as a fixed base the level per banking system calculated for end-2008 Q3), the comparative analysis in real terms of the developments in own funds shows the persistence of positive growth rates during the entire period elapsed since the release of the latest report (Chart 3.13.) both in the case of total own funds (9.7 percent in December 2011) and Tier 1 capital (15.1 percent at end-2011), owing to the prudential supervisory measures taken by the central bank and shareholders' efforts to make capital increases. In 2012, the gap between the growth paces of the two aforementioned categories of own funds has widened (27.0 percent in the case of Tier 1 capital versus 4.8 percent in that of total own funds in June 2012), mainly owing to the manner of applying prudential filters, with part of them adjusting Tier 2 capital.

The analysis of the annual performance in real terms of banks' own funds (Chart 3.14.) points to the persistence of the contraction that began in 2010 H2 and characterised both categories analysed as a result of the developments in highly volatile items. Mention should be made of the fact that the subscribed and paid-up capital, which cannot be withdrawn, lies at the basis of total own funds. At mid-2012, the subscribed and paid-up capital together with the related premiums accounted for approximately 74 percent.

[15] NBR-NSC Regulation No. 13/8/2011 amending and supplementing NBR-NSC Regulation No. 18/23/2006 on own funds of credit institutions and investment firms (published in *Monitorul Oficial al României*, Part I, No. 685 of 27 September 2011) and NBR-NSC Regulation No. 28/17/2011 supplementing NBR-NSC Regulation No. 18/23/2006 on own funds of credit institutions and investment firms (published in *Monitorul Oficial al României*, Part I, No. 909 of 21 December 2011).

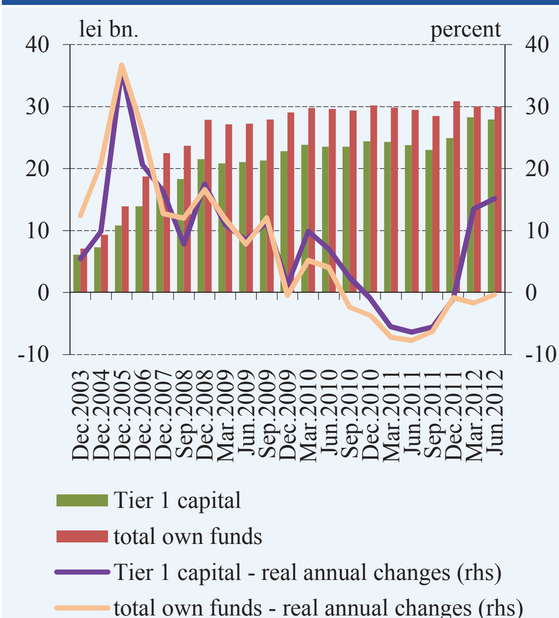
[16] The most important filters refer to the positive differences between the prudential value adjustments (prudential provisions) and the adjustments for impairment (IFRS provisions) related to loans to non-bank clients for which banks set up minimum capital requirements for credit risk, at individual level, in line with the standardised approach.

Chart 3.13. Total own funds and Tier 1 capital (fixed base 30 September 2008)



Source: NBR, NIS

Chart 3.14. Total own funds and Tier 1 capital



Source: NBR, NIS

The structure of own funds at aggregate level (Table 3.5.) indicates a 12.5 percentage point rise in the share of Tier 1 capital (to 93.2 percent in June 2012 versus December 2011), along with the decline in the share of Tier 2 capital, which stood at 6.8 percent in the aforementioned period. This owes as well to the manner of applying prudential filters on the components of own funds, mainly by deducting from Tier 2 capital (whose volume was lower, accounting for approximately 20 percent of total own funds during the application of the accounting standards in line with the European directives) half of the positive difference between total prudential value adjustments and total adjustments for impairment assigned to the financial asset representing a loan/a placement.

The accounting losses incurred by some banks, owing to the low operating profit – on the back of the interest rate margins between assets and liabilities narrowing –, as well as to high loan loss provisions, i.e. costs with the impairment adjustments of financial assets, further affected the volume of own funds (-6.5 percent of total own funds at end-2011 and -3.3 percent in June 2012). The banks that posted positive financial results used their audited profit to adjust own funds (+2.2 percent in December 2011, similar to the level seen at end-2010), but its contribution to the latter remained modest, i.e. half of the 2009 reading.

Table 3.5. Own funds and capital adequacy indicators

percent

	2008 Sep.	2008 Dec.	2009 Dec.	2010 Dec.	2011 Jun.	2011 Sep.	2011 Dec.	2012 Mar.	2012 Jun.
Percent of total own funds:	100	100	100	100	100	100	100	100	100
Tier 1 capital,	*76.9*	*77.3*	*78.6*	*80.8*	*80.7*	*80.8*	*80.7*	*94.2*	*93.2*
of which:									
Share capital	49.5	44.5	47.2	54.4	56.9	60.1	57.9	66.5	67.7
Share premiums	4.8	4.1	4.6	6.6	5.8	6.0	5.5	5.8	5.8
Legal reserves	27.6	34.1	32.2	30.1	27.8	27.7	28.6	49.9	48.9
Current profit (audited)	-	-	3.7	2.4	0.0	0.7	2.2	0.1	0.2
Current loss	-1.0	-1.3	-4.4	-6.5	-3.3	-6.4	-6.5	-1.6	-3.3
Tier 2 capital,	*23.1*	*22.7*	*21.4*	*19.2*	*19.3*	*19.2*	*19.3*	*5.8*	*6.8*
of which:									
Revaluation reserves	9.5	8.1	6.0	5.5	5.5	5.7	5.2	2.2	2.2
Subordinated debt (net)	15.1	15.8	16.9	15.3	14.8	14.8	14.7	15.5	16.9
Subordinated debt (gross)	17.4	17.8	19.9	19.8	20.2	21.1	19.4	20.6	22.0
Solvency ratio (> 8 percent)	11.9	13.8	14.7	15.0	14.2	13.4	14.9	14.6	14.7
Tier 1 capital ratio for credit risk	10.0	11.8	13.4	14.2	13.6	12.9	14.3	16.5	16.4
Tier 1 capital ratio	-	-	-	12.1	11.4	10.8	12.0	13.8	13.7

Source: NBR

The balance sheets of banks, Romanian legal entities, further include high quality Tier 1 capital (Chart 3.15.), as illustrated by the prevalence of items with a high loss-absorbing capacity, namely:

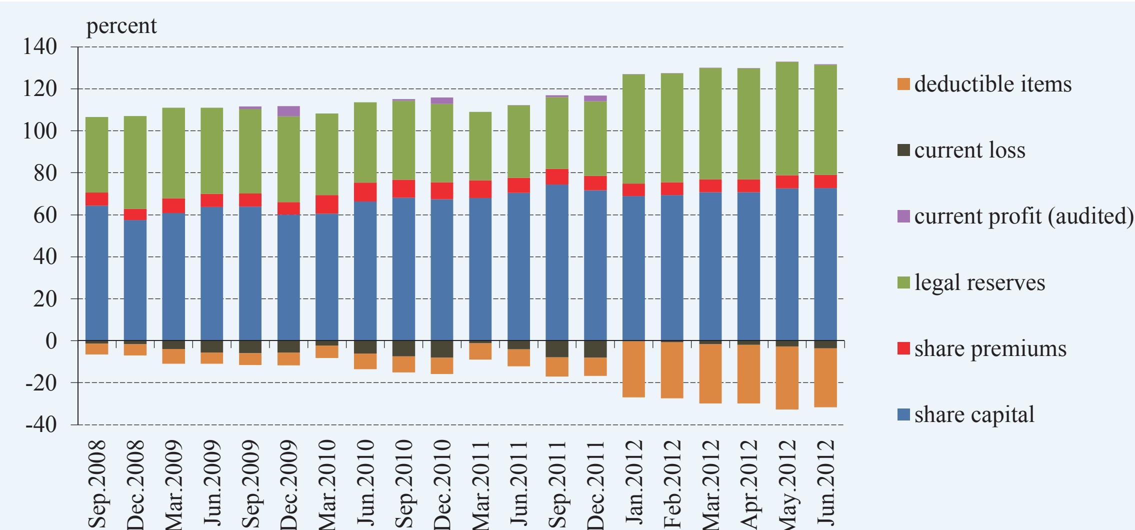
(i) share capital (gross) and share premiums account for approximately 80 percent of total Tier 1 capital. In 2011, the net rise in aggregate share capital amounted to lei 1,440 million, representing an increase of 5.5 percent in real annual terms, down from 11 percent in the previous year. It is to be noted that, in line with the international financial reporting standards, starting with 1 January 2012, the share capital position includes the component related to the adjustment of share capital/endowment capital, which comprises the differences from inflation adjustment[17] and adjustments of share capital by the amounts representing revaluation differences that were previously included in share capital and that have to be recorded as revaluation differences (except for the valuation surplus that is actually generated);

(ii) reserves further play a significant role in supporting Tier 1 capital. Starting with 1 January 2012, their contribution calculated based on the gross value rose (from 36.3 percent in December 2011 to 52.5 percent in June 2012), mostly following the inclusion in retained earnings of the difference between the volume of provisions set up in line with prudential regulations and that of provisions booked based on the IFRS-related requirements upon the implementation of the new accounting standards. This increase is nevertheless offset by the share of deductible items in total own funds, as their volume tripled (from -8.7 percent in December 2011 to -28.1 percent at-mid 2012) further to the application of prudential filters.

[17] A decline in retained earnings is attached to inflation adjustment, corresponding to a null effect on total Tier 1 capital.

The high quality of Tier 1 capital is also confirmed by the fact that commercial banks have not reported any amounts related to hybrid capital instruments[18] so far, as private shareholders made an exclusive contribution.

Chart 3.15. Structure of Tier 1 capital



Source: NBR

In 2012, Tier 2 capital (gross) further posted levels comparable to those seen in December 2011, tantamount to lei 6.8 billion in June 2012. The calculation methodology of own funds takes into account the net value of Tier 2 capital (lei 2.0 billion at-mid 2012), which, starting with January 2012, is affected by the large volume of deductible items specific to Romania (whose main component is the positive difference between total prudential value adjustments and total adjustments for impairment calculated in line with the IFRS), 50 percent of which is deducted from Tier 2 capital. The lower net value of Tier 2 capital stood behind the considerable decline in its contribution to total own funds (6.8 percent in June 2012 versus approximately 20 percent in 2011).

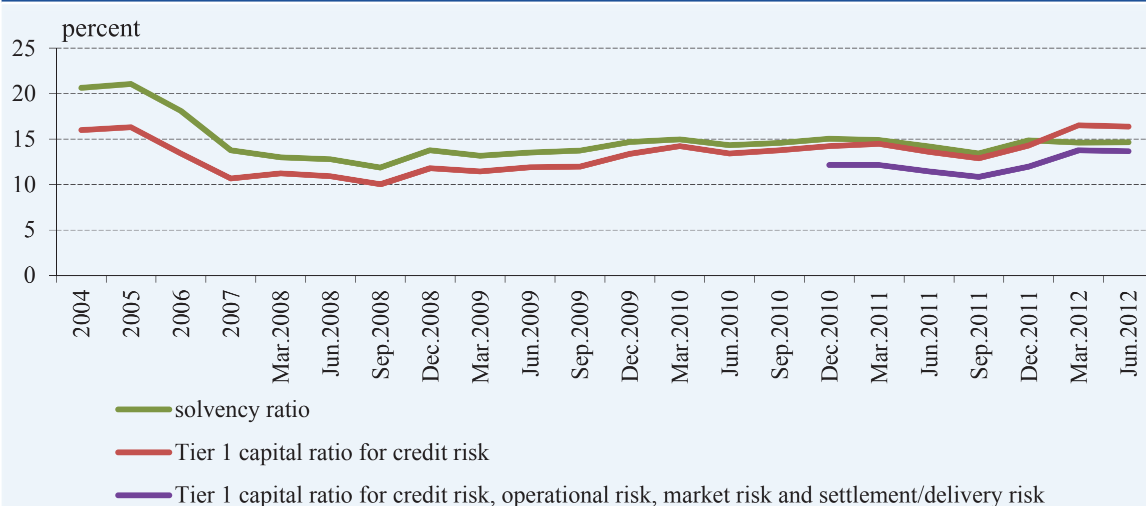
Subordinated debt remains the main component of Tier 2 capital, followed by revaluation reserves (Table 3.5.). In 2011, the growth rate of subordinated debt (gross) ran at around 4 percent, similar to the previous year (but well below that posted in 2009, which came in at 16 percent), amid maintaining among applicable regulations the requirement on limiting subordinated debt to 50 percent of the value of Tier 1 capital at most, with a view to preserving the appropriate proportion of own sources with high loss-absorbing capacity. Subordinated debt (gross) accounted for 77 percent of own funds at mid-2012, similarly to the prior year.

[18] NBR-NSC Regulation No. 15/18/30 September 2010 amending and supplementing NBR-NSC Regulation No. 18/23/2006 on own funds of credit institutions and investment firms transposed into national law Directive 2009/111/EC of the European Parliament and of the Council of 16 September 2009 amending Directives 2006/48/EC, 2006/49/EC and 2007/64/EC (published in the Official Journal of the European Union L 302 of 17 November 2009), complementing the regulatory framework with the possibility provided to banks of using hybrid capital instruments within Tier 1 capital. At the same time, the central bank set a series of requirements that banks have to meet in case they resort to this option, with a view to ensuring the adequate quality of the aforementioned component of own funds.

3.2.3.2. Analysis of solvency

The central bank continued to closely monitor the developments in the capital adequacy indicators reported by credit institutions, amid the further fragile domestic macroeconomic environment, the risks coming from the euro area via the sovereign debt crisis channels and the lower confidence on external markets. In the period elapsed since the release of the latest Report, the capital adequacy ratio across the banking system has remained at a comfortable level.

Chart 3.16. Capital adequacy indicators



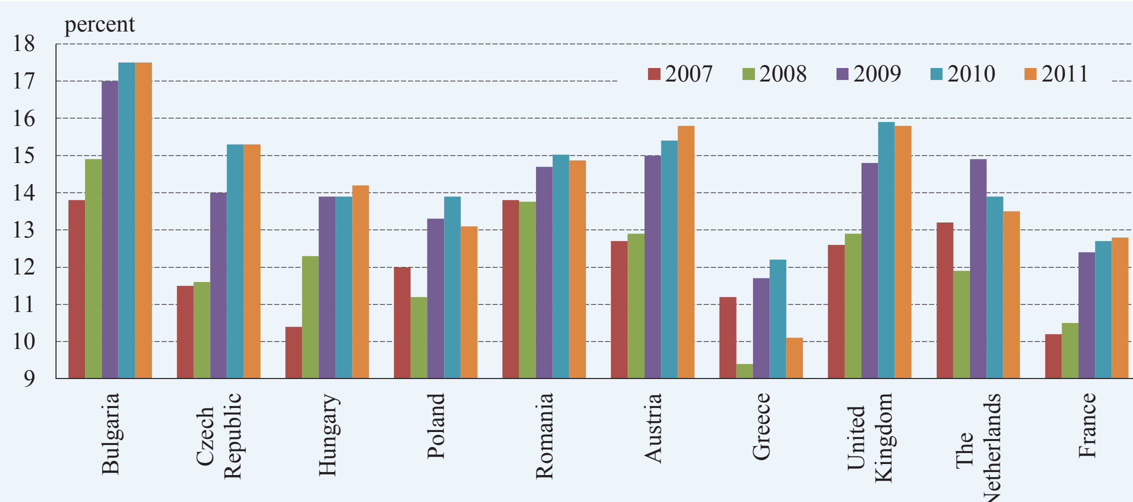
Source: NBR

Pursuant to prudential regulations in force, the capital adequacy ratio is assessed using the solvency ratio[19] (Chart 3.16.), which posted high readings in the period under review, i.e. 14.9 percent in December 2011 and 14.7 percent in June 2012, as compared to the minimum regulated threshold, harmonised with the one applicable in the EU (8 percent) and the 10 percent minimum prudential level set in the supervisory process when the effects of the financial crisis first became manifest in Romania, aiming at enhancing banks' capacity to withstand potential endogenous and exogenous shocks. Mention should be made of the fact that, along with supervisory measures and shareholders' efforts to increase share capital, the substantial stock of low risk and high liquidity government securities in banks' balance sheets, with a direct impact on capital requirements, also made its contribution to keeping the solvency ratio at a high level. Nonetheless, the excessive presence of such items may exert a negative influence on operating efficiency, owing to the level of related claims, in the context of a significantly lower share of loans to the real sector.

[19] The minimum regulated threshold for the solvency ratio is 8 percent, considering a ratio of own funds to capital requirements of 1 at least.

Many EU Member States undertook further efforts to increase capital adequacy in 2011 as well (Chart 3.17.), amid the application of the additional capital requirements set forth by the Basel III regulatory framework[20], the transition to which is to take place between 2013 and 2018, with 1 January 2019 being the deadline for reaching the target level.

Chart 3.17. Solvency ratio in selected EU Member States



Source: IMF (Financial Soundness Indicators, April 2012); NBR calculations

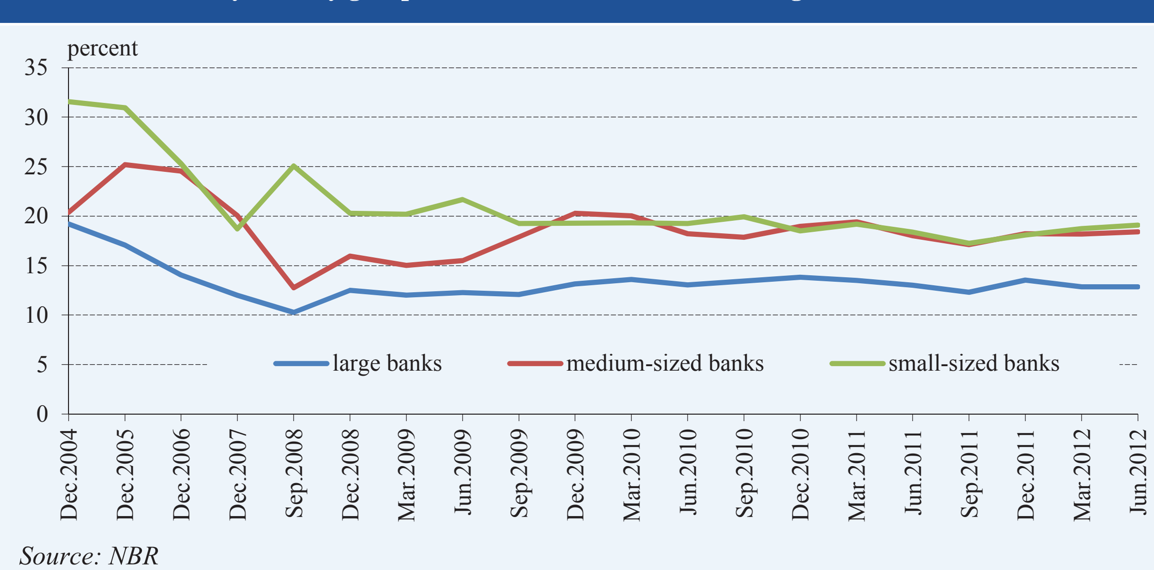
Romania further enjoys a comfortable position with respect to its aggregate solvency ratio, which stood at around 15 percent during 2009-2011. Among the home countries of foreign bank subsidiaries operating in Romania, Austria posts a higher capital adequacy ratio.

The analysis of capital adequacy by group of banks in terms of asset holdings[21] (Chart 3.18.) reveals the persistence of the trends initiated three years earlier. Specifically, large banks record a relatively lower solvency ratio (12.9 percent as of June 2012), below the banking system average, but their asset portfolios have a better quality. Medium- and small-sized banks display an enhanced loss-absorbing capacity, with their solvency ratio exceeding 18 percent at end-June 2012).

[20] The proposals for the capital adequacy ratios and the capital buffers set forth by the CRD IV legislative framework with a view to implementing Basel III provisions, in line with the compromise text of the CRD IV package of 21 May 2012, produced by the Council of the European Union, as well as the target levels to be reached by 1 January 2019, are the following: 1) total capital ratio (8.0 percent); 2) Tier 1 capital ratio (6.0 percent target level); 3) core Tier 1 capital ratio (4.5 percent target level); 4) capital conservation buffer (2.5 percent target level); 5) core Tier 1 capital ratio and capital conservation buffer (7.0 percent target level); 6) total capital ratio and capital conservation buffer (10.5 percent target level); 7) countercyclical capital buffer (2.5 percent target level); 8) core Tier 1 capital ratio and capital conservation buffer plus countercyclical capital buffer (9.5 percent target level); 9) total capital ratio and capital conservation buffer plus countercyclical capital buffer (13.0 percent target level). EU Member States may choose to meet the target levels of the above-mentioned ratios on an accelerated basis, ahead of the schedule specified by the CRD IV.

[21] For assessment purposes, the NBR classifies banks in terms of their asset shares in total assets of the banking system. Large banks are defined as entities with assets of more than 5 percent of total bank assets, medium-sized banks are entities whose assets hold shares ranging between 1 percent and 5 percent of total bank assets, while small-sized banks are defined as entities whose assets account for less than 1 percent of aggregate assets.

Chart 3.18. Solvency ratio by group of banks in terms of asset holdings



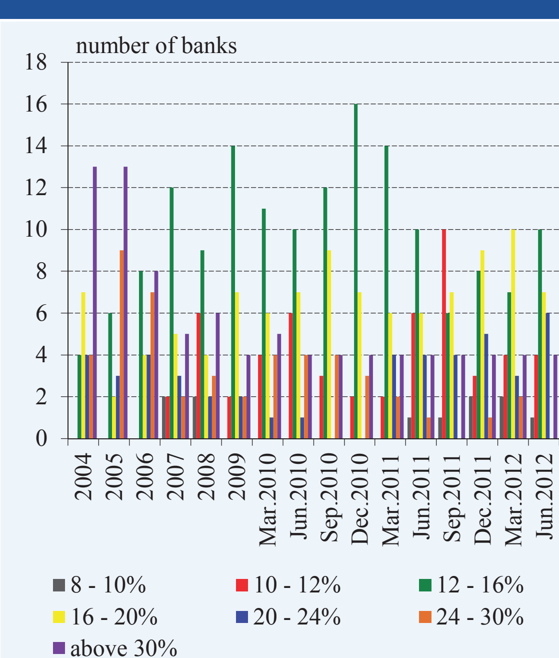
Source: NBR

The breakdown of banks by solvency ratio (Chart 3.19.) shows that most credit institutions, i.e. 17, posted a solvency ratio ranging between 12 percent and 20 percent at end-2011 and in 2012 H1, as a direct effect of the central bank's supervisory measures[22]. As of June 2012, only one bank reported a solvency ratio below the threshold recommended in the supervisory actions, but still above the minimum regulated level of 8 percent. It should be noted that a significant number of credit institutions displayed very high solvency ratios, i.e. over 20 percent (10 banks at end-2011 and at mid-2012).

The breakdown of bank assets by solvency ratio (Chart 3.20.) shows an improvement in December 2011, when the assets of credit institutions whose solvency ratio ranged between 12 percent and 20 percent accounted for 75 percent of total bank assets (up from 61 percent in June 2011). The sole bank with a solvency ratio ranging between 8 percent and 10 percent held only 0.1 percent of banking system assets at mid-2012 and firm measures were taken to address its prudential situation.

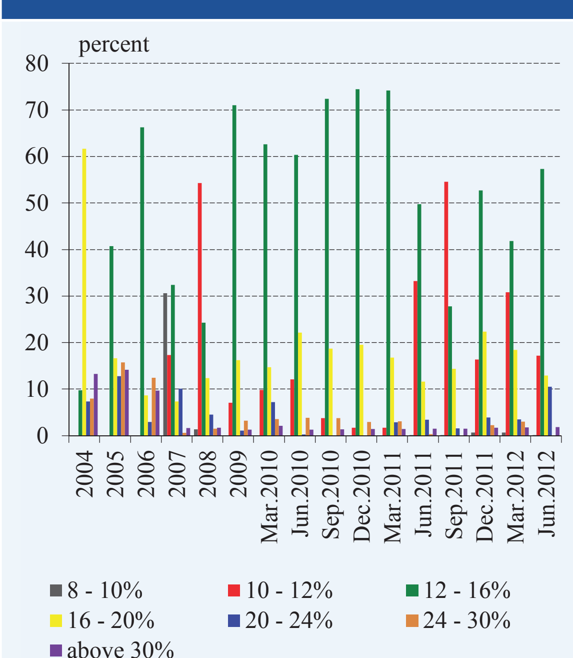
[22] In the aftermath of the global financial crisis sending ripple effects onto the domestic banking sector and in order to increase banks' resilience to potential endogenous and exogenous shocks, the National Bank of Romania established in its supervisory actions a 10 percent threshold for the solvency ratio (against the minimum regulated level of 8 percent), as part of the commitments under the arrangements concluded with the IMF and the EC. In addition, with a view to ensuring effective supervision, the central bank required that solvency reports be submitted on a monthly basis (rather than quarterly, as stipulated under the legal framework in force) by banks reporting negative financial results, a large volume of non-performing claims or below-average solvency ratios.

Chart 3.19. Banks in terms of solvency ratio



Source: NBR

Chart 3.20. Bank assets in terms of solvency ratio



Source: NBR

In compiling its analyses, the central bank also uses other indicators, which play a secondary role in measuring credit institutions' capital adequacy, as follows:

a) *Tier 1 capital ratio for credit risk*[23] (Chart 3.16.), which remained at a comfortable level during the period under review (14.3 percent at end-2011 and 16.4 percent in June 2012), pointing to the high quality of banks' own funds, as the prevailing key components (share capital, share premiums, reserves) allow for a high loss-absorbing capacity;

b) *Tier 1 capital ratio for credit risk, operational risk, market risk and settlement/delivery risk*[24], determined in line with the ECB definition, which has followed an upward path during the reference period to stand at 13.7 percent as of June 2012 (Chart 3.16.);

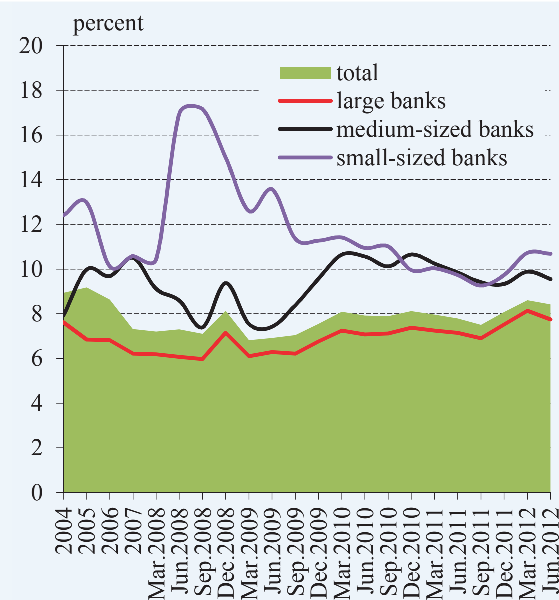
c) *leverage ratio*[25], a measure of determining to what extent credit institutions' own funds cover bank financing (Chart 3.21.). The indicator was on the rise during 2012, reaching 8.4 percent in June 2012 (the same as at end-2006), largely on account of the manner of applying prudential filters to own funds components, in the context of implementing the new international financial reporting standards.

[23] Determined as a ratio of Tier 1 capital to the sum of risk-weighted assets and off-balance-sheet items.

[24] Determined as a ratio of core Tier 1 capital to overall capital requirement. The latter is the sum of capital requirements for credit risk, operational risk, market risk and settlement/delivery risk.

[25] Calculated as a ratio of Tier 1 capital to total bank assets at average value.

Chart 3.21. Leverage ratio – total and by group of banks

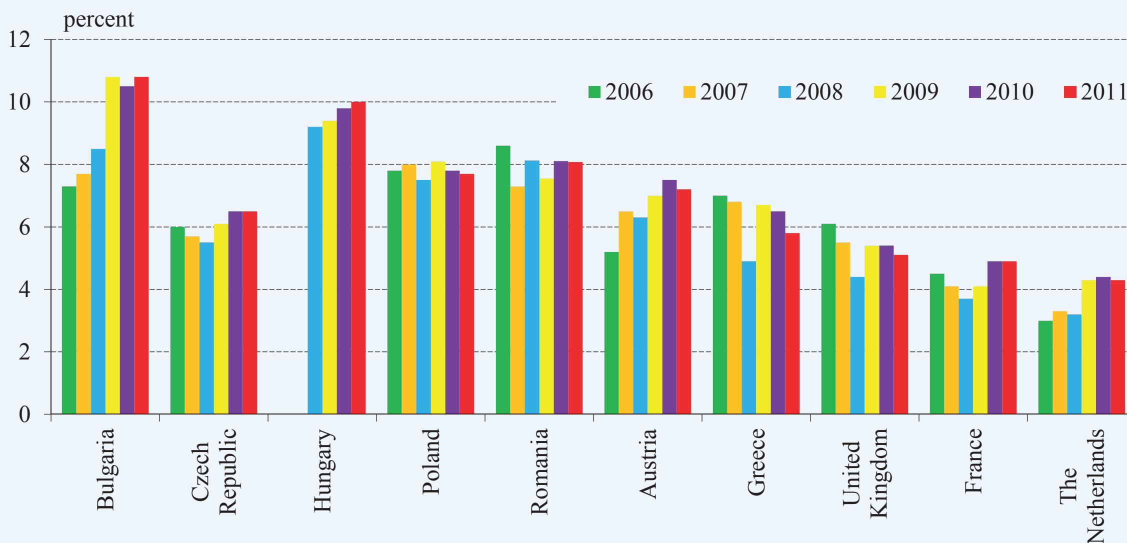


Source: NBR

The breakdown of the leverage ratio by group of banks in terms of asset holdings (Chart 3.21.) shows a higher self-financing degree in 2012 Q1 for the three categories of credit institutions (by 0.5-1 percentage point) as a result of the aforementioned causes. Large banks further record lower self-financing levels (7.8 percent as of June 2012), i.e. below the system-wide average. Conversely, small banks' self-financing degree at group level exceeded by 2 percentage points the degree calculated at aggregate level (10.7 percent in June 2012).

The comparative analysis of the leverage ratio across selected Member States reveals that the Romanian banking system enjoys a volume of own funds similar to that reported by other countries in the region (Chart 3.22.). Although the past three years have seen strenuous efforts to raise the self-financing degree in order to enhance resilience to shocks, credit institutions in the home countries of parent banks doing business in Eastern Europe continue to make lower recourse to own sources to ensure financing, as a result of broader access to capital market funding.

Chart 3.22. Leverage ratio in selected EU Member States



Source: IMF (Financial Soundness Indicators, April 2012), NBR calculations

3.2.3.3. Results of the banking sector solvency stress test

The National Bank of Romania conducts solvency stress tests on a regular basis, consistent with a methodology developed in cooperation with the IMF. The aim is to identify any vulnerability that might affect the proper functioning of credit institutions by assessing the impact of adverse macroeconomic scenarios. The ultimate purpose is to evaluate the extent to which credit institutions' capital is sufficient to cover the risks to which they are exposed, for those risks that can be mitigated by holding sufficient capital. The risk factors considered are common to all credit institutions and have a high potential of generating distortions across the banking system.

The latest stress test on banking system solvency considered an adverse scenario spanning a two-year horizon (2012 Q2 – 2014 Q1) and incorporated a double-dip recession (with an economic growth of -1.5 percent in each of the two years under review), a significant and persistent weakening of the domestic currency (about 14 percent in the first year), as well as a macroeconomic environment characterised by worsening funding conditions for credit institutions amid heightened risk aversion, which would lead to a significant increase of the deposit rate spread over interbank rates, entailing lower net interest margins given the marginal increase in lending rates. According to the aforementioned scenario, credit institutions' profit would be driven downward by large loan loss provisions (up to 40 percent estimated rise in specific credit risk provisions in case of corporate exposures and up to 20 percent in the case of households exposures) and by the considerable decline in net interest income. The stress test results show that banks are well capitalised, allowing them to cover any unexpected losses in the event of the risk scenario materialising. The solvency ratio at aggregate level would drop by approximately 2.4 percentage points to 12.2 percent. As regards the challenges to smaller banks under the considered scenario, it should be noted that shareholders have taken pre-emptive action by raising the share capital and streamlining operating costs.

Financial results are negatively affected by the decline in operating profit, against the backdrop of lower net interest income as a result of marked adjustments in lending rates amid a modest rise in the volume of loans. The excessive presence of fixed-income instruments, albeit helpful in terms of liquidity, would generate losses in case of an upward shift of the yield curve. Recent developments show an uptrend in the share of fixed-income securities in total assets, securing a comfortable liquidity position and leading to lower credit risk capital requirements, although the return on such securities is diminishing. Against the background of modest economic growth, the efforts geared towards restructuring the operating activity could have a detrimental impact on the degree of financial intermediation by rescaling the territorial network and halting lending to certain segments deemed risky. The persistent decline in the market value of collateral is yet another risk factor, which would lead to a surge in the volume of credit risk provisions following collateral revaluation.

3.2.4. Loans and credit risk

Private sector lending was resumed starting in the latter part of 2011, reflecting the transmission of the monetary policy measures into the banking market, although they had only a moderate effect on account of the persistent aggregate demand deficit. In the context of the measures taken at European level, mitigating risks related to consumer credit and loans granted to unhedged borrowers further ranks among the top issues on the central bank's macroprudential agenda.

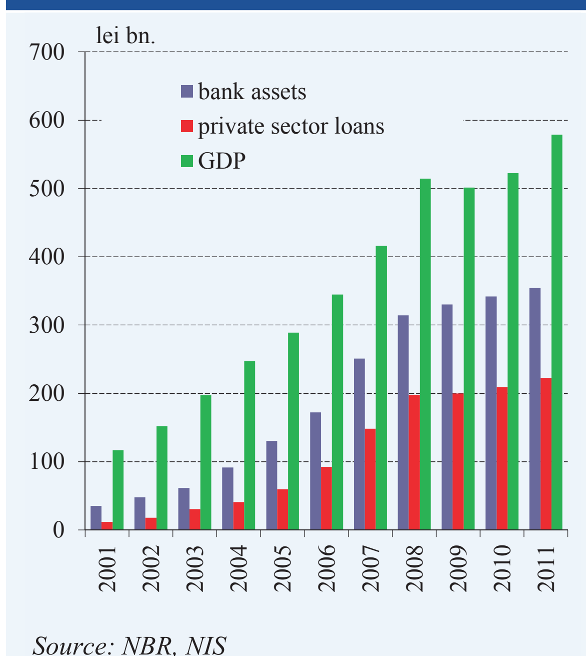
Although the quality of loan portfolios in banks' balance sheets was further constrained by ongoing pressures on debtor income, credit institutions have a sufficient volume of provisions available to accommodate expected losses. The central bank has opted for a prudent approach to calculating

credit risk provisions given the adoption of the IFRS accounting standards as of 1 January 2012. Thus, the positive difference between total prudential valuation adjustments (prudential provisions) and the total impairment adjustments (IFRS provisions) was set as a prudential filter for the calculation of own funds and of bank prudential indicators.

3.2.4.1. Main credit developments

The latter half of 2011 and the first six months of 2012 saw the resumption in lending to the real sector (Chart 3.23), as reflected by the larger volume of loans to the private sector (an annual growth rate of 6.6 percent at end-2011 and 6.3 percent in June 2012 in nominal terms). The improvement in domestic macroeconomic conditions, namely the return of the inflation rate in the vicinity of the variation band around the target, provided renewed impetus to the rise in private sector financing (+3.3 percent in December 2011 and +4.2 percent in June 2012, in real terms).

Chart 3.23. Bank assets and private sector loans



Source: NBR, NIS

The dynamics of net bank assets[26] (up merely 3.6 percent in nominal terms at end-2011, similarly to the previous year) posted the same low readings seen since the fallout from the global financial crisis[27]. The aggregate balance sheet of credit institutions expanded at a faster pace January through June 2012 (an annual growth rate of 9.5 percent in June 2012 in nominal terms), but this was mainly due to the accounting effect of implementing IFRS standards as an accounting basis (for instance via the methodology of setting up the impairment adjustments and therefore the rise in net asset value).

The turmoil related to the global financial crisis triggered EU-wide concerns over the magnitude and speed of balance sheet adjustments[28] of host-country banks. According to the European Central Bank[29], the vulnerability of host countries to foreign deleveraging depends on a number of factors, including: (i) the prevalence of foreign banks in the domestic banking sector; (ii) foreign bank reliance on funding from outside the host country; (iii) the maturity of funding (short-term versus long-term), and (iv) the scope for local or third party foreign banks to subrogate the activity of relevant foreign banks. The NBR monitors the developments in relevant underlying indicators. Evidence shows that deleveraging has so far been a marginal feature of the domestic banking system, judging by the positive annual growth rates (gross, in real terms) of bank assets, which added 2.4 percent in 2009 and 2011 and 6.6 percent in June 2012. The only exception was the year 2010, when bank assets contracted a meagre 1.7 percent, largely under the impact of the high inflation

[26] Data up to 31 December 2011 are taken from the annual financial statements prepared in accordance with accounting regulations harmonised with European directives; as of 1 January 2012, data are taken from the individual FINREP statements in line with the International Financial Reporting Standards (NBR Order No. 3/2011).

[27] By comparison, bank assets went up 25 percent in 2008, i.e. the last year of Romania's economic growth cycle.

[28] Also referred to as "deleveraging" in the literature and in ECB reports.

[29] ECB's June 2012 *Financial Stability Review*, the *EU bank deleveraging – driving forces and strategies* section.

rate (7.96 percent). Another measure of deleveraging is the asset-to-equity ratio[30], which remained virtually unchanged after 2008 (the year that wrapped up Romania's growth cycle), standing at 11 at aggregate level during 2009-2011. As of 2012, the asset-to-equity ratio hovers around 9 as a result of higher equity following the adoption of the IFRS accounting standards, by: (i) including under retained earnings the positive difference between the value of specific credit risk provisions calculated in line with prudential banking requirements and that of provisions determined according to the IFRS, and (ii) adjusting the share capital accounts to inflation. One of the potential consequences of deleveraging is the contraction in credit to the private sector. After staying in negative territory throughout 2009 (-3.2 percent), the annual dynamics (expressed in real terms) of gross credit to non-bank clients in Romania witnessed a trend reversal in the following years, coming in at 4.7 percent in 2010, 3.4 percent in 2011 and 8.3 percent in June 2012.

The above analysis proves that deleveraging was only moderate in Romania, as a net effect of: (i) a slight increase in total bank assets; (ii) the rise in equity due to additional capital contributions, but also following the introduction of the IFRS; (iii) the orderly and modest reduction in funding sources from parent banks. At the same time, the analysis of the loan-to-deposit ratio (non-bank loans over customer deposits) shows that the domestic funding gap has remained virtually unchanged (from 118 percent in December 2010 to 119.1 percent at end-2011 and a similar level in June 2012), which reflects the absence of deleveraging.

In the period elapsed since the release of the previous Report, the central bank continued to pursue a monetary policy stance aimed at preserving adequate broad monetary conditions so as, via the solid anchoring of inflation expectations and supporting lasting disinflation, to create favourable conditions for both credit demand and supply, with a view to spurring sustainable economic growth. On the supply side, mention should be made of the measures taken by the NBR to ease the required reserves[31] policy and improve liquidity conditions on the market. As regards credit demand, the central bank continued the gradual and prudent rate-cutting cycle[32], which was meant to eventually translate into lower lending rates via the transmission of monetary policy signals. Thus, since September 2008 the monetary authority has lowered the policy rate by a cumulated 5 percentage points, from 10.25 percent to 5.25 percent. It is worth mentioning that the policy rate cuts performed by the NBR June 2011 through June 2012 (100 basis points overall) have been incorporated in commercial banks' rates on new loans in domestic currency granted to non-financial customers.

Since the previous Report, credit demand and supply have come under the influence of both positive and adverse factors. In particular, credit supply was stifled by: (i) banks' still low risk appetite (but this was manifest throughout the European Union and globally); (ii) reduced availability of long-term funds in domestic currency, and (iii) persistent liquidity challenges on global financial markets, affecting especially the parent banks of subsidiaries in Romania. The determinants that fostered credit supply included: (i) the central bank's monetary policy decisions, and (ii) keener competition among credit institutions. Lending terms and standards seemed to have mixed effects on credit supply during the period under review, amid an easing process up to the end of 2011 H1 followed by a trend reversal. On the demand side, credit to the private sector was bolstered by: (i) the economic recovery of 2011,

[30] Bank assets (net value) and the equity reported by banks in their financial statements were used in the calculation.

[31] Starting with the 24 February – 23 March 2012 maintenance period, applicable regulations provide for the possibility to set different required reserve ratios on leu- and foreign currency-denominated liabilities included in the reserve base with residual maturity longer than two years from the end of the observance period and without clauses referring to early withdrawal, repayment or transfer, as well as on non-repayable loans (irrespective of currency).

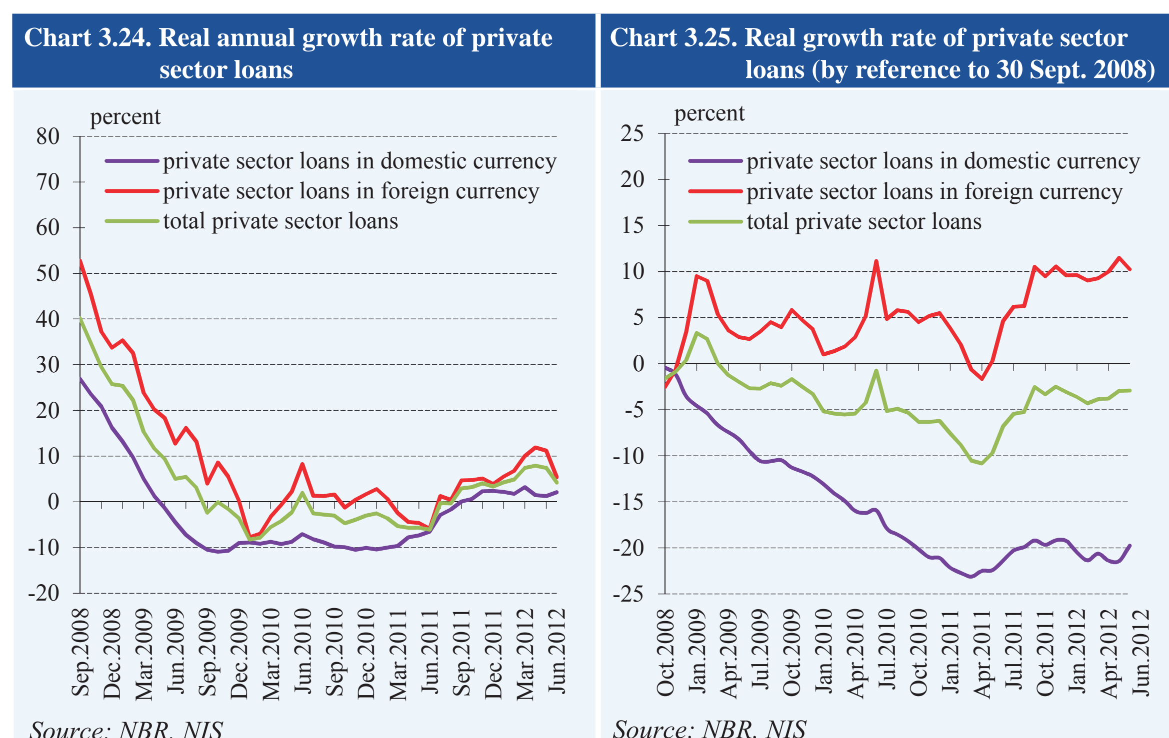
[32] The monetary policy rate has been lowered in four steps since the release of the previous report: from 6.25 percent to 6 percent in November 2011, to 5.75 percent in January 2012, 5.50 percent in February 2012 and finally to 5.25 percent in March 2012.

following two years of downturn[33]; (ii) the average nominal net income of households re-embarking on an upward path[34]; (iii) improvement in pessimistic expectations on developments in the real economy[35]; (iv) the favourable statistical effect generated by the inflation rate returning close to the central bank's target (after the fading out of the first-round effect of the VAT rate hike in July 2010), along with consolidated prospects of firmly maintaining the inflation rate inside the variation band around the annual targets, thus paving the way for sustainable economic growth. The key factor depressing credit demand was the persistent negative output gap. Banks also often cite the eligible demand shortfall among the culprits for low appetite for lending.

The central bank's monetary policy decisions translated into a larger volume of loans to the private sector. Specifically, after two years of contraction, the annual dynamics of credit to the private sector (Chart 3.24.) re-entered positive territory starting September 2011, reaching 3.3 percent at end-2011 and 4.2 percent in June 2012 (in real terms). Behind this evolution stood the foreign currency component, whose growth (4 percent in December 2011 and 5.4 percent in June 2012) outpaced that of leu-denominated credit (2.4 percent at end-2011 and 2.1 percent in June 2012), partly ascribable to effects induced by exchange rate developments.

Chart 3.24. Real annual growth rate of private sector loans

Chart 3.25. Real growth rate of private sector loans (by reference to 30 Sept. 2008)



Source: NBR, NIS

Source: NBR, NIS

In real terms, however, the volume of outstanding loans stood below the level recorded prior to the outbreak of the crisis, as the latter corresponded to the economic growth cycle, which fostered lending. By reference to September 2008 (Chart 3.25.), the real growth rate of credit to the private sector remained in negative territory, albeit posting less negative readings, i.e. -5.4 percent in July 2011 and -3 percent at end-2011 and in June 2012. Behind this stood solely the foreign currency component, which recorded positive dynamics throughout the period under review (peaking at 11.5 percent

[33] According to data released by the NIS, economic activity contracted 7.1 percent in 2009 and 1.3 percent in 2010. The year 2011 saw economic growth resuming at a pace of 2.5 percent.

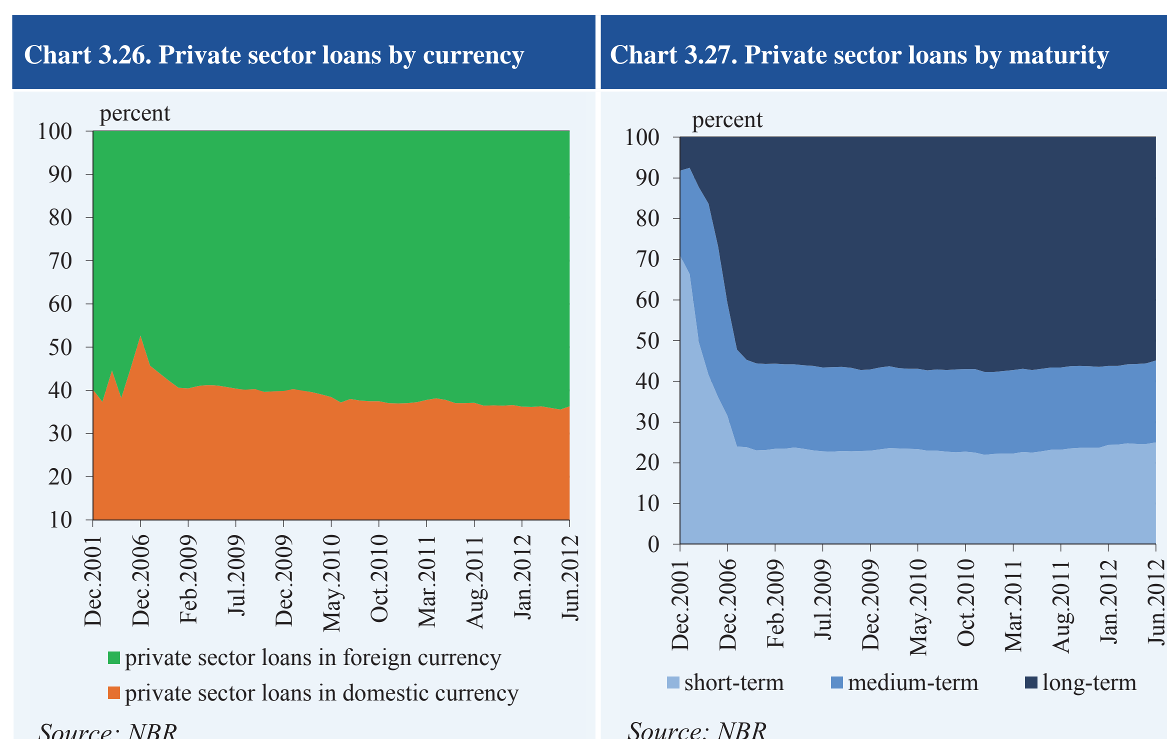
[34] As hinted by the trajectory of the average nominal net wage, which reached lei 1,604 at end-2011 (versus lei 1,489 in December 2008, lei 1,477 at end-2009 and lei 1,496 in December 2010), according to NIS data.

[35] Assessment based on the evolution of the EC-DG ECFIN confidence indicator.

in May 2012 and 10.3 percent in June 2012), largely on account of the weaker leu. The domestic currency component further stood approximately 20 percent below the reference value in real terms.

The faster advance in the stock of foreign currency credit during the period under review led to a wider share of this component in total loans to the private sector, namely 63.4 percent at end-2011 and 63.7 percent in June 2012. This meant a cumulated increase of 0.8 percentage points against June 2011 (Chart 3.26.) and was primarily due to supply-side factors, such as: (i) the availability of long-term funding sources denominated in foreign currency (mainly parent bank loans), and (ii) the interest rate differential between forex- and leu-denominated credit[36]. The same trend became manifest in other Eastern European economies as well, while the ECB assessed the situation as potentially generating significant systemic risks and creating conditions for negative cross-border spillover effects[37]. In order to mitigate these risks, the European Systemic Risk Board (ESRB) drafted seven recommendations[38], most of which apply to unhedged borrowers. The supervisory authorities in the EU Member States are requested to report to the ESRB on the actions taken to implement these recommendations and adequate justification in the case of inaction by 31 December 2012, with one exception[39]. It is worth mentioning that the NBR had taken several steps to contain exposure risks facing unhedged borrowers even before the publication of the relevant ESRB recommendation.

Chart 3.26. Private sector loans by currency | **Chart 3.27. Private sector loans by maturity**



Source: NBR | *Source: NBR*

[36] The interest rate differential on new loans exceeded 6 percentage points for households and 4 percentage points for non-financial corporations both at end-2011 and in June 2012.

[37] Recommendation ESRB/2011/1 of 21 September 2011 on lending in foreign currencies.

[38] The ESRB recommendations on foreign currency lending refer to: A) risk awareness of borrowers; B) borrowers' creditworthiness; C) credit growth induced by foreign currency lending; D) internal risk management; E) capital requirements; F) liquidity and funding; G) reciprocity. Recommendations A to G cover only foreign currency lending to unhedged borrowers, except for recommendation F, which applies to hedged borrowers as well.

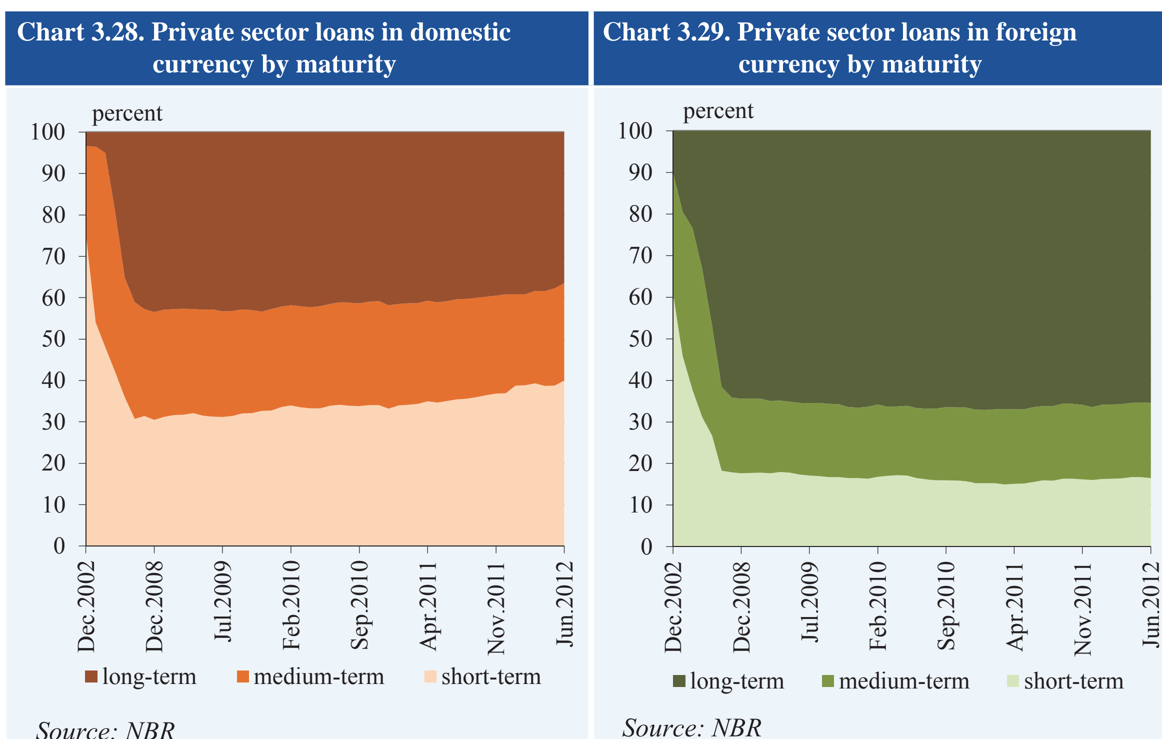
[39] The deadline has been set on 31 December 2013 for Recommendation E, paragraph 2, regarding the adoption by the EBA of the guidelines on capital requirements.

Pursuing a prudent lending policy, banks focused primarily on short-term credit, which led to a progressive rise in private sector loans with maturities of up to one year, whose real annual growth rate picked up in the period elapsed since the release of the previous report from 11.5 percent at end-2011 to 14.4 percent in June 2012. This brought about a wider share (25.0 percent) of short-term loans in total credit to the private sector in June 2012 (Chart 3.27.), marking an increase of 2.2 percentage points versus the same year-earlier period. The term structure of private sector credit was also affected by the 2.0 percentage point drop in the share of long-term loans, which accounted for 54.9 percent of total in June 2012. This component further holds the prevailing share owing to the volume of outstanding credit.

The maturity breakdown of private sector loan components by currency has remained broadly unchanged from the previous periods. Thus, maturities of over five years were further prevalent among foreign currency loans (Chart 3.29.), accounting for more than 65 percent of total as of June 2012, albeit declining approximately 1 percentage point against the same year-ago period amid the advance in short-term credit. The maturity breakdown of private sector loans in domestic currency remained more balanced (Chart 3.28.), although the increase in short-term credit is more noticeable, adding 5 percentage points from June 2011 to stand at 40.0 percent in June 2012, on the back of the lower stock of long-term loans.

Chart 3.28. Private sector loans in domestic currency by maturity

Chart 3.29. Private sector loans in foreign currency by maturity



Source: NBR

Source: NBR

Looking at developments in credit to the private sector by borrower, previously manifest trends have persisted into the period under review as well. In particular, the annual growth rate of corporate loans (10.3 percent at end-2011 and 8.9 percent in June 2012 in nominal terms) continued to outpace that of household credit (2.1 percent in December 2011 and 3.4 percent in June 2012 in nominal terms). The latter part of 2011 saw the coming into force of the new prudential norms governing household

lending terms and conditions[40], aimed at establishing broad-based sound lending practices especially as regards riskier loans, namely consumer credit and foreign currency loans to unhedged borrowers[41].

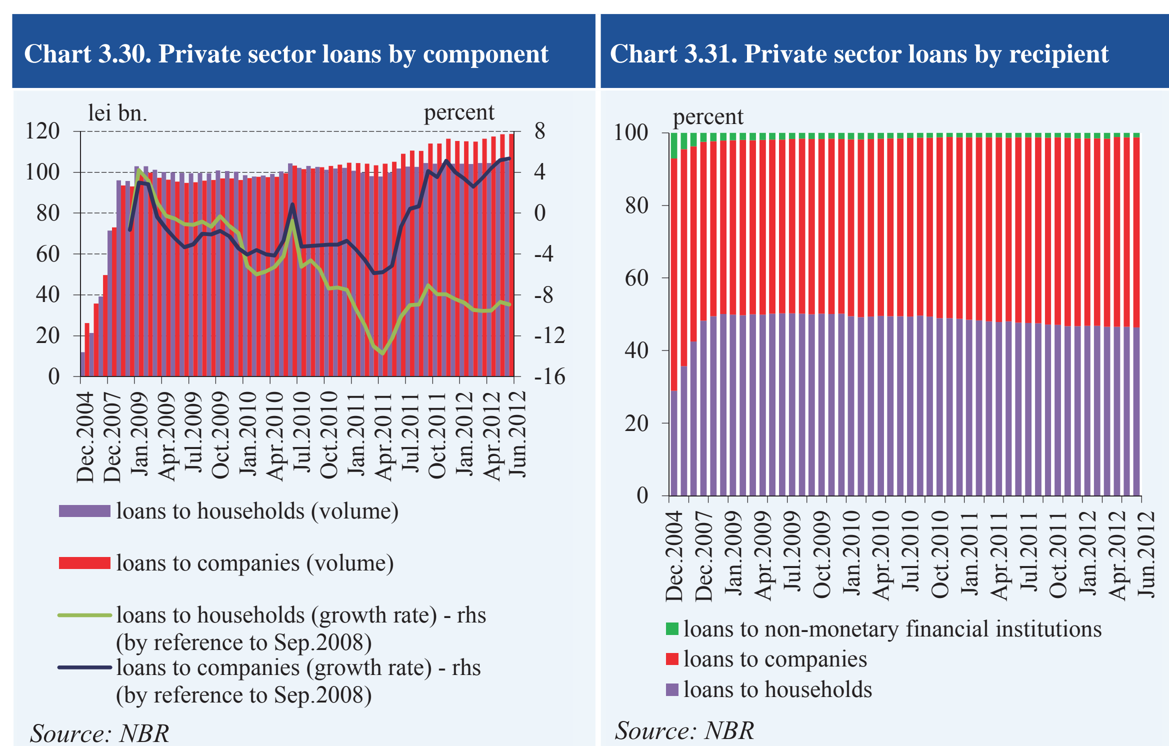


Chart 3.30. Private sector loans by component

Chart 3.31. Private sector loans by recipient

The dynamics of the two components were different in real terms. Thus, the annual dynamics of household loans recovered the ground lost since 2010 as late as January 2012, reaching 4 percent March through May 2012, before decelerating to 1.3 percent in June 2012. By contrast, the annual growth rate of corporate loans followed a steadily upward trajectory throughout June 2011 – June 2012, ending the period at 6.8 percent. When compared to the balance recorded in September 2008 (Chart 3.30.), only corporate credit managed to exceed, in real terms, the level prevailing prior to the onset of the global financial crisis (by 4 percent at end-2011 and 5.3 percent in June 2012; real terms, fixed base). By that same comparison, the annual dynamics of household loans remained in negative territory since the release of the previous Report, coming in at around -9 percent in 2012 H1. The faster advance in lending to non-financial corporations impacted the breakdown of private sector credit by recipient

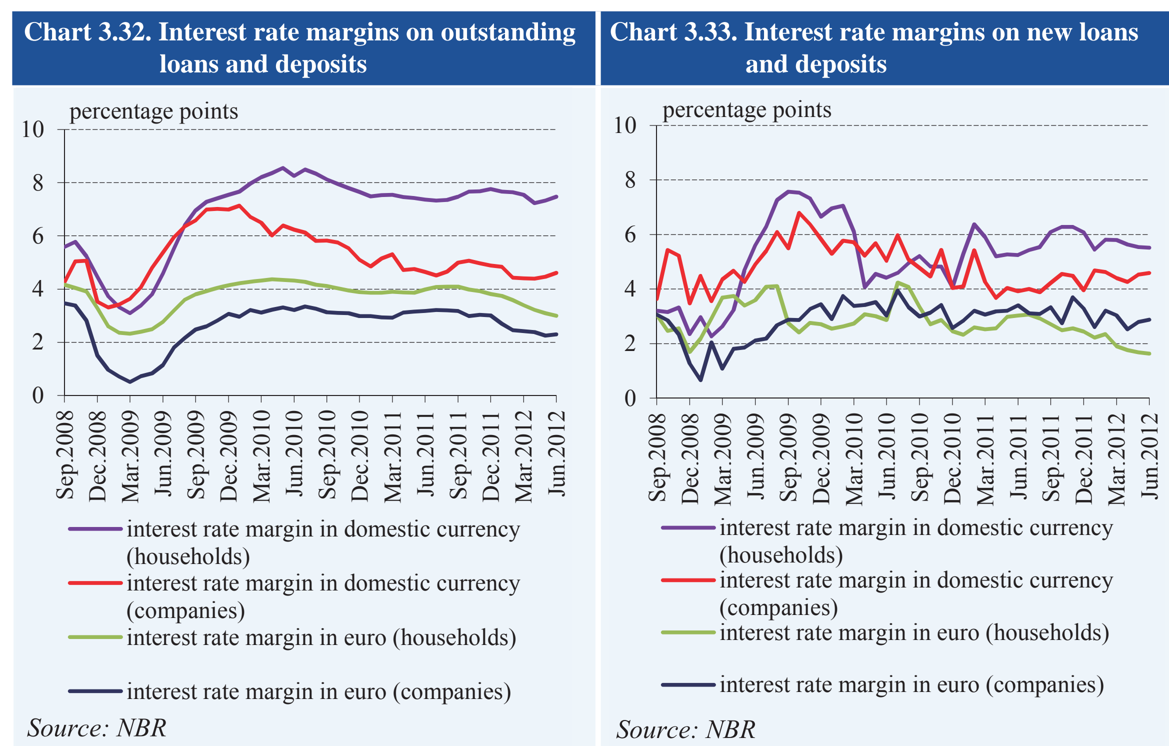
[40] NBR Regulation No. 24 of 28 October 2011 on loans to households, published in *Monitorul Oficial al României*, Part I, No. 767/31 October 2011.

[41] The new prudential regulations detail the provisions on household lending as regards the methodology for the regular review of the adjustment coefficients for income levels and the maximum allowed indebtedness ceiling, so as to ensure their accuracy on a continuous basis. The new rules provide for the use of standard values underlying the maximum allowed levels for the overall degree of indebtedness in the case of consumer loans. As regards the provisions on sound lending practices, the new regulations stipulate as follows: a) upon applying for consumer credit in foreign currency or indexed to an exchange rate, the applicant shall present real and/or personal collateral accounting for at least 133 percent of the loan amount (Art. 11); b) the maturity of consumer loans may not exceed five years (Art. 12). This does not apply to leu-denominated real-estate consumer credits for which borrowers can make down-payments of at least 40 percent; c) the amount of a credit for real-estate investment may not exceed 85 percent of the mortgage collateral value in the case of leu-denominated credits (Art. 13), 80 percent in the case of loans in foreign currency or indexed to a foreign exchange rate if the debtor receives eligible income either denominated in or indexed to the loan currency, 75 percent for loans in euro or indexed to the exchange rate of the euro, and 60 percent for loans denominated in other currencies or indexed to the exchange rates of other currencies; d) lenders shall provide applicants for a loan in foreign currency or indexed to an exchange rate with edited brochures warning them on the possibility and consequences of higher borrowing costs in the event of the currency risk materialising, including recommendations on the acceptable indebtedness ceiling by various type of customer (Art. 14). The NBR regulations define unhedged individual borrowers as debtors who do not generate net positive cash flows in the loan currency that might enable them to repay each instalment (principal plus interest) on the due date. Cash flows are adjusted depending on their degree of certainty and permanence.

and acted to the detriment of the households sector (Chart 3.31.), whose share narrowed 1 percentage point to 46.4 percent of total credit in June 2012. Corporate loans continued to hold the largest share in banks' portfolios, accounting for 52.3 percent of total loans in June 2012 and thus sticking to the trend seen since early 2010. The impact of monetary policy measures on bank lending and deposit rates was less visible when looking at the portfolios of outstanding loans and deposits, since they incorporate the loans granted and deposits taken in the previous period as well (Chart 3.32.).

Chart 3.32. Interest rate margins on outstanding loans and deposits

Chart 3.33. Interest rate margins on new loans and deposits



Source: NBR

Source: NBR

The period June 2011 to June 2012 saw the following developments:

(i) interest rates on leu-denominated household loans edged down merely 1 percentage point in the period under review, to stand at 13 percent in June 2012. Although this level reflects banks' risk perception, it may be considered still high, given that it exceeds the monetary policy rate by approximately 8 percentage points. Thanks to their stronger bargaining power, non-financial corporations generally benefit from lower interest rates on leu-denominated loans, which ranged between 9 percent and 10 percent in the reported period, marking a slightly downward trend in 2012 (around 1 percentage point lower, to 9.6 percent in June 2012);

(ii) foreign currency loans were further 50 percent cheaper than leu-denominated credits for both customer categories, despite significantly higher risks associated with this type of lending (whose materialisation would lead to a considerably higher debt service of these particular borrowers). As a general trend, the period under review saw a decline in lending rates by approximately 0.8 percentage points versus June 2011 (to 6.4 percent on household loans and 5.1 percent on loans to non-financial corporations), which reflects banks' willingness to grant foreign currency credit;

(iii) average interest rate on leu-denominated time deposits shed 1 percentage point for households (coming in at 5.6 percent in June 2012) and 0.5 percentage points for non-financial corporations (to 4.9 percent in June 2012), in an attempt to adjust funding costs. The distinct degree of volatility preserved the margin between deposit rates to 1 percentage point in favour of retail deposits;

(iv) there were no significant changes in interest rates on foreign currency deposits, which remained relatively low (around 3 percent), albeit slightly higher for households;

(v) interest rate margins between loans and deposits in domestic currency continued to be higher than those in foreign currency, although posting similar readings to June 2011 (7.5 percentage points for households and 4.6 percentage points for companies in 2012 H1), reflecting the anticipated costs associated with credit risk (higher risk perception on household credit). Interest rate margins between loans and deposits in foreign currency narrowed around 1 percentage point in the reviewed period to 3.0 percentage points for households and 2.3 percentage points for companies.

Interest rates on new loans and deposits to non-bank clients (Chart 3.33.) witnessed the following developments June 2011 through June 2012:

(i) average interest rates on leu-denominated loans to households dropped approximately 1 percentage point versus the same year-earlier period, to stand at 11.1 percent, following the rise seen in 2011 H2. Banks charged a 9.5 percent interest rate on leu-denominated corporate loans as of June 2012, i.e. above the previous year's reading, but lower than that recorded September 2011 through February 2012. The effect of the monetary policy measures is more readily visible on household loans in domestic currency, as the interest rate on new loans stood 2 percentage points below that on outstanding loans as of June 2012. Even so, it still exceeded the monetary policy rate by about 6 percentage points, thus stifling somewhat the demand for this particular type of loans. Interest rates on new loans to companies were closer to those on outstanding loans and even came in on the same footing in June 2012 (when the banking system average reached 9.5 percent), while the differential versus the policy rate was lower;

(ii) average interest rates on new foreign currency-denominated loans to households declined 1 percentage point over the period, to stand at 5.1 percent in June 2012, thus fostering demand. The average interest rate on new loans to companies in foreign currency (5.3 percent in June 2012) was comparable to that on household loans;

(iii) interest rates on new deposits in domestic currency were adjusted during the reported period by 1.1 percentage points for households (to 5.6 percent) and 0.5 percentage points for companies (to 4.9 percent) as of June 2012, amid improved domestic macroeconomic conditions. Interest rates on new deposits in foreign currency did not vary considerably compared to the reference period, standing at 3.5 percent for households and 2.4 percent for companies in June 2012. Average interest rates on new deposits are similar to those on the stock of deposits;

(iv) the interest rate margin between new household loans and deposits in domestic currency has remained significantly lower than that calculated based on outstanding loans and deposits (5.5 percentage points compared to 7.5 percentage points in June 2011). The same holds true for business in foreign currency (1.6 percentage points against 3.0 percentage points in June 2012), which further challenges the operational efficiency of financial intermediaries. As far as corporate customers are concerned, the two margins are much closer, which implies the adjustment of the interest rate policy pursued by credit institutions during the previous periods. As banks promoted mainly foreign currency credit, the corresponding margins on new loans and deposits narrowed by around 1.5 percentage points for households (to 1.6 percentage points) and 0.5 percentage points for companies (to 2.8 percentage points) at end-June 2012 against the same year-ago period. Conversely, the margins on leu-denominated business were raised during the period under review by 0.25 percentage points for households (to 5.5 percentage points) and

0.7 percentage points for corporates (to 4.6 percentage points) as of June 2012, as a measure to balance revenues amid expectations on credit risk.

3.2.4.2. Credit quality

Further constraints on customers' financial standing, against the background of still fragile economic growth, were associated with the ongoing worsening quality of banks' loan portfolio. The central bank assesses the quality of bank loans based on accounting and prudential reports.

3.2.4.2.1. Assessing loan quality from a prudential perspective

The non-performing loan ratio[42], calculated based on prudential reports on loan classification[43], is used as a key indicator in assessing the loan portfolio quality from a prudential perspective. The regulations on loan classification were amended as of 1 January 2012 in order to accommodate the adoption of the accounting regulations in line with the International Financial Reporting Standards (IFRS).

Box 3. Changes to prudential banking regulations on loan classification following the enforcement of NBR Regulation No. 11/2011

NBR Regulation No. 11/2011 on the classification of loans and placements, as well as the setting-up and use of prudential valuation adjustments repeals the provisions of NBR Regulation No. 3/2009 on the classification of loans and placements as well as on the setting-up, adjustment and use of specific credit risk provisions, as subsequently amended and supplemented, applicable to credit institutions. The new regulation's provisions on the classification of loans and placements, as well as on the setting-up and use of prudential valuation adjustments are effective as of 1 January 2012.

The regulation applies, at an individual level, to credit institutions, Romanian legal entities, and to branches in Romania of third-country credit institutions, which – for all/part of the exposures in the category of loans/placements defined according to the regulation – determine minimum capital requirements for credit risk, at an individual level, in line with the standardised approach. This piece of legislation regulates:

a) the classification of exposures representing loans/placements;

b) determining the prudential valuation adjustments in relation to classified loans/placements;

c) using the prudential valuation adjustments with a view to determining the value at which the exposures representing loans/placements will be taken into account upon compiling the prudential indicators whose calculation requires the use of the net value of these exposures;

d) using the prudential valuation adjustments with a view to establishing the overall amount to be deducted from own funds so as to determine the latter's overall level.

The regulation introduces several novelties, among which replacing the concept of "credit risk provisions" with those of:

a) prudential valuation adjustments in relation to loans/placements – valuation adjustments in relation to loans/placements, which are compiled and recorded off the balance sheet. They represent the level by which, as applicable, the values of exposures from loans/placements need to be adjusted with a view to determining the value at which they will be taken into account upon compiling the lender's prudential indicators whose calculation requires the use of the net value of these exposures. They will also underlie the establishment of the total amount to be deducted from the lender's own funds with a view to determining their overall level;

[42] The NPL ratio takes into account loans and interest overdue for over 90 days and/or in which case legal proceedings were initiated against the operation or the debtor (classified in national regulations under "Loss 2") as a share in total classified loans and interest. The bank prudential regulation defines the initiation of legal proceedings as constituting at least one of the following measures taken with a view to collecting receivables: a) a court sentence on opening the bankruptcy procedure; b) initiating the foreclosure procedure in relation to individuals or legal entities. The definition of the NPL ratio is compliant with the provisions of the IMF's *Compilation Guide on Financial Soundness Indicators* and is the most widely used at international level. The volume of overdue loan is the outstanding loan and related interest, irrespective of the number of overdue instalments.

[43] NBR Regulation No. 11/2011 (published in *Monitorul Oficial al României*, Part I, No. 684 of 27 September 2011) on the classification of loans and placements, as well as the setting-up and use of prudential valuation adjustments.

b) loans/placements impairment adjustments – impairment adjustments determined in line with the IFRS and recorded in the balance sheet under the accounts specified in Section 4 (“Loans/placements impairment adjustments”) of Annex 1 to the regulation;

c) impairment adjustment assigned to a financial asset representing a loan/placement – IFRS adjustment for impairments identified at individual level for each financial asset representing loan/placement or, as applicable, IFRS adjustments for impairments identified on groups of financial assets/collective adjustments for occurred, but unidentified losses, assigned to each financial asset representing loan/placement.

The new regulation specifies the methodology for the classification of loans and placements, as well as the setting-up and use of prudential valuation adjustments, as follows:

A) Lenders’ exposures from loans to borrowers outside the credit institutions sector shall be classified as follows: a) standard; b) watch; c) substandard; d) doubtful; e) loss.

B) Lenders’ exposures from loans/placements in relation to a particular debtor shall be classified in a single category, based on the principle of declassification by contagion, namely by taking into account the weakest of individual classification categories.

C) The classification follows the steps below (Art. 19 of the regulation):

a) identifying, in the amounts recorded in the loans/placements accounts, all statements representing exposures from operations with a particular debtor and, for each of these exposures, identifying the other necessary attributes for classifying loans and placements, as well as setting-up and using prudential valuation adjustments;

b) classifying these exposures by applying the following criteria simultaneously: 1) debt service; 2) financial performance; 3) initiation of legal proceedings;

c) reclassifying these exposures under a single category, based on the principle of declassification by contagion;

d) for each of these exposures:

1. determining the applicable prudential valuation adjustment:

1.1. optional step – diminishing the value of the exposure in line with the provisions under Chapter III of the regulation, “Diminishing exposures based on collateral”;

1.2. applying the prudential adjustment coefficient to the resulting amount after the step described under para. 1.1 above; the correspondence between classification categories and the prudential adjustment coefficients is laid down in Table 2 of Annex 3 to the regulation;

e) for each of the groups of exposures that together constitute a financial asset representing a loan/placement:

1. determining the applicable prudential valuation adjustment by aggregating the corresponding prudential valuation adjustments, as determined in the step described under letter d) above;

2. determining the impairment adjustment assigned to a financial asset representing a loan/placement, by taking into consideration one of the following values:

2.1. the adjustment value determined in line with the IFRS and recorded in the balance sheet under the specific adjustment accounts for impairments identified at an individual level, as laid down in Section 4 of Annex 1 to the regulation;

2.2. the adjustment value determined by applying the collective adjustment percentage to the gross value of each financial asset within each group of financial assets; the collective adjustment percentage is calculated as a ratio of: (i) the value of adjustments set up, according to the IFRS, for each group of financial assets for which individual impairment adjustments have not been set up – recorded under the specific adjustment accounts for impairments identified for groups of financial assets and in the collective adjustment accounts for occurred, but unidentified losses, as laid down in Section 4 of Annex 1 to the regulation –, and (ii) the overall gross accounting value of the financial assets in that particular group;

3. determining the value at which the exposures representing loans/placements will be taken into account upon determining the prudential indicators whose calculation requires the use of the net value of these exposures. Such value shall be determined by deducting from the exposure value the highest between the amount of the prudential valuation adjustment, determined based on this methodology in the step described under letter e) subparagraph 1 above, and the amount of the impairment adjustment assigned to the financial asset representing a loan/placement, determined based on the lender's accounting records in the step described under letter e) subparagraph 2 above;

4. establishing the total amount to be deducted from the lender's own funds with a view to determining their overall level. The total amount shall be established by determining and aggregating the positive difference between the amount of the prudential valuation adjustment, determined based on this methodology in the step described under letter e) subparagraph 1 above, and the amount of the impairment adjustment assigned to the financial asset representing a loan/placement, determined based on the lender's accounting records in the step described under letter e) subparagraph 2 above;

f) resuming the previous steps for all other debtors the lender is exposed to via loans/placements.

NBR Order No. 26 of 9 December 2011 on certain provisions for enforcing prudential banking requirements in the context of legislative changes related to the implementation of the International Financial Reporting Standards at individual level effective as of 1 January 2012 has brought about several transitory changes to the methodology of loan classification. This was warranted by the methodological complexity and IT support required to credit institutions in order to enforce the provisions of NBR Regulation No. 11/2011 on the classification of loans and placements, as well as the setting-up and use of prudential valuation adjustments.

Box 4. Changes to prudential banking regulations on loan classification following the enforcement of NBR Order No. 26/2011

NBR Order No. 26 of 9 December 2011 (published in Monitorul Oficial al României, Part I, No. 903 of 20 December 2011) on certain provisions for enforcing prudential banking requirements in the context of legislative changes related to the implementation of the International Financial Reporting Standards at individual level effective as of 1 January 2012 brings about several transitory changes to the loan portfolio classification technique, as follows:

From 1 January 2012 to 31 December 2012, NBR Regulation No. 11/2011 shall be enforced by disregarding the provisions under Art. 1, para. (2) letter c) on the use of prudential valuation adjustments with a view to determining the value at which the exposures representing loans/placements will be taken into account upon determining the prudential indicators whose calculation requires the use of the net value of these exposures. Any related provisions shall also be disregarded.

From 1 January 2012 to 31 December 2012, the following shall be taken into consideration when enforcing the provisions of Art. 19 in NBR Regulation No. 11/2011:

a) The step laid down under letter e) subparagraph 3 shall not apply.

b) Subparagraph 4 under letter e) shall be amended as follows:

„4. Aggregating the amounts obtained under subparagraphs 1 and 2, distinctly in the totals below, with a view to determining the amount to be deducted from the lender's own funds:

4.1. total prudential valuation adjustments;

4.2. total assigned impairment adjustments".

c) Letter g) shall be inserted after letter f), reading as follows:

„g) Determining the total amount to be deducted from the lender's own funds, with a view to determining their overall level, via the steps below:

1. obtaining the maximum value after comparing the two totals laid down in subparagraphs 4.1 and 4.2 under letter e) para. 4;

2. determining the difference between the value obtained under para. 1 above and the total impairment adjustments assigned, as laid down in subparagraph 4.2 under letter e). This difference shall be the total amount to be deducted from the lender's own funds".

d) Upon applying the provisions of letters a)-e), the phrase "statements representing exposures" and the term "exposures" shall mean constituent statements of the financial assets: principal, attached receivables and/or amounts to be amortised (debt – positive; credit – negative). As part of the step under letter d), under para. 1 statements are diminished depending on collateral, and therefore subparagraph 1.1 shall apply solely to positive statements; subparagraph 1.2 shall apply, instead of para. 1 under letter e), to the positive amounts resulting from aggregating the previously-obtained values, in relation to the constituent statements of the financial assets.

From 1 January 2012 to 31 December 2012, upon calculating the bank prudential indicators, the valuation adjustment of the assets under the scope of NBR Regulation No. 11/2011 shall represent:

a) the prudential valuation adjustment if, following the enforcement of the provisions under Art. 19 letter g) para. 1 of the same regulation, the total of prudential valuation adjustments is higher than or equal to the total of assigned impairment adjustments; or

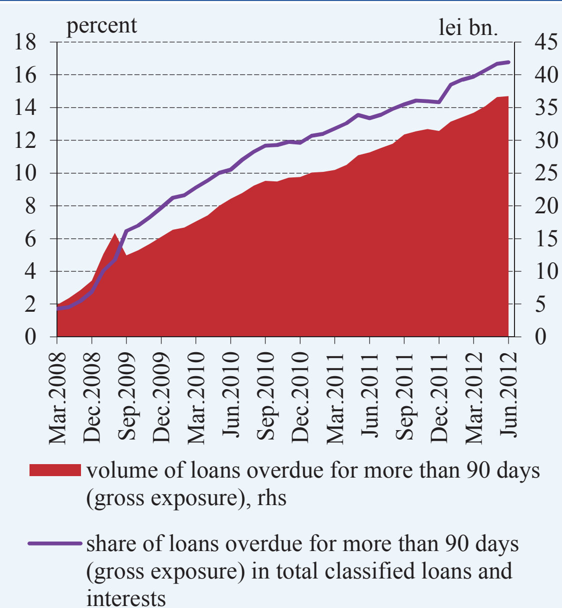
b) the assigned impairment adjustment if, following the enforcement of the provisions under Art. 19 letter g) para. 1 of the same regulation, the total of prudential valuation adjustments is lower than the total of assigned impairment adjustments.

The volume of loans and interest overdue for more than 90 days and/or for which legal proceedings were opened against the operation/debtor, as reported by credit institutions, has continued to expand since the release of the previous report, albeit at a slower pace (up 28.9 percent at end-2011 versus 59.8 percent in 2010 and 77.9 percent in 2008). Behind this stood primarily further constraints on customers' financial standing, amid economic growth way below potential. Consequently, the share of non-performing loans (calculated in terms of gross exposure[44] based on the data in prudential reports) in total classified loans and interest stayed on an upward path (Chart 3.34.), widening to 14.3 percent at end-2011 and 16.8 percent in June 2012. However, a slower pace of deterioration is further noticeable, as the indicator increased by 2.5 percentage points in 2011 compared to 4 percentage points in 2010 and 5 percentage points in 2009. The higher NPL ratio in 2012 was partly[45] due to the new approaches implied by the IFRS accounting standards (such as balance sheet recognition of any receivables previously recorded in off-balance sheet accounts, based on specific regulations, for which future cash flows have been calculated), but also to customers' financial standing. The surveys conducted among credit institutions grouped by asset size (Chart 3.35.) have pointed to a better loan portfolio quality in the case of large banks.

[44] Pursuant to NBR Regulation No. 11/2011 on the classification of loans and placements, as well as the setting-up and use of prudential valuation adjustments, as subsequently amended and supplemented, the gross value of the financial asset representing a loan/placement is the value at which the financial asset is valued on the initial recognition date minus principal repayments, plus or minus the cumulated amortization – based on the effective interest rate method – of any difference between the initial value and the value at maturity. Hence, the calculation of this indicator does not take into account the prudential valuation adjustments or the value of collateral set up by borrowers, although they are powerful instruments in diminishing credit risk, along with comfortable capital reserves.

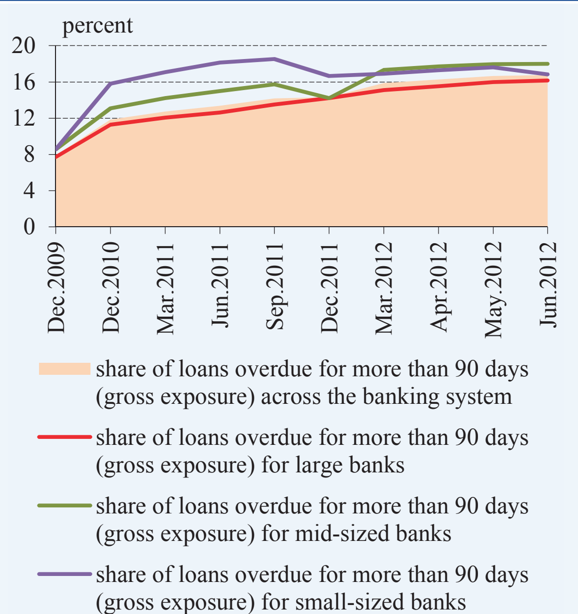
[45] The balance sheet recognition of receivables previously recorded in off-balance sheet accounts made up 16 percent of the overall increase in the volume of non-performing loans in January 2012 versus December 2011. Calculations are based on the results of a survey spanning 20 banks, Romanian legal entities, 11 of which confirmed they had conducted such operations.

Chart 3.34. Non-performing loans at aggregate level



Source: NBR

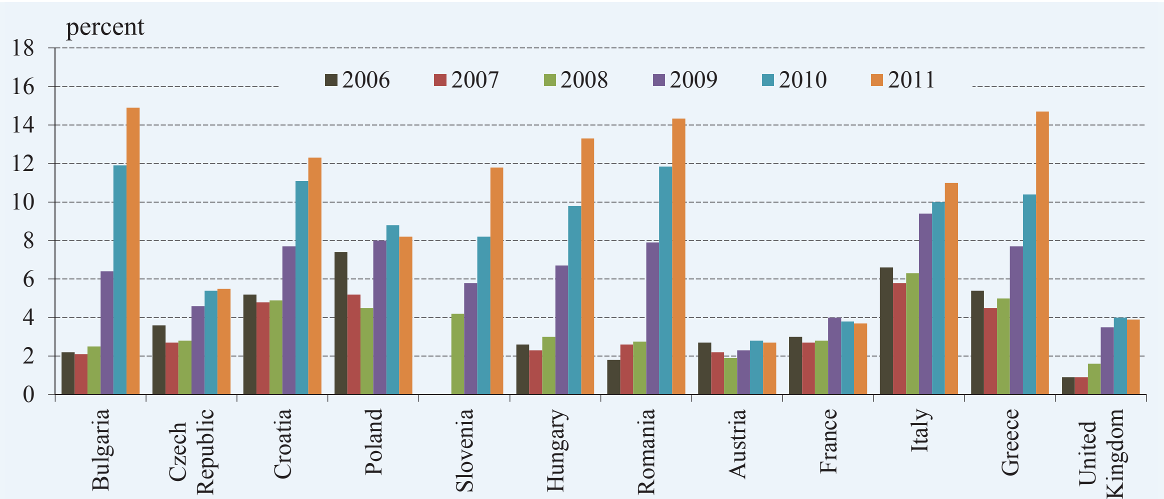
Chart 3.35. Non-performing loans across banks grouped by asset size



Source: NBR

With only a few exceptions, the worsening quality of loan portfolios remained a common feature of the European financial market[46] in 2011 (Chart 3.36.), given the depressed economic growth in the area, to which added the losses induced by the sovereign debt crisis (the declining value of Greek bonds was one of the factors that hit many of the large cross-border banks).

Chart 3.36. Loan portfolio quality in selected EU countries (share of non-performing loans in total loans)



Source: International Monetary Fund (Financial Soundness Indicators, April 2012), NBR calculations

[46] There is no single definition for non-performing loans across the European Union and therefore the assessments should take into consideration the differences between national methodologies. European policymakers are currently trying to identify the best way to harmonise definitions across Member States.

Although the large volume of non-performing loans is a source of concern, Romania ranked among the states with a moderate pace of decline in loan quality in 2011, as countries such as Greece, Bulgaria, Hungary and Slovenia posted less favourable developments, with the share of non-performing loans widening 3-4 percentage points as compared to 2.5 percentage points in Romania).

3.2.4.2.2. Assessing loan quality from an accounting perspective

As of 1 January 2012, credit institutions are bound to enforce the accounting regulations compliant with the International Financial Reporting Standards[47] as an accounting basis. Thus, several indicators calculated based on the financial statements reported by credit institutions were set in order to monitor the loan portfolio quality:

a) impaired claims of non-bank customers (gross value)/Total loan portfolio of customers (gross value);

b) impaired claims of non-bank customers (net value)/Total loan portfolio of customers (net value).

The methodological differences between the regulation compliant with European directives (which define *overdue and doubtful claims*), on one hand, and the regulation compliant with the IFRS (which define *impaired claims*), on the other hand, render impossible the comparison between indicators calculated based on the two accounting standards[48]. Hence, starting 1 January 2012, the loan portfolio quality measurement indicators calculated based on financial statements have been tailored to the new accounting realities.

January through June 2012, the share of impaired claims of non-bank customers (gross value) widened 2.0 percentage points, from 17.1 percent in total portfolio in January 2012 to 19.1 percent in June 2012. In terms of net value, the indicator held sway January through May 2012 at 10.6 percent, before rising to 11.3 percent in June.

[47] Prior to the coming into force of NBR Order No. 27/2010 approving the Accounting Regulations in line with the International Financial Reporting Standards applicable to credit institutions, as subsequently amended and supplemented, banks had used as an accounting basis the accounting regulations compliant with EU Directives, applicable to credit institutions, non-bank financial institutions and the Deposit Guarantee Fund in the Banking System, approved by NBR Order No. 13/2008, as subsequently amended and supplemented (effective until 31 December 2011), which defined **overdue** and **doubtful claims**. **Overdue claims** comprised all past-due loans and interest, including overdue payments of at least one day. **Doubtful claims** consisted of loans and related interest in the case of which banks had initiated legal proceedings against the debtor in order to recover them.

[48] The indicators used by the central bank in measuring the loan portfolio quality, calculated based on accounting regulations compliant with European directives, were as follows: Overdue and doubtful loans to customers (gross value)/Total loan portfolio of customers (gross value); Overdue and doubtful loans to customers (net value)/Total loan portfolio of customers (net value). At end-2011, the aforementioned indicators stood at 8.8 percent and 2.3 percent respectively.

Box 5. Criteria laid down in the IFRS accounting standards for the balance sheet recognition of impaired claims of non-bank customers

The International Accounting Standard 39, Financial Instruments: Recognition and Measurement, specifies – under the heading "Impairment and uncollectibility of financial assets" – both the definition of impaired assets and the criteria underlying the classification of assets under this category, as follows:

58. An entity shall assess at the end of each reporting period whether there is any objective evidence that a financial asset or group of financial assets is impaired. If any such evidence exists, the entity shall apply paragraph 63 (for financial assets carried at amortised cost), paragraph 66 (for financial assets carried at cost) or paragraph 67 (for available-for-sale financial assets) to determine the amount of any impairment loss.

59. A financial asset or a group of financial assets is impaired and impairment losses are incurred if, and only if, there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset (a 'loss event') and that loss event (or events) has an impact on the estimated future cash flows of the financial asset or group of financial assets that can be reliably estimated. It may not be possible to identify a single, discrete event that caused the impairment. Rather the combined effect of several events may have caused the impairment. Losses expected as a result of future events, no matter how likely, are not recognised. Objective evidence that a financial asset or group of assets is impaired includes observable data that comes to the attention of the holder of the asset about the following loss events: (a) significant financial difficulty of the issuer or obligor; (b) a breach of contract, such as a default or delinquency in interest or principal payments; (c) the lender, for economic or legal reasons relating to the borrower's financial difficulty, granting to the borrower a concession that the lender would not otherwise consider; (d) it becoming probable that the borrower will enter bankruptcy or other financial reorganisation; (e) the disappearance of an active market for that financial asset because of financial difficulties; or (f) observable data indicating that there is a measurable decrease in the estimated future cash flows from a group of financial assets since the initial recognition of those assets, although the decrease cannot yet be identified with the individual financial assets in the group, including: (i) adverse changes in the payment status of borrowers in the group (e.g. an increased number of delayed payments or an increased number of credit card borrowers who have reached their credit limit and are paying the minimum monthly amount); or (ii) national or local economic conditions that correlate with defaults on the assets in the group (e.g. an increase in the unemployment rate in the geographical area of the borrowers, a decrease in property prices for mortgages in the relevant area, a decrease in oil prices for loan assets to oil producers, or adverse changes in industry conditions that affect the borrowers in the group).

60. The disappearance of an active market because an entity's financial instruments are no longer publicly traded is not evidence of impairment. A downgrade of an entity's credit rating is not, of itself, evidence of impairment, although it may be evidence of impairment when considered with other available information. A decline in the fair value of a financial asset below its cost or amortised cost is not necessarily evidence of impairment (for example, a decline in the fair value of an investment in a debt instrument that results from an increase in the risk-free interest rate).

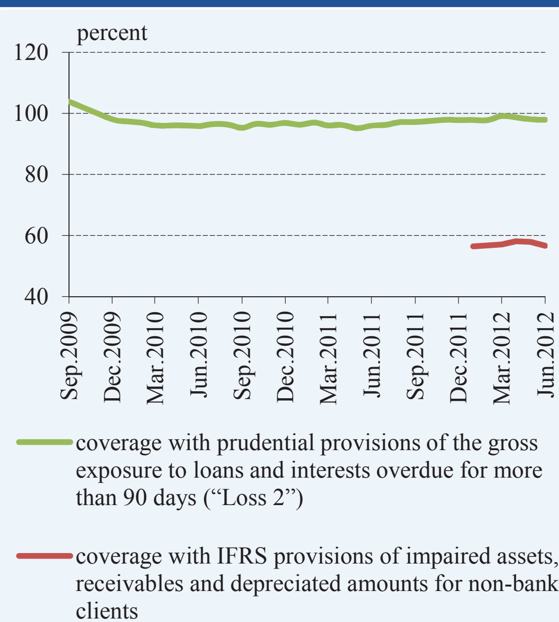
61. In addition to the types of events in paragraph 59, objective evidence of impairment for an investment in an equity instrument includes information about significant changes with an adverse effect that have taken place in the technological, market, economic or legal environment in which the issuer operates, and indicates that the cost of the investment in the equity instrument may not be recovered. A significant or prolonged decline in the fair value of an investment in an equity instrument below its cost is also objective evidence of impairment.

62. In some cases the observable data required to estimate the amount of an impairment loss on a financial asset may be limited or no longer fully relevant to current circumstances. For example, this may be the case when a borrower is in financial difficulties and there are few available historical data relating to similar borrowers. In such cases, an entity uses its experienced judgement to estimate the amount of any impairment loss. Similarly an entity uses its experienced judgement to adjust observable data for a group of financial assets to reflect current circumstances […]. The use of reasonable estimates is an essential part of the preparation of financial statements and does not undermine their reliability.

3.2.4.2.3. Loan provisioning

The volume of provisions set up by banks pursuant to prudential banking regulations (referred to as "prudential valuation adjustments" in line with the norms effective 1 January 2012, when the relevant amounts stopped being recorded in the balance sheet) continued to expand in 2011, with the provision balance[49] rising at an annual pace of 30.1 percent compared to 58 percent in 2010 and the twofold increase seen in 2009, when the economic contraction and the fiscal adjustment measures put pressure on borrowers' incomes. As a novelty, in 2012 banks calculate the level of provisions based both on prudential banking norms[50] (lei 35.9 billion in June 2012, 16.8 percent higher than at end-2011) and on IFRS standards (referred to as "impairment adjustments", with a balance of lei 25.5 billion in June 2012). As of 2012, banks record in their balance sheet only the impairment adjustments calculated in line with the IFRS accounting standards, while the positive difference between total prudential valuation adjustments and the total assigned impairment adjustments is used as a prudential filter for the calculation of own funds and of bank prudential indicators.

Chart 3.37. Coverage with provisions of classified loans and interests



Source: NBR

For assessment purposes, the central bank uses certain indicators measuring provisioning adequacy (Chart 3.37.). These indicators are calculated in line with both prudential banking norms and the new accounting regulations effective since 1 January 2012. Provisioning indicators are calculated based on the gross exposure of non-performing/impaired assets, reflecting a prudent approach[51] to collateral value under stress (i.e. illiquid markets).

There is no full harmonisation of accounting and prudential regulations across the EU. Therefore, the definition of coverage with provisions of non-performing loans[52] is heterogeneous (Chart 3.38.).

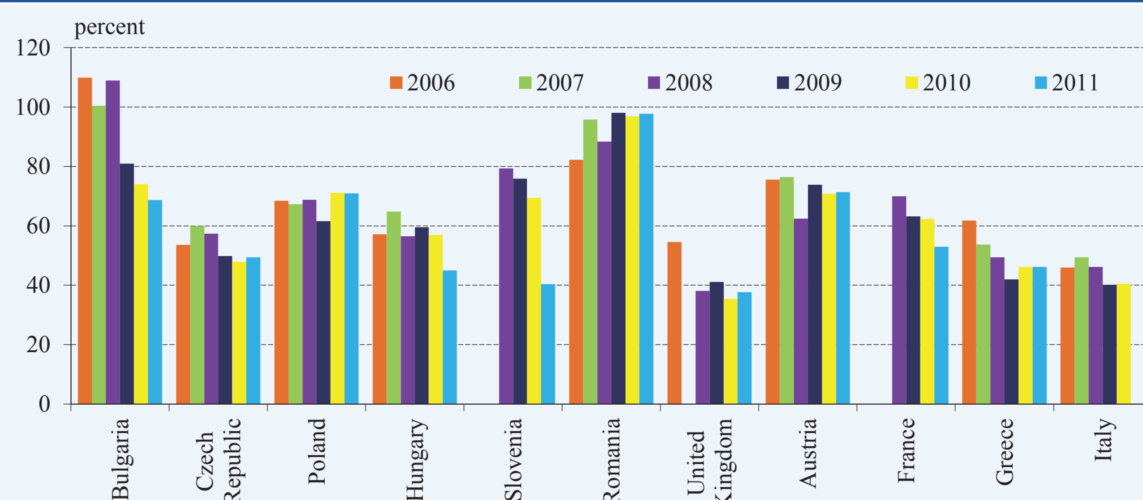
[49] NBR Regulation No. 11/2011 on the classification of loans and placements, as well as the setting-up and use of prudential valuation adjustments, as subsequently amended and supplemented, set up prudential adjustment coefficients both for loans in foreign currency or indexed to a foreign exchange rate granted to unhedged borrowers, natural entities and for loans granted to hedged borrowers. The prudential adjustment coefficients for the latter are as follows: "watch" – 0.05; "substandard" – 0.2; "doubtful" – 0.5; "loss" – 1. The provisioning coefficients for loans granted to unhedged borrowers, natural entities, are higher: "standard" – 0.07; "watch" – 0.08; "substandard" – 0.23; "doubtful" – 0.53; "loss" – 1.

[50] Prudential banking regulations require a unitary approach to the methodology of setting-up prudential valuation adjustments, ensuring the comparability of indicators reported by banks. In Romania, loan classification standards are prudent. The new regulation takes over from the previous one the provisions on the recognition of collateral associated with non-performing loans. This approach is based on prudential considerations related to lower collateral value in the event of illiquid markets. The provision refers to adjusting the collateral on exposures representing the principal of loans/placements classified as "loss", in which case the debt service has exceeded 90 days and/or legal proceedings were initiated, by coefficients up to 0.25. Furthermore, guarantees for exposures representing claims and amortized amounts attached to loans/placements classified as "loss" shall not be taken into consideration, the coefficient applicable to the respective guarantees being zero.

[51] The mentioned indicators are calculated taking into account the gross exposure, which does not incorporate the credit risk mitigation effect of debtors' collateral.

[52] In order to make a comparison, the prudential definition of the non-performing loan was used for Romania, namely the indicator calculated as a ratio of total provisions to the gross exposure of loans and interest overdue for over 90 days and/or in which case legal proceedings were initiated, as reported by banks in the loan classification statement.

Chart 3.38. Coverage of non-performing loans in selected EU countries



Source: International Monetary Fund (Financial Soundness Indicators, April 2012); NBR calculations

3.2.5. Liquidity risk

The liquidity position of banks broadly remained at a comfortable level in the period under review. Systemic risk was further small, as bilateral interbank exposures were low in relation to own funds and liquid assets of creditor banks. The adjustment in funding from parent banks generally unfolded in an orderly manner and did not generate significant tensions in terms of banking system liquidity. Currency swaps with non-resident credit institutions, while involving certain risks[53], are playing an increasing role in EUR-denominated funding, alleviating the currency mismatch between assets and liabilities. USD-denominated funding is only marginal in the domestic banking system, meaning that any reduction in the availability of such funds is not likely to trigger liquidity problems.

The NBR standardised the weekly frequency of repo operations, with the provided amounts increasing during 2012 Q2, while also improving liquidity risk management by supplementing the regulatory framework.

The imbalance between credit to the private sector and financing resources from domestic non-bank clients widened slightly in the latter part of 2011, amid the faster growth rate[54] of lending. This indicator posted a trend reversal starting in January 2012, slightly approaching the level recorded in several countries in the region (Chart 3.39.). Most banks with majority Greek capital[55] witnessed a worsening of the loan/deposit ratio during the period under review (Chart 3.40.), primarily under the impact of negative developments in deposits of domestic non-bank clients, who preferred other credit institutions in Romania – including majority or fully Romanian-owned banks – amid an uptrend in bank saving. As regards Greek-owned banks, part of the short-term deposits of local customers were not renewed at maturity, owing to some depositors' negative sentiment induced by recent developments

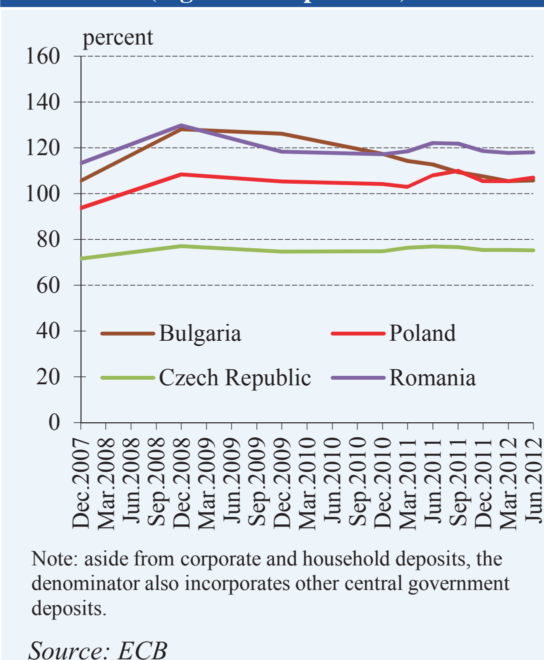
[53] FX swaps involve risks in terms of ensuring a continuously available funding source.

[54] The growth rates indicate real annual changes calculated based on monetary balance sheet data.

[55] Alpha Bank, ATE Bank, *Banca Românească* – National Bank of Greece Group, Bancpost, and Piraeus Bank.

in the parent banks' country of origin. However, the impact of the aforementioned developments was rather moderate, as these banks reported a liquidity ratio[56] above the regulated threshold.

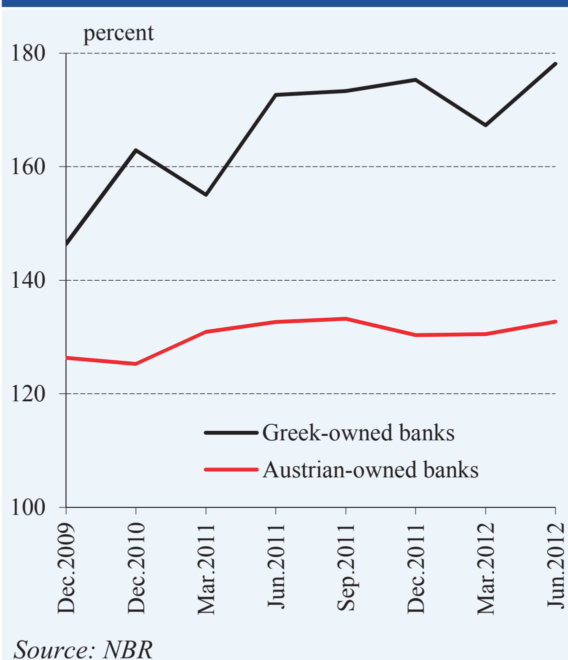
Chart 3.39. Non-government loans/deposits (regional comparisons)



Note: aside from corporate and household deposits, the denominator also incorporates other central government deposits.

Source: ECB

Chart 3.40. Non-government loans/deposits across Greek- and Austrian-owned banks



Source: NBR

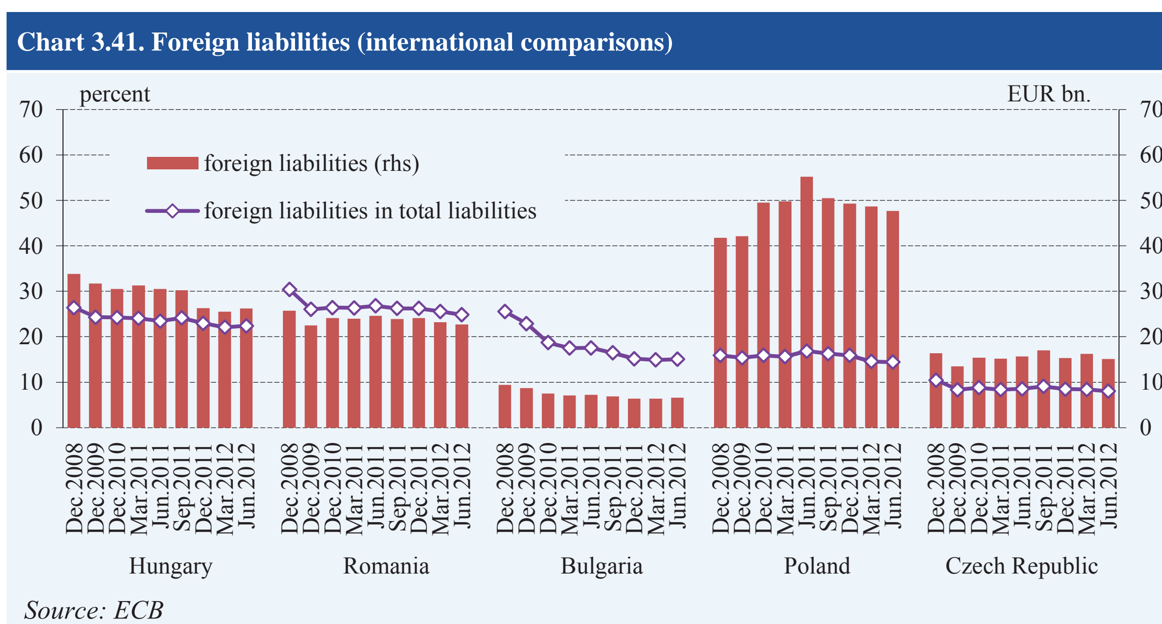
Looking at the entire banking sector, local market deposits further acted as the main funding source for banks (47 percent of total liabilities at end-June 2012), up 1.7 percentage points from the same year-earlier period, especially on account of favourable developments in household deposits.

Amid the slight uptrend in local funding sources manifest in 2011 Q4 and in 2012 H1, the banking sector's reliance on external financing – although declining 2.4 percentage points at end-June 2012 versus the same year-ago period, to 24.8 percent of total liabilities[57] – exceeded further the average for the countries in the region (Chart 3.41.). Short-term external debt of banks in Romania shed EUR 1 billion to EUR 6.4 billion at end-June 2011 compared to the same period a year earlier.

[56] Pursuant to NBR Regulation No. 24/2009 on credit institutions' liquidity, in force until 31 December 2011, banks had to maintain at above 1 the liquidity indicator calculated as a ratio of effective and required liquidity for all operations in lei equivalent and for the maturity band of over 12 months. As of 1 January 2012, in line with NBR Regulation No. 25/2011 on credit institutions' liquidity, banks have to maintain a liquidity indicator – calculated for all operations in lei equivalent – of up to 1 for the maturity bands of up to one month, between one and three months, between three and six months, and between six and twelve months.

[57] At end-June 2012, the share of foreign liabilities of three out of the five subsidiaries of Greek banks in Romania exceeded the average for the banking system.

Chart 3.41. Foreign liabilities (international comparisons)



Source: ECB

The vulnerability associated with short-term external debt is reduced both by the prevalence of medium- and long-term funding from parent banks[58] and by the generally comfortable liquidity position[59] of banks, which also have in place the required collateral in the event of accessing central bank liquidity. The share of medium- and long-term funding from parent banks in total funding narrowed by 2 percentage points in June 2012 as against the same year-ago period to stand at 68.4 percent. Although under pressure from unfavourable global developments, the adjustment in parent bank funding generally occurred in an orderly manner and did not generate major disruptions in terms of banking system liquidity. The leu-denominated component was particularly affected, whereas the share of EUR-denominated funding widened. Financing in euro accounts for around two thirds of the total funds from parent banks and thus acts towards improving the currency mismatch between credit institutions' assets and liabilities. The average maturity of parent bank funding was on the rise (over 18 months) during 2012 H1 (Chart 3.42.).

The share of capital and other reserves added 1.8 percentage points to 16.9 percent in total liabilities at end-June 2012. Domestic interbank deposits further held a small share in total liabilities, i.e. 1.6 percent at end-June 2012, the transmission of the contagion risk in the banking system via this channel being contained.

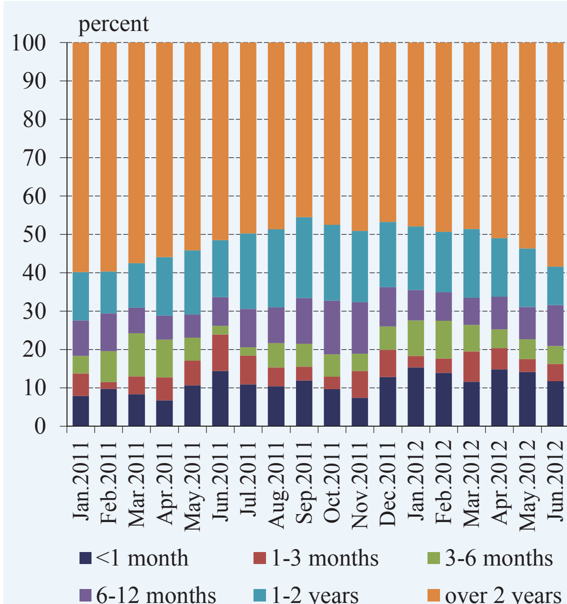
The larger holdings of government securities, which expanded at a quick pace in 2012 Q1 and at a slower rate in 2012 Q2, contributed to the improved liquidity position of the banking sector (Chart 3.43.). The provision of short-term liquidity by pledging government securities in interbank lending is reduced, given that only 0.8 percent of the volume of holdings of available securities[60] were pledged at end-June 2012. The temporary decrease in the volume of holdings of available securities in 2012 Q2 was primarily due to one-week repo operations with the central bank.

[58] At end-June 2012, parent banks held 83.1 percent of total non-resident deposits with credit institutions in Romania.

[59] Liquidity indicators of the banking system posted adequate readings at end-June 2012: immediate liquidity (calculated as availabilities and deposits with banks plus unpledged securities to total liabilities) was of 35.4 percent, while the liquid assets/short-term liability ratio stood at 145 percent (this indicator includes the assets, liabilities and off-balance-sheet items with maturities of up to three months); at end-June 2012, the regulatory liquidity indicator exceeded the regulatory threshold of 1 for all maturity bands, as follows: 1.6 (up to one month), 3.4 (between one and three months), 5.8 (between three and six months), and 4.4 (between six and twelve months).

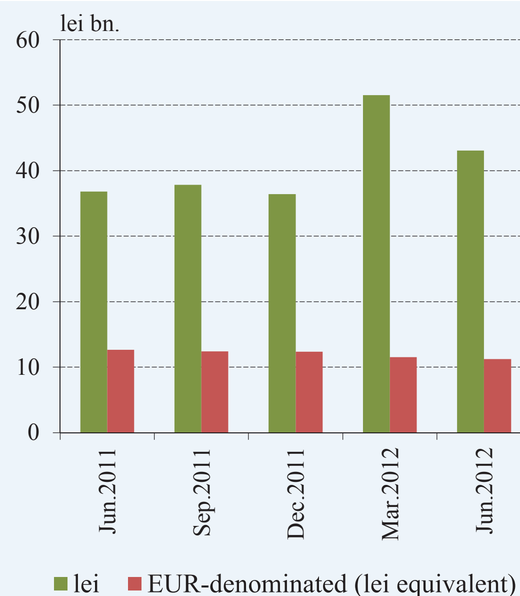
[60] The updated value of leu-denominated government securities held by participants in the SaFIR system as of 29 June 2012.

Chart 3.42. Parent bank funding by maturity



Source: NBR

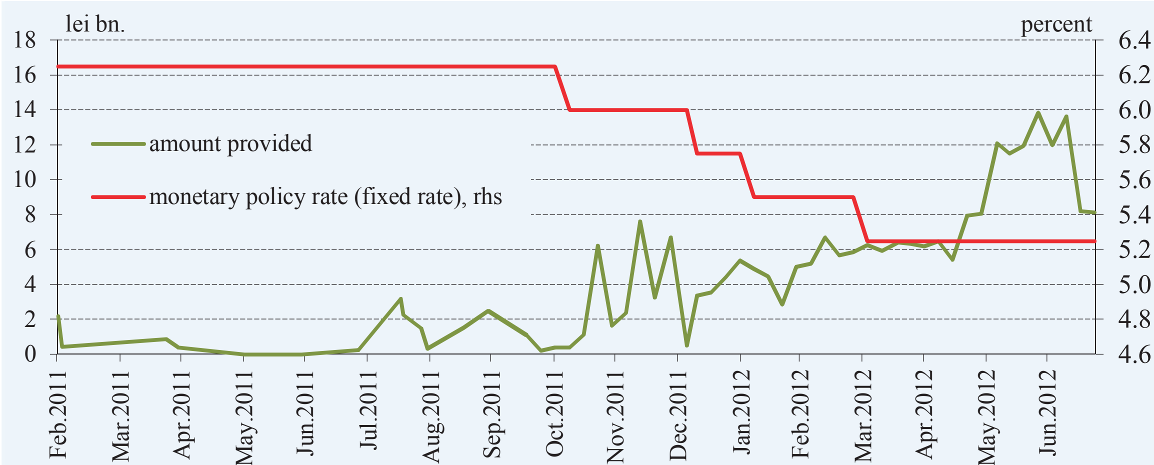
Chart 3.43. Holdings of available securities (unpledged and not involved in repo operations with the NBR)



Source: NBR, SaFIR

The NBR provides liquidity to credit institutions via repo operations conducted through fixed-rate auctions (at the monetary policy rate, which stood at 5.25 per annum in June 2012). The higher likelihood of banks further posting a net liquidity deficit prompted the central bank to standardise the frequency of liquidity-providing operations starting in October 2011, by organising one-week repo operations through weekly fixed-rate auctions. Against the background of: (i) worsening risk conditions on global financial markets, with implications in terms of the risk associated with the domestic banking system; (ii) larger holdings of government securities by commercial banks in 2012 H1, and (iii) expanding from three to five, as of end-May 2012, the series of eligible assets that a credit institution may submit during the fixed-rate tenders, repo operations have become a viable alternative for ensuring liquidity, and hence the amounts related to such operations increased throughout 2012 Q2 (Chart 3.44.).

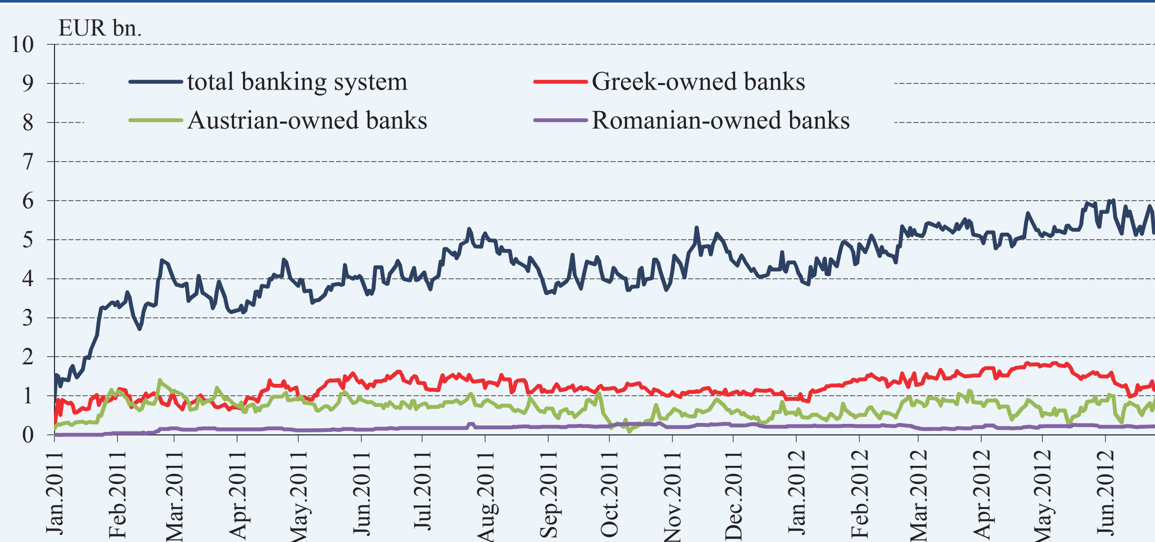
Chart 3.44. Amounts provided through repo operations



Source: NBR

FX swaps with non-resident credit institutions gained increasing importance as a funding source in euro for banks in the domestic banking system. They witnessed a rise in 2012 in terms of both traded volumes and number of transactions, given the liquidity of the relevant market and the relatively lower financing costs (such an operation is basically a loan in euro with lei collateral). During 2012 Q2, the daily net balance of funding sources in euro attracted via FX swaps exceeded EUR 5 billion, i.e. the equivalent of more than one third of the EUR-denominated funds taken from the foreign market (Chart 3.45.). Most banks in the system resort to these types of operations, yet the manner differs. A potential vulnerability relates to the short maturity of these operations, which implies the need for refinancing and reliance on the liquidity of this market, especially in the case of high-volume transactions. FX swaps play a major role in improving the currency mismatch between credit institutions' assets and liabilities.

Chart 3.45. Daily net balance of EUR-denominated funds from FX swaps with non-resident credit institutions



Source: NBR

EUR-denominated funding of Romanian non-financial corporations via FX swaps, albeit on the rise, continues to be subdued. During 2012 Q2, the daily net balance of euro funding to corporates via FX swaps exceeded EUR 120 million, accounting for less than 1 percent of EUR-denominated credit to non-financial corporations. Although this manner of financing companies in euro has never been a major feature from a historical perspective, both the volume and the number of transactions have increased lately. The maturity of these types of operations is generally short (almost half of the transactions have a maturity of up to two weeks), indicating that companies resort to this funding channel in order to meet their immediate liquidity needs in euro. Only a limited number of banks conduct FX swaps with companies and they generally cover the risk associated with entering opposite operations with non-resident credit institutions, parent banks included.

USD-denominated funding is marginal in the domestic banking system. USD-denominated liabilities account for less than 3 percent of total liabilities across the Romanian banking system. The structural breakdown reveals that deposits hold around 90 percent of USD-denominated liabilities, with the remainder being accounted for by capital and reserves. This structure remained unchanged throughout 2011 and in 2012 H1. The share of USD-denominated exposures in total assets stands below 2 percent, with loans to non-bank clients accounting for approximately 90 percent of these exposures.

Intra-group funding in USD is insignificant system-wide. USD-denominated funding on the foreign market is also marginal, as only 2 percent of the funds raised by the domestic banking system from the external market are denominated in US dollars, the largest share of which comes from financial institutions other than parent banks. FX swaps whereby domestic banks purchase US dollars from non-resident credit institutions play a minor role in ensuring the required amounts in this currency over the short term. The net daily volumes raised through FX swaps hovered around USD 50 million, the equivalent of 10 percent of foreign liabilities in US dollars from credit institutions. Risks stemming from a potential reduction in USD-denominated are marginal and do not raise any liquidity challenges to the Romanian banking sector.

Stress testing exercises have pointed to adequate liquidity across the banking sector, underpinned by a stable volume of deposits system-wide, a significant share of government securities in total asset portfolio, as well as by relatively stable parent bank funding in terms of both volume and maturity. Potential banking system vulnerabilities associated with liquidity relate to uncertainties surrounding the persistence of external funding mainly from parent banks, to the currency mismatch between assets and liabilities, as well as to the confidence crunch likely to generate asymmetric deposit flows among various bank groups depending on the origin of capital.

The NBR ensured the adequate management of liquidity in the banking system, while also expanding the range of eligible assets for liquidity-providing operations[61]. Furthermore, in November 2011 the central bank resumed the prudent rate-cutting cycle, which was discontinued in May 2012. Recent market developments highlighted that liquidity risk management is a key factor of credit institutions' soundness. To this end, the management of the liquidity risk was improved, including via adequately managing liquidity in the system and supplementing the regulatory framework[62].

[61] Following the NBR Board's decision, the range of eligible assets for open market operations and for the central bank's credit facility was expanded starting 3 October 2011. Specifically, the list of eligible assets was extended to include EUR-denominated bonds issued by Romania on the external market and deposited with the Euroclear system, as well as leu-denominated bonds issued by international financial institutions and deposited with Euroclear. Following the implementation of the direct links between SaFIR and RoClear systems, starting on 10 April 2012, the list of eligible assets was expanded to include leu-denominated bonds issued by international financial institutions and deposited with RoClear. The NBR Board also decided on expanding, as of 1 March 2012, the range of eligible assets accepted by the National Bank of Romania for its open market operations, as well as liquidity-providing and payment system guarantee operations. Thus, the list of eligible assets was extended to include USD-denominated bonds issued by Romania on international markets and registered in SaFIR through the direct link with Euroclear, under the ISIN code dedicated to US non-resident investors.

[62] NBR Regulation No. 25/2011 on the liquidity of credit institutions superseded, as of 1 January 2012, NBR Regulation No. 24/2009 on the liquidity of credit institutions. Key amendments included: changes to the treatment of loans to non-bank clients, adjustments in fixed-income securities depending on the residual maturity, as well as changes to clients' creditor current accounts in the sense of applying a treatment similar to demand deposits.

NBR Regulation No. 10/2012 amended and supplemented NBR Regulation No. 18/2009 on governance arrangements of credit institutions, internal capital adequacy assessment process and the conditions for outsourcing their business. Pursuant to NBR Regulation No. 10/2012, contingency funding plans should consider at least the potential contingency funding sources available in case of a reduction in the supply from different counterparty categories. The regulation binds credit institutions to regularly test and update formal contingency funding plans so as to ensure they are operationally sound. In particular, credit institutions should consider the feasibility of the actions included in the contingency funding plans in the event several banks tried to apply them simultaneously.

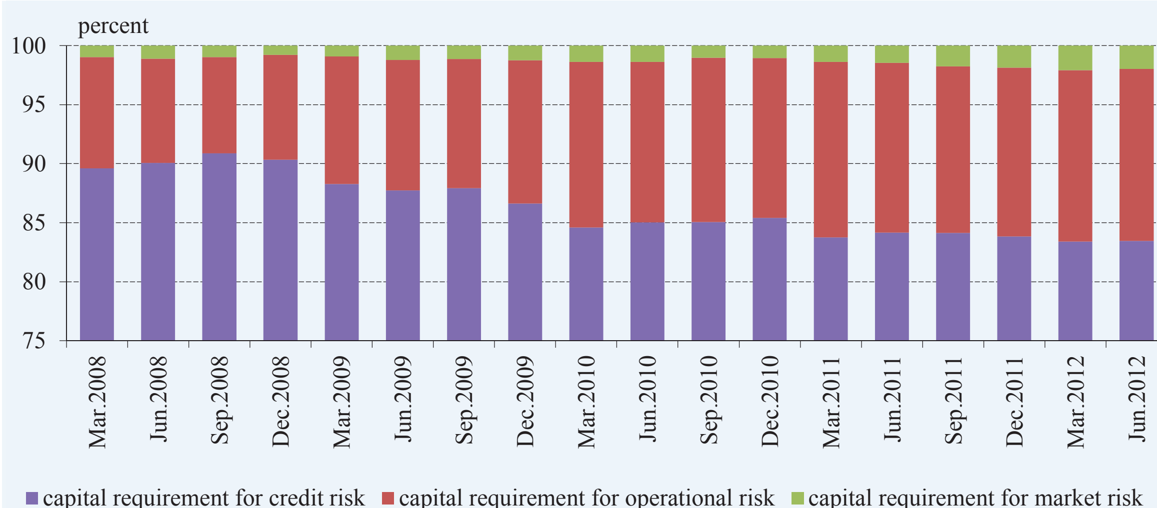
3.2.6. Market risk

The interest rate risk for credit institutions is on the rise compared to the previous years, as reflected by the larger share of regulatory capital requirement associated with this risk in total capital requirements[63]. In June 2012, the potential loss in the event of an adverse scenario materialising following a parallel shift of the yield curve[64] by 200 basis points would have caused a 8.04 percent drop in the level of own funds, primarily ascribable to higher interest rates on leu-denominated exposures. Certain credit institutions that have posted considerable increases in the volume of fixed-interest assets (government bonds in particular) face an increased vulnerability, with a detrimental impact on own funds (Chart 3.48.). Currency risk remained low.

Interest rate risk

In 2011 and 2012 H1 a significant increase in the volume of fixed-income assets occurred, amid the larger share of holdings of discount treasury certificates and government bonds. The potential materialisation of an adverse scenario, incorporating a considerable increase in interest rates, would impact either credit institutions' profitability in relation to the items held in the trading portfolio or their capital, if they are accounted for as "available for sale" (government securities are recorded in the books primarily as "available for sale", accounting for approximately 59 percent of total security holdings as of June 2012). Assuming a persistent increase in the interest rate, the "held-to-maturity" securities would have an indirect effect on credit institutions' capital via lower net interest income, given that the coupon rate cannot be reset depending on the higher funding costs. The share of capital requirement for market risk in the overall capital requirement for regulatory risks trended upwards March 2008 through June 2012 (Chart 3.46.).

Chart 3.46. The share of capital requirement for market risk in the overall capital requirement



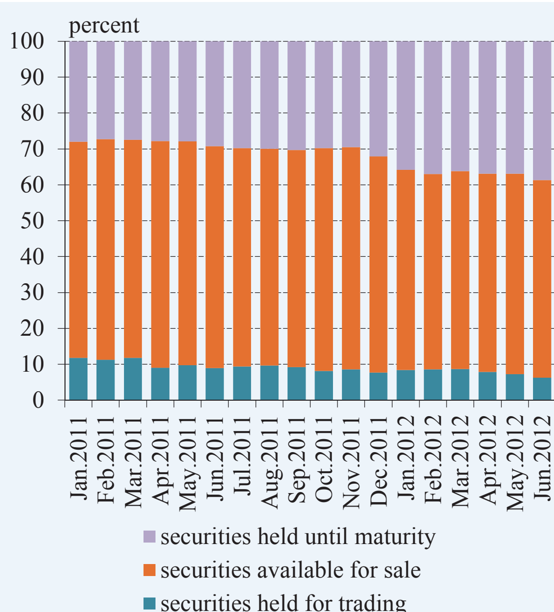
Source: NBR

[63] The regulatory capital requirement under Pillar 1 does not incorporate specific interest rate risk requirements for the banking book.

[64] The zero-coupon yield curve was estimated based on actual government bond transactions on the secondary market.

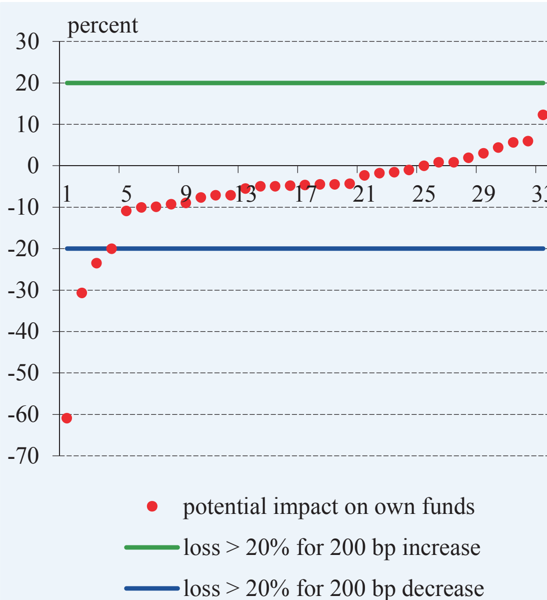
The simulations conducted in the event of the adverse scenario materialising, which would imply a 200 basis point-shift of the yield curve, hint at a heterogeneous distribution of risk vulnerability across credit institutions, with an aggregate loss of around 8.04 percent of own funds assuming higher interest rates. The maturity mismatch of interest rate risk-sensitive assets and liabilities would have, for some credit institutions, a detrimental impact on own funds in the event of shocks persisting throughout the relevant horizon[65] (Chart 3.48.). It is to be noted that most credit institutions would incur losses in case of an increase in interest rates. The larger number of transactions on the secondary market for government securities and the launch, in February 2012, of an issue with a 15-year maturity will enable a more accurate measurement of changes in market expectations. On 30 June 2012, the yield curve suggested a monotonous relationship between maturity and expected return. There is a moderate risk of an economic environment marked by low yields due to a narrowing spread between lending rates and funding costs (costs generated by developments in short-term interest rates).

Chart 3.47. Balance sheet recognition of security holdings



Source: NBR

Chart 3.48. Credit institutions ranked by the impact of a 200 bp shock on own funds



Source: NBR

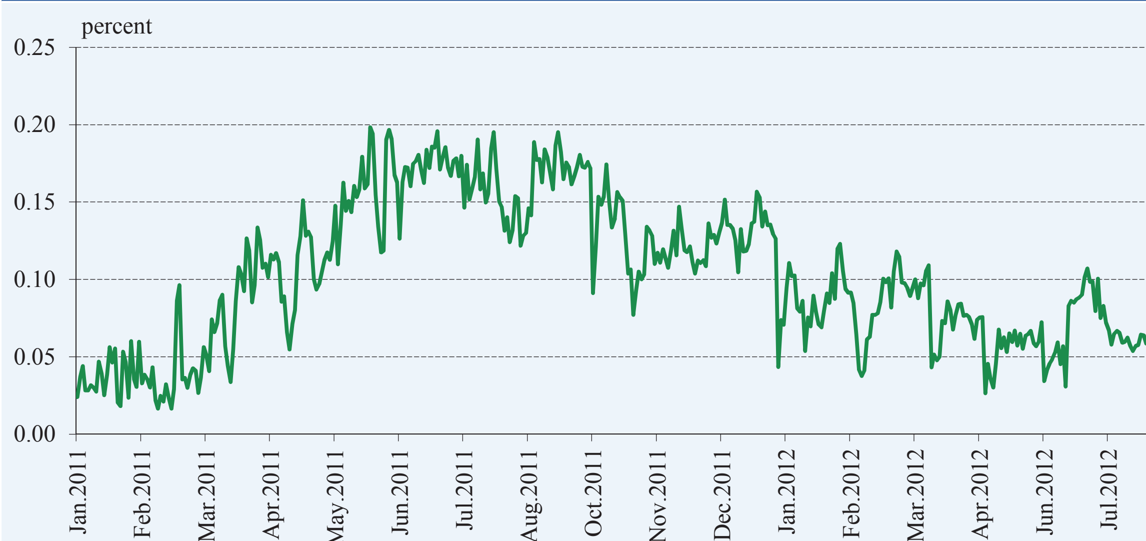
The use of hedging derivatives is only marginal, with an accounting value that does not exceed 1 percent of total assets and liabilities of credit institutions. In particular, fair value hedges prevail, especially OTC-traded instruments for hedging against currency risk.

[65] The assessment spans assets and liabilities divided into 13 maturity bands, with maturities/revaluation frequencies ranging between up to one month and over 20 years.

Currency risk

The direct impact of an exchange rate shock based on the credit institutions' net currency position in terms of historical VaR[66] remained low at less than 0.2 percent of own funds. However, a strong depreciation of the domestic currency versus the euro could fuel both the increase in capital requirements for foreign-currency denominated exposures and the rise in unhedged borrowers' indebtedness, leading to worsened capital adequacy. The uncertainties surrounding the volatility of the exchange rate and its short-term movement could result in disruptions of foreign currency funding in respect to foreign exchange swaps conducted with foreign entities.

Chart 3.49. Daily VaR as a share in total own funds across the banking sector based on the net foreign currency position of credit institutions



Source: NBR

3.2.7. Profitability and efficiency

The unfavourable global and domestic macroeconomic environment also affected credit institutions' financial results, as the Romanian banking system posted a loss for the second successive year at end-2011. Even though loss-making banks' market share was on the rise at end-2011, 21 of the 41 credit institutions reported profits.

Despite the recovery in lending, the banking sector posted a lei 192 million loss at the end of 2012 H1, owing to the fast impairment of financial assets and the effect of collateral revaluation. Net interest income dynamics remained in negative territory amid the decline in interest rates and the increase in holdings of debt securities with lower yields. However, the switch to the IFRS had a positive impact on the financial result, since the impairment costs related to financial assets (provisions) registered at the end of 2012 H1 pursuant to the new standards were approximately lei 1.5 billion lower than those recognised pursuant to the prudential approach. The major profitability indicators, i.e. return on equity – ROE and return on assets – ROA, reported negative values. The cost/income ratio in the first half of 2012 reflected a worsening of credit institutions' capacity to earn operational profits.

[66] The daily VaR (value at risk) is calculated at the 99th percentile considering the daily movements in the exchange rate of the leu against a basket including the major currencies over a three-year period.

The lack of a rebound in lending to the real sector and of a readjustment of credit institutions' business models to the new macroeconomic environment could further fuel the downtrend in profitability, thereby posing a higher capital erosion risk.

Romanian banking system profitability has been in negative territory since August 2011, mainly due to large net provisioning costs, as well as to weaker operating profits. Even though a number of banks succeeded in reducing part of the previously accumulated losses towards the end of 2011 Q4, the financial result at end-December 2011 equalled lei -777.3 million[67]. In 2012 H1, banks' profitability was mixed, as January and February witnessed lower financial assets impairment costs (provisions based on IFRS)[68] and, consequently, a profit. The increase in net provisioning costs starting March and the gradual worsening of operational activity efficiency, reflected by the fast pick-up in the cost/income ratio (Chart 3.50.), led to a squeeze in profits in March and April and to a slight loss system-wide since May (lei -40.7 million in May 2012 and lei -192 million in June 2012). The switch to the IFRS had a positive impact on credit institutions' profitability. Thus, the impairment costs relative to financial assets (IFRS-based provisions) incurred in the first half of 2012 were approximately lei 1.5 billion lower than the credit risk provisions that would have been recognised consistent with the prudential approach. Most of the difference (lei 1.35 billion) derives from the provisions that would have been set up for the loans under "Loss 2"[69] category, for which the value of collateral considered for calculating the adjusted exposure subject to IFRS provisioning is no longer limited[70].

Although the market share of loss-making banks (Chart 3.51.) doubled in 2011 (from 21.9 percent to 44.6 percent)[71], 21 of the 41 credit institutions doing business in Romania reported profits, albeit unevenly distributed, at end-2011. High levels of the net profit saw especially those large banks[72] that were less affected by credit risk cost and posted marginal deteriorations of operational profitability or even an improvement in this indicator.

[67] Banks' financial results were affected by domestic economic developments, i.e. the persistent aggregate demand deficit given the limp growth of investment and private consumption in the context of an economic slowdown in Romania's trading partners (advanced economies) and a deeper sovereign debt crisis in the euro area.

[68] Starting 2012, adjustments for claim impairment (credit risk provisions) were calculated according to NBR Order No. 27/2010 on approving the Accounting Rules respecting the IFRS applicable to credit institutions, as amended and supplemented subsequently. By applying the IFRS, the past-due and impaired claims category was redefined in terms of the manner of assessing collateral and its recognition in impairment adjustment calculation. Until 31 December 2011, specific credit risk provisions were calculated, for prudential purposes, in line with NBR Regulation No. 3/2009 on the classification of loans and investments, as well as the establishment, regularisation and use of specific credit risk provisions, as amended and supplemented subsequently.

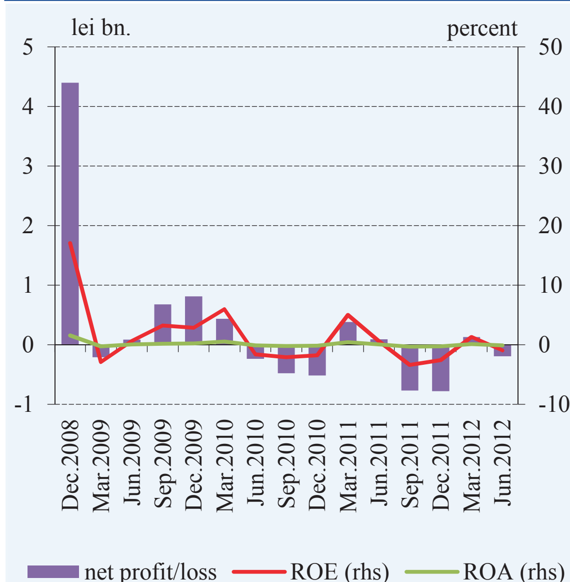
[69] Loans and related interest overdue for more than 90 days and/or for which legal proceedings against the operation or against the debtor were opened.

[70] According to the prudential approach (NBR Regulation No. 3/2009), the value of collateral for exposures representing the principal of loans/investments under "Loss" for which debt service is longer than 90 days and/or for which legal proceedings against the operation or against the debtor were opened is adjusted by applying coefficients set by the lender for each category/case. The level of such coefficients should be no higher than 0.25.

[71] In Hungary, the market share of loss-making banks widened from about 5 percent in December 2009 to 35 percent in December 2010 and 38 percent at the end of 2011 Q2 (Magyar Nemzeti Bank, Report on Financial Stability, November 2011, Chart 50). In Poland, the market share of loss-making banks narrowed from approximately 13.9 percent in September 2009 to 7.9 percent at the end of 2010 Q3 and 3.2 percent at the end of 2011 Q3 (Narodowy Bank Polski, Financial Stability Report, December 2010 and 2011).

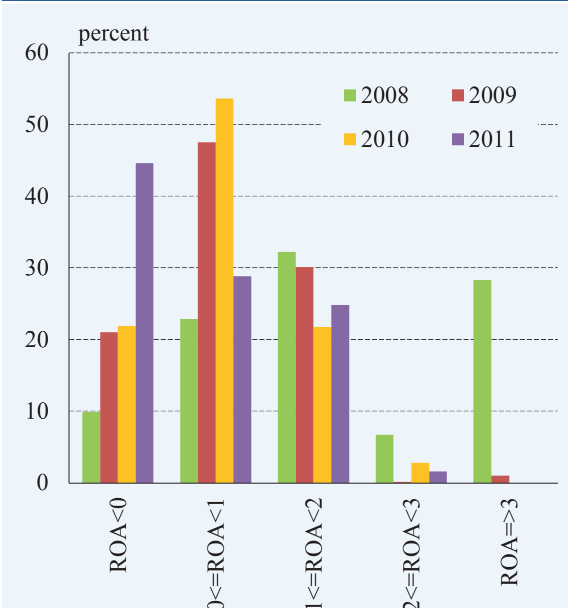
[72] Large banks have asset holdings of over 5 percent of total, medium-sized banks between 1 and 5 percent and small banks below 1 percent.

Chart 3.50. Net profit/loss, ROE and ROA



Source: NBR

Chart 3.51. Breakdown of credit institutions' market share based on ROA



Source: NBR

As at 31 December 2011, the key profitability indicators system-wide, i.e. return on equity – ROE and return on assets – ROA, remained in negative territory, but improved somewhat against September 2011 (-2.6 percent versus -3.4 percent and -0.2 percent from -0.3 percent respectively). At end-June 2012, both ROE and ROA displayed slightly negative levels at -1 percent and -0.1 percent respectively.

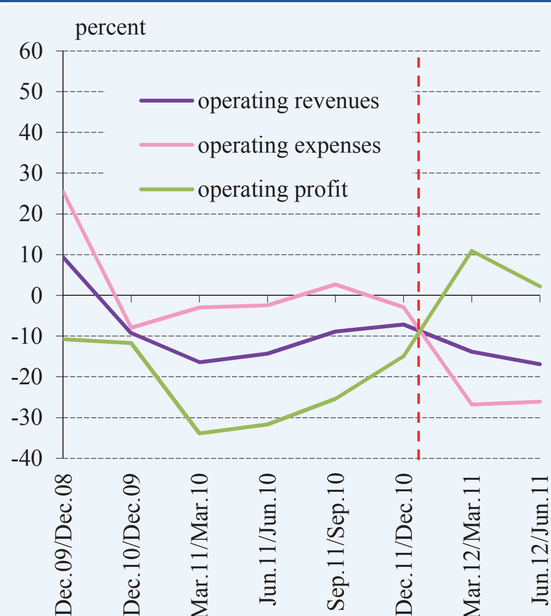
In 2012 H1, except May, real annual dynamics of operational profit stood in positive territory, albeit on the wane[73] (Chart 3.52.). Net interest income, the main item under operating income, saw further negative dynamics in 2011 H2 and 2012 H1. Given the upward trend in lending manifest since the latter half of 2011, which however witnessed lower interest rates and larger holdings of investments with weakening year-on-year yields, interest income[74] reported negative dynamics. Credit institutions' financing cost dynamics, as reflected by interest expenses, decelerated throughout 2011 H2. In 2012 H1, the rate of increase of interest expenses was positive, mainly amid the substantial rise in resources taken from the local market, not as a result of higher interest rates (Chart 3.53.). Net income from commissions remained in negative territory in 2011 H2[75] and in the first six months of 2012.

[73] Starting 2012, given the shift to IFRS, the calculation methodology in respect of operating income and expenses was brought into line with European practices, but these items are not entirely comparable with those compiled during the period ending 31 December 2011. For example, by end-December 2011 losses from unrecoverable receivables covered and not covered by impairment adjustments were part of operational costs, while starting 1 January 2012 losses from receivables covered and not covered by impairment adjustments have been deducted from operating income. Moreover, "other operating expenses" were part of operating expenses by 31 December 2011, but since 1 January 2012 those amounts are deducted from the operating income.

[74] Starting 2012, the interest income is net of the provisions for the interest on impaired assets.

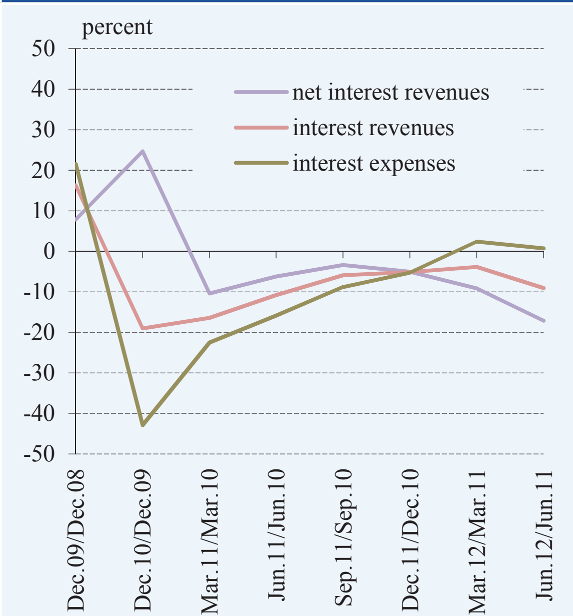
[75] Except December 2011.

Chart 3.52. Annual real growth rates of operating revenues, expenses and profit



Source: NBR, NIS

Chart 3.53. Annual real growth rates of interest revenues, expenses and net interest revenues



Source: NBR, NIS

Banks' concern to cut down operating expenses translated into lower staff costs, the dynamics of which stood at -3.1 percent at end-2011 and -2.8 percent at mid-2012. Amortisation costs, slightly increasing during 2011 H2 (2.4 percent at end-December 2011), re-entered negative territory in the course of 2012 (-9.3 percent at end-June 2012).

The share of "Other operating expenses" in total operating expenses at end-December 2011 (36.1 percent) remained close to the previous year's level, against the background of non-performing loans being further recognised as losses[76].

The cost/income ratio posted a downtrend in 2011 H2 as against the same year-earlier period (down 2.9 percentage points to 67.8 percent at end-December 2011) in the context of sharper negative dynamics of operating income compared to operating expenses. Starting January 2012, this indicator has been calculated by taking into account the changes to the calculation methodology of operating income and costs after the implementation of the IFRS; as a result, the new levels are no longer comparable to those of previous years. From the turn of the year, this indicator has deteriorated (60 percent in June 2012 against 51.2 percent in January 2012).

[76] As at end-December 2011, losses from unrecoverable receivables covered and not covered by provisions recorded by seven banks made up approximately 50 percent of "Other operating expenses".

3.3. Non-bank financial sector

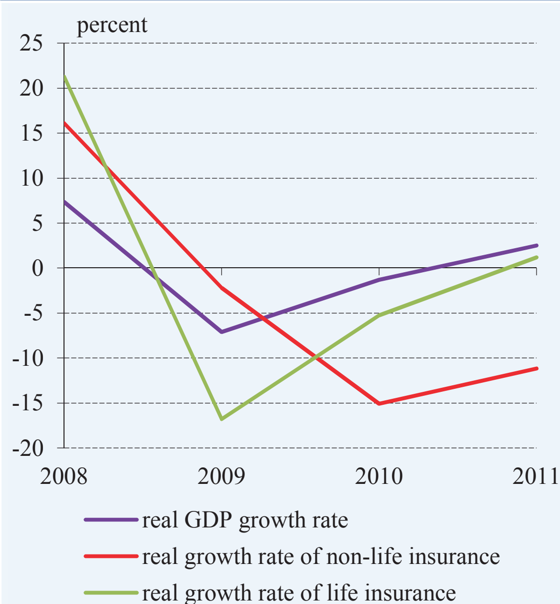
3.3.1. Insurance sector

Gross premiums written in the Romanian insurance sector continued to post a negative performance in 2011, similarly to previous years, but the pace of decrease was slower, as macroeconomic conditions still had a bearing on the consumers' financial behaviour. The life insurance market reverted to positive territory as far as its real growth was concerned, benefiting from the economic recovery, but the deceleration pace of the non-life insurance market caused the financial intermediation across the insurance sector to go down. Insurance companies' profitability remains vulnerable to financial sector volatility effects, given the low investment performance.

Gross premiums written in the Romanian insurance sector declined by 5.81 percent in 2011, at a pace slower than that seen a year earlier. The breakdown of non-life insurance showed a nominal 8.37 percent contraction, whereas life insurance saw a 4.36 percent increase in nominal terms. Insurance sector performance occurred amid the economic recovery of 2011, along with the persistent global financial market tensions.

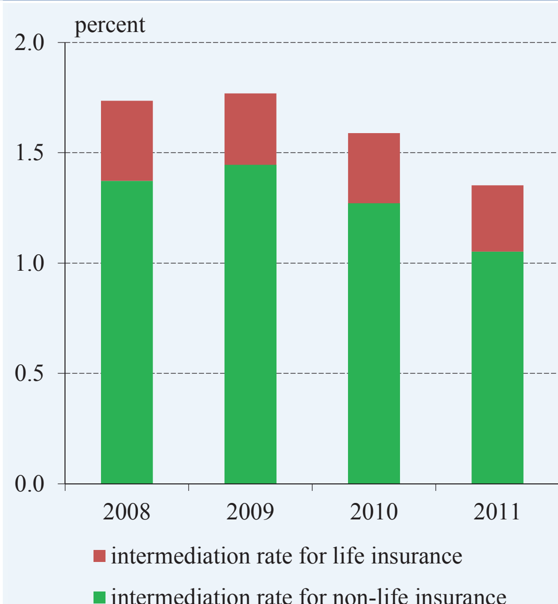
In real terms, this was the first year since effects from the financial crisis hit Romania when the life insurance market returned to a positive rate of increase and the pace of decline of the non-life insurance market slowed down (Chart 3.54.). The life insurance market evolved in line with economic activity in 2011 as well, whereas the non-life insurance market posted a slower recovery. The shift in consumers' financial behaviour over the past two years, namely lower amounts intended for insurance products, continued to weigh, albeit to a smaller extent, on the developments in gross premiums written.

Chart 3.54. Insurance sector and GDP dynamics



Source: ISC, NIS

Chart 3.55. Insurance sector – share of gross premiums written in GDP

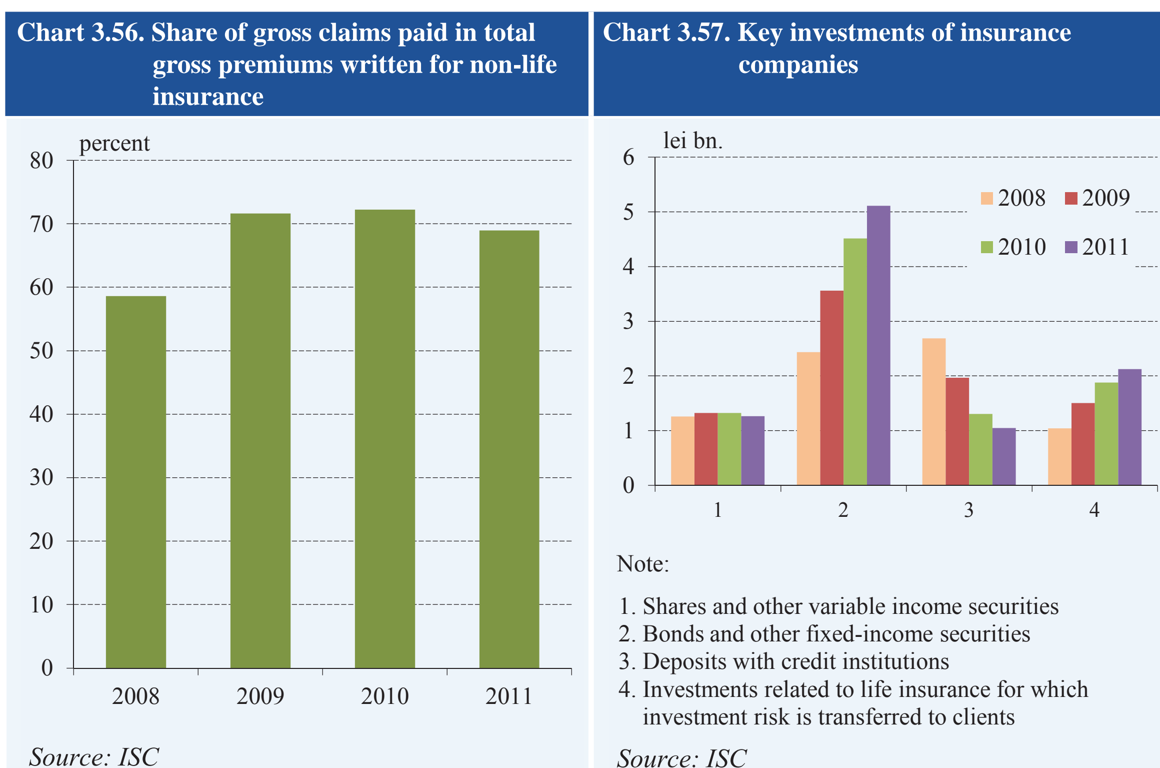


Source: ISC, NIS

Financial intermediation on the insurance sector kept declining in 2011, as a result of the contraction in gross premiums written on the non-life insurance market and the nominal GDP growth (Chart 3.55.). The low weight of life insurance in the total market figure entailed a modest impact of its advance on the aggregate indicator performance.

Chart 3.56. Share of gross claims paid in total gross premiums written for non-life insurance

Chart 3.57. Key investments of insurance companies



Note:

1. Shares and other variable income securities
2. Bonds and other fixed-income securities
3. Deposits with credit institutions
4. Investments related to life insurance for which investment risk is transferred to clients

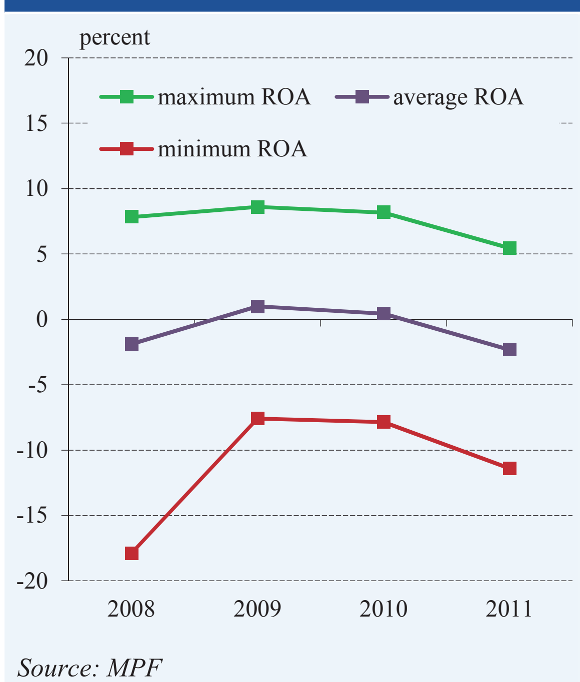
Source: ISC

In 2011, the drop in gross claims paid for non-life insurance was sharper than that in gross premiums written on this market segment. These shifts were primarily influenced by the decline in incomes from gross premiums written related to land transport means insurance (other than railway transport) and civil liability insurance for vehicles, as well as by lower spending on gross claims paid for land transport means insurance (other than railway transport). The decline in the ratio of gross claims paid and gross premiums written for non-life insurance has a positive bearing on profitability and capitalisation of insurance companies operating in this market (Chart 3.56.).

Insurance companies invested mainly in bonds and other fixed-income securities, which amounted to more than lei 5 billion in 2011 (Chart 3.57.). An investment policy focused on acquiring fixed-income securities ensures a low level of credit risk and better management of balance sheet items on various maturities, as these instruments come with higher yields in a lowering bank deposit rate environment. Moreover, life insurance investments for which exposure to investment risk is transferred to clients saw an increase in 2011, against the backdrop of higher gross premiums written on this market.

The ten largest insurance companies by total assets reported a decline in profitability in 2011 (Chart 3.58.). For the first time since 2008, average profitability of these companies slipped into negative territory. Profitability may be sensitive to global financial market tensions and developments in the Romanian economy via their effects both on the returns on investments and the growth rate of gross premiums written.

Chart 3.58. Return on assets of the ten largest insurance companies in terms of asset value



Source: MPF

3.3.2. Private pension funds

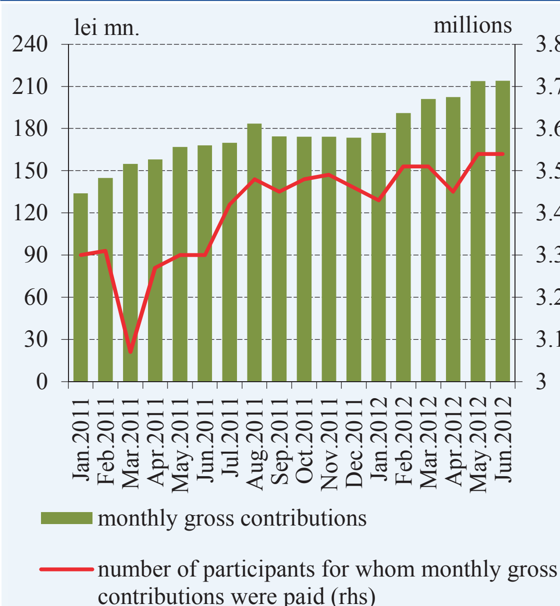
Private pension funds were launched in 2007 and are still in the stage of collecting contributions and making investments, but they are not exposed to significant risks that could affect financial system stability. The volume of contributions and the number of participants remained on an upward trend in January 2011 – June 2012, amid the slight economic recovery. Mandatory private pension funds reported a larger weight of fixed-income securities in total assets, which entails increased risk protection.

Net assets of mandatory private pension funds (Pillar II) remained on the previous years' trend and posted further positive developments. They amounted to lei 7.9 billion at mid-2012 and accounted for around 94 percent of total assets of private pension funds. The low share of assets under management (Pillars II and III) in GDP, i.e. 1.19 percent at end-2011, is indicative of a minor impact that private pension funds could have on financial system stability.

January 2011 through June 2012 saw positive dynamics of both incomes from contributions and the number of participants for whom monthly contributions were paid (Chart 3.59.). The upward path in contributions was the result of the increase in the contribution quota from 2.5 percent to 3 percent in March 2011 and to 3.5 percent in March 2012, as well as of the advance in the number of participants, amid a slight recovery of economic activity.

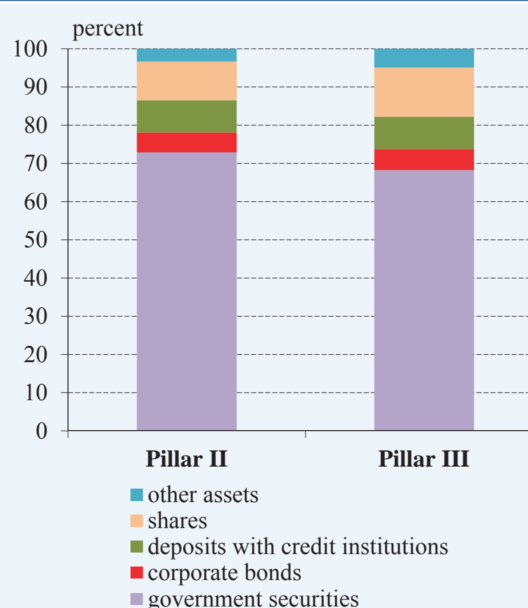
The conservative nature of private pension funds' investment portfolio was still manifest in 2011 and 2012 H1, against the backdrop of domestic and external financial market tensions that brought about high volatility of financial asset prices. While the share of government securities in private pension funds' investment portfolios widened to more than 70 percent, the holdings of stocks declined in June 2012 against the same year-earlier period (Chart 3.60.).

Chart 3.59. Developments in contributions to Pillar II



Source: PPSSC

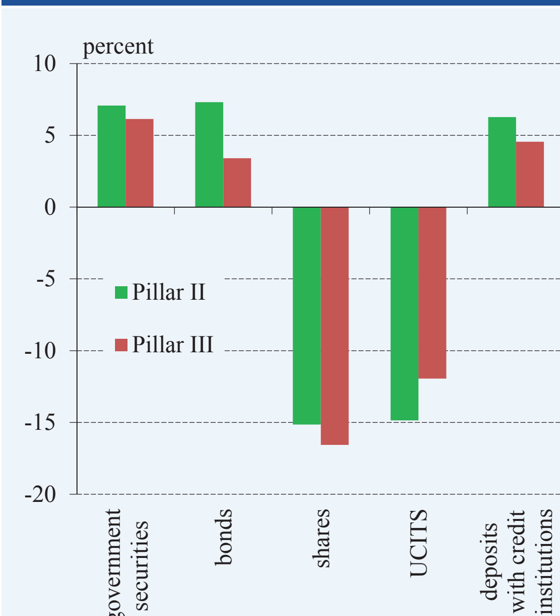
Chart 3.60. Breakdown of investment portfolios at the end of 2012 H1



Source: PPSSC

Against the background of financial market uncertainty, financing conditions tightened, and capital markets saw lower yields in 2011 against the previous year. Thus, private pension funds' deposits with banks and fixed-income instruments recorded positive yields in the course of 2011, whereas stock acquisitions and investments in undertakings for collective investment in transferable securities (UCITS) brought sharply negative results that affected return of total assets for Pillar II and Pillar III funds (Chart 3.61.). However, total returns of both types of private pension funds were in positive territory in 2011, given the limited weight of stocks and UCITS investments.

Chart 3.61. Average annual returns on key financial investment assets in 2011



Source: PPSSC

Average maturity of the deposits included in the private pension funds' investment portfolio dropped markedly in 2011 against 2010 (to 35 days, from 45 days), so the funds had easier access to liquid assets for investments in financial instruments. This development, along with a lengthier average maturity of fixed-income instruments (from 5.1 years to almost 6 years), had a positive impact on the capacity to manage the risks stemming from the difference between the maturity of the investment portfolio and that of future payment obligations.

At the end of 2012 H1, the breakdown of private pension funds' investments shows that foreign assets accounted for 7.47 percent and 7.21 percent of total assets of Pillar II and Pillar III respectively. In year-on-year comparison, the weight of domestic investments in total assets

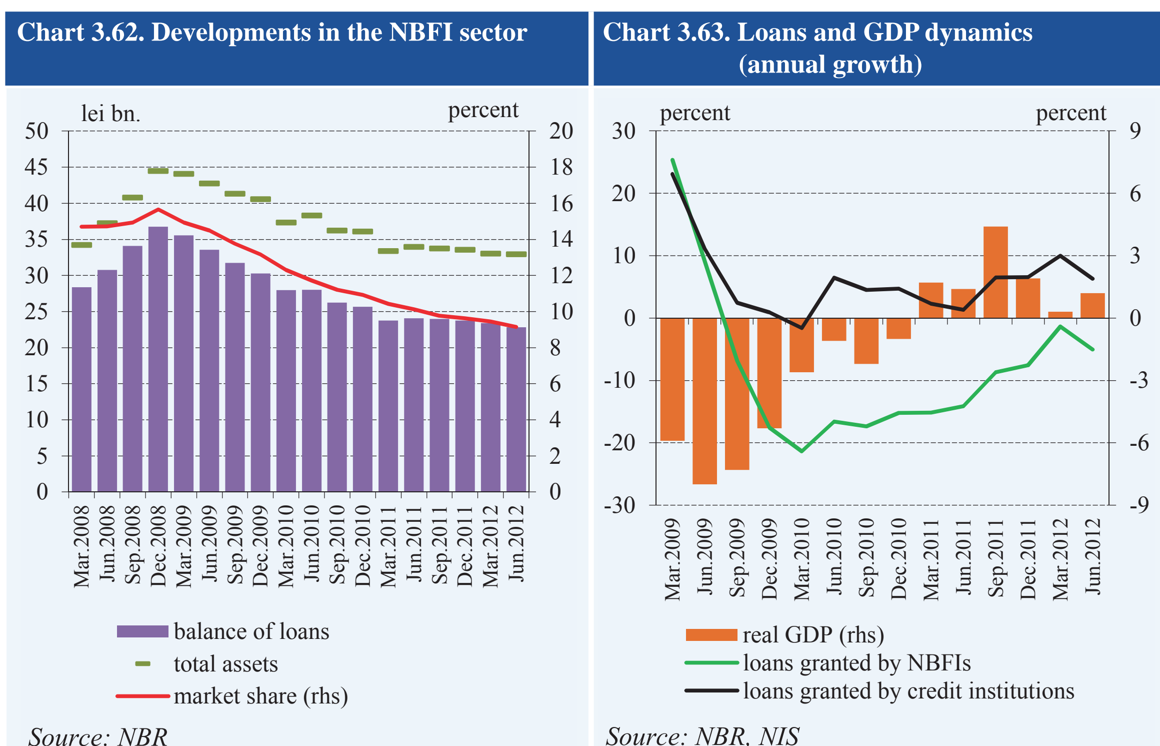
followed an upward trend, which could prove beneficial in mitigating the contagion risk coming from external financial markets.

3.3.3. Non-bank financial institutions

Loans granted by non-bank financial institutions posted a stagnating trend in the period elapsed from the release of the previous Report*, thereby interrupting the leveraging that had been manifest across this sector starting 2009. The loan portfolio quality deteriorated further, with provisioning costs exerting a negative impact on financial results. For the period ahead, the major challenges to this sector remain those associated with lending recovery based on solid prudential principles, along with adequate management of the outstanding loans.*

The activity of non-bank financial institutions (NBFIs) saw a relative stabilisation in the period elapsed from the release of the previous report. At the end of 2012 H1, the sector's outstanding loans amounted to lei 22.8 billion and its assets totalled lei 33 billion (Chart 3.62.). The market share of NBFIs, i.e. the share of NBFI loans in total loans granted to non-government debtors, narrowed slightly from 10.1 percent in June 2011 to 9.1 percent in June 2012.

Chart 3.62. Developments in the NBFI sector | **Chart 3.63. Loans and GDP dynamics (annual growth)**



Source: NBR | *Source: NBR, NIS*

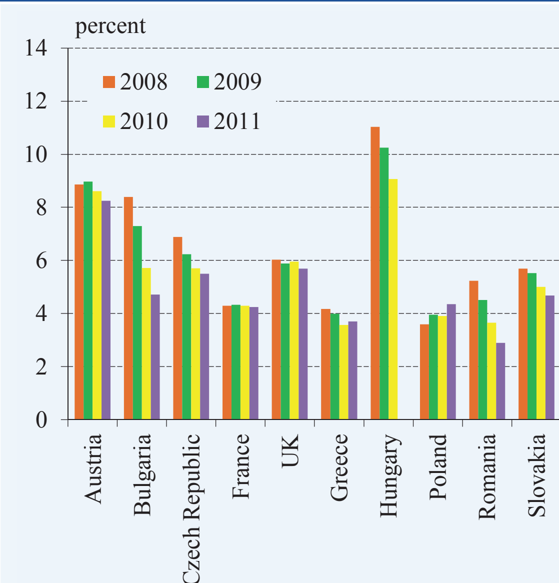
In line with macroeconomic developments, credit to non-government witnessed a similar trend in the case of both NBFIs and credit institutions (Chart 3.63.). However, the fallout from the challenging economic environment was stronger for the NBFIs, translating into larger fluctuations of credit dynamics, which has remained in negative territory since 2009. The loan portfolio decline owed to: (i) demand-side shocks; (ii) the NBFIs' aversion to lend to a strained economy, given the noticeable decrease in loan portfolio quality, and (iii) the large number of loans reaching maturity (the maturity of loans extended by NBFIs is shorter than that of credit institutions).

The activity carried out by the NBFIs focuses further on the entities that are subject to prudential supervision by the NBR (and registered with the Special Register), which account for approximately 92 percent of total assets of this sector.

Financial leasing operations, the prevailing element of the NBFIs activity, displayed a less sharp slowdown in their dynamics that that seen Europe-wide, accounting for about 2.9 percent of GDP in 2011, down from 3.6 percent of GDP in 2010 (Chart 3.64.).

As for the breakdown of the NBFIs loan portfolio, the following trends are worth mentioning: (i) the loans granted to non-financial corporations remained prevalent, making up 75 percent of the loan stock, being particularly channelled to the services sector (53 percent), ahead of industrial and construction sectors (17 percent and 15 percent respectively); (ii) lei-denominated credit saw its share widening for both loans to households and non-financial corporations, in line with the NBR policy of ensuring adequate risk management, also by fostering local currency financing (Chart 3.65.); (iii) the loan portfolio maturity expanded; (iv) while the share of financial leasing operations in the loan stock narrowed, some other lending forms were noticeable.

Chart 3.64. The share of the leasing market to GDP in selected EU countries (end-of-year balance)



Source: Leaseurope, NBR, Eurostat, NBR calculations

Chart 3.65. Breakdown of loans granted by NBFIs by currency

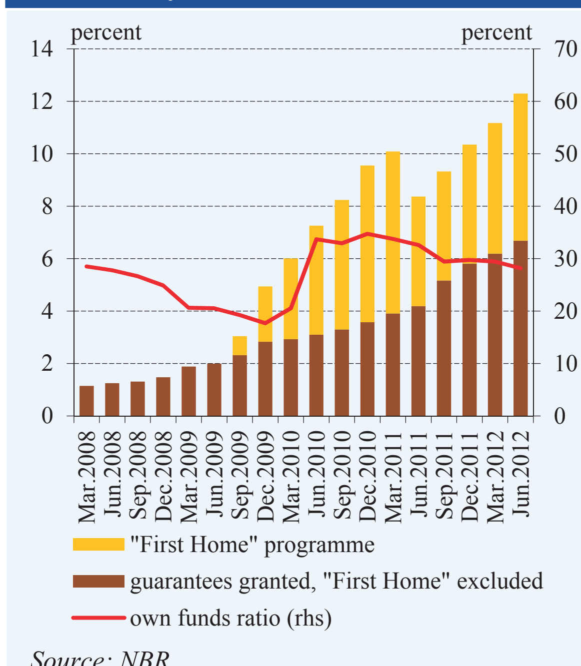
Source: NBR

Apart from direct financing of the economy through lending, a key role in the NBFIs' activity plays the issuance of guarantees (primarily for the implementation of government programmes), leading credit risk to be more evenly distributed across the Romanian financial system. Issued with a view to supporting economic activity, also by securing easier access to European funds, the guarantees volume followed an upward path in the period under review, amid the improvement in shock absorption capacity (Chart 3.66.). The "First Home" programme implemented by the Government of Romania through the National Loan Guarantee Fund for Small and Medium-sized Enterprises continued in 2011 and 2012 H1; the explanation for the decrease in the total guarantees value seen in June 2011 lies with the amendments to Government Decision No. 404/2011, which provides for lenders to take over roughly 50 percent of the risks the government had taken in the previous stages of the programme.

The worsening of the loan portfolio quality is still the main vulnerability of NBFIs. In the period June 2011 – June 2012, an increase in credit risk generated by this sector could be noted, as a result of the rise in the overdue loan portfolio, given that the total outstanding loans were little changed (Chart 3.67.).

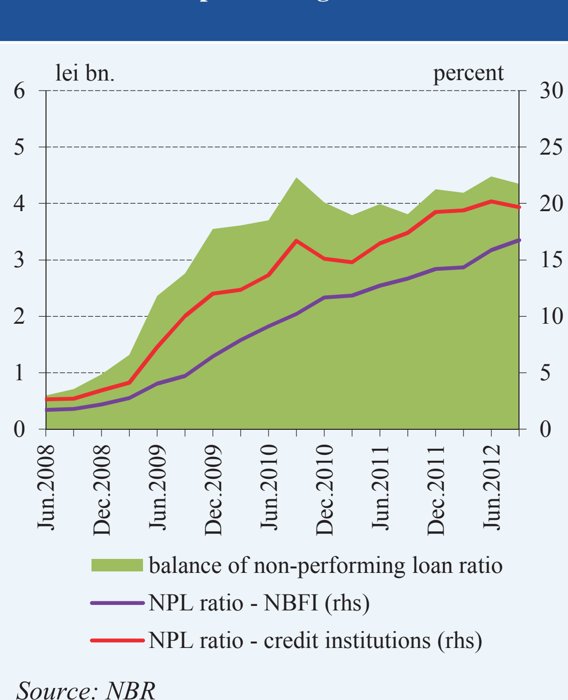
As at 30 June 2012, the non-performing loan ratio of the NBFI sector reached 19.7 percent, rising above the level reported by the banking sector (16.76 percent). As for the reserves to cover expected losses, provisioning for the loans under "Loss" with debt service higher than 90 days and/or for which legal proceedings were opened stood at 99 percent, i.e. the same figure as that calculated for credit institutions.

Chart 3.66. Developments in guarantees provided by NBFIs[77]



Source: NBR

Chart 3.67. Non-performing loans[78]



Source: NBR

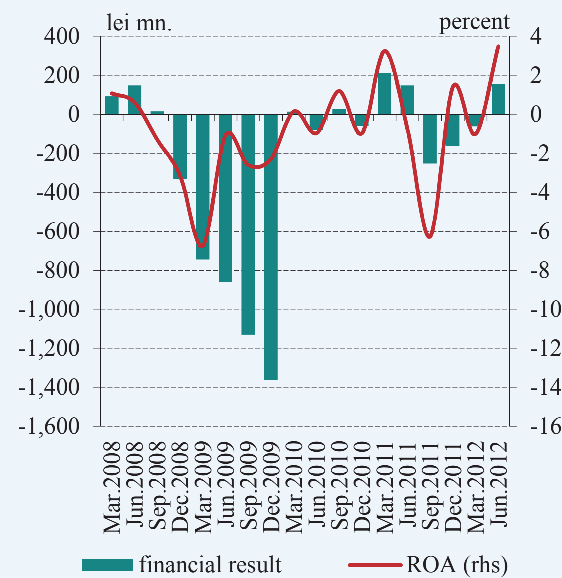
The slight recovery in the financial result of the NBFI sector on the cut-off date for the previous report was not confirmed by the subsequent evolution of this indicator (Chart 3.68.). The developments in the sector's profitability were further ridden with uncertainties, against the background of high net expenses for credit risk provisions and weaker operational profit. Erosion of the capital base given the persistence of losses prompted shareholders to undertake further efforts to support activity and place the financial indicators within the prudential limits set by the NBR (Chart 3.69.). Such efforts translated into share capital increases and additional capital contributions in the form of subordinated loans. At mid-2012, own funds of the NBFIs recorded in the Special Register accounted for 21.7 percent of net assets, whereas the equity ratio stood at 7.7 percent. However, at individual level, a strong equity concentration is noticeable at loan guarantee funds[79]. Since these entities were taken out from the reviewed sample (considering their core activity), capitalisation is very much diluted, with the own funds ratio coming in at 12.1 percent and equity accounting for 3.9 percent of net assets.

[77] The ratio of Tier-1 capital and total assets and eligible collateral ("First Home" programme excluded).

[78] Non-performing loan ratio was calculated as a ratio of unadjusted loan exposure and the interest overdue for more than 90 days and/or for which legal proceedings against the debtor were opened to total loans and interest (in gross terms).

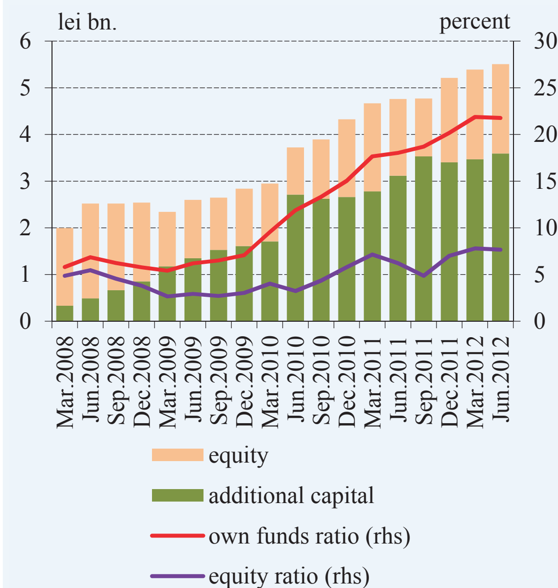
[79] Following the enforcement of Government Emergency Ordinance No. 96/2011, share capital of the National Loan Guarantee Fund for Small- and Medium-sized Enterprises was raised by lei 250 million.

Chart 3.68. Profitability of the NBFI sector[80]



Source: NBR

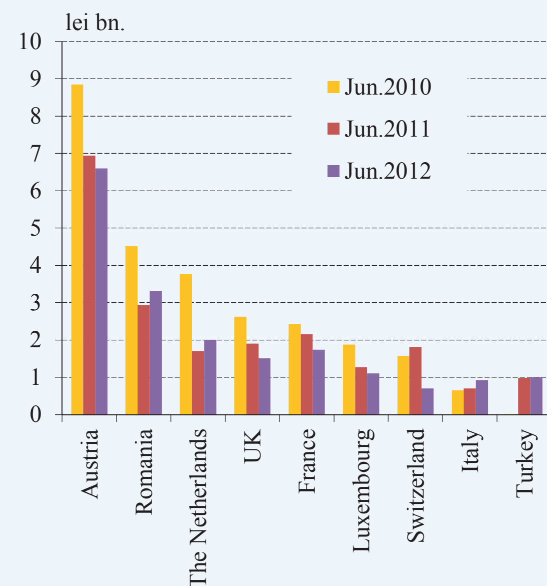
Chart 3.69. Own funds and capital adequacy ratios



Source: NBR

The probability of systemic risk being generated by the NBFI sector is low, due to the small size of the possible direct contagion channel from this sector to the other parts of the Romanian financial system. Although NBFIs conduct their activity especially with the entities affiliated to credit institutions, they have separate balance sheets and capital endowments, and financing resources are drawn particularly from external markets: from the parent credit/financial institution, as well as from other institutions outside the group. While domestic capital accounts for 56 percent of NBFIs' share capital, the liabilities breakdown points towards the marginal role played by local credit institutions in the sector's financing (15 percent of total borrowings, up 2 percentage points against June 2011) and the weight of resources raised from European markets (Chart 3.70.).

Chart 3.70. Breakdown of borrowings by country of origin



Source: NBR

Credit institutions' exposure to the NBFIs is low, standing at approximately 1.5 percent of total credit to non-government. Nevertheless, worsening of NBFIs' financial conditions could have a detrimental effect on the entire group via the indirect channel, following the emergence of reputational risk.

[80] The developments in the NBFIs profitability are examined on the basis of reports sent by NBFIs to the Special Register. The financial result shows the gross data cumulated from the start of the year, while economic profitability was calculated on the basis of annualised levels of the quarterly gross financial result.

On the other hand, increased reliance of both credit institutions and the NBFIs on external financing is a vulnerability of the domestic financial system in the event of external liquidity shocks, which could weigh on the Romanian economy's financing costs and availability.

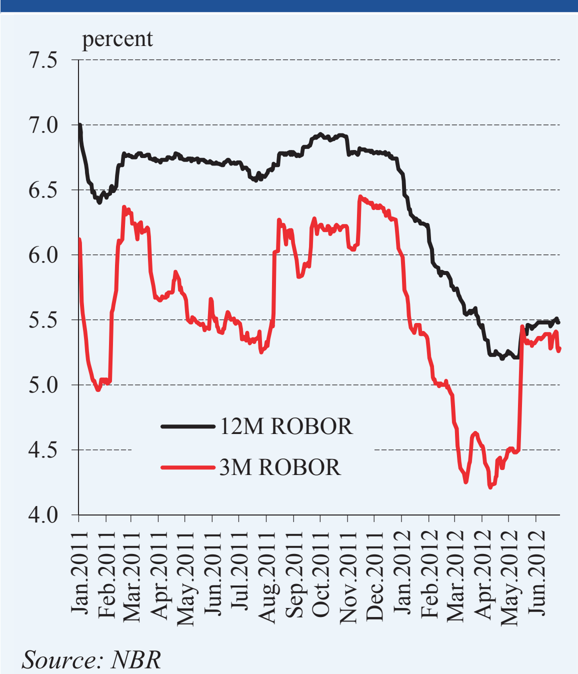
3.4. Financial markets

Financial markets were relatively stable in the period January 2011 – June 2012, given the adequate liquidity management by the NBR and the below-potential functioning of the real sector. Volatility rose markedly in August 2011, when Standard&Poor's credit rating agency downgraded the rating of the USA, and in May-June 2012, amid the deepening sovereign debt crisis in the euro area and the domestic tensions.

3.4.1. Money market

The significant decrease of interbank money market rates in 2012 Q1 (Chart 3.71.) was fostered both by the central bank's further liquidity injections via repurchase operations with one-week maturity[81] and the successive monetary policy rate cuts. By contrast, starting with the latter half of May 2012, the 3M ROBOR rate surged abruptly (by 0.62 percentage points in only 10 days) following the change in liquidity conditions and the credit institutions' revised expectations on monetary policy rate and liquidity developments.

Chart 3.71. Average interbank money market rates



Source: NBR

The average interbank money market rates hovered around a relatively stable level in 2011, after having fallen in 2010. The second quarter of 2011 saw a sharp contraction of the 3M ROBOR rate, but the Standard&Poor's credit rating agency downgrading the sovereign rating of the USA in August 2011 led to a relatively more pronounced increase of this rate. The adjustment of monetary conditions by the NBR consisting in the gradual lowering of the monetary policy rate (to 5.25 percent in March 2012 from 6.25 percent in October 2011) caused the 3M and 12M ROBOR rates to fall by 1.65 percentage points and 1.44 percentage points respectively.

Volatility of 3M ROBOR rate was sharper than that of 12M ROBOR, particularly around the reserve maintenance periods (Chart 3.72.). Implied volatility of 3M ROBOR rate peaked in August 2011, when the USA sovereign rating was downgraded.

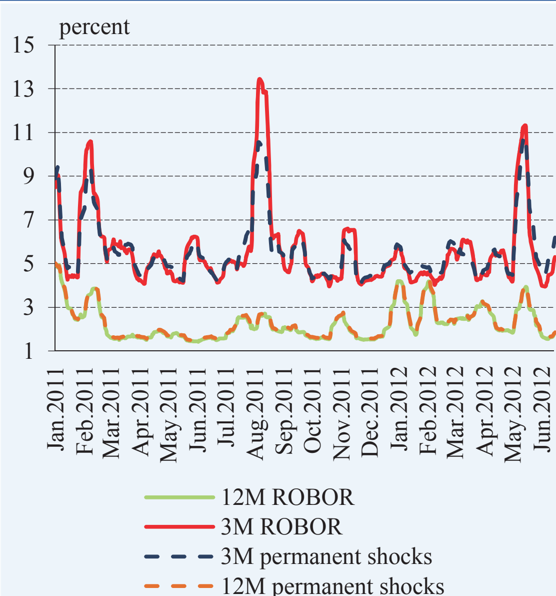
Volatility of 12M ROBOR rate showed greater sensitivity to the successive monetary policy rate cuts than 3M ROBOR, which reacted faster to investors' short-term expectations. This is also supported by the fact that developments in 12M ROBOR rate were largely influenced by the persistent shocks

[81] In March 2012, repurchase agreements concluded with the NBR reached, on average, lei 5.9 billion.

on volatility, whereas short-lived shocks weighed more heavily on 3M ROBOR rate. Another explanation for the different behaviour in interest rates at the short end of the yield curve as against those at the long end was the use of 6M ROBOR rates as a benchmark for calculating floating-rate loan instalments.

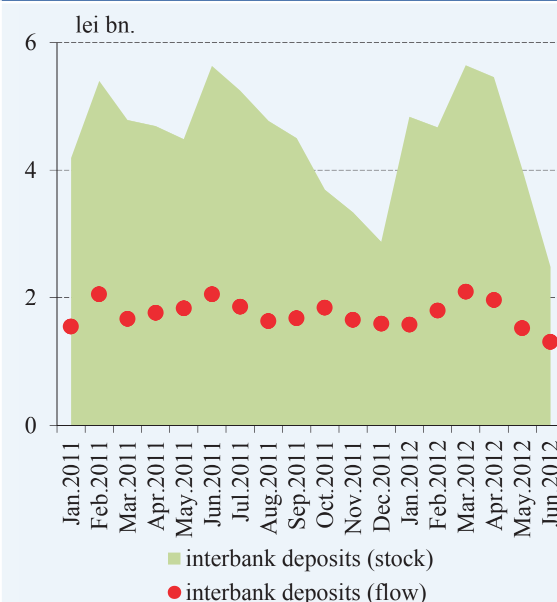
In the course of 2012, interbank money market liquidity exhibited relatively sharper fluctuations, with the monthly flows of interbank deposits dropping by approximately 37.5 percent at the end of Q2 against the previous 3-month period (Chart 3.73.).

Chart 3.72. Conditioned volatility[82] of interbank money market rates



Source: NBR, NBR calculations

Chart 3.73. Interbank money market transactions



Source: NBR

[82] Conditioned volatility was calculated based on the AR(1)-GARCH-M(1.1) model, while permanent shocks were quantified according to the methodology proposed in Working Paper 2006-006A issued by the Federal Reserve Bank of St. Louis. Empirical evidence of some papers, e.g. the one developed by the winner of the Nobel Prize for Economic Sciences Robert Engle (Engle and Lee, 1993) shows that, similarly to macroeconomic models, the evolution of yields on highly frequent time series can be decomposed into a cyclical component (temporary shocks) and a trend component (permanent shocks). This is why permanent shocks, associated with the unitary square root being part of volatility in econometric terms, affect long-term volatility.

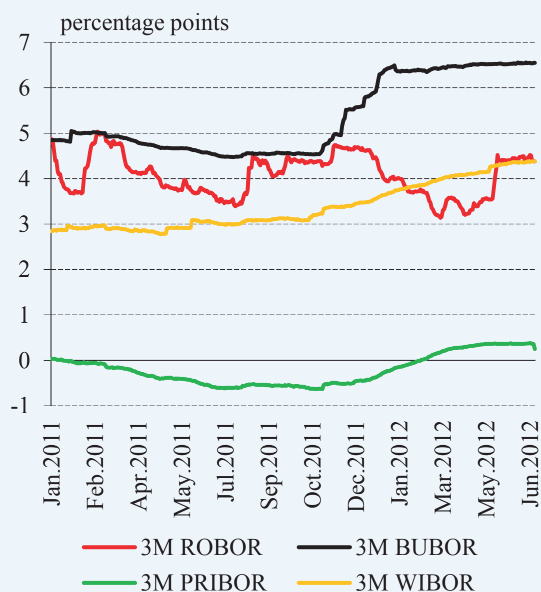
Box 6. Analysis of stress conditions in the interbank money market

After the outbreak of the ongoing global financial and economic crisis, the interbank money market in Romania witnessed more stressful periods alternating with less stressful ones in terms of financing conditions. Similar developments also witnessed other countries in the region, such as the Czech Republic, Hungary and Poland. Financing pressures in the interbank money market stem from two major factors: liquidity risk and counterparty risk.

In order to examine stress conditions relative to financing activity on interbank money markets in Central and Eastern Europe, the spread between 3-month rates in Romania (ROBOR), the Czech Republic (PRIBOR), Poland (WIBOR) and Hungary (BUBOR) and the euro-area rate (EURIBOR) was resorted to.

The methodology in use is based on a Markov-type model[83] allowing the transition of the spread dynamics between the two money market rates among various regimes. Considering that a high level of probability to shift to a regime with a rising interest-rate spread is indicative of a pick-up in stress conditions on the interbank money market, applying a Markov model provides the complete picture of the developments in short-term financing pressures facing the banking sector.

Chart A. Spread between 3M money market rates in the region and 3M EURIBOR in the euro area



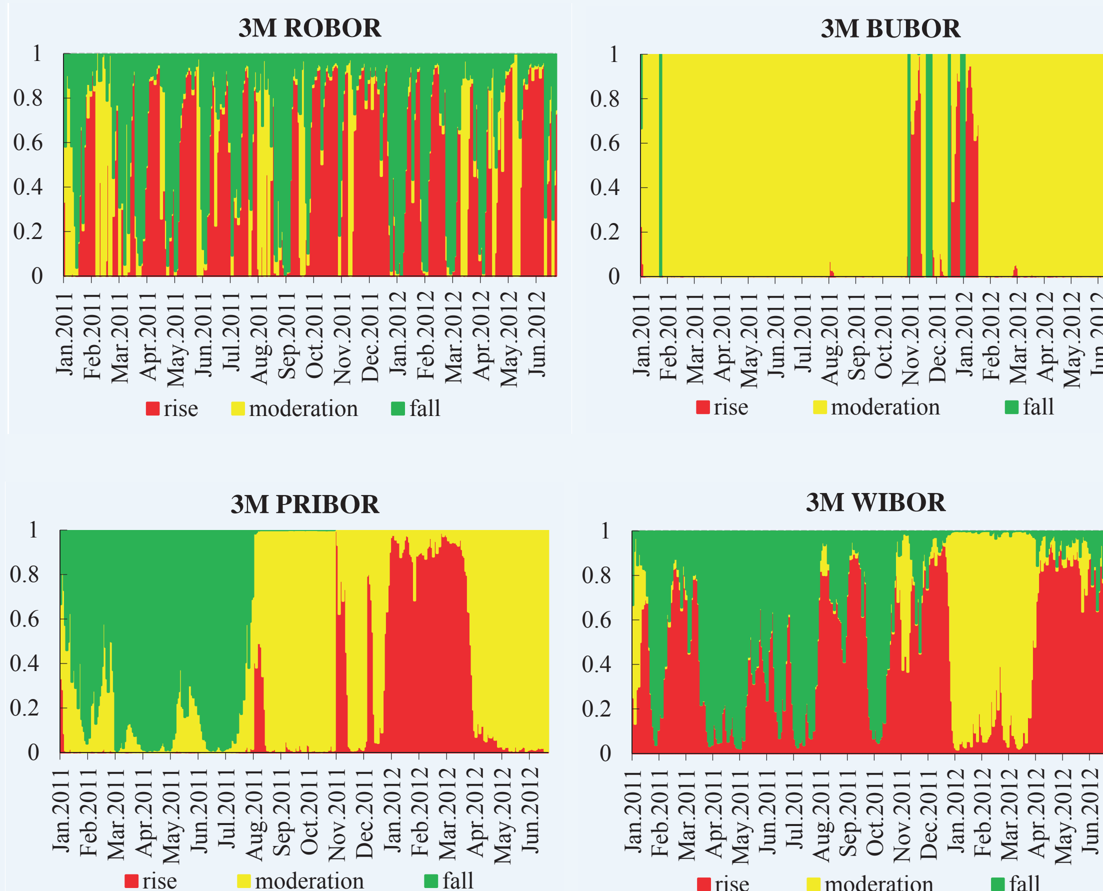
Source: Bloomberg, NBR calculations

As set out in Chart A, the ROBOR-EURIBOR spread narrowed in December 2011 – March 2012 amid successive monetary policy rate cuts. At the same time, the interbank market rate spread between CEE countries and the euro area tended upwards, given the relative stability in the region and lowering interbank market rates in the euro area. Moreover, the 3M EURIBOR rate posted relatively small fluctuations from January 2011 to June 2012, and slipped below 1 percent starting March 2012.

As a result of the highly volatile interbank market rate in Romania (ROBOR), the periods with strong pressures on financing conditions for banks were frequently alternated with the periods when stress stood at moderate or low levels (Chart B). These developments in stress conditions occurred in spite of the ROBOR-EURIBOR spread remaining broadly unchanged over short periods. The persistence of stress conditions was shorter for the ROBOR-EURIBOR spread than the spread between PRIBOR (Czech Republic), or WIBOR (Poland), and the EURIBOR rate. The first effects of the easing in financing conditions on the interbank money market in Romania, following the monetary policy rate cuts, could be detected starting January 2012, when the central bank lowered the key rate by another 0.25 percentage points.

[83] According to Hamilton (1991), the interest spread is supposed to hover around an average growth rate, so that using this model renders possible both to infer, at any moment in time, the probability of transition from one regime to another depending solely on the latest information and to set the features of its dynamics in terms of the regime in use. In the said paper, the regimes are probabilities for increasing, decreasing or staying around the previous day's level.

Chart B. Transition probabilities between stress regimes in interbank money markets in the region



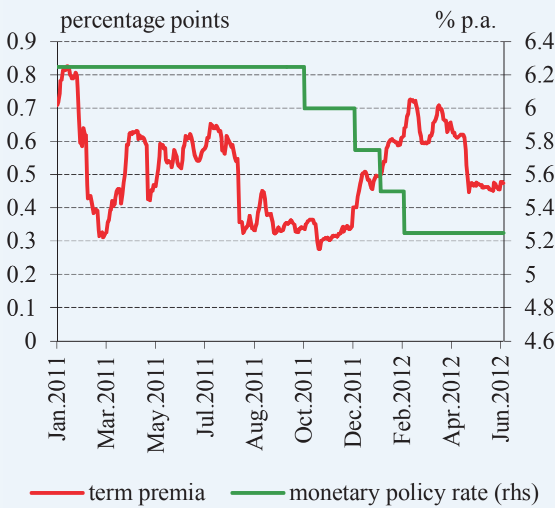
Another method to examine stress conditions in the interbank money market is to calculate term premia that investors perceive as a result of the uncertainties surrounding future developments in inflation, real sector activity or monetary policy[84]. The developments in the risk premium required by investors provide information on a subsequent, not current, rise in stress conditions in the interbank money market.

This premium is charged for the assumed risk and represents the difference between the forward rate and the expected change in the short-term interbank money market rate. This analysis draws on the 1M ROBOR rate and the forward rate for the same maturity. In order to calculate the risk premium, a related model[85] was used for the term structure of short-term rates – such a model excludes arbitrage opportunities.

[84] BIS quarterly report, June 2007.

[85] This approach involves the reconciliation of continuous-time models (based on geometric Brownian motion) that are frequently used in this field, while parameters were estimated based on the Generalised Method of Moments (GMM). The methodology used in this analysis is based on the articles by Mahdavi (2004, 2007) and Ahmad and Wilmott (2007).

Chart C. Term premia related to investors' expectations on future developments in the interest rate



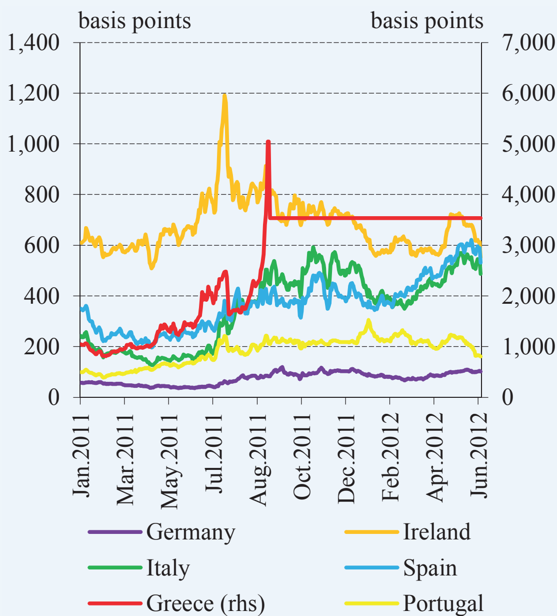
Source: NBR, NBR calculations

The level of the premium that investors ask for the risk associated with future developments in the short-term interbank money market rate in Romania (Chart C) followed a downward trend in late 2011.

Conversely, starting with the latter half of January 2012, the premium widened, even though the monetary policy rate was subject to successive cuts. The explanation for this state of affairs could lie with the uncertainties surrounding the economic outlook. The premium remained elevated until May 2012, when short-term interest rates surged markedly.

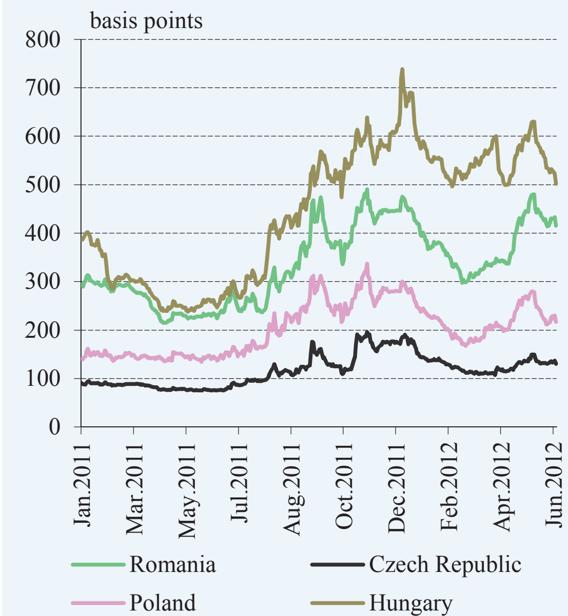
The worsening economic outlook following the fall-out effects from the sovereign debt crisis in the euro area caused risk aversion to increase. This phenomenon translated into a sizeable surge in CDS spreads for 5-year government securities in 2012 Q2 both in CEE countries and euro area members (Charts 3.74. and 3.75.).

Chart 3.74. Developments in 5Y CDS for euro area countries



Source: Bloomberg

Chart 3.75. Developments in 5Y CDS for selected countries in the region



Source: Bloomberg

In Romania, as in most countries in the region, CDS spreads began expanding in the latter half of May 2012, concurrently with the notable increase in the 3M ROBOR rate. The shock induced by the fall-out from the sovereign debt crisis in the euro area affected CDS spreads for Romania to the same extent as the downgrade of the USA rating by Standard&Poor's credit rating agency. In the second half of June 2012, once the tensions related to the situation in Greece have abated, CDS spreads reversed their trend.

3.4.2. Government securities market

The term structure of the newly issued government securities improved in early 2012, as the volume of medium-term bonds grew markedly (Chart 3.76.). The reduction in the monetary policy rate and the expansion in the central bank's liquidity injections appeared to have cushioned somewhat credit institutions' aversion to liquidity risk. In terms of value, transactions in government securities on the secondary interbank market surged markedly in 2012 H1, in line with primary market issues (Chart 3.77.).

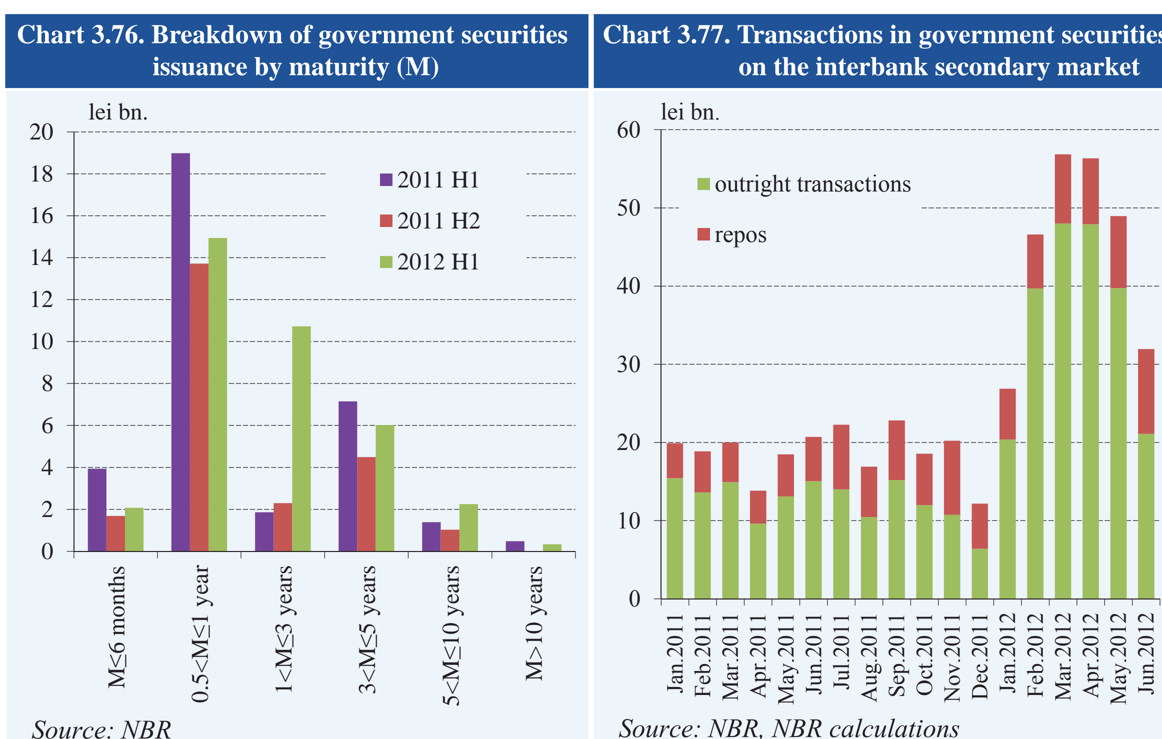


Chart 3.76. Breakdown of government securities issuance by maturity (M)

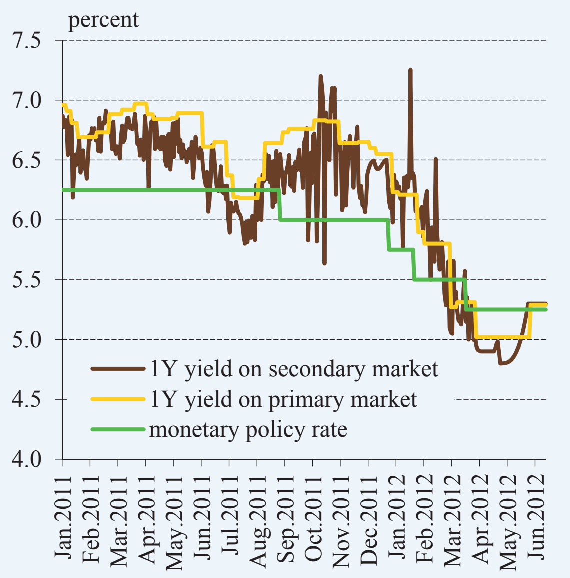
Source: NBR

Chart 3.77. Transactions in government securities on the interbank secondary market

Source: NBR, NBR calculations

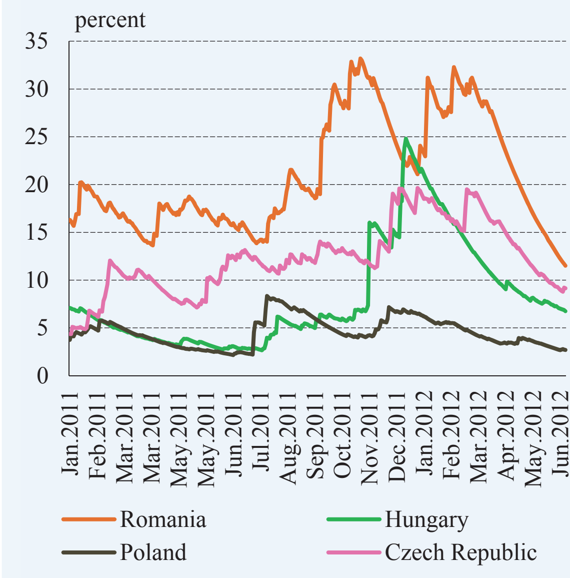
The short-lived decline in global volatility and the strengthening of domestic macroeconomic indicators translated into lower yields on government securities in early 2012 (Chart 3.78.). The declining trend came to a halt in May 2012 amid renewed turmoil on international financial markets and the domestic tensions. In the same vein, secondary market yield volatility abated considerably in 2012 Q2 to reach its lowest level since January 2011, but remained among the highest in the region (Chart 3.79.).

Chart 3.78. Annual yield on government securities with residual maturity of one year and the monetary policy rate



Source: NBR, NBR calculations

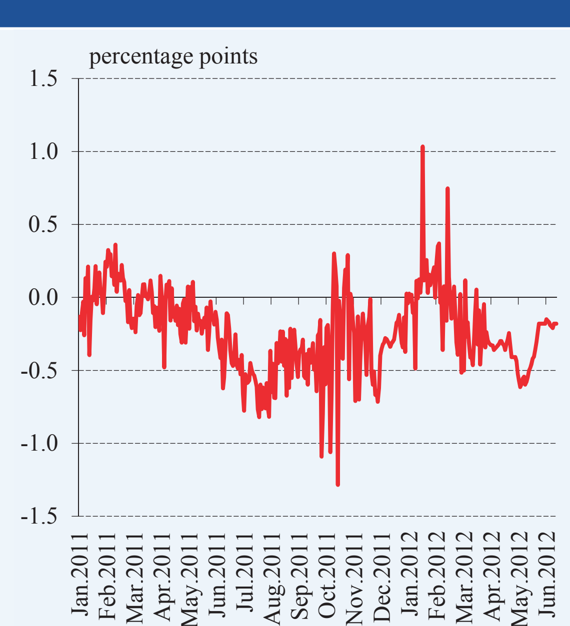
Chart 3.79. Volatility of yields on government securities issued in Central and Eastern Europe



Source: NBR, Reuters, NBR calculations

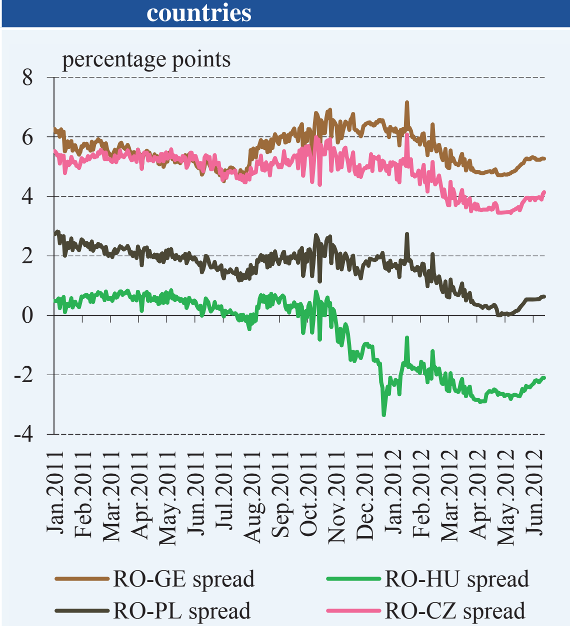
Yields on government securities were slightly lower than the interbank market rate, given that investors perceived a lower risk attached to these instruments compared to interbank deposits and seized the opportunity of using government stocks as collateral for the central bank's open-market operations (Chart 3.80.). Both secondary market yields and interbank market rates moved in line with the monetary policy rate, while uncertainty-ridden periods in Romania and abroad sent ripples to these financial markets.

Chart 3.80. Spread between yields on government securities and 12M ROBOR



Source: NBR, NBR calculations

Chart 3.81. Spread between yields on government securities in Romania and those on 1Y bonds issued by other European countries

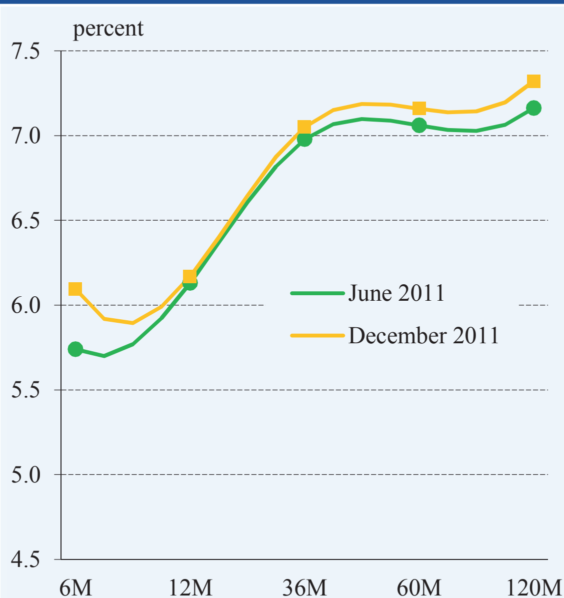


Source: NBR, Reuters, NBR calculations

Yields on Romania's secondary market for government securities take a median position in the region, but the trend to narrow the spread compared to other countries reversed in May 2012 against the backdrop of renewed turmoil on global financial markets and the domestic tensions (Chart 3.81.). A similar performance of spreads against the yields on government securities in other European countries throughout 2012 highlights the major role domestic factors play in influencing yields on Romania's government bonds of late.

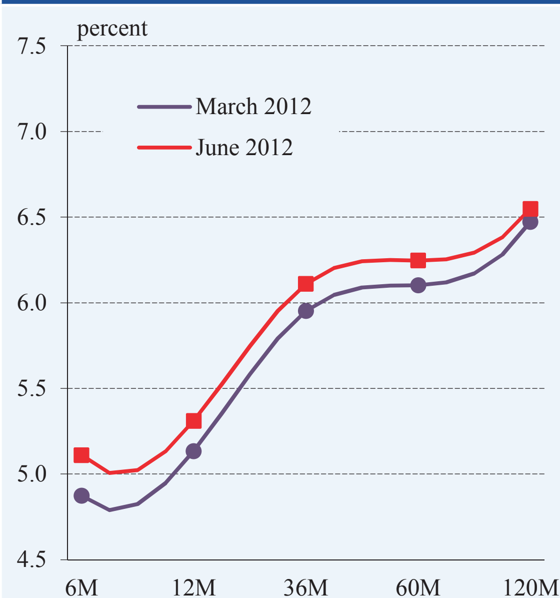
The yield curve in the secondary market for government securities trended downwards in 2012 H1 against the same year-earlier period (Charts 3.82. and 3.83.), which was commonplace for all maturities. Against the background of successive monetary policy rate cuts and foreign investors' improved perception about the economies in the region, the first quarter of 2012 culminated in reductions by approximately one percentage point and 0.7 percentage points in government securities with one- and 10-year residual maturity respectively. In the context of heightening woes on global financial markets, the yield curve in the secondary market for government securities moved upwards in 2012 Q2. The highest rises saw the yield on government securities with residual maturity shorter than and equal to one year, concurrently with a sharper increase in short-term interbank money market rate.

Chart 3.82. Yield curve[86] in the secondary market in 2011 Q2 and Q4



Source: NBR, NBR calculations

Chart 3.83. Yield curve in the secondary market in 2012 Q1 and Q2



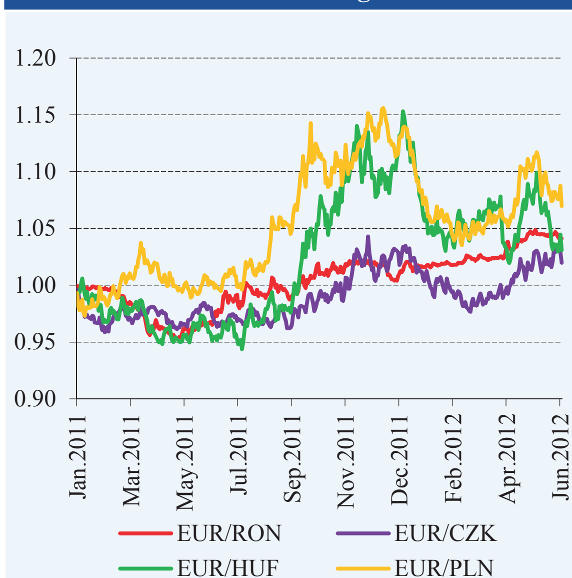
Source: NBR, NBR calculations

[86] In order to estimate the yield curve, the transactions in lei-denominated government securities on the interbank secondary market were used. Their yield was directed towards various maturity ranges, depending on the residual maturity of a particular security. The yield curve draws on the results of the third degree polynomial functions.

3.4.3. Foreign exchange market

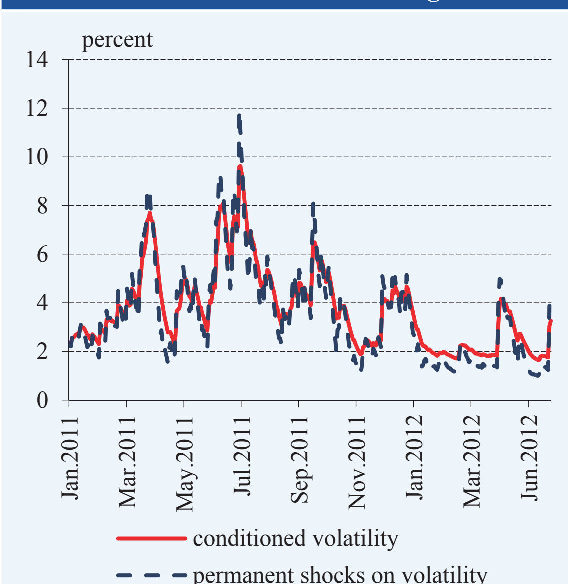
The Romanian currency was relatively stable versus the euro from January 2011 to March 2012, but in 2012 Q2 the exchange rate came under pressure as a result of heightened global risk aversion in the context of the deepening sovereign debt crisis and the European banking sector woes (Chart 3.84.). The second quarter of 2012 saw a depreciation trend of the leu versus the euro.

Chart 3.84. Movements in the major exchange rates across the region



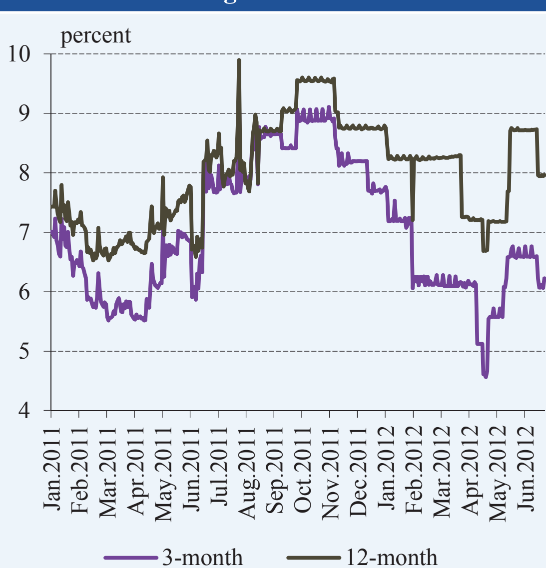
Source: Bloomberg, NBR calculations

Chart 3.85. Conditioned volatility[87] of the RON/EUR exchange rate



Source: NBR, NBR calculations

Chart 3.86. Implied volatility of EUR/RON exchange rate



Source: Bloomberg

The annualised conditioned volatility of the exchange rate (Chart 3.85.) was lower than 10 percent. The leu fluctuated the most in July 2011, when it depreciated by 1.1 percent against the euro in nominal terms. The explanation for the corrections in the domestic currency performance could lie with the risks associated with the contagion effects on the Romanian banking system coming from a possible Greece default. In early 2012, volatility shrank considerably, but remained low until mid-May.

In 2012 Q1, implied volatility[88] of the 3M and 12M EUR/RON exchange rates (Chart 3.86.) followed a downward path, along with the increase in the spread between the two volatilities. These trends became manifest amid a relative improvement of the investors' risk perception towards the economies in the region, in a favourable global context following positive developments in the

[87] Conditioned volatility was calculated by using an AR(p)-GARCH-M(p,q) model.

[88] Implied volatility is a measure of the volatility expected by investors in regard to the future exchange rate movements and is expressed as the standard deviation in annualised percentages.

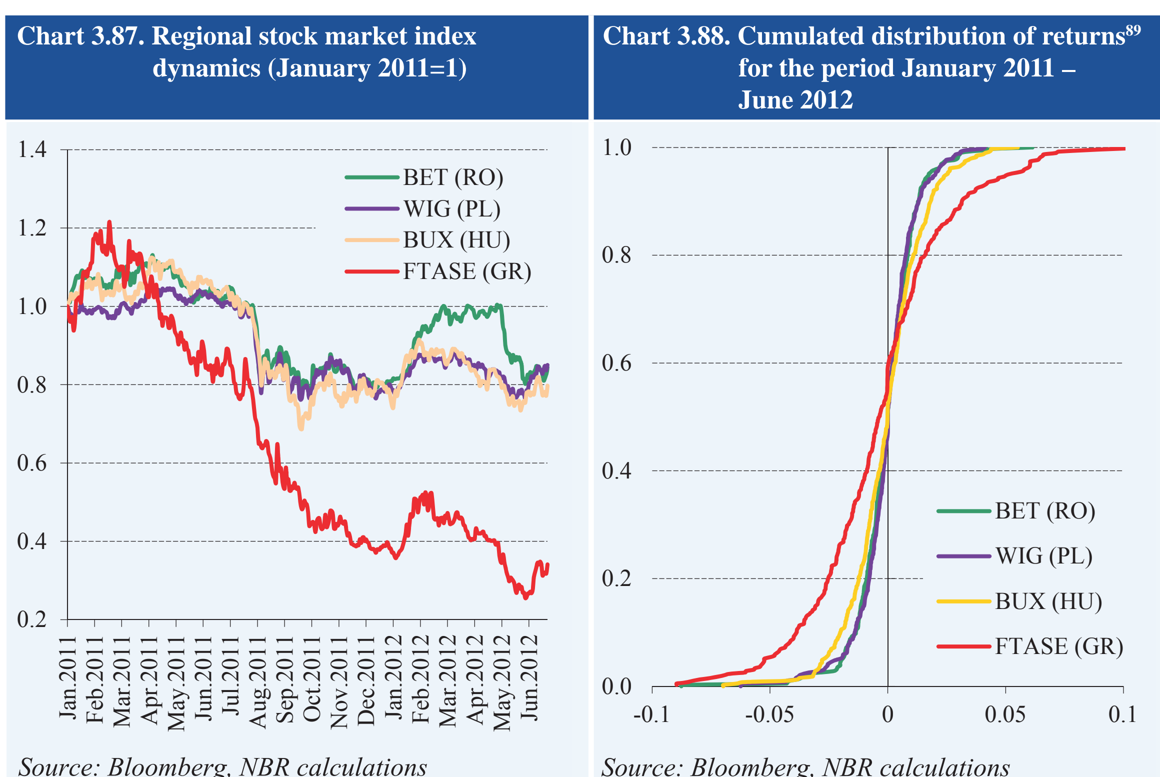
US economy and the second financial assistance package granted to Greece. By contrast, the steep rise in 12M implied volatility in the run-up to the first half of 2012 points to stronger uncertainties relating to the performance of the EUR/RON exchange rate in the medium term.

3.4.4. Capital market

Stock market indices in the region posted similar developments in the period January 2011-June 2012 (Chart 3.87.). After having witnessed relatively stable developments over the first two quarters of 2011, stock market indices in the region were strongly hit by investors' heightened global risk aversion owing to the shock stemming from the downgrade of the USA sovereign rating and therefore contracted noticeably; the BET index fell by approximately 4.9 percent within only five days. By contrast, adjustment of monetary conditions by the National Bank of Romania and the relatively more favourable external environment helped the BET index to outperform its peers in Poland and Hungary in the period January-April 2012.

Chart 3.87. Regional stock market index dynamics (January 2011=1)

Chart 3.88. Cumulated distribution of returns[89] for the period January 2011 – June 2012



Source: Bloomberg, NBR calculations

Source: Bloomberg, NBR calculations

The tensions seen in Greece in May 2012 brought about massive corrections in key stock market indices in the region, given that the CBOE volatility index measuring the investors' risk aversion on the US financial market rose to one of its highest levels in the past trading year. On the other hand, the cumulated distribution of returns relative to stock market indices in the region underscores a relatively high resilience of the BET index to the global financial turmoil (Chart 3.88.).

In 2011, Bucharest Stock Exchange capitalisation followed a downward trend, which reversed in 2012 Q1 (Chart 3.89.). Subsequently, external market tensions entailed however a considerable decrease in capitalisation, which at the end of June 2012 posted a level similar to that seen at end-2011. At the same time, annualised liquidity[90] exhibited similar dynamics in the reported period,

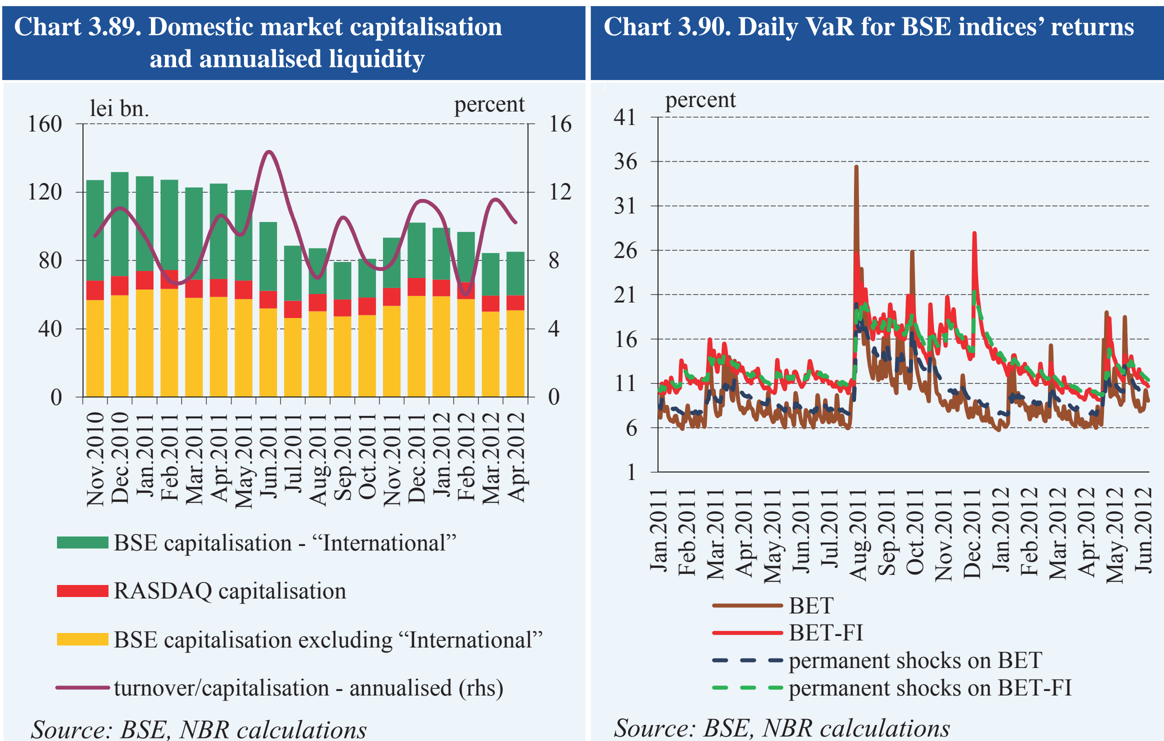
[89] Cumulated probability distribution of returns in respect of four stock exchange indexes was calculated using a Kaplan-Meier estimation function. Oy axis shows figures in the [0,1] range of probability levels for which the function was estimated. Ox axis shows various readings of index yields related to probability levels.

[90] Monthly transactions * 12/Market capitalisation at the end of the month.

posting wide swings. The global turmoil translated into large increases in market risk as regards the key indices in Romania (Chart 3.90.). The peak in market risk, as reflected in the performance of the BET index, was illustrated by the daily VaR[91] which amounted to almost 35.3 percent in August 2011. The increase in investor risk aversion, amid the tensions arising from the level of the USA sovereign debt, weighed more heavily on the BET index than the BET-FI index, with the latter mirroring local capital market investors' appetite for riskier investments.

Chart 3.89. Domestic market capitalisation and annualised liquidity

Chart 3.90. Daily VaR for BSE indices' returns



Source: BSE, NBR calculations

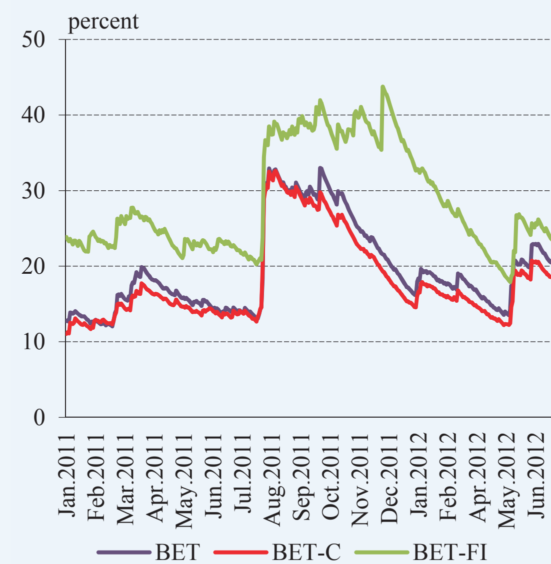
Source: BSE, NBR calculations

The USA being downgraded by Standard&Poor's credit rating agency in August 2011, together with the deepening sovereign debt crisis in the euro area, caused a substantial surge in volatility on the capital market in Romania in the second half of 2011 (Chart 3.91.). Uncertainty-ridden episodes on the global financial markets that have become manifest over the past few years had a detrimental impact on the local capital market, considering the high integration with the European financial sector.

The contagion from international capital markets was enhanced by the developments in the daily correlation with foreign market indices, which saw significant rises during highly volatile periods on the domestic market (Chart 3.92.). European capital markets weigh more heavily on the local stock exchange than the US stock market. Even though August 2011 witnessed high global uncertainties following the downgrade of the USA rating, the shock on the capital market was felt rather indirectly, by contagion from the European financial markets.

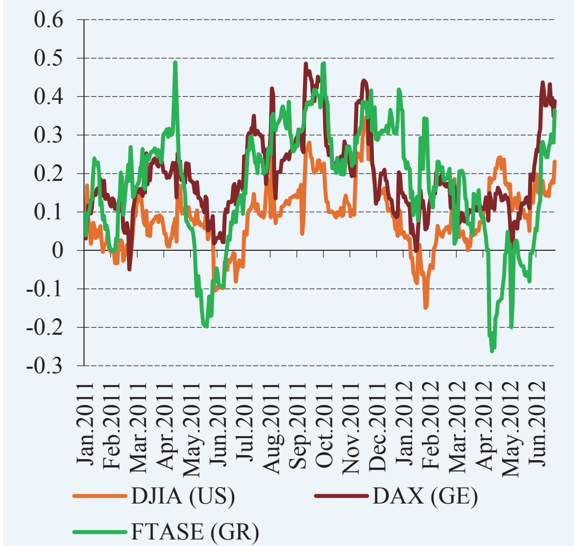
[91] Daily VaR (Value at Risk) is estimated for a 10-day horizon and for the 99th percentile of the distribution function, in compliance with the provisions of Basel II Accord on market risk management. In this case, the highest possible loss for a 10-day horizon will most likely not exceed the daily VaR, which is based on the standard normal distribution (with the mean of 0 and variance equalling 1) and conditioned volatility deriving from a GARCH model (1.1).

Chart 3.91. Volatility of BSE indices



Source: BSE, NBR calculations

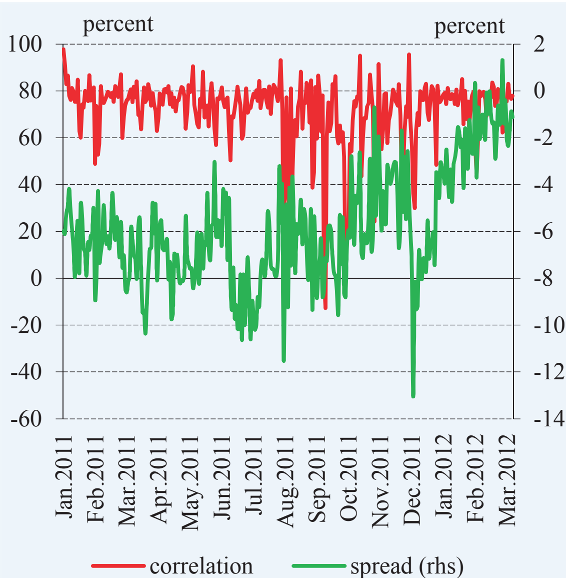
Chart 3.92. Correlations between BET index and foreign capital market indices



Source: Bloomberg, NBR calculations

On the Romanian capital market, investors perceived the contagion risk coming from Greece as similar in size with the risk posed by the European financial market. The evolution of the correlation between indices of Greek and Romanian stock markets does not reveal a particular concern of local capital market investors in the economic and financial ties between the two countries. Investors assessed the tension in the Hellenic financial system especially in terms of its impact at European level, given that other countries in Europe face financial woes as well.

Chart 3.93. Spot-futures spread[92] and correlation



Source: NSC, NBR calculations

In late 2011, the correlation between spot and futures markets swung notably, but remained high until the end of June 2012. Moreover, the spot-futures spread tended to grow starting with the latter half of 2011 (Chart 3.93.). At the same time, liquidity in the futures market trended downwards, which is indicative of higher investor risk aversion.

[92] Spot-futures spread and correlation were weighted by the volume of trades in highly liquid shares on the futures market in Sibiu. The estimated correlation was conditioned based on a diagonal BEKK multivariate GARCH model (1.1).

4 RISKS RELATED TO DOMESTIC ECONOMIC AND FINANCIAL DEVELOPMENTS

4.1. Domestic macroeconomic developments

The balance of risks generated by domestic macroeconomic developments improved since the release of the previous report given that economic growth re-entered positive territory and fiscal consolidation carried on. The main challenges to be managed in the forthcoming period are: (A) maintaining an adequate pace of the real convergence process taking into consideration the need to continue the reduction of external and fiscal imbalances, (B) improving the absorption of European funds, (C) further supporting fiscal consolidation and the implementation of structural reforms in the context of the coming elections, and (E) strengthening the public authorities' payment discipline.

4.1.1. Real sector

(A) After two years of decline, economic growth re-entered positive territory in 2011 (+2.5 percent). Despite the prevailingly external constraints impacting economic dynamics in the current year, GDP growth is expected to carry on at a pace faster than the EU average[1] in 2012-2013, yet the negative output gap is foreseen to persist in the subsequent years. Considering the wide gap that needs to be closed (Chart 4.1.), in the period ahead, the convergence of income per capita in Romania towards the EU values is anticipated to continue at an average pace comparable with that reported in 2011, around the EU-10 average. Given the investors' uncertainties surrounding the developments on international financial markets and the domestic commitments to further pursue structural reforms agreed upon with the international financial institutions, the role of external demand (as the key growth factor) is expected to be replaced by that of domestic demand (especially investment).

Labour market conditions witnessed mixed developments in terms of the main macroeconomic imbalances monitored by the European Commission via the scoreboard[2]. First, the unit labour cost improved in 2011, boosting external competitiveness (Chart 4.2.). Second, unemployment rate, albeit on the rise in 2011 (7.4 percent from 7.3 percent in 2010 and the 7.2 percent average for the last three years, Chart 4.2.) are below the average EU values, and the European Commission's forecast envisages the drop of this indicator to 7.1 percent in 2013. Nevertheless, the labour market further experienced key vulnerabilities whose reduction required a faster implementation of the structural reforms agreed upon with the international financial institutions and maintaining an adequate correlation between labour productivity dynamics and that of wages with a view to averting the emergence of constraints on Romania's economic competitiveness in the future.

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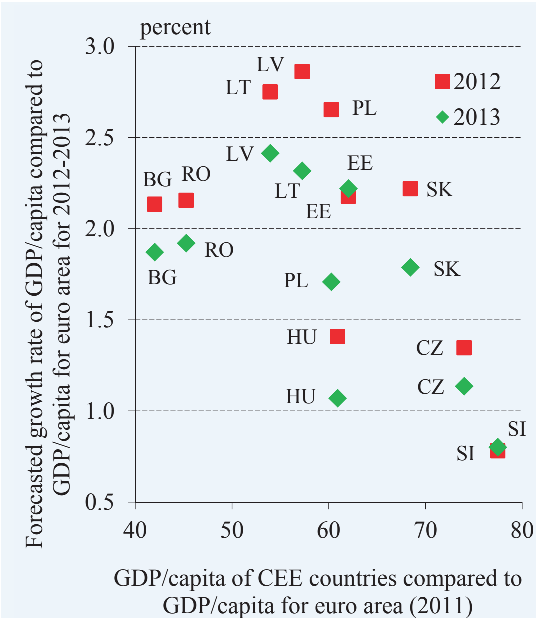
[1] The European Commission anticipated an economic growth of 1.4 percent for Romania in 2012 and 2.9 percent in 2013, while the EU average is projected to stand at 0.0 percent and 1.3 percent respectively (European Commission, European Economic Forecast, 11 May 2012).

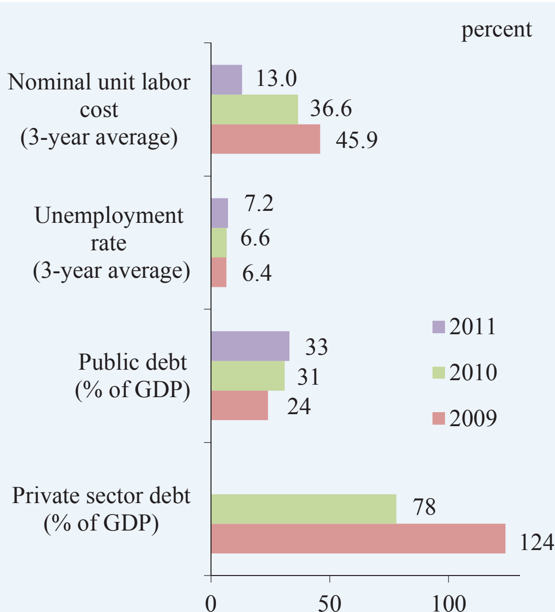
[2] The European Commission prepared and implemented a scoreboard comprising ten macroeconomic indicators, representing an alert mechanism regarding both external and domestic macroeconomic imbalances. These indicators are: current account balance, net investment position, real effective exchange rate, market shares of exports, nominal unit labour cost, housing prices adjusted by consumption deflator, credit inflows to the private sector, private sector debt, public debt and unemployment rate.

Chart 4.1. Average annual convergence rate in EU-10



Source: Eurostat, NBR calculations

Chart 4.2. Development of the imbalances monitored by the EC via the scoreboard[3]



Source: European Commission, ECB

(B) The European funds made a modest contribution to investment funding. The measures taken in 2011 (identifying priority projects, strengthening the authority of the entity in charge of coordinating the EU structural instruments, etc.) contributed somewhat to the larger volume of EU structural funds attracted, but the outcomes are below target. At end-June 2012, the refunds from the European Commission totalled EUR 1.8 billion, the absorption of structural funds standing at 9.2 percent. Improving the absorption of EU funds has remained a challenge for the coming period as well, the success of such an endeavour having a favourable impact on the rise in potential GDP, the reduction of pressures from external capital inflows, the loosening of constraints generated by the insufficient domestic saving, etc.

The lower-than-expected volume of the EU funds attracted did not weigh much on the identification of domestic resources necessary for carrying out the investment projects. In 2011, the level of investment in Romania was among the highest in the region (investment ratio accounted for 24.6 percent of GDP compared with an average of 20.9 percent of GDP at the level of EU-10. The forecasts point to this trend carrying on in the period ahead. On the other hand, even though Romania reported a large volume of public investment (around 6 percent of GDP during 2006-2010 and 5.1 percent in 2011, standing for the highest values among the EU-10 countries[4]), the impact on the economy was still reduced, which calls for a more efficient allocation of investment funds from the budget by drawing up priority lists based on necessity, opportunity and efficiency criteria.

[3] Details of the new framework of economic governance in the EU are presented in Box 1.

[4] The EU-10 countries reported, on average, public investment accounting for 4.4 percent of GDP in 2006-2010 and 3.9 percent of GDP in 2011.

(C) The efforts to resume a sustainable economic growth should be oriented more towards attaining objectives such as those included in the Europe 2020 Strategy (boosting innovation and energy efficiency in the production process). Thus, innovation-related expenses in Romania were half of the amount reported in the EU-10 countries in 2009-2010 (about 0.5 percent of GDP compared with 1 percent of GDP in the EU-10 countries and below the objective of 2 percent of GDP assumed by Romania under the programmes for the implementation of the Europe 2020 Strategy. The preliminary data for 2011 showed no sign of improvement. The structural analysis of the three sectors playing a key role in innovation (public sector, economic agents and academia) highlights the fact that the values recorded by Romania in all the abovementioned areas remain below the values recorded in the region, the last two sectors reporting wider gaps compared with the European partners. In order to boost research activity in the sectors with larger deficits, the authorities undertook under the National Reform Programme to stimulate the involvement of the private sector (economic agents and universities) with a view to fulfilling the objective on innovation under the Europe 2020 Strategy.

4.1.2. Public sector

(D) Fiscal consolidation – the centrepiece of reform programmes assumed by Romania – carried on in 2011. Structural budget deficit narrowed to 3.3 percent of GDP in 2011 (from 6.1 percent of GDP in 2010, according to ESA95 methodology, based on European Commission estimates), and the forecasts indicate further strengthening to 1.8 percent of GDP in 2012. Fiscal deficit dynamics that moderated to 5.2 percent of GDP in 2011 (from 6.8 percent in 2010) showed the same tendency, and for 2012, the government has envisaged to reduce fiscal deficit to 2.2 percent of GDP (national methodology) according to the programme pre-announced following the budget revision in August 2012, a level also assumed in the financing arrangement with the international financial institutions. In 2012 H1, budget deficit stood at 1.12 percent of GDP (compared with 1.94 percent of GDP in 2011 H1).

Fiscal consolidation, albeit pro-cyclical, is necessary to support macroeconomic and financial stability for several reasons. First, Romania committed itself under the funding arrangements signed with the international financial institutions to implement public sector reforms, fiscal adjustment and the reduction of vulnerabilities resulting from public debt and external debt. Moreover, Romania signed in March 2012, along with other 25 Member States, the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union (Fiscal Compact), which is aimed at strengthening fiscal oversight also by implementing a budget rule (containment of the structural budget deficit at 0.5 percent of GDP)[5] and some penalties for non-compliance with this rule (0.1 percent of GDP). Second, fiscal consolidation is a key element in shaping investors' and rating agencies' perception of sovereign risk. In the context of the sovereign debt crisis and the overindebtedness of several EU Member States, a sustainable sovereign debt model is a key criterion for enhancing sovereign credibility, namely maintaining exposures to a certain county and at an adequate risk premium, which characterise access to financing in terms of the volume of potential sources attracted and related costs. Third, fiscal imbalances accumulated by Romania prior to the outbreak of the crisis need to be reduced, Romania being expected to exit by end-2012 the excess deficit procedure initiated by the European authorities in July 2009 (in fact, all the EU Member States that are to adopt the euro are subject to this procedure).

[5] Under the Convergence Programme for 2012-2015, Romania set the structural deficit at 0.7 percent of GDP, a level below 1 percent maximum share allowed to countries reporting a lower public debt stock.

Romania still held a comfortable position in terms of public debt (34.6 percent of GDP based on ESA95 methodology, in June 2012, well below the reference value of 60 percent of GDP and one of the smallest shares in the EU, Chart 2.4.). The upward trend of this indicator alleviated, the pace of increase of public debt slowing down from 35 percent in 2010 to 21 percent in 2011 and 9 percent in 2012 H1 (Chart 4.3.). Furthermore, the rise in the public debt stock was attributable to the structural improvement: (i) the share of leu-denominated debt went up (to 43 percent in June 2012 from 40 percent in December 2010), and (ii) the share of medium- and long-term debt rose to 83 percent in June 2012 (compared with 75 percent at end-2010)[6]. It is important that the fiscal consolidation process should limit the public debt weights in GDP to less than 40 percent for sustainability reasons in the group of emerging economies, as well as to reduce interest expenses and their impact on the primary deficit.

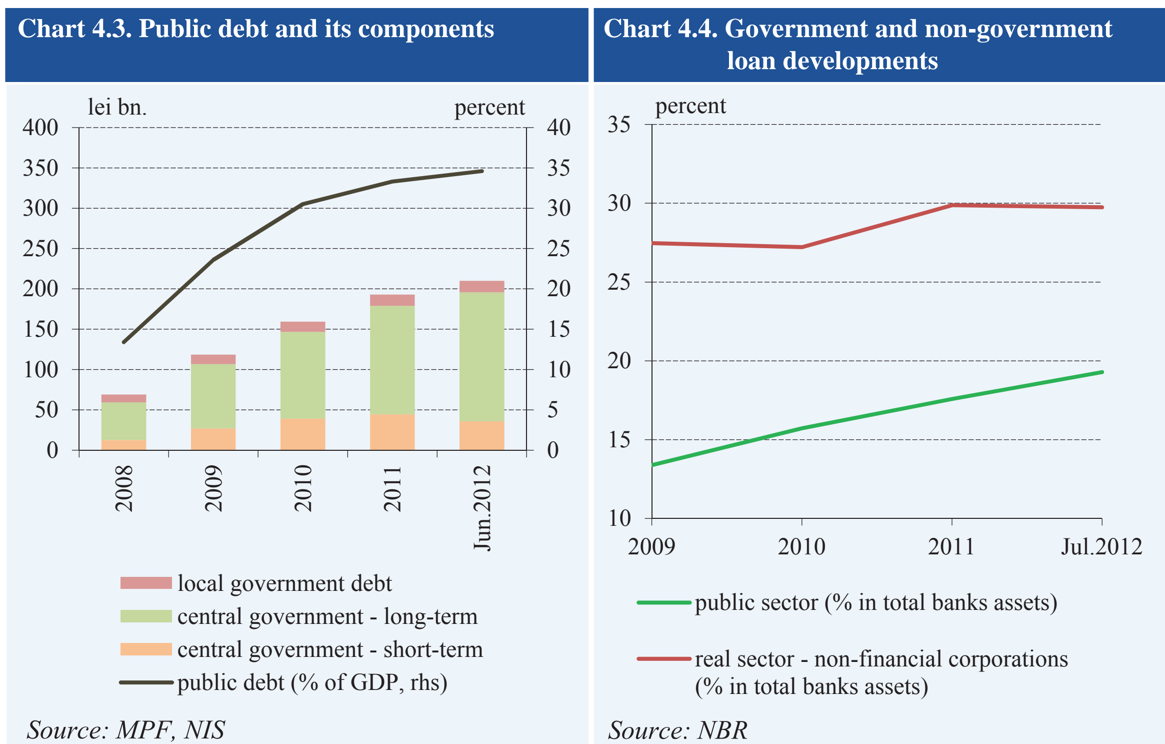
Public debt service is expected to stay at a manageable level even during 2013-2014 when it is seen to rise following repayments of the loan granted by the EC, the IMF and the World Bank. In order to limit the effects of possibly volatile lending conditions, the government created a buffer reserve necessary to cover borrowing requirements for a period of four months. The volume of this buffer reserve was raised in June 2012 by EUR 1 billion, through a financing arrangement (credit line)[7] signed with the IBRD.

The risk that changes in non-residents' perception towards risk would impact public debt financing is lower in the case of Romania. Non-residents hold around 33 percent of public debt, one of the lowest participation rates in the EU and the EU-10 (according to the Eurostat, in December 2010). On the domestic market of leu-denominated government securities, the contribution of non-resident investors remained at a low level (8 percent in June 2012, down from around 18 percent in July 2011 and 10 percent in December 2010).

The Romanian banking sector continued to be one of the main finance-providers of the government sector, the share of these exposures in banks' balance sheet rising, from 15.7 percent in December 2010 to 19.3 percent in July 2012, with loans to non-financial corporations posting a comparatively more modest increase (Chart 4.4.). In this environment, even though the short-term growth in the purchase of sovereign debt shows the constraints on demand for loans, the gradual adjustment of lending standards, as well as credit institutions' concerns for improving the risk profile and the liquidity of their portfolios, measures should be taken so as to avoid the medium-term risk of the private sector crowding out, convergent with the need to cap public debt at sustainable level in the long run.

[6] This was due to the launch of long-term government securities issues in the first part of 2012 on both external and domestic markets. At the beginning of 2012, the government launched 10-year maturity bonds on the international markets (USD 2.2 billion), after having issued, in 2010 and 2011, five-year government securities (EUR 1 billion and EUR 1.5 billion respectively). The government relaunched the 15-year bond issue on the domestic market and the volume of the issues with maturities longer than one year in January-May 2012 accounted for 51 percent of total (up from 33 percent, but below 64 percent in 2010).

[7] The "Development Policy Loan with a Deferred Drawdown Option (DPL-DDO)", agreed in June 2012, follows the three development policies loans (DPL) of the World Bank, in amount of EUR 1 billion, in 2009-2011.



(E) A major challenge facing the public sector is the strengthening of payment discipline economy-wide, with particular focus on local governments. The continuation of the administrative reform initiated in recent years will help reduce the risks associated with the impact of a possible shock from the public sector onto the real and banking sectors. Maintaining reforms on a fast track is necessary as the developments at European level call for attention regarding the difficulties to finance the public deficit encountered by local governments in the euro area.

The local government debt in Romania went up to lei 14.3 billion (about 2 percent of GDP in May 2012), the growth rate slowing down to 4 percent in 2012 H1, from 9 percent in 2010 and to less than 8 percent in 2011, consisting mainly of long-term loans (in the form of bank loans and bonds), most of them denominated in lei (about 60 percent in June 2012). The Romanian banking sector had a large exposure to local government (2 percent of total assets in June 2012). The exposure was concentrated in a small number of banks (the top five banks accounting for 90 percent of total assets). At individual level, the exposure was manageable, yet certain risks require a more thorough oversight.

4.2. Corporate and household lending

Corporate and household lending conditions evolved in an orderly manner in 2011 and the first part of 2012, but the emergence of financial deleveraging at European level might have a negative influence on domestic lending conditions. The further implementation of a balanced macroeconomic policy mix along with the fulfilment of the commitments assumed under the arrangements with the EU, the IMF and other international financial institutions will help maintain confidence of both markets and lenders and will create the conditions for the structural economic changes capable of ensuring the relaunch of sustainable lending. New lending displayed favourable structural developments, being channelled to a higher degree towards sectors manufacturing high-tech products and towards sectors that can sustain the change in Romania's economic growth model. The vulnerabilities stemming from the large stock of foreign currency-denominated loans stayed put, but the prospects for a harmonized

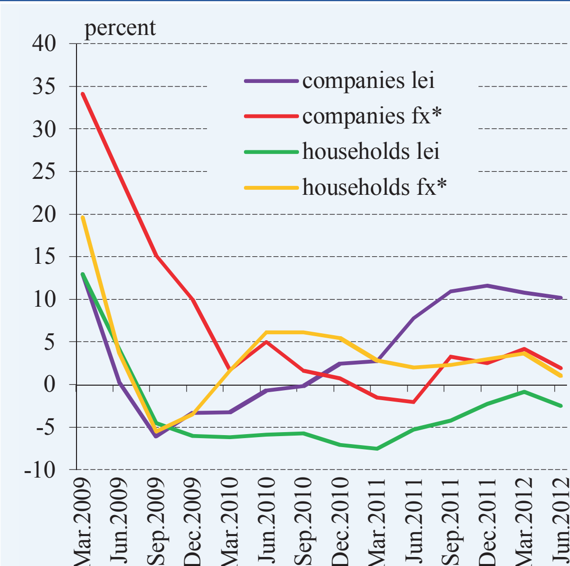
implementation at EU level of the recommendations made by the ESRB on foreign currency lending can reduce the risks associated with new businesses.

There are three major challenges that can hamper the sustainable growth of corporate and household lending, namely the manifestation of certain adverse conditions as regards: (A) maintaining an orderly evolution of domestic lending conditions in the context of the current financial deleveraging in the euro area and possible further expansion of this process; (B) managing the upside risks associated with foreign currency lending, and (C) strengthening the favourable structural changes to real economy lending.

(A) Large euro area banks announced plans to reduce their assets by almost EUR 1 trillion[8] in the coming years, by cutting lending and asset sales in order to improve capitalisation and the structure of financing. The implementation of the deleveraging plan may also affect domestic lending, the euro area banks holding around 80 percent of the Romanian banking sector's assets (in June 2012)[9].

So far, these risks have not materialised: (i) the dynamics of corporate and household sectors' financing re-entered positive territory (Chart 4.5.), and (ii) the net asset sales show the same features as in the previous years and are aimed at improving the portfolio quality (Box 7).

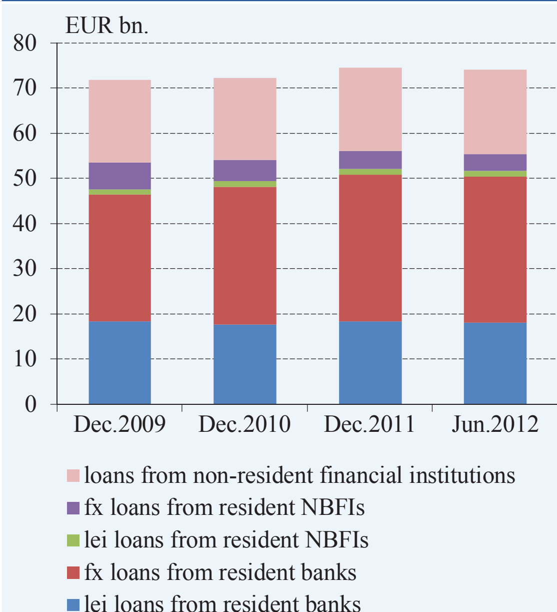
Chart 4.5. Growth rate of total credit granted to companies and households by domestic and foreign financial institutions (annual change)



* series adjusted for exchange rate movements

Source: NBR, NBR calculations

Chart 4.6. Total credit granted to companies and households by creditor and currency



Source: NBR, NBR calculations

The volume of corporate and household loans granted by domestic and foreign financial institutions expanded by 3.5 percent[10] during December 2010 – June 2012 (Chart 4.6.), due to the favourable contribution of resident banks (5.9 percent) and foreign creditors (2.8 percent). Domestic non-bank

[8] Based on Financial Stability Review, ECB, June 2012.

[9] Moreover, the home-bias phenomenon can also manifest (reducing primarily the volume of external operations in favour of domestic operations).

[10] In this sub-chapter, indebtedness is analysed by reference to the loan stock adjusted for the exchange rate movement, unless otherwise specified.

financial institutions (NBFIs) continued to reduce their exposures (by 13.3 percent over the same period). The hierarchy of financial lenders reveals that the debts of companies and households in Romania are held as follows: 68 percent – domestic banks, 25.2 percent – foreign creditors and 6.8 percent – NBFIs, a picture that remained broadly unchanged over the past years.

Box 7. Loan sales and purchasing operations[11]

Net sales of bank portfolio assets do not generate concerns over financial stability. The volume of these operations was rather modest and posted a downward trend in 2011. The loan sales (net) stood at around lei 2.5 billion (roughly 1.1 percent of corporate and household loans, December 2011) and declined from the previous year (lei 3.7 billion in 2010).

For the most part, **loan sales and repurchases helped enhance the loan portfolio quality.** Non-performing portfolios were sold and good quality portfolios were repurchased (they had been sold to parent banks during the lending boom). Non-performing loans held 80 percent of loan sales (two thirds loans to households and one third corporate loans).

The reasons behind the asset sale/repurchase are of both prudential and fiscal nature: (i) the sale of non-performing assets and the repurchase of good quality assets improved provisioning requirements and reduced capital requirements necessary to cover losses at individual level, and (ii) the tax code does not provide for the recognition and deduction of losses accumulated over a period longer than five years.

As for loan sales, banks have different expectations regarding exposure to non-performing loans depending on the nature of the debtor and the collateral. *In the case of non-performing loans to households*, the largest share was sold to companies outside the group, specialised in claims resolution (84 percent). The decision to sell was due to the exhaustion of all the means to recover claims or to the lack or poor quality of the collateral. The average value of the sale discount was high and rising (from about 75 percent in 2010 to roughly 88 percent in 2011). These developments: (i) call for the further strengthening of banking risk management, and (ii) support the NBR's measures to secure *ex ante* the debtors' capacity to service debt and to provide adequate collateral.

In the case of non-performing loans to the corporate sector, 83 percent were sold to entities within the group, the largest share (77 percent) being sold to entities other than those performing assets resolution. Such operations most likely involved guaranteed non-performing loans and were performed with a view to selling the collateral when the market conditions were more favourable. **Such operations between banks and the entities within the group (e.g. special purpose vehicles – SPV) are subject to thorough prudential oversight** as, where the value of the collateral will not increase the operation will entail *de facto* the postponement of the loss or the assumption of a loss below the real value, without the need for the bank to put in place safety buffers at consolidated level such as provisions or capitals. The average value of the discount at which the sale of the non-performing loans was made rose, from about 40 percent in 2010 to roughly 45 percent in 2011.

Both demand for and supply of loans helped maintain a moderate lending dynamics. The financial standards of domestic banks eased somewhat in 2011 as regards both companies and households. In 2012 H1, banks tightened once again their lending standards in line with the euro area developments, particularly those for household lending (Chart 4.7.).

[11] The analysis is based on a questionnaire sent in April 2012 to a number of 10 banks identified as having performed, during 2011, securitisation operations and other transfers involving loans to households and non-financial corporations.

Demand for loans contributed to the orderly developments of lending conditions. In 2011, demand for loans revived especially in the case of non-financial corporations and to a lesser extent in the case of households, yet it stood well below the unsustainable levels recorded at the onset of the crisis (Chart 4.8.). The evolution of demand for loans justified largely the maintenance of foreign banks' exposures to Romania, credit to non-government sector witnessing a stronger dynamics than for similar entities in the euro area. In 2012 Q2, the rise in household demand for loans was less ample than that of the corporate sector.

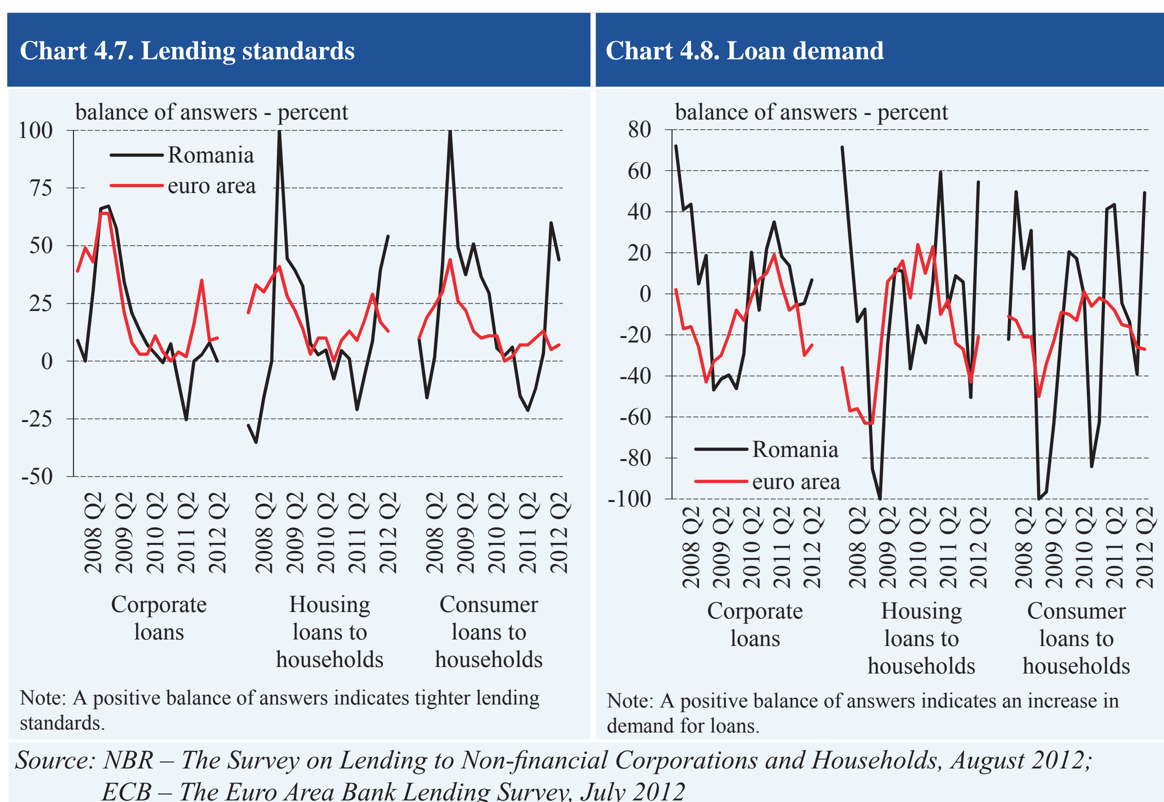


Chart 4.7. Lending standards

Note: A positive balance of answers indicates tighter lending standards.

Chart 4.8. Loan demand

Note: A positive balance of answers indicates an increase in demand for loans.

Source: NBR – The Survey on Lending to Non-financial Corporations and Households, August 2012; ECB – The Euro Area Bank Lending Survey, July 2012

Looking ahead, lending conditions are expected to evolve in an orderly manner for at least three reasons:

a) the further implementation of a balanced macroeconomic policy mix, amid the fulfilment of commitments assumed under the arrangements with the EU, the IMF and other international financial institutions that will support markets' and financial lenders' confidence and will help create the conditions for the economic structural changes capable of reviving sustainable lending;

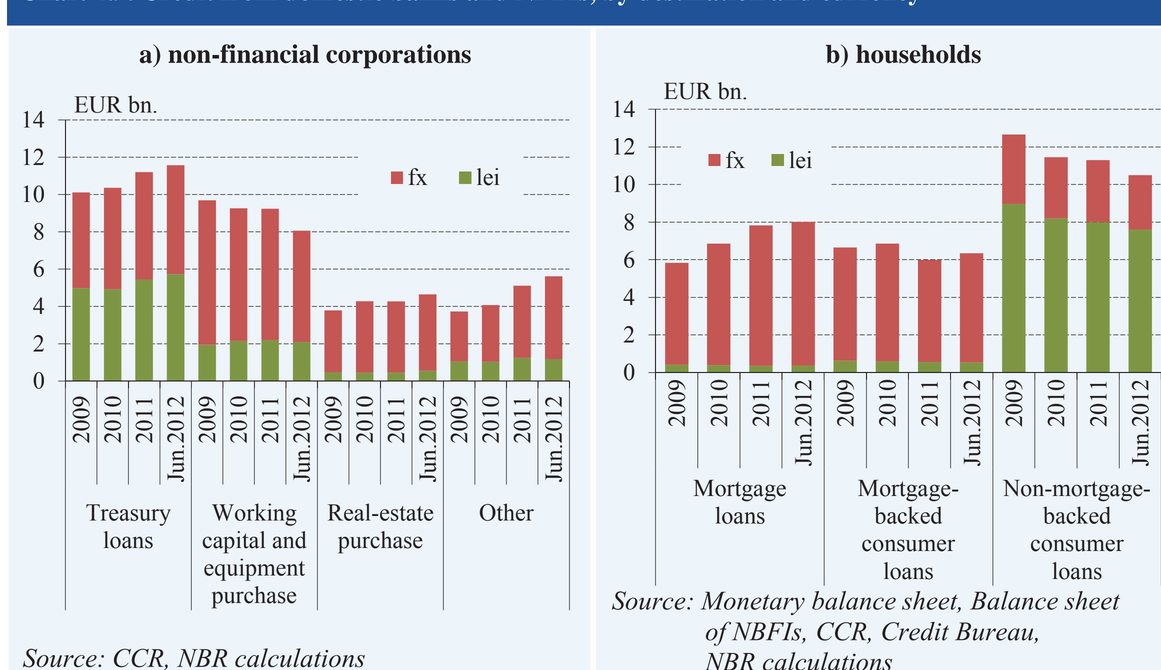
b) the lending strategies of the main banking groups in Romania show these groups' interest in further operating in this country, the domestic market being seen, in certain cases, to have a strategic importance;

c) the implementation at EU level of certain arrangements meant to ensure an orderly evolution of lending conditions (such as The European Bank Coordination Vienna 2.0 Initiative initiated in March 2012) will enhance policy coordination between the authorities in the host and home countries in order to contain the effects of financial deleveraging of the euro area banking groups on the emerging European economies and to maintain financial stability.

(B) The vulnerabilities generated by the high level of foreign currency lending persisted, but a relative improvement is expected as a result of the harmonised implementation at EU level of the recommendations issued by the ESRB on foreign currency lending and the more stringent need, from a macroprudential perspective, to narrow the currency mismatch between bank assets and liabilities.

Foreign currency lending is still a stock rather than a flow issue (Chart 4.9.). Foreign currency-denominated loans granted to the corporate and household sectors held 64 percent in June 2012 (versus 63.3 percent in December 2010). Compared with the other countries in the region, the level is similar to that reported by Hungary and Bulgaria and almost double compared with that of Poland. The stock of foreign currency-denominated loans rose by EUR 1.31 billion in December 2010 – June 2012, with domestic banks and foreign creditors increasing their exposures by 5.5 percent and 2.8 percent respectively, while the NBFIs reduced their exposures by 19.2 percent.

Chart 4.9. Credit from domestic banks and NBFIs, by destination and currency



Source: CCR, NBR calculations

Source: Monetary balance sheet, Balance sheet of NBFIs, CCR, Credit Bureau, NBR calculations

The flow of new businesses by currency had a more balanced evolution. In the case of non-financial corporations, the share of foreign currency-denominated loans in total loans dropped from 51.3 percent in 2011 to 41.7 percent during January-July 2012. As regards households, housing loans were granted mainly in euro (over 90 percent of total), in the absence of some yield curves with comparable maturities in case of financial resources in domestic currency of credit institutions in Romania, but the weight of foreign currency-denominated consumer loans continued to decline (from 35.7 percent in 2011 to 21.1 percent in January-July 2012). This development can also be attributed to the coming into force of the new regulation on household lending[12]. The Regulation sets forth sound lending practices for unhedged borrowers that adequately incorporate specific credit risk provisions by taking account of currency, collateral, type and maturity of the loan. The main implemented changes are aimed at: (i) enlarging the scope of the regulation so as to include, apart from resident banks, the branches of foreign credit institutions, legal entities, as well as the NBFIs entered in the Special Register; (ii) establishing the maximum indebtedness level in the case of consumer loans by

[12] NBR Regulation No. 24 of 28 October 2011.

considering the currency risk, the interest rate risk and the risk associated with the drop in debtors' disposable income during the life of the loan; (iii) setting a minimum guarantee level for foreign currency-denominated loans at 133 percent of the loan; (iv) setting a cap on the maturity of consumer loans to five years and; (v) introducing maximum loan-to-value levels for housing loans, depending on the loan currency (except for fully and partially government-backed loans).

The NBR will further monitor foreign currency lending. Moreover, as mentioned in the previous Report, additional measures may be taken to secure the adequate coverage of the risks associated with unhedged borrowers. This would refer primarily to unhedged borrowers in the corporate sector. In general, the corporate sector posted a high level of foreign currency indebtedness (77.1 percent of total domestic and external indebtedness in June 2012 compared with 78.4 percent in December 2010). By field of activity, foreign currency-denominated loans held the largest share in the case of real-estate companies (95.1 percent), ahead of services (81.3 percent), and manufacturing (81.1 percent; June 2012). In terms of the destination of loans granted by banks and NBFIs, real-estate loans in foreign currency took 88.2 percent and treasury loans 50.5 percent (June 2012, Chart 4.9a).

The new measures to be introduced by the NBR in order to secure a better management of the risks associated with foreign currency lending are in line with the recommendations issued by the ESRB (Box 8). The unitary implementation of the said recommendations at EU level will reduce markedly the arbitrage risk associated with the prudential measures taken by the NBR, which will boost their efficiency. Such measures need to be taken as the risk associated with foreign currency lending kept rising at a faster pace than that of domestic currency lending. Thus, starting with February 2009, the dynamics of non-performing loans in foreign currency granted to the corporate sector accelerated faster than that of leu-denominated loans; in December 2010 – July 2012, the growth rates stood at 86.3 percent and 46.3 percent respectively. Therefore, the spread between the NPL ratios[13] for domestic currency loans versus foreign currency loans narrowed down to 2.8 percentage points in July 2012 (16.7 percent for foreign currency loans compared with 19.5 percent for domestic currency loans). The NPL ratio for foreign currency loans granted to households was higher than that for domestic currency loans for all types of loans, except housing loans. In December 2010 – June 2012, the volume of non-performing loans in foreign currency expanded further (by 43.5 percent), while the volume of non-performing loans in domestic currency decreased by 9.1 percent.

[13] The non-performing loan ratio is calculated as a share of loans granted to companies or households overdue for more than 90 days or for which legal proceedings have been opened (with company or natural entity contamination) in total loans to companies or households.

Box 8. The ESRB recommendations on foreign currency lending

Systemic risks generated by foreign currency lending are a key concern at EU level too and it is included in the ESRB's agenda. In fact, the first recommendation issued by the ESRB since its establishment regarded foreign currency lending, the Member States and the national supervisory authorities being requested to adopt, where necessary, the recommended measures or to justify the case in which their implementation is not necessary (http://www.esrb.europa.eu/recommendations/html/index.en.html).

The ESRB recommendations are aimed a:

a) *Notifying debtors of the risks.* Financial institutions shall inform unhedged borrowers on the risks associated with foreign currency lending, mentioning at least the impact of a severe depreciation of the domestic currency and a rise in interest rate for the respective currency. Moreover, financial institutions are prompted to offer, as an alternative to foreign currency lending, the possibility of taking loans in domestic currency for the same destination, as well as the financial instruments capable of ensuring protection against currency risk.

b) *Debtors' creditworthiness.* The supervisory authorities shall: (i) monitor the level of foreign currency lending and the currency mismatch between assets and liabilities of private non-financial corporations, as well as take the necessary steps to contain this type of lending; (ii) grant foreign currency loans only to creditworthy debtors that can prove their capacity to withstand adverse exchange rate and interest rate shocks, and (iii) consider the implementation of tighter criteria for foreign currency lending, such as those regarding the debt-to-income ratio and the loan-to-value ratio.

c) *The unsustainable growth of non-government credit generated by the granting of foreign currency loans.* The supervisory authorities are prompted to implement new measures tighter than those provided for in the previous recommendation.

d) *Internal risk management.* The supervisory authorities shall issue guidelines for financial institutions to adequately incorporate risks associated with foreign currency lending into the internal risk management systems.

e) *Capital adequacy.* Financial institutions shall maintain a capital level in compliance with Pillar II requirements under the revised Basel II Capital Accord framework, so as to ensure the coverage of risks associated with foreign currency lending, especially the risk stemming from the mismatch between credit risk and market risk.

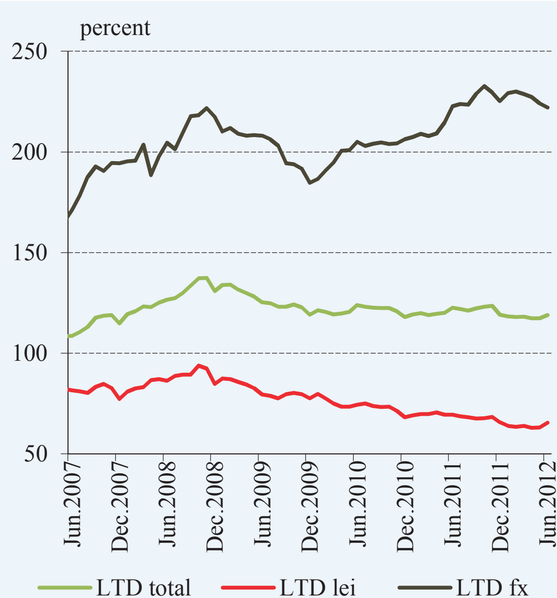
f) *Liquidity and financing.* The supervisory authorities shall carefully monitor financing risks and liquidity risks of financial institutions associated with foreign currency lending as well as their overall liquidity status.

g) *Reciprocity.* The supervisory authorities in the home Member State shall impose the financial institutions granting foreign currency loans in another Member State measures that limit foreign currency lending at least as tight as those imposed in the host Member State. Moreover, all the measures already in place or those to be implemented, destined to cap foreign currency lending will be notified by the supervisory authorities in the host Member State to the supervisory authorities in the home Member State (which will post them on their websites), such as the ESRB and the EBA.

The second element promoting a more balanced evolution of lending by currency is the need to reduce the mismatch between bank assets and liabilities, in terms of the denomination currency of the respective positions. In the recent years, lending caused the widening of this mismatch. In terms of loan supply, the availability of banks' financing sources should promote domestic currency lending. At aggregate level, banks hold larger classical financing resources[14] in domestic currency than those in foreign currency (68.4 percent in lei, June 2012). Furthermore, the foreign currency loans-to-deposits ratio hovered around 200 percent in the recent years, while the domestic currency loans-to-deposits ratio was below par (Chart 4.10.).

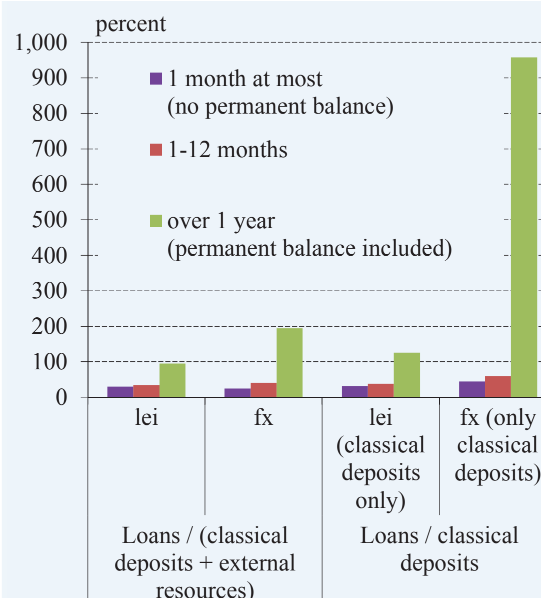
[14] Corporate and household deposits.

Chart 4.10. LTD by currency, non-government sector



Source: NBR, NBR calculations

Chart 4.11. Indicator loan-to-resources by currency and maturity, June 2012, non-financial corporations and households



Source: NBR, NBR calculations

The analysis of the maturity breakdown of banks' total financing resources led to the same conclusion, namely the need for a more balanced evolution of lending by currency (Chart 4.11.). The taking into consideration of the permanent balance on demand deposits, based on the most cautious scenario[15], as a long-term refinancing source pinpoints the mismatch between foreign currency resources and loans with maturity longer than one year. Last but not least, mention should be made that the mismatch between the maturity of foreign currency resources (usually one to three years) and that of classic deposits (usually one to three months) is less relevant in the case of foreign currency loans with maturities of 20-30 years, as with housing loans.

As banks hold sizeable resources in domestic currency relative to the leu-denominated loans (the ratio of loans to deposits for the non-government sector standing at 65.5 percent in June 2012 and declining, Chart 4.10.), the sustainability of the solution implying the reduction of liquidity risk on the upper maturity bands by supplying long-term foreign currency loans that involves the passing of currency risk onto debtors is questionable in terms of financial stability. Debtors are considered to have poorer knowledge and fewer instruments at hand to manage such risks as compared with banks. Thus, apart from a gradual shift towards using mainly domestic financing sources, credit institutions should pursue, as a part of the process to create some sustainable business models, resuming lending in a balanced manner in terms of the new loans in domestic currency and foreign currency, avoiding the significant concentration on the latter.

(C) The consolidation of the favourable structural changes to real economy financing is the third main challenge from the perspective of ensuring a new sustainable evolution of lending. The tendency to change banks' business model continued in 2011, leading to a wider focusing on

[15] It implies that at most 25 percent of the minimum level of demand deposits with maturity shorter than one month, analysed in the past five years, might be withdrawn. According to dedicated literature, the bank crises in the past decades caused the flight of at most 25 percent of deposits (monthly dynamics), while the average shock stands around 10 percent.

the lending to non-financial corporations. The high indebtedness of households (especially those with incomes below the average), corroborated with the borrowing requirements of some sectors that have a medium-term development potential calls for the reorientation of the banking model in Romania towards productive areas, a move that will have a favourable impact on the resumption of a sustainable economic growth and on potential GDP. In December 2010 – June 2012, indebtedness of corporate and household sectors rose by 5.4 percent and 0.1 percent respectively, while in the years before the crisis, lending was channelled mainly to households, especially for real-estate purchase.

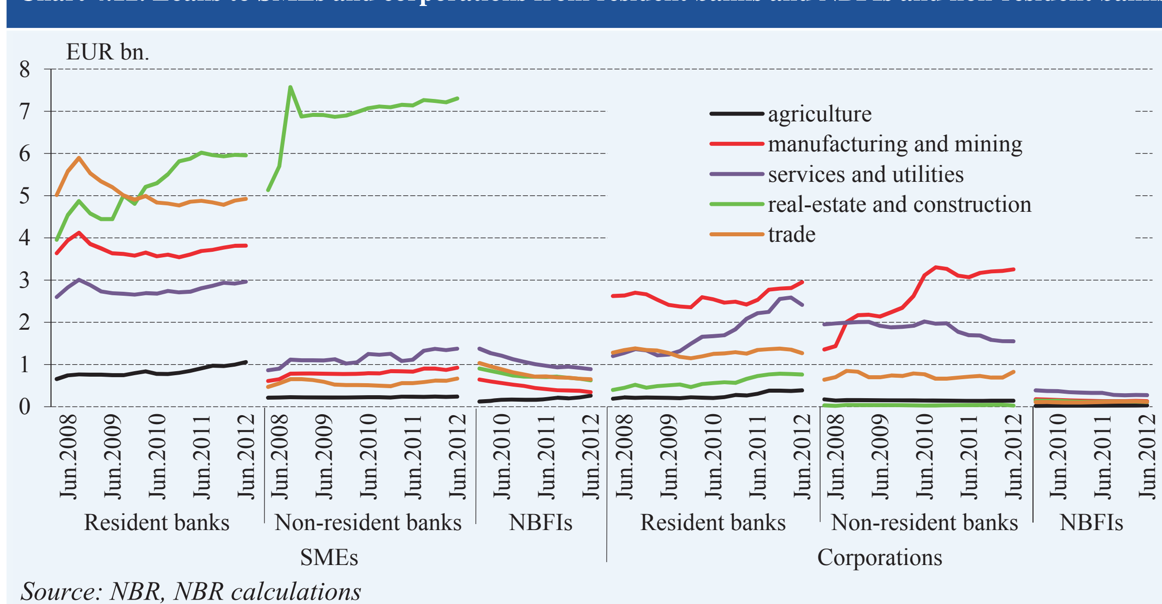
Most of the financial creditors enlarged their exposure to companies in December 2010 – June 2012 (Chart 4.12.), with financing showing the followings features: (i) domestic banks posted a faster growth rate for leu-denominated credit (up 16.1 percent) than for foreign currency-denominated credit (up 7.8 percent); (ii) borrowings from foreign banks moved up 6.1 percent, being channelled almost entirely to manufacturing, and (iii) the NBFIs replaced lending in foreign currency (-18.3 percent) with domestic currency lending (up 30.3 percent).

The larger volume of corporate loans during December 2010 – June 2012 was also accompanied by a significant qualitative improvement of the structure of new loans. Most of them were channelled to companies in the tradable sectors, which reported a 10.1 percent rise in financing versus 3.9 percent in the case of the non-tradable sectors. In the context of these positive developments, the following tendencies were manifest: (i) high value added businesses (medium high-tech and high-tech) were granted a larger volume of loans than those manufacturing lower value added goods (low-tech and medium low-tech) – an 18.5 percent increase versus 6.6 percent; (ii) knowledge-intensive services companies received a larger volume of loans than less knowledge-intensive ones (up 5.3 percent compared with 4.9 percent), and (iii) lending to manufacturing and agriculture grew by 9.9 percent and 32.1 percent respectively, while trade, services and the real-estate sectors reported financing increases ranging between 2.1 percent and 5.9 percent (Chart 4.12.). Therefore, the share of loans granted to companies in the non-tradable sector in total financing declined from 68.9 percent in December 2009 to 65.8 percent in June 2012. It is vital that these tendencies should carry on and strengthen, boosting the development of export-oriented manufacturing sectors, reindustrialisation of national economy, maximisation of the potential of agriculture and the tradable services (tourism, transport, telecommunications).

The SMEs' access to financing is a development that needs further monitoring. During December 2010 – June 2012, the financing of SMEs was 4.9 percent higher (up 7.5 percent from resident banks), while that of corporations was even higher (8.2 percent) consistent with the existence of a credit channel in the Romanian economy, which is favourable to large companies that have a large number of assets, longer relations with the creditors and ample liquidity flows. The number of SMEs that had contracted loans decreased during December 2008 – December 2011, from 91,000 to 76,000 in the case of resident banks, so that the share of SMEs financing their activity from domestic or foreign banks and NBFIs remained relatively low (around 21 percent of the SMEs in operation[16]), the establishment of precautionary balances on bank deposits representing an alternative. The economic importance of the SMEs that resort to domestic or external financial loans to finance their activity remained high, yet declining slightly, the contribution to non-financial corporations gross value added dropping from 33.8 percent in 2008 to 31.8 percent in 2011, while the situation of employees changed marginally (from 34.4 percent in 2008 to 33.2 percent in the total number of the staff of non-financial corporations in 2011).

[16] According to data on the financial standing of companies provided by the NTRO, December 2011.

Chart 4.12. Loans to SMEs and corporations from resident banks and NBFIs and non-resident banks



Source: NBR, NBR calculations

4.3. External balance

4.3.1. Current account deficit

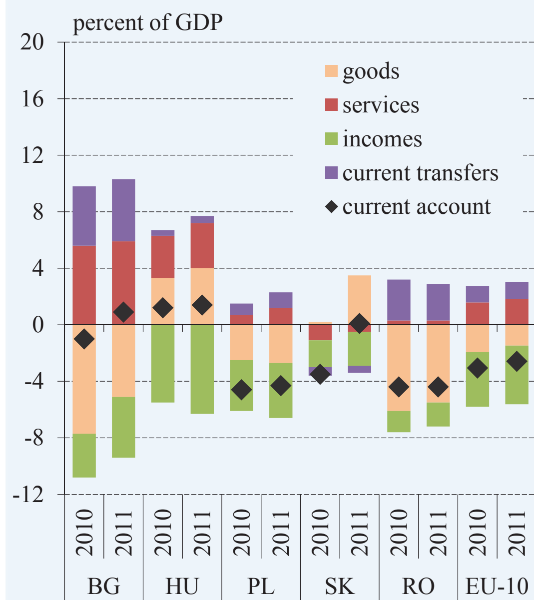
The evolution of the current account highlights two main challenges: (A) the further maintenance of the current account deficit at a moderate and sustainable level and (B) improving external competitiveness of the Romanian companies and accelerating the pace of positive structural changes in foreign trade.

(A) The current account balance stayed at a moderate and sustainable level in 2011 (4.4 percent deficit in GDP, similar to that reported in 2010), the main components posting no significant structural changes (Chart 4.13.). Nevertheless, the evolution of the current account is challenging for two reasons: (i) Romania's external deficit was the highest among the EU-10[17]; (ii) certain countries in the region improved even more visibly their current account position in 2011[18]; (iii) economic developments in the euro area are not favourable to a further sustained increase in exports, and (iv) the level of Romania's external deficit in the previous year was slightly higher than the limit stipulated in the new macroprudential supervisory framework implemented in the EU. Within this alert mechanism destined to prevent and adjust macroeconomic imbalances in the Member States, the signal for the current account deficit, calculated as a moving average for the last three years of the ratio of this indicator to GDP, was set at 4 percent. The spring forecasts of the EC and the IMF for 2012 envisage the deficit further accounting for 4-5 percent of GDP. The current account deficit saw a 35.4 percent drop during January-July 2012 from a year earlier, showing the possibility that the share of the indicator in GDP could equal less than 4 percent by end-2012.

[17] Bulgaria, the Czech Republic, Estonia, Latvia, Lithuania, Poland, Romania, Slovenia, Slovakia, Hungary.

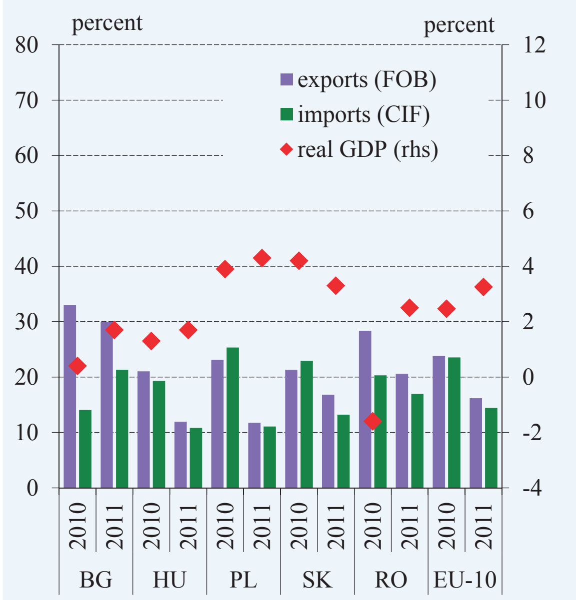
[18] Slovakia, Bulgaria, the Czech Republic, Poland and Hungary.

Chart 4.13. Current account developments, total and components in EU-10 economies



Source: Eurostat, NBR calculations

Chart 4.14. Annual growth rate of exports, imports and GDP in EU-10 economies



Source: Eurostat, NBR calculations

The trade balance of goods is the key component of the current account and largely determines its balance. Despite the good performance of the Romanian exports (a 20.5 percent annual increase in 2011, above the EU-10 average, Chart 4.14.), the trade deficit in 2011 was almost similar to that recorded in 2010 (EUR 7.52 billion versus EUR 7.59 billion[19]), due to a demand for imports (16.9 percent annual growth in 2011) that offset almost entirely the rise in exports, given that the Romanian exports incorporate a large share of import inputs (the share of imports in the exports of net exporters was 42 percent in March 2012).

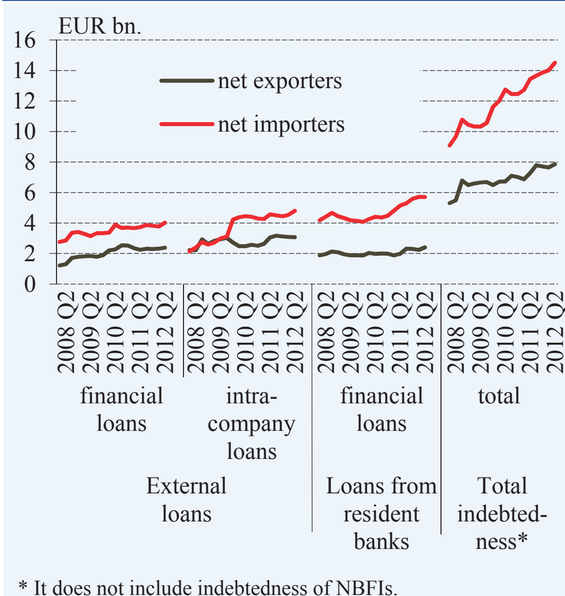
The growth of exports had a favourable impact on the real economy, via both the direct channel and the production chains, net exporters[20] making an increasing contribution to the gross value added of non-financial corporations (16.5 percent in 2011 versus 12.4 percent in 2010). The relatively significant contribution of net exporters to the economy has no equivalent in the Romanian banking sector, which represents a potential to be exploited by domestic banks. Net exporters are financed mainly from foreign funds (about 68 percent of total indebtedness at end-June 2012, Chart 4.15.) and the stock of loans granted by domestic banks accounts for 9.1 percent of total credit to non-financial corporations. There is the possibility that, in the context of the financial deleveraging manifest at European level, the access of the Romanian net exporters to foreign sources may decline, the larger recourse to domestic bank loans prompting the resumption of lending and the improvement of banks' prudential indicators. Foreign trade companies[21] maintain a good debt service discipline in relation to Romanian banks (the NPL ratio equalled 4.4 percent and 3.3 percent respectively in July 2012, Chart 4.16.).

[19] In 2012, the NIS introduced a new CIF/FOB conversion coefficient for imports of goods (1.0430). For comparability purposes, the monthly series of FOB imports for 2011 and 2010 were recalculated.

[20] Only companies reporting exports or imports in excess of EUR 100,000 during each quarter of 2011 were taken into consideration. The same criterion was applied for identifying net exporters.

[21] In this sub-chapter, the analysis of foreign trade companies focuses on net exporters and net importers.

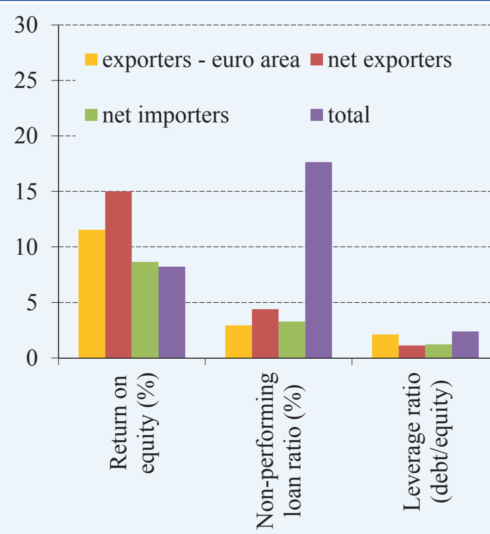
Chart 4.15. Debt of foreign trade companies



* It does not include indebtedness of NBFIs.

Source: NBR, NBR calculations

Chart 4.16. Indicators for foreign trade companies vs. total non-financial companies*



* Return on equity and the leverage ratio are calculated for 2011 and the non-performing loan ratio is calculated for July 2012.

Source: NIS, MPF, NBR, NBR calculations

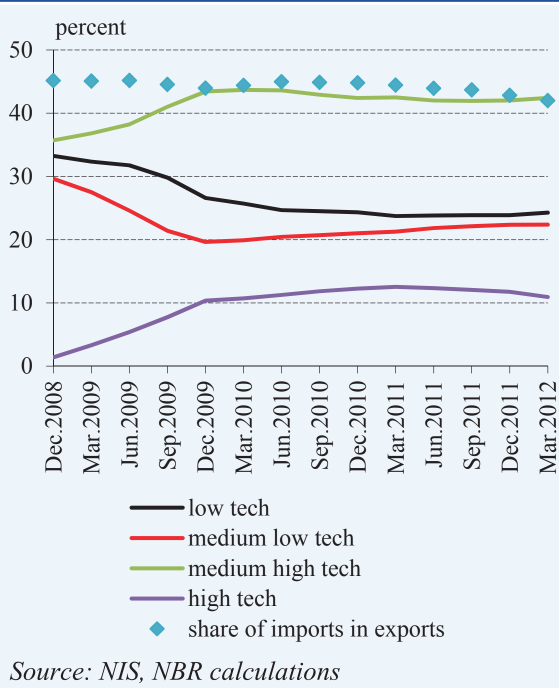
Increasing the role of the services balance in narrowing the external imbalance is yet another challenge. The services balance holds a modest position in Romania's current account (including versus the countries in the region, Chart 4.13.) and there is a potential to increase this contribution. Current transfers maintained their positive contribution to the current account balance, posting a level similar to that reported in 2010 (EUR 3.52 billion versus EUR 3.59 billion), while the negative contribution of the incomes balance widened (a deficit of EUR 2.37 billion in 2011, up 23.8 percent versus 2010). Last but not least, in time, the international financial markets may prove less willing to finance external deficits that appeared benign prior to the crisis, which will lead to differentiated constraints for emerging European economies.

The further implementation of the commitments assumed under the arrangements with the IMF, the EU and the international financial institutions, especially those regarding fiscal discipline is another short-term anchor meant to secure the sustainability of the current account deficit. The implementation of structural reforms may boost competitiveness economy-wide, with a favourable impact on the external balance.

(B) Romania's external competitiveness continued to show a relative improvement. The upward trend in the share of Romanian exports manifest in the past years carried on. They accounted for: (i) 0.34 percent of world exports in 2011[22] versus 0.33 percent in 2010); (ii) 2.90 percent of the EU exports in 2011 versus 2.73 percent in 2010), and (iii) 8.65 percent in the EU-10 exports in 2011 versus 8.33 percent in 2010). The openness of the Romanian economy widened, the share of exports and imports in GDP reaching 71.5 percent in 2011 (versus 66.3 percent in 2010), a level however below the EU-10 average (108. 9 percent in 2011).

[22] The estimate is based on the average annual EUR/USD exchange rate (ECB quotations).

Chart 4.17. Romanian exports by value added and the dependence of net exporting companies on imports



Source: NIS, NBR calculations

On the other hand, the changes in the structure of exports had mixed effects on external competitiveness. First, the Romanian exports incorporate a small amount of high-tech products. The weight of these products in Romanian exports declined slightly (from 12.3 percent in December 2010 to 10.9 percent in March 2012[23], Chart 4.17.), due mainly to the Nokia company ceasing activity in Romania[24]. High-tech products reported the slowest annual growth rate in 2011 (16 percent) compared with the other groups of products in terms of the value added criterion[25].

The positioning of the Romanian economy at a higher level within the value added chains worldwide, by attracting capital investment to the sectors manufacturing medium- and high-tech products, as well as the maximisation of their domestic potential more extensively in the future, may be viewed as priorities to promote the sustainability of the current account in the long run.

Second, exporting companies' dependence on imports in the production flow remained high, yet declining (the share of imports in the volume of exports[26] performed by net exporters was 42 percent in March 2012 versus 44.8 percent in December 2010, Chart 4.17.). The role of the companies that carried out only export operations was modest, the share of their activity in total exports of non-financial corporations standing at around 3 percent in 2011. The high dependence of exports on imports relies on aspects relative to the business model of foreign trade companies in the internationalisation process of their activities, corroborated with structural deficits in the case of certain production factors. The deficits are manifest in the areas of intermediate goods and raw materials, and there are three groups of products (minerals, chemicals, electrical and mechanical equipment)[27] that recorded high structural deficits (6.6 percent of GDP in 2011 versus 8.8 percent in 2007).

Third, the geographical spread of the Romanian exports was rather concentrated, around 53 percent of the Romanian products being destined for the euro area in 2011. This weight is close to the EU-10 average. Domestic companies whose main outlet[28] is the euro area have the capacity to adjust relatively well to the possible shocks generated by a moderate recession in this region (the EC forecast envisages a 0.3 percent economic downturn in 2012), with profitability, banking risk and indebtedness indicators standing at comfortable levels, including as compared with the economy-wide average (Chart 4.16.). Moreover, the magnitude of the negative effects in the euro area affecting

[23] Calculated on a quarterly basis as a moving average for the last year.

[24] The largest share of Nokia's high-tech exports incorporated similar imports, therefore, the domestic supply chain was not affected severely.

[25] The grouping of products by the value added criterion is in line with the Eurostat classification based on NACE Rev. 2.

[26] Calculated on a quarterly basis as a moving average based on data regarding exports/imports in the last year.

[27] Groups V, VI and XVI in the Combined Nomenclature.

[28] The share of exports to the euro area in total exports exceeded 50 percent.

the Romanian economy might be lower as the foreign trade companies whose exports are destined mainly for the euro area made a 11.6 percent contribution to value added of non-financial corporations in 2011. In 2011, the Romanian companies showed a certain degree of flexibility in reorienting their exports towards countries that had been less hit by the sovereign debt crisis, including countries outside the EU. The share of exports to Italy dropped by 1 percentage point, to 12.8 percent, exports to France by 0.8 percentage points, to 7.5 percent, exports to Spain by 0.6 percentage points, to 2.4 percent, while exports to Germany rose by 0.6 percentage points, to 18.6 percent. Higher growth was recorded by exports to the Middle East[29] and to the BRICS countries[30] (50 percent and 32 percent respectively), the market share of the two regions in Romania's exports rising to 3.7 percent and 4.3 percent respectively. The widening and increase in the trade relations with areas in the world that show a high growth potential in the medium run and where the Romanian products are scarce, represent a challenge, given that most of the domestic exporters (54 percent in 2011) sell their products on one outlet alone, and 30 percent of them export their products to two to four countries.

4.3.2. Capital flows

Maintaining the volatility of capital movements at a manageable level, in a tension-ridden external environment and in the context of domestic developments specific to an electoral year is the main challenge coming from external capital flows. Since the release of the previous Report, Romania further benefited from private capital inflows, but their volume was somewhat smaller. Foreign lenders increased their exposures towards Romania, external debt reaching EUR 99 billion (in June 2012 versus EUR 92.4 billion in December 2010).

The authorities managed to offset most of the drop in net private capital inflows by attracting funds from the international markets and the international financial institutions. The share of external public debt in total external debt rose from 30 percent to 34 percent during December 2010 – June 2012. The volume of external private debt increased only marginally during the said period (0.9 percent, to EUR 65.4 billion). The structural breakdown shows that the decline in the external debt of banks and NBFIs by EUR 1.3 billion (i.e. -4.7 percent), more pronounced in the case of NBFIs, was offset by the rise in the debt of the non-financial private sector (5 percent, in December 2010 – June 2012) (Chart 4.18.). The absorption of EU funds failed to cover extensively the domestic saving deficit. This type of financing ensured around 3 percent of the investment made in 2011 and around 10 percent of that made in 2012 Q1, the usage ratio of these funds further counting among the lowest in Europe[31].

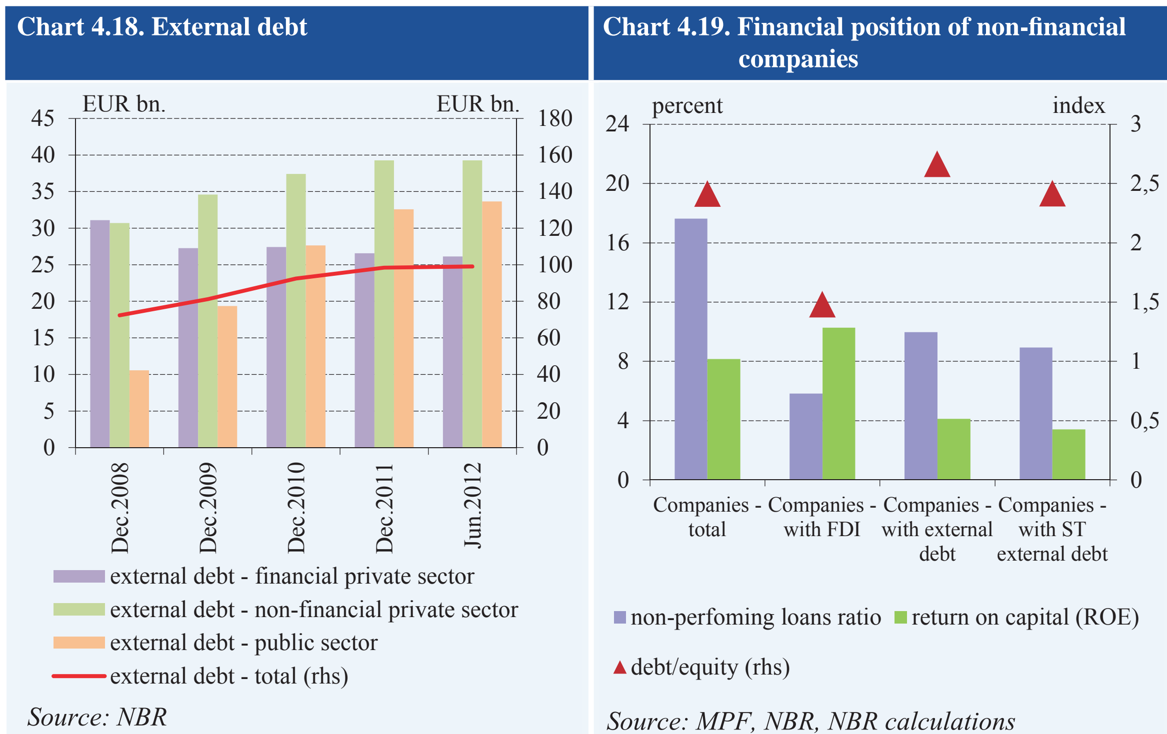
Net FDI inflows dropped by 15 percent in 2011 compared with 2010 and by 36 percent in 2012 H1 from a year earlier. The financial standing of the companies that had benefited from such investment remained above the economy-wide average (Chart 4.19.), indicating both these companies' good capacity to cope with potential unfavourable developments and a relatively high potential to strongly resume FDI flows insofar as international uncertainties lower and structural reforms gain momentum. Return on equity of companies receiving FDI was 10.3 percent (compared with an average of 8.2 percent for non-financial corporations in December 2011), indebtedness ratio was low (the leverage effect was 1.5 percent in December 2011) and the NPL ratio was well below the system-wide average (5.5 percent versus 17.4 percent in June 2012). Moreover, lending to companies benefiting from FDI shows a good growth potential. They hold roughly 17 percent of the loans granted

[29] Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates, Yemen.

[30] Brazil, Russia, India, China and South Africa.

[31] For further detail, see sub-section 4.1.1. – Real sector.

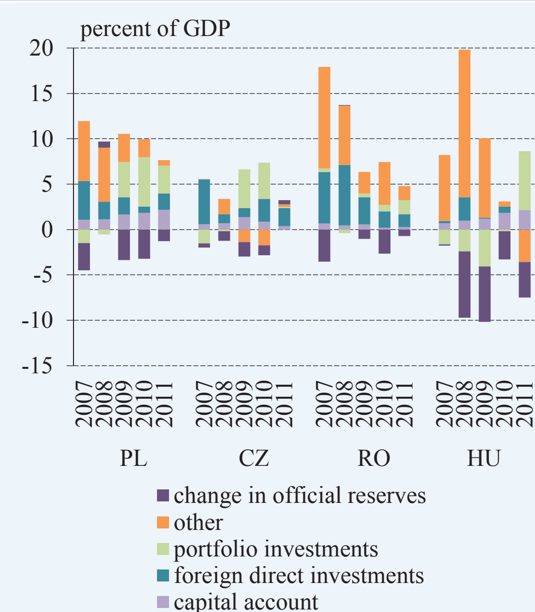
by the Romanian banking sector to the NBFIs in June 2012, while the contribution of companies with FDI to economic activity is significantly higher (36 percent of the gross value added generated by non-financial corporations and 20 percent of the labour force hired by those corporations in December 2011).



The changes in the level of capital inflows are not specific to Romania only but to all the countries in the region at different degrees (Chart 4.20.): (i) inflows of the FDI declined or stagnated altogether (except Poland), while (ii) portfolio investment and the debt flows showed ample volatility.

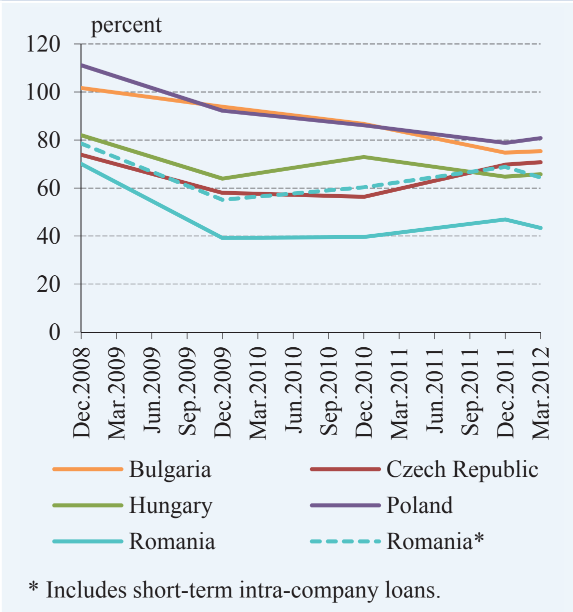
Over the short term, the challenges associated with risks from capital flows volatility appeared to be manageable. First, short-term external debt (STED) – one of the main vulnerabilities at the onset of the crisis – stabilised in 2011 and 2012 H1 (at about 21 percent of total external debt, the rise in volume being similar to that of the medium- and long-term external debt and stemming mainly from borrowings from parent banks). The roll-over ratio of the STED of non-financial corporations remained high (over 70 percent in March 2011 – June 2012). Actually, the uncertainty surrounding the robust economic upturn both externally and domestically has an impact on investment decisions, the parent banks opting for short-term borrowings (23.2 percent for short-term loans versus 11.6 percent for medium- and long-term loans, in December 2010 – June 2012). The external debt service capacity was satisfactory at aggregate level, Romania ranking among the countries with a high coverage of external debt from foreign exchange reserves (Chart 4.21.).

Chart 4.20. Net capital flows in countries in the region



Source: Eurostat

Chart 4.21. ST external debt in foreign-exchange reserves ratio (excluding ST intra-company loans)



* Includes short-term intra-company loans.

Source: central banks, NBR calculations

Second, the lower volume of net capital inflows eased pressure on the debt service. Net interest-bearing capital flows stayed in positive territory in 2011 (a one third decline in 2011, medium- and long-term capital flows witnessing the sharpest drop in the medium and long run), the downward trend being more pronounced in 2012 H1 (Table 4.1.).

Table 4.1. Dynamics and breakdown of net capital flows[32]

EUR million

	2008	2009	2010	2011	2011 Q2	2012 Q2
A. Net interest-bearing flows,	12,920	4,391	7,504	4,875	5,609	-254
of which:						
– short-term flows	15	-8,798	1,899	2,616	2,771	-452
– long-term flows	12,905	13,189	5,605	2,259	2,837	198
B. Net non-interest bearing flows	4,251	1,968	1,463	872	264	545
C. Official reserves of the central bank	38	-1,124	-3,487	-897	-2,954	264
D. Total financial account (A+B+C)	17,209	5,235	5,480	4,850	2,919	555

Source: NBR, NBR calculations

Third, the favourable developments analysed in the previous report regarding the destination of capital flows by sector carried on, creating the conditions for sustainable economic growth. The capital flows classified as external debt posted higher dynamics in tradable sectors (13 percent from 3 percent for companies in non-tradable sectors, in December 2010 – June 2012) and especially in the sectors manufacturing medium- and high-tech products (20 percent for companies producing

[32] Interest-bearing flows include: intra-group loans, bonds and money market instruments, deposits, commercial loans, financial loans and other liabilities (repos and medium- and long-term deposits). Non-interest bearing flows comprise: equity and reinvested earnings (FDI), shares (the investment portfolio), financial derivatives and certain asset or liability items (such as equity stakes in international organisations, outstanding dividends, life insurance premiums and benefits).

medium- and high-tech goods, 9 percent for companies in the services sectors with high value added, compared with 5 percent economy-wide, in December 2010 – June 2012).

Fourth, both financial companies and non-financial corporations with foreign funding have a good capacity to cope with possible unfavourable developments generated by the external environment (Chart 4.19.). Non-financial corporations benefiting from foreign borrowings have a better capacity to service debt in relation to domestic banks compared with the rest of the economy and enjoy a better financial standing compared with the other companies. The NPL ratio[33] generated by the companies incurring external debt towards exposures to domestic banks is below the average (10 percent from 17.6 percent in July 2012) and the pace of increase of the NPL ratio is slower than the average for the system (2.7 percentage points compared with 5.3 percentage points in December 2010 – July 2012). On the other hand, return on equity stood at 4.1 percent (from 8.2 percent the economy-wide average in December 2011), amid a level of indebtedness above the economy-wide average (the leverage effect equalled 2.7 percent in 2011). The companies incurring external debt are monitored on a regular basis in terms of financial stability, as they play a major role in the real economy and the Romanian banking sector. The contribution of these companies to gross value added produced by firms was 27 percent in December 2011. They hired about 15 percent of the staff of the non-financial sector (in December 2011) and held around 24 percent of bank loans to non-financial corporations (in July 2012).

Last but not least, the banking sector, one of the main beneficiaries of foreign financing, has a good capacity to withstand a shock of a non-rolling over of this funding, but assuming that such unfavourable developments may emerge, they may have negative consequences on financial intermediation. The stress test analysis of the banking sector amid an external liquidity shock revealed an improved capacity to absorb such a shock compared with the period under review analysed in the previous Report, due to the higher stock of liquid assets, the adjustments in the financing structure and the measures taken by the central bank in order to facilitate banks' access to financial resources (expanding the list of eligible collateral, cutting the reserve ratio). In addition, the risk of adverse developments of external financing attracted by banks is alleviated by the fact that banks' foreign funds are mostly on medium- and long-term (70 percent of total foreign borrowing[34] in July 2012) and come to a large extent from parent banks (89 percent in June 2012). Nevertheless, the high level of uncertainties surrounding the external markets, along with the risk of a disorderly or too fast development in the future of financial deleveraging at the level of large European banking groups calls for the further pursuance of prudent policies aimed at strengthening solvency, provisioning and the liquidity of local banks.

[33] A ratio between the volume of loans overdue for more than 90 days with debtor or bank contamination to the total volume of loans to companies.

[34] Only the sources attracted from external financial institutions are considered.

5 COMPANIES AND HOUSEHOLDS

5.1. Risks generated by companies

The constrained debt-servicing capacity in relation to banks and the fairly weak debt payment discipline between partners economy-wide are further the main vulnerabilities generated by companies to financial stability. The banks have adequate capital, provisions and collateral to cover the risks arising from lending to companies, but the difficult international context as well as the need to ensure suitable protection against the above mentioned risks call for maintaining capital buffers at adequate levels. Companies' financial soundness has improved since the release of the 2011 Report, the sustainable change in the economic growth pattern carried on and the financing arrangements with the EU, IMF and WB paved the groundwork for a stronger payment discipline economy-wide, so that the prospects point to a decrease in the weaknesses caused by companies to financial stability.

5.1.1. Companies' economic and financial results

The main challenges coming from the dynamics of companies' financial standing posted mixed developments: (A) companies' aggregate financial soundness indicators saw an improvement in 2011, but the evolution was heterogeneous, revealing marked structural vulnerabilities and (B) the sustainable change in the economic growth pattern carried on.

(A) At aggregate level, companies witnessed an enhancement in their financial standing in 2011[1]. The return on equity increased by 2 percentage points versus 2010 (reaching 8.2 percent in 2011) in the context of a more intensive use of assets (the asset turnover accelerated from 79 percent in 2010 to 84.9 percent in 2011). The cash flows arising from the core activity diminished by 4 percent in 2011, but total cash flows were positive and increasing.

The mentioned favourable developments were uneven across the economy, featuring sizeable structural differences. First, the analysis of companies in terms of size shows that small- and medium-sized enterprises recorded an increasing credit risk (the non-performing loan ratio[2] of SMEs was 23.2 percent in July 2012 compared to 15.1 percent in December 2010, while the non-performing loan ratio of large corporations came in at 4.3 percent in July 2012, Chart 5.1.). As concerns SMEs, the risk increased in the context of: (i) a below-par interest coverage ratio (0.8 in December 2011); (ii) a 7.3 percent decline in the cash flows from the core activity (December 2011 compared to December 2010), and (iii) the decrease in the gross profit margin. This last unfavourable development was offset by the higher indebtedness and the faster asset turnover, so that the return on equity was on a slight increase (7.7 percent in 2011 compared to 7.4 percent in 2010). The SMEs that were supported by credit guarantee funds posted a better performance in 2011[3]: (i) the return on equity equalled 23.5 percent; (ii) the interest coverage ratio was further above-par, reporting a comfortable 2.1 level; (iii) the asset use was higher (asset turnover came in at 125 percent), whereas (iv) the non-performing loan ratio stood significantly below the average reported by the SMEs

[1] Box 9 shows details on the main financial soundness indicators used in this sub-chapter.

[2] The non-performing loan ratio is defined as a share of the loans held by debtors with payments overdue for more than 90 days (with debtor contamination) or undergoing winding-up proceedings in total loans to companies.

[3] In addition, their financial standing was in most cases better than the average economy-wide before becoming eligible for receiving the support from the credit guarantee funds.

(10.9 percent compared to 23.2 percent in July 2012), which advocated for a wider use by banks of the support offered by credit guarantee funds to the eligible SMEs.

Box 9. Financial soundness indicators for non-financial corporations

1. Leverage = debt-to-capital ratio

– measures indebtedness, the extent to which a company's activity is financed through liabilities, other than own funds. High indebtedness increases companies' vulnerability to unfavourable developments and can affect the capacity to service loans.

2. Return on equity (ROE) = EBIT/equity

where: EBIT = gross profit + interest expenses

– measures companies' efficiency to use their capital. Profitability is a main contributor to companies' financial soundness, with an impact on companies' capitalisation and their capacity to service debts, with a bearing on investment decisions etc.

– the factors underlying ROE are:

(i) gross profit margin = EBIT/turnover

(ii) leverage ratio = total assets/equity

(iii) asset velocity = turnover/total assets

3. Interest coverage ratio = EBIT/interest expenses

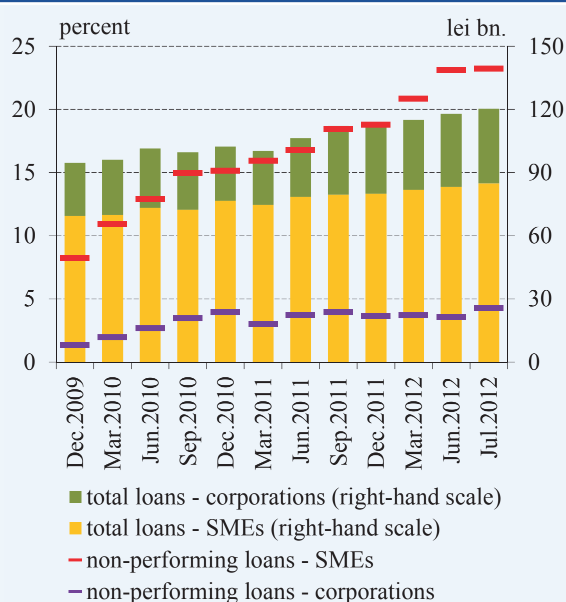
– companies' capacity to cover interest expenses through profit

4. The number of companies undergoing insolvency or bankruptcy proceedings

– shows the number of companies falling under the scope of Law No. 85/2006 on the insolvency procedure.

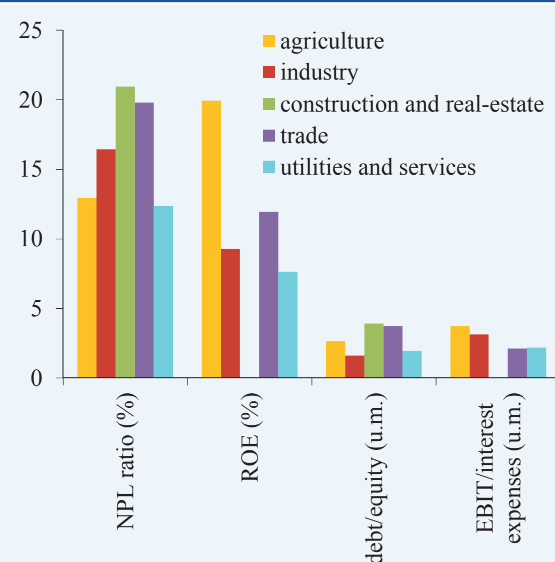
Second, the analysis by activity sectors emphasises that companies operating in the field of trade, construction and real-estate have a riskier financial profile and face more difficulties in servicing their debts to banks (these companies hold 48.7 percent of the portfolio of loans extended by banks to companies in July 2012). The non-performing loan ratio reported by construction and real-estate companies is of 21.5 percent and that recorded by trade companies amounts to 20 percent in July 2012 (Chart 5.2.). Furthermore, companies operating in the mentioned sectors report the highest indebtedness across the economy, while construction and real-estate companies post a low interest coverage ratio. The modest economic and financial performance of trade companies will see an improvement to the extent to which economic growth strengthens and consumers' risk perception improves.

Chart 5.1. Non-performing loan ratio, by debtor company's size



Source: MPF, CCR, NBR calculations

Chart 5.2. Financial soundness indicators for non-financial corporations, by sector of activity (December 2011)



Note: The non-performing ratio refers to July 2012.

Source: CCR, MPF, NBR calculations

Thirdly, based on the origin of companies' capital, two challenges can be identified:

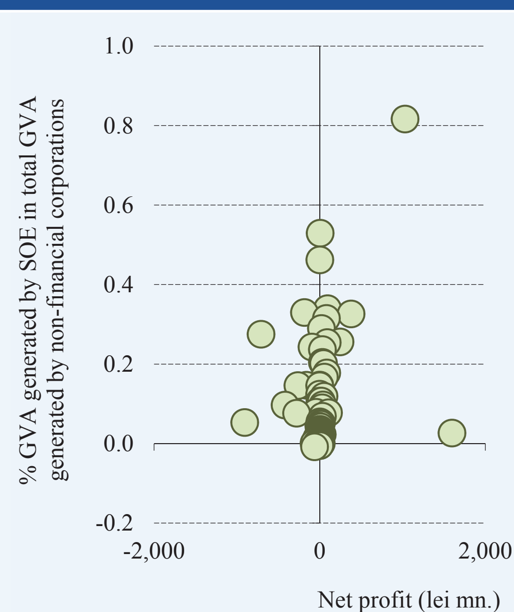
a) the financial standing of private companies with majority domestic capital posted a modest development at aggregate level. The debt servicing capacity diminished, while the non-performing ratio went up to 20.9 percent in July 2012 (versus 12.6 percent in the case of private companies with majority foreign capital) against the background of: (i) a declining interest coverage ratio, yet further above-par; (ii) a decrease in the return on equity (to 10.2 percent in 2011 from 11.3 percent in 2010), and (iii) the contraction in the gross profit margin (from 3.4 percent to 2.7 percent in the same period);

b) companies with majority state-owned capital continue to feature the same mixed developments pointed out in the previous Report. Most of these entities (almost two thirds) saw a net positive, although modest, outcome in 2011 (Chart 5.3.), so that the return on equity at aggregate level came in at 2.9 percent (compared to the 9.8 percent reading reported by companies with majority private capital). The level of asset use is further low (the asset turnover came in at 29.5 percent in December 2011, while for companies with majority private capital it reached 95 percent). Mining and quarrying companies generated the best profitability (the return on equity was 16.7 percent in December 2011), which offset most of the negative performance of state-owned companies operating in construction, services and real-estate sectors.

In the fourth place, companies undergoing insolvency or bankruptcy proceedings[4] pose challenges to financial stability owing to: the large volume of bank loans, major payment incidents and overdue payments to trade partners (Box 10). Such developments call for close monitoring of the phenomenon.

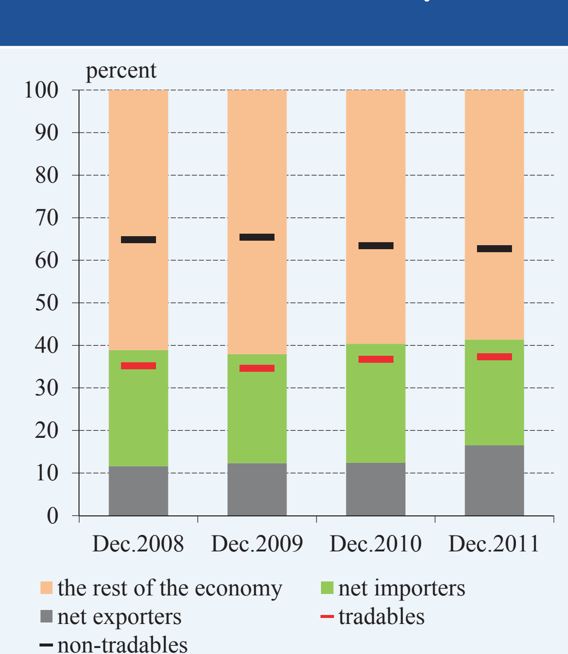
[4] The data cover all non-financial corporations falling within the scope of Law No. 85 of 5 April 2006 on the insolvency procedure, as subsequently amended and supplemented.

Chart 5.3. Net profit distribution of state-owned enterprises (December 2011)



Source: MPF, NBR calculations

Chart 5.4. Structure of GVA economy-wide



Source: MPF, NBR calculations

Box 10. The characteristics of the insolvency and bankruptcy proceedings in Romania

The insolvency and bankruptcy phenomenon moderated in 2011. The number of the companies undergoing insolvency or bankruptcy proceedings in 2011 went down by about 5 percent versus 2010 (to almost 23,500), remaining however significantly above the level seen in 2009 (by approximately 32 percent). In 2012 H1, the insolvency phenomenon resumed (up 21 percent versus the same year-ago period).

There are three challenges to financial stability posed by these companies: (I) the debt to the banking sector, (II) the payment discipline economy-wide, and (III) overdue payments to trade partners.

(I) The debt of companies undergoing insolvency or bankruptcy proceedings to the banking sector is relatively important. The loans granted by banks to such companies account for lei 17.2 billion (about 14.4 percent of bank loans to non-financial corporations, July 2012). Over 58 percent of the volume of such loans was granted in foreign currency (lei 10.1 billion). Companies undergoing insolvency proceedings generate 66 percent of the loans taken by non-financial corporations facing payments overdue for more than 90 days. Real-estate assets are the prevailing primary collateral required from insolvent companies (49.5 percent of the volume of loans granted to these companies), whereas the volume of loans backed *inter alia* by real-estate collateral comes in at 74.8 percent.

(II) Companies undergoing insolvency or bankruptcy proceedings have a significant bearing on the payment discipline in the economy. The major payment incidents generated by these companies in 2011 ran at 57.7 percent of total major payment incidents generated by non-financial corporations (on the decrease from 75.3 percent in 2010). In 2012 H1, these companies posted roughly lei 1 billion – worth of major payment incidents, accounting for 41 percent of the total value of major payment incidents generated by non-financial corporations during this period (on the decrease from 60 percent, 2011 H1).

(III) The overdue payments to trade partners generated by insolvent companies are significant, the long claim collection period justifying in part the lower debt servicing capacity. Overdue payments to suppliers generated by insolvent companies ran at roughly lei 28.3 billion at end-2011 (holding 28 percent of total overdue payments to suppliers generated by non-financial corporations in December 2011). This development occurred against the background of a high volume of claims (about lei 11 billion in December 2011), while the annualised claim-collection period is of 295 days compared to 100 days – the average economy-wide. The commercial balance sheet debts are worth lei 18.5 billion (47.4 percent of total commercial debts of non-financial corporations in December 2010), with a turnover of lei 19.4 billion in 2011.

(B) The sustainable change in the economic growth pattern carried on, confirming the expectations advanced in the previous Report. In December 2010 – July 2012, domestic banks increased their exposures on tradables by 17 percent in real terms. These companies outperformed companies in non-tradables sectors: (i) their position strengthened across the economy (the share of GVA generated by companies in the tradables sectors in total GVA arising from non-financial corporations rose from 36.7 percent in 2010 to 37.3 percent in 2011, Chart 5.4.), (ii) the interest coverage ratio capacity is satisfactory (the profit-to-interest expenses ratio picked up to 3.2, while the same indicator related to the non-tradables sector came in at 1.1 in December 2011) and (iii) the risk to the banking sector is lower than that to companies in the non-tradables sector (the non-performing loan ratio reported by companies in the tradables sector is of 14.8 percent, compared to that of 19.1 percent posted by companies in the non-tradables sector in July 2012).

The low indebtedness of the tradables sector (the debt-to-equity ratio stood at 1.5 in December 2011, i.e. below the 2 empirical alarm threshold and significantly lower than the 3.5 debt-to-equity ratio recorded by non-tradables companies), alongside the favourable developments previously mentioned, supports lenders to raise further their exposures to companies in the tradables sector.

The prerequisites for a change in the economic growth pattern strengthened also due to the improvement in the economic performance of net exporting companie[5] şand their increasing role in the economy. The share of the added value generated by net exporting companies in total GVA arising from non-financial corporations advanced (from 12.4 percent in 2010 to 16.5 percent in 2011, Chart 5.4.), against the background of a profitability above the average economy-wide (the return on equity came in at 15 percent in 2011). Net exporting companies' debt servicing capacity is significantly better than that of non-financial corporations (the non-performing loan ratio was of 4.4 percent versus 17.6 percent average economy-wide in July 2012), being also supported by a very good, rising interest coverage rate (the EBIT to interest expenses ratio stood at 6.4 in December 2011).

5.1.2. Payment discipline of non-financial corporations

The main vulnerabilities generated by companies on financial stability in Romania: (A) the debt servicing capacity to banks and non-bank financial institutions (NBFIs) and (B) the debt payment discipline to trade partners and authorities have persisted since the release of the previous report, with mixed prospects in the short run.

(A) The quality of the bank loan portfolio to companies continued to diminish. The non-performing loan ratio went up (from 12.3 percent in December 2010 to 17.6 percent in July 2012, Chart 5.5.). The NBFIs' portfolio saw similar developments. The prospects are mixed, but, in the short run, the non-performing loan ratio will most probably continue to increase.

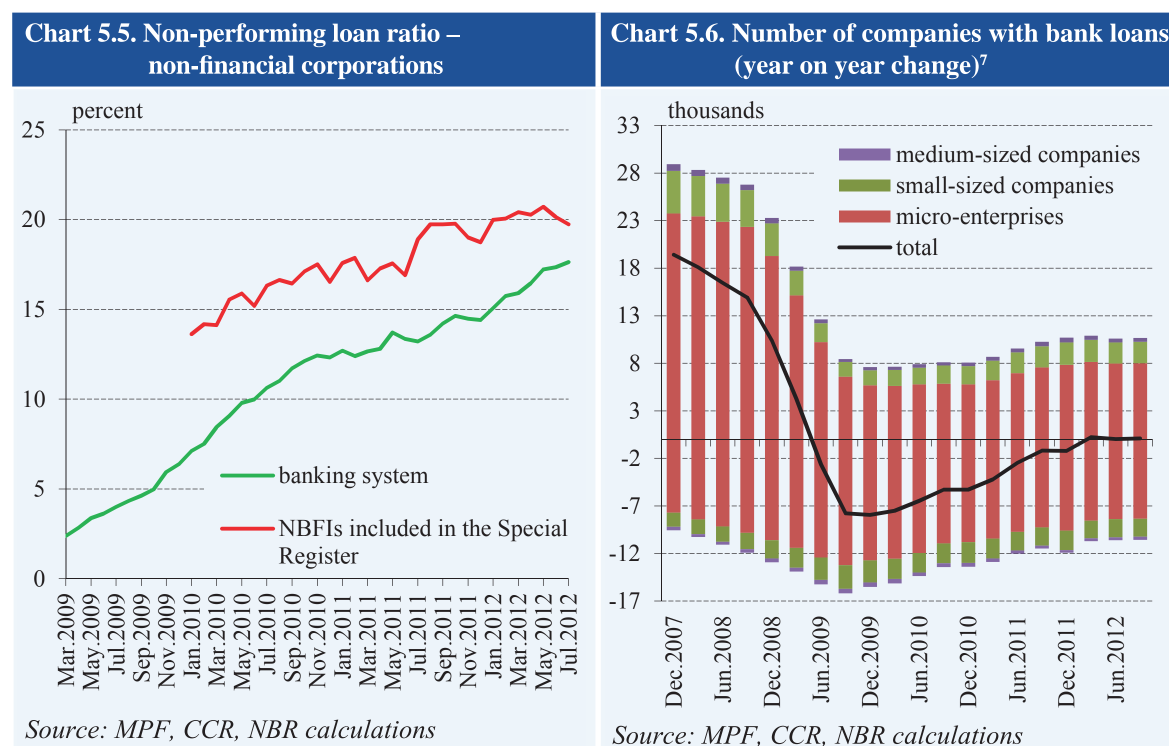
The non-performing loan ratio seems to reach a peak soon, as indicated by: (i) the further slowdown in the dynamics of non-performing loans (the volume of non-performing loans expanded by 68 percent in December 2010 – July 2012, compared to 138 percent in December 2009 – July 2011), (ii) the downward trend in the number of companies generating non-performing loans for the first time (albeit remaining at a high level), and (iii) the slightly positive readings recorded by the net flow of the number of companies having received financing (Chart 5.6.), possibly sustaining a stronger

[5] Only companies reporting exports or imports in excess of EUR 100,000 in each quarter of 2011 were considered. The same criterion was used for identifying net importers..

resumption of lending (with favourable effects on the non-performing loan ratio, via the arithmetic channel of the faster increase in the denominator than in the numerator)[6].

Chart 5.5. Non-performing loan ratio – non-financial corporations

Chart 5.6. Number of companies with bank loans (year on year change)[7]



Source: MPF, CCR, NBR calculations

Source: MPF, CCR, NBR calculations

On the other hand, the improvement in Romanian companies' economic standing may not be sufficient enough to reverse the upward evolution of the probability of default[8] (PD) for the loans taken from banks. The PD of non-financial corporations picked up from 8 percent in December 2011 to 9.16 percent in December 2012, while in the baseline macroeconomic scenario it is expected to reach 8.96 percent in June 2013 (Chart 5.7.).

Loans in foreign currency to companies generate a greater vulnerability than those in lei (Chart 5.8.). Although the ratio of non-performing loans in national currency is higher than that of non-performing loans in foreign currency (19.5 percent against 16.7 percent, in July 2012), the quality of loans in foreign currency continues to see a stronger deterioration. Companies better service their debts to banks than to NBFIs, with the non-performing loan ratio reported by the latter reaching 20.2 percent in July 2012. Companies having taken loans from both banks and NBFIs prefer to service their debts

[6] Likewise, according to the draft EU Capital Requirements Directive (CRD IV), the SMEs' access to financing will not be significantly influenced. The European Commission requested the opinion of the European Banking Authority with a view to analysing a set of proposals envisaging the maintenance of the preferential treatment for banks' exposure to SMEs. The following measures were primarily taken into consideration: (i) the analysis of the opportunity to adjust risk weights for the exposures of credit institutions to SMEs (at present standing at 75 percent for credit institutions that take a standard approach to determining capital requirements for credit risk); (ii) the increase in the threshold related to SMEs' exposures, and (iii) the identification of alternative financing sources (bond issues, financing in the form of risk capitals, the use of ratings for financing to be approved etc.). Following the proposed counter-cyclical solutions, the SMEs' access to financing is not expected to be affected.

[7] The positive readings point to the number of companies that took bank loans during the past year. The negative readings show the number of companies that repaid their bank loans within the past year. The chart draws on data available at the Central Credit Register.

[8] The probability of default was calculated for a 12-month horizon (for companies that took loans from banks and did not report payments overdue for more than 90 days over the last 12 months). The individual level of the probability of default is calibrated by using the annual default rate (calculated as a ratio of the number of companies reporting payments overdue for more than 90 days to the total number of companies having taken loans).

to banks (the respective companies generated a 13.6 percent non-performing loan ratio to banks and a 19.7 percent non-performing loan ratio to NBFIs in July 2012), which calls for keeping in place stricter prudential criteria in the case of NBFIs.

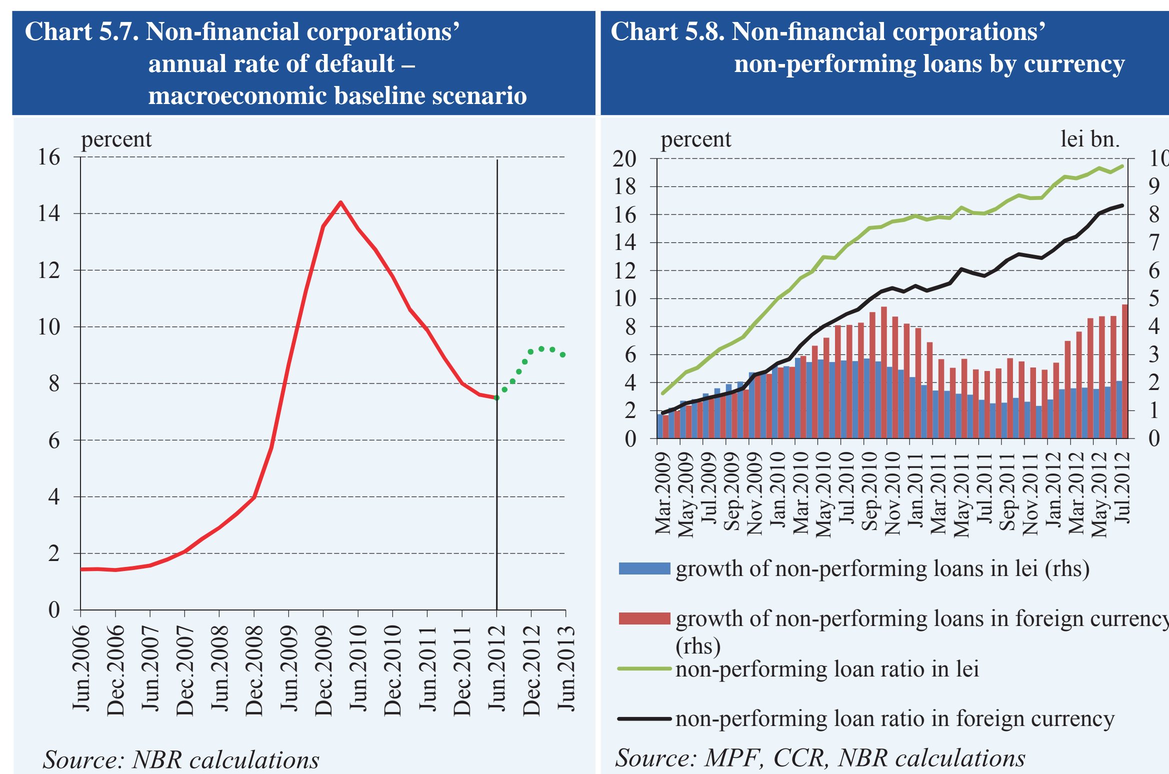


Chart 5.7. Non-financial corporations' annual rate of default – macroeconomic baseline scenario

Source: NBR calculations

Chart 5.8. Non-financial corporations' non-performing loans by currency

Source: MPF, CCR, NBR calculations

At aggregate level, the Romanian banking sector holds an adequate volume of reserves to cover the risks arising from lending to companies: (i) the value of the collateral requested is sufficient to cover risks in the event of unfavourable developments occurring (the loan-to-value ratio stood at approximately 85 percent[9] in June 2012); (ii) the prudential provisioning coverage[10] of expected risks is adequate (around 92 percent, June 2012), and the capital adequacy ratio (coming in at 14.7 percent in June 2012) exceeds markedly the regulated minimum value. The difficult international context, as well as the need to ensure further protection against the risks posed by lending to companies, calls for maintaining the mentioned reserves at adequate levels. Moreover, the large share of foreign currency loans to SMEs (many of which were probably unhedged) will require new measures for enlarging the provisions on foreign currency lending to all unhedged debtors, in line with the recommendations formulated by the European Systemic Risk Board.

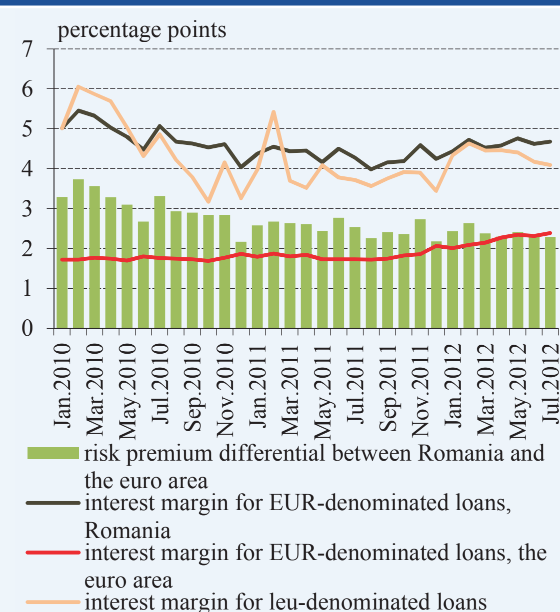
The NBR's internal models on estimating the probability of default show that the volume of required provisions will most probably continue to increase, to various degrees across credit institutions, having a negative bearing on banks' profitability. Nevertheless, the estimated increase in provisions for 2012 (according to the baseline macroeconomic scenario) stands significantly below the dynamics recorded in 2011. The NBR will continue to adequately monitor the levels of the provisions made by banks, so that they cover the expected risks.

[9] According to the NBR Bank lending survey, August 2012.

[10] The indicator is calculated as a share of the total volume of prudential value adjustments in the gross exposure related to loans to companies classified under "Loss 2". According to The International Financial Reporting Standards, the provisioning coverage amounts to 66 percent.

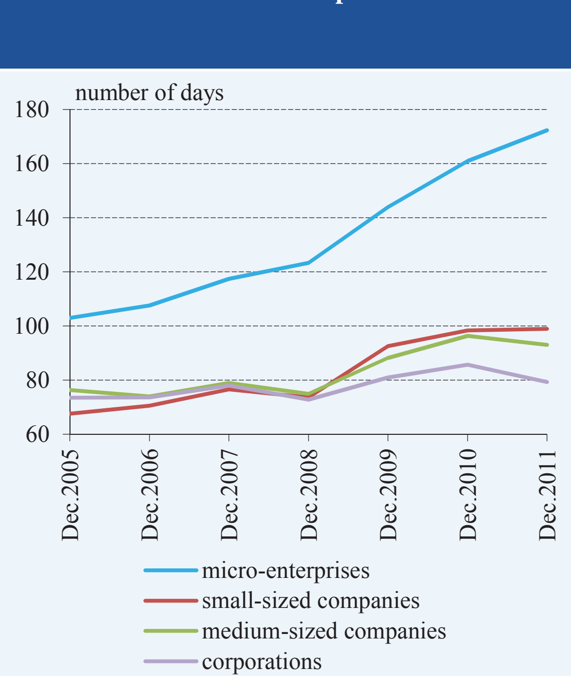
Romanian banks' perception on the risk arising from companies deteriorated, in line with euro area banks' perception on companies in this region. A first consequence of this evolution was the increase in interest margins on new business, in step with developments in the euro area. The risk premium among Romanian companies and companies in the euro area remained broadly at the same level (approximately 200 basis points, Chart 5.9.), which suggests that banks view the credit risk posed by domestic companies as largely unchanged compared to the risk induced by companies in the euro area. Another consequence of the worsening risk perception was the tightening of lending conditions by requiring additional collateral for credit risk protection. This measure has not improved the manner in which debtors service their loans: the non-performing loan ratio in the case of mortgage-backed loans is significantly higher than that related to loans not backed by such collateral (for further details see Chapter 5.3. – Risks generated by the real-estate sector and mortgage-backed lending). Under the circumstances, banks should: (i) reassess the criteria based on which debtors service their debts, reducing in relative terms the importance attached to the real-estate collateral, and (ii) identify other categories of eligible collateral (such as the collateral provided by loan guarantee funds reporting lower non-performing ratios: the NPL ratio related to SMEs loans backed by collateral extended by guarantee funds stood at 10.9 percent in July 2012.

Chart 5.9. Interest margin for financing companies in Romania and the euro area[11]



Source: ECB, NBR, NBR calculations

Chart 5.10. Claim collection period



Source: MPF, NBR calculations

(B) The payment discipline – the second vulnerability generated by companies to financial stability – posted mixed developments in 2011: it improved among trade partners, but was further looser vis-à-vis the authorities.

The payment discipline was negatively influenced by the persistence of liquidity constraints for companies, as a result of tighter lending conditions offered by banks and the maintenance of a long commercial claim collection period by companies. The SMEs faced the greatest challenge in identifying financial resources for servicing outstanding debts. The average duration for collecting

[11] The difference between the interest rate on new loans to companies and the 3M money market rate. The risk premium difference between Romania and the euro area was calculated for loans in euro alone.

SMEs' claims stabilised in 2011, but remains long (in 2011 the average duration stood at 119 days compared to 117 days in 2010, Chart 5.10.). Micro-enterprises and small enterprises saw the largest increase in the period between the delivery of goods/services and the collection of their equivalent value (over 6 percent rise in the claim collection duration in 2011). Medium-sized corporations and large enterprises benefit by better conditions on claim collection (the claim collection duration diminished by 7 percent and 4 percent respectively, from already the lowest levels economy-wide: 79 days and 93 days respectively in December 2011).

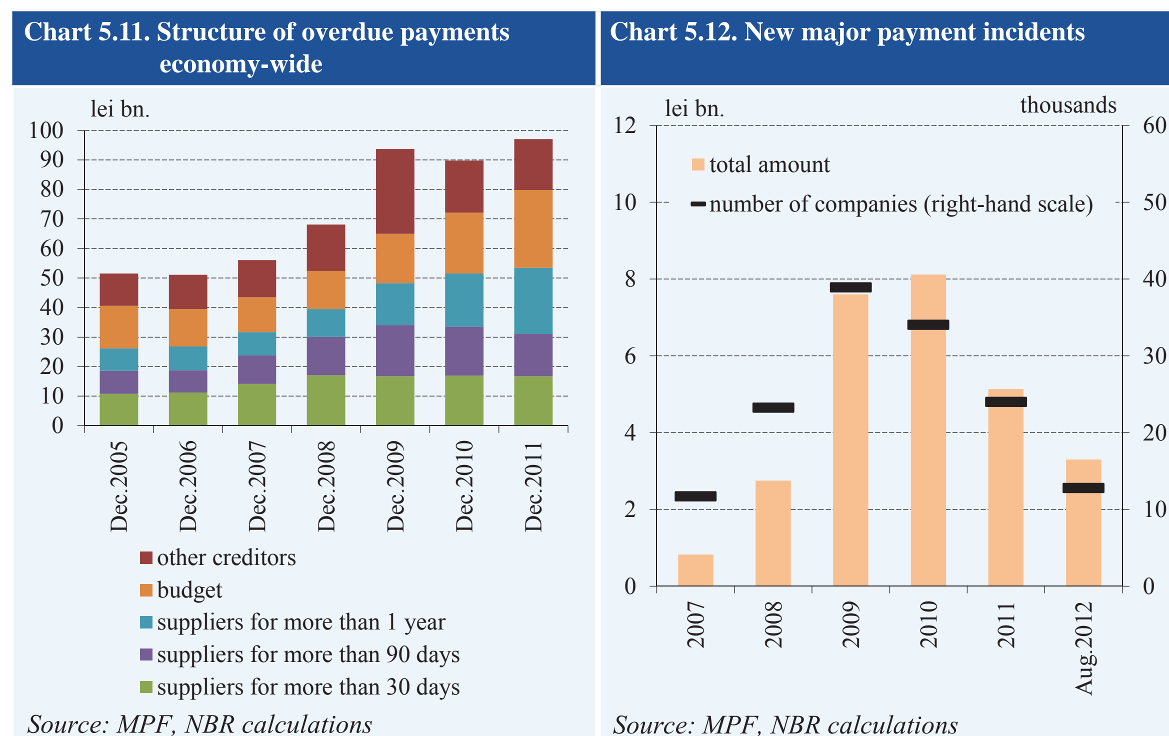


Chart 5.11. Structure of overdue payments economy-wide

Source: MPF, NBR calculations

Chart 5.12. New major payment incidents

Source: MPF, NBR calculations

Amid the difficulties in servicing financial obligations towards partners, the volume of overdue payments across the economy picked up (from lei 89.7 billion in 2010 to lei 97.0 billion in 2011, Chart 5.11.). In terms of structure, the payment discipline posted mixed developments.

(B1) *Companies' overdue payments to the state* expanded by 28 percent in 2011 compared to 2010 (to reach lei 26.3 billion in December 2011, out of which lei 13.8 billion were generated by state companies). The social security budget and the central government budget saw the steepest dynamics (+24 percent and +32 percent respectively). The concentration of companies producing such overdue payments is high: the top ten companies (most of which are state companies) hold more than 47 percent of total overdue payments to the state budget. The implementation of the measures agreed upon with the EU, the IMF and the WB is likely to lead to an improved discipline of majority state-owned companies, with beneficial effects on overdue payments across the economy.

(B2) *Companies' overdue payments to suppliers* went up by 4 percent in 2011, to reach lei 53.4 billion (most of which are already arrears[12] and lei 36.7 billion). Private companies service their debts to suppliers significantly better than state-owned companies (the rate of default for commercial debts[13]

[12] The arrears were defined as payments overdue for more than 90 days. The definition is in line with the provisions of the agreement with the IMF. Unless otherwise specified, the readings based on which the arrears were calculated originate in the regular balance sheet reports by the non-financial corporations to the MPF.

[13] Calculated as a ratio between overdue payments of companies to suppliers and total commercial debts of companies generating the respective overdue payments (commercial debts were calculated by totting up the main operating expenses).

was 5.6 percent for the former, versus 28 percent for state-owned companies, in December 2011). The top ten companies (most of them state-owned companies) generate 16 percent of the arrears to suppliers across the economy. At sectoral level, private real-estate and construction companies report the highest rates of default (25 percent and 11 percent respectively). At the opposite pole are utilities and commercial companies (3 percent and 4 percent respectively).

(B3) *Government arrears to companies* went down slightly (from lei 1.1 billion to lei 0.9 billion, according to IMF, December 2010 against December 2011). The government's overdue payments ratio[14] on its debts to companies stands fairly low (4.2 percent in December 2011) compared to other categories of overdue payments previously mentioned. The loose payment discipline is a particular feature of local authorities (over 88 percent of the volume of government arrears). The general debts reported by the consolidated government budget (including both arrears and other unpaid bills) continue to total approximately lei 2.7 billion, amid the increase in the number of companies holding similar claims not collected on time (to reach about 14,700 companies in December 2011). These companies have a moderate role in the economy, generating 12 percent of the added value and holding 7 percent of bank loans to companies.

(B4) *The volume of major payment incidents generated by companies* fell by 27 percent in January 2011 – August 2012 (against January 2010 – August 2011), while the number of companies having posted such payment incidents decreased by 29 percent (Chart 5.12.). The concentration degree of companies with such behaviour remains high, with the top 100 companies generating 32 percent of the total volume of major payment incidents. Companies having produced major payment incidents play a moderate part in the economy (4 percent of the added value of non-financial corporations and 7 percent of the number of employees of this sector, December 2011), having however a significant role in the dynamics of non-performing loans (38 percent of the volume of NPL are generated by companies with major payment incidents, July 2012). In most cases, companies having generated a major payment incident for the first time recorded non-performing loans as well in the same month. In January 2011 – August 2012, roughly 91 percent of major payment incidents were accounted for by SMEs (of which 52 percent were generated by micro-enterprises). At sectoral level, construction and real-estate sectors pose further the highest risks, accounting for a number of payment incidents that exceeds their significance economy-wide (calculated in terms of their turnover).

5.2. Risks stemming from the households' sector

High indebtedness, especially in foreign currency, constitutes the main vulnerability of households. This sector's capacity to service debts continued to diminish, albeit at a slower pace, while prospects are mixed. Banks hold adequate prudential reserves to cover risks from household lending, while the need to preserve this protection calls for maintaining an adequate prudential framework. Achieving a balanced new lending in terms of currency remains a goal for the support of which new provisions will be implemented on responsible lending, in line with the European Systemic Risk Board's recommendations on foreign currency lending, apart from those adopted by the NBR in 2011.

5.2.1. Households' balance sheet and saving behaviour

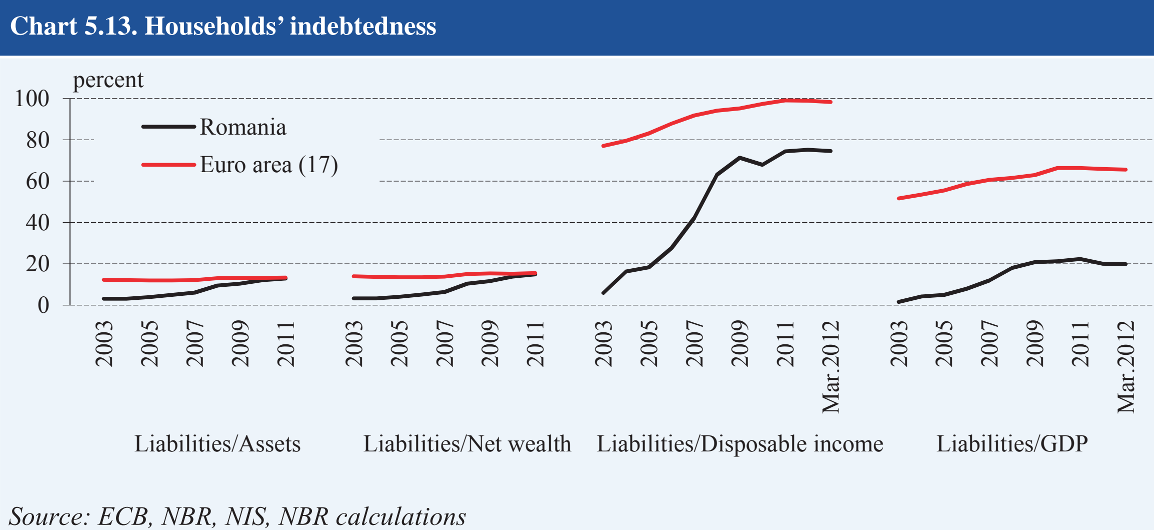
The main challenges arising from households' balance sheet posted mixed developments: on the one hand, (A) indebtedness and (B) the short foreign exchange position remained high and, on the other

[14] Calculated as a ratio of the value of claims that were not collected on time from the state to the claims of non-financial corporations against the state.

hand, (C) households' net debtor position[15] saw a steady improvement, and (D) holdings of low-risk liquid financial assets recorded an increase.

(A) Households' indebtedness continues to be one of the main vulnerabilities of this sector, due to both its high level and to its structure by income, currency and type of credit. The indebtedness degree tended to stabilise in 2011 and 2012 Q1 (Chart 5.13.), amid the marginal rise in lending and a slight decline in interest rates. In the euro area, indebtedness remained broadly unchanged in 2011, showing however a significant, increasing asymmetry across member countries[16].

Chart 5.13. Households' indebtedness



Source: ECB, NBR, NIS, NBR calculations

The indebtedness decision, particularly in the pre-crisis period, was far-reaching across Romania's households, with long-term implications: (i) the number of the persons indebted to banks and NBFIs is of 4.35 million (June 2012), holding 43 percent of the active population; (ii) the average loan maturity is of 22 years for mortgage-backed loans and of 7 years respectively for non-mortgage consumer loans, while (iii) indebtedness with domestic NBFIs and banks (including externalised loans) amounts to lei 116.5 billion (June 2012, up from lei 115.2 billion in December 2010).

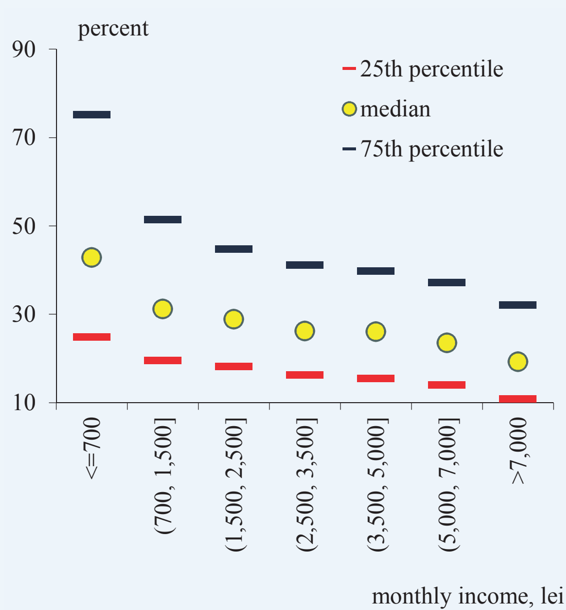
Households with low incomes are more exposed to unfavourable developments in the interest rate and the exchange rate, as their indebtedness degree is high (Chart 5.14.). Debtors earning incomes lower than the economy-wide minimum wage hold the largest, most asymmetrical indebtedness[17] (43 percent compared to 32 percent across the economy, median readings, June 2012). Debtors with monthly incomes lower than lei 2,500 call for special attention in terms of risk management, posing the highest risks for all categories of loans (June 2012, Chart 5.15.) and holding a significant part in banks' portfolio (carrying almost 60 percent of bank loans to households and over 85 percent of the number of debtors natural entities).

[15] Households' position towards banks and NBFIs was calculated as the difference between total deposits of households with banks and total loans granted by banks (including those externalised) and NBFIs to households. The short foreign exchange position corresponds to the net debtor position by foreign currency component.

[16] The share of non-government credit in GDP fluctuated between 30 percent and 130 percent for the euro area countries in December 2011 (ECB, *Financial Stability Report*, June 2012).

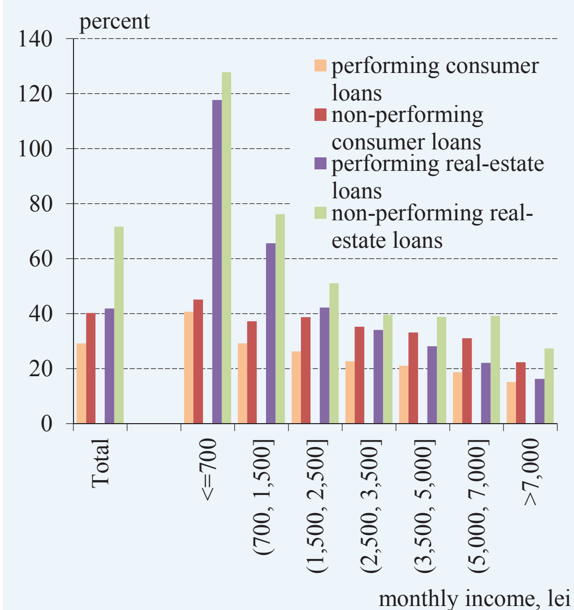
[17] Indebtedness is calculated by using constant annuities, leaving co-debtors out of account. Incomes as of December 2011. Coverage rate is of approximately 60 percent of total exposure and the number of debtors (June 2012).

Chart 5.14. Indebtness structure by income category[17] (June 2012)



Source: NBR, MPF, NBR calculations

Chart 5.15. Indebtedness by income category, loan type and performance[17] (June 2012, median readings)



Source: CCR, CB, NBR, MPF, NBR calculations

Empirical evidence shows that an acceptable level of indebtedness amounts to about 30 percent for consumer loans and approximately 45 percent for real-estate loans. Debtors' indebtedness to the limit of these ceilings ensures households a better debt servicing (Chart 5.15.), also supporting the approach taken by the National Bank of Romania according to which credit institutions should *ex ante* ensure that households' potential demand for financing is creditworthy. The same evidence indicates that debtors who can no longer pay their bank instalments hold, as a rule, an indebtedness ratio higher than 40 percent in the case of consumer loans and above 70 percent in the case of real-estate loans. Owing to the important asymmetry of debtors' disposable incomes, the mentioned median readings may differ significantly across income categories (Chart 5.15.), calling for an adequate monitoring by banks based on the disposable income.

The large share of foreign currency debts (68 percent, June 2012) increases the vulnerability of indebtedness. Real-estate loans and mortgage-backed consumer loans are granted overwhelmingly in foreign currency (95.5 percent of real-estate loans and 91 percent of mortgage-backed consumer loans, banks and NBFIs, June 2012). New loans are further primarily granted by banks in foreign currency (56 percent in 2011 and the first half of 2012). The "First Home" programme contributed significantly to this evolution, 53 percent of real-estate loans being extended through this programme in 2011 and the first half of 2012. These loans are almost exclusively denominated in foreign currency (99 percent).

The likelihood that households' indebtedness may rise in the coming future is low, while expectations on indebtedness in the euro area are on the decrease[18]. Romanian banks anticipate a lower demand[19] for real-estate loans and a stabilised consumer demand against the background of slightly improved negative expectations of households on unemployment and financial standing for the following 12 months, as well as of the improvement in the economic sentiment indicator of Romanian consumers

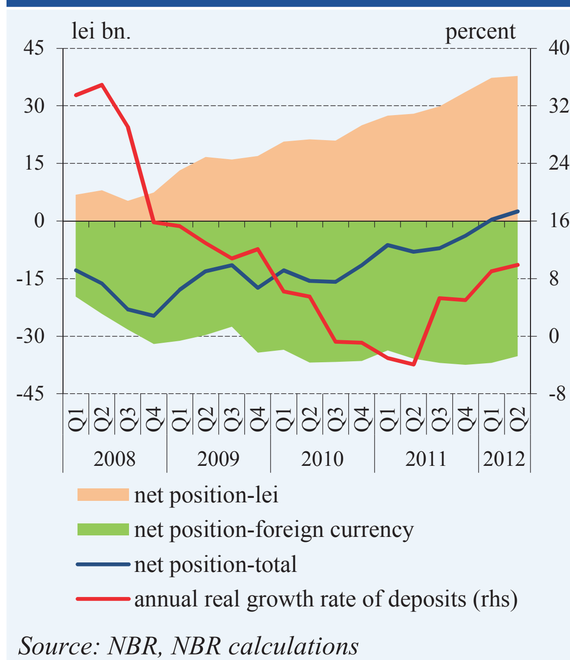
[18] ECB, *Financial Stability Review*, June 2012.

[19] NBR Bank lending survey (August 2012).

in the first half of 2012. On the supply side, banks expect the cycle of lending standard tightening to come to an end in 2012 Q3. These developments advocate an increasing shift in lending policies in the direction of financing non-financial corporations, given the fairly large indebtedness of households as a whole, as well as the international trend towards a gradual deleveraging on these debtors' segment, as shown by the upward trend in bank saving in the case of Romania.

(B) The short foreign exchange position towards the financial system – another vulnerability of households' balance sheet – continued to report high levels in 2011, while in 2012 it entered a downward path (to reach lei 35.2 billion in June 2012, Chart 5.16.). This is due to the significant foreign currency indebtedness, whereas saving in domestic currency holds an overwhelming share. Households are further significantly unhedged and risks materialised into higher non-performing loans ratios for foreign currency loans than for leu-denominated loans (for further details see section 5.2. – Risks stemming from the households' sector). The improvement in risk policies concerning all loans in foreign currency can help in this context diminish future risks.

Chart 5.16. Households' net position to bank (including externalised loans) and NBFIs



Source: NBR, NBR calculations

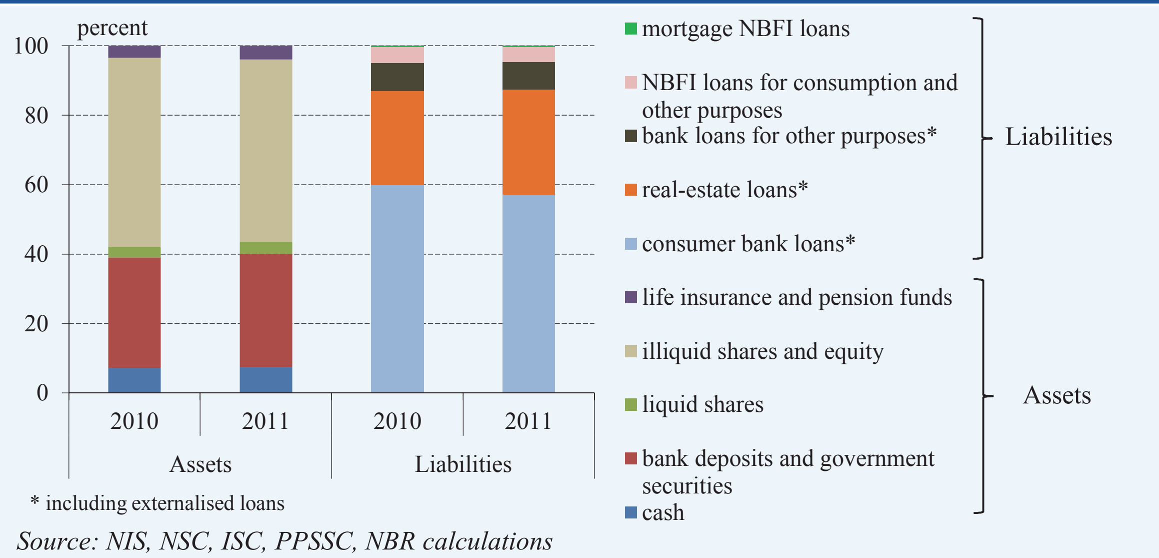
(C) Although the short foreign exchange position posted further high values, households' net debtor position towards the national and international financial system[20] saw steady improvement in 2011 and the first half of 2012, and starting with March 2012 households came to hold a net creditor position (Chart 5.16.). Such a development contributes to improving households' capacity to service their debts. The mentioned positive effects are to a certain extent counterbalanced by the asymmetry of the net creditor position at individual level. The persons with incomes below the economy-wide average net wage hold a large indebtedness ratio (Chart 5.14.) and their capacity to service debts is lower (Chart 5.15. and Chart 5.23.), which accounts for their diminished saving potential, leading most likely to a higher net debtor position at individual level.

(D) The advance in bank saving contributed to alleviating risks to financial stability. Most likely, saving is largely explained by prudential reasons. The real growth rate of bank deposits re-entered positive territory starting with the second half of 2011 and it continued to increase in 2012 (Chart 5.16.). Deposits grew in real terms by 6.1 percent in December 2010 – July 2012 against the background of the rise in households' potential saving resources[21] (9.5 percent in March 2012, compared to 8.4 percent in December 2010).

[20] The following were taken into account: bank loans and deposits, loans from NBFIs and externalised loans.

[21] According to the NIS surveys on "Households' incomes and expenses", the rate of potential saving resources was calculated as a ratio of the difference between households' incomes and expenses to total incomes.

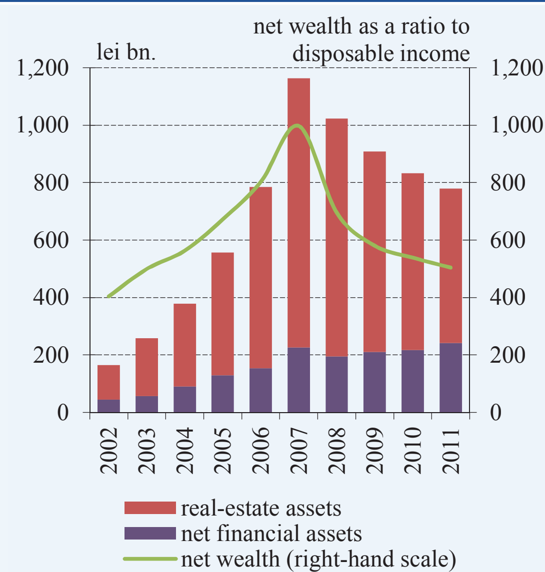
Chart 5.17. Structure of households' financial assets and liabilities



Source: NIS, NSC, ISC, PPSSC, NBR calculations

The prospects are favourable for saving to continue. The factors pointing to this are: (i) further precautionary reasons, in view of the reverberations of the financial crisis worldwide; (ii) the tightening of lending standards by banks asking for a higher down payment, and (iii) households' expectations on the improvement of their financial standing being counterbalanced by the still relatively high unemployment level and the need to set up reserves in order to ensure the capacity to service the loans already taken from credit institutions. Saving has a heterogeneous character based on incomes, with households who earn higher incomes being most likely to save (households earning below average incomes state a weaker intent to save in the following year, as well as a more difficult management of their financial standing[22]).

Chart 5.18. Households' net wealth



Source: NIS, NSC, ISC, PPSSC, NBR calculations

The increase in bank saving had favourable effects on households' net wealth from at least two points of view. First, the rise in bank deposits, alongside the advance in holdings of cash and government securities, improved liquidity and diminished the risk of households' financial assets, posting an evolution similar to that across the EU[23] (Chart 5.17.). The share of riskless liquid assets[24] in total financial assets reached 40 percent in December 2011 (level comparable to that recorded in the EU in 2010), up 5 percentage points since the outbreak of the crisis (2008).

Second, the increase in bank deposits partly offset the negative effect on households' net wealth generated by the decrease in the value of real-estate assets (the net wealth fell by 6.4 percent in 2011, Chart 5.18.).

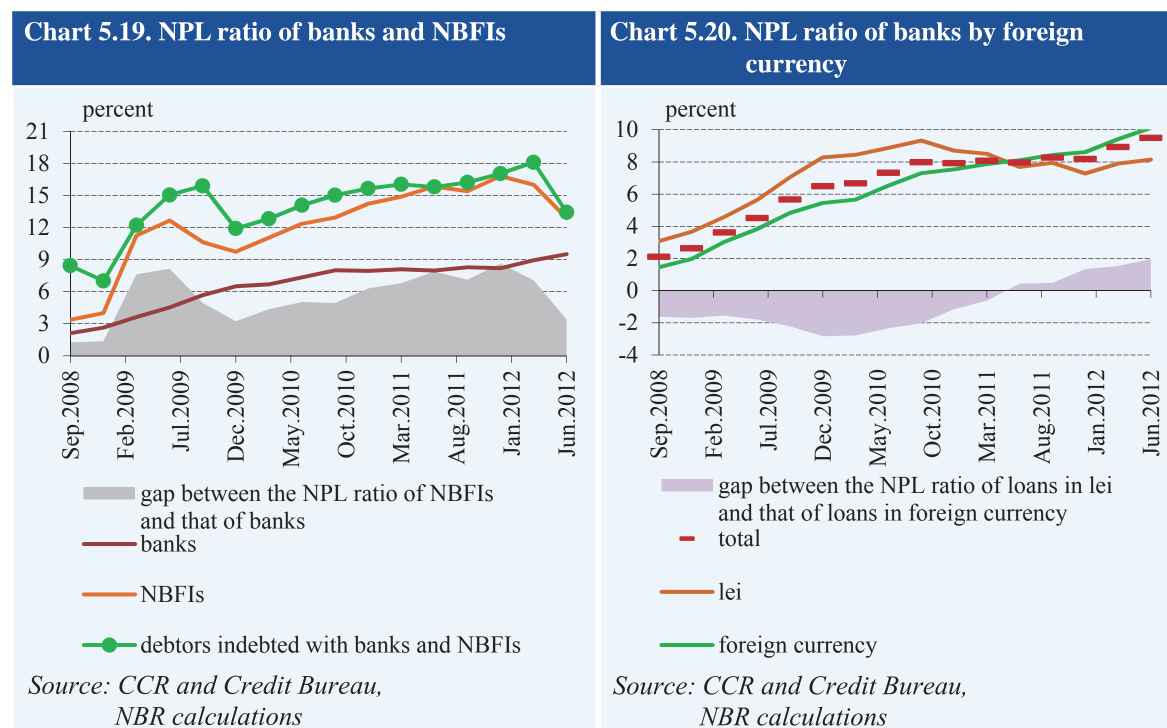
[22] The European Commission Survey on consumers' confidence indicators.

[23] *European financial stability and integration*, April 2012, Chapter 5.

[24] Cash, bank deposits and government securities.

5.2.2. Households' capacity to service debt

Households' debt servicing capacity continued to deteriorate, albeit at a slower pace. The non-performing loan ratio (the NPL ratio)[25] edged up 1.6 percentage points in 2011 and the first half of 2012 (from 7.9 percent to 9.5 percent, Chart 5.19.), while the volume of non-performing loans surged by 24 percent. NBFIs reported a decrease in the NPL ratio in mid-2012 (from 14.2 percent in December 2010 to 12.9 percent, Chart 5.19.) accompanied by a decline in the volume of non-performing loans (by 11 percent during the same period) which grew steeper in 2012 Q2.



The prospects for the evolution of the non-performing loan ratio are mixed. On the one hand: (i) the number of debtors[26] that posted for the first time payment delays of over 90 days in January 2011 – June 2012 fell by 11 percent (against January 2010 – June 2011); (ii) the recovery rate[27] of overdue loans (with payment delays between 1 and 90 days) improved slightly in 2011 (77.97 percent against 70.65 percent in 2010), this trend remaining further manifest in 2012 Q1, and (iii) households' expectations on their financial standing saw an improvement. On the other hand: (i) the restructuring measures taken by banks in 2011 with a view to improving the quality of non-performing loans had a fairly low efficiency, i.e. about 80 percent of loans being further non-performing (the average value for 2011 – June 2012, Chart A, Box 11); (ii) labour market developments remain surrounded by uncertainty in the context of less favourable economic growth prospects at European level and of the persistent domestic negative output gap; (iii) the resumption of lending will be most probably modest

[25] In sub-chapter 5.2, the non-performing loan ratio (NPL ratio) is defined as the share of loans held by debtors with payments overdue for more than 90 days (with debtor contamination) in total loans granted to households. The main difference between this definition and that for the "Loss 2" indicator (used in section 3.2. – *The banking sector*) is that interest (both current and overdue) is not taken into consideration (for lack of reporting to the Central Credit Register). The definition used in this chapter allows an in-depth analysis of non-performance. The difference between the non-performing loan ratio calculated under this section and the "Loss 2" indicator is of 1.7 percentage points (namely 9.5 percent, compared to 11.2 percent, in June 2012) for the entire portfolio of loans to households.

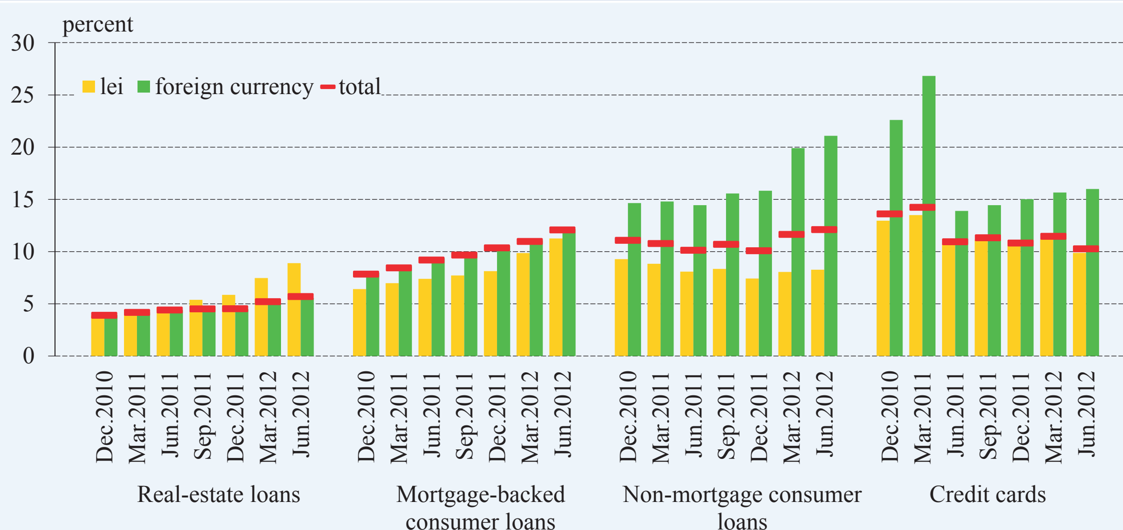
[26] Debtors with a cumulative exposure of over lei 20,000 and are registered with the Central Credit Register.

[27] The recovery rate is the actual probability to include loans into lower overdue buckets or retain the same levelcompared with the initial standing, for a one-year period. The readings relate to loans amounting to over lei 20,000, as reported by the Central Credit Register.

(the evolution of the non-performing loan ratio depends also on the speed and intensity with which the denominator, namely the resumption of lending, will get distanced from the numerator, namely the moderation of non-performance), and (iv) the risks stemming from foreign currency lending remains high.

As a matter of fact, the significant foreign currency lending is an important vulnerability of households' indebtedness and generates pressure on banks that materialises into increasing non-performing loan ratios (from 7.5 percent to 10.1 percent in December 2010 – June 2012, Chart 5.20.). The volume of foreign currency non-performing loans soared by 43.7 percent during this period, while the volume of non-performing loans in lei decreased by 9.1 percent, although banks usually externalised foreign currency loans[28]. By sub-portfolio, the non-performing loan ratio of foreign currency loans is higher than that of leu-denominated loans, except for real-estate loans (Chart 5.21.). The non-performing loan ratio of foreign currency loans exceeded that of leu-denominated loans starting with 2011, the gap widening steadily to reach almost 2 percentage points (June 2012, Chart 5.20.). One of the determinants of this growth rate is the higher indebtedness level of debtors that took a foreign currency loan than that of debtors that borrowed in local currency (roughly 46 percent compared to approximately 27 percent for loans in lei, average readings, June 2012). These developments advocate the extension of provisions on lending to households so as to cover all the categories of loans granted to unhedged debtors, in line with the relevant recommendations formulated by the European Systemic Risk Board.

Chart 5.21. NPL ratio by currency and loan type



Source: CCR, Credit Bureau, NBR calculations

The foreign currency loans and deposits of companies and households are primarily denominated in euro (87.1 percent of their total loans in foreign currency and 85.4 percent of their total deposits in foreign currency, July 2012), while the share of loans in Swiss francs total 9.9 percent and that of deposits in the same currency is marginal (below 0.5 percent, July 2012). USD loans taken by companies and households hold 2.9 percent of their total loans in foreign currency, while the share of deposits in USD is 13.4 percent of total foreign currency deposits of companies and households in July 2012.

[28] Over 95 percent of the externalised loans, which are still managed by banks, are in foreign currency (June 2012).

Box 11. Restructuring[29] of loans granted to households and non-financial corporations

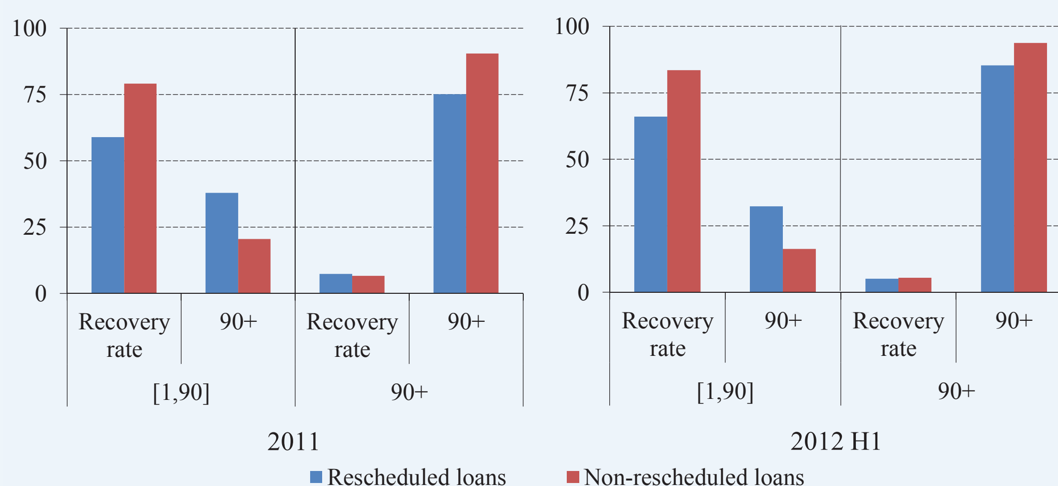
The share of restructured loans granted to households and non-financial corporations in total bank loans was 9.8 percent[30] in December 2011, compared to approximately 6.5 percent in September 2010 (calculated for the same sample of banks).

In terms of structure, restructuring is more resorted to for the corporate portfolio than for the retail portfolio (10.8 percent of the volume of loans to non-financial corporations against 8.8 percent of the volume of loans to households). Banks continued to restructure mainly foreign currency loans (over 70 percent of total), and the exposures categorised as "loss" hold approximately 45 percent of total.

The significant share of mortgage-backed loan portfolio in banks' exposure urged the adoption of measures aimed at reducing the non-materialised credit risk (among which credit refinancing and rescheduling). For both households and non-financial corporations, the refinancing of mortgage-backed loans was a measure little resorted to in the first half of 2012: (i) 4.8 percent of new loans to households, and (ii) 2.8 percent of new loans to non-financial corporations. The rescheduling measures aimed, however, 8.7 percent of the stock of mortgage-backed loans to households and over 15 percent of the loans backed by at least one mortgage guarantee granted to non-financial corporations (June 2012). In terms of the quality of rescheduled loans, loans with payment delays less than 30 days (67 percent in the case of households and 60.3 percent in the case of non-financial corporations, June 2012) are preponderant.

For the households segment, one of the most resorted to restructuring methods was the rescheduling of loans, but most probably the measure was not efficient enough, postponing generally the materialisation of risks without eliminating them. As concerns rescheduled exposures (in individual amount of over lei 20,000) that were in banks' portfolios in 2011 and the first half of 2012: (i) the recovery rate of non-performing loans does not differ significantly from that of loans which did not undergo contractual changes, while (ii) the recovery rate of loans posting delays between 1-90 days is higher in the case of loans which did not undergo contractual changes (83.5 percent versus 66.1 percent in 2012 H1, Chart A).

Chart A. Average transition probability between overdue buckets for a one-year period for households loans exceeding lei 20,000



Note: For non-performing loans (90+) the recovery rate was counted as reclassification. An analysis was performed of the annual evolution of rescheduled loans compared to loans not undergoing such contracual changes; the initial moment does not necessarily represent the moment of applying the rescheduling measures.

Source: CCR, NBR calculations

[29] Loan restructuring covers a wide range of methods (rescheduling, refinancing or other methods).

[30] According to the data reported by 9 banks in the banking system, holding roughly 60 percent of total bank exposure to households and non-financial corporations, December 2011.

The Romanian banking sector holds an adequate volume of reserves to cover the risks arising from lending to households: (i) the value of the collateral requested is sufficient to cover the risks in the event of unfavourable developments (the loan-to-value ratio[31] stood at approximately 70 percent, the median reading in June 2012), (ii) the prudential provisioning[32] of expected risks is above par (around 109 percent, June 2012); the NBFIs in the Special register feature the same developments with a coverage ratio of 110.3 percent in June 2012, while (iii) the capital adequacy ratio (14.7 percent in March 2012) exceeds markedly the regulated minimum value. The difficult international context, as well as the need to ensure further protection against the risks posed by lending to households, call for maintaining the mentioned reserves at adequate levels.

Apart from ensuring an adequate solvency and provisioning level, the National Bank of Romania continued to implement its prudential policy aimed at reducing the risks related to lending to households by amending the regulatory framework on risk management, through ensuring a responsible lending. Thus, in 2011 Regulation No. 24 on loans to households was issued setting forth that "the maximum indebtedness levels admitted for consumer loans are set by taking into account the foreign exchange risk, the interest rate risk and the risk of a decrease in disposable incomes during the loan period".

The rationale behind these measures is related to the debt servicing capacity that might be affected in the event of shocks to the interest rate, the exchange rate or disposable incomes, considering the high, asymmetric indebtedness of households. Given the long maturities of the loans taken by households, as well as the large share of foreign currency loans, a scenario of a 1 percentage point increase in the interest rate on euro loans would cause a 6 percent increase in the debt service for real-estate loans, a 1.4 percent rise in that for consumer loans and a 2.3 percent advance in that for total loans to households (scenario advanced in June 2012). Even if at aggregate level such a scenario is manageable, at individual level it requires close monitoring. Mortgage indebtedness is the most sensitive to a rise in interest rate, especially in the case of debtors with low incomes (the indebtedness ratio may rise by even 9 percentage points in the case of debtors with incomes below the economy-wide minimum wage, Chart 5.22.).

Apart from the main risks previously mentioned, other three developments in households' payment behaviour require closer attention in order to adequately face challenges.

First, the risks associated with the mortgage-backed loan portfolio (for further details see Section 5.2.3. – Risks generated by the real-estate sector and the mortgage lending) post a growth rate that calls for close monitoring. The quality of this portfolio deteriorated more strongly in December 2010 – June 2012 compared to that of the portfolio of non-mortgage backed consumer loans (in the former case the volume of non-performing loans rose by 60 percent, whereas in the latter case it remained broadly unchanged).

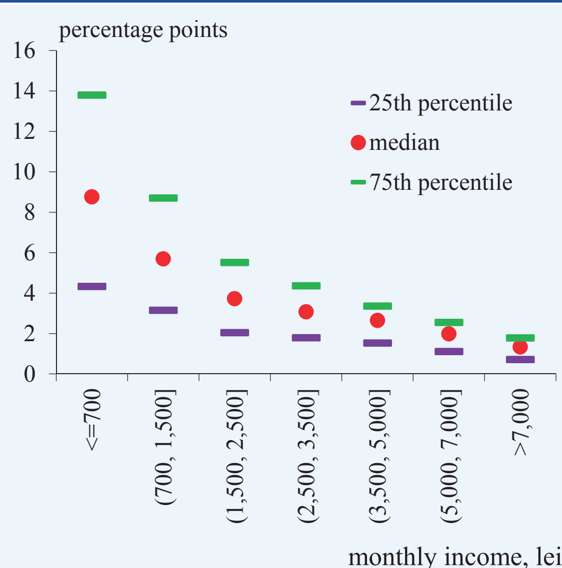
Second, the structure of households' present indebtedness, showing a concentration of exposures to debtors with low incomes (for further details see Section 5.2.1. – Households' balance sheet and saving behaviour) constitutes a vulnerability for credit institutions, arising from debtors' lower

[31] The loan-to-value ratio was calculated based on the data available in the Central Credit Register for mortgage-backed exposures totalling over lei 20,000. The analysis covered neither those loans for which no guarantee value is reported nor those loans with an extreme LTV ratio (in excess of the 99th percentile). The coverage ratio is of almost 85 percent of the mortgage-backed exposures granted to households.

[32] The indicator is calculated according to the methodology recommended by the IMF, as a share of the total volume of prudential value adjustments in the gross exposure related to loans to households classified under "Loss 2". The provisioning coverage stood further at about 109 percent in June 2011 – June 2012. The IFRS provisioning coverage came in at roughly 75 percent in 2012 H1.

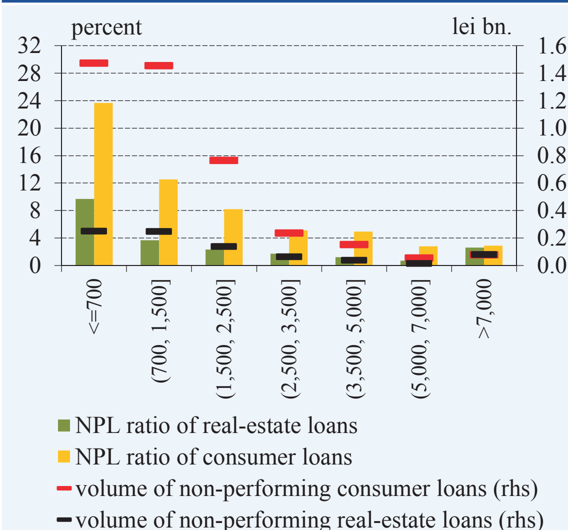
capacity to service loans. The credit risk diminishes proportionally with incomes in the case of both real-estate loans and consumer loans[33] (Chart 5.23.). Debtors with incomes lower than lei 700 post the highest non-performing ratio (9.7 percent for real-estate loans and 23.6 percent for consumer loans), totalling however 13 percent of total loans granted. A potential unfavourable evolution on labour market, affecting especially debtors with incomes below the average level across the economy, could generate additional pressure on them, reducing their capacity to service loans.

Chart 5.22. The impact of a 1pp shock in euro interest rate on the indebtedness ratio of households with mortgage loans, by income category[17] (June 2012)



Source: CCR, Credit Bureau, NBR, MPF, NBR calculations

Chart 5.23. NPL ratio* by monthly income category (June 2012)



* NPL ratio was calculated without debtor contamination (at bank level) by using exposures in June 2012.

Source: CCR, Credit Bureau, MPF, NBR, NBR calculations

Thirdly, households service more poorly their debts to NBFIs than to banks. In December 2010 – March 2012, the gap between the NPL ratio reported by NBFIs and that recorded by banks widened (to reach 7 percentage points). In mid-2012 this evolution improved, with the NPL ratio reported by NBFIs decreasing (12.9 percent NPL ratio for NBFIs, compared to the 9.5 percent NPL ratio posted by banks, Chart 5.19.). In the case of NBFIs, underlying the NPL ratio were mainly loans in lei (reporting a 19.3 percent NPL ratio and totalling almost 75 percent of the volume of NPL, June 2012). Debtors that took loans from both banks and NBFIs (accounting for some 10 percent of total exposure to banks and NBFIs) are the riskiest category of debtors (13.4 percent NPL ratio, June 2012). These debtors better serviced their debts to NBFIs than to banks (NBFIs reported a 11.5 percent NPL ratio, while banks posted a 14 percent NPL ratio, June 2012) against the background of significantly lower amounts repayable to such institutions (the average value of a loan taken from NBFIs was of lei 5,334, while that of a loan taken from banks came in at lei 20,086).

[33] The data include information for about 75 percent of total real-estate loans and 65 percent of consumer loans, June 2012. Debtors with extreme incomes were ruled out of the analysis.

5.3. Risks generated by the real-estate sector and mortgage-backed lending

The further deterioration in the quality of the portfolio of mortgage-backed loans to households and companies, in the context of large shares of these exposures in banks' balance sheets and the ongoing corrective trend in the value of real-estate assets, is the main vulnerability associated with the real-estate sector.

The mortgage-backed loans play an important part in both banks' and NBFIs' portfolio (59.3 percent in total, the equivalent value of lei 148.1 billion, June 2012) and for the indebtedness of companies and households[34] (63 percent and 54 percent respectively, June 2012). In terms of flows, both banks and NBFIs continued to grant mortgage-backed loans[35] to households in January 2011 – June 2012 (almost lei 13 billion, similarly to the evolution seen in January 2010 – June 2011). The "First Home" programme[36] made a significant contribution in this respect. The prospects on further real-estate lending to households are mixed. On the supply-side, restrictiveness is reportedly high, as banks tightened lending standards in 2012 H1; nevertheless some moderation is expected[37]. Conversely, demand saw a recovery in 2012 Q2 (possibly only shortlived, as banks foresee a decrease in the coming period).

The quality of the portfolio of mortgage-backed loans to households posted two main developments that require close monitoring: (i) it continued to deteriorate, and (ii) the deterioration was significantly larger for mortgage-backed consumer loans than for real-estate loans.

The non-performing loan ratio related to mortgage-backed loans to households rose to 8.5 percent in June 2012 (compared to 5.9 percent in December 2010), while the volume of non-performing loans went up by about 60 percent. In terms of structure (Chart 5.24.), (i) non-performing loans in foreign currency put higher pressure on banks in terms of potential losses[38], while (ii) mortgage-backed consumer loans generate a markedly higher risk (the NPL ratio stands at 12.1 percent compared to the 5.7 percent NPL ratio reported by real-estate loans in June 2012). Mortgage-backed consumer loans account for over 60 percent of the volume of non-performing mortgage-backed loans and more than a quarter of them are denominated in CHF (June 2012). However, they are adequately covered by the attached collateral (the LTV ratio[39] is of 63.5 percent compared to 78 percent in the case of mortgage loans, median readings, June 2012).

[34] Domestic indebtedness is defined as total loans from banks and NBFIs, including also the externalised real-estate loans to households.

[35] Mortgage-backed loans granted to households include real-estate loans (for home purchase) and mortgage-backed consumer loans.

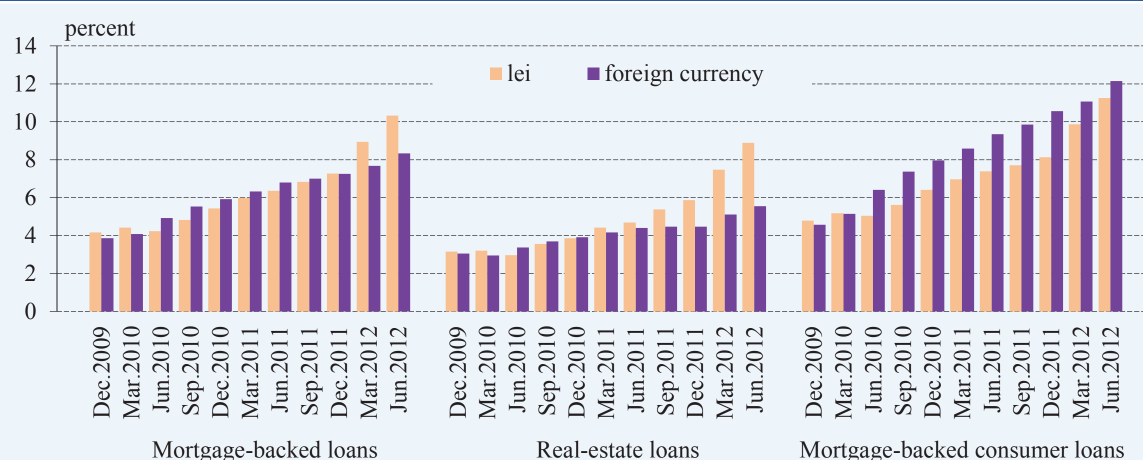
[36] The loans granted through the "First Home" programme account for 53 percent of the real-estate flow in amount of approximately lei 4.5 billion, the equivalent of almost 30,500 guarantees.

[37] According to the NBR Bank lending survey (August 2012).

[38] The risk ratio is calculated by adjusting the NPL ratio with the share of the volume of non-performing loans for each currency in total volume of non-performing loans and came in at 7.72 percent for foreign currency mortgage-backed loans compared to 0.77 percent for lei mortgage-backed loans (June 2012). The volume of non-performing loans in foreign currency holds more than 90 percent of total (June 2012).

[39] The loan-to-value ratio was calculated based on the data available in the Central Credit Register for exposures backed by mortgages totalling over lei 20,000. The analysis covered neither those loans for which no guarantee value is reported nor those loans with an extreme LTV ratio (in excess of the 99th percentile). The coverage ratio is of almost 85 percent of the exposures backed by mortgages granted to households. The main difference versus the reading reported in the NBR Bank lending survey refers to the coverage degree (reading calculated based on the data reported by the top ten banks).

Chart 5.24. NPL ratio for mortgage-backed loans to households, by currency



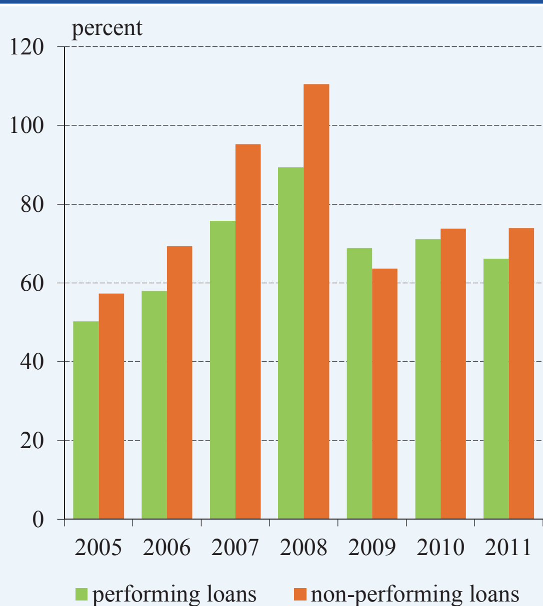
Source: CCR, Credit Bureau, NBR calculations

The prospects for the evolution of the quality of mortgage-backed loans to households are mixed. On the one hand: (i) the number of individuals facing for the first time a payment default in respect of their mortgage-backed loans diminished, albeit to a modest extent (by 4 percent in January 2011 – June 2012, versus January 2010 – June 2011), while (ii) the high home ownership rate (above 90 percent) advocates maintaining a prudent stance by debtors in servicing debt. On the other hand: (i) the recovery rate of loans overdue for more than 90 days decreased slightly in 2012 Q1 (to around 15.5 percent from 18.9 percent in 2011), and (ii) in the assumption of a further correction in housing prices in 2012[40] – although the impact is manageable at aggregate level (the LTV ratio[39] for mortgage-backed loans is of approximately 70 percent, median reading, June 2012) – the number of debtors for whom the value of the guarantees goes below the value of the loan taken would see an increase.

The mentioned evolutions require maintaining prudent policies for mortgage-backed loans to households. First, the loan value must remain adequate in line with the value of the required collateral. This ratio (the LTV ratio[37]) calculated for real-estate loans has deteriorated lately (going up from 71 percent to 78 percent in December 2010 – June 2012), remaining, however, acceptable, at aggregate level, to accommodate new unfavourable developments. The pick-up in this ratio can be explained primarily by the decline in housing prices (down by approximately 15 percent according to NIS in 2011 and 2012 Q1) rather than by banks' less prudent stance. As a matter of fact, in 2011, the National Bank of Romania implemented new measures in order to ensure sustainable credit conditions for individuals, by equally setting ceilings for the LTV ratio related to real-estate loans. The LTV ratio related to real-estate investment loans cannot exceed 85 percent for loans in lei and 80 percent for foreign currency loans where the debtor earns eligible incomes denominated or indexed to the loan currency. In the case of unhedged debtors, the maximum LTV ratio is set at 75 percent for loans in euro and at 60 percent for loans denominated in other foreign currencies. The NBR's measures are endorsed by the empirical evidence related to a period longer than a business cycle (Chart 5.25.) showing the tight relationship between the LTV ratio and a debtor' capacity to service its debt, regardless of the economic business cycle stage, which advocates maintaining the LTV ratio at prudent levels even amid the economic growth resumption. The loans reporting the highest non-

[40] By using, for example, the adverse scenario advanced by the European Banking Authority for the stress test run in 2010 which envisaged a correction of about 11 percent in the housing prices in 2012.

Chart 5.25. Median LTV for mortgage-backed loans granted to households, by vintage and credit quality (June 2012)



Source: CCR, NBR calculations

performing loan ratio at present are those granted during the economic boom (2007 and 2008) and feature high LTV ratios (over 90 percent in June 2012, Chart 5.25.).

Second, credit institutions' balance sheets must be further sustainably cleaned up. Banks usually sold non-performing loans (about 90 percent of real-estate loans granted to households in the first half of 2012 and 80 percent of mortgage-backed consumer loans were overdue for more than 90 days) and redeemed performing loans (over 95 percent of the stock of repurchased loans in the portfolio in June 2012). The transfer of mortgage-backed non-performing loans to a special vehicle used by banks in this respect, in the assumption of a turnaround of the real-estate market, would postpone the loss recognition, while deteriorating the bank's prudential indicators where the favourable scenario fails to materialise. The rescheduling of loans was another solution identified by banks for improving the portfolio's quality, but this procedure was less resorted to in the first months of 2012, including at the request of the NBR (Box 11).

Thirdly, it is also important to focus on the improvement of households' financial literacy and on the awareness on risks arising from unhedged indebtedness in foreign currency, as well as on the risks associated with long- and very long-term loans. In Regulation No. 24 on lending to households, the National Bank of Romania promoted among other measures the need for financial institutions to inform unhedged debtors on the risks associated with foreign currency lending, by mentioning at least the impact of a severe depreciation of the domestic currency and of a rise in the interest rate applied to loans in the respective currency. The European Systemic Risk Board recommends to all Member States to act in the same direction (for further details see Box 8). Furthermore, in March 2011, the European Commission proposed a draft Directive[41] aiming mainly at: (i) ensuring adequate protection for debtors taking real-estate-backed loans; (ii) creating a single competitive market for consumers, creditors and financial intermediaries, by securing adequate protection designed to improve consumers' confidence, customers' mobility, as well as the cross-border activity carried out by lenders and financial intermediaries, and (iii) promoting financial stability while equally ensuring a mortgage loan market operating in a responsible manner.

In the fourth place, the proposals of solutions for a more balanced allocation (in terms of maturity buckets) of real-estate lending resources to such assets, should also consider the related risks. For instance, the implementation of a regulatory framework on covered bonds should also keep into account the following goals: (i) to foster domestic currency lending in the long run by developing a local capital market – the main goal of the Working Group on foreign currency lending (established under the aegis of the Vienna Initiative) supported by credit institutions in the final report[42]; (ii) to comply with the recommendations of the European Systemic Risk Board on foreign currency lending

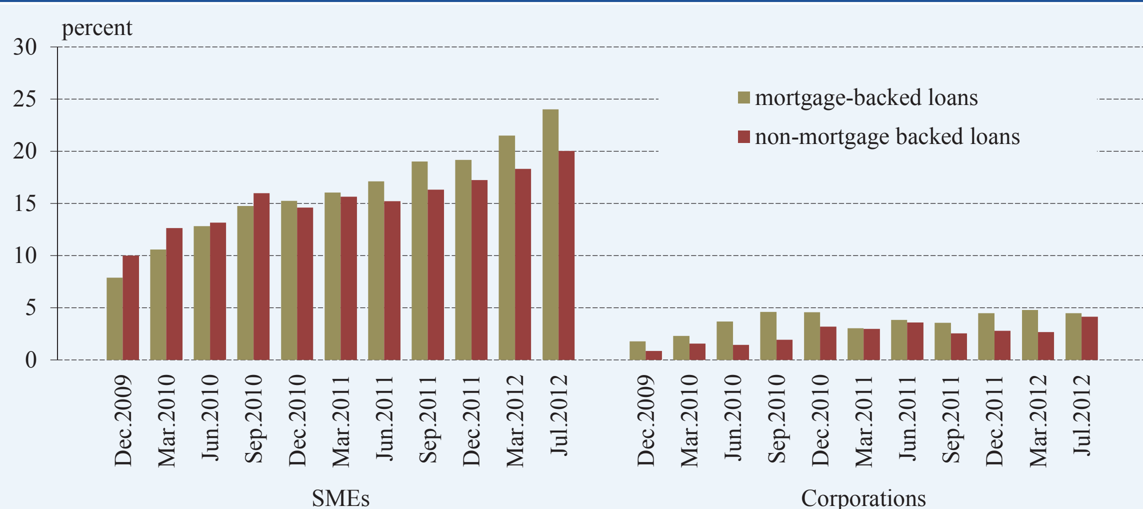
[41] *Directive of the European Parliament and of the Council on credit agreements relating to residential property.*

[42] *Report by the Public-Private Sector Working Group on Local Currency Development.*

concerning national supervisors' obligation "to monitor the levels of the loans granted in foreign currency and the currency mismatches in the private non-financial sector and to adopt the measures required to contain the granting of foreign currency loans"; and (iii) to ensure a very low risk profile portfolio which would collateralise the relevant bonds, which is a challenge in the context of the evolving quality of the previously mentioned mortgage-backed loans.

Mortgage-backed loans[43] granted to non-financial corporations pose largely the same challenges as mortgage-backed loans granted to households. The volume of non-performing loans expanded in December 2010 – July 2012 by 66.1 percent (to reach lei 17.1 billion), owing to a great extent to the rise in the volume of non-performing loans in foreign currency, whereas the volume of non-performing loans not backed by such a collateral grew by 77.8 percent (to lei 4.1 billion, also as a result of a base effect). The existence of a mortgage guarantee failed to improve the manner in which the debtor (the company) services its debt: the NPL ratio reported by mortgage-backed loans is significantly higher than that posted by loans not backed by such collateral (Chart 5.26.). A solution to improve credit risk management could be for non-financial corporations' exposures guaranteed with real-estate collateral to have a LTV ratio lower than exposures collateralised with other types of guarantees (for instance, exposures backed by credit guarantee funds with guarantees such as cash, collateral, etc.), where the NPL ratio related to mortgage-backed portfolios and portfolios not backed by mortgages confirms a risk differentiation.

Chart 5.26. Ratio of non-performing loans to companies by company size and collateral type



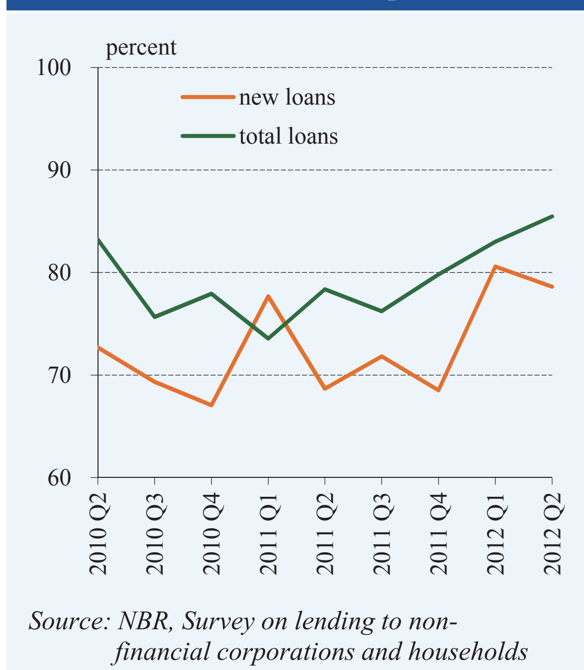
Source: CCR, NBR, NBR calculations

Banks had a prudent stance vis-à-vis the LTV ratio related to mortgage-backed loans, but the unfavourable developments in real-estate prices make it harder to maintain this indicator at an adequate level (the LTV ratio[38] rose from almost 70 percent in the case of new loans granted in 2010 to 75 percent in the case of loans granted in 2012 H1, Chart 5.27.).

Apart from the challenges posed by the portfolio of mortgage-backed loans to non-financial corporations, the unfavourable developments in the real-estate market continued to deteriorate the quality of banks' exposures to construction and real-estate companies. They hold a considerable share in banks' corporate portfolio (25.4 percent in July 2012) and generate a high credit risk compared to other economic sectors. The non-performing loan ratio reported by construction companies reached

[43] The analysis covered loans to non-financial corporations which are backed, *inter alia*, by a real-estate collateral.

Chart 5.27. Developments in loan-to-value ratio for non-financial corporations



Source: NBR, Survey on lending to non-financial corporations and households

28.4 percent in July 2012 (up from 18 percent in December 2010), although banks showed a pro-active stance, employing rescheduling measures with a view to improving debtors' capacity to service loans (about 12 percent of the volume of rescheduled loans of non-financial corporations are accounted for by construction companies and carry 14.1 percent of the volume of loans taken by such companies, July 2012). The non-performing loan ratio recorded by real-estate companies is of 17.3 percent (July 2012), while the volume of non-performing loans saw a high increase (by 98 percent in December 2010 – July 2012).

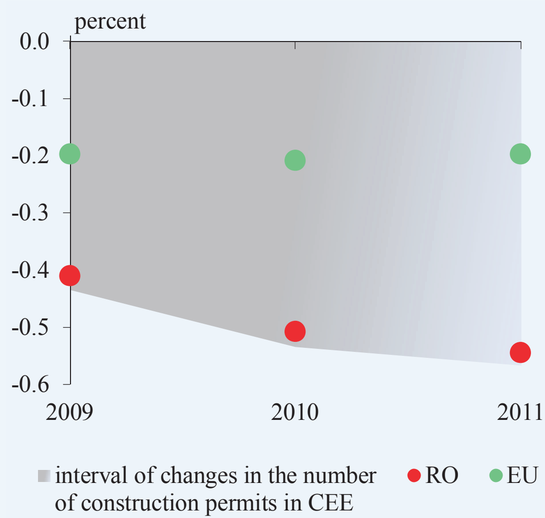
Despite the increasing risks, construction and real-estate companies in general continued to receive financing from both domestic banks and external creditors. Construction companies witnessed: (i) a pick-up by approximately 12.3 percent in domestic bank lending in December 2010 – July 2012, and (ii) a fall by 3.3 percent in external financing (December 2010 – June 2012) against the background of a 3.6 percent decrease in the financing from external credit institutions and a 2.8 percent fall in the stock of loans from parent companies (during the same period). Real-estate companies were granted a larger volume of loans by domestic banks in December 2010 – July 2012 (up 15.4 percent); however, their share in total loans to non-financial corporations declined from 16 percent to 15.75 percent during the same period. The financing from non-resident entities saw an expansion, while the external debt stock grew by 6.3 percent amid the 10.2 percent rise in resources from parent companies.

The prospects for economic developments in construction and real-estate companies remain mixed. Construction companies' activity improved (construction output went up by 1.4 percent[44] in 2011 compared to the same period from the previous year), with the gross value added rising by 2.7 percent in 2011 against the background of the 5.4 percent increase in the number of employees and the 6.9 percentage point advance in the volume of net investment. Positive developments were further manifest in 2012 Q1, with the construction sector holding 26.3 percent of net investment across the economy (up from 19.3 percent in 2011 H1). On the other hand, the total number of construction permits released in January 2011 – June 2012 diminished by 5.7 percent (versus January 2010 – June 2011), in line with the developments seen in many EU countries relative to the year when the crisis broke out (Chart 5.28.).

The recovery in the activity of real-estate companies could be slower, but the rise in the number of real-estate transactions (by 5.5. percent in 2011 and 15.2 percent in January-June 2012 against the same period of the previous year) paves the way for some improvement in this sector's activity. On the other hand, the turnover value indices for market services rendered to the enterprises shows a 6 percent contraction (December 2010 – June 2012). Real-estate companies, as well as construction companies, reported an improved payment discipline towards trade partners, the volume of major

[44] Data adjusted by the number of working days and seasonality.

Chart 5.28. Evolution of construction permits for residential buildings (versus 2008)



Note: seasonally adjusted data.

Source: Eurostat, NBR calculations

payment incidents plunging by more than 60 percent and by 23.4 percent respectively in 2011. In January 2012 – August 2012 only construction companies continued to witness a positive evolution, with the volume of major payment incidents inching up marginally (by 4.7 percent), whereas real-estate companies saw a two-fold increase in the volume of major payment incidents.

6 FINANCIAL SYSTEM INFRASTRUCTURE – STABILITY OF PAYMENT AND SECURITIES SETTLEMENT SYSTEMS

Payment and securities settlement systems operated within adequate parameters, as no incidents likely to hinder the normal sequence of daily operations and the settlement of participants' transfer instructions were recorded. Given the importance of these infrastructures, the NBR monitors their good functioning in view of maintaining financial stability.

In the period since the release of the previous *Report*, the payment and securities settlement systems authorised to operate in Romania[1] have not faced any major events. Nevertheless, in order to enhance their smooth functioning, the National Bank of Romania initiated a large-scale assessment of these systems.

The assessment of payment and securities settlement systems is one component of the oversight activity carried out by central banks for the purpose of promoting the objectives of safety, efficiency and effectiveness in the functioning of financial market infrastructures, which focuses on assessing their compliance with relevant international standards, as well as on making the necessary changes in order to remedy the identified deficiencies. In line with the oversight principles, when performing the assessment, central banks consider to use relevant international standards in a consistent manner for the systems operated by both private entities and the central bank.

At present, the National Bank of Romania assesses ReGIS and SENT payment systems. The assessment focuses on the systems' safety and efficiency in relation to the applicable standards formulated by the Bank for International Settlements and the European Central Bank.

6.1. Assessment of risks associated with securities settlement systems

In assessing DSClear, RoClear and SaFIR securities settlement systems, the National Bank of Romania used the ESCB-CESR Recommendations (Box 12).

[1] The systems authorised to operate in Romania are:

- ReGIS – a real-time gross settlement system of large-value payments owned and operated by the National Bank of Romania.
- SENT – a multilateral netting system for small-value payments owned and operated by STFD TRANSFOND S.A.
- SaFIR – a securities depository and settlement system owned and operated by the National Bank of Romania.
- RoClear – a securities settlement system owned and operated by S.C. Depozitarul Central S.A.
- DSClear – a securities settlement system owned and operated by S.C. Depozitarul Sibex S.A.

Box 12. ESCB-CESR Recommendations for securities settlement systems in the European Union

The *ESCB-CESR Recommendations* published in 2009 are the result of the cooperation between the European System of Central Banks and the Committee of European Securities Regulators, representing an improved version of the standards previously formulated by the Committee on Payment and Settlement Systems within the Bank for International Settlements and the Technical Committee of the International Organisation of Securities Commissions[2]. At present, the *ESCB-CESR Recommendations* are considered the best European standards[3] for the assessment of financial market infrastructures involved in post-trading activities (securities settlement systems and central securities depositories operating these systems), the ECB supporting the use of these standards in the oversight activity carried out by national central banks. Overall, the 19 recommendations read as follows:

Recommendation 1 – Legal framework. Securities settlement systems, links between them or interoperable systems should have a well-founded, clear and transparent legal basis for their operations in the relevant jurisdictions.

Recommendation 2 – Trade confirmation and matching of settlement instructions. Confirmation of trades between direct market participants should occur as soon as possible after trade execution, but no later than trade date (T+0). Where confirmation of trades by indirect market participants (such as institutional investors) is required, it should occur as soon as possible after trade execution, preferably on T+0, but no later than T+1. Settlement instructions should be matched as soon as possible and, for settlement cycles that extend beyond T+0, this should occur no later than the day before the specified settlement date (D-1).

Recommendation 3 – Settlement cycles and operating times. Rolling settlement should be adopted in all securities markets. Final settlement should occur no later than T+3. The benefits and costs of EU-wide settlement cycles shorter than T+3 should be evaluated. The operating hours and days of CSDs should be open at least during the operating time of the relevant payment system (at least during TARGET2 operating times for transactions denominated in euro).

Recommendation 4 – Central counterparties (CCPs). The benefits and costs of establishing a CCP should be evaluated. Where a CCP mechanism or guarantee arrangement has been introduced, it should be assessed against the ESCB-CESR Recommendations for CCPs in the EU or against the checklist for guarantee arrangements respectively.

Recommendation 5 – Securities lending. Securities lending and borrowing (or repurchase agreements and other economically equivalent transactions) should be encouraged as a method for avoiding settlement failures and expediting the settlement of securities. Barriers that inhibit the practice of lending securities for this purpose should be removed. The arrangements for securities lending should be sound, safe and efficient.

Recommendation 6 – Central Securities Depositories (CSDs). Securities should be immobilised or dematerialised and transferred by book entry in CSDs to the greatest possible extent. To safeguard the integrity of securities issues and the interests of investors, the CSD should ensure that the issue, holding and transfer of securities are conducted in an adequate and proper manner.

Recommendation 7 – Delivery versus Payment (DvP). Principal risk should be eliminated by linking securities transfers to fund transfers in a way that achieves delivery versus payment".

Recommendation 8 – Timing of settlement finality. Intraday settlement finality should be provided through real-time and/or multiple-batch processing (during several sessions throughout the day) in order to reduce risks and allow effective settlement across systems.

Recommendation 9 – CSD risk controls to address participants' failure to settle. CSDs that extend intraday credit to participants, including CSDs that operate net settlement systems, should institute risk controls that, as a minimum, ensure timely settlement in the event that the participant with the largest payment obligation is unable to settle. The most reliable set of controls is a combination of collateral requirements and limits.

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[2] CPSS-IOSCO, *Recommendations for Securities Settlement Systems (2001).*

[3] However, mention should be made that a thorough revision of the standards applicable to all infrastructures involved in post-trading activities in order to enhance their smooth functioning was initiated at European and international levels. To this end, the CPSS-IOSCO Principles for Financial Market Infrastructures, as well as the proposal for a Regulation of the European Parliament and of the Council on improving securities settlement in the European Union and on central securities depositories (CSDs) and amending Directive 98/26/EC (CSDR) were formulated. Both documents incorporate, in an improved version, many provisions of the ESCB-CESR Recommendations.

Recommendation 10 – Cash settlement assets. Assets used to settle payment obligations arising from securities transactions should carry little or no credit or liquidity risk. If central bank money is not used, steps must be taken to protect the participants in the system from potential losses and liquidity pressures arising from the failure of the cash settlement agent whose assets are used for that purpose.

Recommendation 11 – Operational risk. Sources of operational risk arising in the clearing and settlement process should be identified, monitored and regularly assessed. This risk should be minimised through the development of appropriate systems and effective controls and procedures. Systems and related functions should: (i) be reliable and secure; (ii) be based on sound technical solutions; (iii) be developed and maintained in accordance with proven procedures; (iv) have adequate, scalable capacity; (v) have appropriate business continuity and disaster recovery plans that allow for the timely recovery of operations, and (vi) be subject to frequent and independent audits.

Recommendation 12 – Protection of customers' securities. Entities holding securities in custody should employ accounting practices and safekeeping procedures that fully protect customers' securities. It is essential that customers' securities be protected against the claims of the creditors of all entities involved in the custody chain.

Recommendation 13 – Governance. Governance arrangements for CSDs should be designed to fulfil public interest requirements and to promote the objectives of owners and relevant market participants.

Recommendation 14 – Access. CSDs should have objective and publicly disclosed criteria for participation that permit fair and open access. Rules and requirements that restrict access should be aimed at controlling risk.

Recommendation 15 – Efficiency. While maintaining safe and secure operations, securities settlement systems should be cost-effective in meeting the requirements of users.

Recommendation 16 – Communication procedures, messaging standards and straight-through processing (STP). CSDs and participants in their systems, should use or accommodate the relevant international communication procedures and standards for messaging and reference data in order to facilitate efficient clearing and settlement across systems. This will promote straight-through processing (STP) across the entire securities transaction flow.

Recommendation 17 – Transparency. CSDs should provide market participants with sufficient information for them to identify and accurately evaluate the risks and costs associated with securities clearing and settlement services.

Recommendation 18 – Regulation, supervision and oversight. CSDs and securities settlement systems should be subject to transparent, consistent and effective regulation, supervision and oversight. In both a national and a cross-border context, central banks and securities regulators should cooperate with each other and with other relevant authorities regarding the CSDs and the securities settlement systems they operate. Central banks and securities regulators should also ensure a consistent implementation of the recommendations.

Recommendation 19 – Risks in cross-system links or interoperable systems. CSDs that establish links to settle cross-system trades should design and operate such links so that they effectively reduce the risks associated with cross-system settlements. They should evaluate and mitigate the potential sources of risks that can arise from the linked CSDs and from the link itself.

The 19 Recommendations above are classified in terms of the aspects they focus on, namely: legal risk (Recommendation 1), pre-settlement risks (Recommendations 2-5), settlement risk (Recommendations 6-10), operational risk (Recommendation 11), custody risk (Recommendation 12) and other aspects relevant for infrastructures' functioning (Recommendations 13-19).

The assessment of SaFIR is unfolding, whereas the assessments of RoClear and DSClear settlement systems have been completed. Although the systems subject to assessment may be regarded as robust in terms of the settlement ratio (100 percent), a series of comprehensive analyses revealed certain small deficiencies. The correction of such deficiencies will contribute to the safe and efficient functioning of the systems, leading to a better investor protection, a higher public confidence in the domestic capital market and the maintenance of financial stability. The conclusions formulated after the assessments of RoClear and DSClear are the following:

Legal risk

The legal framework applicable to the assessed systems covers the relevant aspects of netting and settlement, while operators generally provide the parties concerned with clear information on the systems functioning. Nevertheless, certain improvements are necessary to ensure the consistency of primary and secondary legislation in force, on the one hand, and the rules of the assessed systems, on the other. In addition, the contractual provisions governing the relations between the system operators and participants, as well as the relevant aspects regarding links with other securities settlement systems need to be more transparent.

Pre-settlement risks

The operating times and the settlement cycles of the assessed systems are compliant with the requirements set out in these recommendations. In view of the harmonisation and shortening of settlement cycle at EU level[4] as of 2015, the system operators have to evaluate the implications of this change, so that it can be orderly implemented. The mechanisms used by the operators of the assessed systems contributed to the timely settlement of all transactions recorded in the systems, which is indicative of their smooth functioning. However, there are some aspects that can be improved, namely: (i) the management of replacement cost risk[5], including as a result of using the mechanism without pre-validation of securities, and (ii) the analysis of the opportunity to use a central counterparty guaranteeing the settlement of transactions recorded in the securities settlement systems.

Settlement risk

Apart from operating settlement systems, central securities depositories in Romania also provide other core services specific to such infrastructures, such as the initial recording of securities in a book-entry system and the maintaining of securities accounts at the upper level of custody chain. All securities recorded in the systems subject to assessment are dematerialised and transferred by book entry. The related benefits are: (i) the lower risks associated with the integrity of securities issues; (ii) the economies of scale by centralising the operations associated with custody and transfer, while the efficiency gains achieved through the automation of such operations improve the speed and efficiency of settlement; (iii) the shortening of the settlement cycle which reduces the replacement cost risk; (iv) the delivery versus payment is facilitated, thereby eliminating principal risk. Considering the particularly important role of central securities depositories in the process of securities settlement, each central securities depository should establish an explicit plan for granting participants' access to its functions, even in the case of insolvency of the respective central securities depository. In addition, for reasons of efficiency, namely to enable the reuse of the delivered assets, it is necessary a review of the mechanism used for the settlement on a net basis in order to minimise the time between the blocking of funds and the final settlement.

[4] According to the proposal for a Regulation of the European Parliament and of the Council on improving securities settlement in the European Union and on central securities depositories (CSDs) and amending Directive 98/26/EC (CSDR), the maximum settlement cycle of transactions in transferable securities, money market instruments, units in collective investment undertakings and emission allowances carried out on the regulated markets, multilateral trading facilities and organised trading facilities will be harmonised and shortened to T+2. Apart from shortening the period of time when participants are exposed to counterparty risk and replacement cost risk, the positive consequences of this change, particularly for the settlement of cross-border operations are: (i) the lower operational risks and costs for intermediaries, following the standardisation of settlement procedures; (ii) the removal of funding costs for the arbitrage transactions between the markets that currently use different settlement cycles; (iii) a safer processing of corporate actions; (iv) the correlation between the settlement cycles of securities transactions and foreign currency transactions.

[5] The replacement cost risk is the risk that, owing to a counterparty to a transaction failing to meet its obligations on the settlement date, the other counterparty to the trade may have to replace, at current market prices, the original transaction.

Moreover, measures for the management of risks specific to net settlement systems[6] need to be reassessed in order to ensure timely settlement in the event that the participant with the largest payment obligation is unable to settle. The probability of multiple settlement failures should be evaluated as well as the costs to ensure settlement in such an event. In addition, the extended range of assets that can be provided as collateral by participants (by applying the appropriate haircuts) may reduce the opportunity cost incurred by them, in the context of higher collateral posted in the securities settlement systems.

Operational risk

By its very nature, the operational risk in the functioning of a financial infrastructure cannot be fully eliminated. Nevertheless, given the overall systemic importance of financial infrastructures their operators should: (i) set the limit beyond which losses arising from operational risk are intolerable, and (ii) implement efficient measures to ensure business continuity, even in the case of some adverse scenarios, which are possible but less likely to occur. The operators of systems subject to assessment adopted measures that led to maximum availability ratio in system functioning. However, it is necessary to reassess the risk profile of principal and secondary sites that may be used to operate systems in terms of their proximity.

Custody risk

Custody risk may be manifest depending on the system used for holding investors' securities. Hence, in a direct holding system, securities held by each investor can be identified more clearly, yet at higher costs. On the other hand, the indirect holding system requires an increased accuracy of the records of all entities involved in the custody chain and a close cooperation between them in order to safeguard the integrity of issues and the interests of investors. These issues raised some concerns worldwide, as in the cases of Bear Stearns and Lehman Brothers. By using the indirect holding system, the central securities depositories in Romania made progress towards the harmonisation with European practices, as omnibus accounts were particularly required by foreign institutional investors. In line with the applicable legal framework, customers' securities are segregated by participants' own holdings, so that the customers' securities are protected against the claims of the participants' creditors. Furthermore, it is prohibited to use customers' securities without the customers' express consent, being prevented in this way securities debit balances or securities creation.

Other aspects relevant for infrastructure functioning

Although no major deficiencies were identified, the board of central securities depositories should include at least one independent member in order to ensure the full compliance with the requirements set out in these recommendations. Moreover, there should be greater transparency with regard to the expertise, professional training, the criteria applicable to the management members and the governance arrangements for central securities depositories. In addition, the disclosure of answers to the questionnaires prepared by CPSS-IOSCO[7] will contribute to the increase in the transparency concerning the implementation of relevant standards and the provision of detailed information for all the parties concerned.

[6] Systems that settle securities on a gross basis and settle funds on a net basis, namely the "delivery versus payment" model no. 2. The "delivery versus payment" settlement models are defined in the BIS report "Delivery versus payment in securities settlement systems", 1992.

[7] "Disclosure Framework for Securities Settlement Systems" (1997) and "Disclosure framework for Financial Market Infrastructures" (2012).

Mention should be made that the new European and international regulations applicable to securities settlement systems and central securities depositories will impose, in the near future, much stricter requirements in this field, so that the full compliance with the ESCB-CESR Recommendations is an objective necessity. The enhancement of the smooth functioning of financial market infrastructure in Romania is a *sine qua non* condition for turning to account the development potential of the domestic capital market so as it contributes to the sustainable national economic growth, as well as for maintaining financial stability. A robust financial infrastructure is also necessary as regards the need to diversify the funding structure for the corporate sector in Romania, amid the ongoing deleveraging in the banking sector. Thus, the actions for capital market development must focus on the strengthening of financial infrastructures involved in post-trading activities as well, considering also the impossibility to quickly substitute the services provided by these entities to the capital market.

In other words, in line with the NBR's efforts to facilitate the access of foreign investors to securities deposited with SaFIR and, implicitly, the access of credit institutions to liquidity, a direct link was established between SaFIR and Clearstream Banking Luxembourg (a direct participant in SaFIR as of January 2012). The link thus adds to the direct links with Euroclear (2011) and RoClear (2008). At present, only portfolio transfers are performed through these links. However, subject to analysis is the possibility to conduct other types of operations, with all the systems operated by central securities depositories in which EUR-denominated securities issued by the Ministry of Public Finance and leu-denominated bonds issued by international financial institutions on the domestic market are recorded.

6.2. ReGIS payment system stability

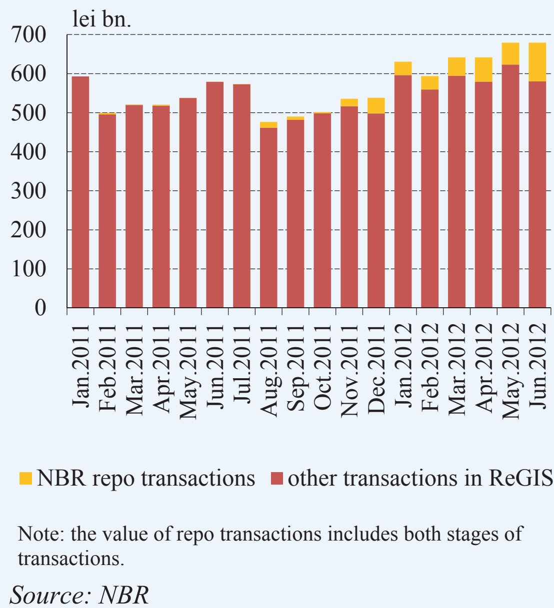
ReGIS remained stable during January 2011 – June 2012, while the value of transactions picked up. Increases were also seen in the system's concentration degree, as well as in the liquidity utilisation rate of participants. However, credit institutions' liquidity further exceeded the resources necessary for ReGIS to function smoothly, including as a result of an adequate liquidity management.

ReGIS continued to operate within adequate parameters in the period under review, as no significant technical incidents were recorded, the average system availability standing at 99.98 percent, whereas the maximum number of transfer orders introduced by participants totalled about 70 percent of the daily operational capacity of ReGIS. The adequate and efficient liquidity management at the level of system participants prevented the occurrence of gridlocks.

The value of transactions in ReGIS has been on a rise starting with end-2011, amid the increase in repo transactions between credit institutions and the central bank (Chart 6.1.). Although the liquidity utilisation rate was higher, the roughly 30 percent level recorded in June 2012 is low, indicating the maintenance of excess reserves in the banking sector as regards the necessary funds for ReGIS (Chart 6.2.). Moreover, in the event of a short-lived resource shortfall, credit institutions could also resort to the significant stock of portfolio securities eligible for transactions with the central bank for the purpose of increasing available liquidity in a short time span.

The concentration degree in ReGIS is on the rise, as revealed by the Herfindahl-Hirschmann index of 1,048 points recorded in 2012 H1, as compared with 987 points a year earlier. The consolidation of the most important credit institutions in ReGIS, in terms of the value of transactions, generates a potentially higher systemic risk (Chart 6.3.), yet the low liquidity usage ratio mitigates the impact of a possible resource shortfall at the level of the main credit institutions in ReGIS.

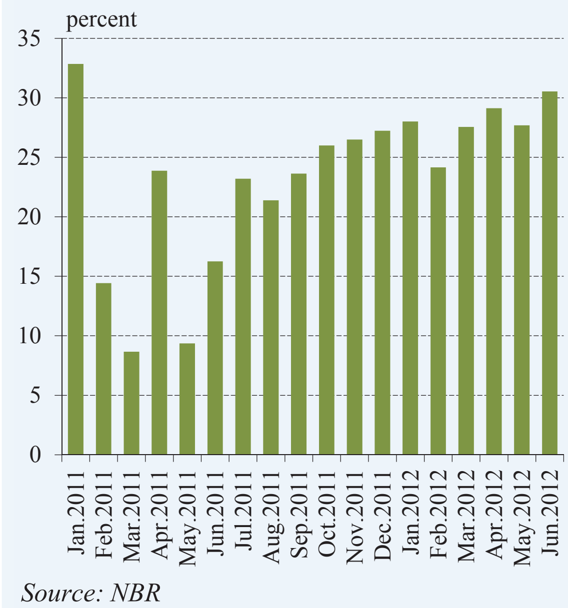
Chart 6.1. Value of transactions in ReGIS



Note: the value of repo transactions includes both stages of transactions.

Source: NBR

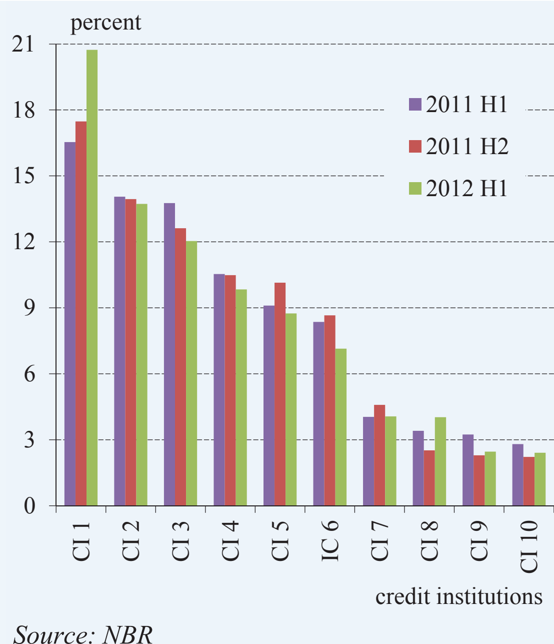
Chart 6.2. Liquidity utilisation via ReGIS



Source: NBR

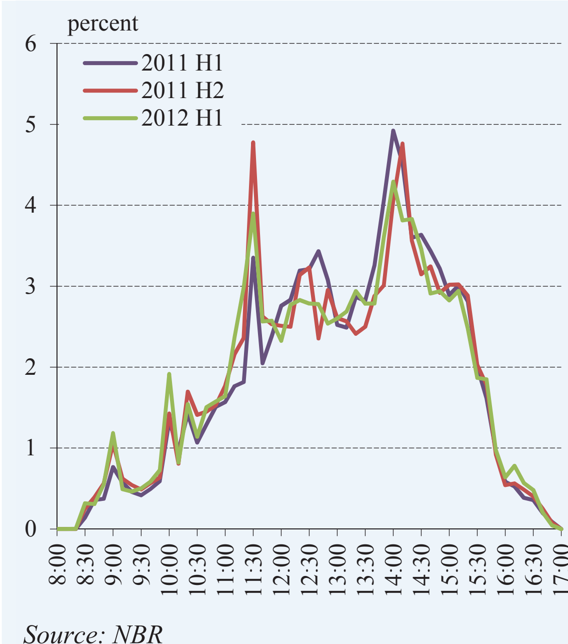
The behaviour of credit institutions on introducing transfer orders in ReGIS remained unchanged in January 2011 – June 2012, in correlation with the low utilisation rate of available liquidity (Chart 6.4.). In the event of a significant deterioration of available resources, credit institutions tend to delay payments by queuing them at the end of the trading programme in order to benefit from the amounts collected from the other participants in the payment system. In the period under review, transfer orders were not delayed by credit institutions. As a result, the available liquidity enabled a smooth functioning of ReGIS.

Chart 6.3. Individual share of the first ten credit institutions participating in ReGIS



Source: NBR

Chart 6.4. Intraday distribution of transfer orders introduced by credit institutions in ReGIS



Source: NBR

7 RECENT DEVELOPMENTS AND OUTLOOK

7.1. New regulations on the stabilisation measures in the banking system

In the period since the release of the previous Report, the legal framework for credit institutions was supplemented with provisions on the stabilisation measures the central bank may adopt with regard to banks in distress, which added to the current legal framework for special administration. The new provisions ensure the necessary tools for maintaining financial system stability by mitigating contagion risk. This step is in line with the European concerns to create a bank resolution framework as an alternative to insolvency laws, aiming to provide timely solutions for failing banks and ensure the stability of the financial system as a whole.

In the letters of intent signed with the IMF and the European Commission during the assessment missions underlying the financing arrangements, Romania committed to tighten the financial safety net and develop the bank resolution toolkit in partnership with the central bank, the Bank Deposit Guarantee Fund (BDGF) and the government[1].

In 2012, the legal framework[2] was supplemented with stabilisation measures, namely the tools the central bank may use when a credit institution finds itself in any of the situations leading to the initiation of the special administration procedure[3] and/or a decision was taken to suspend the voting rights of the shareholders in control over the respective credit instituton, in case of a threat to financial stability.

[1] All expenses incurred by stabilisation measures shall be borne by the Bank Deposit Guarantee Fund from the funds raised from credit institutions and managed by the Fund. Thus, in compliance with the provisions of Government Ordinance No. 39/1996 on establishing and functioning of the Bank Deposit Guarantee Fund in the banking system, (republished in *Monitorul Oficial al României*, Part I, No. 587/19 August 2010), as subsequently amended and supplemented, as amended and supplemented by Government Ordinance No. 1/11 January 2012 on amending and supplementing certain pieces of legislation in the field of credit institutions, the Fund ensures the financing of the stabilisation measures adopted by the National Bank of Romania from the Bank Restructuring Fund's resources and, in the event of their depletion, from the funds raised to guarantee deposits. The Fund's financing cannot exceed a level that may lead to a decline in the exposure coverage ratio of the Bank Deposit Guarantee Fund below 0.5 percent of the overall amount of guaranteed deposits. In exceptional circumstances where the Fund's financial resources would prove insufficient to cover compensation payouts, to finance the stabilisation measures adopted by the National Bank of Romania, the government, via the Ministry of Public Finance, provides the Fund the necessary amounts in the form of loans within 5 working days at most since the Fund's request was submitted. The funds come from the lei- and foreign currency-denominated privatisation receipts registered in the State Treasury's current account. The general conditions governing the granting and repayment of the government loan taken by the Fund are established by way of government decisions and the amounts are made available to the Fund upon its request, based on a bilateral convention.

[2] Government Ordinance No. 1/2012 on amending and supplementing certain pieces of legislation in the field of credit institutions, published in *Monitorul Oficial al României*, Part I, No. 41/18 January 2012, supplemented Government Emergency Ordinance No. 99/2006 on credit institutions and capital adequacy, as subsequently amended and supplemented, by introducing Section 2^1 – "Stabilisation measures" in Chapter 8 – Special procedures, Title 3, Part 1. The framework for stabilisation measures has been recently amended by Government Emergency Ordinance No. 43/5 July 2012 amending Art. 240^{28} para. (1) of Government Emergency Ordinance No. 99/2006 on credit institutions and capital adequacy, published in *Monitorul Oficial al României*, Part I, No. 455/6 July 2012.

[3] Art. 240 of Government Emergency Ordinance No. 99/2006 on credit institutions and capital adequacy, as subsequently amended and supplemented.

The European Central Bank also approved that piece of legislation[4]. The stabilisation measures set out in the above-mentioned regulation[5] refer to:

a) the full or partial transfer of assets and liabilities of a credit institution to one or several eligible institutions;

b) the involvement of the Bank Deposit Guarantee Fund, acting as delegate administrator or, as the case may be, as shareholder, if prior instruction has been given to suspend the exercise of voting rights of the shareholders in control over the respective credit institution;

c) the transfer of a credit institution's assets and liabilities to a bridge bank established to this end.

The above-mentioned stabilisation measures may only be applied in case of a threat to financial stability, when the supervision measures[6] available for the central bank did not result in an improved standing of the respective credit institution, or in case the fast deterioration of the financial and prudential position of the credit institution poses a risk to financial stability. Mention should be made that stabilisation measures may be implemented by observing the following principles: (i) avoiding the disruptions in the normal functioning of the financial system and the real economy when a credit institution jeopardizing financial stability is in financial distress; (ii) using chiefly private financial resources to finance stabilisation measures; (iii) prioritise the transfer of guaranteed deposits; (iv) the stabilisation measures which do not imply the immediate asset and/or liability transfer to a private entity are not permanent and they are supplemented in a period of two years at most, which may be extended only for justified reasons by the resort to market solutions; (v) granting compensations based on law court decisions to individuals that suffered damages after the implementation of stabilisation measures. Only credit institutions, Romanian legal entities, may be subject to stabilisation measures, considering that the branches of credit institutions, foreign legal entities, are under the jurisdiction of parent credit institutions and only part of the legal provisions regulating the activity of credit institutions in Romania apply to them.

The full or partial transfer of assets and liabilities of a credit institution to one or more eligible institutions is one of the operations performed under the assistance of the supervisory authority. The measure is implemented with the support of the BDGF that finances the transfer of assets and liabilities. The main advantage of this measure is that priority is given to the transfer of guaranteed deposits and, thus, the related amounts are readily made available to depositors, without disrupting

4 The ECB's competence to deliver an opinion is based on Art. 127 para. 4 and Art. 282 para. 5 of the Treaty on the functioning of the European Union, as well as on Art. 2 para. 1 indents 3 and 6 of Decision 98/415/EC of the Council of 29 June 1998 on the consultation of the European Central Bank by national authorities regarding draft legislative provisions.

5 Art. 240^{23} para. (1) of Government Emergency Ordinance No. 99/2006 on credit institutions and capital adequacy, as subsequently amended and supplemented, as amended by Government Ordinance No. 1/11 January 2012 on amending and supplementing certain pieces of legislation in the field of credit institutions.

6 When credit institutions breach the applicable legal framework or a recommendation by the NBR, the central bank may adopt the following measures: impose a requirement on credit institutions to hold own funds higher than the minimum regulatedlevel; require the improvement in the identification, management, monitoring and reporting of risks to which they are or may be exposed; require the implementation of a specific provisioning regime or a specific treatment of exposures in terms of capital requirements; restrict or limit the activity, operations or the branch network of credit institutions; require the mitigation of risks associated with the operations, products and/or systems; impose the replacement of persons appointed to manage the departments of the credit institution and/or its branches; limit the qualifying holdings in financial or non-financial entities; impose a limit of the variable component of remuneration to a given percentage of total net income if its current level is not consistent with maintaining a sound capital base; impose the use of net profits of the credit institution to strengthen the capital base; impose the preparation by the credit institution of a recovery plan providing a detailed description of the measures and actions to be taken for the purpose of ensuring an adequate management of the risks to which the credit institution is exposed and/or to remove the deficiencies in its activity, by observing the deadline for implementing the respective measures and actions; impose special supervision measures, etc.

the banking services provided to them. In addition, taking over the deposit portfolio of the bank in distress allows the purchasing bank to increase its market share. The legal framework in force requires ensuring the fair treatment and fair competition among the eligible institutions expressing their taking over intention. The winning institution is designated based on the most advantageous bid, as considered by the central bank in terms of the objectives pursued.

Another stabilisation measure is to appoint the BDGF *the delegate administrator* of a credit institution, in which capacity it takes over the administration and management tasks of the respective credit institution. As the case may be, the BDGF may also act as *the shareholder* of a credit instution; in this case, with the approval of the general meeting of shareholders of the credit institution and after the cut in the share capital to cover losses, the share capital of the credit institution is raised by waiving the preference rights of the existing shareholders and subscribing new shares by the Bank Deposit Guarantee Fund at a level approved by the central bank. According to the laws in force, the shares acquired by the Fund shall be sold within two years at most since their acquisition. They may be hold for a longer time period for justified reasons and only as decided by the central bank.

Transfer of assets and liabilities from a credit institution to a bridge bank established to this end focuses on ensuring the continued provision of banking services related to the assets and liabilities taken over. According to the new legal provisions, the bridge bank is a credit institution whose sole shareholder is the BDGF and which is established in order to take over the assets and liabilities of a failing credit institution, to be subsequently sold to a third eligible party agreed with the NBR. The bridge bank is authorised by the NBR and carries out activity in compliance with the legal provisions applicable to credit institutions, being subject to prudential supervision by the central bank. The bridge bank has a dual management structure – the NBR appoints the board members, whereas the BDGF carries out the tasks of the Supervisory Board. The bridge bank is established and functioning for a period of up to two years, with the possibility of extending this period, by the decision of the central bank, in situations where a threat to the financial stability still persists and/or negotiations with the proposed acquirer of the bridge bank were not completed. This stabilisation measure benefits from mixed financing from the BDGF, for establishing the share capital and ensuring the own funds necessary for the smooth functioning of the bridge bank by observing all prudential requirements, as well as for transfering the assets and liabilities from the credit institution in distress. Where the BDGF has insufficient resources for financing the stabilisation measures taken by the NBR, it may take government loans via the Ministry of Public Finance. The general conditions for the granting/repayment of the loans to the BDGF are established by way of government decision.

Box 13. Summary of legal provisions applicable in Romania concerning the functioning of a bridge bank

Government Ordinance No. 1/11 January 2012 on amending and supplementing certain pieces of legislation in the field of credit institutions supplements Government Emergency Ordinance No. 99/2006 on credit institutions and capital adequacy, as subsequently amended and supplemented, by establishing the following coordinates related to the functioning of the bridge bank:

The bridge bank shall ensure the maintenance of a low risk level in the pursuit of business, and the eventual extension of its business will be done prudently;

The name of the bridge bank will comprise the name of the credit institution from which assets and liabilities were transferred, followed by the "BP - S.A." initials;

The bridge banks is established as a joint-stock company, the Bank Deposit Guarantee Fund being the sole shareholder;

The Bank Deposit Guarantee Fund ensures the financing of the asset and liability transfer to the bridge bank and the necessary own funds requirements of the bridge bank so that it can carry out activity in compliance with all prudential requirements;

When transferring the assets and liabilities to the bridge bank, priority is given to guaranteed deposits, in the sense of Government Ordinance No. 39/1996, republished, as subsequently amended and supplemented;

On the transfer date, the bridge bank subrogates by law all the rights and obligations arising from agreements concluded by the credit institution from which the transfer was carried out, in connection with: a) participation in payment and securities settlement systems and payment schemes and arrangements; b) access to the primary market of government securities in its capacity as a primary dealer, as the case may be; c) access in its capacity as an eligible participant to the open market operations performed by the National Bank of Romania and its standing facilities; d) access to the interbank forex market in its capacity as an intermediary; e) access as a participant in setting the ROBID/ROBOR reference rates; f) access as a participant in setting the reference rates for government securities;

The sale of the bridge bank shall be decided by the National Bank of Romania. The bridge bank may be sold by one of the following methods: a) sale of shares; b) sales of assets with assumption of liabilities, in the context of ensuring a fair treatment and fair competition among the eligible institutions expressing their taking over intention. Where bids are submitted by several eligible institutions, the winning institution(s) shall be designated based on the most advantageous bid, as considered by the National Bank of Romania, in terms of the objectives pursued;

Any proceeds obtained from the sale of the bridge bank shall be distributed as follows: a) cover the sale-related expenses; b) pay the obligations arising from the employment relationships which are due and unpaid until the date of sale; c) recover the claims of the Bank Deposit Guarantee Fund from the financing granted to the bridge bank; d) redeem budget claims; e) cover other expenses of the bridge bank recorded up to the date of sale. Any remaining amounts shall be returned to the Bank Deposit Guarantee Fund.

The stabilisation measures apply to credit institutions in distress that pose a threat to financial stability. In its regular assessments on the systemic risk associated with a credit institution, the National Bank of Romania relies on the definition[7] formulated by the European Systemic Risk Board (ESRB), namely: "a risk of disruption in the financial system with the potential to have serious negative consequences for the internal market and the real economy. All types of financial intermediaries, markets and infrastructure may be potentially systemically important to some degree". Moreover, the recommendations of the European Central Bank are also taken into account.

[7] Art. 2 letter c of Regulation No. 1092/2010 of the European Parliament and the Council of 24 November 2010 on European Union macroprudential oversight of the financial system and establishing a European Systemic Risk Board.

Box 14. Systemic risk definition formulated by the European Central Bank

The ECB defines systemic risk as the risk of experiencing a strong systemic event which adversely affects a number of highly systemically important institutions for the good market functioning. The trigger of the event could be an exogenous shock (idiosyncratic or systematic), which means from outside the financial system or endogenous (from within the financial system). The systemic event is strong when the financial intermediaries concerned fail or when the markets concerned become dysfunctional. Systemic risk may propagate "horizontally" (attention is confined to the financial system) and "vertically" (two-sided interaction between the financial system and the economy is taken into account). The severity of systemic risk and systemic events would be optimally assessed by means of the effect that they have on consumption, investment and economic growth. The difficulty to make a distinction between idiosyncratic or systematic factors, exogenous or endogenous illustrates the complexity of this phenomenon.

One way to reduce the impact resulting from the combination of these elements is to limit analysis to three main "forms" of systemic risk: the contagion risk, the risk of macroeconomic shocks and the risk of the unravelling of imbalances that have built up over time. These three forms of risk are not mutually exclusive and may materialise independently or in conjunction with each other. Contagion usually refers to an idiosyncratic shock that becomes more widespread in the cross-sectional dimension, often in a sequential fashion. An example is one bank failure causing the failure of another bank, even though the second bank initially seemed solvent. The second form of systemic risk refers to a widespread exogenous shock that negatively affects a range of financial intermediaries and/or markets in a simultaneous fashion. For example, it has been empirically observed that banks are vulnerable to economic downturns. The third form of systemic risk refers to the build-up of imbalances in the financial system, as in the case of an unsustainable lending boom. The subsequent unravelling of these imbalances may adversely affect many intermediaries and/or markets at the same time. The last two forms of systemic risk are particularly relevant for the pro-cyclicality of financial systems, although contagion can also play a role in it.

Behind the three forms of systemic risk are a variety of financial market imperfections, such as asymmetric information, potential contagion, incomplete markets or the public-good character of financial stability, etc. They lead to a greater fragility of the financial system in comparison with other economic sectors, because of: a) the information intensity and inter-temporal nature of financial contracts; b) the balance-sheet structure of financial institutions (often exhibiting high leverage or maturity mismatches of assets and liabilities), and c) the high degree of interconnectedness of wholesale financial activities. The combination of the above market imperfections with the three features of financial systems paves the way for powerful feedback mechanisms, amplification of shocks and non-linearities.

Source: Financial Stability Review (December 2009)

The criteria used by the central bank when assessing the systemic risk associated with a credit institution are particularly focused on the presence of the credit institution on the main banking markets (loans, deposits, government securities, interbank market, payments, etc.), as well as to other circumstances specific to the credit institution[8] (including the reliance on the parent bank), to the extent to which they are relevant. In order to assess the systemic risk associated with a credit institution, both quantitative and qualitative analyses are used. The quantitative analysis is based on multicriterial and monocriterial approaches enabling the decision to be reassessed when the credit institution is deemed systemicfor the functioning of the reference market in terms of a particular criterion. The final decision is adopted by taking into account the qualitative aspects specific to that credit institution.

[8] To this end, the following may prove relevant: the capacity as depository for undertakings for collective investment in transferable securities and pension funds; BDGF account services; claims and obligations having other financial institutions as counterparties; volume of external assets and liabilities in the balance sheet of the credit institution, etc.

It is worth noting that, throughout the period since the outbreak of the global financial crisis, the Romanian banking system has remained stable, being well capitalised and holding consistent liquidity reserves, following the proactive approach of the central bank which tightened prudential regulation and supervision. As a result, the use of public funds to support banks was not necessary in Romania. All the structural changes in the banking system were based on market solutions[9]. In addition, the significant recapitalisations made by shareholders during the above-mentioned period are worth mentioning.

7.2. The use of prudential filters in the context of the new IFRS rules

Prudential filters require the book value of equity to be adjusted so that the amounts recognised in own prudential funds comply with the criteria of permanence, credible assessment and unconditional capacity to cover losses. The implementation of prudential filters contributed to ensuring adequate provisioning in terms of expected losses and mitigating deleveraging risk. The NBR approved the current form of prudential filters to be maintained also after 1 January 2013 and focused on harmonising their implementation mechanism with the requirements of the new proposals on capital requirements (CRD IV package).

The NBR's decision on the preparation by credit institutions of a single set of financial statements based on the International Financial Reporting Standards (IFRS) as of 1 January 2012 focused on maximising the benefits of using harmonised, internationally-acknowledged standards, namely:

- to ensure a higher level of confidence, relevance and transparency of financial statements;
- to ensure the uniform application of the accounting treatment and the consistent implementation at both individual and consolidated levels (at consolidated level, the IFRS standards have been applied by the banking system since 2006);
- to ensure the comparability of data in the two sets of annual (consolidated and individual) financial statements and, as appropriate, with those submitted for prudential supervision purposes;
- to reduce the regulatory cost for credit institutions in Romania, members of some cross-border groups implementing the IFRS, by eliminating the need to restate the accounting data obtained from the enforcement of national rules.

The Romanian authorities assumed the NBR's decision including under the conditions stipulated in the Letter of intent signed at Bucharest on 5 February 2010 and approved by the Decision of the Board of Governors of the International Monetary Fund of 19 February 2010 on the adoption of all the necessary legal measures in order to ensure the comprehensive implementation of the IFRS starting with 2012. The implementation deadline and calendar were established based on the conclusions

[9] The major structural changes in the banking system since the financial crisis fallout was manifest in Romania were as follows:

- in 2009: status change for Citibank Romania from a Romanian legal entity into a foreign bank branch; the merger through absorption of HVB Banca pentru Locuinţe by Raiffeisen Banca pentru Locuinţe;
- in 2010: Garanti Bank S.A., Romanian legal entity, started functioning following the takeover through transfer of GarantiBank International NV – the branch in Romania;
- in 2011: the takeover by the BCR of the Anglo-Romanian Bank; the takeover by Marfin Popular Bank Public Co Ltd. Cyprus of the Greek bank Marfin Bank Romania;
- in 2012: the takeover by the French group Crédit Agricole of the Greek bank Emporiki Bank Romania; the recent takeover by Piraeus Bank in Greece of the viable assets of ATE Bank, including the branch in Romania.

formulated in the NBR's assessment of the banking sector's preparedness to shift to the IFRS, in close cooperation with the Romanian Banking Association and the Ministry of Public Finance.

In order to mitigate the risks associated with a swift, substantial change in the accounting regulations, the adoption of IFRS was preceded by a thorough preparation process carried out by both the central bank and credit institutions. Thus, at end-2009, as a prior step to the IFRS adoption, the NBR implemented accounting regulations stipulating the obligation of credit institutions to compile, for informative purposes, a set of individual annual financial statements compliant with the IFRS for 2009, 2010 and 2011 financial years, by restating the data in the annual financial statements prepared on the basis of the accounting regulations compliant with EU directives, as well as a statement highlighting the differences between the national and the IFRS-based accounting treatments.

Moreover, in July 2010, the NBR issued Order No. 9/2010 approving the use of IFRS by credit institutions as the basis for accounting and preparation of annual financial statements at individual level starting with 2012 financial year and, by end-2010, completed the entire set of accounting regulations applicable to credit institutions for the purpose of implementing the IFRS (update of the Chart of Accounts and the content of accounts, the presentation of the types of changes, including the concordance between the accounts in the former and the new charts of accounts) and adjusted the FINREP and COREP prudential reporting systems.

In addition, at the level of the banking sector, each credit institution has formulated and submitted to the NBR its own strategy and programmes for the IFRS implementation. Significant resources were allotted to adjust the IT accounting and financial reporting systems and to ensure the training of the staff responsible for the IFRS implementation.

In preparing the shift to IFRS, a steady concern of the central bank was to ensure the smooth accommodation of this change at prudential level as well. Hence, given the substantial changes in the accounting methodology, particularly those regarding the determination of the impairment adjustments of loans and investments (accounting provisions), as well as those concerning the use of the fair value to assess the financial statement items, the objective was to shift to the IFRS without significantly impacting prudential indicators. The primary objective was to avoid one-off equity fluctuations caused by the adoption of IFRS, resulting from the use of different calculation methods of value adjustments.

In line with the IFRS, the impairment adjustments are determined only after the occurrence of a loss-generating event[10], while the principles of prudential regulations require the provisioning of expected losses prior to a trigger event, also considering estimates based on historical data. The prudential expected loss model provides an estimation of future losses via the *ex ante* recognition in the financial results of the effects of the trigger event of the loss as compared with its actual date of occurrence. This recognition is reflected by the faster decline in profit as a result of higher provisioning costs than those recorded via the IFRS model and ensures a lower volatility of the financial results of credit institutions, thus contributing to preserving financial stability.

In the context of the persistent economic crisis, the NBR's objective was to avoid the one-off equity increase owing solely to the change in the accounting methodology as a result of the impairment adjustments being significantly lower than the volume of prudential provisions established prior to 2012 by credit institutions and, consequently, the unjustified rise in prudential indicators.

[10] The trigger events within the IFRS include: the significant financial straits of the borrower; breech of contract provisions (for instance, interest or principal payment default); the concession granted to a borrower which the creditor would not consider otherwise; the probability for the borrower to go bankgrupt or face antoher form of financial reorganisation.

This objective was achieved via the NBR’s decision to apply prudential filters[11] established for the purpose of reducing the amount of equity and bringing itin line with the level of value adjustments determined based on the IFRS as well as with the additional provisions based on the prudential model. The objective of prudential filters is to adjust the book value of own capital so that their recognition in prudential own funds observe the criteria of permanence, credible assessment and unconditional capacity to cover losses.

In the context of legal amendments related to the implementation of the IFRS at individual level, the NBR issued Order No. 26/9 December 2011 regarding certain provisions for applying prudential requirements further to legislative changes related to the implementation of the International Financial Reporting Standards at individual level, to become effective as of 1 January 2012, establishing the transitory regime of using prudential filters for 2012.

In order to take a decision on maintaining prudential filters after 1 January 2013, an assessment was made to determine the impact of their implementation. The assessment was based on data available for 31 December 2011 and 31 March 2012 respectively and focused on the impact of filters on the CAR of credit institutions.

The levels of solvency indicators were determined in the absence of prudential filters (by taking into account only the value adjustments based on the IFRS) in order to compare them with those determined based on prudential regulations in force. Hence, it was possible to estimate the differences between the two treatments. The aggregate CAR for December 2011 and March 2012, based on the impairment adjustments calculated based on the IFRS was well above that calculated by applying prudential filters (up 3.9 percentage points in December 2011 and 4.1 percentage points in March 2012, the spread remaining relatively unchanged). Hence, the level calculated for December 2011 based on the IFRS is of 18.75 percent (versus 14.85 percent based on prudential filters) and that for March 2012 is of 18.74 percent (versus 14.63 percent). Prudential filters contributed to maintaining a level of equity used to determine prudential indicators comparable to that recorded by credit institutions prior to introducing the new accounting standards.

In the context of sovereign debt crisis, avoiding a significant one-off equity increase was necessary to prevent excessive deleveraging, as a result of the additional room for manoeuvre that would have been introduced by artificially high prudential indicators following the adoption of IFRS, potentially allowing parent banks to lower, in an excessive way, the level of exposure to their subsidiaries in Romania.

In the absence of prudential filters, the equity increase recognised in accounting after the implementation of the new standards, followed by a possible dividend distribution of part of reserves or the early repayment of subordinated loans, could have affected both the liquidity position of credit institutions and their capacity to absorb certain shocks in the context of adverse macroeconomic developments.

The NBR expressed in favour of further implementing the treatment regulated by Order No. 26/2011, namely to subtract from equity the positive difference between total prudential value adjustments and impairment adjustments determined based on the IFRS.

[11] NBR/NSC Regulation No. 13/8/2011 on amending and supplementing NBR/NSC Regulation No. 18/23/2006 on own funds of credit institutions and investment firms. The Regulation focuses on taking over the prudential filters referred to in Art. 64 (4) of Directive 2006/48/EC as well as in the CEBS Guidelines published in 2004, which refers to: (i) differences from the fair value revaluation of financial assets available for sale; (ii) differences from the fair value revaluation of real-estate investment and fixed assets; (iii) differences from the fair value of the unrealised gains and losses in some cash flow hedges of financial instruments measured at amortised cost; (iv) gains and losses related to the fair value revaluation of debts determined by the previous change in the rating of the reporting credit institution.

7.3. The European regulatory framework for the financial system

The CRD IV package

The CRD IV package includes a proposal for a regulation of the European Parliament and the Council on prudential requirements for credit institutions and investment firms, as well as a proposal for a directive on the access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms. The proposal for a regulation of the European Parliament and the Council on prudential requirements for credit institutions and investment firms focuses, among others, on the national discrepancies in the field of supervision as regards the removal of national options.

In the absence of full harmonisation of the regulatory framework within the European Union, the cross-border activity of international banking groups and the possibility of regulatory arbitrage could lead to some risks of vulnerability transmission among the banking systems of Member States. The implementation of a single regulatory framework is aimed at strengthening the resilience to shocks of the European banking system as well as at increasing its transparency and efficiency. The instruments referred to in the CRD IV package aim to ensure a certain level of flexibility of national decisions. The asymmetric information problems may be addressed by coordinating the activity of the colleges of supervisors, by involving all relevant Member States in the decision-making process and by way of other measures facilitating the exchange of information.

On the other hand, the preliminary talks to approving the CRD IV package revealed the concern of some Member States with regard to the impact that the removal of national options could have on the toolkit used to tackle the national macroprudential issues. The CRD IV package lays down three such tools:

- national adjustment of capital requirements for mortgage lending in the context of some cyclical price developments on the markets;
- imposition of additional capital requirements based on specific circumstances according to the so-called Pillar II;
- build-up of a countercyclical capital reserve to cover macroeconomic risks specific to a Member State.

Member States may opt for implementing Basel III provisions at a faster pace than that provided for them. With regard to the potential macroprudential vulnerabilities that may be manifest at national level, additional macroprudential policy tools are necessary to limit systemic risk, continue the implementation of reforms as a result of the financial crisis fallout, take into account the national particularities and protect taxpayers.

The NBR has considered using some national options that allow competent authorities to have a certain room for manoeuvre with regard to macroprudential instruments for the purpose of limiting systemic risks that may jeopardise financial system stability.

The CRD IV package also envisages the adoption of unitary liquidity standards at EU level, including as concerns the use of liquidity coverage ratio (LCR) and net stable funding ratio (NSFR).

The regime proposed for the liquidity supervision of subsidiaries and branches provides increased competences for the relevant authority in the home Member State. Hence, as concerns branches, host Member States would no longer have the competence to supervise liquidity risk under normal

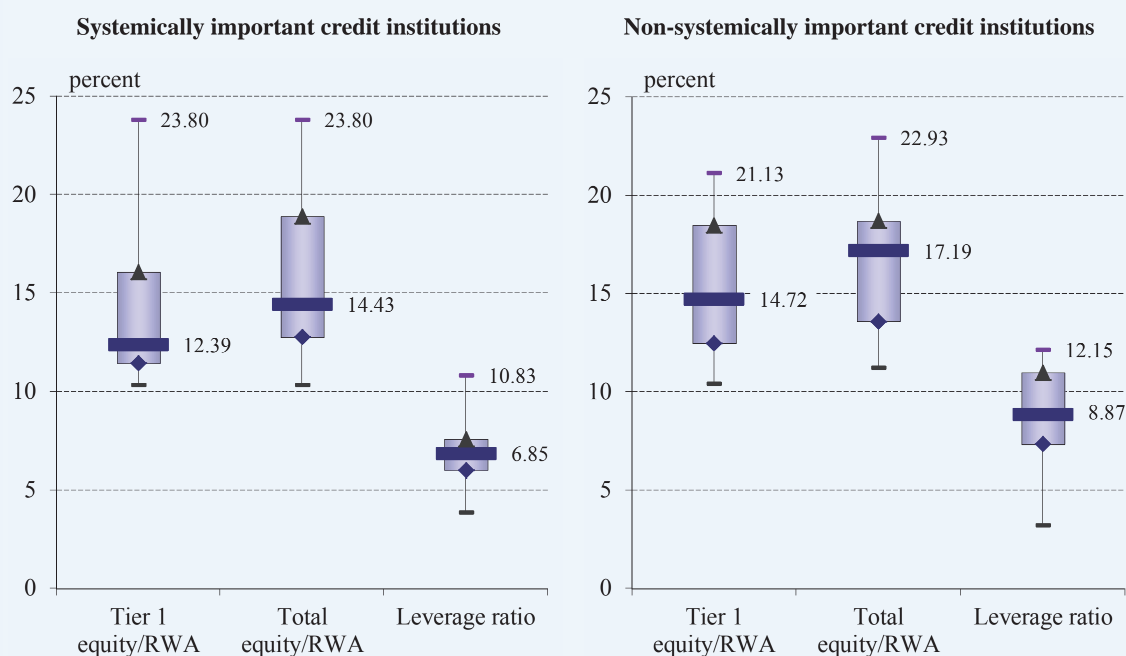
conditions, only in crisis situations. With regard to subsidiaries, the EU-wide negotiations raised the issue of a possible exemption from the requirement of liquidity risk supervision at individual level where a sub-group ensuring centralised liquidity management fulfils certain conditions.

Box 15. The impact of introducing the new CRD IV capital requirements on the Romanian banking system

In order to determine the impact of the new CRD IV capital requirements on the Romanian banking system, the NBR made an analysis using the prudential data reported by credit institutions for 30 June 2012, based on the International Financial Reporting Standards (IFRS). Considering the provisions of the CRD IV package which introduced additional capital requiremens for systemically important banks, credit institutions were classified based on their systemic nature.

The structure of the banking system's own funds indicates a high equity quality due to the absence of hybrid or innovative capital instruments, whereas Tier 1 equity accounts for 93 percent of total equity. Own funds were calculated by taking into account the adjustments resulted from the implementation of prudential filterse.

Chart A. Distribution of regulatory capital indicators across the Romanian banking system, determined based on data available as of 30 June 2012, in line with CRD IV proposals for:



** The upper and lower ends of the vertical bars indicate the minimum and maximum values respectively. Horizontal bars indicate the median, as well as the 25th and 75th quartiles.*

RWA = risk-weighted assets

Source: NBR

Systemically important credit institutions fulfill the capital adequacy ratio requirements, holding additional reserves to cover systemic risk buffer. Moreover, other credit institutions generally comply with the capital requirements laid down in the CRD IV package (Chart A). The indicator levels are slightly higher than those of systemically important credit institutions due to lower activity.

While ensuring financial stability at national level remains the responsibility of Member States, the responsibility for solving the crisis and covering the related costs calls for the further use of some adequate intervention instruments. To this end, liquidity risk supervision for all credit institutions

operating in a Member State may contribute to maintaining financial stability, as well as to ensuring an appropriate calibration of responsibilities, intervention mechanisms and crisis resolution costs. With regard to liquidity supervision of the subsidiaries, the NBR deems it necessary for the competent authorities in the host Member States to have adequate intervention instruments in order to address potential macroprudential vulnerabilities.

Solvency II Directive

Solvency II is a project for the harmonisation of EU assessment standards of capital requirements and risk management for insurance companies. This Directive, alongside the CRD IV package, focuses on tightening risk management requirements in the European financial system in the context of global financial crisis and fostering the cooperation between supervisory authorities. Solvency II Directive is currently subject to revision in order to incorporate recent financial developments in prudential standards and reporting requirements, extend the analysis of insurance groups and strengthen the power of supervisory authorities at group level.

Credit institutions and insurance companies use different models of financial activities, yet the development of capital standards has to consider the role of the two sectors in the financial system and the links between them. Medium- and long-term investments of credit institutions require longer-term funding in order to contain liquidity risk. In addition, life insurance companies have long-term liabilities; therefore companies focus as well on making long-term investments in order to limit reinvestment risk.

The implementation of Solvency II Directive in Romania is not expected to generate pressures on the financial markets or the banking sector. Credit institutions do not raise funds via the issues of debt securities on capital markets; consequently the risk of insurance companies to lower investments in such financial instruments is avoided. Insurance companies made significant investments in low risk financial instruments, mainly in government securities, hence the upcoming capital and liquidity standards are not expected to produce distortions on government securities market.

Financial transaction tax (FTT)

In 2011, the Council of the European Union submitted a proposal for a Directive on a common system of financial transaction tax and amending Directive 2008/7/EC which should reflect the single market rules and prevent excessively risky activities on some segments of the financial markets. This new approach stems from the need that the financial sector should contribute to covering the costs of the crisis and that it is taxed in a fair way vis-à-vis other economic sectors (considering that the financial sector might be under-taxed, particularly in those countries where public funds were used to support some credit institutions).

The tax shall apply to financial transactions between financial institutions (where at least one of them has its headquarters located inside the European Union), except those performed with the European Central Bank and the central banks. According to the proposal for a Directive, the FTT shall apply to trade in shares, bonds, financial derivatives and structured products, both in the organised markets and over-the-counter. The FTT shall not apply to primary market transactions; most day-to-day financial activities relevant for citizens and businesses remain outside the scope of FTT (insurance contracts, mortgage lending, consumer credits, payment services, though their subsequent trading via structured products is included). Also, currency transactions on spot markets are outside the scope FTT, which preserves the free movement of capital.

The FTT shall become chargeable for each financial transaction at the moment it occurs. The rates shall be set by each Member State and shall not be lower than the minimum level laid down in the proposal and shall be different for the two main transaction groups (0.1 percent in respect of the financial transactions that do not include financial derivatives and 0.01 percent in respect of financial transactions including financial derivatives).

The taxation of the financial transaction is made by using the residence principle, namely in the Member States of establishment of participating financial institutions (independent from the location of the transaction). The proposal for a Directive reveals a different regime for the taxation of financial transactions with a third-country counterparty. The taxable amount is different for the two main transaction groups. For financial transactions, except those in financial derivatives, the taxable amount shall be everything which constitutes consideration paid or owed, in return for the transfer. For transactions in financial derivatives, the notional amount of the agreement shall be the taxable amount of the FTT.

According to the proposal for a Directive, Member States shall apply the FTT from 1 January 2014 onwards. The Directive shall be revised for the first time by 31 December 2016, as the Commission shall examine the FTT impact on the proper functioning of the internal market, the financial markets and the real economy and it shall take into account the progress on taxation of the financial sector from an international perspective.

In Romania, applying the FTT could have negative impacts such as: (i) financial deleveraging by delocalisation of some transactions; (ii) higher risks for the financial sector by lowering the financial market liquidity and the volume of transactions in financial derivatives used for hedging purposes; (iii) passing of additional costs to the non-bank clients of financial institutions, with a potential impact on the flows of new loans. Taking this perspective, the solution must focus on the efficient implementation of this measure at EU and, possibly, G20 levels. The public authorities in Romania did not provide financial assistance to credit institutions, the capital base being consolidated only by shareholders. Nevertheless, as an EU Member State, Romania shall apply the decisions adopted at EU level for the purpose of legislative harmonisation.

7.4. NBR's participation in the cross-border exchange of information

On 20 February 2003, the central banks in seven countries operating central credit registers (Austria, Belgium, France, Germany, Italy, Portugal and Spain) signed the Memorandum of Understanding on the exchange of information among national central credit registers for the purpose of passing it on to reporting institutions.

The internationalisation of lending to companies stimulated by the free flow of financial services within the European Union, and in particular the use of the single currency, have called for the establishment of a legal framework[12] for the exchange of information among national central credit registers in the EU. Moreover, current macroeconomic vulnerabilities generated by the financial and banking sector turmoil reveal the additional need for creditors to obtain a more complete overview of the indebtedness of a borrower for the purpose of an efficient credit risk management.

In this context, at national level, the reporting institutions to the central credit registers, the central banks and the supervisory authorities require accurate and complete information, to the extent

[12] It has been applied in the seven signing countries as of 1 March 2005.

possible, on the indebtedness of resident or non-resident borrowers in order to assess credit risk in cross-border lending.

At the ECB level, the Working Group on Credit Registers was established under the coordination of the Banking Supervision Committee[13], whose objective was to implement the provisions of the Memorandum of Understanding, monitor and develop specific activities. Moreover, a Task Force of this group was created, whose responsibility was to design the IT platform. The NBR, in its capacity as a member, participates in the annual meetings of this group, on which occasion the long-term strategic outlook and directions are set out. In recent years, new EU Member States operating central credit registers (Bulgaria, the Czech Republic, Latvia, Romania, Slovakia and Slovenia) have joined the group.

Considering the significant organisational differences (reporting institutions, reporting threshold, reporting frequency and the period for which the borrowers receive data stored in their names) between the central credit registers of the signing countries, the Memorandum of Understanding establishes the basic principles for the exchange of information and imposes measures on the obligation to keep data confidentiality and professional secrecy. These principles refer to :(i) mutual transmission of information on borrowers whose indebtedness reaches at least EUR 25,000; (ii) transmission of information pursuant to national laws and regulations; (iii) regular transmission of information on borrowers and their loans, except from ad-hoc requests for database inquiries; (iv) information on the exposure of a borrower split into cash credits and commitment credits, as well as into personal credits and group credits; (v) information on the exposure of a borrower in a form allowing the recipient to distinguish total amounts stemming from each individual central credit register.

Based on the Memorandum of Understanding that Romania signed on 1 April 2010[14] and after a 2-year period to develop and test the necessary technical infrastructure, on 9 May 2012, the exchange of information between the EU central credit registers was initiated.

The preparations included: (i) the drawing-up of the functional specifications for the related IT application; (ii) the design of the IT application; (iii) the successful completion of three bilateral tests of the IT system in cooperation with Banca d'Italia (first stage), Deutsche Bundesbank (second stage) and Oesterreichische Nationalbank, Česká národní banka, Banque de France, Banco de Portugal and Banco de España (third stage); (iv) the amendment of the regulation on the organisation and functioning of the Central Credit Register operated by the National Bank of Romania; (v) the testing of the IT application by the reporting institutions.

Legal entities, residents of participating countries, with a total exposure[15] of at least EUR 25,000 are subject to the cross-border exchange of information. The activities specific to the cross-border exchange of information may be classified as follows: (i) transmission of identification data and credit data for *non-resident borrowers* registered in the Central Credit Register database to the central credit registers in participating countries in which these borrowers reside; (ii) receipt of credit data stored in the databases of the central credit registers in participating countries for *non-resident borrowers* transmitted to these countries by the Central Credit Register; (iii) receipt of identification data and credit data for *borrowers residing* in Romania registered in the databases of the central credit registers in participating countries; (iv) transmission of credit data stored in the database of the Central Credit Register for *resident borrowers* received from the central credit registers in participating countries.

[13] Starting 2011, the activity has been coordinated by the Financial Stability Committee.

[14] With the Czech Republic and the seven participating countries.

[15] The exposure refers solely to the drawn amounts of the loans and the amount of borrower's commitments such as the letters of guarantee.

Indicators	Participating credit registers							
	AT	BE*)	CZ	DE	ES	FR	IT	PT
MARCH 2012								
Number of borrowers residing in Romania received for identification,	376	-	3	126	45	66	240	1
of which:								
identified borrowers	349	-	3	96	42	66	114	0
Total amount of loans and commitments received for borrowers residing in Romania (EUR thou.)	5,640,737	-	22,637	3,075,870	139,666	765,191	61,917	0
Number of non-resident borrowers recorded in the Central Credit Register's database transmitted for identification,	3	-	2	6	2	7	8	2
of which:								
identified borrowers	3	-	2	6	2	7	8	2
Total amount of loans and commitments received for non-resident borrowers (EUR thou.)	33,129		665	13,260	182	25,292	97,782	123
APRIL 2012								
Number of borrowers residing in Romania received for identification,	3	-	0	-	1	1	10	1
of which:								
identified borrowers	3	-	0	-	1	1	9	1
Total amount of loans and commitments received for borrowers residing in Romania (EUR thou.)	5,634,233	-	21,381	-	145,198	272	65,256	1,156
Total amount of loans and commitments transmitted for borrowers residing in Romania (EUR thou.)	2,803,124	-	3,498	-	98,281	750,420	54,740	0
Number of non-resident borrowers recorded in the Central Credit Register's database transmitted for identification,	0	-	0	-	0	0	0	0
of which:								
identified borrowers	0	-	0	-	0	0	0	0
Total amount of loans and commitments transmitted for non-resident borrowers (EUR thou.)	33,033	-	960	-	162	23,728	101,225	124

Indicators	Participating credit registers							
	AT	BE*)	CZ	DE	ES	FR	IT	PT
Total amount of loans and commitments received for non-resident borrowers (EUR thou.)	969,056	-	161,207	-	5,477	432,717	17,342,818	0
MAY 2012								
Number of borrowers residing in Romania received for identification,	6	-	2	-	0	5	3	0
of which:								
identified borrowers	6	-	2	-	0	4	3	0
Total amount of loans and commitments received for borrowers residing in Romania (EUR thou.)	7,291,846	-	22,147	-	144,786	768,951	73,865	1,130
Total amount of loans and commitments transmitted for borrowers residing in Romania (EUR thou.)	2,847,576	-	3,426	-	565,479	299,347	63,726	0
Number of non-resident borrowers recorded in the Central Credit Register's database transmitted for identification,	0	-	0	-	0	1	0	0
of which:								
identified borrowers	0	-	0	-	0	1	0	0
Total amount of loans and commitments transmitted for non-resident borrowers (EUR thou.)	32,731	-	1,500	-	187	24,460	102,746	55
Total amount of loans and commitments received for non-resident borrowers (EUR thou.)	915,779	-	163,329	-	6,928	410,486	16,573,716	0

*) BE is to start information exchange with the Czech Republic and Romania as of September 2012.

NATIONAL BANK OF ROMANIA